CITY OF EASTVALE

REGULAR PLANNING COMMISSION MEETING AGENDA

Eastvale City Hall Council Chambers
12363 Limonite Avenue, Suite 900, Eastvale, CA 91752
Wednesday, October 18, 2023
Regular Planning Commission Meeting: 6:00 PM

City Commissioners
Kevin Mensen, Chair
Michael Rochelle, Vice Chair
Andrea Hove, Commissioner
Josh Lee, Commissioner
April Rodriguez-Plott, Commissioner

This Agenda contains a brief general description of each item to be considered. Except as otherwise provided by law, no action or direction shall be taken on any item not appearing on the following Agenda. Unless legally privileged, all supporting documents, including staff reports, and any writings or documents provided to a majority of the City Council after the posting of this agenda are available for review at Eastvale City Hall, 12363 Limonite Avenue, Eastvale, CA 91752 or you may contact the City Clerk's Office, at (951) 361-0900 Monday through Thursday from 7:30 a.m. to 5:30 p.m. and available online at www.eastvaleca.gov.

Members of the public can observe the meeting by viewing the live-stream at www.eastvaleca.gov and may provide public comment by sending comments to the City Clerk's Office by email at cityclerk@eastvaleca.gov. Staff will monitor emails to the extent possible during the meeting and provide comments as possible. All comments will be made part of the record. Comments will then be read into the record, with a maximum allowance of 3 minutes per individual comment, subject to the Mayor's discretion to reduce time on public comment. All comments should be a maximum of 500 words, which corresponds to approximately 3 minutes of speaking time. If a comment is received before the agenda item is heard but before the close of the meeting, the comment will all be included as a part of the record of the meeting but will not be read into the record.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, you should contact the City Clerk's Office at (951) 361-0900.

Regular meetings are recorded and made available on the City's website at www.eastvaleca.gov. Meeting recordings are uploaded to the City's website within 24 hours (unless otherwise noted) after the completion of the meeting.

1. CALL TO ORDER

2. ROLL CALL

3. PLEDGE OF ALLEGIANCE

4. ADDITIONS / REVISIONS

The Planning Commission may only add an item to the Agenda after making a finding that there is a need to take immediate action on the item and that the item came to the attention of the agency subsequent to the posting of the agenda. An action adding an item to the agenda requires 2/3 vote of the Commission. If there is less than 2/3 of the Commissioners present, adding an item to the agenda requires a unanimous vote. Added items will be placed for discussion at the end of each section unless otherwise noted.

5. PRESENTATIONS

6. PUBLIC COMMENT

Any member of the public may address the Commission on items within the Commission's subject matter jurisdiction, but which are not listed on this agenda during PUBLIC COMMENTS. However, no action may be taken on matters that are not part of the posted agenda. We request comments made on the agenda be made at the time the item is considered and that comments be limited to three minutes per person with a maximum of six minutes (time may be donated by one person). Please address your comments to the Commission and do not engaged in dialogue with individual Commissioners, City staff, or members of the audience. Blue speaker forms are available at the front table to the entrance of Council Chambers.

7. CONSENT CALENDAR

Consent Calendar items are normally enacted in one motion. The Chair or Commission may remove a Consent Calendar item for separate action. If a member of the public would like to speak on a Consent Calendar item, please complete a blue "Public Comment Form" and submit to the City Clerk prior to the item.

7.1. Planning Commission Meeting Minutes

RECOMMENDED ACTION(S):
Staff recommends that the City Council approve the City Council meeting minutes from the regular meeting on September 20, 2023.

7.2. Planning Department Update

Submitted by: Gustavo Gonzalez, Community Development Director

RECOMMENDED ACTION(S):
Staff recommends that the Planning Commission receive and file the Planning Department Update.

7.3. Public Works Department Update

Submitted by: Jimmy Chung, Public Works Director/City Engineer

RECOMMENDED ACTION(S):
Staff recommends that the Planning Commission receive and file the Public Works Department update.

8. PUBLIC HEARINGS

The public is encouraged to express your views on any matter set for public hearing. It is our procedure to first receive the staff report, then to ask for public testimony, first from those in favor of the project followed by testimony from those in opposition to it, and if there is opposition, to allow those in favor, rebuttal testimony only as to the points brought up in opposition. To testify on the matter, you need to simply come forward to the speaker's podium at the appropriate time, give your name and address and make your statement. After a hearing is closed, you may not further speak on the matter unless requested to do so or are asked questions by the Chair or a Member of the Commission. Public comment is limited to three (3) minutes each with a maximum of six (6) minutes (time may be donated by one speaker.)

8.1. PLN22-20087, PLN22-20088, PLN22-20089, PLN22-20090, PLN22-20091, and PLN22-20092 for Tentative Tract Map 38594 and Major Development Reviews of Phase A of the Eastwalk Development – The New Home Company

RECOMMENDED ACTION(S):
Staff recommends that the Planning Commission take the following actions:

1. Find the project consistent with the Addendum to the Certified Program Environmental Impact Report prepared for the Leal Master Plan, and that all impacts were adequately analyzed pursuant to applicable legal standards in the previously adopted Certified Program Environmental Impact Report and subsequent addenda, in accordance with State CEQA Guidelines Section 15162;
2. Approve Tentative Tract Map 38594 (PLN22-20087) to subdivide and develop 69.8 acres of undeveloped property into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes, subject to the recommended conditions of approval;
3. Approve PLN22-20088 a Major Development Review for the overall site planning, master landscaping, streetscape design, and open space amenities of Phase A of The New Home Company master development project, subject to the recommended conditions of approval;
4. Approve PLN22-20089 a Major Development Review for the master site planning and architecture of Planning Area 1 (PA 1) of the Leal Master Plan to accommodate a proposed 168-unit condominium and townhome residential community, with associated pool/recreational facility, parking areas, landscaping, and open space amenities, subject to the recommended conditions of approval;
5. Approve PLN22-20090 a Major Development Review for the master site planning and architecture of Planning Area 6 (PA 6) of the Leal Master Plan to accommodate a proposed 100-unit, attached single family residential community with associated parking areas and landscaping, subject to recommended conditions of approval;
6. Approve PLN22-20091 a Major Development Review for the master site planning and architecture of Planning Area 7A (PA 7A) of the Leal Master Plan to accommodate a proposed 94-unit, detached single family residential community with associated parking areas, landscaping, and open space amenities, subject to the recommended conditions of approval; and,
7. Approve PLN22-20092 a Major Development Review for the master site planning and architecture of Planning Area 8 (PA 8) of the Leal Master Plan to accommodate a proposed 76-unit, attached single family residential community with associated parking areas, landscaping, and open space amenities, subject to the recommended conditions of approval.

8.2. **PLN23-20018, PLN23-20019, PLN23-20020, and PLN23-20021 –Tentative Parcel Map 37653, Major Development Reviews and Conditional Use Permits for the proposed Chandler and Archibald Commercial Retail Center**
Submitted by: Allen Lim

RECOMMENDED ACTION(S):
Staff recommends that the Planning Commission take the following actions:

1. Adopt an Addendum to a previously approved 2021 Mitigated Negative Declaration (2021 MND), and find that all impacts were adequately analyzed pursuant to applicable legal standards in the previously approved Mitigated Negative Declaration, consistent with CEQA Guidelines Section 15162 through 15164;
2. Approve Tentative Parcel Map (TPM) No. 37653, PLN23-20018, to subdivide a 2.70-acre site into three (3) parcels, with one (1) parcel for each proposed land use: drive-through coffee shop, drive-through carwash, and sit-down restaurant, subject to conditions of approval;
3. Approve a Major Development Review (DR) and Conditional Use Permit (CUP), PLN23-20019, for the development and operation of a 950 square-foot drive-through coffee shop (dba Dutch Bros), subject to conditions of approval;
4. Approve a Major Development Review (DR) and Conditional Use Permit (CUP), PLN23-20020, for the development and operation of a 3,598 square-foot drive-through carwash (dba Quick Quack), subject to conditions of approval; and
5. Approve a Major Development Review (DR), PLN23-20021, for the development of a 3,450 square-foot sit down restaurant, subject to conditions of approval.

8.3. PLN23-20043– Tentative Tract Map 38167 and Major Development Review for Magnolia Ranch Residential Development
Submitted by: Jamie K. Cerda, AICP

RECOMMENDED ACTION(S):
Staff recommends that the Planning Commission take the following actions:

1. Adopt the Mitigated Negative Declaration (SCH #2023090664) prepared for the project, based on the findings and conclusions provided in the initial study, attached hereto and the conclusion that all impacts were adequately analyzed pursuant to applicable legal standards identified in the CEQA Guidelines;
2. Approve Tentative Tract Map No. 38167 to subdivide a single 10-acre lot (8.28 net acres) into 41 residential and three (3) lettered lots, subject to conditions of approval; and
3. Approve the Major Development Review for the master building architecture and site planning of 41 single-family residential lots and communal areas, subject to conditions of approval.

9. COMMISSION BUSINESS

10. CITY STAFF REPORTS

11. COMMISSION COMMUNICATIONS

12. ADJOURNMENT

The next regular meeting of the Eastvale Planning Commission is scheduled for Wednesday, November 15, 2023, at 6:00 p.m. at Eastvale City Hall Council Chambers, 12363 Limonite Avenue, Suite 900, Eastvale, CA 91752.

AFFIDAVIT OF POSTING

I hereby certify under penalty of perjury under the laws of the State of California, that the foregoing Agenda was posted at the following locations: City Hall, 12363 Limonite Avenue, Suite 910 and website of the City of Eastvale (www.eastvaleca.gov,) not less than 72 hours prior to the meeting.

_____

Marc A. Donohue, MMC
City Clerk

CITY OF EASTVALE

AGENDA STAFF REPORT

Planning Commission Meeting
CONSENT CALENDAR
Agenda Item No. 7.2
October 18, 2023

Planning Department Update

Prepared By:
Gustavo Gonzalez, Community Development Director

Recommended Action(s)
Staff recommends that the Planning Commission receive and file the Planning Department Update.

Summary
Planning projects are provided in the attached Planning Project Status list. The list provides a brief summary and status of each project. New information is highlighted in yellow. A map identifying the locations of each project is also included.

Background
The purpose of the Planning Department Update is to provide a list of the current status of major projects in the City of Eastvale.

Environmental
The following update requires no environmental review as it is not considered a "project" under the California Environmental Quality Act (CEQA).

Strategic Plan Action - Priority Level: N/A | Target #: N/A | Goal #: N/A
Not Applicable.

Fiscal Impact
The following update has no applicable fiscal impacts.

Prior City Council/Commission Action

Not Applicable.

Attachment(s)

Attachment - Planning Department Update 10.18.23

CITY OF EASTVALE

Major Projects Summary

October 18, 2023

City of Eastvale Planning Division

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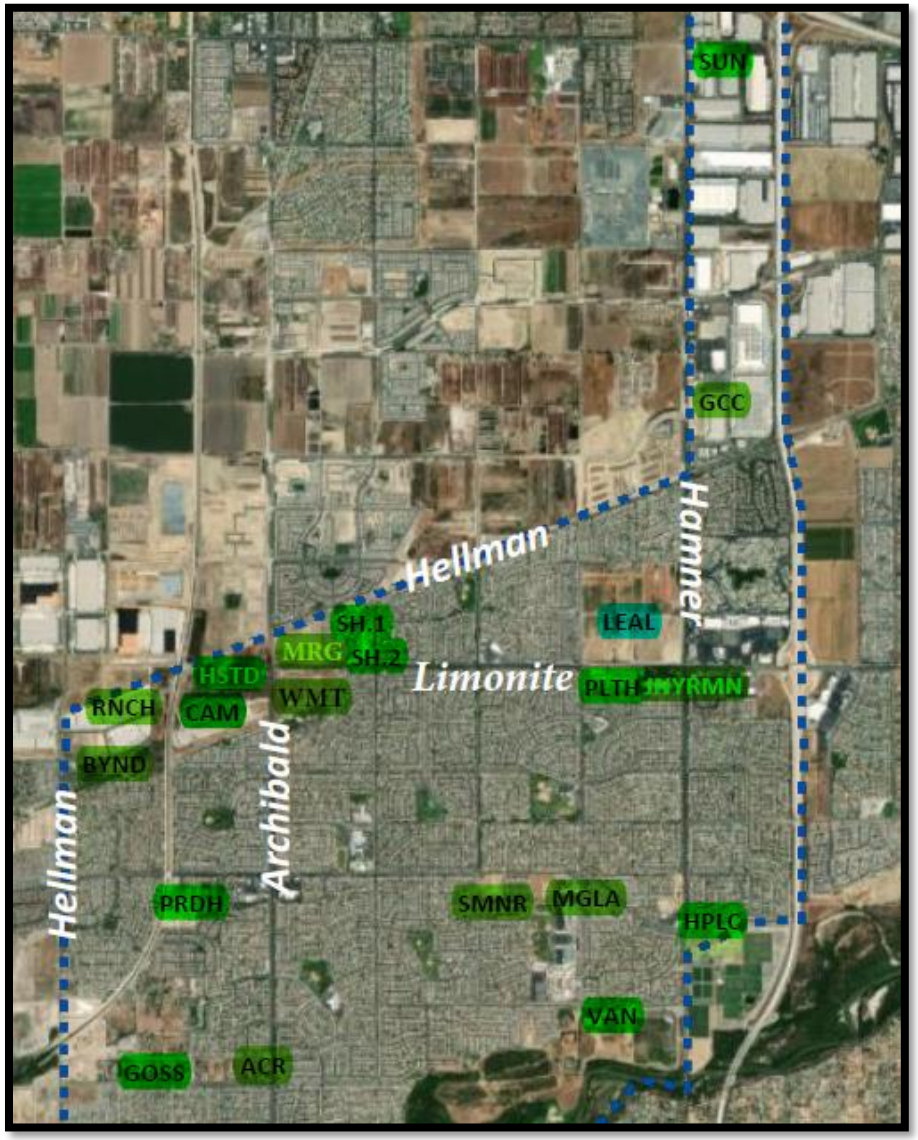
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1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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In-Process/Review

Sumner Place Mixed-Use Development (MAP ID: SMNR)

Project:	Sumner Place Mixed-Use Development
Project No.	PLN20-20063_GPA001_DR002_COZ001_TPM38031_TTM38032
Project Location:	Southeast corner of Sumner Ave. and Schleisman Rd.; (Assessor Parcel Number: 152-040-01)
Project Description:	**General Plan Amendment** to change the land use designation from Commercial Retail (CR 0.20-0.35 FAR) to Highest Density Residential (HHDR 20.1-40 du/ac). **Change of Zone** to change the zone from Heavy Agriculture (A-2) to General Residential (R-3). **Major Development Review** for the development of 216-unit apartment project on over 9.3 acres, consisting of seven two (2) to three (3) story type "V" apartment buildings with tuck under garages and surface parking, and a 5000 s.f. commercial building (located at the corner of Sumner Ave. and Schleisman Rd.). **Tentative Parcel Map** to create two (2) parcels one residential and one commercial. **Tentative Tract Map** for condominium purposes.
Planner:	Allen Lim/Gustavo Gonzalez

Notes:

- Received application on 11.5.20
- SB18 and AB52 notice provided.
- Comments provided to applicant 12.10.20
- On 5.19.21 the Planning Commission continued the item to June 16, 2021.

Project Map:



Current Status:

- On June 16, 2021, the Planning Commission PLN20-20063 continued the hearing item off calendar.

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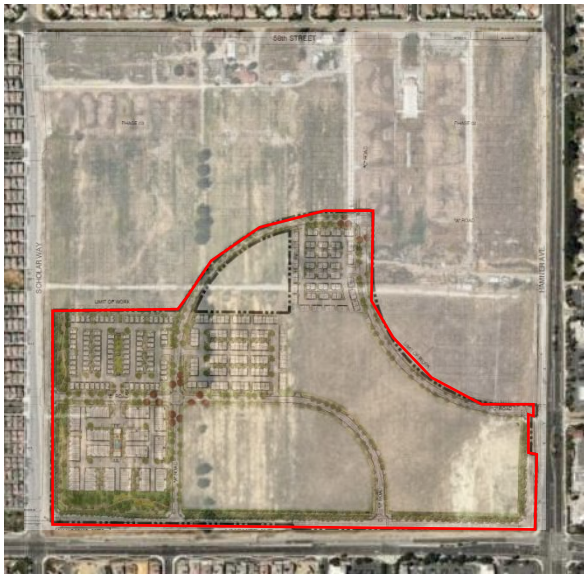
Leal Ranch Residential Phase A TTM (MAP ID: LEAL.1)

Project:	Leal Ranch Residential Tentative Tract Map (Phase A)
Project No.	PLN22-20087 TTM No. 38594
Project Location:	Northwest corner of Hamner and Limonite Avenue, east of Scholar Way, and south of 58th Street.
Project Description:	**Tentative Tract Map** to create 64 lots over 69.8 acres of land to facilitate various site improvements and initiate the residential development of PA-1, PA-6, PA-7A, and PA-8 of the Leal Ranch Master Plan.
Planner:	Gustavo Gonzalez

Notes:

- Received application on 12.21.22
- Application deemed incomplete by staff on January 12, 2023.
- The project was resubmitted on 06.05.2023 and is under review.
- Application was deemed incomplete on July 3, 2023

Project Map:



Current Status:

- Application deemed complete scheduled Planning Commission date of October 18, 2023

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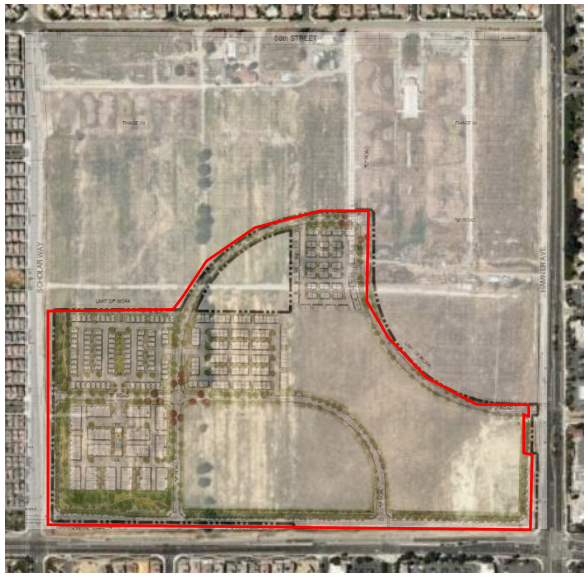
Leal Ranch Residential Overall Phase A DR (MAP ID: LEAL.2)

Project:	Leal Ranch Residential Overall DR (Phase A)
Project No.	PLN22-20088 DR006
Project Location:	Northwest corner of Hamner and Limonite Avenue, east of Scholar Way, and south of 58th Street.
Project Description:	**Major Development Review** for the overall Leal Phase A Residential Development and associated site improvements (PA-1, PA-6, PA-7A, and PA-8)
Planner:	Gustavo Gonzalez

Notes:

- Received application on 12.21.22
- Application deemed incomplete by staff on January 12, 2023.
- The project was resubmitted on 06.05.2023 and is under review.
- Application was deemed incomplete on July 3, 2023.

Project Map:



Current Status:

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Leal Ranch Residential PA-1 Phase A (MAP ID: LEAL.3)

Project:	Leal Ranch Residential PA-1 (Phase A)
Project No.	PLN22-20089 DR007
Project Location:	Northeast corner of Limonite Avenue and Scholar Way.
Project Description:	**Major Development Review** for the development of 168 new residential units within Planning Area 1 of the Leal Master Plan. Plan types will consist of townhomes (10 plex and 11 plex).
Planner:	Jamie K. Cerda

Notes:

- Received application on 12.21.22
- Application deemed incomplete by staff on January 12, 2023.
- The project was resubmitted on 06.05.2023 and is under review.
- Application was deemed incomplete on July 3, 2023

Project Map:



Current Status:

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Leal Ranch Residential PA-6 Phase A (MAP ID: LEAL.4)

Project:	Leal Ranch Residential Planning Area- 6 (Phase A)
Project No.	PLN22-20090 DR008
Project Location:	Northwest corner of Hamner and Limonite Avenue, east of Scholar Way, and south of 58th Street.
Project Description:	**Major Development Review** for the development of 102 new residential units within Planning Area 6 of the Leal Master Plan. Plan types will consist of townhomes (Duplex to 6 plex).
Planner:	Jamie K. Cerda

Notes:

- Received application on 12.21.22
- Application deemed incomplete by staff on January 12, 2023.
- The project was resubmitted on 06.05.2023 and is under review.
- Application was deemed incomplete on July 3, 2023

Project Map:



Current Status:

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Leal Ranch Residential PA-7A Phase A (MAP ID: LEAL.5)

Project:	Leal Ranch Residential Planning Area-7A (Phase A)
Project No.	PLN22-20091 DR009
Project Location:	Northeast corner of Limonite Avenue and Scholar Way.
Project Description:	**Major Development Review** for the development of 94 single family residential units within Planning Area-7A of the Leal Master Plan.
Planner:	Allen Lim

Notes:

- Received application on 12.21.22
- Application deemed incomplete by staff on January 12, 2023.
- The project was resubmitted on 06.05.2023 and is under review.
- Application was deemed incomplete on July 3, 2023.

Project Map:



Current Status:

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Leal Ranch Residential PA-8 Phase A (MAP ID: LEAL.6)

Project:	Leal Ranch Residential Planning Area 8 (Phase A)
Project No.	PLN22-20092 DR010
Project Location:	Northwest corner of Hamner and Limonite Avenue, east of Scholar Way, and south of 58th Street.
Project Description:	**Major Development Review** for the development of 74 single family residential units within Planning Area 8 of the Leal Master Plan.
Planner:	Allen Lim

Notes:

- Received application on 12.21.22
- Application deemed incomplete by staff on January 12, 2023.
- The project was resubmitted on 06.05.2023 and is under review.
- Application was deemed incomplete on July 3, 2023.
-

Project Map:



Current Status:

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Leal Ranch Residential PA-2 Quarterra (MAP ID: LEAL.7)

Project:	Leal Ranch Residential PA-2 (Phase A)
Project No.	PLN23-20036 DR006
Project Location:	Northeast corner of Limonite Avenue and of Scholar Way. South of
Project Description:	**Major Development Review** for the development of 320 new residential units within Planning Area 2 of the Leal Master Plan.
Planner:	Jamie K. Cerda

Notes:

- Received application on June 9, 2023.
- Application was deemed incomplete on July 3, 2023

Project Map:



Current Status:

- Application was deemed resubmitted on August 31, 2023 and is currently under review.

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St. Oscar Romero Modular Buildings

Project:	St. Oscar Romero's Modular Buildings
Project No.	PLN23-20038 MDR008
Project Location:	Northwest corner of Chandler St. and of Selby Ave. North of Retriever St.
Project Description:	**Minor Development Review** for the development of 2 temporary 1,059 square feet (total of 2,118 square feet) Modular Office Building with accessible stairs, ramps, restrooms, parking and connected walkway.
Planner:	Steven D. Fowler

Notes:

- Application submitted on July 6, 2023.
- Application was deemed incomplete on July 6, 2023
- Application was deemed incomplete on July 24, 2023
- Application was resubmitted on August 21, 2023

Project Map:



Current Status:

- Application was deemed complete on September 7, 2023. Awaiting submittal of construction plans to Building Division.

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Magnolia Ranch

Project:	Magnolia Ranch (Woodside)
Project No.	PLN23-20043 DR005
Project Location:	Southwest of Schleisman Rd. and Scholar Way. North of Orange St.
Project Description:	**Development Review** for the development of 41 traditional single-family homes on lots of a minimum 55' x 90 (4950 SF)
Planner:	Jamie K. Cerda

Notes:

- Application submitted on July 6, 2023.
- Application was deemed incomplete on July 6, 2023

Project Map:



Current Status:

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Archibald and Chandler Retail (MAP ID: ACR)

Project:	Archibald and Chandler Retail Center
Project No.	PLN23-20018 TPM #37653, PLN23-20019 MDR004 CUP002, PLN23-20020 MDR005 CUP003, PLN23-20020 MDR006
Project Location:	Northwest corner of Archibald and Chandler; (Assessor Parcel Numbers: 144-130-004, 144-130-011, 144-130-012, 144-130-013)
Project Description:	**Tentative Parcel Map (37653)** to parcelize a 2.71-acre site into three (3) parcels. **Minor Development Review** for a commercial development on a 0.81-acre parcel comprised of a 3,500 square feet sit-down restaurant (Zendejas) **Minor Development Review** for a commercial development on a 1.18-acre parcel a 3,598 square feet drive-through carwash (Quick Quack Express Carwash) **Minor Development Review** for a commercial development on a 0.75-acre parcel with a 950 square feet drive-through coffee shop (Dutch Bros). **Conditional Use Permit** for the operation of a drive-through coffee shop. **Conditional Use Permit** for the operation of a drive-through carwash.
Planner:	Allen Lim

Notes:

- Received application on 04.11.23
- On 5/9/2023 comments were returned to the applicant.
- On July 27, 2023 the project was resubmitted.

Project Map:



Current Status:

- On August 24, 2023 a correction letter was sent out to the applicant.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Approved/ Entitled

Goodman Commerce Center (MAP ID: GCC)

Project:	Goodman Commerce Center (formally Lewis Eastvale Commerce Center)
Project No.	11-0271 **see related projects below
Project Location:	190 acres +/- fronting on Hamner Ave. north of Bellegrave Ave. and south of Cantu-Galleano Ranch Road
Project Description:	General Plan Amendment, Change of Zone, and Specific Plan to provide a mix of warehousing, light industrial, office, and retail uses. Major Development Review for the development of two industrial buildings of approximately 1,007,705 square feet and 1,033,192 square feet. CEQA: Environmental Impact Report (certified)
Planner:	Allen Lim

Notes:

- Approved by City Council on November 12, 2014

See the following projects for more recent activity at the Goodman Commerce Center Development:

- Project No. PLN17-20033 Retail Building CR-3 – Starbucks & other tenants (GCC.1)
- Project No. PLN18-20014 Retail Building CR-12 – Quick Quack Carwash (GCC.2)
- Project No. PLN18-20042 Retail Building CR-11 – Multi-Tenant (GCC.3)
- Project No. PLN19-20006 Retail Building CR-10- Chick-fil-A (GCC.4)
- Project No. PLN19-20063 Retail Building CR-8 – Altura Credit Union (GCC.5)
- Project No. PLN19-20064 Retail Building CR-6 (GCC.6)
- Project No. PLN20-20018 Retail Building CR-6A, CRA, CR-B, CR-C
- Project No. PLN21-20063 Retail Building CR-1
- Project No. PLN21-20068 Retail Building CR-2
- Project No. PLN22-20025 Planning Area-4 Development

Project Map:



Current Status:

- Various buildings complete, operating and under construction.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

Retail Unit CR-12 (GCC.1)

Project:	Goodman Retail CR-12 – Quick Quack Car Wash
Project No.	PLN18-20014
Project Location:	West of Amazon off-site parking lot and south of Costco parking lot in the retail portion of Goodman Commerce Center
Project Description:	Major Development Review for a proposed self-serve car wash with a 3,571-square foot car-wash tunnel, vacuum canopy structure, and associated parking.
Planner:	Allen Lim

Notes:

- Received application on March 21, 2018.
- Planning Commission approval on June 20, 2018.
- Revised construction plans approved on May 30, 2019.

Project Map:



Current Status:

- Quick Quack Car Wash is completed and in operation

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Retail Unit CR-3/SBUX (GCC.2)

Project:	Goodman Retail Building CR-3 and Starbucks Drive-Through DR & CUP
Project No.	PLN17-20033
Project Location:	Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Road and west of Goodman Way; Goodman Commerce Center
Project Description:	Major Development Review for the development of CR-3, a 4,000 square-foot multi-tenant building and Conditional Use Permit for a drive-through located in the retail portion of the Goodman Commerce Center
Planner:	Allen Lim

Notes:

- Planning Commission approval on March 21, 2018.
- Starbucks in operation as of February 7, 2019.





Project Map:



Current Status:

- Starbucks is completed and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Multi-Tenant Unit CR-11 (GCC.3)

Project:	Goodman Commerce Center CR-11 – Multi-Tenant Building
Project No.	PLN18-20042
Project Location:	Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Road and west of Goodman Way, Parcel 10 of Parcel Map 37208; (Assessor's Parcel Number 160-020-078)
Project Description:	Major Development Review for a new 6,000 square-foot multi-tenant retail building on a 37,250 square-foot site.
Planner:	Allen Lim

Notes:

- Received application on July 26, 2018.
- Building plans received November 20, 2018. Comments provided to applicant December 27, 2018.
- Approved by Planning Commission on October 17, 2018.
- Landscape plans approved on January 21, 2019.
- Revised construction plans approved on February 19, 2019.
- On 10.17.18 the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Building is completed and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
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Chick-fil-A (GCC.4)

Project:	Chick-fil-A at Goodman Commerce Center
Project No.	PLN19-20006
Project Location:	5080 Hamner Avenue (Assessor Parcel Numbers: 160-020-079) (Goodman CR-10)
Project Description:	Major Development Review and Conditional Use Permit for development and operation of a 4,833 sq. ft. restaurant with two drive-through lanes
Planner:	Allen Lim

Notes:

- Received application on February 19, 2019.
- Incompleteness letter sent on March 13, 2019.
- Comment letter sent on March 25, 2019.
- Meeting with applicant on April 3, 2019 to discuss comment letter.
- Revised plans received on April 12th and April 29th.
- On 5.15.19 the Planning Commission approved the project subject to conditions of approval.



Project Map:



Current Status:

- Chick-fil-A is completed and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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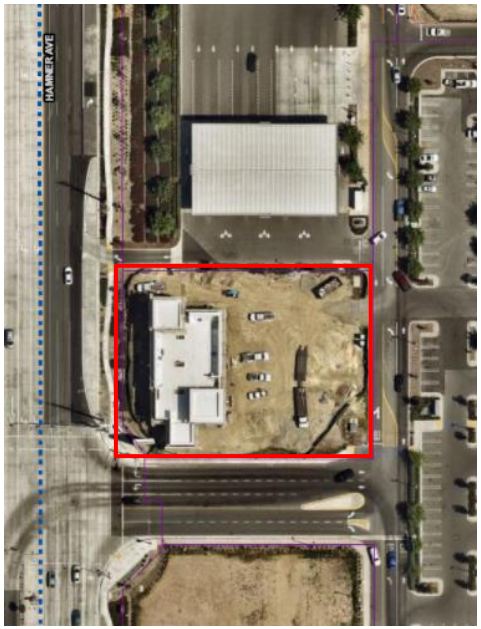
Altura Credit Union D.R (GCC.5)

Project:	Goodman Commerce Center CR-8 Altura Credit Union - Major Development Review (DR)
Project No.	PLN19-20063
Project Location:	Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Road – West of Goodman Way Parcel 10 of Parcel Map 37208; (Assessor's Parcel Number: 160-020-082)
Project Description:	▪ Major Development Review for the development of a Credit Union Bank (CR-8) totaling approximately 5,000 square feet
Planner:	Allen Lim/Gina Gibson-Williams

Notes:

- Received application on December 12, 2019.
- Routed for department review on December 23, 2019.
- Planning and department comments provided to applicant on January 23, 2020.
- Resubmittal received on January 30, 2020.
- On 2.19.20 the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Building is completed and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
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Building CR-6 D.R (GCC.6)

Project:	Goodman Commerce Center CR-6– Major Development Review (DR)
Project No.	PLN19-20064
Project Location:	Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Road – West of Goodman Way Parcel "A" of Lot Line Adjustment 2018-001; (Assessor's Parcel Number: 160-020-088)
Project Description:	▪ Major Development Review for the development of a multi-tenant retail building (CR-6) totaling approximately 4,800 square-feet
Planner:	Allen Lim/Gina Gibson-Williams

Notes:

- Received application on December 12, 2019.
- Routed for department review on December 23, 2019.
- Planning and department comments provided to applicant on January 23, 2020.

Project Map:



Current Status:

- The Planning Commission approved the project on February 19, 2020.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

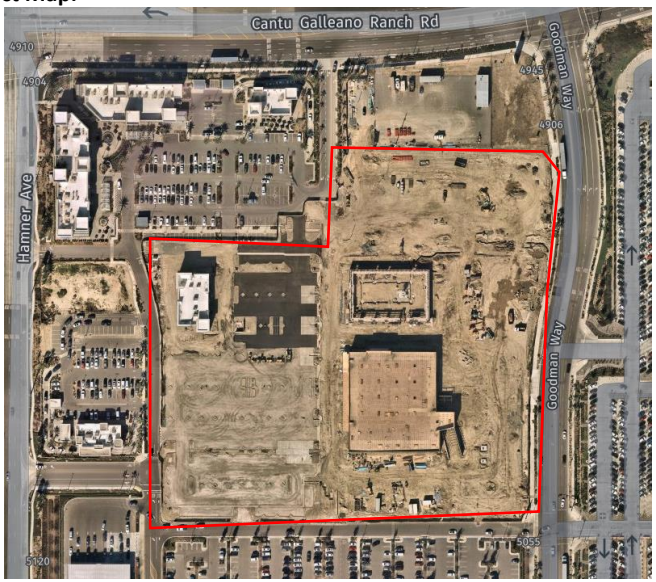
"CR-6A, CR-A, CR-B (Tawa), and CR-C (Food Hall)" (GCC.7)

Project:	Goodman Commerce Center "The Station" Planning Area 1 CR-6A, CR-A, CR-B, CR-C
Project No.:	PLN20-20018 DR001 TPM37936 CUP002
Project Location:	Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Road, west of Goodman Way; Assessor's Parcel Number (APN): 160-020-066, -068, -071, -084
Project Description:	▪ **Major Development Review**: o 6,000 sf. retail building (CR-6A) located on a building pad directly east of CR-6. o 21,500 square foot retail building (CR-A) locating directly north of the Costco Wholesale Store. o 35,000 square foot retail grocery building (CR-B) located adjacent to CR-A. This use is proposed to be a typical, full service, grocery retailer. o 16,000 square foot food hall (CR-C) located across from the grocery retailer, accessed through a shared courtyard entrance. ▪ **Tentative Parcel map** to create 11 commercial parcels and facilitate various site and circulation improvements would be made to connect the parking areas to the nearby roadways. ▪ **Conditional Use Permit t**o allow for the on-site consumption in association with bona-fide food sale/restaurant uses and the off-site sale for the grocery retail store.
Planner:	▪ Gustavo Gonzalez

Notes:

- Application submitted on May 14, 2020.
- Distributed to Development Review Committee on May 21, 2020 and received comments and draft conditions on June 11, 2020.
- Approved by the Planning Commission on July 15, 2020.

Project Map:



Current Status:

- Buildings are currently under construction.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

Zeppin Sushi CUP (MAP ID: GCC.8)

Project:	Zeppin Sushi Alcohol CUP
Project No.:	PLN21-20036_CUP_008 Zeppin Sushi Alcohol CUP
Project Location:	4910 Hamner Avenue, Suite 170; Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Road (The Station – Goodman Commerce Center) (APN) 160-510-019
Project Description:	**Conditional Use Permit (CUP)**: To allow the on-site sale/consumption of beer and wine in conjunction with a new sit-down restaurant (Zeppin Sushi)
Planner:	Allen Lim

Notes:

- Received application on 6.28.21

Project Map:



Current Status:

- On July 21, 2021, the Planning Commission approved PLN21-20036 subject to the conditions of approval.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

GCC Crying Tiger Bistro and Bar Alcohol CUP (MAP ID: GCC.9)

Project:	GCC Crying Tiger Bistro and Bar Alcohol Conditional Use Permit
Project No.:	PLN21-20057_CUP010
Project Location:	4916 Hamner Ave. Suite #120 at the Southeast corner of Cantu-Galleano Ranch Road and Limonite Avenue; (Assessor's Parcel Number: 160-510-017)
Project Description:	**Conditional Use Permit:** Full-service Thai restaurant and bar for sale of beer, wine, and distilled spirits for on-site consumption located at the Station located on the southeast corner of Cantu-Galleano Ranch Rd. and Limonite Ave. The CUP request is specific to one of the multi-tenant spaces for CR-6A
Planner:	Jamie K. Cerda

Notes:

- Received application on 9.8.21
- On October 20, 2021, the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Crying Tiger is open and operational.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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GCC CR-1 DR (MAP ID: GCC.10)

Project:	GCC CR-1 DR
Project No.:	PLN21-20063_DR012
Project Location:	Southwest corner of Goodman Way and Cantu-Galleano Ranch Rd. ; Assessor Parcel Number (APN) 160-510-023
Project Description:	**Major Development Review** for the development of a 5,213 square foot PAD building (CR-1) and 575 square foot outdoor patio for a total of 5,788 square feet for a proposed restaurant building.
Planner:	Jamie K. Cerda

Notes:

- Received application on November 17, 2021.
- On January 19, 2022, PLN21-20063 was approved by the Planning Commission subject to conditions of approval.

Project Map:



Current Status:

- On July 7, 2022, Planning staff received construction documents for review.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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GCC CR-2 DR (MAP ID: GCC.11)

Project:	GCC CR-2 DR
Project No.:	PLN21-20068_DR013
Project Location:	Southwest corner of Goodman Way and Cantu-Galleano Ranch Rd.; Assessor Parcel Number (APN) 160-510-022
Project Description:	**Major Development Review** including site planning and architecture for the development of a 7,757 square foot PAD building (CR-2) for a proposed restaurant building.
Planner:	Jamie K. Cerda

Notes:

- Received application on November 17, 2021
- On January 19, 2022, PLN21-20068 was approved by the Planning Commission subject to conditions of approval.

Project Map:



Current Status:

- Building currently under construction

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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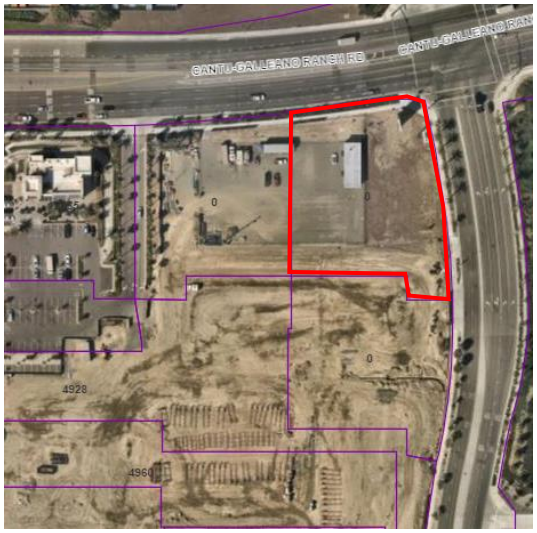
GCC CR-1 Chili's Alcohol CUP and VAR (MAP ID: GCC.13)

Project:	GCC CR-1 Alcohol CUP and VAR
Project No.:	PLN22-20010_CUP002_VAR001
Project Location:	Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Rd.; Assessor Parcel Number (APN) 160-510-023
Project Description:	**Conditional Use Permit** for the on-sale and consumption of beer, wine, and distilled spirits at a 7,757 square foot PAD building (CR-1) restaurant (dba Chili's). **Variance** to request modification to the sign standards to allow four (4) tenant wall signs.
Planner:	Jamie K. Cerda

Notes:

- Received application on March 7, 2022

Project Map:



Current Status:

- On April 20, 2022, PLN22-20012 was approved by the Planning Commission subject to conditions of approval.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

GCC CR-2 Alcohol CUP (MAP ID: GCC.12)

Project:	GCC CR-2 Alcohol CUP
Project No.:	PLN21-20072_CUP011
Project Location:	Southwest corner of Goodman Way and Cantu-Galleano Ranch Rd.; Assessor Parcel Number (APN) 160-510-022
Project Description:	**Conditional Use Permit** for the on-sale and consumption of beer, wine, and distilled spirits at a 7,757 square foot PAD building (CR-2) restaurant.
Planner:	Allen Lim

Notes:

- Received application on January 4, 2022
- On January 19, 2022, the Planning Commission continued project PLN21-20072 off calendar.

Project Map:



Current Status:

- On July 20, 2022, the Planning Commission approved PLN21-20071 subject to conditions of approval.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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GCC Cuts Korean BBQ Alcohol CUP (MAP ID: GCC.14)

Project:	GCC Cuts Korean BBQ Alcohol CUP
Project No.:	PLN22-20021_CUP003
Project Location:	Southeast corner of Hamner Avenue and Cantu-Galleano Ranch Rd.; Assessor Parcel Number (APN) 160-510-019
Project Description:	**Conditional Use Permit** for the on-sale and consumption of beer, wine, and distilled spirits at an existing tenant space in The Station – Goodman Commerce Center
Planner:	Allen Lim

Notes:

- Received application on April 6, 2022
- On July 20, 2022, the Planning Commission approved PLN22-20021 subject to conditions of approval.

Project Map:



Current Status:

- Building currently under construction.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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GCC Devil's Kitchen Alcohol CUP (MAP ID: GCC.16)

Project:	GCC Devil's Kitchen Alcohol CUP
Project No.:	PLN22-20041_CUP005
Project Location:	Northeast corner of Hamner Avenue and Goodman Way (Assessor Parcel Number: 160-510-019)
Project Description:	**Conditional Use Permit (CUP)** for the on-sale and consumption of beer and wine at an existing tenant space in The Station – Goodman Commerce Center
Planner:	Allen Lim

Notes:

- Received application on June 15, 2022

Project Map:



Current Status:

- On July 20, 2022, the Planning Commission approved PLN22-20041 subject to conditions of approval.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
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GCC Planning Area 4 DR and TPM (MAP ID: GCC.15)

Project:	GCC Planning Area 4 DR and TPM
Project No.:	PLN22-20025 CR-13 and TPM No. 38438, PLN22-20056 DR CR-14, PLN22-20057 DR CR-15, PLN22-20058 DR CR-16, PLN22-20059 DR CR-17
Project Location:	Northeast corner of Hamner Avenue and Goodman Way (Assessor Parcel Number: 160-510-010, -011, -012, -013, -015, -016, and -033)
Project Description:	**Major Development Review (DR)** for development of five (5) business park buildings ranging in size from 40,000 sf to 59,987 sf in Planning Area 4 of the Goodman Commerce Center in Eastvale Specific Plan. **TPM No. 38438:** For the reconfiguration of a 14.4-acre site into five (5) individual parcels.
Planner:	Allen Lim

Notes:

- Received application on April 20, 2022.
- Project was deemed incomplete by Staff on May 19, 2022.
- Received resubmittal on August 8, 2022.
- Project was deemed incomplete by Staff on August 24, 2022.
- Project was deemed complete by Staff on September 28, 2022.
- On October 19,2022, the Planning Commission approved PLN22-20025, -56 through -59 subject to conditions of approval.

Project Map:



Current Status:

- Buildings are currently in plan check 3 as of 7.24.2023.
- Construction documents currently under review

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
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The Campus (MAP ID: CAM)

Project:	The Campus (former Providence Business Park)
Project No.	12-0750
Project Location:	West of Archibald Avenue and approximately 750 ft. south of Limonite Avenue (APNs 144-010-002, -033, -037 & -038)
Project Description:	Change of Zone, Major Development Review, and Tentative Parcel Map for the development of a business park consisting of 11 new industrial buildings ranging from 12,850 square feet to 129,000 square feet (totaling approximately 694,770 square feet), one 2-story office building of 33,600 square feet, and two retail buildings totaling 10,600 square feet on 53.37 gross acres of vacant land (former Bircher's site). CEQA: EIR Addendum
Planner:	Allen Lim

Notes:

- Approved by City Council on April 9, 2014
- All industrial buildings are built and occupied.
- See the following projects for more recent activity at The Campus (former Providence Business Park) Development:
  - PLN19-20001 The Campus Self-Storage Facility DR, CUP (CAM.1)
  - PLN19-20008 The Campus 7-Eleven DR, CUP (CAM.2)
- Front land abutting Archibald has been entitled with The Campus Self-Storage and The Campus 7-Eleven.

Project Map:



Current Status:

- The Campus (industrial buildings) are constructed and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Self-Storage D.R & C.U.P (CAM.1)

Project:	The Campus Self-Storage Facility DR & CUP
Project No.	PLN19-20001
Project Location:	West side of Archibald Avenue and South of Providence Way; (Assessor Parcel Number: 144-010-063)
Project Description:	Major Development Review and Conditional Use Permit for development and operation of a 4-story, self-storage facility in the front portion of The Campus development.
Planner:	Allen Lim

Notes:

- Received application on January 22, 2019.
- This project would replace an earlier approval for a two-story office building at this location.
- Application incompleteness letter sent on February 11, 2019.
- Comment letter sent on February 25, 2019.
- Second resubmittal received on February 27, 2019.
- 2nd incomplete application letter sent on March 13, 2019.
- 3rd resubmittal received on May 23, 2019.
- 4th submittal received on June 7, 2019.
- On 7.17.19 the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- The self-storage facility is constructed.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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7-Eleven D.R. & C.U.P (CAM.2A)

Project:	The Campus 7-Eleven Gas Station DR, CUP's
Project No.	PLN19-20008
Project Location:	The Campus (West side of Archibald and South of Providence Way); (Assessor Parcel Number: 144-010-063)
Project Description:	Major Development Review and Conditional Use Permit for development and operation of a convenience store, gas station and carwash.
Planner:	Allen Lim

Notes:

- Received application on February 26, 2019.
- Incomplete letter sent on March 14, 2019.
- Comment letter sent on March 22, 2019.
- 2nd resubmittal received on May 17, 2019.
- 3rd submittal received on June 7, 2019.
- On July 17, 2019, the Planning Commission approved the project subject to conditions of approval. (See **PLN19-20029**)
- Construction plans are currently under review, awaiting further documents to be provided by applicant.

Project Map:



Current Status:

- The building is currently under construction.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

7-Eleven Appeal (CAM.2B)

Project:	The Campus 7-Eleven Gas Station DR Appeal
Project No.	PLN19-20029
Project Location:	The Campus (West side of Archibald and South of Providence Way); (Assessor Parcel Number: 144-010-063)
Project Description:	▪ Appeal Planning Commission's approval of a Major Development Review and Conditional Use Permit for development and operation of a convenience store, gas station and carwash.
Planner:	Allen Lim

Notes:

- Received application on July 29, 2019.

Project Map:



Current Status:

- City Council denied the appeal and recommended new conditions on August 28, 2019. See PLN19-20008 for current status.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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The Ranch (MAP ID: RNCH)

Project:	The Ranch
Project No.	15-0783
Project Location:	Northeast and southeast corners of Hellman and future Limonite (Kimball) Avenues, west of Cucamonga Creek Channel. Moons Site (APNs: 144-010-008-0, 144-101-013-4) and Rodriguez Site (APN: 144-010-009-1)
Project Description:	• Specific Plan Amendment to modify boundaries for Planning Areas 1 through 6, land use designation for Planning Area 5, and revisions to allowable uses. No revisions to Planning Areas 7 through 9. • Major Development Review for six (6) industrial buildings totaling 985,000 square feet on six (6) parcels. • Tentative Parcel Map No. 36787 to subdivide approximately 97 gross acres into 14 legal parcels. CEQA: EIR Addendum
Planner:	Allen Lim

Notes:

- Approved by City Council on December 9, 2015.
- February 19, 2016, a new owner purchased the six (6) industrial lots.
- Monument Sign approved on February 1, 2018.
- See the following projects for more recent activity at The Ranch:
  - Project No. PLN18-20007: Eastvale 88,000 square-foot Warehouse building in Planning Area 3. (RNCH.1)
  - Project No. PLN18-20050: Howard Industrial -Major Development Review, Tentative Map for Planning Areas 7, 8 and 9 (RNCH.2)
  - Project No. PLN19-20034: Transwestern – Major Development Review, Amendment to Tentative Parcel Map for Planning Areas 7, 8, and 9 (RNCH.3)
  - Project No. PLN19-20035: Summit Development – Major Development Review for Planning Area 6 (RNCH.4)

Project Map



Current Status:

- Approved.
- Continue discussing potential development for commercial portion.
- Construction of six industrial/warehouse buildings are completed.
- A resolution for the Final Cancellation of the Williamson Act Contract for the Rodriguez Site was adopted by City Council meeting on July 24, 2019.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Warehouse/Industrial D.R (RNCH.1)

Project:	The Ranch Planning Area 3 Warehouse/Industrial Building
Project No.	PLN18-20007
Project Location:	Planning Area 3 of The Ranch at Eastvale
Project Description:	Major Development Review to construct an 88,000 square-foot industrial building on 5 acres in Planning Area 3 of The Ranch at Eastvale.
Planner:	Allen Lim

Notes:

- Received application on February 14, 2018.
- On May 16, 2018**,** Planning Commission approved Major Development Review
- Approved construction plans October 31, 2018.



Project Map:



Current Status:

- The building is completed and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
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Howard Industrial (RNCH.2)

Project:	Howard Industrial at The Ranch (Rodriguez Site)
Project No.	PLN18-20050
Project Location:	East end of Limonite Avenue (The Ranch Planning Area 7, 8 and 9); Assessor's Parcel Numbers: 144-010-009 and 144-010-004, and 144-010-005
Project Description:	▪ Major Development Review for development of a 21-acre site for light industrial uses located in Planning Areas 7 and 9 of The Ranch Specific Plan ▪ Tentative Parcel Map to subdivide the project site. ▪ Diminishment of Agricultural Preserve & Williamson Act Cancellation for the project site.
Planner:	Allen Lim

Notes:

- Agricultural Preservation & Williamson Act Cancellation submitted on September 4, 2018.
- Major Development Review and Tentative Parcel Map received on October 24, 2018.
- Approved by Planning Commission for Major Development Review and Tentative Parcel Map on December 19, 2018.
- Approved by City Council for diminishment of the agricultural preserve and tentative cancellation of the Williamson Act contract on February 13, 2019.
- Staff is in discussion with a new owner regarding design changes.
- A resolution for the Final Cancellation of Williamson Act Contract was adopted by City Council July 24, 2019.

Project Map:



Current Status:

- See **PLN19-20034** for current status with new owner.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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The Ranch by Transwestern D.R (RNCH.3)

Project:	The Ranch by Transwestern (Rodriguez Site)
Project No.	PLN19-20034
Project Location:	East end of Limonite Avenue (The Ranch Planning Area 7, 8 and 9); (Assessor's Parcel Numbers: 144-010-009 and 144-010-004, and 144-010-005)
Project Description:	▪ Major Development Review (DR) and an Amendment to the Tentative Parcel Map (TPM) to construct 2 light industrial warehouses on the Rodriguez Site (Planning Area 7, 8, and 9) located on the southeast corner of Moon Place and Remington Avenue.
Planner:	Allen Lim

Notes:

- Received application on September 3, 2019.
- Routed to other departments for review.
- Incompleteness letter provided to applicant on October 8, 2019.
- Precise Grading Plans received 12/23/19; Precise Grading comments provided 1/13/20; Awaiting resubmittal of Major Development Review and Precise Grade.
- Routed for comments from other departments on February 12, 2020.
- Received comments on February 26, 2020.
- Received Submittal 3 on April 8, 2020.
- On 6.17.21 the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- The Ranch by Transwestern (Industrial Buildings 1 and 2) are completed.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Summit Development (RNCH.4)

Project:	The Ranch by Summit Development (Parcel 14)
Project No.	PLN21-20014_DR002_CUP003
Project Location:	East end of Limonite Avenue (The Ranch Planning Area 6); (Assessor's Parcel Number: 144-010-058)
Project Description:	**Major Development Review** for a 61,000 square foot light industrial building on 4.36 acres of Parcel 14 on The Ranch. The building will be located in Planning Area 6 of The Ranch Specific Plan.
Planner:	Allen Lim

Notes:

- Received pre-application on September 12, 2019.
- Routed to other departments for review.
- Comments provided to applicant 10/17/19.
- Formal submittal received January 15, 2020 – Routed for department review.
- On 2.19.20 the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Construction documents currently under review.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Beyond Food Mart at The Ranch (MAP ID: RNCH.5)

Project:	Beyond Food Mart Major Development Review and Conditional Use Permit(s)
Project No.	PLN21-20014_DR002_CUP003
Project Location:	Northeast corner of Hellman Ave. and Limonite Ave. at The Ranch Specific Plan (Assessor Parcel Number: 144-010-077)
Project Description:	**Major Development Review,** for the construction of a new 7,150 square-foot Beyond Food Mart with a single lane drive-through operation, a 5,177 square-foot canopy, and a 2,312 square-foot drive-through carwash **Conditional Use Permit,** for the operation of automobile service station with concurrent off sale of beer and wine (Type 20) **Conditional Use Permit,** for the operation of a C-Store with a drive-through **Conditional Use Permit,** for the operation of a drive-through carwash
Planner:	Allen Lim

Notes:

- Received application on 3.17.21
- On November 17, 2021, the Planning Commission approved project PLN21-20014, subject to conditions of approval.

Project Map:



Current Status:

- The project is currently under review for building permits.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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The Ranch TPM No. 38114 (MAP ID: RNCH.6)

Project:	The Ranch TPM No. 38114
Project No.	PLN22-20009_TPM38114
Project Location:	Northeast corner of Limonite Avenue and Hellman Avenue; Assessor Parcel Number (APN) 144-010-077
Project Description:	**Tentative Parcel Map** to subdivide one (1) 10.68 acres into two (2) individual parcels.
Planner:	Allen Lim

Notes:

- Received application on March 2, 2022

Project Map:



Current Status:

- On May 18th, 2022, the Planning Commission approved project PLN22-20009, subject to conditions of approval

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Hamner Place (MAP ID: HPLC)

Project:	Hamner Place (former Polopolus Property)
Project No.	PLN17-20015
Project Location:	7270 Hamner Avenue; North of Silver Lakes Sports Complex and east of Hamner Avenue. APNs: 152-060-002 and -003
Project Description:	General Plan Amendment, Change of Zone, Tentative Parcel Map, and Major Development Review for the development of a retail center, and four Conditional Use Permits for the operations of certain uses and sales of alcohols. CEQA: Environmental Impact Report (EIR)
Planner:	Gina Gibson-Williams/ Allen Lim

Notes:

- June 25, 2018, applicant withdrew two Conditional Use Permits (for a drive-through on Pads 2 and for alcohol sales in a future gas station convenience store).
- June 27, 2018: City Council certified the Final EIR and approved all applications. Notice of Determination recorded on June 28, 2018.
- See the following projects in the retail center:
- Project No. PLN18-20041: Hamner Place Gas Station and Convenience Store DR CUP
- Project No. PLN19-20023: Lewis Retail Suites Hotel DR CUP
- Project No. PLN19-20053: Retail Suites DR
- Project No. PLN19-20044: Appeal Hamner Place Gas Station and Convenience Store DR CUP
- Mass grading plan received on June 10, 2019; comments provided on June 12, 2019 requesting for documentations showing compliance with the conditions of approval for grading permit issuance.
- Rough grading plans received on June 24, 2019; Received documentation showing compliance to Conditions of Approval and approved July 2, 2019.
- Groundbreaking July 12, 2019

Project Map:



Current Status:

- Hamner Place is currently under construction (building permits issued).

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Hotel Suites (HPLC.1)

Project:	Hotel - Staybridge Suites at Hamner Place
Project No.	PLN19-20023
Project Location:	Southeast corner of Hamner Avenue and Schleisman Road; (Assessor Parcel Number: 152-050-050)
Project Description:	**Major Development Review** for a hotel and a banquet facility and a **Conditional Use Permit** for the sale of alcohol for on-site consumption.
Planner:	Gina Gibson-Williams

Notes:

- Received application on June 6, 2019.

See the following project for more information:

- PLN17-20015: Hamner Place (former Polopolus Property)
- Approved by Planning Commission on June 19, 2019.
- Building plans received for review on January 30, 2020.

Project Map:



Current Status:

- The Staybridge Suites is currently under construction.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Hamner Place Gas Station and C-Store Appeal (HLPC.2A)

Project:	Appeal for Hamner Place Gas Station (Hamner Place) DR & CUP
Project No.	PLN19-20055 (see PLN18-20041)
Project Location:	7180 Hamner Avenue; northeast corner of Hamner Ave. and Schleisman Rd.; (Assessor's Parcel Number: 152-060-003)
Project Description:	Appeal Planning Commission's denial for the Major Development Review for a new gas station with a 3,018 square-foot convenience store, 3,472 square-foot canopy and a Conditional Use Permit, to allow the sales of beer and wine for off-site consumption (See Map ID: 19)
Planner:	Allen Lim

Notes:

- Received application on November 26, 2019

Project Map:



Current Status:

- City Council approved the project and recommended new conditions of approval on January 22, 2020. See PLN18-20041 for current status.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Hamner Place Gas Station and C-Store (HLPC.2B)

Project:	Hamner Place Gas Station and C-Store (former Polopolus Property)
Project No.	PLN18-20041
Project Location:	7180 Hamner Avenue; northeast corner of Hamner Ave. and Schleisman Rd.; (Assessor's Parcel Number: 152-060-003)
Project Description:	**Major Development Review** for a new gas station with a 3,018 square-foot convenience store, a 3,472 square-foot canopy with five (5) fueling dispensers, and associated site improvements. **Conditional Use Permit** for sales of beer and wine for off-site consumption.
Planner:	Allen Lim

Notes:

- Received application on July 24, 2018; has been routed to the other departments for a review.
- Incompleteness letter out to applicant on August 28, 2018.
- Comment letter provided to applicant on September 18, 2018.
- Second revised development plans received November 5, 2018.
- Second submittal comment letter provided to applicant on November 14, 2018.
- Third revised development plans received January 22, 2019.
- Incompleteness letter to applicant on February 12, 2019.
- Comment letter sent to applicant on February 20, 2019.
- Planning Commission denied the project on November 20, 2019.
- Applicant has applied to appeal the Planning Commission's decision on November 20, 2019 (See PLN19-20055)
- City Council approved the appeal and recommended new conditions of approval on January 22, 2020.

Project Map:



Current Status:

- Building and gas station are currently under construction.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Hamner Place Retail Suites D.R (HPLC.3)

Project:	Hamner Place Retail Suites – Major Development Review (DR)
Project No.	PLN19-20053
Project Location:	Southeast corner of Hamner Avenue and Schleisman Road; (Assessor's Parcel Number: 152-060-003)
Project Description:	**Major Development Review** for a multi-tenant building to include retail suites and a potential restaurant. The restaurant is proposed to be 5,910 square feet and the shops portion of the building is 2,270 square feet for a total building floor area of 9,190 square feet.
Planner:	Gina Gibson-Williams

Notes:

- Received application on November 21, 2019.

Project Map:



Current Status:

- On December 18, 2019, the Planning Commission approved project PLN19-20053 subject to conditions of approval.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Hamner Place TPM No. 37955 (MAP ID: HPLC.4)

Project:	Hamner Place TPM No. 37955
Project No.	PLN21-20038 TPM No. 37955 Hamner Place Tentative Parcel Map
Project Location:	East of Hamner Avenue and south of Schleisman Road (Hamner Place); APN 152-060-060 and 152-060-047
Project Description:	**Tentative Parcel Map (TPM):** To subdivide approximately 4.2 acres consisting of two (2) parcels into four (4) parcels to accommodate a future building pads in the C-1/C-P)
Planner:	Allen Lim

Notes:

- Received application on 6.28.21
- On July 21, 2021, the Planning Commission continued the item to the September 15th Planning Commission meeting.
- On 9.15.21 the Planning Commission continued the item to the October 20th Planning Commission meeting.
- On October 20, 2021, the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Buildings are complete and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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The Merge (MAP ID: MRG)

Project:	The Merge Retail and Industrial Center
Project No.	PLN18-20026
Project Location:	Northeast corner of Limonite Avenue and Archibald Avenue; APN: 164-010-019-6
Project Description:	**Major Development Review**, **Tentative Parcel Map**, and **Variance** for the development of a retail and light industrial center on an approximately 26-acre site, and various **Conditional Use Permits** for certain uses.
Planner:	Allen Lim

Notes:

- Received application on May 24, 2018; Development plans received on June 26, 2018.
- Draft Environmental Impact Report (EIR) available for a 45-day public review period from September 18, 2018, to November 2, 2018.
- Condition Use Permits application submitted on October 1, 2018.
- November 21, 2018, Planning Commission recommended approval of all applications, plus added new conditions for the Major Development Review application.
- December 12, 2018, City Council certified the EIR and approved all applications as recommended by the Planning Commission including the new conditions recommended by the Planning Commission, plus the Council added one new condition for the Major Development Review. January 9, 2019, City Council conducted second reading of ordinance for Change of Zone.
- Construction building plans for industrial buildings 1-6 approved by Planning 11.25.19
- Sprouts (Major 1) is completed and in operation 10.28.20

Project Map:



Current Status:

- The Merge Industrial and Retail have completed construction (pending entitlement and construction of PAD2).

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

Retail Minor D.R (MRG.1)

Project:	The Merge Retail (Major 2) Minor Development Review
Project No.	PLN19-20041
Project Location:	Northeast corner of Limonite Avenue and Archibald Avenue; (Assessor's Parcel Number: 164-010-019-6)
Project Description:	▪ Minor Development Review to replace the previously approved pharmacy with a drive through to two (2) retail buildings.
Planner:	Allen Lim

Notes:

- Received application on October 28, 2019.
- Application has been deemed incomplete on December 23, 2019.
- Received resubmittal on February 3, 2020.
- On February 26, 2020, the Planning Division approved the project subject to conditions of approval.

Project Map:



Current Status:

- The building is complete and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Retail Major Shops 4 D.R (MRG.2)

Project:	The Merge Retail Major Development Review (DR) Shops 4
Project No.	PLN19-20049
Project Location:	Northeast corner of Limonite Avenue and Archibald Avenue; (Assessor's Parcel Number: 164-010-019-6)
Project Description:	▪ Major Development Review for the addition of one new building with a drive-through Shops 4 with drive-through is estimated to be 10,500 square feet.
Planner:	Gina Gibson-Williams/ Allen Lim

Notes:

- Received application on November 7, 2019.
- Application has been deemed incomplete November 7, 2019.
- On February 19, 2020, the Planning Commission approved PLN19-20049 subject to conditions of approval.

Project Map:



Current Status:

- The building is complete and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Retail Shops 4 C.U.P (MRG.3)

Project:	The Merge Retail Shops 4 Drive-Through CUP
Project No.	PLN19-20050
Project Location:	Northeast corner of Limonite Avenue and Archibald Avenue; (Assessor's Parcel Number: 164-010-019-6)
Project Description:	▪ Conditional Use Permit for the operation of a Drive-Through at Shops 4 of the Merge.
Planner:	Gina Gibson-Williams/ Allen Lim

Notes:

- Received application on November 7, 2019.
- Application has been deemed incomplete November 7, 2019.

Project Map:



Current Status:

- On February 19, 2020, the Planning Commission approved CUP PLN19-20050 subject to conditions of approval.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Bushfire Kitchen Alcohol CUP (MAP ID: MRG.5)

Project:	Bushfire Kitchen Alcohol CUP
Project No.	PLN21-20028_CUP006 Bushfire Kitchen Alcohol CUP
Project Location:	14134 Limonite Ave Suite 240 Eastvale at The Merge, CA 92880; Assessor Parcel Number (APN) 164-010-019
Project Description:	**Conditional Use Permit (CUP)**: to allow the sale and consumption of beer, wine, and distilled spirits on-site
Planner:	Allen Lim

Notes:

- Received application on 5.19.21
- On June 16, 2021, the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Bushfire Kitchen is complete and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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The Merge Pad 2 (MAP ID: MRG.6)

Project:	The Merge Pad 2 Major Development Review and Conditional Use Permit
Project No.	PLN21-20047_DR005_CUP009 The Merge – Pad 2
Project Location:	Northeast corner of Limonite Avenue and Archibald Avenue – Suite 400; (Assessor's Parcel Number: 164-010-019)
Project Description:	**Major Development Review (DR):** To allow the construction of one (1) commercial retail building (2,000 sf building with an outdoor seating area) with a shaded communal area in between a future proposed retail building
Planner:	Allen Lim

Notes:

- Received application on 8.2.21
- On October 20, 2021, the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Construction documents currently under review.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Dog Haus Alcohol CUP Type 41 (MAP ID: MRG.7)

Project:	Dog Haus Alcohol CUP Type 41 at The Merge
Project No.	PLN22-20006_CUP001
Project Location:	Northeast corner of Limonite Avenue and Archibald Avenue; Assessor Parcel Number (APN) 164-010-041
Project Description:	**Conditional Use Permit** for the on-sale and consumption of beer and wine at an existing tenant space in The Merge Retail Center.
Planner:	Allen Lim

Notes:

- Received application on February 7, 2022
- On March 16, 2022, the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- Dog Haus is complete and in operation.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Dog Haus Alcohol CUP Type 47 (MAP ID: MRG.7)

Project:	Dog Haus Alcohol CUP Type 47 at The Merge
Project No.	PLN23-20001 CUP001
Project Location:	Northeast corner of Limonite Avenue and Archibald Avenue; Assessor Parcel Number (APN) 164-010-041
Project Description:	**Conditional Use Permit** for the on-sale and consumption of beer and wine and distilled spirits at an existing tenant space in The Merge Retail Center.
Planner:	Jamie K. Cerda

Notes:

- Received application on 1.26.23

Project Map:



Current Status:

- On **February 15, 2023**, the Planning Commission approved the project subject to conditions of approval.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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The Merge Pad 2 - Taco Bell (MAP ID: MRG.8)

Project:	The Merge Pad 2 – Taco Bell
Project No.	PLN22-20069 MDR009 and CUP005
Project Location:	Northeast corner of Hamner Avenue and Goodman Way (Assessor Parcel Number: 160-510-010, -011, -012, -013, -015, -016, and -033)
Project Description:	**Minor Development Review (MDR)** for development of a 2,210-square-foot retail building in The Merge Retail Center. **Conditional Use Permit (CUP)** to allow the establishment and operation of a drive-through in conjunction with the proposed retail.
Planner:	Jamie K. Cerda

Notes:

- Received application on October 3, 2022.
- Project was deemed incomplete on October 11, 2022.
- Resubmittal received on October 20, 2022.
- Project was deemed complete by Staff on November 1, 2022.
- On November 16, 2022, the Planning Commission approved project PLN22-20069, subject to conditions of approval.

Project Map:



Current Status:

- Construction drawings are currently under review.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

Walmart (MAP ID: WMT)

Project:	Walmart – Eastvale Crossings
Project No.	PLN12-0051, PLN21-20021_DR002 (Ref. PLN12-0051)
Project Location:	Southeast corner of Limonite and Archibald Avenues (APN 144-030-039)
Project Description:	General Plan Amendment, Change of Zone, Major Development Review, five Conditional Use Permits, Tentative Tract Map No. 35061, and Variance for the development of a 177,000 +/- sq. ft. retail store and several outparcels on 24.78 acres. CEQA: Environmental Impact Report (certified) **Major Development Review** for the construction of a Walmart gasoline service station with an ancillary 1,620 square foot convenience store located on Parcel 2 of Tentative Tract Map No. 35061
Planner:	Jamie K. Cerda

Notes:

- City Council approval on April 26, 2017.
- Project was reviewed by the Riverside County Airport Land Use Commission and received a conditional finding of conformance with the Chino Airport Land Use Compatibility Plan.
- Public review of DEIR available from September 27 to November 17, 2016.
- On March 15, 2017, the Planning Commission reviewed and recommended approval of the project to City Council.
- City Council public hearing on April 12, 2017, with a staff recommendation to continue the hearing to April 26, 2017.
- City Council approval on April 26, 2017. Notice of Determination recorded on April 27, 2017.
- Waiting for applicant to submit construction plans.
- Extension of Time (PLN19-20052) has been approved by the Planning Commission on 1.15.2020
- Extension of Time (PLN19-20052) has been approved by the Planning Commission on 1.15.2020

Project Map:



Current Status:

- August 2, 2023, Walmart submitted plans for mass grading.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Walmart EOT (MAP ID: WMT.1)

Project:	Walmart Revision to TTM No. 35061, Extension of Time, Major Development Review
Project No.	PLN21-20021_DR002_EOT001 (Ref. PLN12-0051), PLN22-20017_EOT001
Project Location:	Southeast corner of Limonite and Archibald Avenues (Assessor Parcel Number: 144-030-039)
Project Description:	**Amendment/Revision to Approved Project**: Minor revision of TTM. No. 35061 and minor design review to accommodate updated proto and gas station design site plan for Walmart. **Extension of Time (EOT):** Tentative Tract Map (TTM No. 35061) Extension of Time – Expiring April 26, 2021. **Extension of Time (EOT):** Tentative Tract Map (TTM No. 35061) Extension of Time – Expiring April 26, 2023.
Planner:	Jamie K. Cerda

Notes:

- Received application on 4.15.21
- Extension of Time and Revision to TTM No. 35061 received 4.15.21
- Extension of Time and Revision to TTM No. 35061 received 3.31.22
- On October 20, 2021, the Planning Commission approved project PLN21-20021, subject to conditions of approval.

Project Map:



Current Status:

- On April 26, 2023, the City Council approved Final Map TR35061.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Sendero Homes (MAP ID: SH.1)

Project:	Sendero Cluster Homes by Lennar
Project No.	PLN17-20043
Project Location:	West portion of Sendero (Tracts 36775-2, 36775-3, and 36775) at northwest corner of Limonite Avenue and Harrison Avenue.
Project Description:	**Minor Development Review for Master Home Plan** of the 6-Pack and 8-Pack at Sendero.
Planner:	Allen Lim

Notes:

- Received application on December 19, 2017, plans provided on December 21, 2017.
- Final Site of Development plans are approved on May 1, 2018.
- Architectural elevation approved on August 14, 2018.
- On-site Subdivision Flags signage submitted on March 28, 2019 by Lennar and approved on April 30, 2019.

Project Map:



Current Status:

- Construction is complete.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
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Sendero Front Loaded Homes (MAP ID: SH.2)

Project:	Sendero Century Communities Front Loaded Homes
Project No.	PLN18-20032
Project Location:	Northeast corner of Archibald Avenue and Chandler Street; Tract Map 36775-1
Project Description:	**Minor Development Review** for architectural design and Final Site of Development for front loaded homes (eastern side of the SEC easement) at Sendero. This portion consists of 82 single-family homes.
Planner:	Allen Lim

Notes:

- Received application on June 27, 2018; has been routed to the other departments for a review.
- Architectural plans and enhancement map approved on August 15, 2018.
- Phase 1 and 2 of Precise Grading Plans approved September 9, 2018.
- Revised lot exhibits approved September 20, 2018.
- Front load landscape plans are approved on December 11, 2018.
- Sendero Century Community Subdivision Sign application submitted on February 7, 2019.
- Applicant resubmitted On-site subdivision flags signage plans May 6, 2019.
- Received revised Final Site of Development (FSOD) map on May 7, 2019 and grading plans on May 22, 2019. Comments provided on May 23, 2019.
- On-site subdivision flags approved April 30, 2019.
- Applicant proposes house plotting changes.
- Model homes are open.
- Waiting for revised FSOD map.
- Precise Grading Plans received December 23, 2019 – Planning approved Precise Grading on January 6, 2020

Project Map:



Current Status:

- Construction is complete.

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Prado Homes (MAP ID: PRDH)

Project:	Prado Residential Development by Lennar
Project No.	PLN18-20008
Project Location:	Southeast corner of Cucamonga Creek Channel and Schleisman Road
Project Description:	**Major Development Review** to develop a gated community of 243 attached and detached single-family homes on approximately 19 acres at Tract 35751 on Schleisman Road.
Planner:	Allen Lim

Notes:

- Received application on February 22, 2018.
- Planning Commission approval on June 20, 2018.
- Approved final site of development on December 10, 2018.
- Approved construction plans and fence and wall plan on March 7, 2019.
- HOA production landscaping plans approved on March 13, 2019.
- Temporary Use Permit (TUP) for model home complex and sales trailer approved on March 13, 2019.
- Revised HOA landscape plans approved May 16, 2019.

Project Map:



Current Status:

- Construction is complete.

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Pulte Homes (MAP ID: PLTH)

Project:	Pulte Residential Development
Project No.	PLN18-20038
Project Location:	Southeast corner of Limonite Avenue and Scholar Way (west of Cloverdale Marketplace)
Project Description:	**Minor Development Review** for a Master Home Plan consisting of 79 residential units. This tract (Tract No. 28943) was approved and finalized by the County prior to cityhood.
Planner:	Allen Lim

Notes:

- Received application on July 9, 2018. This is a recorded subdivision; application is for the review of the design of the homes only.
- Approval letter sent on August 31, 2018.
- Revised architectural plans approved October 10, 2018.
- Construction building plans approved October 30, 2018.
- Site is being graded consistent with the recorded subdivision map.
- Approved construction fence and wall plans on March 7, 2019.
- Temporary Use Permit (TUP) for sales office approved March 26, 2019.
- On-site Subdivision Flags Signage approval letter sent on March 27, 2019.
- Received revised elevations for Lot 54 on April 25, 2019 and comment provided on May 2, 2019.
- Final revised elevation for lot 54 received on May 21, 2019; approved on May 22, 2019.
- Model homes opened on March 9, 2019.

Project Map:



Current Status:

- Construction is complete.

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Sunshine Growers (MAP ID: SUN)

Project:	Sunshine Growers Nursery
Project No.	PLN18-20040
Project Location:	North of Riverside Drive; south of SR 60, east of Milliken Avenue, west of I-15; (Assessor's Parcel Number 156-030-021, -023, -030, and -031)
Project Description:	**Major and Minor Development Review** for the installation of a 20,000 square-foot greenhouse for a plant nursery for Sunshine Growers Nursery located on Riverside Dr. and Hamner Ave.
Planner:	Allen Lim

Notes:

- Applications received on July 25, 2018**,** and October 3, 2018.
- Approved by Planning Commission on October 17, 2018.
- Approval letter and development plans sent on November 5, 2018.
- Construction plans for the nursery, retail, and wall for the trash enclosure received on April 8, 2019. Comment provided on April 23, 2019.
- Waiting for submittal for installation of propane gas from applicant.
- Grading plans received April 3, 2019. Comments provided April 24, 2019.
- Landscape plans received May 15, 2019. Comments provided May 23, 2019.
- Grading plans approved June 17, 2019
- Landscape plans approved June 20, 2019
- Construction plans approved July 17, 2019

Project Map:



Current Status:

- Sunshine Growers is complete and in operation.

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3. Highlighted Text =Updated Information

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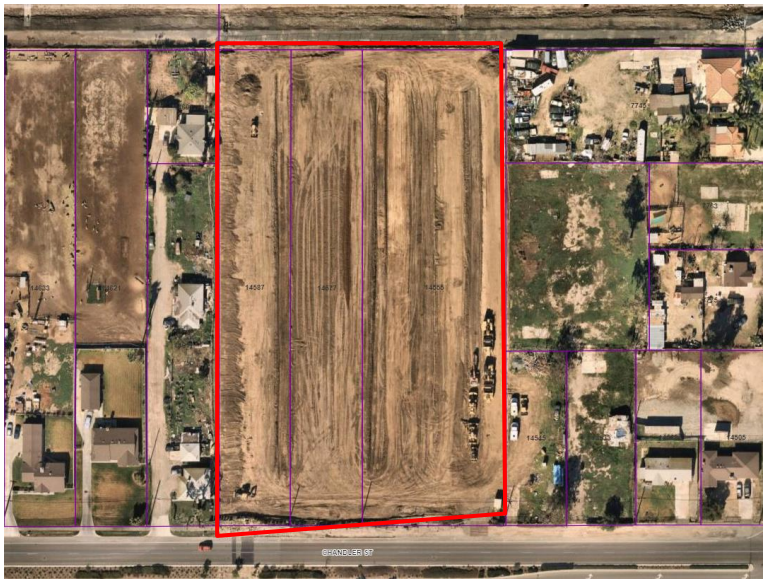
Gossett Self-Storage (MAP ID: GOSS)

Project:	Gossett Development Self-Storage Major DR, CUP, COZ, GPA
Project No.	PLN19-20047
Project Location:	14555, 14577, and 14587 Chandler Street; (Assessor's Parcel Number: 144-120-002, -003, -004)
Project Description:	**Major Development Review** for the development of 142,839 square foot self-storage facility on 3 parcels totaling 4.1 acres **Conditional Use Permit** to permit the self-storage facility **Change of Zone** from A-1 Light Agriculture to C-1/C-P General Commercial **General Plan Amendment** from Low Density Residential to Commercial Retail
Planner:	Gustavo Gonzalez

Notes:

- Received pre-application on November 6, 2019
- Pre-application was routed out for comments from other departments on November 12, 2019
- Received application for Major DR, CUP, COZ, and GPA on January 27, 2020
- Routed for comments from other departments on February 3, 2020.
- Received comments on February 17, 2020
- The Planning Commission approved the project on July 15, 2020.
- City Council approved the project on September 9,2020

Project Map:



Current Status:

- Project is complete and in operation.

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Van Leeuwen GP Amendment (MAP ID: VAN)

Project:	The Homestead
Project No.	PLN19-20021
Project Location:	West of Archibald Avenue at the westerly terminus of Limonite Avenue; (Assessor Parcel Numbers: 144-010-015, -018, -020, -023, -032)
Project Description:	**General Plan Amendment** from low density to high density and **Change of Zone** from A-2 to R-3 with a senior housing overlay and zone text amendment to create a senior housing overlay.
Planner:	Gustavo Gonzalez

Notes:

- Received application on May 30, 2019.
- Project presented to Planning Commission for consideration and recommendation to City Council on July 17, 2019. Planning Commission voted 5-0 recommending approval to City Council.
- July 17, 2019, Planning Commission recommended approval to City Council.

Project Map:



Current Status:

- Project presented to City Council for consideration on September 11, 2019. City Council voted 4-0 approving the project.

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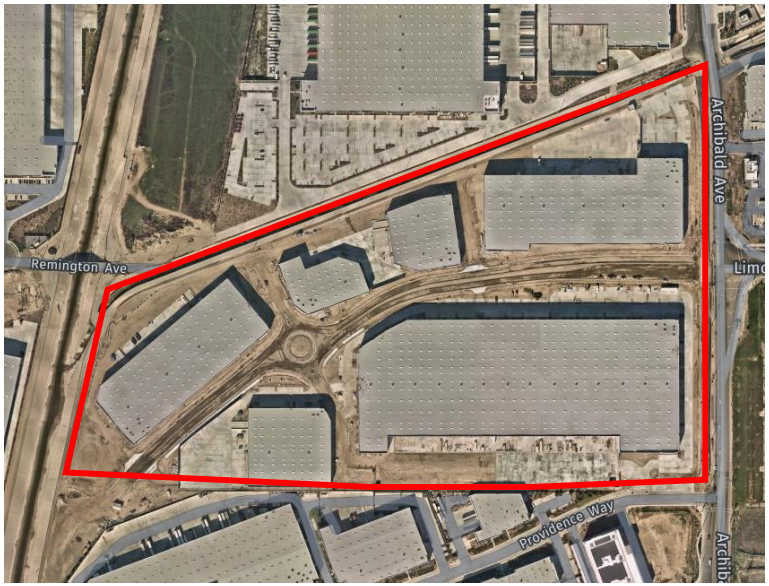
The Homestead (MAP ID: HSTD)

Project:	The Homestead
Project No.	PLN19-20026
Project Location:	West of Archibald Avenue at the westerly terminus of Limonite Avenue; (Assessor Parcel Numbers: 144-010-015, -018, -020, -023, -032)
Project Description:	▪ Major Development Review for construction of seven (7) light industrial/ warehouse buildings ▪ Change of Zone from A-2 to I-P ▪ Tentative Parcel Map for subdivision of the site into seven (7) parcels ▪ Variance from the standard landscape shading requirements.
Planner:	Gina Gibson-Williams/ Allen Lim

Notes:

- Received application on June 25, 2019.
- Submittal received July 2, 2019; routed to other departments for review.
- Request for proposal of an Environment Impact Report (EIR) sent on July 3, 2019. Proposals due on July 24, 2019.
- EIR screen check draft under review 1/8/20
- Planning Commission made a recommendation of approval for the project on March 18, 2020
- City Council approved the project on April 8th, 2020

Project Map:



Current Status

- Project is currently under construction.

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2. Projects that have been completed for more than one year are removed from this list.
3. Highlighted Text =Updated Information

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Dutch Bros Coffee DR and CUP (MAP ID: DTCH)

Project:	Dutch Bros Coffee DR and CUP
Project No.:	PLN20-20012_DR_001_CUP_002
Project Location:	Eastvale Marketplace - Northeast corner of Limonite Ave. and Sumner Ave.; (Assessor Parcel Number: 164-030-037)
Project Description:	**Major Development Review**, for the development of an 862 square foot Dutch Bros Coffee Shop with a double drive-through lane. **Conditional Use Permit,** to allow the use of a drive-through.
Project Planner:	Gustavo Gonzalez/Allen Lim

Notes:

- Received application on 2.16.21
- On 3.17.21 the Planning Commission approved the project subject to conditions of approval.

Project Map:



Current Status:

- The project is completed and in operation.

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Wabi Sabi Japanese Restaurant Alcohol CUP (MAP ID: WABI)

Project:	Wabi Sabi Japanese Restaurant Alcohol CUP
Project No.:	PLN20-20006_CUP_001
Project Location:	The Market Place at The Enclave retail center – 14268 Schleisman Road, Suite 400.; (Assessor Parcel Number: 144-860-012)
Project Description:	**Conditional Use Permit,** to allow the sale and consumption of beer and wine on-site
Project Planner:	Allen Lim/Gustavo Gonzalez

Notes:

- Received application on 1.21.21

Project Map:



Current Status:

- On 3.17.21 the Planning Commission approved the project subject to conditions of approval.

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Archibald and Chandler Retail (MAP ID: ACR)

Project:	Archibald and Chandler Retail Center
Project No.:	PLN19-20000 (PLN21-20016 CUP, PLN21-20017 CUP)
Project Location:	Northwest corner of Archibald and Chandler; (Assessor Parcel Numbers: 144-130-004, 144-130-011, 144-130-012, 144-130-013)
Project Description:	A 2.71-acre mixed use commercial development comprised of a convenience store/ gas station/ carwash, a drive-through restaurant, and an undeveloped pad to be submitted at a later date.
Project Planner:	Gustavo Gonzalez

Notes:

- Received application on January 3, 2019.
- Incompleteness letter mailed on January 17, 2019.
- Public information meeting was held at city hall on February 20, 2019.
- Comment letter sent out to applicant on February 21, 2019.
- Meeting with applicant occurred on March 14, 2019.
- Revised submittal received 2.3.21 – Routed for department review.
- On 4.21.21 the Planning Commission recommended City Council approval of the project with the exception of the gas station and off-sale beer and wine.
- On August 25, 2021, the City Council upheld the Planning Commission's recommendation and approved the project with the exception of the gas station and off-sale beer and wine.
- Second reading of the COZ was approved by the City Council on September 8, 2021.
- Awaiting submission of construction documents for review.

Project Map:



Current Status:

- Project has been revised refer to pg. 11

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Dunkin Donuts and Carwash DR and CUP (MAP ID: DUNK)

Project:	Dunkin Donuts and Carwash DR and CUP
Project No.	PLN21-20030_DR_003_CUP_007 Dunkin Donuts and PLN21-20060_DR006_CUP011 American Express Carwash
Project Location:	Northwest corner of Schleisman and Hamner Ave.; Assessor Parcel Number (APN) 152-341-017
Project Description:	**Major Development Review (DR):** For the development of a 3,400 square foot multi-tenant building where 1,600 square feet will be for a Dunkin Donuts with a drive-through and outdoor patio and where 1,800 square feet will be for a bistro with an outdoor patio. (PLN21-20030) **Major Development Review (DR)**: for the development of a 5,113 square foot car/truck wash with 18 vacuum stalls. (PLN21-20060) **Conditional Use Permit (CUP):** To allow the operation of a drive-through for the proposed coffee shop. (PLN21-20030) **Conditional Use Permit (CUP)**: To allow the operation of a drive-through for the proposed car/truck wash use. (PLN21-20060)
Planner:	Jamie K. Cerda

Notes:

- Received application on 5.26.21
- Applicant has provided updated submittal package 5.9.22
- On July 20, 2022 the Planning Commission approved project PLN21-20030 and PLN21-20060, subject to conditions of approval.

Project Map:



Current Status:

- Projects are currently under review for building permits.

1. New projects are added to the bottom of the list as they are submitted.
2. Projects that have been completed for more than one year are removed from this list.
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Future

The Leal Plan (MAP ID: LEAL)

Project:	Leal Master Plan
Project No.	Special Project
Project Location:	160 acres ± at the northwest corner of Hamner and Limonite Avenue, east of Scholar Way, and south of 58th Street.
Project Description:	This Master Plan describes the community's vision for the project area, identifies appropriate land uses, and includes the development standards that are necessary to achieve the vision, defines the character of the project's development, lists the steps involved with the development process, and provides the project's implementation plan. CEQA: EIR
Planner:	Gina Gibson-Williams

Notes:

- In September 16, 2016, the Planning Commission reviewed and recommended approval to City Council. May 2017 – City has been asked by property owner's representative to postpone action on the project while issues related to the estate of Brad Leal are resolved August 30, 2017 – City met with Leal family and prospective developer to discuss processing and timing.
- City Council Approved Master Plan and Final Environmental Impact Report on December 13, 2017.
- Adopted by City Council on December 13, 2017.
- Staff continues to coordinate with the property owners as they seek a developer(s) for the site.
- Planning Commission recommend approval to City Council on April 26, 2022
- On May 11, 2022, the City Council approved the Leal Masterplan Amendment (PLN21-20039) and related entitlements (DA, TTM 382290, DR PLN22-20020)
- On May 25, 2022, the City Council approved the second reading of the ordinances for the Leal Master Plan Amendment (PLN21-20039) and Development Agreement (PLN22-20039).
- On August 24, 2022**,** Lot Line Adjustment (2022-001) was recorded with the Assessor-County Clerk Recorder.

Project Map:



Current Status:

- Awaiting submission of construction documents for review.

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CITY OF EASTVALE

AGENDA STAFF REPORT

Planning Commission Meeting
CONSENT CALENDAR
Agenda Item No. 7.3
October 18, 2023

Public Works Department Update

Prepared By:
Jimmy Chung, Public Works Director/City Engineer

Recommended Action(s)
Staff recommends that the Planning Commission receive and file the Public Works Department update.

Summary
The Public Works Department provides monthly updates on residential and commercial development projects, encroachment permits, capital improvements projects including a grant summary.

Background
Not Applicable

Environmental
Not Applicable

Strategic Plan Action - Priority Level: N/A | Target #: N/A | Goal #: N/A
Not Applicable

Fiscal Impact
Not Applicable

Prior City Council/Commission Action

Not Applicable

Attachment(s)

Attachment 1 - PW Project Updates List
Attachment 2 - Grants Summary

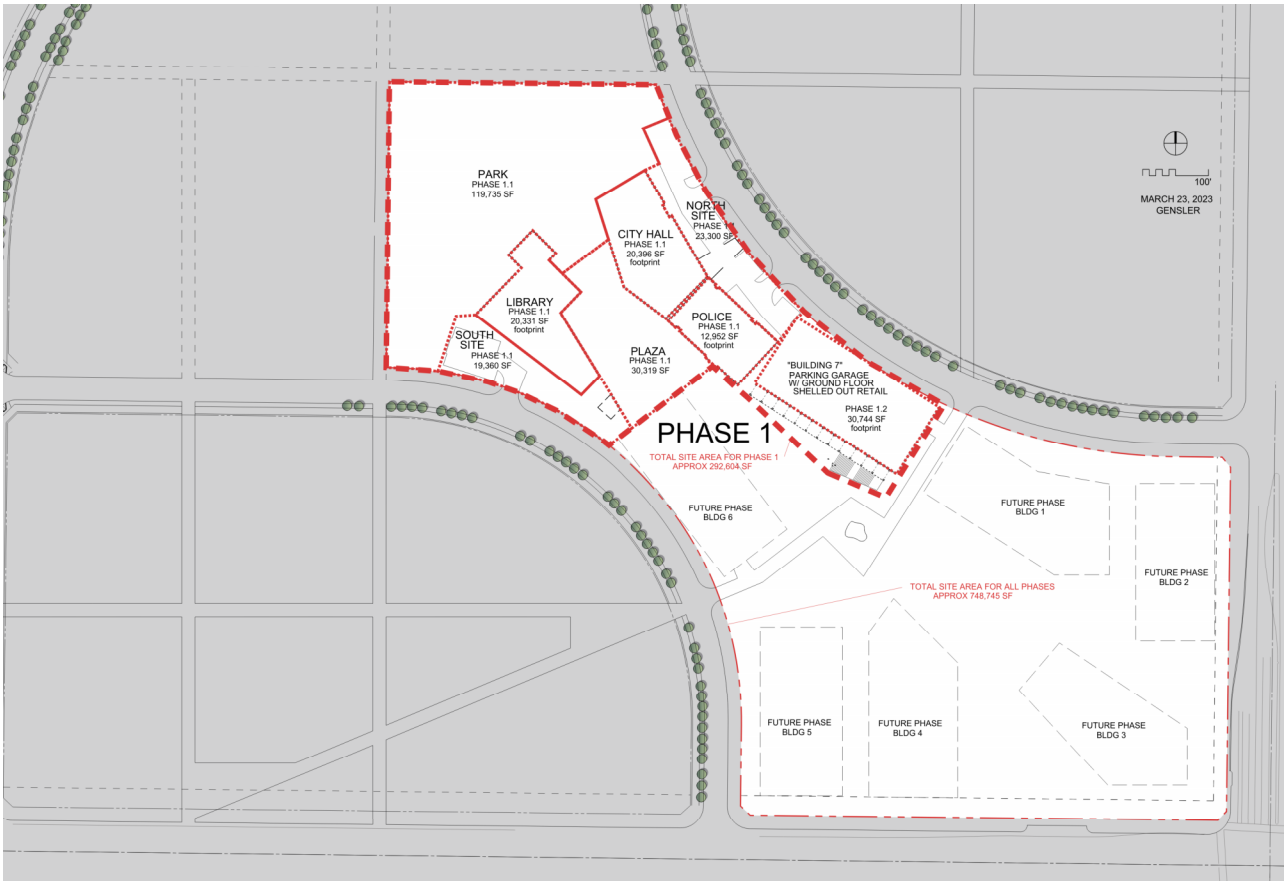
EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Capital Improvements Project
PROJECT NAME:	Civic Center Project (Phase 1)
PROJECT DESCRIPTION:	A design build project to construct a Phase 1 of the Civic Center Project, which includes approximately 50,000 square foot City Hall, a 25,000 square foot library, a police station with an associated parking garage, a park, and a civic plaza.
PROJECT STATUS:	A consultant was procured to perform architectural, engineering, and interior design on May 10, 2023.

PROJECT SCHEDULE: **Tentative milestones:**

- Start architectural, engineering, and interior design: May 11, 2023;
- Construction Document Completion (100% design): June 30, 2024;
- Start Construction: December 1, 2024;
- Complete Construction: November 30, 2026;

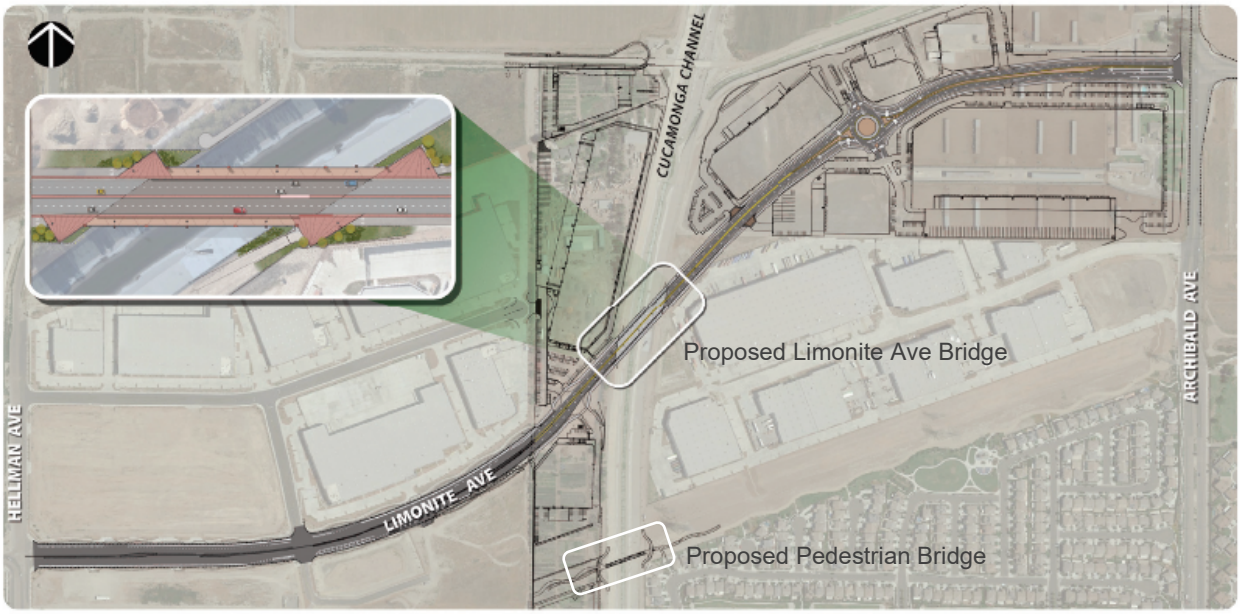
PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Capital Improvements Project
PROJECT NAME:	Limonite Gap Closure
PROJECT DESCRIPTION:	Project will connect from 2,450 LF east of Hellman Ave to Archibald Avenue. The total length of the proposed project is approximately 3,200 LF including a bridge over the Cucamonga Creek. Both road and bridge will serve 4 lanes of traffic including bicycle and pedestrian facilities.
PROJECT STATUS:	Construction Management service procured. Contraction contract was awarded to Ortiz on July 26, 2023. A notice to proceed was issued to Ortiz on August 30, 2023.
PROJECT SCHEDULE:	Construction activities began on September 5, 2023 with a construction duration of 260 working days.

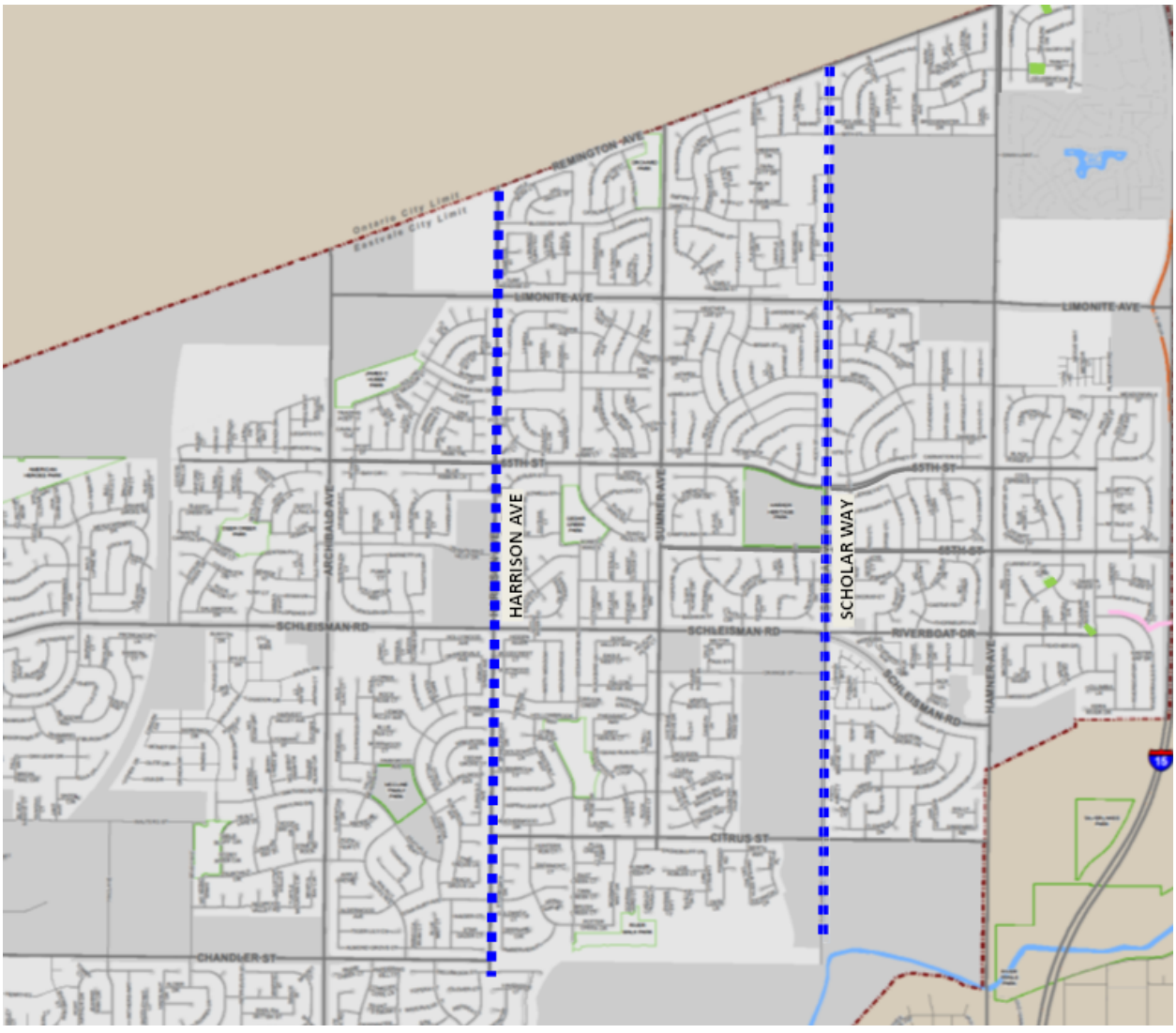
PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Capital Improvements Project
PROJECT NAME:	Improvement of Bike Network Connectivity/ATP Trails
PROJECT DESCRIPTION:	Project will design and construct nearly 5 miles of trails running along Scholar Way and Harrison Avenue. The project will provide dedicated space for people to bike and walk from north Eastvale to the Santa Ana River Trail on the south.
PROJECT STATUS:	Design contract was awarded to Mark Thomas. 30% plans and specifications have been delivered.
PROJECT SCHEDULE:	Mark Thomas is going to start Phase 2 efforts consisting of developing construction documents.

PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Capital Improvements Project
PROJECT NAME:	Local Roadway Safety Plan (LRSP)
PROJECT DESCRIPTION:	Project will identify and prioritize potential traffic safety improvements in the City as well as providing foundational information for submittal of future grant application.
PROJECT STATUS:	Consultant was procured to prepare the report. Working on the background and data collection to reflect the City's current policy and existing safety measure and most recent crash data.
PROJECT SCHEDULE:	The draft report is currently under review and it is anticipated to be taken for receive and file in October 2023.

PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT NAME:	Citywide Retroreflective Backplate on Traffic Signal Indicator
PROJECT DESCRIPTION:	Project will design and install retroreflective backplate borders along backplates of traffic signal indicators at 39 signalized intersections to improve the visibility of signals.
PROJECT STATUS:	Construction contract was awarded on January 11, 2023 Council meeting, and construction management service has been procured. Contractor is working on necessary permits and ordering materials.
PROJECT SCHEDULE:	Construction is complete. An NOC will be filed once the final inspection is completed.

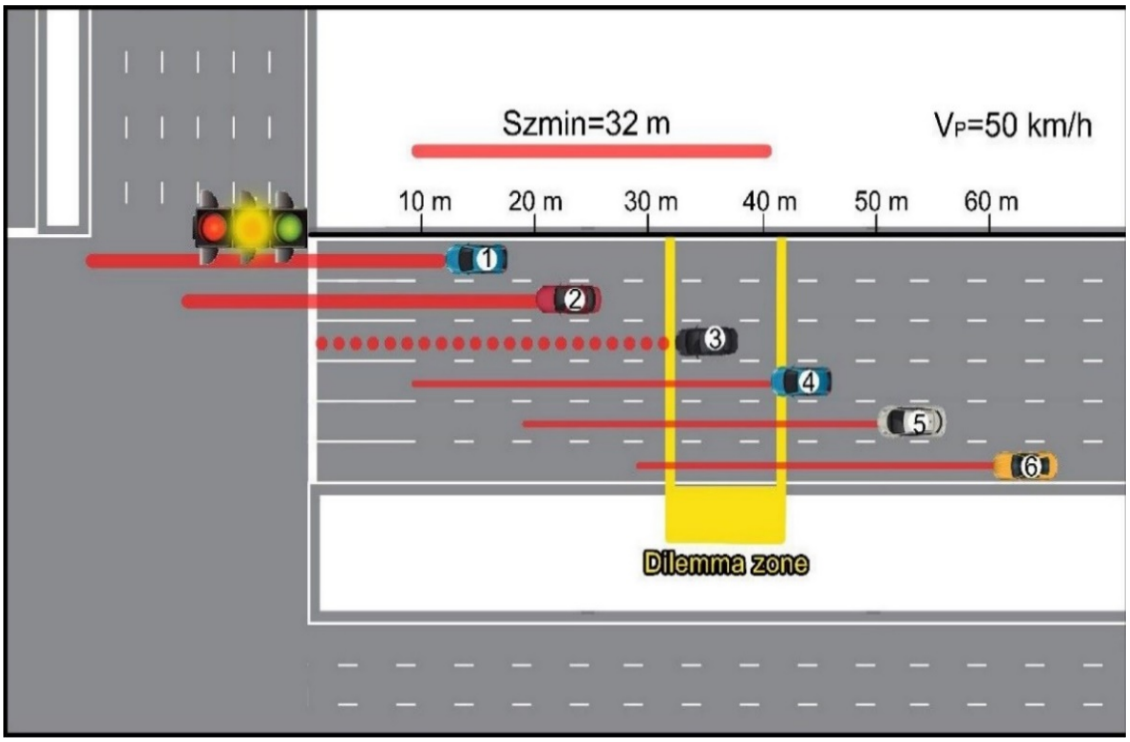
PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Capital Improvements Project
PROJECT NAME:	Traffic Signal Dilemma Zone Detection and Mitigation
PROJECT DESCRIPTION:	Project will install advanced dilemma zone detection system and associated equipment in existing traffic signal cabinets at 16 signalized intersections to modify signal timing to improve safety for motorists approaching intersections.
PROJECT STATUS:	Construction contract was awarded on September 13, 2023 Council meeting, and construction management service has been procured. The contractor is working on necessary permits and ordering materials.
PROJECT SCHEDULE:	Construction Award- September 13, 2023 The construction is estimated to commence in Q4 2023.

PROJECT MAP:



EASTVALE PUBLIC WORKS
PROJECT UPDATES

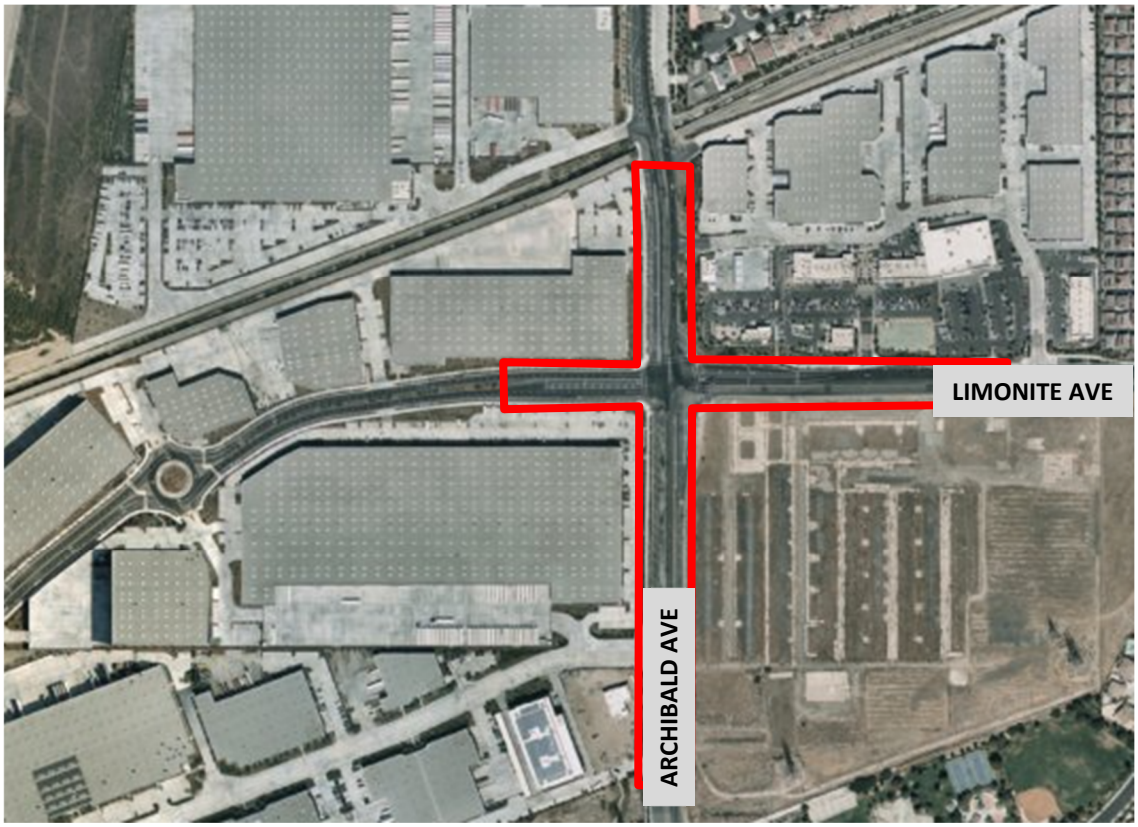
PROJECT TYPE:	Capital Improvements Project
PROJECT NAME:	ADA Transition Plan
PROJECT DESCRIPTION:	Program includes preparation and implementation of an ADA Self Evaluation Plan as required under the Americans with Disabilities Act (ADA). Future year funding will support removal of ADA barriers as identified in the Plan. Annual program to provide improvements focusing on ADA accessibility, including curb ramps and sidewalks throughout the City.
PROJECT STATUS:	Proposals are under review.



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Capital Improvements Project
PROJECT NAME:	Archibald Avenue/Limonite Avenue Widening Project
PROJECT DESCRIPTION:	Street widening and safety project for Archibald Avenue from the City of Ontario limits south of the SCE easement, including the intersection at Limonite Avenue and portions of Limonite Avenue east and west of the intersection. The project looks to improve safety and overall circulation in conjunction with the improvements associated with the Homestead and Merge developments, and Limonite Gap Project. Components of the project include, but are not limited to, coordinating with SCE to relocate SCE high-tension support structures.
PROJECT STATUS:	• Installation of new transmission poles is completed. • Existing poles were removed mid-July, allowing the Developers to start coordinating their construction schedules. • Widening and street improvements started on September 11, 2023 with an anticipated completion by end of the year .

PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Residential Development
PROJECT NAME:	Prado (TR 35751)
PROJECT LOCATION:	Southeast corner of Schleisman Road and Cucamonga Flood Channel
PROJECT DESCRIPTION:	Improvements include a development of a gated community of 243 attached and detached single-family homes on approximately 19 acres.
PROJECT STATUS:	All punch list items are complete, and the project is tentatively scheduled for the October council meeting for project acceptance.

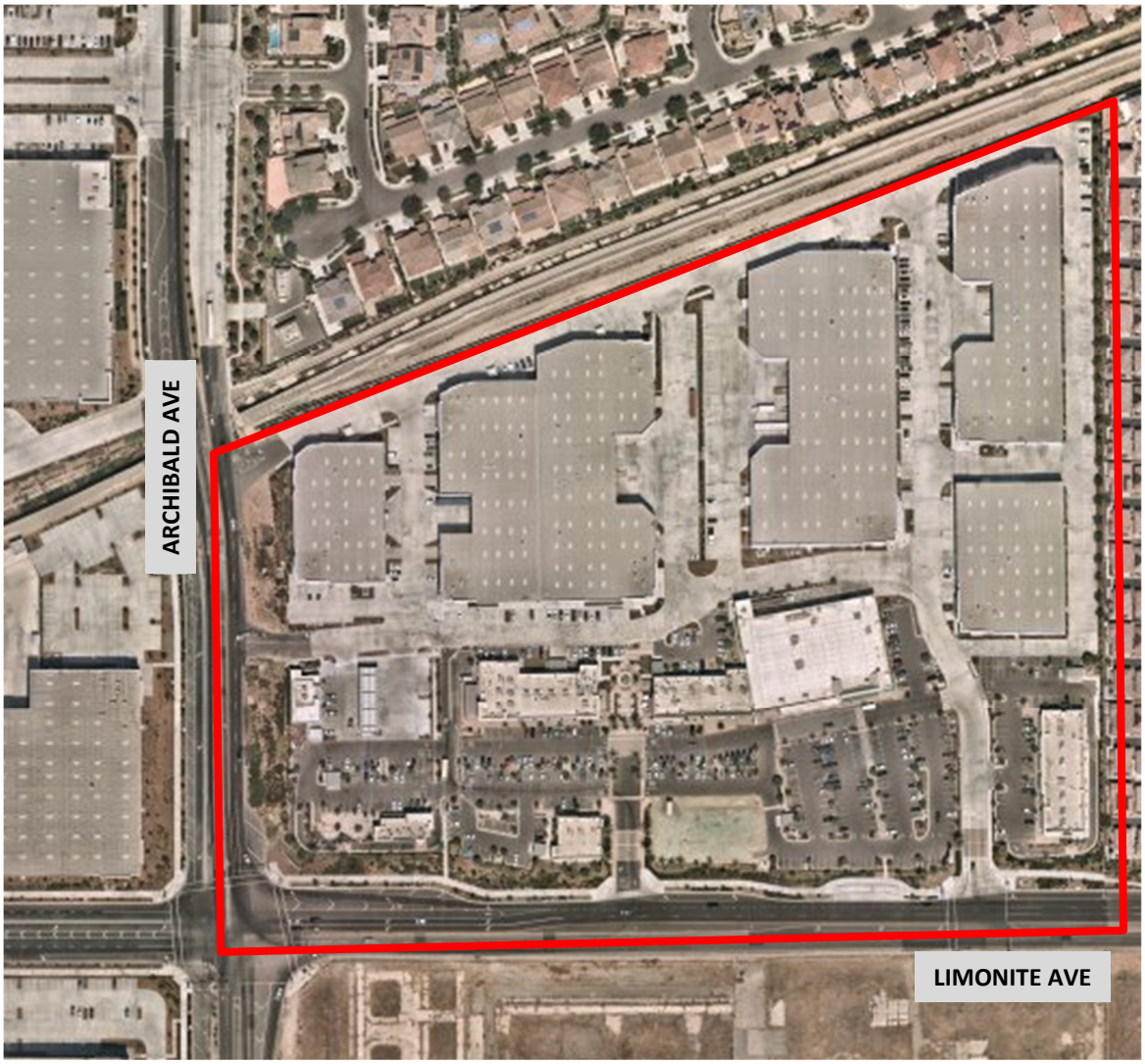
PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Commercial Development
PROJECT NAME:	The Merge
PROJECT LOCATION:	Northeast corner of Limonite Avenue and Archibald Avenue
PROJECT DESCRIPTION:	Improvements includes 26 gross acres.
PROJECT STATUS:	Onsite and offsite improvements ongoing Grading completed for Pad 2 Developer is also responsible for improvements along Archibald Avenue which are currently underway.

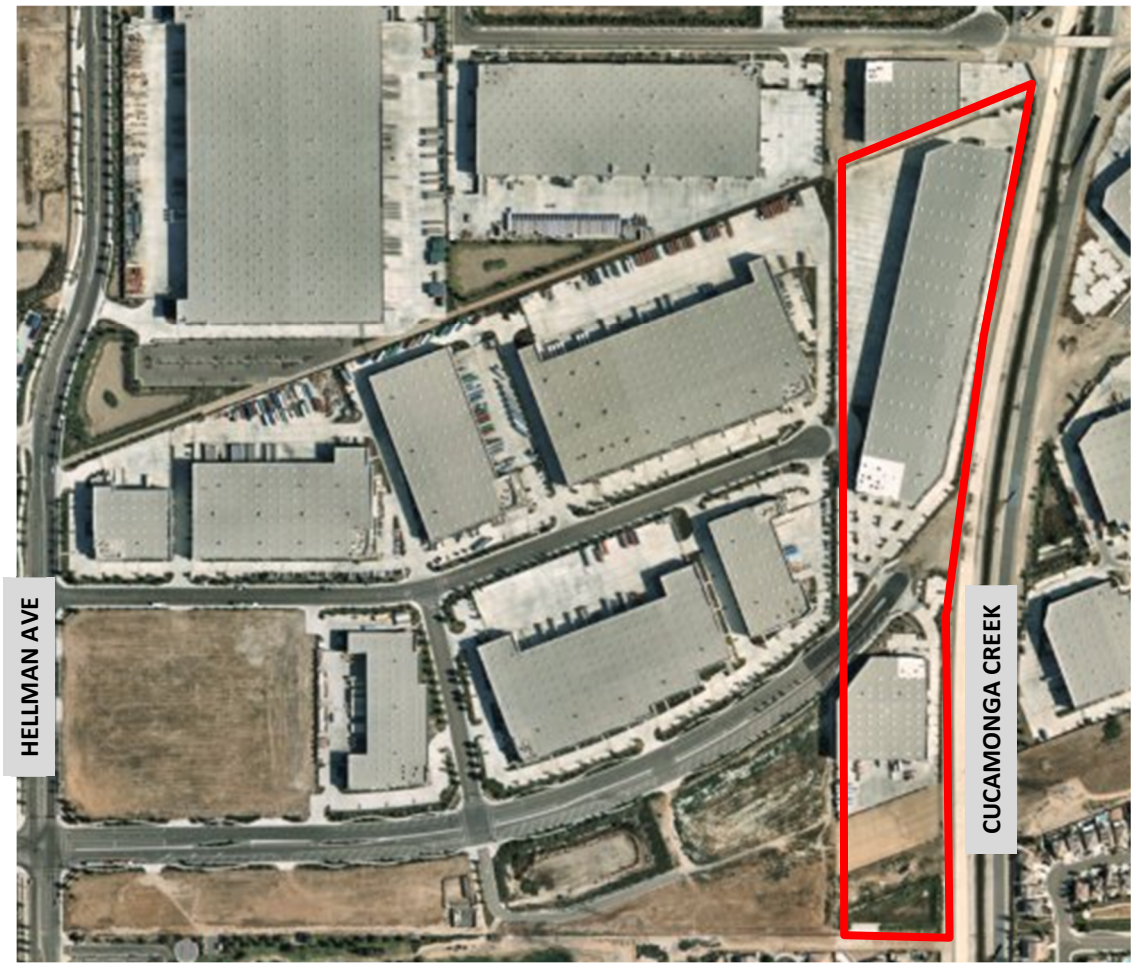
PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Commercial Development
PROJECT NAME:	The Ranch by Transwestern
PROJECT NUMBER:	PW19-11322
PROJECT LOCATION:	East end of Limonite Avenue west of the Cucamonga Creek
PROJECT DESCRIPTION:	Improvements include 20 gross acres including 2 light industrial warehouses.
PROJECT STATUS:	Onsite and offsite improvements have been completed, the City and Developer are working together to close out the project.

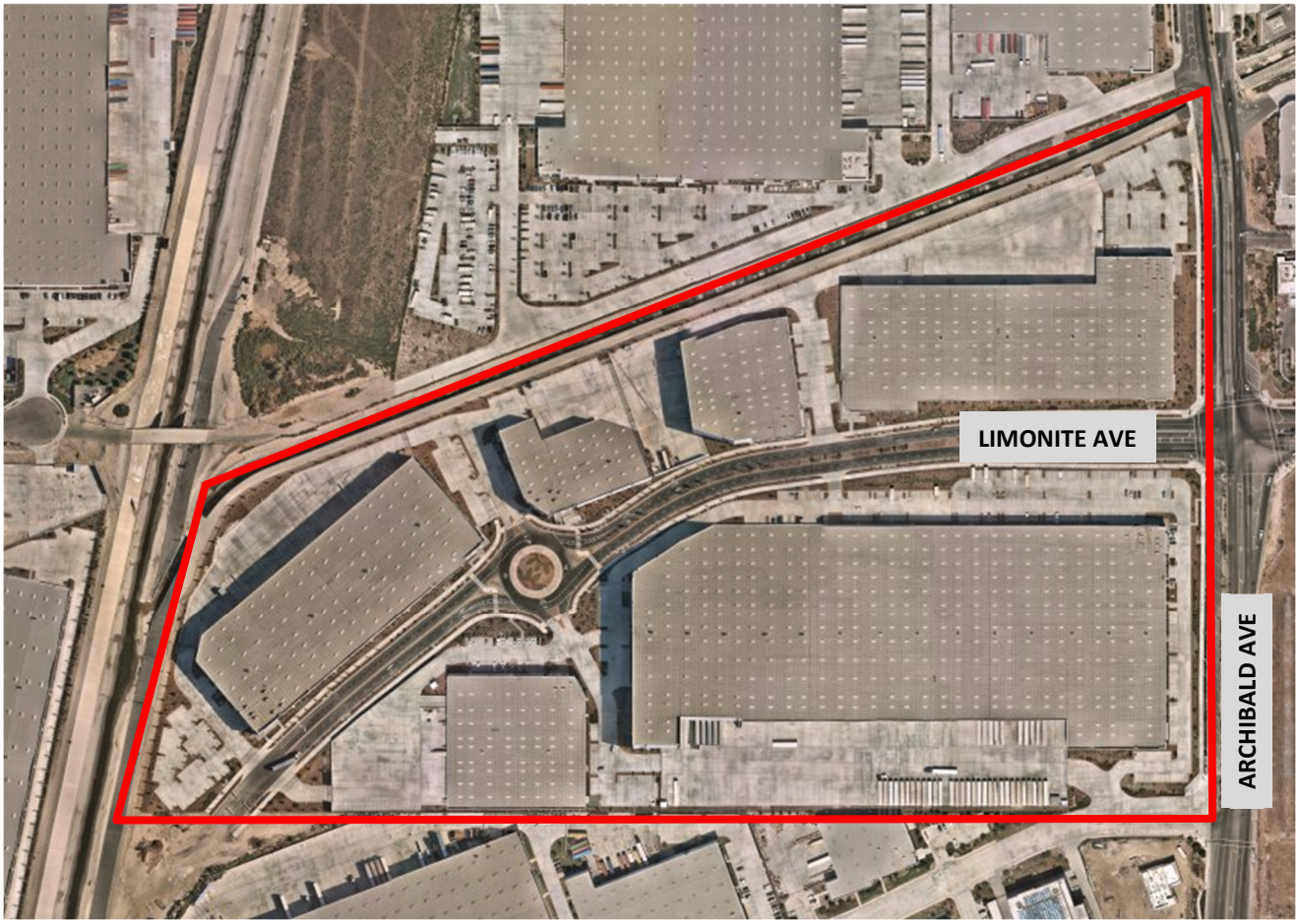
PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Commercial Development
PROJECT NAME:	Homestead
PROJECT NUMBER:	PW20-10052
PROJECT LOCATION:	Northwest corner of Limonite Avenue and Archibald Avenue
PROJECT DESCRIPTION:	Improvements include 55.86 gross acres consisting of six industrial buildings
PROJECT STATUS:	Onsite and offsite improvements ongoing Developer is also responsible for improvements along Archibald Avenue which are currently underway.

PROJECT MAP:



EASTVALE PUBLIC WORKS
PROJECT UPDATES

PROJECT TYPE:	Commercial Development
PROJECT NAME:	Vantage Point Church
PROJECT NUMBER:	PW15-1174
PROJECT LOCATION:	Northeast corner of Archibald Avenue and Prado Basin Park Road
PROJECT DESCRIPTION:	Improvements include development of an approximately 85,000 sq. ft. church which includes a sanctuary, classrooms, cafe, and a bookstore on 10.43 acres.

PROJECT STATUS:

Phase 2 is anticipated to start soon, and the improvements will include the widening of Archibald Ave. Vantage Point Church has started working with City Staff to apply for the encroachment permit.

PROJECT MAP:



EASTVALE PUBLIC WORKS
PROJECT UPDATES

PROJECT TYPE:	Commercial Development
PROJECT NAME:	Hamner Place
PROJECT NUMBER:	PW18-10712
PROJECT LOCATION:	East of Hamner Avenue and Schleisman Road
PROJECT DESCRIPTION:	Improvements include 21.48 gross acres.
PROJECT STATUS:	Onsite improvement ongoing Heroes just opened onsite, the archway has been erected Hardscape is complete for the 7/11

PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Commercial Development
PROJECT NAME:	The Ranch (Parcel 14)
PROJECT NUMBER:	PW20-10007
PROJECT LOCATION:	East of Limonite Avenue west of the Cucamonga Creek
PROJECT DESCRIPTION:	Improvements include the development of 61,000 square foot industrial building.
PROJECT STATUS:	Developer is working on utilities, as well as curb, gutter and asphalt work.

PROJECT MAP:



EASTVALE PUBLIC WORKS PROJECT UPDATES

PROJECT TYPE:	Residential Development
PROJECT NAME:	Eastwalk/ Leal
PROJECT NUMBER:	PW22-1004
PROJECT LOCATION:	Northwest corner of Limonite Avenue and Hamner Avenue
PROJECT DESCRIPTION:	158.6 acre development that will include approximately 2500 residential units as well as plans for future commercial development
PROJECT STATUS:	Mass Grading is complete for Phase 1 of the project, Contractor and City are working on getting the Rough Grading plans completed to start the next step of the project, and coordinating utility plans to start the sewer onsite .

PROJECT MAP:



PUBLIC WORKS GRANTS SUMMARY

GRANTS AWARDED

AGENCY	GRANT NAME	PROJECT NAME	GRANT AWARD	MATCH	DUE DATE	STATUS
California Transportation Commission/California Department of Transportation	ATP: Active Transportation Project Cycle 4	Improvement of Bike Network Connectivity	$ 6,471,000.00	$ 1,620,000.00		Grant request has been approved. The project is currently under design.
California Transportation Commission/California Department of Transportation	LPP: Local Partnership Program	Limonite Gap Closure Project	$ 9,475,000.00	$ -	Award construction by late 2023	Grant request has been approved. Allocation for construction funds was requested and approved.
California Department of Transportation	HSIP: Highway Safety Improvement Program Cycle 10	Advanced Dilemma Zone Detection	$ 712,800.00	$ -		CON allocation was approved. The project will be advertised for construction soon.
California Department of Transportation	HSIP: Highway Safety Improvement Program Cycle 10	Retroflective Backplate for Signals	$ 278,100.00	$ -		Construction contract was awarded in January 2023. Under Construction
California Department of Resources Recycling and Recovery	CalRecycle: Rubberized Pavement Grant TRP 13	Annual Overlay Project	$ 174,999.00	$ -	March 30, 2024	Grant request has been approved. Extension request submitted.
South Coast AQMD Mobile Source Air Pollution Reduction	SCAQMD/MSRC Contract ML18064	Electric Medium Duty Vehicle Purchase	$ 51,722.00	$ 51,722.00	April 1, 2023	Extension to be submitted based on lack on inventory.
South Coast AQMD Mobile Source Air Pollution Reduction	SCAQMD/MSRC Contract ML16040	Electric Vehicle Charging Stations	$ 12,500.00	$ 12,500.00	July 5, 2023	Under design
U.S. Department of Housing and Urban Development	Community Development Block Grant	ADA Transition Plan	$ 196,130.00	$ -	June 30, 2024	Under design
CAL FIRE	Resource Management Grant	City of Eastvale Urban Forestry Management	$ 249,925.00	$ 60,024.00	March 30, 2024	Under design
USDOT: Department of Transportation	Congressman Calvert: 2023 Transportation and Infrastructure Appropriations Bill	Limonite Gap Pedistrian Bridge	$ 1,600,000.00	$ 400,000.00		
Riverside County Transportation Commission	2023 Western Riverside County Regional Arterials	Limonite Gap Closure	$ 13,500,000.00	$ 13,500,000.00		

GRANTS IN PROGRESS

AGENCY	GRANT NAME	PROJECT NAME	GRANT AWARD	MATCH	ANNOUNCE DATE	STATUS
California State Library	Building Forward Library Infrastructure Program	Library	Up to 10M		September 2023	Application in review
California Department of Resources Recycling and Recovery	CalRecycle Rubberized Pavement (TRP) Grant Program	Annual Overlay Project	Up to $250,000		December 2023	Application in review

CITY OF EASTVALE

AGENDA STAFF REPORT

Planning Commission Meeting
PUBLIC HEARINGS
Agenda Item No. 8.1
October 18, 2023

PLN22-20087, PLN22-20088, PLN22-20089, PLN22-20090, PLN22-20091, and PLN22-20092 for Tentative Tract Map 38594 and Major Development Reviews of Phase A of the Eastwalk Development – The New Home Company

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Prepared By:

Recommended Action(s)

Staff recommends that the Planning Commission take the following actions:

1. Find the project consistent with the Addendum to the Certified Program Environmental Impact Report prepared for the Leal Master Plan, and that all impacts were adequately analyzed pursuant to applicable legal standards in the previously adopted Certified Program Environmental Impact Report and subsequent addenda, in accordance with State CEQA Guidelines Section 15162;
2. Approve Tentative Tract Map 38594 (PLN22-20087) to subdivide and develop 69.8 acres of undeveloped property into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes, subject to the recommended conditions of approval;
3. Approve PLN22-20088 a Major Development Review for the overall site planning, master landscaping, streetscape design, and open space amenities of Phase A of The New Home Company master development project, subject to the recommended conditions of approval;
4. Approve PLN22-20089 a Major Development Review for the master site planning and architecture of Planning Area 1 (PA 1) of the Leal Master Plan to accommodate a proposed 168-unit condominium and townhome residential community, with associated pool/recreational facility, parking areas, landscaping, and open space amenities, subject to the

recommended conditions of approval;

5. Approve PLN22-20090 a Major Development Review for the master site planning and architecture of Planning Area 6 (PA 6) of the Leal Master Plan to accommodate a proposed 100-unit, attached single family residential community with associated parking areas and landscaping, subject to recommended conditions of approval;
6. Approve PLN22-20091 a Major Development Review for the master site planning and architecture of Planning Area 7A (PA 7A) of the Leal Master Plan to accommodate a proposed 94-unit, detached single family residential community with associated parking areas, landscaping, and open space amenities, subject to the recommended conditions of approval; and,
7. Approve PLN22-20092 a Major Development Review for the master site planning and architecture of Planning Area 8 (PA 8) of the Leal Master Plan to accommodate a proposed 76-unit, attached single family residential community with associated parking areas, landscaping, and open space amenities, subject to the recommended conditions of approval.

Summary

The applicant (The New Home Company) is requesting approval of an application for Tentative Tract Map 38594 to subdivide and develop 69.8 acres of undeveloped property located at the northwest corner of Limonite and Hamner Avenues into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes. In addition to Tentative Tract Map 38594, the applicant is requesting approval a total of five (5) Major Development Reviews (MDR) applications. The MDRs consist of overall site planning, landscaping, and open space amenities within Phase A of The New Home Company development project along with the site planning, architecture, landscaping, open space/recreation amenities, and parking of four (4) proposed residential communities within Phase A. These communities are identified as Planning Area 1 (PA 1), Planning Area 6 (PA 6), Planning Area 7A (PA 7A), and Planning Area 8 (PA 8), collectively known as Eastwalk. The remainder of the Planning Areas within Tentative Tract Map 38594 will be processed under separate Major Development Reviews at a future date. The requests are consistent with the General Plan, Leal Master Plan, applicable Zoning Code regulations, Subdivision Map Act, and required findings.

Background

Since the adoption of the city's first General Plan in 2012, the 158.6 acre former dairy and agricultural site located north of Limonite Avenue, south of 58th Street, west of Hamner Avenue, and east of Scholar Avenue (Assessor Parcel Nos. 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013) commonly referred to as "The Leal Property," has been identified as the centerpiece of Eastvale's future downtown, encouraging a mix of uses including retail, residential, civic, and recreation/entertainment.

Beginning in 2013, City Council initiated a long-range planning process for the property culminating in the adoption of the Leal Master Plan in 2017. On May 11, 2022, an amendment to the Leal Master Plan (LMP) was approved by City Council to refine land use and zoning designations, establish a project-wide land use, circulation, and infrastructure plan, determine project-wide development standards, design guidelines, and site characteristics. The LMP amendment allowed a maximum of 2,500 residential units and up to 595,000 square feet of commercial development. In addition, City Council approved a Development Agreement (DA) between the City and The New

Home Company (TNHC) designating a 16-acre area to develop under a future Option Agreement (OA) for the development of a city hall building, outdoor amphitheater, civic park, police station, public library, hotel, office uses, and a variety of restaurants and retail uses totaling 495,000 square feet, inclusive of the total commercial development allowed by the LMP amendment. To initiate development on the site, the City Council also approved Tentative Tract Map 38290 for the creation of 14 buildable lots, 19 lots for infrastructure purposes, trails, and open space, as well as a Major Development Review (MDR) to facilitate the development of the LMP.

The applicant is requesting to further subdivide 69.8 acres (Phase A) of Tentative Tract Map 38290 to create 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes (B map). Accompanying the request to further subdivide, the applicant requests MDRs of the Eastwalk residential communities PA 1, PA 6, PA 7A, PA 8 along with the overall site and landscape design of the public spaces within Phase A of Eastwalk.

Pursuant to Section 120.02.010 of the Eastvale Zoning Code, MDR approval by the Planning Commission is required for residential subdivision developments. It should be noted Tentative Tract Map 38594 also includes lots for civic, commercial, and multi-family residential purposes. Development on these lots will require separate entitlements to be reviewed and approved by the Planning Commission at a later date.

On September 20, 2023, the Planning Commission at their regularly scheduled meeting, opened the public hearing for the subject project, received public comment from Atul Singh Deora via an email, and continued the public hearing until the October 18, 2023, Planning Commission meeting to allow the applicant additional time to work through proposed conditions of approval.

Location

The overall Leal Master Plan site is located north of Limonite Avenue, south of 58th Street, west of Hamner Avenue, and east of Scholar Avenue (Assessor Parcel Nos. 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013). More specifically, Phase A of Eastwalk is located within PA 1, PA 2, PA 3, PA5, PA 6, PA 7A, PA 8, PA J, PA M, PA N, PA P, PA Q) of the Leal Master Plan. The project site is shown on **Sheet 1 of Attachment 1**.

Analysis

General Plan and Zoning Consistency

The subject property is classified as Leal Policy Area in the Land Use Element of the Eastvale General Plan. The LMP Amendment approved in 2022 provided the next stage in refinement of the development plan and thus refined the proposed land use mix, intensities and established the zoning for the site. The LMP Amendment includes two residential land use categories, Medium-Density and High-Density. The two residential land use types include density ranges provided in dwelling units per acre and a general description of the type of residential projects associated with each residential category. The LMP Amendment distinguishes between the two residential densities by location.

The High-density Residential is located within the Downtown area (PA 2 and PA 4) and consists of either vertical or horizontal mixed use, and primarily consisting of apartments. A maximum of 700 dwelling units are planned within the approximate 21 residential acres of downtown equating to a density of approximately 31 dwelling units per acre consistent with the High-Density residential

category (22-40 dwelling units per acre).

The remaining 1,800 dwelling units allowed on the project site would occur over approximately 87.54 acres and is intended for development of single-family detached, attached, condominiums and townhomes. This represents a density of approximately 21 dwelling units per acre, which is within the Medium-Density Residential Land Use Category of the Leal Master Plan Amendment (14-21 dwelling units per acre). Within the 87.54 acres of residential uses (Planning Areas 1, 6, 7, 8, 9, 11, 12, 13, K and L) dwelling units may be allocated within one or more planning areas provided the net density of any individual project does not exceed 40 dwelling units per acre.

The density and product type of each planning area reviewed as part of this request (PA 1, PA 6, PA 7A, PA 8) will be discussed in greater detail in their respective sections of this report but can be found summarized in the table below and in accordance with the General Plan.

Table 1: Proposed Densities

Density		
Planning Area	**Units per acre**	**Product Type**
Planning Area 1	28 (168 ÷ 5.98 = 28)	Townhomes/condominiums
Planning Area 6	17.8 (100 ÷ 5 .62 = 17.8)	Single-Family Attached
Planning Area 7A	17.2 (94 ÷ 5.46 = 17.2)	Single-Family Detached
Planning Area 8	19.3 (76 ÷ 3.93 = 19.3)	Single-Family Attached

Further, the subject property was identified in the 6th Cycle 2021-2029 Housing Element and Implementation Programs, certified on June 21, 2022, by the State Department of Housing and Community Development (HCD), as a site to support Regional Housing Needs Assessment (RHNA) housing growth targets. The Housing Element allocated 2,500 units on the subject property and were assumed to include both single-family detached and attached, and multiple-family residential housing to promote diverse and dynamic neighborhoods. The residential product types were designed to range from Medium Density (14-21 units per acre) to High Density (20-40 units per acre). Therefore, the proposed project is consistent with the General Plan.

Tentative Tract Map 38594 (PLN22-20087)

Municipal Code requirements pertaining to subdivisions (Tract Maps and/or Parcel Maps) are governed by the Subdivision Map Act (State of California Government Code § 66410-66499.58), and Title 130 (Subdivisions) of the Eastvale Municipal Code. Furthermore, all subdivision maps shall comply with the provisions of the City Zoning Code, and all other ordinances, statues and laws pertaining to the use, sale, leasing, or subdivision of land.

Tentative Tract Map 38594 proposes to further subdivide 69.8 acres of Tentative Tract Map 38290 into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes. The sizes of the proposed lots are shown in the table below.

Table 2: Land Use Summary

LAND USE SUMMARY			
Lot No.	**Land Use**	**S.F.**	**Acres**
1 - 62	RESIDENTIAL	1,355,152	31.19
63 - 65	COMMERCIAL/CIVIC CENTER	708,268	16.26
A - C, E - G, N - S	OPEN SPACE	276,736	6.33
D, H - I	STREET DEDICATION	235,660	5.40
J - M	STREET	464,350	10.66
TOTAL		**3,040,184**	**69.84**

Individual unit ownership within a condominium is construed as ownership of only the interior air space confining the boundaries of the dwelling. Each unit owner within a condominium development also owns a divided interest in any common areas within the community. Each unit owner also is represented as a member of a Homeowners' Association (HOA) with responsibility for maintaining common areas, as well as other community assets, such as the exterior portions of buildings, site lighting and parking lots, swimming pool, clubhouse, and other amenities. Conditions of approval have been included to ensure that the appropriate covenants, conditions, and restrictions (CC&Rs) are in place, including the formation of an HOA.

Major Development Review (MDR)

To safeguard and enhance the appearance and quality of development in Eastvale, Section 120.02.010 of the Eastvale Zoning Code requires MDR approval for any new single-family residential subdivision (more than five lots) and any new multifamily residential building or structure with twenty or more units. This scope of review is outline in the aforementioned code section, and includes, but is not limited to, exterior design, materials, textures, colors, as well as ensuring the proposed structures will property related to the site and to the surrounding site in order to prevent structures detrimental to the character of the buildings already established in the area.

Additionally, the LMP Amendment (Chapter 2 - Project Character) identifies required development standards and key architectural and site design elements that should be considered in all residential areas within the LMP community. These requirements and guidelines are intended to establish a diversified, yet cohesive level of quality in home design that reflects the character of the surrounding environment while allowing for flexibility in design. Pursuant to Section 120.02.010 of the Eastvale Zoning Code, the applicant is requesting approval of the site planning and architectural design of four residential Planning Areas (PA 1, PA 6, PA 7A, PA 8, PA M, PA, N, PA, P, and PA Q) along with the site planning and landscape design of the public spaces within Phase A of the Eastwalk community.

Staff has reviewed the proposed project for compliance with the applicable development standards and required findings for a Major Development Review as set forth in Section 120.02.010 (C)(6) of the Eastvale Zoning Code as well as the LMP Amendment. As proposed, the project complies with both of these regulating documents.

Overall Phase 1 Major Development Plan Review (PLN22-20088)

Street Cross Sections

Backbone Streets – The proposed street cross sections for the "backbone" streets (Streets A, B, and C) show a curb-to-curb distance of 36 feet. This allows for one travel lane in each direction and on-street parking where allowed. The cross section also includes 20 feet of right-of-way on both sides of the street between the curb and the private property line. These areas are proposed to include substantial curb-adjacent parkways, wide sidewalks, and property line adjacent landscaping, in addition to an 11-foot-wide dual-purpose trail that will be delineated to separate bicycles from pedestrians. In general, staff is supportive of the proposed cross sections as they are consistent with the LMP and provide sufficient amenities to comfortably accommodate all mobility modes.

Limonite Avenue – The proposed cross section for Limonite Avenue shows a 30-foot right-of-way dedicated along the entire frontage, providing 96 feet of right-of-way from centerline. This would accommodate three vehicular travel lanes, substantial landscape buffers, a two-way protected class-1 bicycle trail, and a 30-foot-wide pedestrian zone with a 10-foot-wide meandering trail. In general, staff is supportive of the proposed cross section as it is consistent with the LMP and provide sufficient amenities to comfortably accommodate all mobility modes.

Hamner Avenue – The proposed cross section for Hamner Avenue shows a 20-foot right-of-way dedicated along the entire frontage, providing 87 feet of right-of-way from centerline. This would accommodate three vehicular travel lanes, substantial landscape buffers, a two-way protected class-1 bicycle trail, and a 20-foot-wide pedestrian zone with a 10-foot-wide meandering trail. Similar to Limonite Avenue, staff is supportive of the proposed cross section as it is consistent with the LMP and provide sufficient amenities to comfortably accommodate all mobility modes.

Scholar Way – The proposed cross section for Scholar Way shows a 10-foot right-of-way dedicated along the entire frontage, providing 54 feet of right-of-way from centerline. This would accommodate one vehicular travel lane, substantial landscape buffers, a two-way protected class-1 bicycle trail, and a 10-foot-wide meandering walkway. To improve pedestrian mobility along Scholar Way, staff is recommending the addition of a decomposed granite (DG) trail adjacent to the walkway separate by landscaping. A condition of approval has been added to reflect this recommendation. With this proposed condition, staff is supportive of the proposed cross section as it is consistent with the LMP and provide sufficient amenities to comfortably accommodate all mobility modes.

Landscaping

The applicant is providing over 20 species of trees and over 75 species of shrubs and groundcover. Based on the proposed spacing and tree species, the landscape plan includes tree plantings of sufficient spacing and type on both sides of walkways and trails to maximize shading for pedestrians. The plan also shows entryways and street intersections emphasis with larger trees and accent shrubs and groundcover to create focal points. In addition, the open space areas throughout Phase A includes enhanced landscaping and recreational area with sod to support active and passive recreational uses. Overall, staff is supportive of the proposed landscape plan.

Open Space and Amenities

As part of Phase A, the applicant is proposing a trails and open space network that will set the tone for Phase B and C (**Attachment 4 – Community Identity**). As described above, 11-foot-wide community trails are proposed along the backbone streets (Streets A, B and C) as well as the Limonite and Hamner Avenues. Scholar will also receive a 10-foot-wide walkway with a four-foot-wide DG trail as conditioned. All major existing streets will also provide a class-1 bicycle trail. Finally, all street intersections will include enhanced paving at entries and crosswalks within the right-of-way.

A 1.1-acre park is proposed at the southeast corner of Scholar Way and Limonite Avenue that will include 13,770 square feet of hardscaping and 34,730 square feet of landscaping. Amenities proposed within the proposed park include open turf areas, bench seating areas, landscape mounds, basketball court, pump track, meandering walkways, dog park, and numerous shade trees throughout. A small pocket park is proposed within the 50-foot-wide Southern California Edison (SCE) easement along Scholar Way that includes a small, decomposed granite pad with benches. In addition, bicycle racks, trash cans, benches, light bollards, pedestrian streetlights, and dog waste receptacles will be placed through Phase A to serve residents. Staff is supportive of the proposed open space and amenities package.

Signage

The overall signage plans show a primary neighborhood identification monument sign at Scholar Way and "B" Street and a secondary monument sign at Limonite Avenue and "C" Street. Several trail and paseo signs are also proposed throughout Phase A. No other signs are currently proposed. These signs will include sign copies that read "Eastwalk" to identify the branding of the residential neighborhoods in Phase A. It should be noted that signage near the civic center and downtown parcel will be proposed as part of the future development of that site and will have different branding than "Eastwalk". Overall, staff is supportive of the proposed signage.

Planning Area 1 Major Development Plan Review (PLN22-20089)

The applicant is requesting approval of an MDR application for the architectural design and site planning of a 168-unit attached townhome and condominium residential community within Planning Area 1 (PA 1) of the amended LMP. PA-1 encompasses Lots 1-20 and Lot N of Tentative Tract Map 38594 under PLN22-20087. PA 1 consists of 5.98 acres subdivided for condominium purposes with a proposed residential density of 28 dwelling units per acre, consistent with the General Plan and LMP amendment. The project site is shown on **Sheet SP-1 of Attachment 5**.

Architecture and Treatments

As depicted on the site plan, the project includes eight (8) three-story 10-plex townhomes and eight (8) three-story 11-plex condominiums for a total of 168 units and 16 buildings. All buildings adjacent to Scholar Way, 'A' Road, and 'B' Road are plotted in a manner to front onto their respective street providing direct views of the street creating an enhanced sense of security and a richness to the street environment.

The applicant is proposing four (4) architectural styles in PA 1: Transitional Craftsman, Transitional Mediterranean, Vineyard, and Mediterranean with a total of six (6) different color schemes

(**Attachment 5**).

Transitional Craftsman – The Transitional Craftsman architectural style incorporates such elements as low-pitched roofs, projecting eaves with rafter tails, clapboards, expansive porches, decorative braces underneath gables, and rectangular windows with simple window break-ups. Surfaces are finished with earth tone colors.

Transitional Mediterranean – This architectural style incorporates such elements as low-pitched hipped roofs with "S" or barrel tile, simplified forms and massing with stucco wall finishes and minimum horizontal siding, covered porches and/or decks, and large windows. Surfaces are finished with light to medium light warm colors with muted blues, greens, rust, and burgundy accents.

Vineyard – This architectural style is earthy and horizontal in nature based on farmhouse shapes and materials reflective of the agricultural past incorporating such elements as, gable roof pitches of flat concrete title or shake/raked texture, full window trim, board and batten, horizontal and stone siding.

Mediterranean – The Mediterranean architectural style is an old-world traditional style adapted to Southern California climate with shallow pitch hipped roofs with gable accents, full window trim, simple, rectangular forms, with decorative metal gate balcony elements. Exterior wall surfaces are finished with toned whites and light to medium light warm colors and vibrant shades of blues, greens, orange, and reds for accents.

Overall, staff believes all four (4) architectural styles are attractive and meet the minimum standard of design as set by the LMP.

Unit Size per Product Type

The applicant proposes product types as described in the following tables:

Table 3: 10-Plex Product

PLAN	LIVING AREA SQUARE FOOTAGE	NO. OF STORIES	NO. OF BEDROOMS	NO. OF BATHROOMS	GARAGE PARKING	Number within Project
PLAN 1A	1,398	3	2	2.5	2 (tandem)	24
PLAN 1B	1,398	3	2	2.5	2 (tandem)	8
PLAN 2A	1,579	3	2-3	2.5	2	8
PLAN 2B	1,652	3	2-3	2.5	2	8
PLAN 3A	1,708	3	3	3.5	2	24
PLAN 3B	1,708	3	3	3.5	2	8

Table 4: 11-Plex Product

PLAN	LIVING AREA SQUARE FOOTAGE	NO. OF STORIES	NO. OF BEDROOMS	NO. OF BATHROOMS	GARAGE PARKING	Number within Project
PLAN 1	772	1	1	1	2 (Tandem)	16
PLAN 2	956	1	2	2	2 (Tandem)	16
PLAN 2R	956	1	2	2	2 (Tandem)	16
PLAN 3 (Accessible*)	1,282	1	2	2	2	8
PLAN 4	1,459	1	3	2	2	16
PLAN 5	1,613	1	3	2	2 (Tandem)	16

* Plan 3 will be accessible where required, per Chapter 11A of the 2019 C.B.C

Staff believes that with the inclusion of different façade applications, the proposed mix of product types is sufficiently varied to ensure architectural variety and interest along the street. Staff has added a condition of approval requiring a varied mix of styles and colors throughout the development to ensure architectural diversity.

Open Space and Community Recreation

A community pool facility with single-story pool restroom building and equipment room is also proposed. The proposed pool building exhibits the transitional Mediterranean architectural style with trellis features serving as accents. The overall facility includes a family pool, spa, built-in barbecue and a number of seating options to serve the residents. The minimum open space requirements are analyzed in the overall Phase 1 MDR section above.

Parking

Each proposed dwelling unit is proposed to include a two-car garage (two-bay or tandem) providing a total of 336 covered parking spaces (168 x 2 = 336). Additionally, a total of 63 spaces of open guest parking would be provided within parking bays distributed throughout the project site, and an additional 52 spaces on Lot B and Lot C, adjacent to Scholar Way and within the Southern California Edison (SCE) easement for a total of 451 parking spaces provided for the PA-1 site. Condition No. 6 and 7 of the Leal Master Plan Major Development Review approved in May 2022 (PLN22-20020) requires the applicant to provide a site-specific parking study and parking management plan to demonstrate how the proposed development can adequately accommodate its parking demand and how parking will be continually managed to ensure parking issues do not occur as a result of the development. (**Attachment 9**).

In the Leal Master Plan Residential Parking Review and Parking Management Plan (PMP) memorandum prepared by RK Engineering Group, Inc dated September 13, 2023, the parking rates of 38 comparable cities in the Inland Empire were utilized to determine parking rates based on the residential dwelling unit type. From this, the 85th percentile parking requirements were utilized from all cities surveyed. The 85th percentile parking ratio is identified by the Institute of Transportation engineers (ITE) Parking Generation Manual publication as an acceptable and common methodology when combining parking ratios from multiple sources and represents a conservative calculation.

As reflected in Table 4 below, the 85th percentile parking ratios calls for higher parking ratios than the parking requirements of the City of Eastvale. In the past, City Council has stressed the importance of ample parking to ensure parking issues do not occur as a result of the development, as such staff recommends utilizing the 85th percentile parking ratios to establish the required parking rates for the residential build out of the LMP to ensure adequate parking is provided.

Environmental

***Background Continued:**

Table 5: PA-1 Parking Summary

DWELLING UNIT TYPE	EASTVALE PARKING RATE	TOTAL PARKING REQUIRED	85TH PERCENTILE (RECOMMENDED) PARKING RATE	TOTAL RECOMMENDED PARKING	TOTAL PARKING PROVIDED
1-Bedroom	1.25	20	2.36	38	41
2-Bedroom	2.25	162	2.36	170	175
3-Bedroom	2.75	220	2.90	232	235
Total	n/a	**402**	n/a	**440**	**451**

To further ensure sufficient parking is provided and maintained, the applicant has prepared a robust parking management plan. The parking management plan requires homeowners to preserve availability of garage parking spaces for the parking of operable vehicles only, since alternative garage uses, such as storage of personal goods, could potentially lower the ability of the project to adequately meet parking demand. Therefore, through the Covenants Conditions and Restrictions (CC&Rs), the use of dedicated covered resident parking for personal storage or any use other than for the parking of motor vehicles will be prohibited and the HOA will adopt and administer a parking inspection program to ensure resident garages are free and clear of obstructions and available for resident parking.

Additionally, residents will be required to register their authorized vehicles with the HOA management company. Residents will be provided with a resident parking permit to be affixed to the vehicle's window or displayed from the rear-view mirror. Parking permits will be vehicle and property address specific and be renewed annually. Residents will not be permitted to park in guest parking spaces; however, are permitted to park in the private recreation/park parking area along "A" Street and public streets during the daytime hours of 6:00 a.m. to 10:00 p.m. with a valid parking permit. Any resident found parking in a guest parking space at any time, or in the private recreation/park parking along "A" Street area, or on public streets during nighttime hours (10:00 p.m. to 6:00 a.m.) is subject to citation and/or towing.

The parking management plan further specifies parking in guest parking areas is not permitted without the authorized vehicle being registered on the "Safelist" and the vehicle displaying a valid parking pass. To register an authorized vehicle on the "Safelist", a resident must contact the HOA management company and provide the vehicle make, model, color, and license plate number of the guest vehicle. The management company will provide the resident with a temporary parking pass to be displayed on the dashboard of the guest vehicle. Residents will be permitted to "Safelist" an authorized vehicle a maximum of ten (10) times (days) per calendar month. An authorized guest vehicle may park overnight in a guest parking space, according to the term of the temporary parking

pass, and in Lot B and Lot C with a valid parking pass.

It should be noted, residential collector streets "A", "B", and "C" as well as private recreation/park parking areas will be marked for no overnight parking (10:00 p.m. to 6:00 a.m.) by any vehicle, including authorized guest vehicles and residents, and violators will be subject to citation and/or towing.

Additionally, patrols hired by the HOA will occur at random days and times overnight in marked patrol vehicles. The officers will verify permits, check for violations, and issue citations or call for the towing of the vehicle. Staff has included a condition of approval to require that a final version of the parking management plan be reviewed and approved by the Community Development Director, prior to occupancy of the first residential unit.

Finally, the City Traffic Engineer and Riverside County Fire Department have reviewed the site plan and neither party found hazardous design features or other on-site circulation constraints proposed.

Landscape and Wall Plan
The preliminary landscape plan depicts PA-1 unenclosed as a whole. A six foot (6') high block wall and six foot (6') high tubular steel fence enclosing the community pool and common open space area in the center of the site is proposed pursuant to the requirements of the California Building Code. Further, along "B" Street, the applicant proposes to construct a two-foot (2') precision block retaining wall with two-inch (2") cap in front of Building 1 and Building 16 to address the minor grade difference between the public right-of-way and PA-1.

In terms of landscaping, the applicant proposes to heavily landscape the site with a variety of both accent and screen trees, shrubs and hedges, and groundcovers. The planting legend references *Holly Oak, Australian Willow, Desert Museum Palo Verde, Purple-Leaf Baily Acaci* among others. All landscaping within the project is proposed to be constantly maintained by an HOA to ensure long-term viability.

In general, staff believes that the proposed preliminary landscape plan is satisfactory and consistent with the vision identified in LMP. Standard conditions have been included requiring the applicant to submit a final landscape and irrigation plan to the City Landscape Architect for review and approval.

<u>Planning Area 6 Major Development Plan Review (PLN22-20090)</u>

The applicant is requesting an MDR application for the architectural design and site planning of a 100 unit attached townhome residential community within Planning Area 6 (PA 6) of the amended LMP. PA-6 encompasses Lots 37-51 of Tentative Tract Map 38594 under PLN-22-20087. PA 6 consists of 5.62 acres subdivided for condominium purposes with a proposed residential density of 17.8 dwelling units per acre, consistent with the General Plan and LMP amendment. The project site is shown on **Sheet SP-1 of Attachment 6**.

Architecture and Treatments
As depicted on the site plan, the project includes thirty-two (32) three-story triplexes and two (2) duplexes for a total of 100 units and 34 buildings. It is important to note, the two (2) duplex buildings found at the northeast corner of "A" Street and "B" Street will serve as the model homes

for the proposed product found in Planning Area 8 (PA 8); hence their product type and architectural style will differ slightly than the reminder of the units found in PA 6. Discussion of these units can be found in Section Planning Area 8 Major Development Plan Review (PLN22-20092) of this report. All buildings adjacent to "A" Street, "B" Street, Lot 65 (city controlled public open space), PA L (future recreation center controlled by the HOA) are plotted in a manner to front onto their respective street or park space providing direct views, creating an enhanced sense of security and a richness to the street environment.

The applicant is proposing three (3) architectural styles in PA 6: Spanish, Vineyard, and Farmhouse.

Spanish - The Spanish architectural style includes box-like forms, shallow-pitched roofs, simple to lightly textured surfaces with clean cut openings for windows and doors. Accent materials include horizontal siding, ceramic tiles, metal elements such as pot shelves, balconies, and gates. Surfaces are finished in toned whites and light to medium light warm colors.

Vineyard - This architectural style is earthy and horizontal in nature based on farmhouse shapes and materials reflective of the agricultural past incorporating such elements as, gable roof pitches of flat concrete title or shake/raked texture, full window trim, board and batten, horizontal and stone siding.

Farmhouse - The Farmhouse architectural style incorporates such elements as front gables, porches and extended roof eaves. Simplified massing with an emphasis on vertical proportions through vertical siding. Surfaces are finished with stucco, board and batten and stone veneer.

Overall, staff believes all three (3) architectural styles are attractive and meet the minimum standard of design.

Unit Size Per Product type

The applicant proposes product types as described in the following table:

Table 6: Triplex Product

PLAN	LIVING AREA SQUARE FOOTAGE	NO. OF STORIES	NO. OF BEDROOMS	NO. OF BATHROOMS	GARAGE PARKING	Number within Project
PLAN 1	1846	3	3	3.5	2	24
PLAN 2	1977	3	4	3.5	2	32
PLAN 3	2323	3	4	3.5	2	40

Staff Believes that with the inclusion of different façade applications, the proposed mix of product types is sufficiently varied to ensure architectural variety and interest along the street. Staff has added a condition of approval requiring a varied mix of styles and colors throughout the development to ensure architectural diversity.

Parking

Each dwelling unit is proposed to include a two-car garage for a total of two hundred spaces (100 units x 2 car garage = 200 parking spaces). A total of 38 guest parking spaces are also proposed. Guest parking is proposed at a rate of twenty percent (20%) per dwelling unit or one (1) space per five (5) residential units for a total of twenty (20) uncovered guest spaces (100 units ÷ 5 guest parking rate = 20 guest parking spaces); hence, the applicant proposes a surplus of 18 parking spaces (38 spaces provided – 20 spaces recommended = 18 additional parking spaces). Guest parking is provided within parking bays distributed throughout the project site. PA 6 provides a total of 238 parking spaces and would be consistent with Section 120.05.060 of the Eastvale Zoning Code. Additionally, Condition No. 6 and 7 of the PLN22-20020 (Leal Master Plan Major Development Review) requires the applicant to provide a site-specific parking study and parking management plan to demonstrate the proposed development can adequately accommodate its parking demand and how parking will be continually managed to ensure parking issues do not occur as a result of the development. **(Attachment 9)**.

Table 7: PA-6 Parking Summary

Dwelling Unit Type	Eastvale Parking Rate	Total Parking Required	Recommend Parking	Total Parking Provided
Single-Family (Attached and Detached)	2 spaces per unit	200 spaces (100 units x 2 spaces)	200 spaces (100 units x 2 spaces)200	200 spaces
Guest Parking	0 spaces	0 spaces	20 spaces (100 units x .20)	38 spaces
Total		**200 required spaces**	**220 recommended spaces**	**238 provided spaces**

As discussed in detail under PA-1, the applicant proposes to utilize the same parking management plan for PA-6 as PA-1 and the project will be condition to provide a final version of the parking management plan for review and approval by the Community Development Director, prior to occupancy of the first residential unit. With incorporation of these conditions of approval, staff supports the parking provided for the project.

Finally, the City Traffic Engineer and Riverside County Fire Department have reviewed the site plan. No hazardous design features or other on-site circulation constraints were identified by either party.

Landscape and Wall Plan

The preliminary landscape plan depicts PA-6 unenclosed as a whole. A six-foot (6') high precision block walls with two-inch (2") caps are proposed as return/privacy walls between buildings and can be found on Sheet L-301 of **Attachment 6**. Additionally, residential units have the option of adding a front patio/courtyard which would be enclosed by a three-foot (3') high precision block with two-inch (2") caps and a three foot (3') high vinyl gate in an architectural style consistent with the main residence (i.e., Spanish, Vineyard, and Farmhouse).

In terms of landscaping, the applicant proposes to heavily landscape the site with a variety of both accent and screen trees, shrubs and hedges, and groundcovers. The planting legend references Marina Strawberry Tree, Camphor Tree, Desert Museum Palo Verde, Purple-Leaf Baily Acaci, among

others. All landscaping within the project is proposed to be constantly maintained by HOA to ensure long-term viability.

In general, staff believes that the proposed preliminary landscape plan is satisfactory and consistent with the vision identified in LMP. Standard conditions have been included requiring the applicant to submit a final landscape and irrigation plan to the City Landscape Architect for review and approval.

Planning Area 7A Major Development Plan (PLN22-20091)

The applicant is requesting approval of an MDR application for the architectural design and site planning of a 94 unit detached single-family residential community within Planning Area 7A (PA 7A) of the amended LMP. PA-7A encompasses Lots 21-36, Lot O, and Lot P of Tentative Tract Map 38594 under PLN-22-20087. PA 7A consists of 5.46 acres subdivided for condominium purposes with a proposed residential density of 17.2 dwelling units per acre, consistent with the General Plan and LMP amendment. The project site is shown on **Sheet SP-1 of Attachment 7.**

Architecture and Treatments

As depicted on the site plan, the project includes ninety-four (94) three-story detached single-family units. All buildings adjacent to "A" Street, "B" Street, Lot O and Lot P (HOA maintained community open space) are plotted in a manner to front onto their respective street or park space providing direct views, creating an enhanced sense of security and a richness to the street environment.

The applicant is proposing three (3) architectural styles in PA 7A: Transitional Mediterranean, Transitional Craftsman, and Transitional Farmhouse.

Transitional Mediterranean - This architectural style incorporates such elements as low-pitched hipped roofs with "S" or barrel tile, simplified forms and massing with stucco wall finishes and minimum horizontal siding, covered porches and/or decks, and large windows. Surfaces are finished with light to medium light warm colors with muted blues, greens, rust and burgundy accents.

Transitional Craftsman - The Transitional Craftsman architectural style incorporates such elements as low-pitched roofs, projecting eaves with rafter tails, clapboards, expansive porches, decorative braces underneath gables, and rectangular windows with simple window break-ups. Surfaces are finished with earth tone colors.

Transitional Farmhouse - The Farmhouse architectural style incorporates such elements as front gables, porches and extended roof eaves. Simplified massing with an emphasis on vertical proportions through vertical siding. Surfaces are finished with stucco, board and batten and stone veneer.

Overall, staff believes all three (3) architectural styles are attractive and meet the minimum standard of design.

Unit Size Per Product type

The applicant proposes product types as described in the following table:

Table 8: Single-Family Detached Product

PLAN	LIVING AREA SQUARE FOOTAGE	NO. OF STORIES	NO. OF BEDROOMS	NO. OF BATHROOMS	GARAGE PARKING	Number within Project
PLAN 1	1609	3	3	2.5	2	29
PLAN 2	1665	3	3	3.5	2	32
PLAN 3 & 3X	1880	3	4	3.5	2	33

Staff Believes that with the inclusion of different façade applications, the proposed mix of product types is sufficiently varied to ensure architectural variety and interest along the street. Staff has added a condition of approval requiring a varied mix of styles and colors throughout the development to ensure architectural diversity.

Open Space and Community Recreation

Centrally located within PA-7A is Lot O and Lot P, a total of 0.18 acres of land dedicated to community recreation. The applicant proposes a sunken turf area, enhanced paving, outdoor tables and chairs, community themed benches, soft seating, decorative string lights as well as ping pong tables. Creating additional synergy within this area the applicant has designed the front elevation of the units surrounding Lot O and Lot P to be oriented inward towards the open space.

Parking

Each proposed dwelling unit is proposed to include a two-car garage for a total of one hundred and eighty-eight spaces (94 units x 2 car garage = 188 parking spaces). A total of 20 guest parking spaces are also proposed by the applicant. Guest parking is proposed at a rate of twenty percent (20%) per dwelling unit or one (1) space per five (5) residential units for a total of 18.8 ≈ 19 uncovered guest spaces (94 units ÷ 5 guest parking rate ≈ 19 guest parking spaces); hence, the applicant proposes a surplus of one (1) parking space (20 spaces provided- 19 spaces recommended = 1 additional parking space). Guest parking is provided within parking bays distributed throughout the project site. PA 7A provides a total of 208 parking spaces and would be consistent with Section 120.05.060 of the Eastvale Zoning Code. Additionally, Condition No. 6 and 7 of the PLN22-20020 (Leal Master Plan Major Development Review) requires the applicant to provide a site-specific parking study and parking management plan to demonstrate the proposed development can adequately accommodate its parking demand and how parking will be continually managed to ensure parking issues do not occur as a result of the development. **(Attachment 9)**.

Table 9: PA-7A Parking Summary

Dwelling Unit Type	Eastvale Parking Rate	Total Parking Required	Recommend Parking	Total Parking Provided
Single-Family (Attached and Detached)	2 spaces per unit	188 spaces (94 units x 2 spaces)	188 spaces (94 units x 2 spaces)	188 spaces
Guest Parking	0 spaces	0 spaces	19 spaces (94 units x .20)	20 spaces

Total		**188 required spaces**	**207 recommended spaces**	**208 provided spaces**

As discussed in detail under PA-1, the applicant proposes to utilize the same parking management plan for PA-7A as PA-1 and the project will be condition to provide a final version of the parking management plan for review and approval by the Community Development Director, prior to occupancy of the first residential unit. With incorporation of these conditions of approval, staff supports the parking provided for the project.

Finally, the City Traffic Engineer and Riverside County Fire Department have reviewed the site plan. No hazardous design features or other on-site circulation constraints were identified by either party.

Landscape and Wall Plan
The preliminary landscape plan **(Sheet L-301 of Attachment 7)** depicts the PA 7A as a whole. Unique to PA-7A are proposed private yards created with six-foot (6') high precision block walls with two-inch (2") caps return/privacy walls between individual residential units. Additionally, residential units have the option of adding a front patio/courtyard which would be enclosed by a three-foot (3') high precision block with two-inch (2") cap with a three foot (3') high vinyl gate in an architectural style consistent with the main residence (i.e., Transitional Mediterranean, Transitional Craftsman, and Transitional Farmhouse). Additionally, Lot O, where the community open space and recreation area is located the developer proposes a three (3) foot tall precision block wall with two-inch (2") cap.

In terms of landscaping, the applicant proposes to heavily landscape the site with a variety of both accent and screen trees, shrubs and hedges, and groundcovers. The planting legend references *Marina Strawberry Tree, Camphor Tree, Australian Willow, Drake Lacebark Elm, Yellow Bells,* among others. All landscaping within the project is proposed to be constantly maintained by a HOA to ensure long-term viability.

In general, staff believes that the proposed preliminary landscape plan is satisfactory and consistent with the vision identified in LMP amendment. Standard conditions have been included requiring the applicant to submit a final landscape and irrigation plan to the City Landscape Architect for review and approval.

Planning Area 8 Major Development Plan (PLN23-20092)

The applicant is requesting approval of an MDR application for the architectural design and site planning of a 76 unit attached townhome residential community within Planning Area 8 (PA 8) of the amended LMP. PA-8 encompasses Lots 52-61 and Lot Q of Tentative Tract Map 38594 under PLN-22-20087. PA 8 consists of 3.93 acres subdivided for condominium purposes with a proposed residential density of 19.3 dwelling units per acre, consistent with the General Plan and LMP amendment. The project site is shown on **Sheet SP-1 of Attachment 8**.

Architecture and Treatments
As depicted on the site plan, the project includes thirty-eight (38) three-story attached duplexes for a total of 76 units and 38 buildings. All buildings adjacent to "A" Street, "C" Street, Lot 65 (city controlled public open space), and PA L (future recreation center controlled by the HOA) are plotted in a manner to front onto their respective street or park space providing direct views, creating an

enhanced sense of security and a richness to the street environment.

The applicant is proposing three (3) architectural styles in PA 8: Spanish, Vineyard, and Farmhouse.

Spanish - The Spanish architectural style includes box-like forms, shallow-pitched roofs, simple to lightly textured surfaces with clean cut openings for windows and doors. Accent materials include horizontal siding, ceramic tiles, metal elements such as pot shelves, balconies, and gates. Surfaces are finished in toned whites and light to medium light warm colors.

Vineyard - This architectural style is earthy and horizontal in nature based on farmhouse shapes and materials reflective of the agricultural past incorporating such elements as, gable roof pitches of flat concrete title or shake/raked texture, full window trim, board and batten, horizontal and stone siding.

Farmhouse - The Farmhouse architectural style incorporates such elements as front gables, porches and extended roof eaves. Simplified massing with an emphasis on vertical proportions through vertical siding. Surfaces are finished with stucco, board and batten and stone veneer.

Overall, staff believes all three (3) architectural styles are attractive and meet the minimum standard of design as set by the LMP.

Unit Size Per Product type

The applicant proposes product type as described in the following table:

Table 10: Duplex Product

PLAN	LIVING AREA SQUARE FOOTAGE	NO. OF STORIES	NO. OF BEDROOMS	NO. OF BATHROOMS	GARAGE PARKING	Number within Project
PLAN 1	1579	3	3	2.5	2	18
PLAN 2	1773	3	3	2.5	2	20
PLAN 3	1782	3	4	3.5	2	38

Staff Believes that with the inclusion of different façade applications, the proposed mix of product types is sufficiently varied to ensure architectural variety and interest along the street. Staff has added a condition of approval requiring a varied mix of styles and colors throughout the development to ensure architectural diversity.

Open Space and Community Recreation
Along the southwest corner of PA-8 is 0.03 acres (Lot Q) of dedicated open space. While not large in nature, the space provides open turf with terraced seating at a significant transitioning point within the Leal Master Plan. At Lot Q, the space transitions between public (Civic Center Park) and private open space found on PA L see **Sheet SP-3 of Attachment 8**. The unprogrammed space of Lot Q increases the perceived width of this open space corridor creating additional sense of safety and visibility.

Parking

Each proposed dwelling unit is proposed to include a two-car garage for a total of one hundred and fifty-two (152) spaces (76 units x 2 car garage = 152 covered parking spaces). A total of 27 guest parking spaces are also proposed. Guest parking is proposed at a rate of twenty percent (20%) per dwelling unit or one (1) space per five (5) residential units for a total of sixteen (16) uncovered guest spaces (76 units ÷ 5 guest parking rate = 15.2 ≈ 16 guest parking spaces); hence, the applicant proposes a surplus of 11 parking spaces (27 spaces provided – 16 spaces recommended = 11 additional parking spaces). Guest parking is provided within parking bays distributed throughout the project site. PA 8 provides a total of 179 parking spaces and would be consistent with Section 120.05.060 of the Eastvale Zoning Code. Additionally, Condition No. 6 and 7 of the PLN22-20020 (Leal Master Plan Major Development Review) requires the applicant to provide a site-specific parking study and parking management plan to demonstrate the proposed development can adequately accommodate its parking demand and how parking will be continually managed to ensure parking issues do not occur as a result of the development. **(Attachment 9)**.

Strategic Plan Action - Priority Level: 1 | Target #: E | Goal #: A

Develop and construct Civic Center and diversify the housing stock with more options.

Fiscal Impact

***Background Continued:**

Table 11: PA-8 Parking Summary

Dwelling Unit Type	Eastvale Parking Rate	Total Parking Required	Recommend Parking	Total Parking Provided
Single-Family (Attached and Detached)	2 spaces per unit	152 spaces (76 units x 2 spaces)	152 spaces (76 units x 2 spaces)	152 spaces
Guest Parking	0 spaces	0 spaces	16 spaces (76 units x .20)	27 spaces
Total		**152 required spaces**	**168 recommended spaces**	**179 provided spaces**

As discussed in detail under PA-1, the applicant proposes to utilize the same parking management plan for PA-8 as PA-1 and the project will be condition to provide a final version of the parking management plan for review and approval by the Community Development Director, prior to occupancy of the first residential unit. With incorporation of these conditions of approval, staff supports the parking provided for the project.

Finally, the City Traffic Engineer and Riverside County Fire Department have reviewed the site plan. No hazardous design features or other on-site circulation constraints were identified by either party.

Landscape and Wall Plan

The preliminary landscape plan depicts the planning area as a whole as unenclosed. Six-foot (6') high precision block walls with two-inch (2") caps are proposed as return/privacy walls between buildings and can be found on **Sheet L-301 of Attachment 8**. Additionally, residential units have the

option of adding a front patio/courtyard which would be enclosed by a three-foot (3') high precision block with two-inch (2") cap with a three foot (3') high vinyl gate in an architectural style consistent with the main residence (i.e., Spanish, Vineyard, and Farmhouse).

In terms of landscaping, the applicant proposes to heavily landscape the site with a variety of both accent and screen trees, shrubs and hedges, and groundcovers. The planting legend references Marina Strawberry Tree, Western Redbud Multi-Trunk, Desert Museum Palo Verde, Purple-Leaf Baily Acaci, among others. All landscaping within the project is proposed to be constantly maintained by a homeowner's association to ensure long-term viability.

Staff believes that the proposed preliminary landscape plan is satisfactory and consistent with the vision identified in Leal Master Plan Amendment. Standard conditions have been suggested including requiring the applicant to submit a final landscape and irrigation plan to the City Landscape Architect for review and approval.

Public Hearing Notification and Comment

The applicant's requests require a 10-day public hearing notification period for property owners and commercial tenants within a 600-foot radius of the project site. A notice of public hearing (**Attachment 18**) was published in the Press Enterprise on September 10, 2023, and mailed to property owners and commercial tenants on September 7, 2023, for the Planning Commission meeting on September 20, 2023, A map showing the properties that received notification is included as **Attachment 19** to this staff report. As of this writing, staff has received one (1) public comment letter, included as **Attachment 20**, which expresses concern over the current capacity of Corona Norco Unified School District school facilities in Eastvale.

Environmental Review

An Addendum to the previously certified PEIR for the Leal Master Plan (State Clearinghouse No. 2015031028) for up to 2,500 residential units and 595,000 square feet of commercial space including a hotel, a civic center (City Hall, Library, Police Station) and Fire Station, (the "Project") was approved by the City Council on May 11, 2022. The Addendum was prepared in accordance with the requirements of CEQA and found the proposed project would not exceed the previously analyzed development in terms of size or intensity of use. Development of the proposed project would remain consistent with the analysis of the Certified Final PEIR and would not require a change to the site's land use designation or zoning. Therefore, staff has determined the project is within the scope of the Leal Master Plan PEIR and Addendum pursuant to CEQA Guidelines Section 15168 and no additional environmental analysis is necessary. Applicable mitigation measures included in the Addendum to the Leal Master Plan PEIR would be required for the development of the proposed project, however a Notice of Determination shall be filed following any action taken on the project.

Fiscal Impact

Processing the proposed applications will have little to no fiscal impact on the City as the project is funded by the applicant.

Prior City Council/Commission Action

With the adoption of the first Eastvale General Plan in 2012, the City Council designated the Leal property as a future planning area, with a vision of a mix of retail, residential, and civic uses. In 2013, City Council authorized the preparation of the Leal Master Plan (LMP) and Environmental Impact

Report.

On December 13, 2017, with the completion of the Final Environmental Impact Report, City Council acted to certify the Final Program Environmental Impact Report (PEIR) and amend the Land Use chapter of the Eastvale General Plan to reflect the Leal Master Plan, adopt the Leal Master Plan, and amend the Zoning Map to rezone the Leal Master Plan area to "Leal Master Plan."

A special joint workshop between the Planning Commission and City Council was held on March 16, 2022, to discuss proposed amendments to the Leal Master Plan and an Addendum to the certified PEIR. Then after the recommendation of the Planning Commission on April 25, 2022, the City Council at their regularly scheduled May 11, 2022 meeting, adopted an Addendum to the Certified PEIR, an amendment to the Leal Master Plan, establish a project-wide Land Use, Circulation, and Infrastructure Plan, determine project-wide development standards, design guidelines, and site characteristics, approve Tentative Tract Map (TTM 38290) for the creation of 14 developable lots, 19 lots for infrastructure purposes, trails, and open space, approve a Major Development Plan Review to facilitate the development of 2,500 residential units and 595,000 square feet of commercial development including a hotel, civic center (City Hall, Library, Police Station) and a Fire Station as well as approved a Development Agreement between the City and The New Home Company.

On September 20, 2023, the Planning Commission at their regularly scheduled meeting, opened the public hearing for the subject project, received public comment from Atul Singh Deora via an email, and continued the public hearing until the October 18, 2023, Planning Commission meeting to allow the applicant additional time to work through proposed conditions of approval.

Attachment(s)

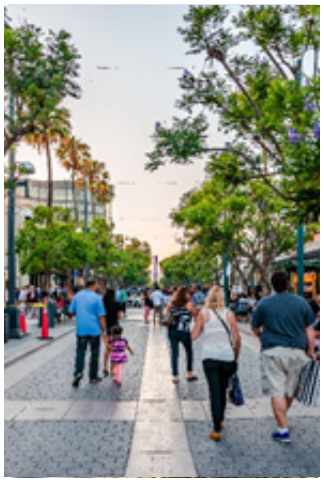
Attachment 1 - Leal Master Plan Amendment No. 1
Attachment 2 - Addendum to the Certified PEIR
Attachment 3 - Tentative Tract Map 38594
Attachment 4 - Major Development Plan (Overall)
Attachment 5 - Major Development Plan (PA-1)
Attachment 6- Major Development Plan (PA-6)
Attachment 7 Major Development Plan (PA-7A)
Attachment 8 - Major Development Plan (PA-8)
Attachment 9 - Parking Review & Management Plan
Attachment 10 - Resolution TTM 38594
Attachment 11 - Resolution MDR (Overall)
Attachment 12 - Resolution MDR (PA-1)
Attachment 13 - Resolution MDR (PA-6)
Attachment 14 - Resolution MDR (PA-7A)
Attachment 15 - Resolution MDR (PA-8)
Attachment 16 - Draft COA (TTM 38594)
Attachment 17 - Draft Master COA (MDRs)
Attachment 18 - Public Hearing Notice
Attachment 19 - 600-Foot Radius Map
Attachment 20 - Public Comment Letter (Deora)

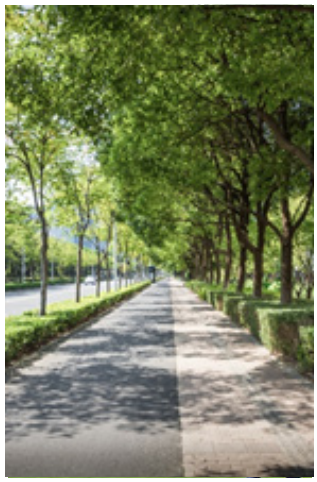
LEAL

MASTER PLAN

AMENDMENT #1

ADOPTED MAY 25, 2022




CITY OF EASTVALE

LEAL MASTER PLAN AMENDMENT #1

May 2022

CITY OF EASTVALE

Eastvale City Council
Mayor Clint Lorimore
Mayor Pro Tem Todd Rigby
Council Member Brandon Plott
Council Member Christian Dinco
Council Member Jocelyn Yow

Eastvale Planning Commission
Chair Houston Laney
Vice Chair Kevin Mensen
Commissioner Josh Lee
Commissioner Andrea Hove
Commissioner Michael Rochelle

Executive
Henry Garcia, Interim City Manager
Gina Gibson Williams, Community Development Director
Erica L. Vega, City Attorney

Planning
Gustavo Gonzales, Planning Manager
Jamie Cerda, Senior Planner
Allen Lim, Assistant Planner

Engineering
Jimmy Chung, City Engineer
Cassandra Sanchez, Principal Civil Engineer
Dahi Kim, Senior Engineer

Consultant
Peter Minegar, MBI
Mark Teague, Placeworks
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1 INTRODUCTION AND VISION

1.1. BACKGROUND AND PURPOSE

In the City of Eastvale, a recently incorporated and rapidly growing city in northwestern Riverside County, the Leal property holds significance as one of two major undeveloped pieces of land in the city. The idea of planning for the site's development originated in the 2012 Eastvale General Plan. The Land Use Chapter of the General Plan adopted at that time supported the development of a mixed-use project on the site in cooperation with the property owner and/or the developer.

City of Eastvale Demographics

Eastvale offers the developers of the Leal Master Plan excellent opportunity to serve an affluent and growing population. Current projections for 2018 show the following:

	Eastvale	10-Mile Radius
Population	68,706	1,070,150
Average Household Income	$130,730	$90,507
Average Annual Increase in Household Income 2013-2018	0.94%	3.47%

Eastvale is the most diverse high-income city in California, with a population that includes 40 percent Latino residents, 9 percent black, 24 percent Asian and 24 percent white.

In 2013, the City of Eastvale City Council initiated a long-range planning process for the property. The effort was born out of the desire to create the mixed-use town center project on the site and to safeguard against unsatisfactory development taking the project's place. The Leal Master Plan is the product of this planning process and is a critical step toward bringing unique, regionally significant development to the site. In December of 2017, the City of Eastvale adopted the initial Leal Master Plan. The multiple step process was established in the original Master Plan. This Leal Master Plan is the first amendment to the initial Master Plan as contemplated in the development process.

1.1.1. What Is a Master Plan?

This Master Plan is a long-range planning document that documents how the site will be developed. This Master Plan describes the community's vision for the project area, identifies appropriate land uses, includes the development standards that are necessary to achieve the vision, defines the character of the project's development, lists the steps involved with the development process, and provides guidance on implementation of the plan.

The adoption of this Master Plan represents the second step in planning for the site's development. This document establishes general parameters for development of the Leal property (and the process for defining more specific standards tailored to the ultimate project to be proposed by the property owner/developer). Subsequent development plans will provide precise

development plans for each planning area, facilitating the actual construction of developments.

Note to the Reader: See Chapters 4 and 5 of this Master Plan for detailed information on required future submittals.

Implementation of this Master Plan will ensure that desirable, high-quality development is constructed on the site in an orderly and cohesive fashion. All development occurring on the site is required to comply with this Master Plan.

1.1.2. Community and Stakeholder Input

The original adopted Leal Master Plan was created and adopted in a public forum. The document represents a blending of the City's goals, the owner's ambitions, and the public's aspiration for the property. The participants' contributions to the project are as follows:

1.1.2.1. City Council and Planning Commission

Throughout the planning process, staff was provided with input from the City Council and Planning Commission on important aspects of this Master Plan. Ultimately, the Planning Commission and City Council were responsible for selecting the Master Plan Amendment's overall concept and the land use program and for reviewing and approving the final Master Plan Amendment.

1.1.2.2. Property Owner

Before and during the preparation of this Master Plan, City staff met regularly with the Leal family who has for decades owned the property and the property owner's development representatives. These meetings helped establish the vision for the property and the legacy that the family hopes to leave in the form of the proposed new development.

1.1.2.3. Public Outreach

The preparation of the original Master Plan included a significant online public outreach campaign, including a website dedicated to the project and numerous postings on the City's social media outlets.

The project website provided background information on the

Big Ideas for the Leal Property

When the City asked for "big ideas" and themes for the project site, residents provided thousands of responses, mostly via social media. The following were the top listed categories:

- Lifestyle Centers
- Downtown
- Indoor Regional Mall
- Amusement
- Arts/Cultural
- Concerts/Special Events Venue
- Hospital/Medical Center
- Civic Uses
- 1950s Main Street
- University or Community College
- Sports/Recreation
- Hotel/Resort
- Giant Cow Statue

project and the property, as well as City and project-related documents, and kept the public apprised of upcoming meetings. The website also featured an interactive section that allowed users to share their input on important aspects of the project.

Initially, participants were asked to submit their suggestions for "big ideas" and "themes" for the project site. Residents responded to the City's call for ideas, submitting thousands of comments. Subsequently, an online poll was created to see which of the ideas held the greatest level of support in the community. Of the nearly 2,000 survey responses received, the three most popular categories were:

- Lifestyle Centers
- Downtown
- Indoor Regional Mall

1.2. OBJECTIVES

The General Plan goal of bringing a mixed-use development to the site will be realized through the adoption and the implementation of the Leal Master Plan. This Master Plan seeks to achieve the following objectives:

- Facilitate transformation of the project area into Eastvale's Downtown.
- Encourage a mix of uses, including retail, experiential uses, office, civic, residential, and recreation/entertainment, that respond to market demand.
- Create a Downtown Village destination in Eastvale to meet the needs of patrons from the community and the region.
- Include heavily landscaped spaces, further reinforcing Eastvale's Tree City USA designation.
- Implement high-quality architecture and design that creates a sense of place and enhances the aesthetic and visual quality of the neighborhood.
- Design the site in an efficient fashion that perpetuates a compact, urban form of development.
- Provide safe and entertaining gathering places for Eastvale residents.
- Develop the site in an orderly, comprehensive, and cohesive manner that avoids the piecemeal development of the site with a mix of incompatible uses that do not relate to one another.
- Expand the city's economic base by generating substantial property and sales tax revenue.
- Provide employment opportunities for residents, improving the city's jobs/housing balance and reducing vehicle miles traveled.
- Provide the infrastructure necessary to meet project needs in an efficient and cost-effective manner.
- Provide medium- and high-density housing opportunities.
- Provide ample access for pedestrians, bicyclists, and automobiles throughout the site.

1.3. VISION

The City envisions the project area emerging as the City's Downtown and a destination within the region. The area will be anchored by a downtown village and surrounded by a mixture of complementary office, civic, residential, and recreation/entertainment uses. All aspects of the project will exhibit the hallmarks of thoughtful, high-quality design and landscape.

Note to the Reader: For more information on the vision and the quality of the project's design, refer to Chapter 2, Project Character.



1.4. LOCATION

The project area encompasses the Leal property, an approximately 160-acre landholding that (as of 2014) included one of the city's last operating dairies and a horse farm.

Shown in Figure 1.1: Regional Context Map, the project area is in the northeastern section of Eastvale, approximately one-half mile from the Interstate 15/Limonite Avenue interchange, and south of State Route 60. The site is bounded by 58th Street to the north, Hamner Avenue to the east, Limonite Avenue to the south, and Scholar Way to the west, as shown in Figure 1.2: Local Context Map. The project area is situated immediately west and north of existing commercial and retail developments and is south and east of established and newly developed residential neighborhoods of varying densities.

1.5. RELATIONSHIP TO OTHER DOCUMENTS

1.5.1. General Plan

The Leal Master Plan implements the City of Eastvale General Plan. The land uses permitted by this Master Plan are consistent with the goals, policies, and general land uses described in the General Plan.

1.5.2. Municipal Code

This Master Plan functions as the zoning document for the project area, except as discussed below.

This Master Plan incorporates zoning provisions that vary from, and supersede, those included in the City of Eastvale Zoning Code and introduces additional provisions not found in the Zoning Code. For these development standards, the Master Plan distinguishes between those provisions that apply to the entire project area and the provisions that only apply to individual land uses.

This Master Plan references regulations in the Eastvale Zoning Code. Where the Zoning Code is referenced, the Zoning Code in place at the time of a development project's submittal will be used.

Where this Master Plan is silent on any issue, the applicable standard in the Eastvale Zoning Code will be used.

Figure 1.1: Regional Context Map

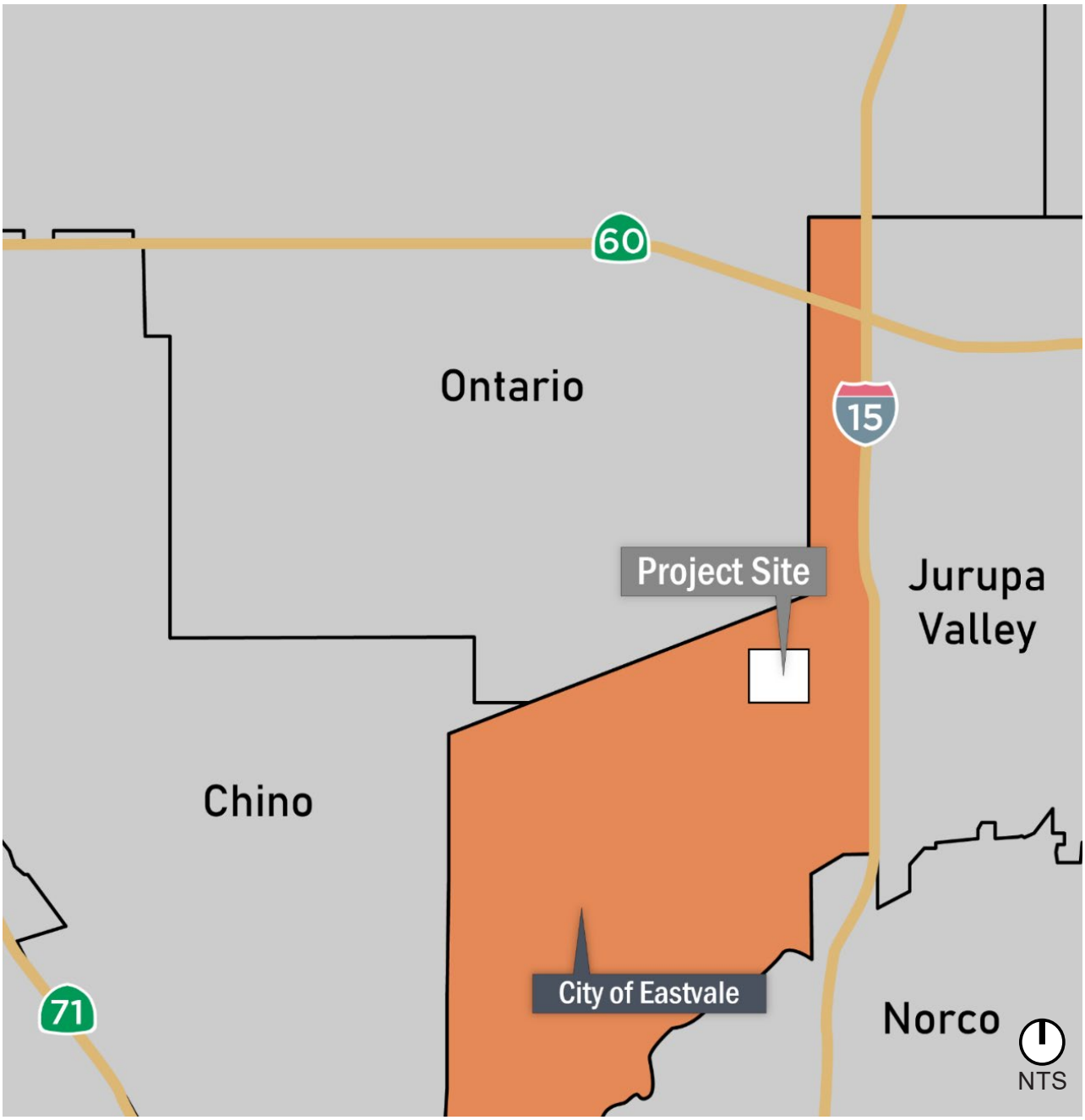
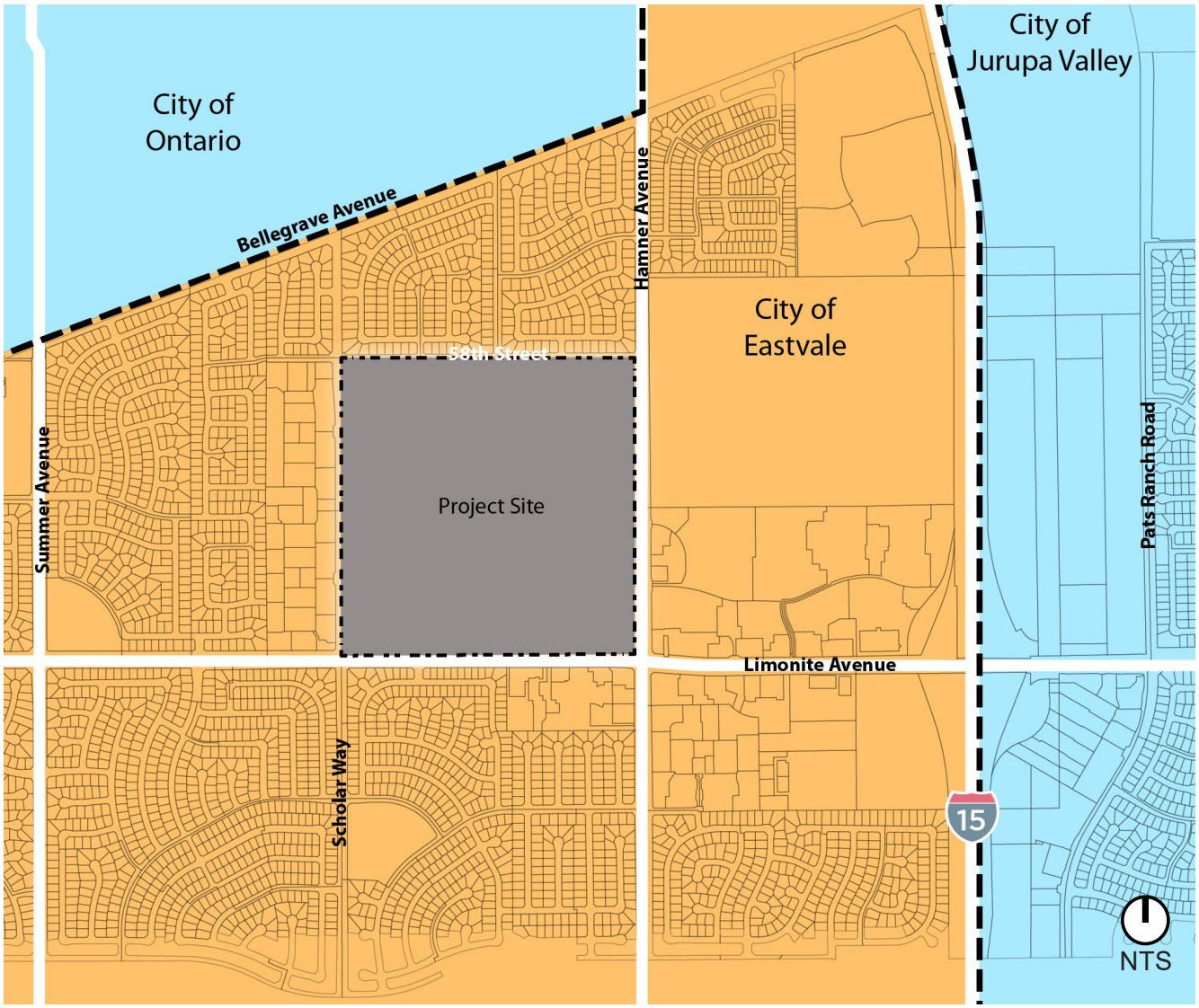


Figure 1.2: Local Context Map



1.6. PLAN ADMINISTRATION

1.6.1. Use of This Master Plan

This Master Plan will be used as the basis for establishing standards of development and evaluating proposed development projects for the Leal property and is intended to be used by a broad range of persons, including:

- The City Council and Planning Commission in decision-making activities.
- City staff in evaluating project consistency with the standards set forth in this Master Plan.
- The development community in preparing development proposals.
- Residents and citizens seeking to understand the vision for the Leal property and the type of development which may occur.

1.6.2. Interpretations of the Master Plan

The City of Eastvale Planning Department is responsible for the administration, implementation, and enforcement of this Master Plan. The Community Development Director or their designee is responsible for making determinations of consistency with this Master Plan as follows:

1.6.2.1. Determination of Intent

Whenever the Community Development Director determines that an ambiguity exists in how a particular standard or regulation applies, or a formal request for an interpretation is made by an applicant, property owner, or interested party, the Community Development Director or their designee will prepare an official interpretation of intent in accordance with the procedure set forth in Eastvale Zoning Code Section 1.5.1 (Official Zoning Interpretation).

1.6.2.2. Determination of Similar Land Use

Recognizing that every conceivable land use cannot be identified in this Master Plan and anticipating that new land uses will evolve over time, the Community Development Director or their designee has the authority to approve uses when their operation, impacts, and scale are similar to those land uses listed in this Master Plan.

Determinations of similar land use will be made pursuant to Section 1.5.1 (Official Zoning Interpretation) of the Eastvale Zoning Code.

1.6.2.3. Amendments to the Master Plan

Over time, various sections of this Master Plan may need to be revised, as economic conditions or City needs dictate. The policies presented in this Master Plan contain some degree of flexibility, but any Master Plan amendments must be judged by relatively fixed criteria. Minor modifications to the plans, guidelines,

regulations and standards contained in this Master Plan may be approved at the discretion of the Community Development Director or their designee as described in Section 5.4.1. Major modifications that do not meet the criteria for minor modifications described in Section 5.4.1 shall require a formal amendment to the adopted Master Plan. Major modifications are described in Section 5.4.2.

Amendments to this plan may be initiated by a developer, any individual property owner, or the City, in accordance with the Eastvale Zoning Code.

1.6.2.4. Actions Which Are Not Amendments to this Master Plan

The following are **not** considered amendments to this Master Plan:

- Determinations of similar use, as discussed in this chapter.
- Minor modifications to the Master Plan, as outlined in Chapter 5 of this Master plan.

2 INTRODUCTION AND VISION

2.1. INTRODUCTION

The City's vision for the Leal Master Plan area is a development that provides employment, retail, public uses, entertainment, and housing in a carefully laid out environment designed to create a memorable and enjoyable experience for both visitors and residents. The City and community expect that development of the Leal property will be of the highest quality, both in design and construction.

The envisioned level of quality is reflected in other regionally significant projects in Southern California, such as Downtown Claremont, downtown Temecula, and downtown Brea. All of these developments are noteworthy for their focus on creating a vibrant and attractive experience for visitors, incorporating vertical development (multiple stories) into a village setting, and for their attention to detail in a variety of features.

This Chapter expresses the City's vision for the Leal Master Plan. The expected level of quality is shown as it should be expressed in various aspects of the project, including:

- Site design
- Circulation
- Architecture
- Landscaping
- Public Spaces
- Buffers/Adjacencies
- Street Furnishings
- Thematic Features
- Signage

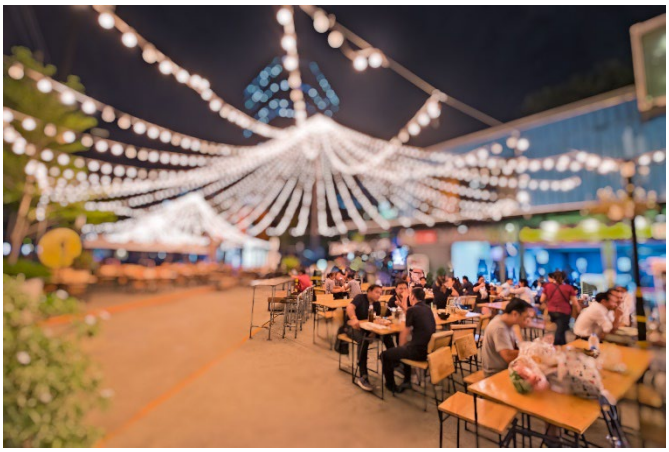
2.2. PROJECT CHARACTERISTICS

Attention to detail and incorporation of high-quality materials is a key aspect of developing high quality projects. While the examples provided on the following pages focus on distinguishing characteristics within the Downtown concept, all portions of the project will be required to achieve a similar level of quality and attention to detail.

2.2.1 Site Design

The following principles accompany the vision for Leal Master Plan to form the foundation for the planning and design of the community.

- Create a magical destination.
- Provide energy, vitality and create a central gathering place within the City.
- Public and private spaces are designed to enhanceand complement one another.
- Along retail corridors, wide sidewalks and shaded paseos lined with street trees and outdoor seating create an inviting environment for both window shopping and socializing, focusing on the human scale and experience.
- Diversify Eastvale's economy by providing a range of uses within close proximity to each other.









2.2.1 Site Design

Effective site design facilitates access and mobility and integrates building design and orientation, private space, and public space to create a vibrant destination. The following bullets describe the site design vision.

- Downtown will provide opportunities for retail commercial and office uses, as well as central gathering places for residents to interact and connect. This commercial/retail hub should be visually prominent, as it is strategically located at the intersection of Limonite and Hamner Avenue to capture visibility and attract shoppers and direct visitors to this destination center.
- Downtown will be surrounded by higher density neighborhoods that gradually transits to lower density neighborhoods.
- A village green located adjacent to the Downtown will provide a wide variety of active and passive recreation amenities.
- Neighborhoods will be designed to connect to open space and park amenities, shopping, public and civic facilities, and recreational facilities via streets, paseos and pedestrian trails.
- A community wide linear park system will provide focus on community connections and pedestrian experience.
- Wide sidewalks and shaded paseos lined with trees and outdoor seating create an inviting environment both in the Downtown and residential areas.
- Public and private spaces are designed to enhance and complement one another.
- The project is integrated into the surrounding environment to provide for multiple points of access.
- On-street parking, landscaped bulb-outs, and special paving treatments provide convenient access in an aesthetically pleasing manner.
- Parking is conveniently located to destinations and should be tucked away or integrated into parking structures so as not to dominate the experience.










ICE CREAM



2.2.2 Circulation

A carefully devised circulation network allows pedestrians, bicyclists, automobiles, and delivery vehicles to operate without conflict.

- Entries and gateways into the project are distinct and identifiable.
- Circulation patterns are simple and obvious.
- Paving and landscaping materials distinguish the types of circulation routes.
- Plant and material selection along circulation routes are used to identify distinct districts within the overall project.

The Leal Master Plan has six major points of access: two points of access from Limonite Avenue, two points of access from Hamner Avenue, one point of access from 58th Street, and one point of access from Scholar Way, as shown in Figure 3.1, Land Use Plan.

In addition to these major entry points, secondary access may be provided from the major streets surrounding the project as part of subsequent Major Development Review for the Planning Areas.

All of the project's access points will provide an opportunity to create a sense of arrival by creating entryway statements or gateways with landscaping, signage, and buildings. See Section 4.3.3 in Chapter 4 for the design standards for the major entry points.

An internal circulation system is established and shall be designed to be consistent with Chapters 4 and 5 of the Design Standards and Guidelines for residential and nonresidential site and street design.

Pedestrian paths and bicycle lanes identified on circulation cross sections on Section 6.2 shall be designed to comply with the following:

- Pedestrian and bicycle access shall be provided along all major roadways and internally within each development to allow connectivity from the streets to the businesses and residences.
- Pedestrian and bicycle connections shall be provided from the street to the interior of the development that minimize conflicts with vehicular traffic.
- Sidewalks shall be shown on each street section.
- Pedestrian and bicycle access shall be consistent with Chapters 4 and 5 of the Design Standards and Guidelines for residential and nonresidential site design.

2.2.2 Circulation

















2.2.3 Architecture

The Leal Master Plan is designed to include distinctive, identifiable neighborhoods of a walkable size and scale with an appropriate mix of housing types. This section provides the framework for high quality design and expresses the desired character of future development.

Community-wide Residential Development

This section identifies key architectural and site design elements that should be considered in all residential areas within the Leal Master Plan community. These guidelines intend to establish a diversified, yet cohesive level of quality in home design that reflects the character of the surrounding environment while allowing for flexibility in design.

Architecture Forward Design

- Within the Downtown, buildings fronting onto the street shall be designed so that active and articulated architecture visually dominates the street and allows for direct views of the street and outdoor living space to enhance the sense of security. This can be achieved by orienting doors and windows toward the streets and public areas.
- Garages shall be set behind the front face of the building or be oriented to alleys or motorcourt drives to minimize the visual dominance of garages along the street.

Building Siting and Orientation

- In general, buildings shall be located and oriented to define public streets and primary open space areas, as appropriate to the product type.
- Front entries shall face the streets, courtyards, paseos, or open spaces.
- Units shall be sited and design so that each building shall have roof exposure to the south or east, or a portion of the roof with a flat roof.
- Unit entries shall not be provided on 58th Street, Hamner Avenue, or Limonite Avenue.

Corner Lot Buildings

- Corner lots for single-family detached homes generally have wider than minimum required side setbacks from the adjacent public rights-of-way as compared to interior side setbacks (refer to product-specific standards in Chapter 4, Development Standards). This additional setback area is intended for landscaping and/or single-story architectural elements such as porches and courtyards.
- To respond to adjacent streets and intersections appropriately, buildings on corner lots shall be designed for a two-sided corner exposure, addressing the increased public visibility by allowing for architectural enhancements on the side elevation facing the street.

- Corner lot buildings shall feature enhanced elevations that provide a similar level of detail on the street side as the front elevation. Enhancements may include.
    - Wrap-around porches or courtyards
    - Principal window treatments
    - Roof plane breaks
    - Accent colors, materials and detailing
    - Garage access from the side street for conventional single-family homes

Building Form, Massing and Articulation

- Building massing (three-dimensional form of a building, referring to the perception of the general shape and form, and size) along the street shall be varied to create a quality streetscene.
- To reflect a variety of forms and create massing breaks, use horizontal and vertical offsets, such as interconnection and lapping of building forms and heights.
- Plane offsets cantilevered upper floors and varied roof forms are encouraged to avoid large expanses of flat, monotonous walls and roofs in alleys and motorcourts.
- To add interest to building facades, building articulations such as roof overhangs, balconies, and projections should be used in the design of building frontages.
- For attached residential buildings, break down the scale of the buildings into smaller elements through varied building massing and forms, such as varying setbacks on building elements/facades, varying roof lines and directions, incorporating single-story elements or open balconies that provide negative space at prominent corners, utilizing shed roof forms and trellis elements, etc.
- To prevent long expanses of blank walls, walls shall be articulated at least every 20 feet horizontally on each floor. Articulation shall mean a change in material, massing break of at least one foot (1'), or including a window, projecting porch, balcony (recessed or projecting), or other decorative element (e.g. decorative attic vent).

Colors and Materials

- Building materials and colors shall be appropriate to the overall neighborhood design theme and relate to the selected architectural style. Frequent changes in materials shall be avoided.
- Provide a variety in texture and color to allow for diversified expressions of individuality on building elevations, while maintaining visual cohesiveness throughout the community.

- Where color or material changes occur on the building, such changes shall only occur at inside corners or wrapped to appropriate termination points where they provide a finished appearance from the street.
- Color and materials should wrap columns and posts in their entirety.
- Exposed gutters and downspouts must be colored to match or complement the surface to which they are attached.
- Colors shall be neutral tones or muted colors complementary to the chosen architectural style and compatible with the character of surrounding development. Reserve bright or dark colors for trim or accents only.

Roofs

- Select simple and efficient roof forms, pitches and materials that are consistent with the architectural style of the building. Consider roof forms in relationship to the building mass to improve massing relief along public streets and on other publicly visible elevations.
- Varied roof forms, offsets and materials consistent with the architectural style of the building are encouraged to create variation in the skyline and diversity in the streetscene.
- Flat roofs with parapets or decorative cornices are permitted where appropriate to the architectural style of the building.

Mechanical Equipment

- All exposed air conditioning/heating equipment, soft water tanks, and pool and spa equipment shall be hidden from view in vaults, wells, enclosures, behind walls/fences or screened by landscape. Enclosures shall be constructed similarly and finished to match the building or material which they are attached.

Trash Enclosures

- Areas provided for trash and recycling bins shall be concealed from public view.
- Where trash and recycling material collection facilities are shared by several units/buildings, the collection facilities shall be screened by architectural enclosures. The screening enclosure materials and colors shall be similar or complementary to the exterior materials and colors used on the adjacent principal buildings.













Detached Residential Development Design Guidelines and Standards

- Side entries are allowed to give the product design greater flexibility and varies the curb appeal.
- For rear loaded and detached cluster homes, front yard and common area landscaping will be provided by the builders.
- Provide visual harmony by applying a common family of details throughout the cluster complex.
- Provide paving within the courtyards to enhance their use and identity as pedestrian entries to the homes.
- Individual unit entries of cluster homes shall be clearly discernible from the courtyard or access drive.
- Where a central courtyard is provided for detached cluster homes, living space windows shall orient toward the courtyard.
- Provide a minimum of three (3) floor plans in each Planning Area.
- There shall be a minimum of three (3) elevations for each floor plan, for a minimum total of nine elevations.
- No more than two buildings in a row may be plotted with the same elevation style.
- The same plans may be plotted adjacent to each other or across from each other, provided they have different elevation styles.
- Detached cluster units with front facades bordering streets I, E, F, H & G shall have their entries oriented to these streets.










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Attached Residential Development Design Guidelines and Standards

Attached residential buildings tend to have larger building masses. As such, attached residential design should be carefully considered to convey a sense of human scale. Building typology and chosen architectural style should reflect the building's location within the community, and all buildings should exemplify quality design.

Townhomes and Attached Motorcourt Homes

- Where attached residential buildings are located adjacent to single family detached homes, minimize impacts on the adjoining residences with a sensitive transition in scale, massing and height, and design the transition to ensure resident privacy.
- Design the front elevation of attached residential buildings to clearly delineate individual units as a way of breaking up mass.
- Articulate the front building facades to promote individual unit identity by incorporating overhangs, recesses, porches, glazed doors, accent materials and colors, etc., consistent with the architectural style of the building.
- External unit and building entries shall be designed in a manner that is clearly visible to pedestrian and/or vehicular approaches.
- Rear facades along alleys, driveways, or visible from backbone streets shall not be void of articulation. These elevations shall include massing breaks and/or architectural details (i.e. shutters, gable vents), as appropriate to the architectural style of the building.
- Attached residential buildings sited adjacent to lower-density residential neighborhoods should be sensitive to the scale of those neighborhoods. Step down building heights to match the adjacent buildings as a transition to lower adjacent development heights.
- When located next to open space or a paseo, arrange groups of attached residential buildings so that the buildings front onto paseos or the open space. In the event that fronting onto these open spaces is not feasible, the residential buildings shall front onto a courtyard, pathway, or other gathering space that would directly connect to the open space or paseo.

Apartment/Flats

- Building configuration shall form adequately-sized courtyards and gathering spaces, where applicable. Accessible from inside the building or from external pedestrian pathways, courtyards or gather spaces should feature enhancements such as trellises, shade trees, or outdoor furniture.
- Step down corners and ends of multi-family buildings over two-stories in height at highly visible locations, softening the building edges and enhancing the streetscene.
- Provide pedestrian-oriented elements and details on facades facing public sidewalks. Elements such as balconies and awnings can add visual interest and richness to the street environment.

- Transitional spaces such as porches, covered entries or stoop entries shall be provided for ground floor units facing public street. Where common building entries are provided, they should be well defined along the street and/or parking lot edges.
- Arrange attached residential buildings and site landscaping in such a way that they screen parking areas from public view and minimize the impact of parking lots and garages on the public streetscape.
- Parking lots shall be broken up into smaller segments by landscaped islands, but should remain connected to facilitate internal circulation for a common complex.
- Provide a minimum of two (2) unit plans for each building, and a minimum of two (2) building plans (with the ability to add elements to corner units as necessary) in each Planning Area.
- Residential development adjacent to internal Street E, F, G, H and I shall include a primary pedestrian entry along this street frontage facing either the street or a courtyard or a paseo that is accessible by the residents.
- All primary entrances for multi-family dwellings shall provide unit identification.
- ... Exterior elevations shall include at least three (3) materials that accentuate or correspond to variations in building massing and plane changes, but not having too many different materials to avoid a chaotic appearance. Glazing (windows) and accent materials such as shutters and railings may count towards this requirement.













Downtown District Design Guidelines and Standards

The Downtown District will function as a vital commercial center for the City. Appropriate land uses for these areas include residential, commercial, retail services, restaurants, offices, paseos, recreational facilities, community venues, and civic facilities. The mixed- use areas are a place for working, shopping, dining and gathering. Businesses will be situated along the street and provide convenient access for vehicles, pedestrian walkways and landscape areas.

General Criteria

- Buildings shall front onto a street or spine, which may be designed either as a vehicle free zone or in such a manner as to allow for use by both pedestrians and motor vehicles. When vehicles are allowed, design features shall be incorporated to define pedestrian movement through changes in paving materials or grade, articulated walks with landscaping, or overhead structures.
- Both vertical (different uses within the same building, with commercial or office uses located on the ground floor and with office or residential uses located above) and horizontal (single-use buildings located side-by-side or adjacent to each other on a development site) mixed-use are encouraged in the Downtown District. The mix of land uses may be, but are not limited to, commercial mixed with residential or mix of uses of retail, restaurant, office, and civic uses.
- Vertical mixed-use projects are encouraged for 3-story and higher buildings, such as first floor retail with office or residential uses above. Visually, this arrangement divides the façade into two basic parts: the upper façade and the storefront.
- Large monolithic buildings, such as movie theaters and cultural venues, must be set back from a street designated for pedestrian activity and lined with smaller businesses in front to create a more appealing streetscene.
- Plaza areas in mixed-use settings are encouraged and may include seating, fountains, and landscaping.
- Open views into the retail space at the storefront level will enhance the pedestrian experience by providing a visual connection to the use inside the building. On upper levels, windows should continue the aesthetics of the building while serving the occupants' need for privacy.
- Primary entrances into retail buildings shall be clearly marked and provide a sense of welcome and convenient access into the building interior.
- Corner buildings shall be designed with enhanced treatments. These treatments may include: larger building element at the corner, more ornamentation than adjacent buildings, or a plaza to define the space. In addition, corner buildings typically have both primary and secondary façades that relate to the streets on which they front.
- The ground floor of the commercial component of a mixed-use building shall have a finished ceiling height of a minimum of 12 feet.

Building Form, Massing, and Articulation

- Iconic buildings in the Downtown District are encouraged and may include architectural features such as bell or clock tower or similar statements.
- Architecture shall address public areas with high quality materials and should contain architectural elements and other detail relating to the human scale.
- Groups of buildings shall be arranged in clusters around elements such as pedestrian walkways or landscaped areas.
- Retail and restaurant buildings with facades parallel to the street with covered pedestrian arcades are encouraged. Long unarticulated facades shall be avoided along the primary pedestrian corridor.
- No building wall facing a public street should extend more than 25 feet vertically or horizontally without a visual break created by a minimum 1 foot architectural/massing offset. (See graphic footnote 1 in below)



1 *For buildings with 100' or greater of street-frontage, plane breaks at least every 25 feet include glazing and provide adequate articulation.*

2 *A minimum of 30% of exterior walls on ground-floor facing the street shall include windows, doors, or other openings.*

- Within PA3 and PA5, the ground floor shall incorporate abundant glazing. At least thirty (30) percent of the exterior walls on the ground floor facing the identified pedestrian corridor shall include glass windows, glazed doors, or other openings, as illustrated in below. Percentage of fenestration shall be calculated based on the length of the facade frontage and the floor-to-ceiling height of the ground floor, excluding the areas for parking garage ingress/egress. (See graphic footnote 2, above)
- Adjacent to Streets H or G within Planning areas 2, 3, 4 and 5, at least 50 percent of the building (commercial, civic, or residential) shall be located within the 0 to 15 feet of the right-of-way from Streets H and G. The other 50 percent may be

reserved for expanded outdoor dining opportunities, courtyards, paseos, or driveways connecting to surface lots behind the building. Parking lots are not allowed between the building and the street along these corridors.

Materials and Colors

- A mixture of high-quality materials in highly visible locations and in varying quantities have a large impact on the perceived quality of the area.
- Colors should be carefully chosen to complement the architectural style or tenant of each building.
- Exterior elevations shall include at least three (3) materials that accentuate or correspond to variations in building massing and plane changes, but not having too many different materials to avoid a chaotic appearance. Glazing (windows) and accent materials such as shutters and railings may count towards this requirement.
- Colors shall be neutral tones or muted colors complementary to the chosen architectural style and compatible with the character of surrounding development. Reserve bright or dark colors for trim or accents only.

Services, Utilities, and Storage

- Service, loading, and storage areas should be located away from the streets and activity area. When service areas are not able to be located away from streets or activity areas, screening elements such as walls, fences, architectural treatments, landscaping, or similar screening element shall be incorporated. In all cases, the screening shall be integrated into the design and not appear as an afterthought.





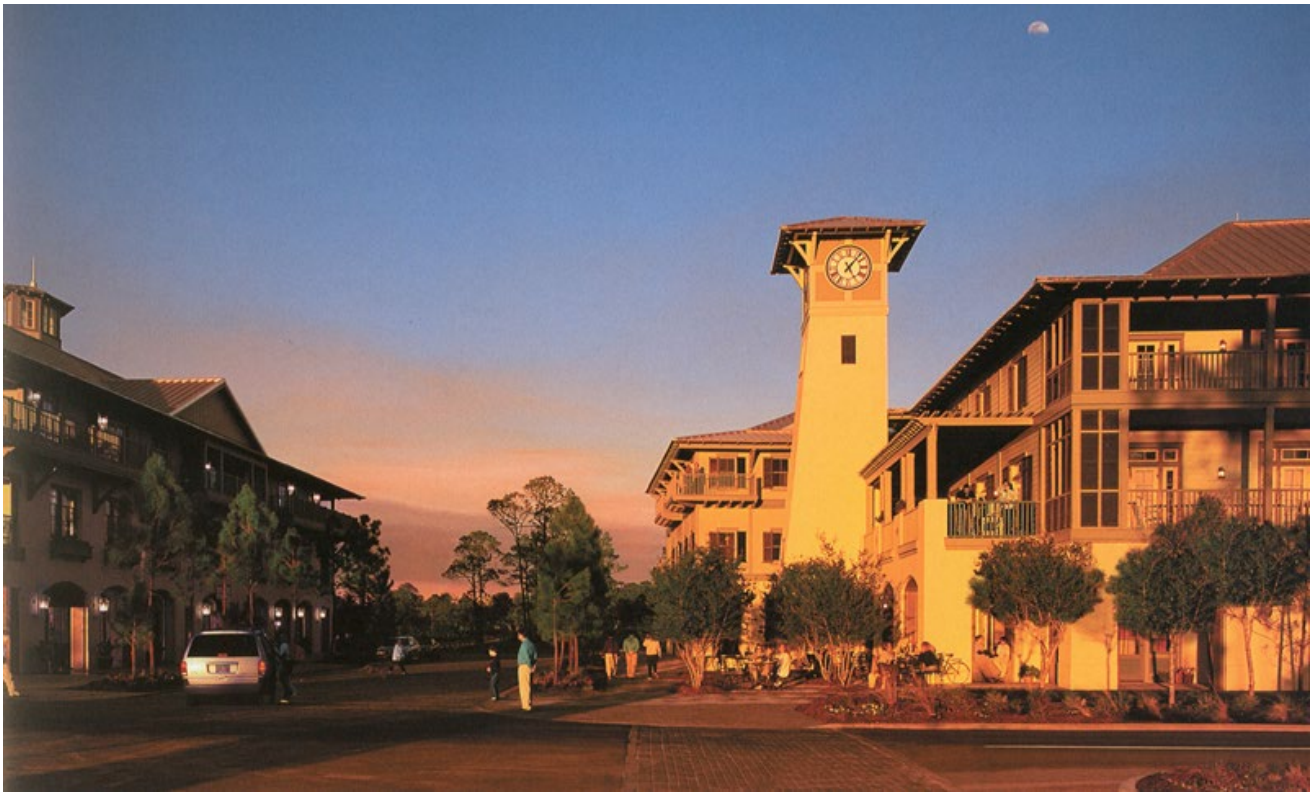

PARKING


Canyon Rose
OPEN









2.2.4 Landscape

Landscaping can have a significant visual impact on a project through the quality of landscaping materials selected and the how landscaping is integrated throughout the project site. Landscaping both visually ties a project together and identifies distinct districts.

The City of Eastvale has been proudly designated as a "Tree City USA" by the Arbor Day Foundation by providing commitments to installing and maintaining an urban forest. The City and this Master Plan continues this commitment to provide an urban forest to improve the visual appeal, increase property values, reduce home colling costs, and remove air pollutants. The following landscape guidelines are required for the Master Plan:

- To create an urban forest as quickly as possible, fast-growing tree species appropriate to the area and climate shall be used.
- Trees shall be planted as soon as practicable in project phasing to encourage more mature tree growth once buildings are occupied.
- The project should have a consistent plant palette, though variations may occur from street to street.
- Streets, promenades, public plazas, and smaller open spaces should have distinctive planting and landscaping treatments, making them unique and enjoyable pedestrian experiences.
- Plants are selected for specific purposes to enhance the project experience.
- Plant and material selection along circulation routes are used to identify distinct districts within the overall project.
- Streets designated as "Enhanced Parkways' on Figure 3.2: *Open Space/Parks* shall include a double-row planting of trees where the trees are planted at an average of least 20 feet on center. This requirement does not include intersecting streets or driveways. Special exceptions may be made for portions of the right-of-way that include utilities that preclude the planting of trees and for visibility of non-residential buildings.
- Surface parking lots shall have a minimum 6-foot wide landscape buffer from all street rights of way, measured from property line. Curbs and parking overhangs may be included within this required buffer.
- Where pedestrian circulation crosses a vehicular travel zone, a change in material, color, or grade is required.
- Landscape must permit adequate sight distance for vehicular and non-vehicular circulation.
- All new landscape areas must have irrigation installed.
- No plants from the California Invasive Plant Council List shall be planted.

2.2.4 Landscaping









2.2.5 Public Spaces

Public spaces bring people together and allow for community events such as concerts, markets, exhibits, and celebrations.



- Public spaces reflect the needs of the community and project.
- Furniture, signage, paving materials and patterns, colors, landscaping, and other design features of the public space are used to create a sense of place and purpose.
- Surrounding buildings and uses are designed to interact with the public space and vice-versa.
- Common outdoor open space in the form of a pocket park, plaza, courtyard, garden, play area or outdoor amenity should be provided. Common outdoor open space must have a minimum dimension of 15 feet in all directions.
- In the Downtown District, the sidewalk along the designated pedestrian corridor shall have a minimum clear width of 10 feet (illustrated below). The sidewalk may



2.2.5 Public Spaces



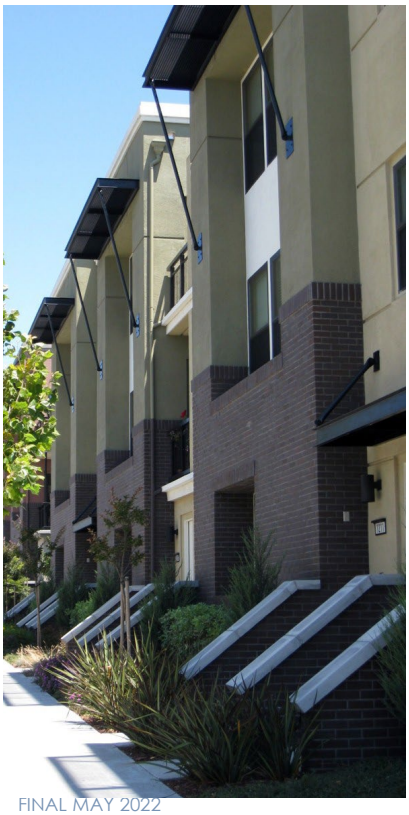


2.2.6 Buffers & Adjacencies

The need to create buffers and address adjacencies between uses also provides an opportunity for continuation of the project theme and elevation of the quality of development.

- Freestanding and retaining walls shall have a minimum 30-inch planter on each exposed side of the wall to allow for the planting of shrubs, flowers, and/or groundcovers to help conceal the wall. Private yards for single-family and multi-family dwellings, open fencing (e.g. tubular steel), and enclosed private areas (e.g. pool deck) are not subject to this guideline.
- Landscaping shall be used as a transition between public and private space.
- Planters matching the theme of the project and planted with colorful flowers are used to separate vehicle and foot traffic and add to visual appeal of the project.







2.2.6 Buffers & Adjacencies





2.2.7 Screens, Fences, & Walls



Screens, fences, and walls act as buffers between land uses, distinguish private space from public space and provide privacy.

- Fences and walls incorporate the project theme and add to the overall visual continuity of the project.
- Landscaping is effectively employed to screen undesirable uses from sight.







2.2.7 Screens, Fences, & Walls







2.2.8 Street Furnishings



Street furnishings shall reflect and complement the overall character of the project and provide consistency between distinct districts, creating an enjoyable and memorable experience.

- Benches and other features are designed to reflect the project theme.
- Tree grates and other project features incorporate the project logo.
- Trash receptacles, newspaper kiosks, light fixtures all feature similar design aesthetic and accent details.
- Bicycle racks are designed for form and function.









2.2.8 Street Furnishings















2.2.9 Thematic Features

Thematic elements incorporated into various design features have a significant impact on establishing a sense of place and identity for a project.

- Project logo may be incorporated into street furnishings, walkways, and signage.
- Artwork/mural on walls within the Downtown District is allowed. Utility boxes may be wrapped with art to provide visual interest on utilitarian infrastructure and may be permitted throughout the entire Master Plan area.
- Material selection and special paving patterns for public spaces shall continue the project theme.
- Project themes are incorporated into building design to reinforce project identity.



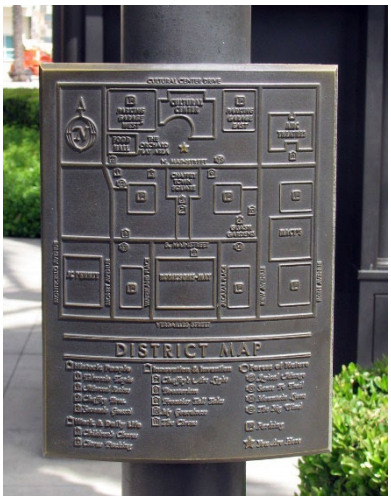




2.2.9 Thematic Features











2.2.10 Signage

Signage plays a significant role in the visual quality of a community. Signs announce one's arrival at a distinct location, direct the flow of traffic, and provide information to the community through a variety of sign types, which are coordinated around a common theme.

General Signage Guidelines

- Signs shall be limited to a maximum of three (3) colors unless the use of corporate color schemes or logos dictates the use of more than three (3) colors. There should be a significant contrast between lettering colors and background colors for legibility.
- Signs for the Downtown District shall be enhanced, including halo-lit, reverse halo-lit, externally illuminated, non-illuminated, or other acceptable "high-quality" design acceptable to the City and approved through a comprehensive sign program.
- Sign conduits, transformers, junction boxes, etc. must be concealed from view.
- No sign shall be placed in such a manner that visibility of signs on an adjacent property is obscured.
- Signs should not extend above the eave line or parapet of the buildings on which they are located, except where such signs form an integral part of the building.
- Select sign colors and materials that contribute to legibility and design integrity.
- The sign copy shall be appropriately sized for the sign structure or wall. Signs should not be too large to overwhelm the elevation, nor should they be too small to be illegible. Sign shall not be more than 80 percent of the width of the unit frontage to which is attached.
- The sign structure shall be consistent with the architectural style of the building that it is placed on or close to.
- Signage may move or rotate, but the mechanism for moving or rotating shall not be visible.
- The use of propellors, flags, or noise-creating devices as part of a permanent sign shall not be allowed.
- The use of light-reflecting materials, messages appearing for less than 30 seconds, or flashing/moving lights is prohibited.

Major and Minor Tenant Identification

The purpose of these signs is to identify major and minor tenants within the Master Plan area. There are typically three (3) different types of signs utilized for tenant identification:

- Monument sigs.

- Walls signs.
- Projecting signs.

Monument Sign Guidelines

- Use a consistent color scheme and design on all free-standing signs within the Downtown District.
- Signs shall be constructed of permanent, durable materials.
- Monument signs should be designed with the width of the base of the sign equal to or more than the width of the sign face.
- Plastic is prohibited except for use for the sign copy. Exterior grade acrylic (e.g. plexiglass) is acceptable.

Wall and Projecting Sign Guidelines

- Locate signs as close to the customer entrance as possible.
- Raceways and sign supports shall not be visible.
- Internally illuminated box signs and banners used as permanent signs are prohibited.
- Projecting signs shall be placed perpendicular to the building wall and should not extend above building eave of a sloped roof or highest point on a flat roof.
- Projecting signs shall be attached to the building fascia or canopy with an attractive and decorative support.
- Exterior signs shall be constructed of permanent and durable materials.
- Creative signage designs and techniques are encouraged.

Changeable Signage

The purpose of changeable signage is to create excitement and provide a visually interesting commercial area. Two (2) styles of this signage used in within the Downtown District to achieve this goal are "pageantry" and "marquee signs."

Pageantry

Pageantry includes flags, pole-mounted banners, kiosks, canopies, lights, directories, ground-mounted graphics, wrapped utility boxes, or other similar, temporary or permanent (but changeable) elements. The intent is to allow regular changes to the pageantry elements in terms of color, design, and other visual content so the pageantry signage can always look current. The intent of pageantry is to help advertise for special events such as fairs, public gatherings, concerts in the park, farmer's markets, etc. and to allow for a variety of different methods to advertise community events within the plan area.

Guidelines for pageantry include:

- Pageantry may be located in any portion of the Downtown District. Pageantry may be placed on street lights and over the public rights-of-way, provided applicable permits have been obtained from Public Works.
- Air-inflated signs, moving signs, paper, cardboard, Styrofoam, stickers, and decals are not acceptable forms of pageantry (directories and kiosks excepted).
- Pageantry shall not include flashing, flickering, rotating, or moving lights.
- Temporary promotional advertising (banners) is not considered to be pageantry.
- Kiosks and directories should provide vertical breaks in the sign structure.
- Individual panels shall be recessed, framed, or treated to avoid a flat appearance of the sign face.

Marquee Signs

Marquee signs are typically used to provide information about current showings or events for theaters and live entertainment uses. Guidelines for marquee signs include:

- Marquee signs may project or be integrated into the building to promote enhanced articulation.
- Plain, rectangular marquee signs without any articulation are discouraged.
- Marquee signs may be manual or electronic.
- Marquee signs may include advertisements.

Directional Signage

The purpose of directional signage is to direct the flow of vehicular and pedestrian traffic within the Mixed-Use District.

Directional and Wayfinding Signs

Directional and wayfinding signs are typically horizontal signs with tenant names and directional arrows. Guidelines for directional/wayfinding signs include:

- Directional and information signs shall be attractive, clear, and consistent in theme, location, and design.
- Place directional signs at strategic locations throughout the Downtown district, providing directions to key destinations and facilities such as parking facilities for automobiles and bicycles, transit stops, and walking and bicycling routes to nearby parks, plazas, neighborhoods, shopping, civic and other destinations.
- The project name may be located on the sign in a smaller, more understated manner to not detract from the wayfinding.
- Directional and signs with exposed Unistrut supports shall be avoided.
- The placement of directional signs shall not limit sight lines.

- Wayfinding signs may be co-located with other streetscape furniture in the Downtown district, such as light standards and transit shelters, where possible, to enhance visibility and reduce visual clutter in the public realm.
- Provide consistency between wayfinding/information signs and street furniture throughout the Downtown district. This can include customized poles and mounts for regulatory signs and lighting fixtures, and an area logo, font, and color scheme.
- Elements such as pole banners or decorative paving elements can serve as public art, branding, and wayfinding.

Temporary Signage

The purpose of temporary signage is to inform the public of a special event of limited duration, such as a grand opening. The duration and requirements for Temporary Signs shall adhere to the provisions within Section 5.7 of the EMC. The guidelines below apply to temporary signage:

- Temporary signage should not be affixed onto the roof of a building, a window or landscape area.
- Temporary signage material should consist of vinyl, nylon, canvas, or cloth.
- Temporary signage should be well maintained.


CITY
HALL


Dripp


TO PARKING
PASEO
ROUTE 66
WEST


P


THEATRE SQUARE


CULTURAL CENTER
FOODHALL
AMC THEATRES
RESTROOMS
CULTURAL CENTER
AMC THEATRES
MACY'S
RESTROOMS
SEPHORA


AMERICANA
DIRECTORY


ELEVATION 66
brewing company




BANANA REPUBLIC
MAINSTREET


RANCHO VICTORIA
CAFES


Elevator & Stairs
East Terrace

3 LAND USE PROGRAM

3.1. INTRODUCTION

On December 13, 2017, the City of Eastvale City Council adopted a General Plan Amendment to change the land use designation for the Leal Property from Business Park, High Density Residential, and Medium Density Residential to "Leal Property" or as shown on the General Plan Land Use Map, the "Leal Policy Area." As part of this General Plan Amendment, the City Council adopted Policy LU-8.1, which is a land use table that specifies permitted land uses and development intensities. This chapter further describes the land use program for the Leal Master Plan and its consistency with General Plan Policy LU-8.1. The land use program establishes the types and intensity of development allowed within the Leal Master Plan. A land use map specifying locations for these uses is provided in Figure 3.1, Land Use Plan. Access roads showing in the Land Use Plan are described in Section 2.2.2, Circulation Plan.

Concurrent with the City Council's adoption of a General Plan Amendment in 2017 for the Leal Property, the City Council certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2015031028). The adoption of this Master Plan Amendment was accompanied by an Addendum to the Leal Master Plan EIR, which provides further detailed environmental review of the land use program. The environmental analysis presented in the Addendum to the Leal Master Plan EIR determined that to avoid new or more severe significant impacts, the maximum development intensity on the Leal Property is 2,500 residential units and 595,000 square feet of general commercial, office, and civic center uses. Since that land use limitation has been established by the environmental analysis, this Master Plan Amendment incorporates that limitation as the maximum permitted land use intensities.

Figure 3.1: Land Use Plan



3.2. LAND USE TYPES AND DEVELOPMENT POTENTIALS

The City of Eastvale General Plan Policy LU-8.1 references a land use table that has been summarized as follows:

Table 3-1:General Plan Land Use Table

Land Use Type	Minimum/ Maximum Permitted	Details
Lifestyle Center	325,000 SF to 1,300,000 SF	Standard and mixed-use retail
General Commercial	Up to 225,000 SF	"Big Box" Retail
Commercial Office	Up to 920,000 SF No Minimum	
Hotel	Up to 450 rooms No Minimum	Permitted in Lifestyle and General Commercial
Civic Center	Not Specified	Permitted anywhere on Project
Residential Medium Density (14 – 21 du/ac)	No Minimum No Maximum	Single Family Attached, condominiums, townhomes,
Residential High Density (22 – 40 du/ac)	Minimum 500 du Maximum 660 du	Townhomes, condominiums, stacked flats, and apartments

This land use table was incorporated into the General Plan as a general guide to the development of the Leal Property, recognizing that further development planning and detail would occur subsequent to the General Plan Amendment. The Leal Master Plan Amendment provides the next stage in refinement of the development plan and thus refines the proposed land use mix of uses and intensities.

General Plan Policy LU-8.1 includes two residential land use categories, Medium-Density and High-Density. The two residential land use types include density ranges provided in dwelling units per acre and a general description of the types of residential products associated with each residential category.

The Leal Master Plan Amendment distinguishes between the two residential densities by location. The High-Density Residential is located within the Downtown area and consists of either vertical or horizontal mixed use, and primarily consisting of apartments[1]. Within the approximately 52-acre Downtown, residential uses could occur on approximately 21 acres[2]. The maximum of 660 dwelling units planned within the approximately 21 acres

[1] The Leal Master Plan does not regulate ownership of residential units, therefore, there are no limitations on the number of rental or owned units.

[2] The residential acreage within the downtown includes the aggregate of Planning Areas 2, 4, and 10.

where residential is permitted represents a density of approximately 31.0 dwelling units per acre, consistent with the High-Density residential category within the General Plan. The remaining 1,840 dwelling units allowed on the project site would occur over approximately 87.54 acres[3]. This represents a density of approximately 21 dwelling units per acre, which is within the Medium-Density category.

As shown in Figure 3-1, the project site has been organized into different Planning Areas. The Planning Areas represent specific development areas that would be developed either with commercial, residential or mixed-use developments. Other planning areas have been designed for parks and open space and others for right-of-way. Table 3-2, Land Use Summary by Planning Area, shows detailed information for each planning area within the Leal Master Plan area, including land use category and acreages.

Table 3-2:Land Use Summary by Planning Area

Planning Area (PA)	Land Use Category	Approximate Area (AC)	Minimum Intensity DU/AC or SQFT/FAR	Maximum Intensity DU/AC or SQFT/FAR
2	Mixed Use[4]	12.6	660 DU[5] 102,575 sqft[6]	660 DUs[7] Max 40 du/ac No Max sqft
4	Mixed Use	6.5		
5	Commercial Core	4.6		
10	Mixed Use	4.5		
3	Commercial Core	9.8	None	None
1	Residential	7.3		

[3] The residential acreage within the Medium Density category includes the aggregate of Planning Areas 1, 6, 7, 8, 9, 11, 12, 13, K, and L. The two parks are included in this acreage calculation because they serve those residential planning areas.

[4] Subsurface detention and water quality features may be located in Planning Area 2 or Planning Area 1, or a combination of both.

[5] A minimum density of 660 dwelling units is required within the Mixed Use portion of the Downtown, which equals over approximately 21 acres. The dwelling units may be allocated evenly across each planning area or clustered in one or more planning area provided the net density of any individual project does not exceed 40 dwelling units per acre. Net density is calculated by the number of dwelling units applied to only the acreage of the development less any streets, roads, parks, trails, or common open space.

[6] A minimum FAR of 0.10 is applied to Planning Areas 2, 4, and 10, resulting in a minimum requirement of approximately 102,575 square feet. The minimum square footage requirement is approximate based on project site design and for purposes of calculating the minimum square footage per this section including Table3-1, square footage is calculated based on the gross size of the building, including storage, stairwells, mechanical rooms, etc. The City may administratively reduce this minimum square footage requirement without the need for a Master Plan amendment if the City decides it would like additional commercial square footage under the 595,000 square foot cap on Lot 3 or if specific building design and/or site use warrants less square footage.

[7] A maximum of 660 dwelling units is permitted in the Downtown area for consistency with the General Plan, since General Plan density is calculated by the total number of units applied to the approximately 21 acres of Mixed Use residential area.

Planning Area (PA)	Land Use Category	Approximate Area (AC)	Minimum Intensity DU/AC or SQFT/FAR	Maximum Intensity DU/AC or SQFT/FAR
6	Residential	5.6	20 du/ac[8]	1840 DUs Max 40 du/ac[9]
7	Residential	14.1		
8	Residential	3.9		
9	Residential	4.4		
11	Residential	16.6		
12	Residential	17.3		
13	Residential	13.2		
14	Public Facility	1.2	0.6	
A - D	Right-of-Way	9.4	N/A	
E - I	Internal Streets	13.5	N/A	
J-V	Parks and Trails	14.1	N/A	
Total		158.59		
Maximum Development Intensity[10]		2,500 DU	595,000	

3.2.1. Downtown (DT)

The Downtown District (DT) land use category accommodates a mix of residential uses, commercial and office uses such as retail and restaurants, general commercial and commercial office, civic center, and residential. The vision for a lifestyle center included in the City's General Plan occurs within the Downtown District. The DT category applies to approximately 52 gross acres within planning areas 2, 3, 4, 5 and 10 located to the northwest of the Limonite Avenue/Hammer Avenue intersection, in the southeast corner of the Master Plan area. The Master Plan provides for up to 595,000 square feet of commercial, office and civic uses, under the DT land use category. Approximately 21 acres within the DT area can accommodate residential uses. A minimum of 660 dwelling units is required. The

[8] Within the 87.54 acres of Residential Uses (Planning Areas 1, 6, 7, 8, 9, 11, 12, 13, K, and L), a minimum of 730 dwelling units shall be constructed at a minimum net density of 20 dwelling units per acre. The dwelling units may be allocated within one or more planning areas provided the net density of any individual project does not exceed 40 dwelling units per acre. Net density is calculated by the number of dwelling units applied to only the acreage of the development less any streets, roads, parks, trails, or common open space.

[9] A maximum of 1840 dwelling units is permitted in the Residential Uses area for consistency with the General Plan, since General Plan density is calculated by the total number of units applied to the 87.54 acres of Residential Uses area.

[10] Maximum development intensity was determined through the Leal Master Plan EIR and Leal Master Plan EIR Addendum.

dwelling units may be allocated within one or more planning areas provided the net density of any individual project does not exceed 40 dwelling units per acre.

3.2.2. Residential Uses (RU)

The Residential Uses (RU) land use category applies to planning areas 1, 6, 7, 8, 9, 11, 12 and 13. The Master Plan envisions variation in product types, including both detached and attached residential housing types, within the residential category to promote diversity and dynamic neighborhoods. The appropriate residential product types are discussed in Chapter 4, Development Standards. Within the 87.54 acres of Residential Uses (Planning Areas 1, 6, 7, 8, 9, 11, 12, 13, K, and L), a minimum of 730 dwelling units shall be constructed at a minimum net density of 20 dwelling units per acre. The dwelling units may be allocated within one or more planning areas provided the net density of any individual project does not exceed 40 dwelling units per acre. Net density is calculated by the number of dwelling units applied to only the acreage of the development less any streets, roads, parks, trails, or common open space. A maximum of 1,840 dwelling units[11] is permitted in the Residential Uses area for consistency with the General Plan, since General Plan density is calculated by the total number of units over the 87.54 acres of Residential Uses area.

3.2.3. Public Facilities (PF)

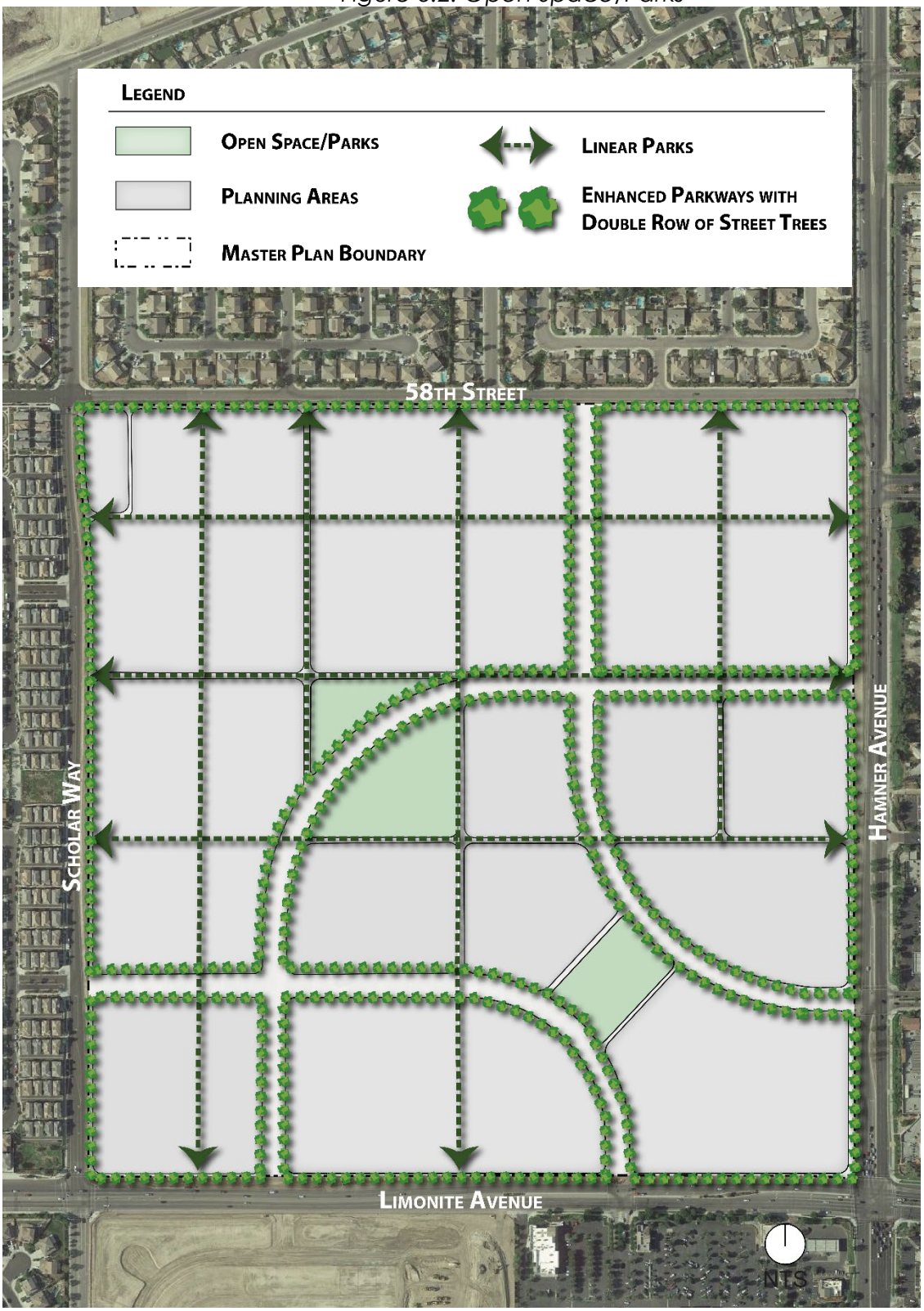
The Public Facility (PF) land use category applies to a 1.2-acre area within planning area 14 located at northwest corner of the Master Plan area. The PF land use designation provides for the development of a fire station.

3.2.4. Parks and Open Space (P/OS)

The Master Plan also provides for compatible recreational uses serving the needs of the residents, such as paseo, parks, recreation facilities and open space, as shown in Figure 3.2, Open Space/Parks Plan, which totals approximately 14.12 acres.

[11] The maximum number of dwelling units of 2,500 was determined by the Addendum to the Master Plan EIR to avoid new or more severe significant impacts. Assuming 660 units are constructed in the DT area, the remaining 1,840 units may be constructed in the RU area.

Figure 3.2: Open Space/Parks



Illustrative purpose only, final design may vary.

3.3. PERMITTED USES

3.3.1. Permitted Uses by Land Use Category

Permitted uses within the Leal Master Plan area are identified on Table 3-3, Permitted Uses. Other use or activity not listed in Table 3-3 may be permitted within the Master Plan area if it is compatible with the intent of the Master Plan and is similar to a permitted use, subject to approval by the Community Development Director or his/her designee.

Table 3-3: Permitted Uses

Permitted (P): Permitted by right
Conditional (C): Permitted upon issuance of a Conditional Use Permit
Not Permitted (blank): Not permitted
Temporary Use (T): Permitted short-term activities

LAND USE	RU	DT	PF	P/OS
Agricultural Workers Housing				
Airports				
Ambulance Services				
Animal Hospitals				
Animal Training				
Apiaries				
Aquaculture				
Art Gallery, Library, Reading Room, Museum		P		
Auction Houses				
Automobile Parts and Supply Stores				
Automobile Service and Repair				
Bail Bonds/Pawnshops				
Banks and Financial Institutions		P		
Barber and Beauty Shops		P		
Bars and Cocktail Lounges		C		
Blueprint and Duplicating Services				
Boat and other Marine Sales and Rental				
Boat Services				
Body and Fender Shops and Spray Painting				
Boutique Wine and Beer Stores (Type 20 ABC Licenses), per Section 3.3.2.5 of the Leal Master Plan		P		

LAND USE	RU	DT	PF	P/OS
Breweries, Wine Blending Businesses, and Distilleries (with a tasting room), less than 1,000 square feet subject to Section 3.3.2.4 of the Leal Master Plan		P		
Breweries, Wine Blending Businesses, and Distilleries (with a tasting room), greater than 1,000 square feet subject to Section 3.3.2.4 of the Leal Master Plan		C		
Breweries, Wine Blending Businesses, and Distilleries (without a tasting room), subject to Section 3.3.2.4 of the Leal Master Plan				
Building Materials Sales Yards				
Building Movers Storage Yard				
Bungalow Courts	P			
Car Washes				
Casinos, including Card Clubs/Rooms				
Cemeteries, Crematories and Mausoleums				
Check-Cashing and Payday Advance				
Cigar, Cigarette and Tobacco Sales				
Cigar, Hookah, and Cigarette Lounges				
Civic Center		P		
Clinics/Office, including Medical, Dental, Chiropractic		P		
Communications and Microwave Installations				
Congregate Care Facilities (7 or more persons)	C	C		
Day Care Centers				
Department Stores				
Discount Stores (i.e., 99 Cents Only Store, Dollar General, Dollar Tree, etc.)				
Drive-In or Drive-Through Operations or Facilities (any use)				
Dwelling, Multiple Family[2]	P	P[1]		
Dwelling, Second Unit[2]	P	P[1]		
Dwelling, Single Family[2]	P	P[1]		
Dwelling, Two Family[2]	P	P[1]		
Emergency Shelters				
Employment Agencies				
Equipment Rental Services				

LAND USE	RU	DT	PF	P/OS
Equipment Sales and Storage				
Establishments with four or more electronic games or coin-operated amusements, or where 50 percent or more of the floor area is occupied by amusement devices, are considered an electronic game arcade as described above; three or fewer machines are not considered a land use separate from the primary use of the site.		C		
Family Day Care, Large	P	P		
Family Day Care, Small	P	P		
Farmers Markets, Carnivals, and other similar temporary events, subject to Eastvale Zoning Code Section 1.5.G, Temporary Events and Permits		T		
Feed and Grain Sales				
Fire and Police Stations		P	P	
Fortune-Telling, Spiritualism, or Similar Activity				
Fraternity and Sorority Houses				
Gasoline Service Stations, with or without the concurrent sale of beer and wine for off-premises consumption				
Golf Cart Sales and Service				
Golf Courses, not including the construction of buildings				
Grocery Stores/Market/Specialty Food Stores		P		
Group Homes (6 or fewer persons)	P	P		
Hardware and Home Improvement Centers				
Hazardous Waste Facilities				
Heliports				
Home Occupations	P	P		
Hospitals				
Hotels		C		
Indoor Amusement/Entertainment Facility: Establishments providing indoor amusement and entertainment services as primary uses for a fee or admission charge, including dance halls, ballrooms, electronic game arcades, dance classes, karate, yoga, etc.		C		

LAND USE	RU	DT	PF	P/OS
Indoor Fitness and Sports Facility: Predominantly participant sports and health activities conducted entirely within an enclosed building. Typical uses include bowling alleys, billiard parlors, ice/roller skating rinks, indoor racquetball courts, indoor climbing facilities, soccer areas, athletic clubs, and health clubs.		C		
Laboratories, Film, Dental, Medical, Research, or Testing				
Liquid Petroleum Service Stations				
Liquor Stores (Type 21 ABC Licenses), subject to Section 3.3.2.5 of the Leal Master Plan				
Live-Work Units, subject to Section 3.4.2.2 of the Leal Master Plan		P		
Lumber Yards, including only incidental mill work				
Massage Parlors, Turkish Baths, or similar personal service establishments				
Medical Marijuana Dispensary				
Meteorological Towers				
Mini Storage				
Mobile Home Sales and Storage, Trailer Sales and Rental House Trailers				
Mobile Home Sales Lot				
Mortuaries				
Motels				
Nurseries and Garden Supply Stores				
Outdoor Commercial Recreation: Facility for various outdoor participant sports and types of recreation where a fee is charged for use (e.g., amphitheaters, amusement and theme parks, golf driving ranges, health and athletic clubs with outdoor facilities, miniature golf courses, skateboard parks, stadiums and coliseums, swim and tennis clubs, water slides, zoos)		C		P
Outdoor Kiosks and Vendor Carts		C		
Parcel Delivery Services				
Petroleum and Bulk Fuel Storage, above ground				
Planned Residential Developments	P	P		

LAND USE	RU	DT	PF	P/OS
Printers or Publishers				
Private Recreation or Event Facilities				P
Professional Offices		P		
Public Infrastructure Facilities, including, but not limited to, drainage, water quality and flood control facilities and public communications facilities	P	P	P	P
Public Recreation, Nonprofit Community Centers and Clubhouses, Social Halls, Parks, Playgrounds, Community Recreation Facilities, Plazas, Trails and Paseos, Community Gardens, Open Space and other similar recreational uses				P
Public Utility Substations and Storage Yards				
Real Estate Offices, Temporary	P	P		
Recycling Collection Facilities				
Religious Institutions	C	C		
Restaurants and other eating establishments with alcoholic beverage consumption (Types 41 and 47 ABC Licenses), subject to Section 3.4.2.3 of the Leal Master Plan		C		
Restaurants and other eating establishments, including fast food restaurants and sandwich shops (excluding drive-through uses), without alcoholic beverage consumption		P		
Restricted Single-Family Residential Subdivisions	P	P		
Retail Sales and Services, <30,001 sq. ft.		P		
Retail Sales and Services, >30,000 sq. ft.				
Sale, Rental, Repair, or Demonstration of Motorcycles, Scooters, and Motorbikes				
Schools, Business and Professional, including Art, Barber, Beauty, Dance, Drama, Music and Swimming		P		
Schools, Private		C		
Senior Housing	P	P		
Sewage Treatment Plants				
Sex-oriented Businesses				
Stations, Bus and Taxi				
Swap Meets				

LAND USE	RU	DT	PF	P/OS
Tattoo Parlors				
Theaters (Live or Cinematic), not including Drive-Ins		C		
Tire Recapping				
Tire Sales and Service, not including recapping				
Tourist Information Centers				
Trailer and Boat Storage				
Travel Trailers and Recreational Vehicle Sales and Service				
Truck and Trailer Sales and Rental				
Truck Service				
Wedding Chapels				
Wireless Communication Facilities, Private	Pursuant to Sec. 4.14 of the EMC			

Note [1]: Residential uses, including live-work, are not allowed in the Planning Area 3 and 5 in Downtown (DT), except as outlined in the Development Agreement.

Note [2]: Residential use types are further defined in Chapter 4.

3.3.2. Standards Related to Specific Uses

The following standards apply to specific uses within the Leal Master Plan. Uses not listed here will be subject to a determination by the Community Development Director.

3.3.2.1. Outdoor Kiosks and Vendor Carts

A. Signage: All signs on outdoor kiosks and vendor carts shall be regulated by Section 4.5, Signage, of this Master Plan.

B. Minor Development Review: Prior to commencement of each outdoor kiosk and vendor cart on public property, the business owner shall obtain approval from the Community Development Director for the size, design, and aesthetic characteristics, to ensure the facility is consistent with the overall characteristic of the development.

3.3.2.2. Live-Work Units

For live-work development in the Planning Areas 2, 4, and 10, the following commercial/residential activities, conducted wholly within enclosed buildings,

shall be permitted, provided the commercial/office uses shall occur in conjunction with residential uses and are not standalone uses:

A. Tailor/Seamstress/Clothing Designer – custom tailoring and sales of apparel in conjunction with tailoring activities, clothing and other sewing products made on the premises

B. Artists and craft/sculpture products, sales galleries, and studios

C. Internet-based commerce (no inventory, no pornography)

D. Office - creative/tech-based offices and services

E. Office - professional offices and services

F. Photographer/photography studios

G. Residential uses in conjunction with office, retail or other work-related uses as permitted herein for live-work development

H. Spas and personal care to include esthetician/body sculpting with proof of training, nail salons and hair salons (for single patron use only and subject to Homeowners Association/Property Owners Association approval)

I. Similar uses permitted by the determination of the Community Development Director.

The property development standards set forth below shall apply to all live-work units within the confines of the Leal Master Plan:

A. Live-work units include the combination of residential living units and workspace of a building for self-employed residents. Ground floor residential living may be permitted in live-work units.

B. Where live-work uses are operated, the workspace shall be limited to a maximum of 50 percent of the entire unit (minus porches and garages).

C. The working area of a live-work unit shall be used exclusively for work activities and not for residential purposes.

D. Storage of hazardous materials necessary for work activities in live-work occupancies may be stored in controlled areas per the current California Building Code used by the City of Eastvale.

E. The residential portion of the live-work unit shall only be occupied by the individual and his/her household that has their professional occupation established in the same unit.

F. Live-work units are single-tenant spaces that include both residential and commercial/office square footage in a single unit providing for a

business to be conducted solely by the resident. In no instance shall the work portion of the live-work unit be sub-leased.

G. Noise levels generated by live-work spaces shall conform to the requirements of the Eastvale Municipal Code for residential use.

H. All signage and lighting shall comply with the requirements of the Leal Master Plan and the Eastvale Zoning Code and must be approved the City of Eastvale.

3.3.2.3. Alcohol Sales with a Bona-Fide Eating Establishment

The sale of beer, wine, or spirits is permitted as an accessory use for any bona-fide eating establishment under a "Type 41 License" or a "Type 47 License" of the California Department of the Alcoholic Beverage Control (ABC) Board.

In addition to the design guidelines and development standards contained in the Leal Master Plan, the following performance standards shall apply to accessory alcohol sales with a bone-fide eating establishment:

A. Food shall be available for purchase at all times during restaurant operating hours.

B. Alcohol sales shall not exceed 50 percent of gross receipts for the establishment.

C. Any sale of spirits for consumption off-premises is strictly prohibited. The consumption of spirits shall be limited to the restaurant area as defined per applicable license from the ABC Board.

D. Beer and wine may be purchased for off-premises consumption; however, the beer and wine sold for off-premises consumption may not be consumed on the premises that it was purchased on.

3.3.2.4. Breweries, Wine Blending Businesses, and Distilleries

Accessory beer, wine, or distilled spirit tastings is permitted within an alcoholic beverage manufacturing facility, provided the area devoted to tastings shall provide parking at the same rate as a restaurant or bar as described in Chapter 4, Table 4-8. The alcohol production area shall provide parking at the same rate as a manufacturing use as described in Chapter 4, Table 4-8. All such uses described within this section shall have an active, valid license from the ABC Board, as applicable.

In addition to the design guidelines and development standards contained in the Leal Master Plan, the following requirements shall apply to craft breweries, wine blending businesses, distilleries, and accessory tasting rooms:

A. A brewery, wine blending, or distillery use with a tasting room equal to or less than 1,000 square feet shall be permitted by right. An accessory

tasting room of more than 1,000 square feet shall be required to apply for a Conditional Use Permit.

B. A brewery, wine blending or distillery use may not exceed production of 15,000 barrels per year.

C. All production activities and on-site storage shall be located completely within the facility. Off-site storage is permitted, provided it meets all applicable provisions of the underlying zone. The display of alcoholic beverages shall be located within the manufacturing area and accessory tasting room facility.

D. The brewery, wine blending, or distillery use and accessory tasting room use shall be allowed to operate and be open to the public during the following hours:

   i. Manufacturing and Operation: 7:00 A.M. to 7:00 P.M. Monday through Saturday; and

   ii. Accessory Tasting Room Open to the Public: 11:00 A.M. to midnight daily, 11:00 A.M. to 1:00 A.M. on Friday and Saturday.

E. Service trucks used for the purposes of loading and unloading materials, ingredients, products, and equipment shall be restricted to the hours of 7:00 A.M. to 6:00 P.M. Monday through Friday and 9:00 A.M. to 6:00 P.M. on Saturday.

F. The consumption, tasting and sales of alcoholic beverages shall be limited to only those products produced on site.

G. Ancillary retail sales shall be limited to only those retail items directly associated with the on-site facility and accessory tasting room.

H. The brewery, wine blending, or distillery use or accessory tasting room shall not charge an admission fee, cover charge or require a minimum purchase.

I. A security plan, including a video surveillance system and exterior lighting plan, satisfactory to the Community Development Director, or his/her designee, shall be submitted to and approved prior to the issuing of a Certificate of Occupancy. The video surveillance system shall be installed to assist with monitoring the property on both the interior and exterior. A Digital Video Recorder (DVR) or similar video-recording device, capable of exporting images in TIFF, BMP, or JPG format shall be used. Recording shall be retained for no less than 30 days. Exterior lighting shall clearly illuminate the common areas surrounding the building including, but not limited to, the entrance and exit doors, as well as the business address.

J. No more than 10 percent of the window display area (including any transparent doors) shall be allowed to bear advertising, signs or any other obstructions. All advertising, signage or other obstructions shall be placed and maintained to ensure a clear and unobstructed view of the establishment's interior. Window signs displaying prices shall be prohibited. No advertising or signage shall be placed in the area above 3 feet or below 6 feet in height of all windows measured from grade.

K. Tours of the brewery, wine blending, or distillery use and accessory tasting room use shall occur on regularly scheduled days and times. The operator shall ensure that tours do not negatively impact adjacent businesses or property owners.

L. The use is not considered a nuisance as defined in the Eastvale Municipal Code;

3.3.2.5. Off-Premises Alcohol Sales

Boutique Wine and Beer Stores may permit the sale of wine and beer for off-premises consumptions under a "Type 20 License" of the ABC Board. General Liquor Stores may permit the sale of general alcohol sales, wine, and beer for off-premises consumptions under a "Type 21 License" of the ABC Board.

In addition to the design guidelines and development standards contained in the Leal Master Plan, the following performance standards shall apply to Boutique Wine and Beer Stores and General Liquor Stores:

A. The use does not result in any adverse effects, jeopardize, or endanger the health, peace, or safety of persons residing, visiting, or working in the surrounding area; The exterior lighting and security measures shall comply with applicable requirements.

B. The use is operated and maintained in a neat, quiet, and orderly condition and operated in a manner so as not to be detrimental to surrounding properties and occupants. This shall encompass the upkeep and maintenance of exterior facades of the building, landscaping, designated parking areas serving the use, fences, and the perimeter of the site, including all public sidewalks, alleys, and parkways;

C. The use is not considered a nuisance as defined in the Eastvale Municipal Code;

D. The exterior lighting and security measures shall comply with applicable requirements (including, but not limited to Sections 120.05.050, Outdoor Lighting; 120.05.080, Neighborhood Preservation Standards; 120.05.060, Off-Street Vehicle Parking as applicable)

E. No more than 10 percent of the square footage of the windows and transparent doors of the premises shall be allowed to bear advertising, signs or any other obstructions including products, shelving, display items

and/or coolers. All advertising, signage, product, shelving, display items and/or coolers shall be placed and maintained to ensure a clear and unobstructed view of the establishment's interior. Window signs displaying prices shall be prohibited. No advertising or signage shall be placed in the area above 3 feet or below six (6) feet in height of all windows measured from grade.

F. A copy of these performance standards, additional City or ABC Board imposed operating conditions, and a 24-hour complaint telephone number shall be posted in a conspicuous and unobstructed place visible from the entrance of the establishment in public view.

4 DEVELOPMENT STANDARDS

This chapter contains the permitted uses and development standards for the Leal Master Plan. Standards not addressed in this chapter are subject to the City of Eastvale Municipal Code in effect at the time of approval of this Master Plan. Additionally, in order to be approved by the City, development will need to comply with the quality expectations and community features identified in Chapter 2 of this Master Plan.

4.1. DEVELOPMENT STANDARDS

4.1.1. Downtown Development Standards

The Downtown (DT) District is envisioned to be the focal point in the City. The intent is to develop an open-air marketplace for retail and specialty uses that are not currently present in Eastvale and in nearby communities (including Live/Work units).

The mix of uses may be horizontal (different uses within a Planning Area separated horizontally) or vertical (different uses within the same building, with commercial or office uses located on the ground floor and with office or residential uses located above). The residential component of this land use district is intended to provide for the development of multi-family residential dwellings in an urban atmosphere.

Minimum and maximum development intensities and densities are outlined in Chapter 3 of this Master Plan.

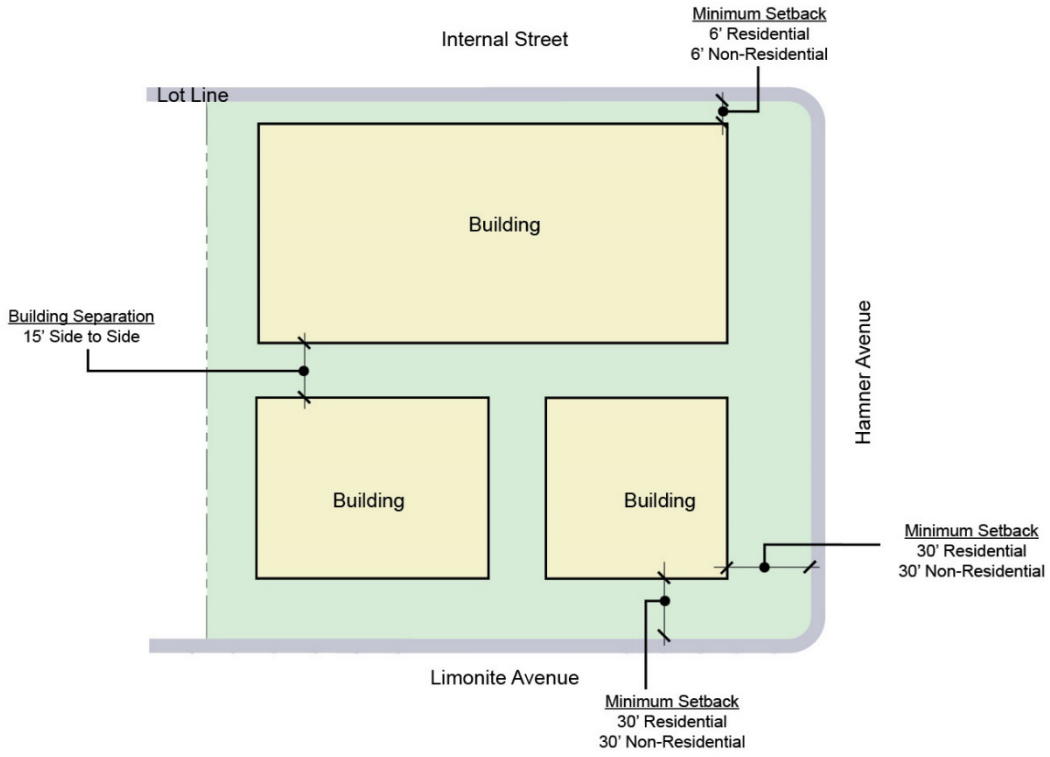
DT District includes planning areas 2, 3, 4, 5 and 10.

Table 4-1 establishes the development standards for the Downtown District. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.1. Residential uses within the Downtown District are subject to the development standards provided in Table 4-1. Where Table 4-1 is silent on a development standard, the development standards presented later in this chapter for specific product types would apply for the project type proposed. If there is a conflict in development standards between Table 4-1 and the development standards for product types, Table 4-1 shall govern.

Table 4-1:Downtown Development Standards

	RESIDENTIAL BUILDINGS	NON-RESIDENTIAL/ MIXED-USE BUILDINGS
Maximum Site Coverage	75%	N/A
Maximum Building Height	65' (4 stories)	
Minimum Building Setbacks From		
Hamner Avenue ROW	30'	30'
Limonite Avenue ROW	30'	30'
Lot Line Along Internal Street	6'	6'
Minimum Building Separation		
Residential - Front to Front (entries) - at open space	20'	N/A
Residential - Side to Side (no entries) - at open space	15'	N/A
Non-Residential/Mixed-Use – Side to Side	N/A	15'

Figure 4.1 Downtown Setback Diagram



4.1.2. Residential Development Standards

The development standards and product types included herein are intended to establish the minimum design parameters. An appropriate mix of building types shall be incorporated into the residential land use and mixed-use districts to avoid monotonous neighborhoods.

Table 3-2 within Chapter 3 establishes permitted uses, including Dwelling – Multiple Family, Second Unit, Single Family, and Two-Family. Those permitted residential land use categories are further defined in this Chapter through the following description of residential product types permitted in the Master Plan area.

Development standards for residential uses within the Downtown District are presented above in Table 4-1. Development standards for residential uses within the Residential Uses District (Planning Areas 1, 6, 7, 8, 9, 11, 12 and 13) are presented below by housing type.

Conventional Single Family Detached Homes typically have street front orientation where primary entries and walks face the street or the side, and have private rear and side yards. Garages are in the front or side and face the street. Resident parking spaces are provided in garages and guest parking spaces are provided in driveways or on local streets.

Zero-Lot Line Homes are designed to fit together along a common property line by providing one home with a deeply recessed garage. Reciprocal use easements are used to maximize the side yard areas. Zero-lot line homes typically have street front orientation where primary entries face the street, and have private rear and side yards. Garages with driveways face the street. Resident parking spaces are provided in garages and guest parking spaces are provided in driveways or on local streets.

Rear Loaded Homes have street-facing primary entries and are designed to take garage access from a shared access drive behind the homes. Private yard space is provided in a side yard, a courtyard behind the front portion of the house or behind the house between a detached garage and the home. Resident parking spaces are provided in garages and guest parking spaces are provided in driveways (18' minimum in length where provided), on the street or in a common parking area. Reciprocal use easements may be used to maximize side yard areas.

Detached Cluster Homes are single-family detached dwellings oriented on a shared access drive. Each cluster module typically consists of 4 to 10 dwelling units. Resident parking spaces are provided in garages and guest parking spaces are provided on the street or in a common parking area. Reciprocal use easements may be used to maximize side yard areas.

Row Townhomes are single-family attached homes with primary entries facing street or common open space. The units have private outdoor living space. Automobile access is via an alley or shared access drive. Resident parking spaces are provided in garages, and guest parking spaces are provided on public or private local streets or in designated parking areas.

Attached Motorcourt Homes are buildings mixed with townhomes and flats. The entries are from the street or common open space. Automobile access is via an alley or shared access drive. Resident parking spaces are provided in garages, and guest parking spaces are provided on public or private local streets or in designated parking areas.

Apartments/Flats are buildings with either walk-up units or flats in multiple story configurations. The entries can either be external from the street or common open space, or internal and elevator served. Resident parking spaces are provided either in garages, surface parking, or in multiple story parking structures. The units tend to be for rent as opposed to for sale.

Detailed design standards per product types are presented below and shown in Tables 4-2 to 4-7.

4.1.2.1. Conventional SFD Residential

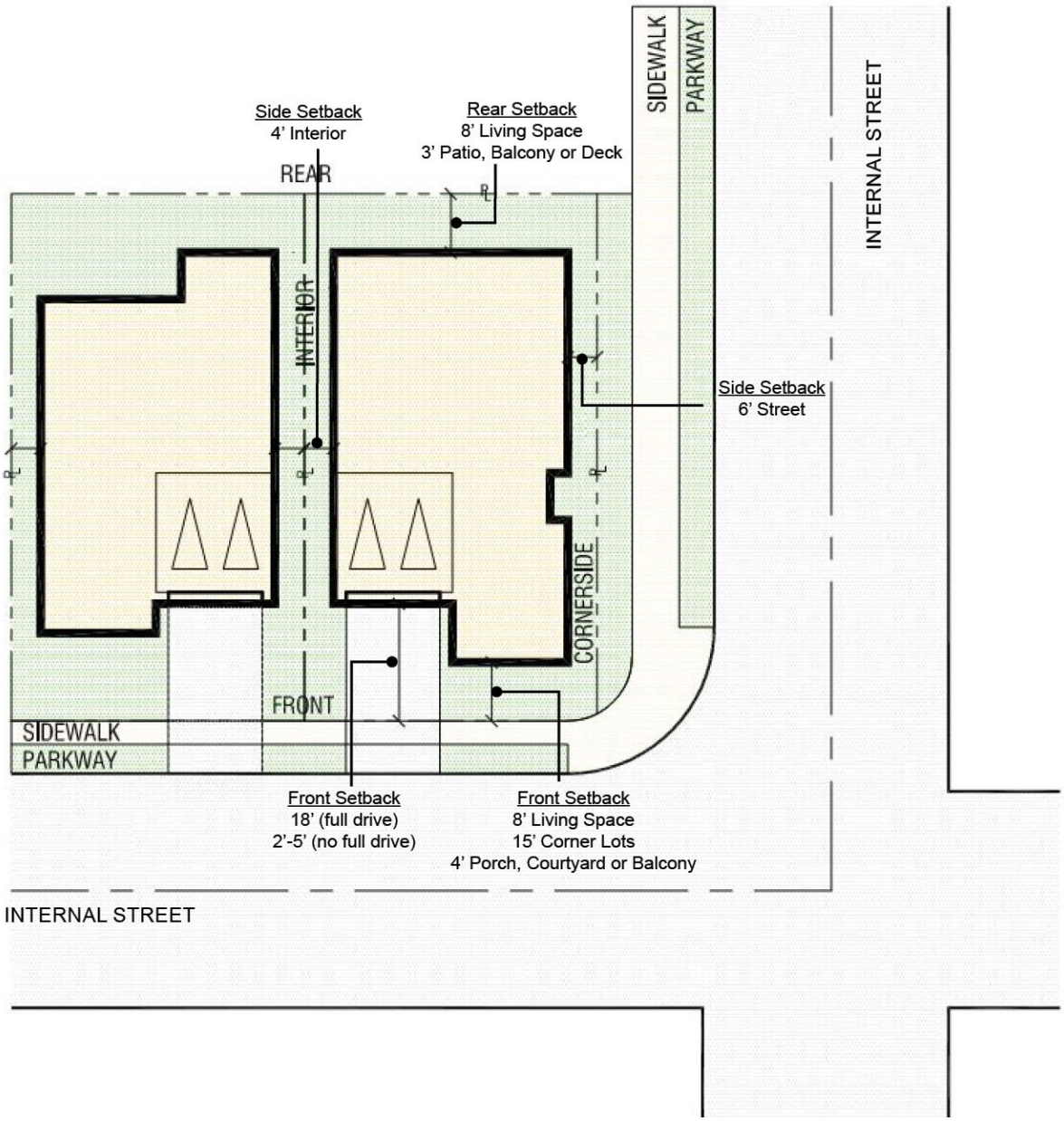
The development standards provided in Table 4-2 have been established to encourage forward-facing living space. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.3. These standards allow for the placement of entries, windows, front porches and living spaces closer to the street to provide more active and visually interesting streetscape.

Table 4-2: Conventional SFD Residential Development Standards

	Conventional SFD Homes
Minimum Lot Size	2,500 sq. ft.
Minimum Lot Width[1]	40'
Maximum Building Coverage	70%
Maximum Building Height	50' (3 stories)
Minimum Front Setback (from Property Line)	
Living Space	8' (15' at the corner lots)
Porch, Courtyard or Balcony	4'
Front Entry Garage	18' (full driveway)/ 2'-5' (no full driveway)
Minimum Side Setback (from Property Line)	
Interior Side	4'
Internal Street Right-of-Way Side	6'
Minimum Rear Setback (from Property Line)	
Living Space	10'
Patio Cover, Balcony or Deck	3'

[1] The minimum lot width for knuckle and cul-de-sac lots shall be the average of the widths measured at the front and rear edges of the lot

Figure 4.3 Conventional SFD Residential Setback Diagram



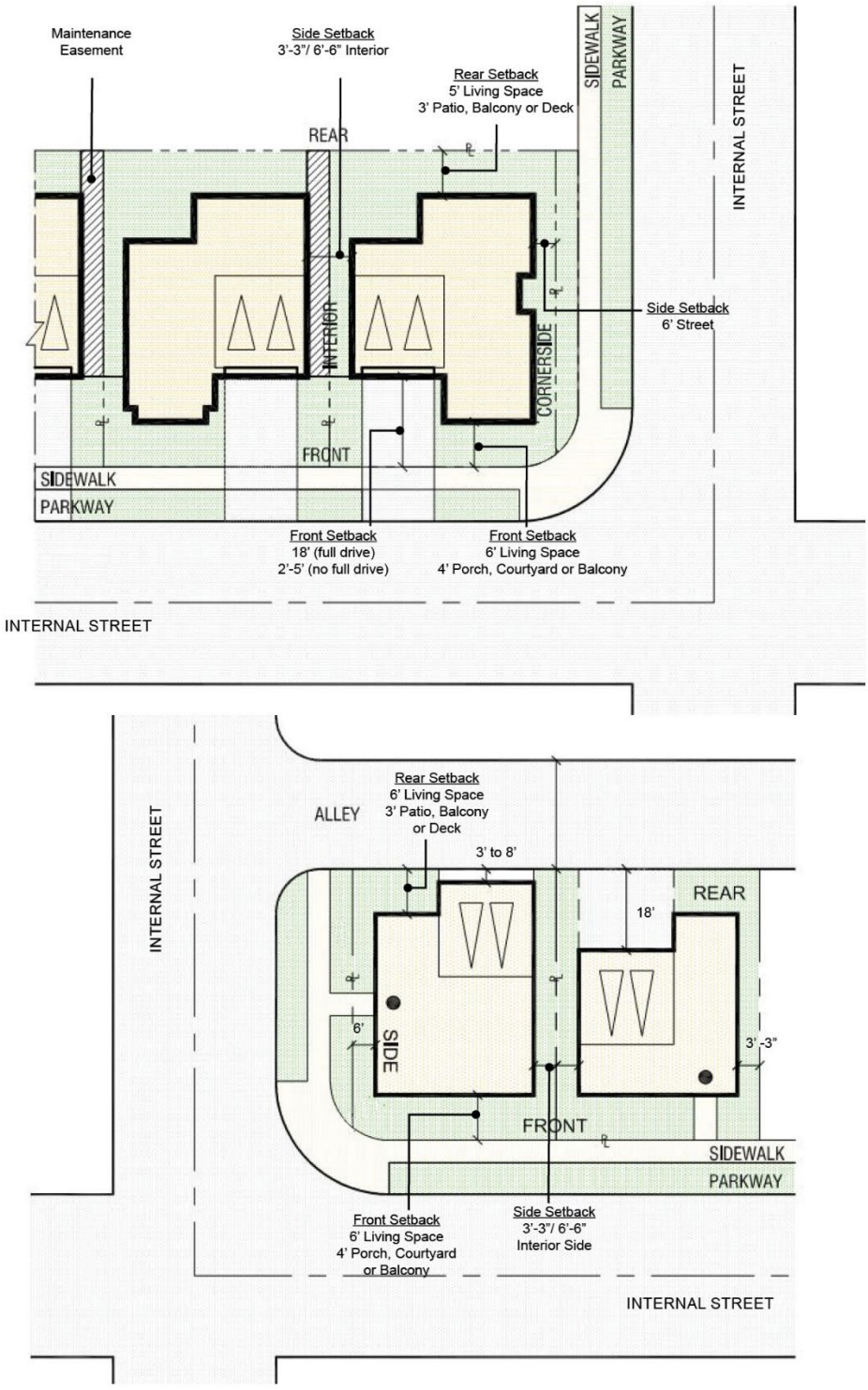
4.1.2.2. Zero-Lot Line and Rear Loaded SFD Residential

Table 4-3 establishes the development standards for front loaded zero-lot line and rear loaded SFD residential development. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.4. Note: Zero-Lot Line Homes may be front or rear loaded. In the event that a rear-loaded Zero-Lot Line Home is proposed, the Rear-Loaded Homes standards shall apply (with a maintenance easement for the side yard).

Table 4-3: Zero-Lot & Rear Loaded SFD Residential Development Standards

	Zero-Lot Line Homes	Rear Loaded Homes
Minimum Lot Size	2,500 sq. ft.	2,000 sq. ft.
Maximum Building Height	50' (3 stories)	50' (3 stories)
Maximum Building Coverage	70%	70%
Minimum Front Setback (from Property Line)		
Living Space	6'	6'
Porch, Courtyard or Balcony	4'	4'
Front Entry Garage	18' (full driveway/2'- 5')	N/A
Minimum Side Setback (from Property Line)		
Interior Side (one side/between buildings)	3'/6'	3'/6'
Internal Street Right-of-Way Side	6'	6'
Minimum Rear Setback (from Property Line)		
Living Space	5'	5'
Patio Cover, Balcony or Deck	3'	3'
Rear Entry Garage Setback (from Access Drive)	N/A	3' to 8' or 18' min.

Figure 4.4 Front Loaded Zero-Lot & Rear Loaded SFD Residential Setback Diagrams



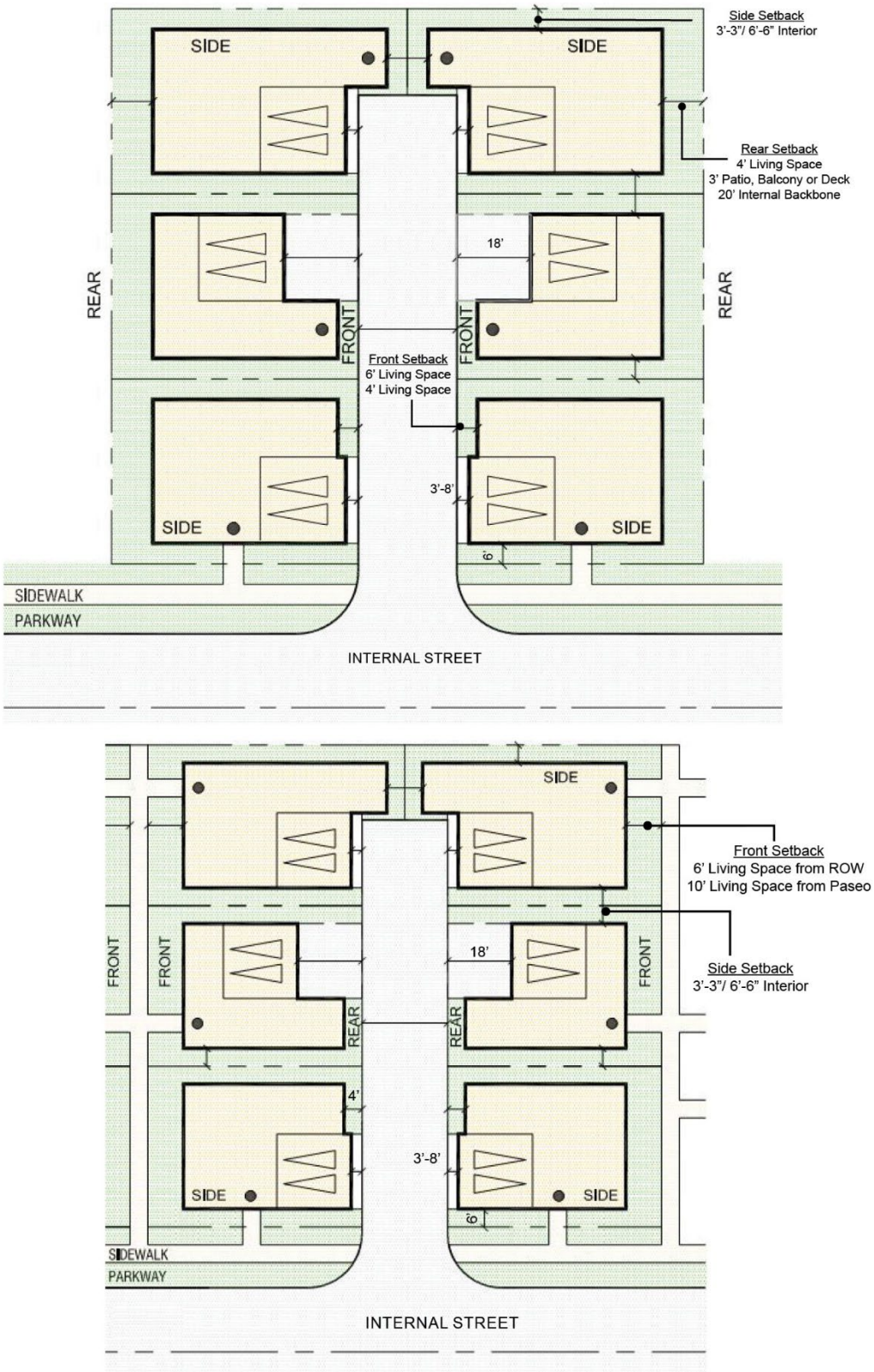
4.1.2.3. Detached Cluster Residential Development

Table 4-4 establishes the development standards for detached cluster residential development. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.5.

Table 4-4:Detached Cluster Home Development Standards

	Front-Loaded Cluster Homes	Rear-Loaded Cluster Homes
Minimum Lot Size	1,500 sq. ft. (or Condo Map)	1,500 sq. ft. (or Condo Map)
Maximum Building Height	50' (3 stories)	50' (3 stories)
Maximum Building Coverage	70%	70%
Minimum Front Setback		
Living Space from Internal Street Right-of-Way	6'	6'
Living Space from Access Drive	4'	N/A
Living Space from Paseo Walkway	N/A	10'
Minimum Side Setback		
Interior Side (one side/between buildings)	3'-3"/6'-6"	3'-3"/6'-6"
Internal Street Side (from internal street right-of-way)	6'	6'
Minimum Rear Setback (from Lot Line)		
Living Space	4'	4'
Patio Cover, Balcony or Deck	3'	N/A
Garage Face from Access Drive	3' to 8' or 18' min.	3' to 8' or 18' min.

Figure 4.5 Detached Cluster Home Setback Diagram



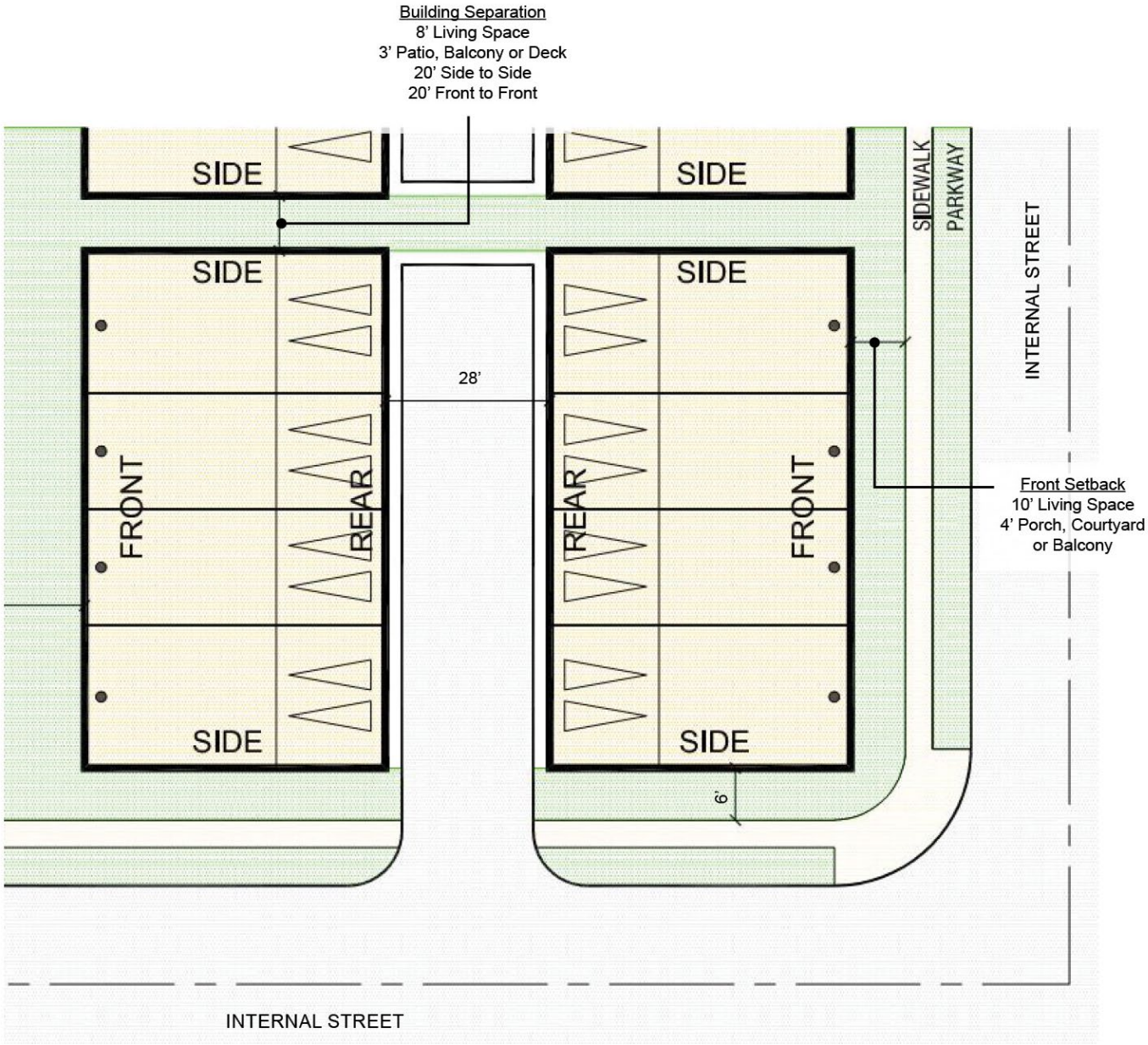
4.1.2.4. Row Townhomes

Table 4-5 establishes the development standards for row townhomes. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.6.

Table 4-5:Row Townhome Development Standards

	Row Townhomes
Minimum Parcel Size	1 ac
Maximum Site Coverage	N/A
Maximum Building Height	50' (3 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	4'
Minimum Side Setback (from Internal Street Right-of-Way)	
Street Side	6'
Minimum Building Separation	
Living Space	8'
Patio Cover, Balcony or Deck	3'
Front to Front (entries) - at open space	20'
Side to Side with entries	20'
Garage Door to Garage Door at Alley	28'

Figure 4.6 Row Townhome Setback Diagram



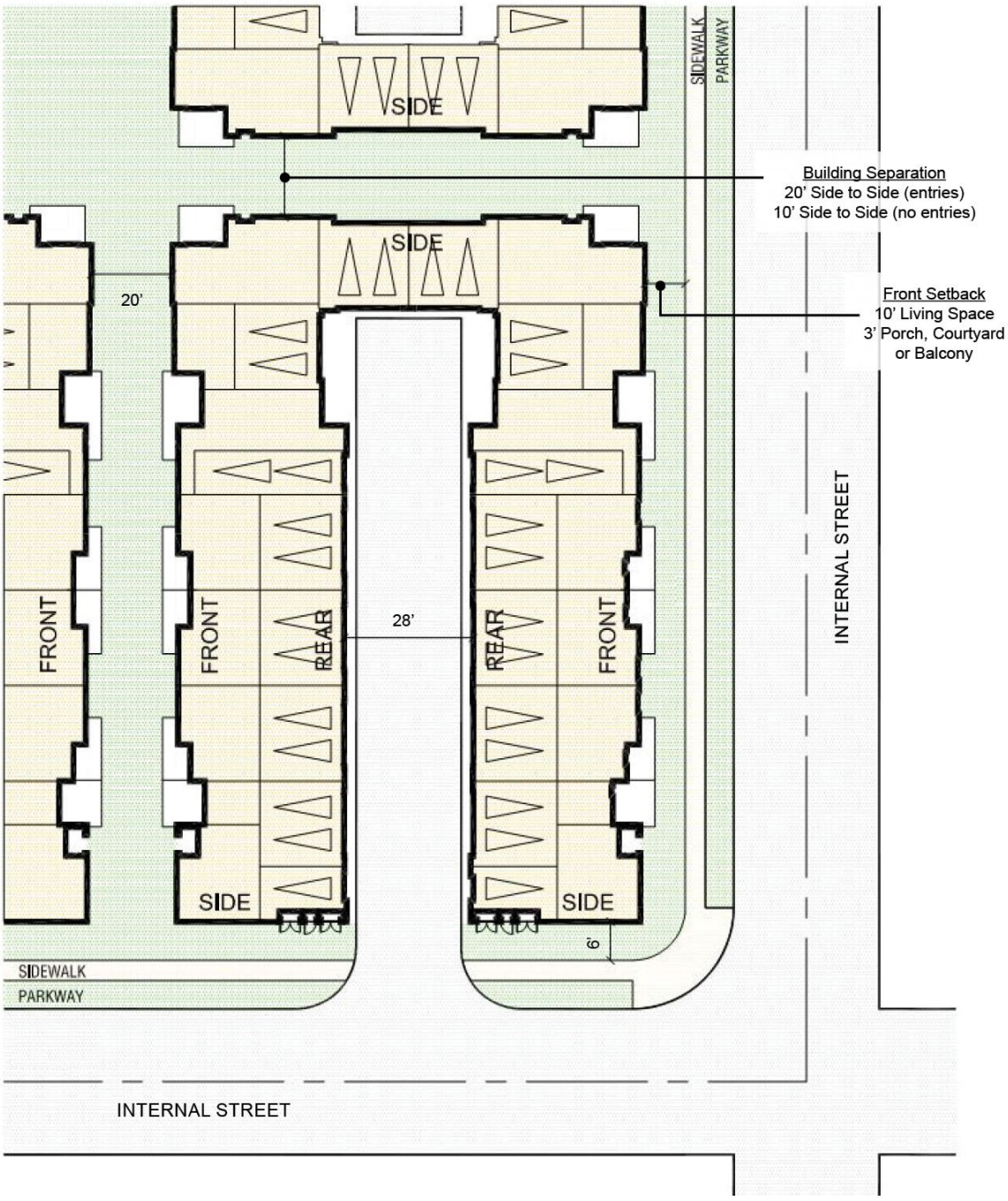
4.1.2.5. Attached Motorcourt Homes

Table 4-6 establishes the development standards for attached motorcourt homes. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.7.

Table 4-6: Attached Motorcourt Home Development Standards

	Attached Motorcourt Homes
Maximum Site Coverage	75%
Maximum Building Height	50' (3 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	3'
Minimum Side Setback (from Internal Street Right-of-Way)	
Street Side	6'
Minimum Building Separation	
Front to Front (entries) - at open space	20'
Side to Side (entries)	20'
Side to Side (no entries)	10'
Garage Door to Garage Door at Alley	28'

Figure 4.7 Attached Motorcourt Home Setback Diagram



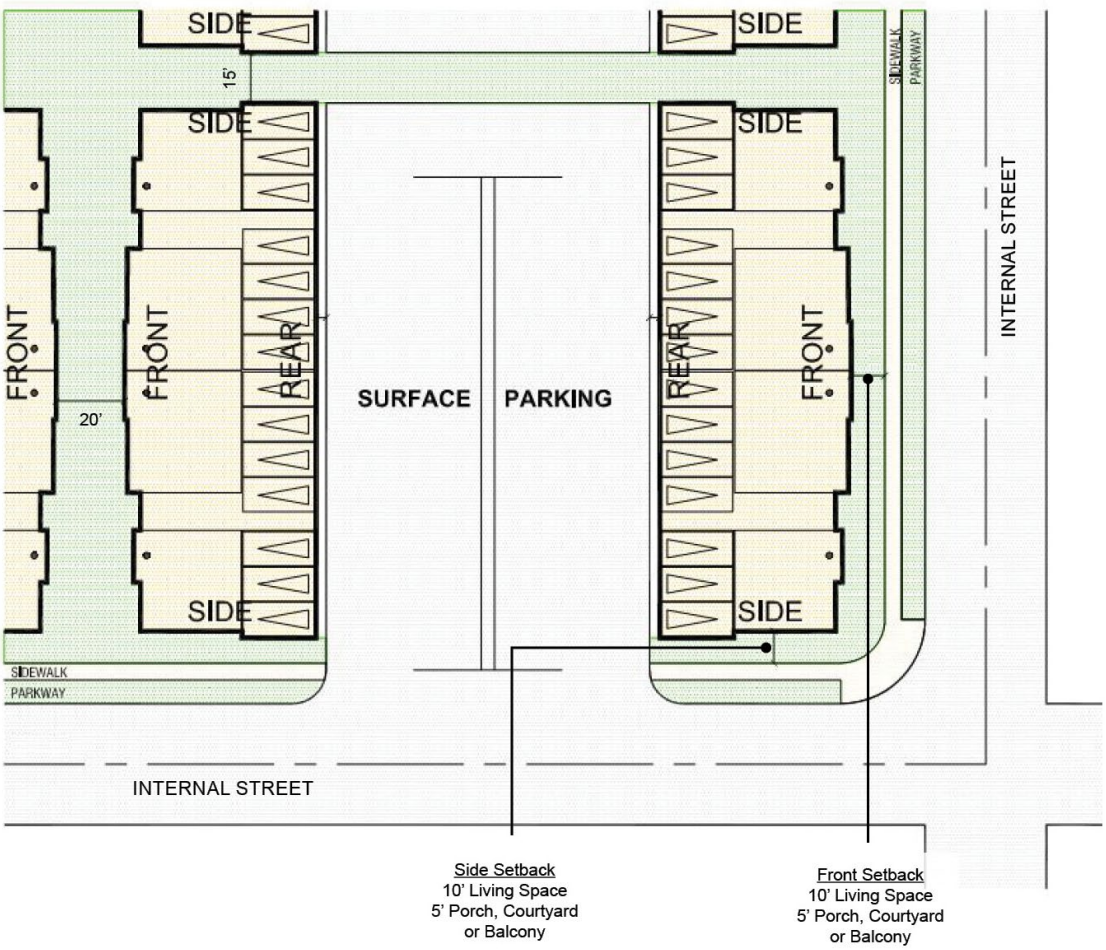
Apartments/Flats

Table 4-7 establishes the development standards for residential apartments/flats. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.8.

Table 4-7: Apartments/Flats Development Standards

	Apartments/Flats
Maximum Site Coverage	75%
Maximum Building Height	65' (4 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	3'
Minimum Side Setback (from Internal Street Right-of-Way)	
Living Space	10'
Porch, Courtyard or Balcony	5'
Minimum Building Separation	
Front to Front (entries) - at open space	20'
Side to Side (no entries) - at open space	15'

Figure 4.8 Apartments/Flats Setback Diagram



4.1.3. Public Facility Standards

PA 14 is a public-institutional planning area for a fire station located at the southeast corner of Scholar Avenue and 58th Street.

- Maximum Building Height: None.

4.1.4. Parks and Open Space Standards

The Parks and Open Space (P/OS) District includes Panning Areas J through V. Planning Areas J, K, and L are parks and Planning Areas M through V are trails and open space areas. Planning Area J (PA J) is a village green located between PA 5 and 3, which could be used for community events, such as concerts, movies, art fairs, farmers markets, etc. Planning Area L (PA L) is adjacent to PA 6 and 8 and planned for a community park. Planning Area K (PA K) is adjacent to PA 7 and 12 and is planned as a private recreation facility for the residents of the Leal Master Plan.

- Parking Area Setback from Internal Backbone Street Right-of-Way: 10'
- Building and Structure Setback from Internal Backbone Street Right-of-Way: 6'
- Maximum Building Height: 40' (2 stories); 15' for accessory structure

4.1.5. Allowable Projections and Encroachments

An encroachment is a permitted allowance into a ground-floor or upper-level setback. A projection is an element that is allowed to project above the height limit. In all cases, all encroachments and projections shall comply with the California Building Code (CBC), as well as other applicable codes and regulations such as the American Disability Act. The permitted encroachments and projections are discussed below.

A. Detached accessory buildings, including garages, or parking spaces required in the absence of garages, may occupy not more than 25 percent of a required rear or interior side yard, provided such building is not more than 15 feet in height and the wall of such building or parking space is located not less than 6 feet from the nearest wall of a main building on the same lot or a contiguous lot.

B. A breezeway connecting a main building to another building may be permitted. Such breezeway shall remain open on one side and shall not be considered part of a main building.

C. A covered patio, attached or unattached, which is enclosed on not more than 3 sides may encroach into any setback provided the distance between the property line and the patio at the nearest point is not less than 6 feet.

D. Eaves, cornices, canopies, belt courses, sills, buttresses, bay windows, planter boxes, light fixtures, or other similar architectural features may encroach into any required setback, provided such extensions shall not be nearer than 2 feet to any property line. Where more than one building is located on the same lot or parcel, such features shall not be nearer than 2 feet to a line midway between the main walls of such buildings. Chimneys and fireplaces may encroach into any setback not more than 2 feet, provided such chimneys or fireplaces shall not be nearer than 3 feet to any property line. Where more than one building is located on the same lot or parcel, such chimneys or fireplaces shall not be nearer than 3 feet to a line midway between the main walls of such buildings.

E. Open, unenclosed stairways or balconies not covered by roofs or canopies may encroach into any setback not more than 3 feet.

F. Uncovered porches, platforms, or landings which do not extend above the level of the first floor of the building may encroach into any setback not more than 6 feet; provided, however, an open-work railing, glass or glass like material, no more than 3 ½ feet in height may be installed or constructed on such porch, platform, or landing.

G. Open-work fences, hedges, guard railings, or other landscaping or architectural devices for safety protection around depressed ramps may encroach into any required setback provided such devices are not more than 3 ½ feet in height.

H. Fences and walls, pursuant to Section 5.3 of the Eastvale Zoning Code.

I. Signs may project and/or encroach into any required setback or public right-of-way, subject to applicable requirements in this Master Plan and the Eastvale Zoning Code.

J. Landscape elements such as benches, fountains, and other decorative features may encroach into any setback, provided they do not obstruct any path of travel or intersection visibility requirements per the Eastvale Zoning Code.

K. Mechanical equipment may encroach into any required setback area up to the property line, provided the equipment is screened by landscape or material (e.g. wall) to the maximum extent feasible and allowed by the applicable utility provider.

L. Stairwells, elevator penthouses, mechanical equipment, and roof attachments such as flagpoles, towers, wireless masts, television antennas, and similar diminutive roof attachments, may project above the height limits set forth within the Leal Master Plan, provided such projections shall not exceed 20 feet above the prescribed height limit.

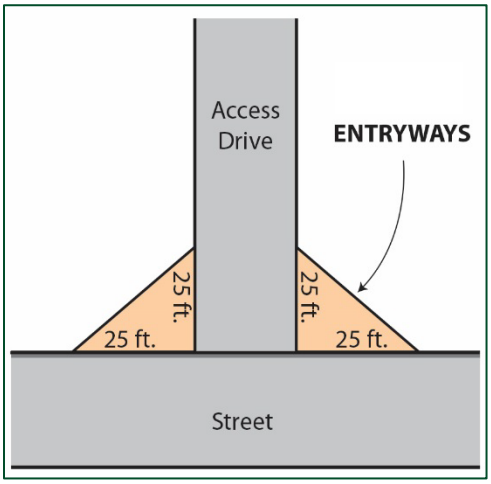
M. Parapets, security railing, and other appurtenances on a flat roof may project above the height limits set forth within the Leal Master Plan,

provided such appurtenances shall not exceed forty-two (42) inches above the prescribed height limit.

4.2. COMMUNITY FEATURES STANDARDS

Community features such as entry monuments, parks, and trails are significant components in the Leal Master Plan. The development and design standards for entryway statements shall be consistent with Chapter 2, Project Character, of this Master Plan and the following:

A. Entryways into the Master Plan shall be identified with special gateway treatments to announce arrival into the project area. The minimum sizes of each are shown in the figures below.



B. Entryway feature treatments may include public art and/or special architectural elements such as sculptures, signage, or enhanced landscaping. All entry points shall be defined through the use of landscaping, trees, and/or architectural elements.

C. Entryway statements shall satisfy the design guidelines provided in the Eastvale Design Standards and Guidelines.

D. Entryways should be designed to provide a clear sense of arrival and set the tone for the overall design quality in Eastvale.

4.3. PARKING

4.3.1. Parking Requirements

Vehicular and bicycle parking shall comply with the parking standards and requirements listed in Table 4-8, *Parking Requirements*, below.

Table 4-8: Parking Requirements

USE TYPE	PARKING REQUIREMENTS
General Commercial/Retail Uses	
General Retail including, but not limited to, neighborhood, community and regional shopping centers, including those with restaurants[1]	4 spaces/1,000 sq ft. of net leasable floor area, except where reduced through a shared parking and/or TDM (see Section 4.3.4)
Professional Business Offices	3 spaces/1,000 sq. ft. of net leasable floor area
Breweries, Wine Blending Businesses and Distilleries	2 spaces/3 employees on the largest shift plus 1 parking space per 100 square feet of tasting area.
Medical Uses	
Medical and Dental Offices, Clinics, and Medical Business Offices	4 spaces/1,000 sq. ft. of net leasable floor area
Civic Uses	
Civic Center, Police Station, Fire Station and the like	3 spaces/1,000 sq. ft. of net floor area. Areas devoted to storage, hallways, restrooms, utility rooms and the like shall not be included within this calculation.
Residential Uses	
Single Family Detached Residential - Conventional SFD, Front-loaded Zero-lot Line SFD, Rear-loaded SFD, and Detached Cluster Homes	1 space/unit within a garage, 1 open space/unit within the lot
Attached Residential - Row Townhomes and Attached Motorcourt Homes	1-bedroom or studio unit: 1.25 spaces/unit 2-bedroom dwelling unit: 1.5 spaces/unit 3+ bedroom dwelling unit: 2.0 spaces/unit
Attached Residential – Apartments and Flats,	1-bedroom or studio unit: 1.25 spaces/unit 2-bedroom dwelling unit: 1.5 spaces/unit 3+ bedroom dwelling unit: 2.0 spaces/unit

[1] For designated outdoor dining areas, no parking spaces are required for the first 500 square feet. Any outdoor dining area that is more than 500 square feet in size shall provide 1 space per 100 square feet for the area beyond 500 square feet.

Residential Units in Mixed-Use Residential Buildings	

Parking requirements for uses not indicated in Table 4-8, *Parking Requirements*, shall be reviewed and approved by the Community Development Director. Uses not specified shall be compared to a similar use or uses that could satisfy the minimum parking demand. When there is no similar use in Table 4-8, *Parking Requirements*, parking requirements found in Section 5.6 of the Eastvale Zoning Code shall apply or a parking study prepared by a firm acceptable to the Community Development Director shall be submitted that provides justification, and data supporting the proposed minimum parking requirement.

Parking may be shared within the Leal Area Master Plan, with some limitations. Figure 4.9, Parking Distribution identifies the location of where parking may be shared for residential and commercial uses within the Master Plan area.

Figure 4.9 Parking Distribution



4.3.2. On-Street Parking

On-street parking spaces immediately adjacent to and on the same side of the street of a property along the internal backbone streets may be counted toward meeting the off-street parking requirement for that property. These spaces may be parallel or angled spaces. With respect to parallel parking spaces that are not marked, each 24-foot length may be counted as one space. No credit is allowed for street frontage where parking is prohibited, such as loading zones and red curb areas.

4.3.3. Tandem Parking

Tandem parking is permitted for both residential and commercial uses within the Leal Master Plan area. Two tandem parking spaces shall have a minimum depth of 36 feet and shall meet the Development Standards for Off-Street Parking Facilities in Section 5.6 of the Eastvale Zoning Code.

4.3.4. Alternative Programs for Parking

Shared parking and other alternative programs for parking may be permitted pursuant to Section 5.6.B of the Eastvale Zoning Code.

A Parking Management Plan/Transportation Demand Management is required for all non-residential uses that increase parking demand by ten (10) parking spaces. The Parking Management Plan/Transportation Demand Management Plan may reduce the overall parking requirements by up to 25 percent, depending on the findings of said plan. This plan shall include at least the following items:

- Information related to carpooling, van pools and staggered work hours.
- Projected effectiveness of carpool, vanpool, staggered work hours or similar transportation programs.
- Proximity to public transportation facilities serving a significant portion of employees and/or customers.
- Shared parking/overlapping parking demands.
- Specific parking management programs increasing parking efficiency, such as valet parking.
- Evidence that employees and/or customers utilize on transportation alternatives on a consistent basis.

4.3.5. Parking Lot Design

The design standards for the parking area shall be consistent with the Eastvale Design Standards and Guidelines and with the following:

A. Parking lots and structures shall be designed to be functionally and visually integrated and connected. Developments on separate parcels shall provide common access and parking areas.

B. All parking areas shall be screened with landscaping and/or decorative walls from all residential developments and pedestrians along the public right-of-way.

C. Parking lots should be visually separated into smaller units with landscaping or low walls however adjacent parking lots shall be connected for vehicle and pedestrian access.

D. Different landscape design should be used to differentiate major access aisles from the rest of the parking area.

E. Common parking areas shall be landscaped with shade trees to create an attractive pedestrian environment.

4.4. SIGNAGE

Except as identified in the Leal Master Plan, signage shall conform to the applicable provisions of Eastvale Zoning Code, Section 5.7, Signs.

Downtown District: A comprehensive Sign Program for the DT District identifying the location and design standards of thematic signage elements, including the sign type, size, material, and illumination, shall receive the Community Development Director's approval prior to the installation of signs. The standards shall include design standards for signs provided in the DT District and a Master Plan Area Map, consistent the signage guidelines included in Section 2.2.10 of the Leal Master Plan.

Residential Use Districts: Signage for the Residential Use (RU) Districts identifying the signage location and design standards, including the sign type, size, material, and illumination, shall receive Community Development Director's approval prior to the installation of signs.

In addition to the sign types listed in Section 2.2.10, Signage, of the Leal Master Plan, the sign standards for the DT and RU Districts shall also address standards for the following, as applicable:

- Grand opening/coming soon signs for commercial and residential development
- For sale/lease signs for commercial and residential development
- Model home signs
- Signs on kiosks

4.4.1. General Sign Standards

The following requirements shall apply to signs within the Leal Master Plan area:

A. All signs and community monumentation in the DT District shall be included as part of an approved Sign Program.

B. Projecting Signs Clearance. A minimum eight (8) feet vertical clearance is required from the bottom of a projecting sign, marquee, blade or awning to the sidewalk or grade immediately below the sign.

C. Moving or Animated Signs. Unless otherwise permitted herein, signs that include, but are not limited to, rotating, flashing, swinging, blinking, strobing, or otherwise changing appearance are prohibited, except for signs that include time and/or temperature that are located at least 100 feet away from a residential land use District. In cases where illuminated signs display temperature and time, said sign shall receive City approval and shall include a mechanism to reduce the brightness of said sign when in proximity to a residential neighborhood. Signs, except for public service time and temperature signs, shall not be flashing, animated, or revolving in nature.

D. Sign Illumination. All signs may be internally or externally illuminated. All direct light rays from all signs shall be confined onto the site on which the sign is located and shall not shine directly upon neighboring property. All exposed raceways are prohibited. Temporary lighting, such as search or flood lights that are used on a permanent basis, are prohibited.

E. Approval of Sign Modifications. The Planning Commission may grant approval of signs that do not comply with the regulations contained in the Leal Master Plan or in the approved Sign Program.

4.4.2. Changeable Signage

A. Pageantry

Pageantry is allowed in the DT District and includes flags, pole-mounted banners, community banners over the right-of-way, kiosks, canopies, lights, directories, ground-mounted graphics, and other similar temporary or permanent (but changeable) elements. The purpose of changeable pageantry signage is to create excitement and provide a visually interesting commercial area. The intent is to allow regular changes to the pageantry elements in terms of color, design, and other visual content so the pageantry signage can look current. Pageantry signage shall comply with the following:

1) No limit on the number of permitted pageantry signs. Maximum sign area per sign face shall be 24 square feet. Maximum height of the sign shall not exceed 20 feet. Minimum setbacks for the freestanding signs shall be the same as the setbacks established for the DT District. Banners over or within the public rights-of-way do not have any size limitation, however, applicable permits from Public Works shall be obtained.

2) Pageantry may consist of murals or other decorative graphics for products sold or offered on or off the premises. All pageantry with off-premises signage must be located within the commercial portion of the project and shall be oriented towards internal uses and shall not be readily visible from properties outside of the Master Plan area.

3) Pageantry may be located in any portion of the DT District, except that pageantry shall not be located at least 20 feet from the curved portion of the street corner to maintain visibility for motorists.

4) Air-inflated signs, moving signs, paper, cardboard, freestanding billboards, styrofoam, stickers, and decals are not acceptable forms of pageantry (directories and kiosks excepted).

5) Pageantry shall not include flashing, flickering, rotating, or moving lights.

6) Temporary promotional advertising (banners) is not considered to be pageantry.

7) Kiosks and directories should provide vertical breaks in the sign structure.

8) Individual panels shall be recessed, framed, or treated to avoid a flat appearance of the sign face.

B. Marquee Signs

The height of manual letters located on a marquee shall be affixed flat to the surface of the sign and shall not have a vertical height of more than 2 feet and shall not extend vertically or horizontally beyond the marquee. An electronic marquee display is permitted, provided that the individual letters shall not have a vertical height of more than 2 feet.

4.4.3. Exempted Signs

The following signs and/or sign structures are exempt from any sign permit requirement as identified in Section 5.7 of the Eastvale Zoning Code; provided, however, that such signs shall comply with all other applicable requirements of the Leal Master Plan and Eastvale Zoning Code.

A. Exempted signs identified in the Eastvale Zoning Code.

B. Temporary contractor's, future development and building sale signs that comply with the provisions in the Eastvale Zoning Code.

C. Public Notices and Signs. Public notices posted pursuant to law, signs erected by governmental agencies and public utilities and warning or information signs required by law for public health and safety.

D. Copy or Message on Changeable Copy Signs. The changing of advertising copy or message on bulletin boards and pageantry, where the basic board or pageantry is permitted under the provisions of this Master Plan, may be changed digitally or manually.

4.5. MASTER PLAN AREA MAPS

Large area maps should be placed at the information booths in the Downtown District. These maps could be combined with local area information/history, advertising, events calendars, etc.

4.6. LANDSCAPING

Landscaping within the Leal Master Plan area shall comply with Section 5.4, Landscaping, General Provisions, of the Eastvale Zoning Code.

5 DEVELOPMENT PROCESS

The goal of the Leal Master Plan is to encourage development of the desired development and level of quality (see Chapter 2, Project Character, and Chapter 3, Land Use Program), while allowing flexibility in the design and implementation of the project. To achieve this, a staged development process has been established which provides for the developer(s) flexibility while this document serves as a guide for the development of the project.

The intent of the staged development process is to allow prospective developers to respond to market demand by first creating a framework of development standards and design guidelines at the time of project conception instead of establishing strict requirements prior to any development being proposed for the Leal Master Plan. In the second phase, an amendment to the Master Plan will be conducted to establish development standards and enhanced guidelines, ensuring that overall design quality meets the City's goals for the project as stated in Chapter 2.

While the City intends to allow flexibility in the project design and layout through implementation of the staged development process, this Master Plan also establishes specific parameters for the design and quality of the project, which must be met by any future development.

Phasing requirements have also been established to ensure that a unifying theme for the Leal Master Plan and comprehensive project-wide plans are developed prior to any development taking place. These phasing requirements will ensure that the City's goal of a comprehensive, high-quality project may be updated.

This chapter establishes the process through which all proposed development is submitted, reviewed, and approved, including requirements for the staged development process and requirements for phasing of developments.

5.1. GENERAL PROVISIONS

The City of Eastvale shall administer the provisions of the Leal Master Plan in accordance with the City of Eastvale General Plan, the City of Eastvale Municipal Code, the Subdivision Map Act, and other applicable State and City regulations. The Master Plan development procedures, regulations, standards, and specifications shall supersede the relevant provisions of the City's Municipal Code, as they currently exist or may be amended in the future. Any development regulation and building requirement not addressed in this Master Plan shall be subject to the City's adopted codes and regulations.

5.1.1. Interpretation

In instances where any section, subsection, sentence, clause, phrase, portion or word contained within this Master Plan is undefined, unclear or vague, then the

Community Development Director, or his/her designee, shall make a determination as to its meaning and intent. The Community Development Director may elect to forward any item to the Planning Commission for final determination. Said determination shall be judged to be final.

5.1.2. Severability

If any section, subsection, sentence, clause, phrase, or portion of this Master Plan, or any future amendments or additions hereto, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Master Plan, or any future amendments or additions hereto. The City hereby declares that it would have adopted these requirements and each sentence, subsection, clause, phrase, or portion or any future amendments or additions thereto, irrespective of the fact that any one or more sections, subsections, clauses, phrases, portions or any future amendments or additions thereto may be declared invalid or unconstitutional.

5.2. STAGED DEVELOPMENT PROCESS SUMMARY

The staged development process has been established for all proposed developments in the Leal Master Plan. The process consists of the following stages:

- Stage 1, Initial Leal Master Plan
- Stage 2, Master Plan Amendment to Create Development Standards and Enhanced Guidelines
- Stage 3, Rough Grading Permit
- Stage 4, Development Plan Review
- Stage 5, Precise Grading and Building Permits

Table 5-1, Staged Development Process, illustrates these steps.

Table 5-1: Staged Development Process

Stage 1: Initial Leal Master Plan (Adopted in 2017)
• Identified Project Objectives and Project Character
• Established Permitted and Conditionally Permitted Uses and Other Development Requirements
• Outlined the Staged Development Review Process
• Amended the General Plan and Zoning Code.
Stage 2: Master Plan Amendment to Create Development Standards and Enhance Guidelines (this document)
• Refine land use and zoning designations within the Master Plan.
• Establish project-wide Land Use Plan, Circulation Plan, and Infrastructure Plans.
• Determine project-wide development standards, design guidelines and project theme.
Stage 3: Rough Grading Permit
• Tentative Tract Map (A Map) will be reviewed and approved to allow to grade the site.
• The site would be cleared and backbone infrastructure such as streets and utilities would be installed.
Stage 4: Development Plan Review
• Submittal of detailed development plans. Development Plans will be reviewed per the Leal Master Plan and the Eastvale Municipal Code, as applicable.
• Any required conditional use permits for specific uses will be reviewed and approved as provided in the Eastvale Municipal Code.
Stage 5: Precise Grading and Building Permits
• Will be reviewed and issued based on the approved Development Plan.
• May occur concurrently with Stage 4.

Stage 1: Initial Leal Master Plan

This first stage in the approval process was completed with the adoption of the Initial Leal Master Plan and the associated General Plan Amendment and Change of Zone. These approvals accomplished the following:

- Identified the project objectives and project character.
- Established permitted and conditionally permitted uses and other development requirements.
- Outlined the staged development review process.
- Created an expanded General Plan policy for the Leal Master Plan and amended the General Plan Land Use Map to show uses consistent with the new Leal Master Plan policy.
- Amended the Zoning Code to provide for the creation and adoption of Master Plans (including this Master Plan) and amended the Zoning Map to reflect the Leal Master Plan.

The Stage 1 process also included the certification of a Final Environmental Impact Report (FEIR), which provided an analysis of the impacts of this Master Plan.

Stage 2: Master Plan Amendment to Create Development Standards and Enhance Guidelines

Stage 2 prepares project-wide development criteria and guidelines which are not included in the Initial Master Plan. The 2022 Amendment conducts this phase. The submittals required in Stage 2 will amend the initial Master Plan to:

- Refine land use and zoning designations within the Master Plan.
- Establish project-wide land use plan, circulation plan, and infrastructure plans.
- Determine project-wide development standards and design guidelines.
- Establish the project theme.
- Refine the permitted and conditionally permitted uses to better reflect anticipated, future development trends.

The submittal of the Stage 2 materials triggered additional environmental review in the form of an Addendum to the Leal Master Plan EIR, which concluded that no new or more severe impacts would occur as a result of the State 2 submittal. The Addendum to the Leal Master Plan EIR prepared for this stage established land use intensity limits within this Master Plan.

Stage 3: Rough Grading Permit

In Stage 3, rough grading permit(s) will be reviewed and issued pursuant to an approved Tentative Tract Map and established grading permit processes in the

City of Eastvale. This phase will consist of clearing the site and installing backbone infrastructure.

Stage 4: Development Review

Stage 4 will consist of the submittal of specific development projects through the Development Review process established in the Leal Master Plan and in the Eastvale Zoning Code, as applicable. During this stage, any required Conditional Use Permits for specific uses will be reviewed and approved as provided in the Eastvale Zoning Code.

Table 5-2, Development Process Approvals, is intended to clarify the process of entitlement through the City of Eastvale for various applications and actions. Table 5-2 applies only to future developments being implemented within the Leal Master Plan area.

Table 5-2: Development Process Approvals

	Action Required By:		
	Community Development Director	Planning Commission	City Council
Development Plan Review and Conditional Use Permits		X	
Master Plan – Interpretations	X		
Master Plan – Minor Adjustments	X		
Master Plan – Amendments		X	X
Tentative Tract Map		X	

The following administrative provisions apply to the implementation of development applications (e.g., Development Plan Reviews) for future developments within the Master Plan area:

A. No vertical development shall occur or building permits issued within the Master Plan area until the proposed development is reviewed by the City's Planning Division and found to be consistent with the adopted Master Plan. Criteria for review and approval of proposed development shall include, but not be limited to, the following:

    i. Conformance with the land use program;

    ii. Conformance with the specific development standards, goals, and policies of the Master Plan; and

B. All Tentative Tract or Parcel Maps shall be consistent with this Master Plan.

Stage 5: Precise Grading and Building Permits

Finally, grading and building permits will be reviewed and issued based on the approved development plans. This process may occur concurrently with Stage 3, pursuant to existing permit processes in the City of Eastvale.

5.3. STAGED DEVELOPMENT PROCESS SUBMITTAL REQUIREMENTS

The following sections describe the items that must be submitted at various points in the development process. Since Stages 1 and 2 were completed with the adoption of the Master Plan and subsequent amendment, no submittal requirements apply and are therefore not shown here.

5.3.1. Stage 1: Initial Leal Master Plan

The Leal Master Plan is the implementing mechanism for the MP (Master Plan) zone district for the Leal property. It sets the vision for development of the project site, assigns a land use program, establishes development standards, and outlines the process by which the property will develop, and the Master Plan will be implemented. As noted above, there are no submittal requirements for Stage 1, which was completed with the adoption of the initial Master Plan.

5.3.2. Stage 2: Master Plan Amendment to Create Development Standards and Enhance Guidelines

The Master Plan Amendment establishes the project-wide development plan components and development standards/enhanced guidelines. As noted above, there are no submittal requirements for Stage 2, which was completed with the adoption of the Master Plan Amendment. Future amendments or adjustments to the Master Plan are discussed in Section 5.4, Master Plan Adjustments and Amendments.

5.3.3. Stage 3: Rough Grading Permits

Submittals of rough grading permits for development within the Leal Master Plan area shall be pursuant to the submittal requirements and procedures established by the City of Eastvale Community Development Department.

5.3.4. Stage 4: Development Review

Each development within the Leal Master Plan must submit a development entitlement application to the City of Eastvale Planning Division for review per the Major or Minor Development Review provisions of the Eastvale Zoning Code (Section 2.1).

5.3.5. Stage 5: Precise Grading and Building Permits

Submittals of precise grading and building permits for development within the Leal Master Plan area shall be pursuant to the submittal requirements and procedures established by the City of Eastvale Community Development Department.

5.4. MASTER PLAN ADJUSTMENTS AND AMENDMENTS

5.4.1. Minor Adjustments to the Master Plan

Minor adjustments to the plans, guidelines, regulations, and standards contained in the adopted Master Plan be approved at the discretion of the Community Development Director, or his/her designee; provided, however, that such deviations are deemed to be in substantial conformance with this Master Plan and are not detrimental to the public health, safety, and welfare. Minor adjustments to the Master Plan must be consistent with the purpose and intent of the originally approved Master Plan. Any decisions made by the Community Development Director may be appealed to the Planning Commission. Decisions of the Planning Commission may be appealed to the City Council. Decisions by the City Council shall be deemed final.

All minor adjustments must comply with the following findings:

A. The total number of dwelling units within the Leal Master Plan area shall not exceed 2,500 dwelling units.[1]

B. The total gross leasable commercial area (office, retail, city hall, library, police station etc.) within the Leal Master Plan shall not exceed 595,000 square feet.[1]

C. The public health, safety, and welfare shall not be jeopardized by the proposed adjustments.

D. No potentially significant environmental impacts are expected to occur as a result of the proposed adjustments, unless if the significant impacts have already been analyzed in a previously environmental document.

E. Substantial conformance to the design guidelines included in Chapter 2, Project Character.

The following modifications constitute "minor adjustments" to the approved Master Plan and may be approved without amending the Master Plan.

A. Slight modifications to the Master Plan area boundaries, as shown in Figure 3.1, Land Use Plan, that respond to more accurate or recent data or actual on-site conditions.

[1] As established by the Leal Master Plan EIR Addendum to avoid new or more severe significant impacts.

B. Minor adjustments to a development standard or intensity limitation not exceeding 20%.

C. Modifications to individual park sizes, provided a total of 14.06 acres is provided for parks or open space.

D. Minor changes to the circulation concept to accommodate actual conditions on-site or modify ingress and egress locations, or to respond to new information that was not available at the time the Master Plan was approved.

E. Minor changes to the design of the street cross sections, provided that the streets have adequate capacity to handle the anticipated volumes of traffic and the design changes are deemed acceptable by the City's Traffic Engineer.

F. Modifications to the Master Plan that allow the Project master developer to move and adjust components of the plan; provided, however, that a plan is submitted to the City and reviewed and approved by the Community Development Director, or his/her designee, and the City Engineer. The plan shall depict the location of all land uses and the relationships of the uses to one another. In evaluating the plan, all of the following conditions must be met for the site plan to be approved:

    i. A maximum of 2,500 dwelling units and 595,000 square feet of commercial gross leasable area (which does not include any civic or public facility uses) shall be allowed within the Master Plan area.[2]

    ii. The land use modifications would not result in any new environmental impacts that were not previously assessed in the approved California Environmental Quality Act (CEQA) documentation for the Master Plan.

G. Minor modifications to the architectural or landscape design guidelines included in Chapter 2. *Project Character*.

H. Minor modifications to the water, sewer, and/or drainage plan(s).

I. Any modifications to the Master Plan phasing.

[2] As established by the Leal Master Plan EIR Addendum to avoid new or more severe significant impacts.

5.4.2. Master Plan Amendments

A. The Project master developer, property owner, or designee shall have the authority to initiate an amendment to the adopted Master Plan at any time. No authorization by City staff, the Planning Commission, or the City Council shall be necessary to initiate a Master Plan Amendment for The Leal Master Plan area. However, the City shall be the approving authority of any requested amendments.

B. Said amendment shall not require a concurrent General Plan Amendment unless it is determined by the City of Eastvale that the proposed amendment would substantively affect the General Plan goals, objectives, policies, or programs for the Leal Master Plan area.

C. All Master Plan Amendments shall be subject to the requirements of CEQA and any applicable City of Eastvale environmental guidelines.

D. The Planning Commission shall review at a noticed public hearing all proposed amendments to the adopted Master Plan. Upon the close of the required public hearing, the Planning Commission shall act by resolution to recommend to adopt, reject, or modify the proposed Master Plan Amendment and forward its recommendation and findings to the City Council for action.

E. The City Council, at a noticed public hearing, shall review the Planning Commission's findings and recommendations. Upon the close of the required public hearing, the City Council shall act by resolution to adopt, reject, or modify the proposed Master Plan Amendment.

F. Prior to approving or conditionally approving any Master Plan Amendment, the Planning Commission and City Council must make the following findings regarding the Amendment:

   i. It is consistent with the goals and policies of the City of Eastvale General Plan;

   ii. It is consistent with the vision, purpose and intent of the Master Plan;

   iii. Results in development of desirable character that will be compatible with existing and proposed development in the surrounding neighborhoods; and

   iv. Respects the aesthetic assets of the community consistent with economic realities.

6 IMPLEMENTATION PLAN

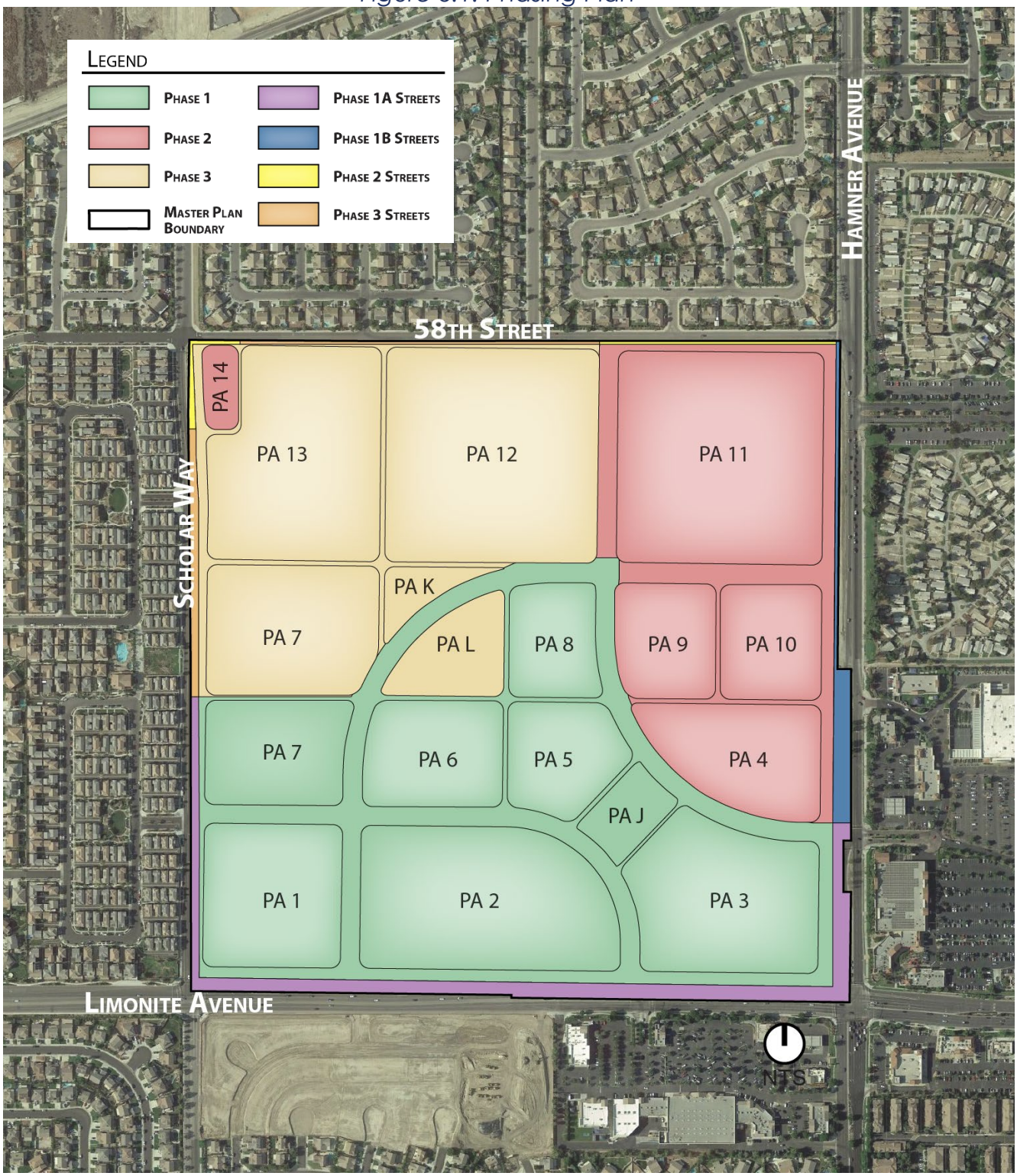
This chapter describes the implementation of this Master Plan, including the phasing of infrastructure and development. Information on the administration of this Master Plan can be found in Chapter 1.

6.1. PHASING

A conceptual Phasing Plan is shown in Figure 6.1. Phasing of the infrastructure as described below shall begin along Limonite Avenue and move north through the project site. The development of uses and the boundaries of each phase will be determined by market forces[1] and the developer(s) of the property, however phasing of residential uses shall be such that several different types of housing shall be offered concurrently.

[1] Since phasing is tied to market conditions, changes to the conceptual phasing plan do not require administrative approval. The Phasing Plan provides information only and is not regulatory. Phasing is at the sole discretion of the developer and may adjust according to market conditions.

Figure 6.1: Phasing Plan



Source: Hunsaker & Associates

6.2. INFRASTRUCTURE COORDINATION

To ensure that infrastructure is developed in a coordinated way and so that all phases of development will have sufficient infrastructure capacity, the following requirements are imposed. Should the project be developed in a single phase, all infrastructure will be installed in the first phase.

The following requirements relate to the coordination of infrastructure with development of uses:

1) Backbone Sewer/Water/Storm Drain Infrastructure – This infrastructure must be developed in conjunction with each phase of development as shown in Figure 6.2. Preparation of an infrastructure plan for backbone water/sewer/drainage infrastructure is a required Stage 3 component (see Chapter 5, Development Process).

   Backbone water/sewer/storm drainage infrastructure includes:

   - Water – Hamner and Limonite Avenues have 30-inch water mains located within the rights-of-way. Water services for the project will use these existing lines to serve the project area.
   - Sewer – Sewer service is available in all of the streets bordering the project (Hamner, Limonite, Scholar, and 58th). Sewer service inside the project area will be built to accommodate development as it proceeds and will all connect to the existing sewer in Limonite.
   - Storm Drainage – These improvements will include water quality and drainage improvements to ensure that stormwater runoff from the site does not degrade downstream environments. Integration of water quality improvements into parks, parkways, and landscaped areas is encouraged throughout the Leal Master Plan.

Figure 6.2: Water Plan



Source: Hunsaker & Associates

Figure 6.3: Sewer Plan

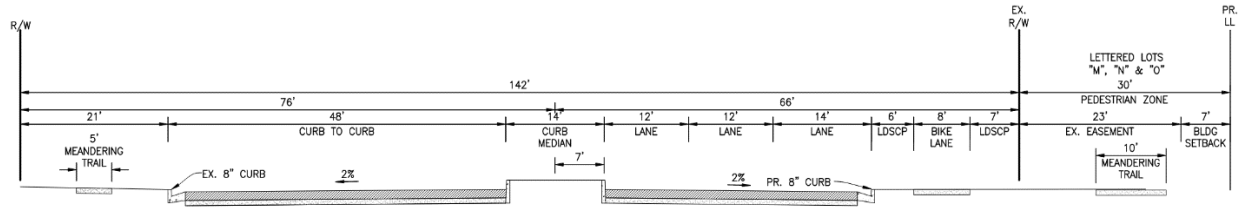


Source: Hunsaker & Associates

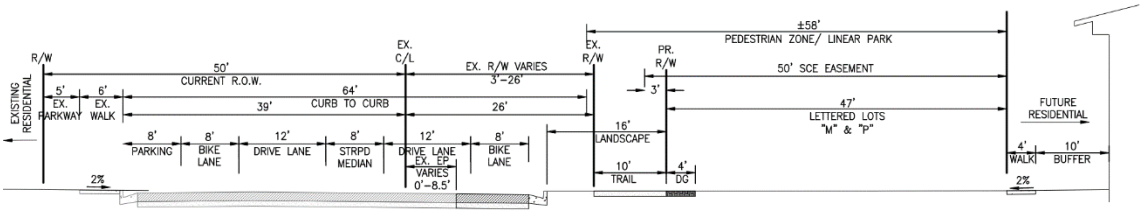
Figure 6.4: Storm Drainage Plan



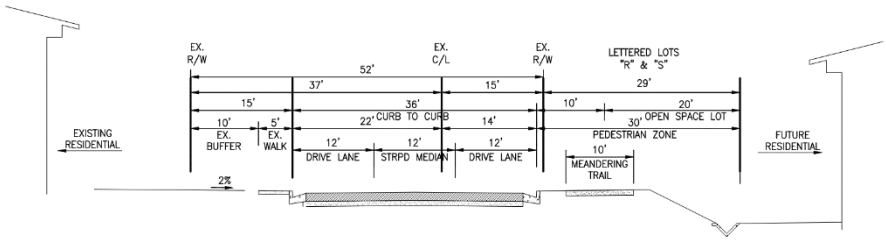
2) External Circulation – Half-width public improvements to Hamner Avenue, Limonite Avenue, Scholar Way and 58th Street shall be constructed with the Phasing Plan as shown in Figure 6.1. Improvements to Scholar Way and 58th Street may be provided in the form of half-width pavement and sidewalks, with the provision that landscaping must be installed at the time that development occurs adjacent to the street. Class I trails are provided on both sides of Limonite Avenue. Class I trails are also provided on one side of Scholar Way, 58th Street and Hamner Avenue. One bike lane is provided on one side of Limonite Avenue. Bike lanes are also provided on both sides of Scholar Way.



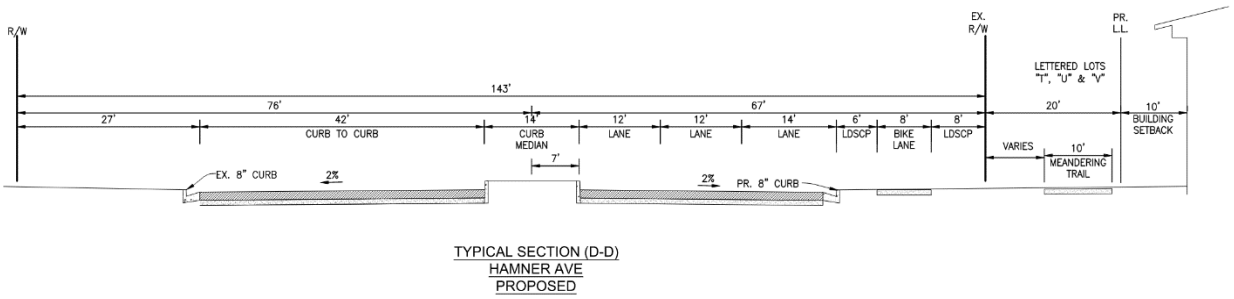
TYPICAL SECTION (A-A)
LIMONITE AVE
PROPOSED



TYPICAL SECTION
SCHOLAR WAY - NO STREET PARKING
BIKE LANE PROPOSED



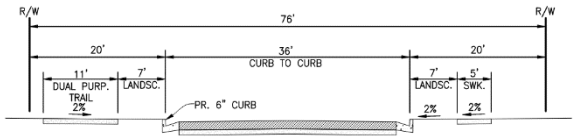
TYPICAL SECTION (C-C)
58TH STREET
PROPOSED



TYPICAL SECTION (D-D)
HAMNER AVE
PROPOSED

Source: Hunsaker & Associates

3) Internal Circulation – Internal roadways within the proposed phase will be constructed to provide adequate ingress/egress to all proposed development in the phase. As needed, roadways in the undeveloped portions of the site shall be constructed to provide adequate emergency access.



TYPICAL SECTION (E-E)
INTERNAL STREET
PROPOSED

Source: Hunsaker & Associates

4) Major/Minor Entries – Major and minor entries shall be developed at the time that a phase containing the entry(ies) is developed. Preparation of a detailed design for both types of entries and a plan for their locations is a required Stage 3 component (see Chapter 5).

5) Signature Iconic Element (Clock-tower, art, etc.) - A unique iconic element such as an art sculpture, mural, clock-tower, or the like that helps define the project and would be unique to the City shall be provided as part of the project. The element shall be located within a publicly accessible space or at a focal point or project entry.

Additional development standards and requirements related to each increment of development are included in Chapter 4, Development Standards, and Chapter 5, Development Process.

6.3. MAINTENANCE

Successful operation of maintenance districts and associations are important in ensuring that the Master Plan area is well-maintained. Maintenance responsibilities for the open spaces, landscape areas, lighting, and common project facilities will be maintained by the homeowner association's property manager.[2] Table 6-1, Maintenance Responsibilities, identifies the maintenance responsibilities for various infrastructure and landscape improvements associated with the project.

Table 6-1: Maintenance Responsibilities

Maintenance Area	City/JCSD	HOA	POA
Internal Streets		X	
Perimeter Right-of-Way	X		
The commercial area, including any parking structures			X
Water System	X		
Sewer System	X		
Internal Storm Drainage Systems		X	
Water Quality Basins		X	
Parks and trails[3]		X	

[2] Funding for private maintenance responsibilities may occur through the homeowner's association, community facilities district, or other maintenance district.

[3] Except for Planning Area J, which will be a City-owned and maintained park.

DRAFT Addendum to the Environmental Impact Report

For the Leal Master Plan

(State Clearinghouse No. 2015031028)

Addendum No. 1

Prepared for:

City of Eastvale

12363 Limonite Avenue, Suite 910

Eastvale, CA 91752

Prepared by:

Carlson Strategic Land Solutions

27134A Paseo Espada, Suite 323

San Juan Capistrano, California 92675

April 2022

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SECTION 1.0 INTRODUCTION

1.1 Background

On December 13, 2017, the City of Eastvale certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2015031028) for the 158.6-acre[1] Project site, adopted a Statement of Overriding Considerations for significant but unavoidable impacts, amended the Eastvale General Plan to incorporate the Leal Master Plan (including amending land use policies and the Land Use Map) and voted to adopt the Leal Master Plan and a corresponding change of zone from heavy agriculture (A-2) to Leal Master Plan. On January 10, 2018, the City held second reading and adopted the Leal Master Plan and change of zone to Leal Master Plan. The Leal Master Plan outlined a multistage planning and development process. The first stage included the adoption of the Leal Master Plan, which identified "the project objectives and specific parameters for the design and quality of overall future development of the project site."[2] Stage 2 of the development process was anticipated to focus on "preparing project-wide development criteria and guidelines that are not included in the Master Plan, creating detailed plans for the first phase(s) of development based on the criteria and guidelines included in the Master Plan."[3] The last development phase outlined in the Master Plan consists of the "submittal of specific development projects through the Development Plan Review process established in the Eastvale Zoning Code."[4]

The proposed Project is defined in Section 1.4 and is being processed through and consists of an amendment to the Leal Master Plan, Tentative Tract Map (TTM), and Development Plan Review (referred to as the "Modified Project"). The Modified Project represents Stage 2 of the development process outlined in the Leal Master Plan.

The Prior EIR analyzed the Leal Master Plan, which is further described in Tables 1 and 2 below and constitutes the "Original Project."

Plans for the Modified Project, as well as the Prior EIR, are available for review on the City's website and in hard copy at:

City of Eastvale City Hall
Contact: Gina Gibson-Williams, Community Development Director
12363 Limonite Avenue, Suite 910
Eastvale, California 91752
Email: ggibson-williams@eastvaleca.gov

[1] The Leal Master Plan EIR identifies the size of the project site as 161 acres. Based on detailed engineering, the actual size of the project site is 158.6 acres.
[2] Leal Master Plan EIR, December 2017, Project Description Page 2.0-2
[3] Leal Master Plan EIR, December 2017, Project Description Page 2.0-2
[4] Leal Master Plan EIR, December 2017, Project Description Page 2.0-2

1.2 Location and Surrounding Land Uses

The Modified Project site encompasses approximately 158.6 acres of former dairy farm in the northern portion of the City of Eastvale. The Modified Project site is bordered by Limonite Avenue on the south, Scholar Way on the west, 58th Street on the north, and Hamner Avenue on the east. The property is addressed as 12741 and 12745 Limonite Avenue, and 12740 58th Street, Eastvale, California. The assessor's parcel numbers are 164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024; 164-030-025. Figure 1 shows the location of the Project site and surrounding land uses. Figure 2 shows the Assessor's Parcel Map.

The Modified Project site is surrounded by the following uses:

South: Residential on the west and Commercial (Cloverdale Marketplace) on the east
West: Residential
North: Residential
East: Residential on the north and Commercial (Eastvale Gateway) on the south

1.3 Modified Project Site Existing Conditions

The Modified Project site is a square shaped approximately 158.6-acre flat property. The site elevation ranges between approximately 683 feet above mean sea level in the northern portion of the site and approximately 660 feet above mean sea level in the southern portion of the site. The Modified Project site has been used previously as a dairy farm, horse ranch, and orchard.

Currently the site is an inactive former dairy farm. Five residential structures exist on the site, as well as a dairy barn, horse barn, and maintenance/repair structure.

Figure 1 also graphically describes the Project location and existing conditions.



Source: Google (2021)

N.T.S.

Figure 1
Aerial View of Project Site and Surrounding Land Uses

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.

SEC. 24 T.2S, R.7W

CITY OF EASTVALE

TRA 027-002

164-03

134-08

24

58TH STREET

(#152880 04-25-00) 889.90 | 430 | (#152880 04-25-00) | (#152879 04-25-00) 1270.89

562 | 295.56 | 51.40 | 265.50 | 838.50 | 1298.83 | 30'

10 — 10.97 AC

25 — 28.20 AC M/L

12 — 39.55 AC

1319.80

24 — 40.00 AC M/L

1320.30 | 1283.30

14 — 33.73 AC

1045.12 | 171.70 | 208.70 | 13 | 59.89 | 47.01 | 124.51

838.50 | 37 | 481.50 | 990.68 | L=220.11 | 24 | 19

N89-57-30E

AVENUE

SUMNER AVENUE

HAMNER AVENUE

N00-02-30W

R.7W.

R.6.W.

LIMONITE AVENUE

25 | 30

VALENCIA ST

PAR 1 — 35 — 2.34 AC

PAR 2 — 36

PAR 3 — 37

PAR 4 — 38

PAR 5 — 1.32 AC

PAR 6 — 40

PAR 7 — 41

PM 243/54 — 1.15 AC

N89-54-28E 627.38 | 273.38 | 190.46 PM 243/054 | 163.54 | 57.69 | 59'

N00-05-15W | 254.94 | 129.73 | 160.27 | 160.36 | 623.92 | 180.69 | 188.30 | 157.98 | 123.05 | 63.02 | 90.10 | 138.37 | 249.63 | 84.03 | 49.29 | 41.19 | 34.69 | 35.70 | 83.59 | 44.36 | 29.10 | 44.66 | 117.35 | 87.48 | 40.45 | 63.87 | 76' | 19.61 | 121.17 | 74.59 | 64.82 | 44.77 | 160.44 | 29.10 | N43-08-17E

Legend

- Lot Lines
- Right-Of-Way
- Old Lot Lines
- Reference R.O.W
- Other Easements
- Lease Area
- Subdivision Tic Mark

N

W E

S

1 " = 400 '

Date	Old Number	New Number
4/22/2004	8	13,ST
4/22/2004	9	14,ST
4/22/2004	11	15,ST
6/25/2004	1	16-17
6/25/2004	2,6,17,020-7	18
6/25/2004	18	19,PGS.42-45
6/25/2004	16	PG.2
11/2/2005	7	20,21
11/2/2005	15	22,23
11/2/2005	20,22	24
11/2/2005	21,23	25
12/28/2005	5	26,ST
4/8/2006	26	27,ST
3/5/2007	3	28,29
3/5/2007	4	30,31
3/5/2007	28,30,020-2	32
3/5/2007	29,31	33
11/1/2011	33	PGS.66,67
11/1/2011	32	PGS.67-69
9/23/2014	27	34,PG.72
9/23/2014	34	PGS. 71,72
10/11/2017	19	35-41

Data

MB 9/33 SB, 11/42

RS 52/30, RS 57/61

Map Reference

MB 350/51 - 61 TRACT MAP NO. 30633

PM 243/54 - 55 PARCEL MAP NO. 37031

Pg 43 | Pg 69 | Pg 56 | Pg 15 | Pg 13 | Bk 164 Pg 28 | Bk 160 Pg 24 | Bk 164 Pg 42 | Pg 72 | Pg 03 | Bk 160 Pg 03 | Pg 44 | Pg 45 | Pg 71 | Bk 160 Pg 23 | Pg 46 | 03 | Pg 66 | Pg 49 | Pg 65 | Pg 70 | Bk 152 | Pg 65 | Pg 22

ASSESSOR'S MAP BK164 PG.03

Riverside County, Calif.

BDiaz

Nov 2017

Source: City of Eastvale (04/20/2022)

N.T.S.

Figure 2

Assessor's Parcel Map

1.4 Proposed Modifications

The proposed changes associated with the Modified Project are summarized herein.

Leal Master Plan Amendment
The Modified Project includes an amendment to the Leal Master Plan, which is included in Appendix A to this Addendum. The Leal Master Plan Amendment includes the following primary changes:

- Development Intensities – The Original Leal Master Plan established the following development intensities.

Table 1. Original Leal Master Plan Permitted Development Range

Land Use Type	Minimum/Maximum Range
Lifestyle Center	325,000 to 1,300,000 square feet
General Commercial	Maximum of 225,000 square feet
Commercial Office	Maximum of 920,000 square feet
Hotel	Maximum of 450 rooms
Civic Center	No minimum/maximum
Medium Density Residential	No minimum/maximum
High Density Residential	500 to 660 dwelling units
Other Community Features	To be provided as part of the development of the Project

Source: Leal Master Plan EIR (2017) Table 2.0-2, Page 2.0-4

The Leal Master Plan did not establish a maximum number of dwelling units and no minimum development standards were identified. Therefore, development of the Project site had a wide range of flexibility. Given the wide flexibility, the following land use assumptions were established in the Prior EIR and constitute the Original Project as shown in Table 2.

Table 2. Buildout Assumptions for the Original Project

Land Use
660 multi-family homes (apartments)
1,525,000 square feet of general retail (shopping center)
460,000 square feet of general office
460,000 square feet of medical office
450 hotel rooms
100,000-square-foot civic center

Source: Leal Master Plan EIR (2017) Table 2.0-3, Page 2.0-5

The Modified Project proposes a land use intensity of 2,500 residential dwellings, 595,000 square feet of commercial uses and a fire station. As planned in the Stage 2 sequencing, the Modified Project continues to provide development flexibility to allow for development to occur in accordance with market conditions as part of Stage 3 planning. While no Stage 3 development plans have been prepared, the 2,500 dwelling units and 595,000 square feet of commercial uses have been allocated as shown in the following table for purposes of this Addendum. It is important to note that the following mix of uses is conceptual and may change during the Stage 3 planning processes. Since development of the site could take many years and each planning area requires a separate Stage 3 planning process, development of the Project site could vary from the assumptions provided in the table below. If changes to these assumptions occur in the future, the City is responsible to evaluate those changes and determine if additional environmental review pursuant to CEQA is required. The Modified Project is defined as the buildout assumptions shown in Table 3.

Table 3. Buildout Assumptions for the Modified Project

Land Use
1,840 medium density residential (400 single family detached and 1,440 single family attached)
660 high density residential (apartment units)
390,000 square feet of general retail (shopping center)
65,000 square feet of general office
65,000 square feet of medical office
75,000 square feet civic center (City Hall, Library, Police)
12,200 square feet fire station

The following table compares the development assumptions between the Original Project and the Modified Project.

Table 4. Development Comparison between Original Project and Modified Project

Land Use	Original Project	Modified Project	Difference
Medium Density Residential	0	1,840	+1,840 units
High Density Residential	660	660	no change
Retail (Shopping Center)	1,525,000	390,000	-1,135,000 sf
General Office	460,000	65,000	-395,000 sf
Medical Office	460,000	65,000	-395,000 sf
Hotel	450	0	- 450 rooms
Civic Center	100,000	75,000	- 25,000 sf
Fire Station	0	12,200	+ 12,200 sf

- Site Plan – the Leal Master Plan Amendment includes a site plan for the entire site, specifying backbone streets, development areas, and backbone parks and open space.

- Development Standards – the Leal Master Plan Amendment includes development standards, such as setbacks, height limits, etc., to guide future development.

- Design Guidelines – the Leal Master Plan Amendment includes modifications to the design guidelines.

A hotel was included as part of the Original Project and is still being contemplated in the commercial area. A hotel is a permitted land use and consistent with the General Plan designation. Hotels generally have a conversion of approximately 400 square feet per hotel room. Therefore, if a hotel were included in future development plans, the square footage of the other commercial uses would need to be reduced. One scenario contemplated includes the removal of the medical and general office and a 50,000 square foot reduction of the retail space. In such scenario the overall daily traffic volumes would be reduced by 496 trips compared to the Modified Project analyzed in this Addendum. The peak hour trips for AM and PM would also be reduced by 83 trips and 158 trips, respectively.

Tentative Tract Map (TTM) 38290
TTM 38290, included as Figure 3, proposes 14 numbered lots and 19 lettered lots over the 158.6 acre Modified Project Site. The 14 numbered lots total approximately 121.54 acres of development area. The 19 lettered lots total approximately 37.04 acres of open space, parks, and streets. The following table provides a summary of approximate land use acreages.

Table 5. Summary of Land Use Acreages

Land Use	Acreage (acres)
Development Area	121.54
Streets	22.92
Parks and Open Space	14.12
Total	158.59

TTM 38290 is considered an "A" level tract map. "A" or "B" level map(s) or condominium plan(s) may be prepared for the specific development of each numbered lot. The "B" level mapping would represent Phase 3 of the multistage planning/development process.

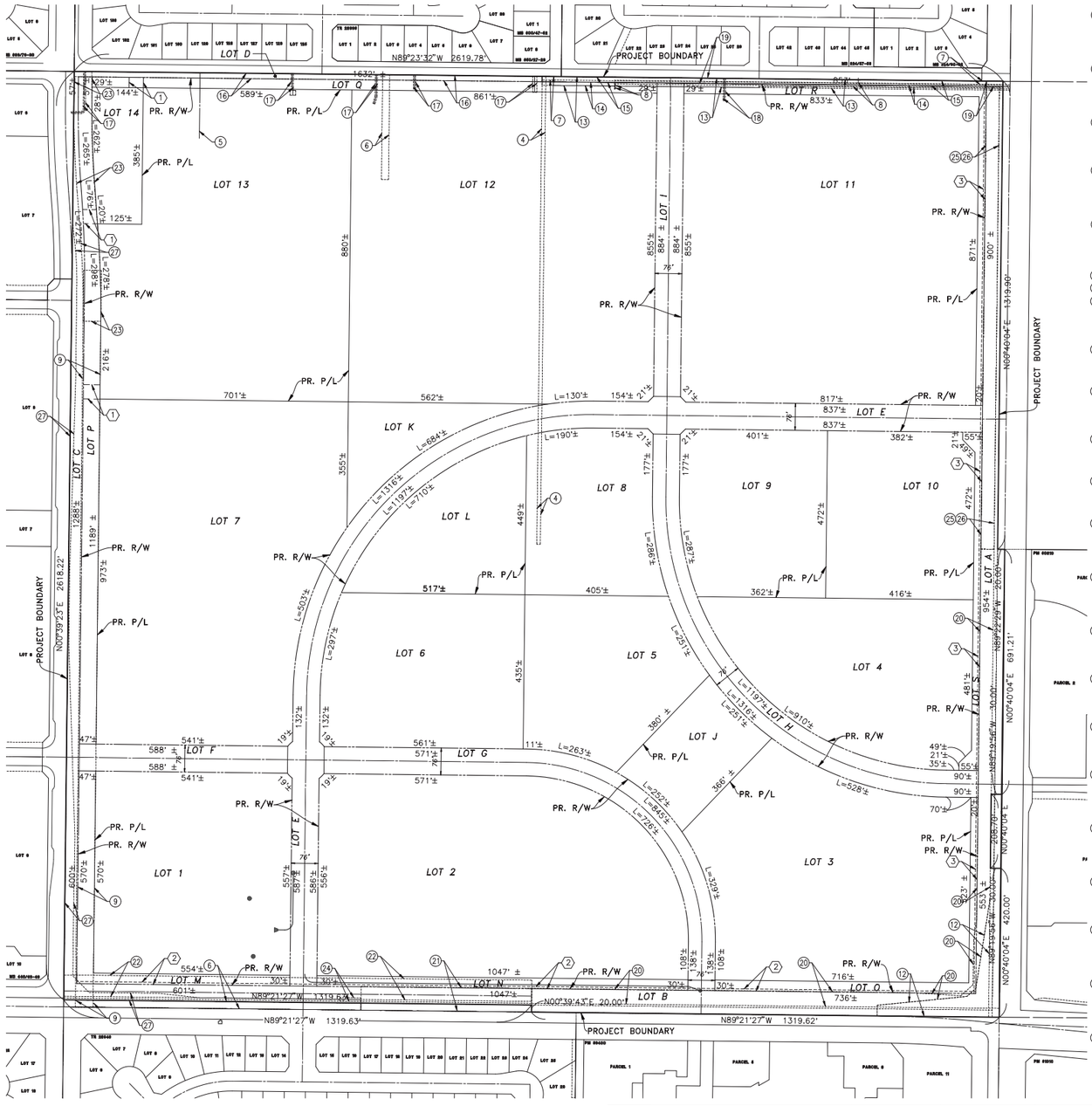
TTM 38290 includes a rough grading plan. An earthwork cut and fill exhibit is included as Figure 4. The following table summarizes the proposed earthwork for the Modified Project.

Table 6. Modified Project Earthwork Summary

	Cut (cubic yards)	Fill (cubic yards)
Raw Earthwork Volume	436,161	289,574
Pad Over-Ex (after organics removal)	651,540	651,540
Pad Over-Ex Shrinkage		97,730
Paved Area Over-Ex (after organics removal)	41,981	41,981
Paved Area Over-Ex Shrinkage		6,300
Fill Shrinkage		65,420
Total	1,129,682	1,152,545

TENTATIVE TRACT MAP NO. 38290

BEING THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY SECTIONALIZED SURVEY OF THE MAP OF THE JURUPA RANCHO ON FILE IN BOOK 9, PAGE 33 OF MAPS, COUNTY OF SAN BERNARDINO RECORDS, STATE OF CALIFORNIA.



EXISTING EASEMENTS

4. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: PUBLIC UTILITIES
RECORDING DATE: APRIL 9, 1953
RECORDING NO.: 17029, BOOK 1459, PAGE 442, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1, 2 AND 6 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
TO BE QUITCLAIMED

5. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: MAY 29, 1953
RECORDING NO.: 26369, BOOK 1477, PAGE 246, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 5 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
TO BE QUITCLAIMED

6. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: ARTHUR L. HANSON AND BESSIE L. HANSON
PURPOSE: UTILITIES
RECORDING DATE: JUNE 5, 1953
RECORDING NO.: 27507, BOOK 1479, PAGE 275, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
A PORTION TO BE QUITCLAIMED

7. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: GENERAL TELEPHONE COMPANY OF CALIFORNIA
PURPOSE: UTILITIES
RECORDING DATE: MAY 03, 1956
RECORDING NO.: 98, BOOK 1906, PAGE 107, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCEL 1 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.

8. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: OCTOBER 23, 1967
RECORDING NO. 143222, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCEL 1, 2 AND 6 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
TO BE QUITCLAIMED

9. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: OCTOBER 25, 1968
RECORDING NO. 71591, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCEL 7 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
A PORTION TO BE QUITCLAIMED

10. INTENTIONALLY LEFT BLANK

11. INTENTIONALLY LEFT BLANK

12. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: DECEMBER 21, 1998
RECORDING NO. 552204, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 3 AND 4 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

13. MATTERS CONTAINED IN THAT CERTAIN DOCUMENT:
ENTITLED: ACCESS AGREEMENT
RECORDING DATE: APRIL 25, 2000
RECORDING NO. 2000-152877, OF OFFICIAL RECORDS
TO BE QUITCLAIMED

14. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: SLOPE AND MAINTENANCE
RECORDING DATE: APRIL 25, 2000
RECORDING NO. 2000-152878, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

15. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
PURPOSE: STREET AND UTILITY
RECORDING DATE: APRIL 25, 2000
RECORDING NO. 2000-152879, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

16. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
PURPOSE: STREET AND UTILITY
RECORDING DATE: APRIL 25, 2000
RECORDING NO. 2000-152873, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 5 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

17. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: DECEMBER 19, 2000
RECORDING NO. 2000-503785, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 5 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
TO BE QUITCLAIMED

18. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: DECEMBER 19, 2000
RECORDING NO. 2000-503786, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
TO BE QUITCLAIMED

19. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 31, 2001
RECORDING NO. 2001-041384, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1, 5 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

20. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2002-025215, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

21. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2002-025216, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

22. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: JURUPA COMMUNITY SERVICES DISTRICT
PURPOSE: PIPELINES, UTILITIES AND ACCESS
RECORDING DATE: OCTOBER 1, 2003
RECORDING NO. 2003-770716, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID PARCEL 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
PORTION TO BE QUITCLAIMED

23. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: PUBLIC UTILITIES
RECORDING DATE: OCTOBER 22, 2004
RECORDING NO. 2004-0836866, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 5, 7 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
PORTION TO BE QUITCLAIMED

24. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: DRAINAGE
RECORDING DATE: JULY 20, 2007
RECORDING NO. 2007-0474701, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

25. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: JURUPA COMMUNITY SERVICES DISTRICT OF RIVERSIDE COUNTY
PURPOSE: TO CONSTRUCT, RECONSTRUCT, INSTALL, REPLACE, REMOVE, REPAIR ALTER, OPERATE, MAINTAIN, INSPECT AND UTILIZE A SEWER PIPELINE OF PIPELINES.
RECORDING DATE: APRIL 5, 2012
RECORDING NO. 2012-0154067, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

26. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: CHINO BASIN DESALTER AUTHORITY
PURPOSE: TO CONSTRUCT, RECONSTRUCT, INSTALL, REPLACE, REMOVE, REPAIR ALTER, OPERATE, MAINTAIN, INSPECT AND UTILIZE A WATER PIPELINE OR PIPELINES
RECORDING DATE: JULY 3, 2013
RECORDING NO. 2013-0310622, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

27. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:
GRANTED TO: CITY OF EASTVALE
PURPOSE: PUBLIC ROAD AND UTILITY
RECORDING DATE: OCTOBER 10, 2013
RECORDING NO. 2013-0486886, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT



VICINITY MAP

NOTES

1. EXISTING LAND USE: VACANT
2. PROPOSED LAND USE: RESIDENTIAL AND COMMERCIAL
3. EXISTING GENERAL PLAN LAND USE DESIGNATION: LEAL POLICY AREA
4. EXISTING ZONING: LEAL MASTER PLAN
5. ASSESSOR PARCEL NUMBERS: 164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024, 164-030-025
6. TOTAL GROSS AREA: 158.58 AC
7. WATER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
8. SEWER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
9. GAS SERVICE PROVIDED BY: SOUTHERN CALIFORNIA GAS COMPANY, 155 S. G STREET, SAN BERNARDINO, CA 92410, (909) 758-8691
10. ELECTRIC SERVICE PROVIDED BY: SOUTHERN CALIFORNIA EDISON, 1351 E. FRANCIS STREET, ONTARIO, CA 91761, (909) 930-8431
11. TELEPHONE SERVICE PROVIDED BY: VERIZON, 1400 E. PHILLIPS BLVD., POMONA, CA 91766, (909)469-2260
12. CABLE PROVIDED BY: AT&T, 1265 N. VAN BUREN STREET, SUITE 180, ANAHEIM, CA 92807, (800) 750-2355
13. REFUSE PROVIDED BY: WASTE MANAGEMENT OF THE INLAND EMPIRE, 800 SOUTH TEMESCAL STREET, CORONA, CA 92878, (951) 280-4500
14. THE PROJECT IS LOCATED WITHIN THE CORONA-NORCO UNIFIED SCHOOL DISTRICT, 2820 CLARK AVENUE, NORCO CA, 92860, (951) 736-5000
15. THE PROJECT SITE IS NOT LOCATED WITHIN A FLOOD ZONE PER FLOOD INSURANCE RATE MAP NUMBERS 06065C0677G & 06065C0681G, EFFECTIVE DATE AUGUST 28, 2008.

PROPOSED EASEMENTS

① 24' FOR INGRESS EGRESS PURPOSES.
② 6' FOR PUBLIC ACCESS AND PARKING.
③ 5' FOR PUBLIC ACCESS AND PARKING.

EARTHWORK SUMMARY

CUT	FILL
1,129,682 CYS	1,152,545 CYS

LOT SUMMARY

NUMBERED LOTS

Lot #	S.F.	Acres
1	315,892.10	7.252
2	550,731.85	12.643
3	426,869.17	9.800
4	279,624.41	6.419
5	198,540.25	4.558
6	244,324.99	5.609
7	613,599.82	14.086
8	171,451.45	3.936
9	191,384.23	4.394
10	195,395.18	4.486
11	724,736.51	16.638
12	754,749.47	17.327
13	574,268.61	13.183
14	53,083.07	1.219
Total	5,294,651.11	121.548

LETTERED LOTS

Lot #	S.F.	Acres
A	139,937.69	3.213
B	147,811.51	3.393
C	84,478.50	1.939
D	38,267.77	0.879
E	246,244.32	5.653
F	44,673.74	1.026
G	113,590.68	2.608
H	115,905.65	2.661
I	67,321.01	1.545
J	89,220.27	2.048
K	68,998.58	1.584
L	153,611.43	3.526
M	44,835.28	1.029
N	31,408.46	0.721
O	32,546.77	0.747
P	84,078.57	1.930
Q	46,663.19	1.071
R	42,155.07	0.968
S	21,801.21	0.500
Total	1,613,549.70	37.042

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- EXISTING LOT LINE
- TOP/TOE OF SLOPE
- DAYLIGHT LINE
- 107 PROPOSED MAJOR CONTOUR
- 107 PROPOSED MINOR CONTOUR
- EXISTING CURB

DATE 4-15-2022
W.O. 2749-44C
GROSS AREA 158.58±
CONTOUR INTERVAL 1'
NUMBERED LOTS 14
LETTERED LOTS 19

0 50 100 200 FEET
0 1/2 1 INCHES

STATEMENT OF OWNERSHIP

I HEREBY STATE THAT THIS MAP WAS PREPARED UNDER MY SUPERVISION AND THAT THE OWNER OF RECORD HAS KNOWLEDGE OF AND CONSENTS TO THE FILING OF THIS MAP.

DATE 03/10/2021

REGISTERED PROFESSIONAL ENGINEER DAVID L. SMITH NO. 38796 CIVIL STATE OF CALIFORNIA

NO.	DATE	REVISIONS	APPROVED
–	–	–	

DRAWN BY: JV
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
THE NEW HOME COMPANY
85 ENTERPRISE, SUITE 450
ALISO VIEJO, CA 92656
(949) 382-2766

OWNER:
CRAIG LEAL
12740 58TH STREET
CORONA, CA 92880
(909) 630-4574

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ■ ENGINEERING ■ SURVEYING
Three Hughes ■ Irvine, CA 92618 ■ PH: (949) 583-1010 ■ FX: (949) 583-0759

COVER SHEET
TENTATIVE TRACT NO.38290
City of Eastvale

SHEET
TTM-1

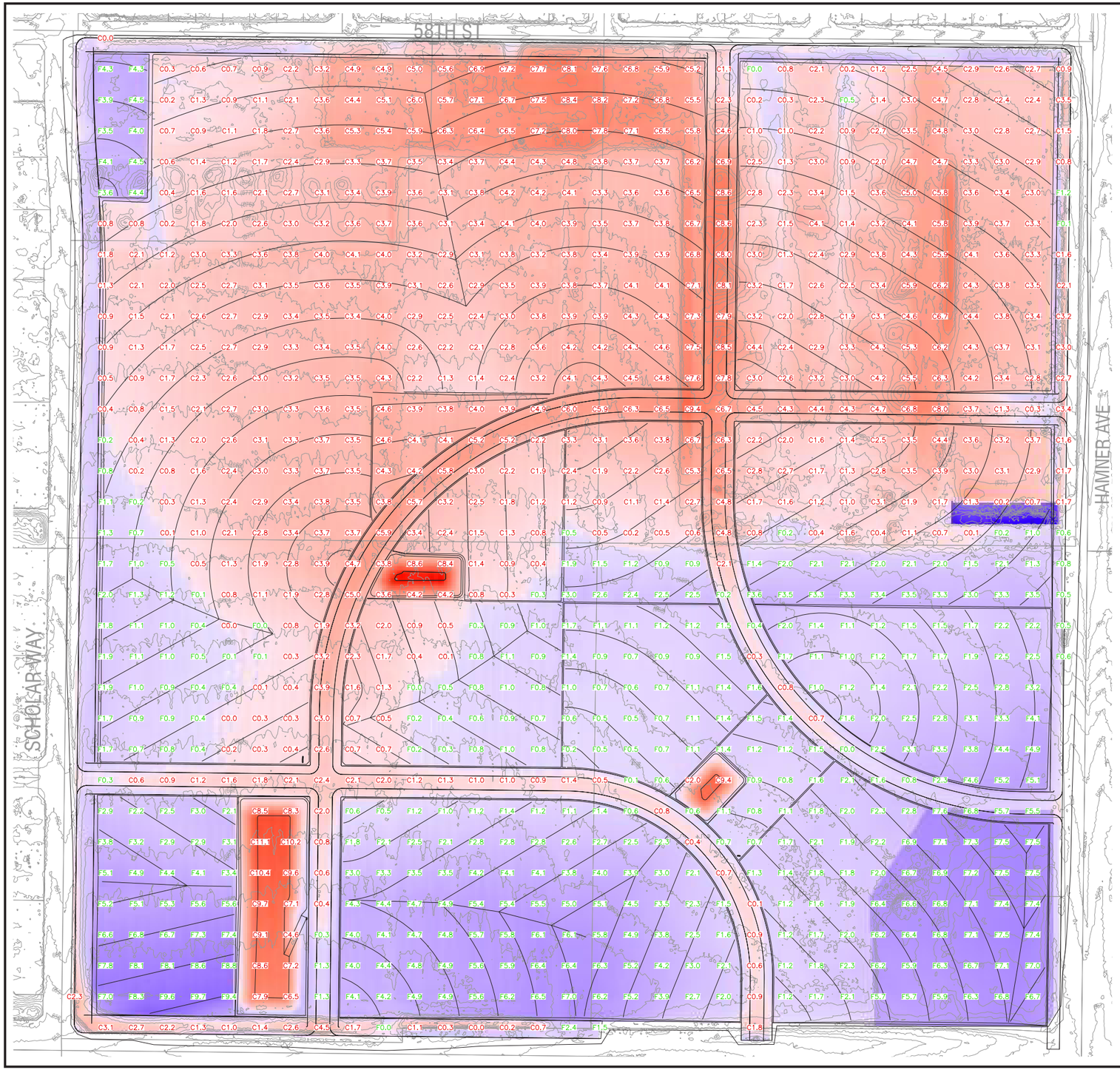
PLOTTED BY: Joey Valadez DATE: Apr. 18, 2022 08:38:52 AM FILE: H:\00750\PLANNING\TTM

W.O. 2749-44C LEAL MAP.TTM

Source: Hunsaker & Associates (04/15/2022)

N.T.S.

Figure 3
Tentative Tract Map 38290



Leal Ranch

TTM vs Flown Topo

Notes

Existing surface is from Inland Aerial flown topo, dated July 29, 2021. Cut and Fill elevation values shown are after organics have been removed.

Proposed surface is TTM grading at time of exhibit.

Adjustments for Soils Conditions

Soil adjustments have been calculated based on LGC soils report titled "Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre Leal Property, City of Eastvale, California", dated June 21, 2021.

Adjustments Made:
1) Top 1 ft of soil, plus deeper areas identified on Fig 2, to be removed and disposed off site.

2) Pad areas to be cut and re-compacted to 5 ft below EG, or 3 ft below FG, whichever is deeper.

3) Paved areas to be cut and re-compacted to 2 ft below EG, or 1 ft below FG, whichever is deeper.

4) Road undercut is 10 inches.

5) 10% to 15% shrinkage on cut. 15% used for numbers below.

Volume

149.68 ac	CUT	FILL
Raw Volume	436,161 CYS	289,574 CYS
Pad Over-Ex (after Organics Removal)	651,540 CYS	651,540 CYS
Pad Over-Ex Shrinkage		97,730 CYS
Paved Area Over-Ex (after Organics Removal)	41,981 CYS	41,981 CYS
Paved Area Over-Ex Shrinkage		6,300 CYS
Fill Shrinkage		65,420 CYS
Total	1,129,682 CYS	1,152,545 CYS
Net Volume		22,863 CYS SHORT

Lower site 0.09 ft to achieve theoretical balance.

Organics Removal Export

Top Organics Remove and Dispose	354,400 CYS EXPORT

SCALE: 1" = 120'

60 120 240 360 480
SCALE: 1" = 120'

HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

Source: Hunsaker & Associates (11/01/2021)

N

N.T.S.

Figure 4
Cut and Fill Map

The net volume results in 22,863 cubic yards (cy) short, requiring import of 22,863 cy. The Project site also has 354,400 cy of organics from dairy operations that must be removed. In summary the Modified Project requires:

- 22,863 cy of import
- 354,400 cy of export

TTM 38290 specifies proposed street sections for internal and external streets. Street widening will occur on Limonite Avenue and Hamner Avenue. Both streets are designed with three travel lanes, a median, a bicycle lane, and landscaping with a meandering trail. The perimeter street improvements require dedication of right-of-way and easements. No new traffic signals are proposed on surrounding streets.

The Modified Project includes the provision of water quality and detention facilities. The Project site drains from north to southwest, with a storm drain connection in Limonite near the western boundary of the Project site. The water quality and detention facilities are primarily proposed as underground storage and treatment facilities. The Project site does not have infiltration rates high enough to infiltrate storm water, therefore, the storm flows must be treated and released. During final engineering surface treatment areas, such as bioswales, may be incorporated into the final design.

In addition to the description of the Modified Project above, several standard conditions, regulatory requirements, and commitments made by the Modified Project have been included herein and are referred to as Project Design Features (PDFs). The PDFs for the Modified Project include:

AQ PDF-1 A Construction Management Plan will be prepared that includes the requirements for Air Quality mitigation measures as specified in the Addendum to be submitted to the City of Eastvale for all phases of construction.

AQ PDF-2 The Project commits to following the standard South Coast Air Quality Management District (SCAQMD) rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:

1. All active construction areas shall be watered two (2) times daily.

2. Speed on unpaved roads shall be reduced to less than 15 mph.

3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.

4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.

5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.

6. Access points shall be washed or swept daily.

7. Construction sites shall be sandbagged for erosion control.

8. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).

9. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.

10. Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.

11. Replace the ground cover of disturbed areas as quickly possible.

12. A fugitive dust control plan should be prepared and submitted to SCAQMD prior to the start of construction.

AQ PDF-3 All construction equipment, to the extent feasible, will have Tier 4 low emission "clean diesel" engines (Original Equipment Manufacturer(OEM) or retrofit) that include diesel oxidation catalysts and diesel particulate filters that meet the latest California Air Resource Board (CARB) best available control technology.

AQ PDF-4 Construction equipment will be maintained in proper tune.

AQ PDF-5 All construction vehicles will be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

AQ PDF-6 The Project will minimize the simultaneous operation of multiple construction equipment units, to the maximum extent feasible.

AQ PDF-7 The use of heavy construction equipment and earthmoving activity will be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.

AQ PDF-8 The Project will establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

AQ PDF-9 Staging areas for the construction equipment will be located as distant as possible from adjacent residential homes.

AQ PDF-10 To the extent possible, the Project will use haul trucks with on-road engines instead of off-road engines for on-site hauling.

GEO PDF-1 The Project will implement the recommendations included in the geotechnical report, "*Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California,"* prepared by LGC Geotechnical, Inc. and dated June 21, 2021.

NOI PDF-1 Prior to the issuance of building permits, the Project will demonstrate that building construction will achieve the minimum interior noise standard of 45 dBA CNEL for all residential units located along arterial roadways and/or adjacent to commercial uses, per the California Building Standards Code. The following noise control measures may be required for dwelling units located near adjacent roadways:

- Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources.
- Install double-paned or upgraded sound transmission class (STC) sound rated windows.
- Provide sound insulating exterior walls and roofing systems.
- Locate and/or design attic vents to minimize sound propagation into each home.
- Provide forced-air ventilation systems.
- Provide the necessary setbacks for dwelling units fronting along major roadways.

NOI PDF-2 The Project will comply with California Title 24 building insulation requirements for exterior walls, roofs and common separating assemblies (e.g. floor/ceiling assemblies and demising walls).

NOI PDF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors will have a positive seal and leaks/cracks must be kept to a minimum.

NOI PDF-4 The final building plans will ensure that heating, ventilation, and air conditioning (HVAC) units are not located within an area of the Project site that would contribute to a noise level exceedance at any adjacent property line, per the City of Eastvale Municipal Code requirements. To meet the City's noise standards the following measures should be followed:

- All HVAC equipment shall be shielded or enclosed from the line of sight of adjacent residential uses.
- The combined noise level of all units operating simultaneously shall not exceed the City of Eastvale daytime and nighttime exterior standards at the nearest surrounding property lines.

NOI PDF-5 Future residents, property management personnel, and commercial tenants will be required to comply with the City of Eastvale Municipal Code Noise Regulations, Chapter 8.52, which specify that no person shall create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness.

To help ensure compliance with the City's Noise Regulations, the following recommendations are provided:

- Deliveries, loading and unloading activities, and trash pick-up hours should be limited to daytime hours only (8 a.m. – 10 p.m.).
- Limit engine idling time for all delivery vehicles and moving trucks to 5 minutes or less.

NOI PDF-6 The Project will prepare a construction management plan and obtain a construction work permit from the City of Eastvale prior to starting construction. The construction management plan will ensure all contractors implement construction best management practices to reduce construction noise levels. Examples of best management practices may include the following:

- All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).
- Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible.
- If feasible, electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Locate staging area, generators and stationary construction equipment as far from the adjacent residential homes as feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

- Provide notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator.
- Construction activities shall not take place between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. to 7:00 a.m. during the months of October through May.

NOI PDF-7 The Project will not include pile driving or blasting activities during construction. If impact pile driving or blasting is required, a follow-up noise and vibration impact assessment will be conducted prior to start of any activity.

1.5 Prior Environmental Documentation

On December 13, 2017, the City of Eastvale certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2015031028) for the 158.6-acre[5] Project site, adopted a Statement of Overriding Considerations for significant but unavoidable impacts, amended the Eastvale General Plan to incorporate the Leal Master Plan (including amending land use policies and the Land Use Map) and voted to adopt the Leal Master Plan and a corresponding change of zone from heavy agriculture (A-2) to Leal Master Plan. On January 10, 2018, the City held a second reading and adopted the Leal Master Plan and change of zone to Leal Master Plan.

The Prior EIR included two Project alternatives, as follows:

- Alternative 1: No Project

Alternative 1 assumed development consistent with the existing General Plan[6] land use designations, which were Business Park, Medium Density Residential, and High Density Residential.

- Alternative 2: Market Probable Scenario

Alternative 2, Market Probable Scenario, assumes a lower intensity buildout scenario compared to the Original Project. The Market Probable Scenario assumes the same

[5] The Leal Master Plan EIR identifies the size of the project site as 161 acres. Based on detailed engineering, the actual size of the project site is 158.6 acres.
[6] This is a reference from the Prior EIR to the existing General Plan prior to the adoption of the General Plan Amendment which changed the land use designation on the Project site to Leal Property Policy Area.

types of land uses as the Original Project, but with the non-residential uses developed at a lower intensity.

The Leal Master Plan EIR determined the Original Project would cause six (6) significant and unavoidable impacts within the following three (3) topic areas:

- Transportation / Traffic
- Air Quality
- Noise

The City has determined, for reasons specified below, that the revisions proposed as part of the Modified Project would not result in any new or more significant environmental impacts, and thus qualify for an Addendum. The prior environmental documentation, Leal Master Plan Environmental Impact Report (SCH No. 2015031028) is referred to as "Prior EIR" or "EIR" and is available at the City of Eastvale City Hall; contact Gina Gibson-Williams, Community Development Director, at 12363 Limonite Avenue, Suite 910, Eastvale, California 91752.

1.6 Basis for an Addendum

Prior to approval of subsequent actions that constitute a "project" under CEQA, the City is required to determine whether the environmental effects of such actions are within the scope of prior environmental analysis, or whether additional environmental analysis is required. That decision is influenced by whether the subsequent actions require major revisions to the EIR due to new significant impacts or an increase the severity of previously identified significant impacts.

Under CEQA, the lead agency or a responsible agency shall prepare an addendum to a previously-certified EIR if some changes or additions are necessary to the prior EIR, but none of the conditions calling for preparation of a subsequent or supplemental EIR have occurred (Public Resources Code § 21166; CEQA Guidelines §§ 15162, 15163, 15164). Once an EIR has been certified, no supplement or subsequent EIR shall be prepared unless the lead agency or responsible agency determines that one of the following conditions has been met:

(1) Substantial changes are proposed in the project, or substantial changes occur with respect to the circumstances under which the project is undertaken, which require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects [*CEQA Guidelines* § 15162(a)(1)&(2)];

(2) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

a) The project will have one or more significant effects not discussed in the previous EIR;

b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative [*CEQA Guidelines* § 15162(a)(3)].

The City has evaluated the potential environmental impacts of the proposed Modified Project against the criteria set forth in CEQA Guidelines §§ 15162, 15163, 15164, and 15168(c). The City, acting as the Lead Agency, has determined that substantial evidence throughout this Addendum supports the determination that the Modified Project would not have any reasonably foreseeable environmental consequences beyond that analyzed in the Prior EIR and its associated administrative record, that none of the conditions listed above trigging preparation of a subsequent or supplemental EIR apply and that an Addendum to the Leal Master Plan Environmental Impact Report (SCH No. 2015031028) is appropriate for the proposed Modified Project and related entitlements, and fully complies with CEQA, as described in Public Resources Code section 21166 and the *CEQA Guidelines*. The Original EIR was prepared as a Program EIR and as such was evaluated pursuant to CEQA Guidelines § 15168(c). The Lead Agency has determined that the effects of the later activity, in this case the Modified Project, were examined in the program EIR (Original EIR) and pursuant to Section 15162 no subsequent EIR is required.

Table 7 summarizes the City's determination that none of the conditions listed above trigging preparation of a subsequent or supplemental EIR apply. The following table provides a summary comparison of impacts for the Original Project and the Modified Project. The summary of comparative impacts shows both construction and operations differences.

Table 7. Impact Comparison Between Original Project and Modified Project

Environmental Issue Area	Original Project	Modified Project[1]	
		Construction	Operations
Aesthetics	Less than Significant Impact with Mitigation	Similar	Similar

Environmental Issue Area	Original Project	Modified Project[1]	
		Construction	Operations
Agriculture and Forestry Resources	Less than Significant Impact	Similar	Similar
Air Quality	Significant and Unavoidable Impact	Similar	Reduced
Biological Resources	Less than Significant Impact with Mitigation	Similar	Similar
Cultural Resources	Less than Significant Impact with Mitigation	Similar	Similar
Energy	Less than Significant Impact	Similar	Reduced
Geology and Soils	Less than Significant Impact	Similar	Similar
Greenhouse Gas Emissions	Less than Significant Impact	Similar	Reduced
Hazards and Hazardous Waste	Less than Significant Impact with Mitigation	Similar	Similar
Hydrology and Water Quality	Less than Significant Impact	Similar	Similar
Land Use and Planning	Less than Significant Impact	Similar	Similar
Mineral Resources	Less than Significant Impact	Similar	Similar
Noise	Significant and Unavoidable Impact	Similar	Reduced
Population and Housing	Less than Significant Impact	Similar	Similar
Public Services	Less than Significant Impact	Similar	Similar
Recreation	Less than Significant Impact	Similar	Similar
Transportation and Traffic	Significant and Unavoidable Impact	Similar	Reduced
Tribal Cultural Resources	Less than Significant Impact with Mitigation	Similar	Similar
Utilities and Service Systems	Less than Significant Impact	Similar	Similar
Wildfire	Less than Significant Impact	Similar	Similar

[1] This table provides a qualitative comparison of impacts between the Original and Modified Projects, including construction and operations for the Modified Project. The following Environmental Checklist in Section 2.0 of this Addendum goes into greater detail and justification of these general conclusions presented in this table.

An addendum does not need to be circulated for public review, but rather can be attached to the Prior EIR (*CEQA Guidelines* § 15164(c)). The City will consider this Addendum and will make a decision regarding the Modified Project [*CEQA Guidelines* §15164(d)].

1.7 Mitigation Measures

The City has determined that no new mitigation measures[7] are required, as documented in detail in Section 2.0 below. The Prior EIR included mitigation measures for development of the Modified Project site to reduce impacts to a level of less than significant. Where noted in Section 2.0 and the table below, certain mitigation measures have been satisfied as part of this Addendum and are shown in light grey format. One mitigation measure has been revised to clarify the results of further analysis. The other measures remain in place and are listed below.

Table 8. Mitigation Monitoring and Reporting Checklist

Aesthetics, Light, and Glare	
MM 3.5.1	Nonglare glass shall be used in all nonresidential buildings to minimize and reduce impacts from glare. Buildings that are allowed to use semi-reflective glass must be oriented so that the reflection of sunlight is minimized. Types of nonglare glass shall be specified on final development plans. *Timing/Implementation:* *Prior to approval of final development plans* *Enforcement/Monitoring:* *City of Eastvale Planning Department*
Air Quality	
MM 3.3.5a	A site-specific air toxics pollutant analysis shall be conducted in accordance with the SCAQMD (2008) Final Localized Significance Threshold Methodology for construction activities. If SCAQMD screening thresholds would be exceeded, air toxic reduction measures shall be identified in order to reduce potential impacts to a level that is less than significant. If it is the case that emissions remain in excess of SCAQMD localized significance thresholds despite the imposition of air toxic reduction measures, project-specific construction-related dispersion modeling acceptable to the SCAQMD shall be used to identify potential toxic air contaminant impacts, including diesel particulate matter. If SCAQMD risk thresholds would be exceeded, additional measures shall be identified in the air toxics analysis to address potential impacts and shall be based on site-specific information such as the distance to the nearest sensitive receptors, project site plan details, and construction schedule. The City shall ensure that construction contracts include all identified measures and that the measures reduce the health risk below SCAQMD risk thresholds.

[7] A statement of "No New Mitigation" as used in this Addendum means that there is no new mitigation required due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

	Construction-generated air toxics pollutant mitigation measures may include but not be limited to: 1. Limiting the amount of acreage to be graded in a single day. 2. Restricting intensive equipment usage and intensive ground disturbance to hours outside of hours typically spent at home. 3. Notifying affected sensitive receptors one week prior to commencing on-site construction so that any necessary precautions (such as rescheduling or relocating outdoor activities) can be implemented. The written notification shall include the name and telephone number of the individual empowered to manage construction of the project. In the event complaints are received, the individual empowered to manage construction shall respond to the complaint within 24 hours. The response shall include identification of measures being taken by the project construction contractor to reduce construction-related air pollutants. Such measures may include but are not limited to the relocation of equipment or the rescheduling of construction outside of hours typically spent at home. *Timing/Implementation:* The site-specific air toxics pollutant analysis and any necessary modeling shall be completed prior to grading permit issuance, and measures implemented during construction activities *Enforcement/Monitoring:* City of Eastvale Planning, Building and Safety, or Public Works Departments
MM 3.3.5b	A site-specific air toxics pollutant analysis shall be conducted in accordance with the SCAQMD (2008) Final Localized Significance Threshold Methodology for operational activities. If SCAQMD screening thresholds would be exceeded, air toxic reduction measures shall be identified in order to reduce potential impacts to a level that is less than significant. If it is the case that emissions remain in excess of SCAQMD localized significance thresholds despite the imposition of air toxic reduction measures, project-specific operations-related dispersion modeling acceptable to the SCAQMD shall be used to identify potential toxic air contaminant impacts, including diesel particulate matter generated by heavy-duty haul trucks. If SCAQMD risk thresholds would be exceeded, additional mitigation measures shall be identified in the air toxics analysis to address potential impacts and shall be based on site-specific information such as the distance to the nearest sensitive receptors, project site plan details, and merchandise delivery schedule. The City shall ensure that operations include all identified measures and that the measures reduce the health risk below SCAQMD risk thresholds. Operations-generated air toxic pollutant mitigation measures may include but not be limited to: 1. Redesigning the project site plan to locate proposed loading dock facilities as far from sensitive receptors as possible. 2. Posting signage stating the State-mandated prohibition on all project trucks idling in excess of 5 minutes under the Heavy-Duty Vehicle

	Idling Emission Reduction Program. 3. Restricting the number of daily heavy-duty haul truck deliveries. *Timing/Implementation:* The site-specific air toxics pollutant analysis and any necessary modeling shall be completed prior to grading permit issuance, and measures implemented during construction activities *Enforcement/Monitoring: City of Eastvale Planning, Building and Safety, or Public*
Biological Resources	
MSHCP Standard Conditions	*Note: The following discussion highlights the requirements of the MSHCP as they apply to the proposed project. Because the MSHCP has been adopted by the City, it is not necessary to adopt a mitigation measure to enforce its provisions.* The MSHCP requires that projects pay a mitigation fee, perform species-specific habitat assessments and surveys, and be reviewed for consistency with Section 6.1.2–Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool, Section 6.1.3–Protection of Narrow Endemic Plan Species, Section 6.3.2–Additional Survey Needs and Procedures, and Section 6.1.4–Guidelines Pertaining to the Urban/Wildlands Interface of the MSHCP. The following requirements of the MSHCP apply to the proposed project and will be required of all subsequent development plans and/or projects within the Leal Master Plan area: A. The project applicant shall submit fees to the City in accordance with the requirements of the MSHCP Mitigation Fee Ordinance (Chapter 4.62 of the City of Eastvale Municipal Code). B. The project applicant shall assess the proposed project's consistency with Section 6.1.2, Section 6.1.3, Section 6.3.2, and Section 6.1.4 of the MSHCP. C. A qualified biologist shall conduct a burrowing owl habitat assessment. If needed, focused surveys and preconstruction surveys shall be conducted, as well as appropriate avoidance and minimization (Section 6.3.2 of the MSHCP). D. A qualified biologist shall conduct habitat assessments for the required Narrow Endemic Plant Species. If needed, focused surveys and shall be conducted, as well as appropriate avoidance and minimization (Section 6.1.3 of the MSHCP). E. A qualified biologist shall conduct a habitat assessment for Delhi sands flower-loving fly in areas underlain by Delhi soil series (Species-specific Objective 1B). As noted above, because the City has adopted the MSHCP and enforces its provisions, these requirements do not need to be included as mitigation measures.

MM 3.7.1	All construction and clearing activities shall be conducted outside of the avian nesting season (January 15–August 31), when feasible. If clearing and/or construction activities occur during the nesting season, preconstruction surveys for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds. If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the project applicant shall establish an exclusion zone (no ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged. *Timing/Implementation:* *Requirements shall be incorporated into all rough and/or precise grading plan documents. The project applicant's construction inspector shall monitor to ensure that measures are implemented during construction.* *Enforcement/Monitoring:* *City of Eastvale Planning Department*
MM 3.7.2	Prior to breaking ground, a qualified biologist shall be retained to determine whether potentially jurisdictional waters are present. If potentially jurisdictional features are identified, the project applicant shall submit a preliminary jurisdictional determination to the US Army Corps of Engineers for verification. The verified delineation will be submitted to the City for its records. *Timing/Implementation:* *Prior to approval of grading permits* *Enforcement/Monitoring:* *City of Eastvale Planning Department*
MM 3.7.3	Projects shall result in no net loss of sensitive habitats, riparian vegetation, and/or federally protected waters through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in Clean Water Act Section 404 and 401 permits and/or a 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided to the City prior to approval of each individual grading permit. *Timing/Implementation:* *Prior to approval of grading permits* *Enforcement/Monitoring:* *City of Eastvale Planning Department.*

Cultural Resources	
MM 3.8.1	A detailed cultural resources field survey of the subject property shall be conducted prior to approval of the project. The cultural resources field survey shall identify any cultural resource finds and will set out measures to mitigate any impacts to any significant resources as defined by CEQA, the California Register of Historical Resources, and/or the National Historic Preservation Act. Mitigation methods to be employed include but are not limited to the following: • Redesign of the development project to avoid the resource. The resource site shall be deeded to the City or a nonprofit agency to be approved by the City for maintenance of the site. • If avoidance is determined to be infeasible by the City, the resource shall be mapped, stabilized, and capped pursuant to appropriate standards. • If capping is determined to be infeasible by the City, the resource shall be excavated and recorded to appropriate standards. *Timing/Implementation: Prior to approval of development plan or project* *Enforcement/Monitoring: City of Eastvale Planning Department*
MM 3.8.2	If cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered during grading or construction activities in the project area, work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery. The City shall consider mitigation recommendations presented by a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history for any unanticipated discoveries. The City and the project applicant of the site where the discovery is made shall consult and agree on implementation of a measure or measures that the City deems feasible. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project applicant shall be required to implement any mitigation necessary for the protection of cultural resources. *Timing/Implementation: As a condition of project approval and implemented during grading and/or construction activities* *Enforcement/Monitoring: City of Eastvale Planning Department*
MM 3.8.3	If human remains are discovered during any ground-disturbing activities in the project area, all work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and the Riverside

	County Coroner must be notified per California Public Resources Code Section 7050.5 and California Health and Safety Code Section 5097.98. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed. *Timing/Implementation: As a condition of project approval and implemented during grading and/or construction activities* *Enforcement/Monitoring: City of Eastvale Planning Department*
MM 3.8.4	Prior to issuance of a grading permit, a certified professional paleontologist will be retained by the developer to provide professional paleontological services, which will include survey, education of construction workers, onsite construction monitoring, appropriate recovery, and reporting. A paleontological monitor shall be present during ground disturbing activities in the eastern half of the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation). 1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols. 2. The paleontological monitor shall be present full-time during ground disturbance in the eastern half of the Project, including but not limited to grading, trenching, utilities, and offsite easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced. 3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered. 4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. 5. In consultation with the qualified paleontologist the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared. 6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately. 7. In consultation with the CLIENT and CITY the qualified paleontologist

	shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find. For the remaining portions of the Project site, if ~~If~~ any paleontological resources (fossils) are discovered during grading or construction activities in the project area, work shall be halted immediately within 50 feet of the discovery, and the City Planning Department shall be immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist. The City shall consider the mitigation recommendations of the qualified paleontologist for any unanticipated discoveries of paleontological resources. The City and the project applicant shall consult and agree on implementation of a measure or measures that the City deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project applicant shall be required to implement any mitigation necessary for the protection of paleontological resources.[8] *Timing/Implementation:* *As a condition of project approval and implemented during grading and/or construction activities* *Enforcement/Monitoring:* *City of Eastvale Planning Department*
Hazards and Hazardous Materials	
MM 3.10.2a	Asbestos. Prior to the issuance of any permit for the demolition or alteration of existing structure(s), a letter shall be provided to the Planning Department from a qualified asbestos abatement consultant indicating that no asbestos-containing materials (ACM) are present in the building. If ACMs are found to be present, they will need to be abated in compliance with the South Coast Air Quality Management District's Rule 1403 and all other applicable state and federal rules and regulations. Lead Paint. Prior to issuance of any permit for the demolition or alteration of

[8] The eastern portion of the Project site has a higher potential for paleontological resources than the remainder of the site. Therefore, paleontological monitoring in the eastern portion of the site is required during ground disturbance. The Prior EIR included Mitigation Measure MM 3.8.4, which requires that a qualified paleontologist evaluate any paleontological discoveries during grading. The potential for paleontological discoveries has not changed since certification of the Prior EIR and the limits of disturbance have remained the same. This mitigation measure is being revised in this Addendum to require a qualified paleontologist monitor grading activities on the eastern portion of the site, which is more efficient for grading activities, instead of the requirement to call a monitor to the site to evaluate paleontological resources if found during grading.

	the existing structure(s), a lead-based paint survey shall be performed to the written satisfaction of the Eastvale Building Safety and Inspection Department. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to OSHA regulations. Polychlorinated Biphenyls. Prior to issuance of a demolition permit, a polychlorinated biphenyls (PCB) abatement contractor shall conduct a survey of the project site to identify and assist with compliance with applicable state and federal rules and regulations governing PCB removal and disposal. *Timing/Implementation:* *Prior to the issuance of demolition permit* *Enforcement/Monitoring:* *City of Eastvale Building and Planning Departments*
MM 3.10.2b	Prior to the issuance of any individual grading permit, a Phase I Environmental Site Assessment (ESA) shall be conducted to determine the potential for contaminated soil or groundwater on the site. If the Phase I ESA determines that the potential exists for contaminated soil or groundwater on-site, the project applicant shall conduct a Phase II ESA and shall follow its recommendations to remediate any potentially contaminated soil or groundwater. On-site contaminants must be addressed to the satisfaction of either Cal/EPA or the Riverside County Waste Management Department, with their approval of completion of activities/remedial action plans (RAP) submitted to the Eastvale Department of Building and Construction prior to the issuance of a grading permit. *Timing/Implementation:* *Prior to issuance of individual grading permit* *Enforcement/Monitoring:* *City of Eastvale Building and Planning Departments*
MM 3.10.2c	All trash and debris observed on-site shall be removed prior to construction activities and disposed of at a landfill or approved dumpsite. *Timing/Implementation:* *Prior to construction activities* *Enforcement/Monitoring:* *City of Eastvale Building and Planning Departments*
Noise	
MM 3.6.1	An acoustical assessment shall be prepared that evaluates potential environmental noise impacts associated with the proposed project. Where the acoustical analysis determines that noise levels would exceed applicable City noise standards, noise reduction measures shall be identified and included in the project. *Timing/Implementation:* *Prior to approval of development plan or project* *Enforcement/Monitoring:* *City of Eastvale Planning Department*

MM 3.6.2	A vibration assessment shall be prepared for construction projects that would involve the use of major vibration-generating equipment (e.g., pile drivers, vibratory rollers) within 200 feet of existing structures. Measures to reduce ground vibration levels shall be identified for any potential vibration impacts exceeding a vibration threshold of 0.2 in/sec ppv. *Timing/Implementation: Prior to approval of development plan or project* *Enforcement/Monitoring: City of Eastvale Planning Department*
MM 3.6.3	A construction-related noise mitigation plan shall be submitted to the City for review and approval prior to issuance of a grading permit. The plan shall depict the location of construction equipment and specify how the noise from this equipment will be mitigated during construction of the project. *Timing/Implementation: Prior to issuance of grading permit* *Enforcement/Monitoring: City of Eastvale Planning Department*
MM 3.6.4	The following mitigation measures shall be implemented and specified on all project construction plans: a) *Clearing and construction activities shall be conducted outside of 6:00 p.m. and 6:00 a.m. during the months of June through September, and outside of 6:00 p.m. and 7:00 a.m. during the months of October through May* (Municipal Code Chapter 8.52, Noise Regulation). b) All construction equipment shall be kept properly tuned and use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. c) Construction equipment staging areas shall be centrally located on the project site or located at the farthest distance possible from nearby residential land uses. d) All motorized construction equipment and vehicles shall be turned off when not in use. *Timing/Implementation: During construction activities, noted on all project construction plans* *Enforcement/Monitoring: City of Eastvale Planning Department*
Transportation	
MM 3.2.1a	Fair Share of funding shall be paid for widening Limonite Avenue along the project frontage from two to three lanes in each direction. Funding shall be determined and paid via the Riverside County Transportation Uniform Mitigation Fee (TUMF). Project plans and/or phasing shall establish the timing of this improvement to ensure it is in place prior to LOS D operations and consistent with the Master Plan's infrastructure phasing provisions. *Timing/Implementation: Prior to approval of development plan or project* *Enforcement/Monitoring: City of Eastvale Planning Department*

MM 3.2.1b	A focused traffic study shall be prepared that demonstrates the project's consistency with the transportation impact assessment (TIA) for the Leal Master Plan prepared by Fehr & Peers (2015). The traffic study shall assess the following: • Parking; • Site access and on-site circulation; • Interaction of driveways with adjacent intersections (if appropriate); • Impacts on local intersections; • Impacts to pedestrian, transit, and bicycle facilities; and • Trip generation monitoring study to ensure that, as land develops in the Leal Master Plan area, the total development generates traffic at or below the levels assumed in this Draft EIR. *Timing/Implementation: Prior to approval of development plan or project* *Enforcement/Monitoring: City of Eastvale Planning Department*
MM 3.2.1c	Hamner Avenue shall be widened between Limonite Avenue and Bellegrave Avenue to three lanes in each direction either directly or through fair-share funding as determined by infrastructure and/or facility financing plans approved for the Leal Master Plan. Project plans and/or phasing shall establish the timing of this improvement to ensure it is in place prior to LOS F operations and consistent with infrastructure phasing provisions established as part of Master Plan implementation. *Timing/Implementation: Prior to approval of development plan or project* *Enforcement/Monitoring: City of Eastvale Planning Department*

Source: Final Environmental Impact Report Leal Master Plan EIR SCH No. 2015031028, July 2015.

1.8 Summary of Findings

The Prior EIR concluded impacts from the Original Project would result in the following significant unavoidable impacts:

- Transportation / Traffic
- Air Quality
- Noise

The City of Eastvale has determined that none of the conditions in Section 21166 of the Public Resources Code or Sections 15162, 15163 15164, and 15168 of the State CEQA Guidelines calling for preparation of a subsequent or supplemental environmental impact report have occurred. In accordance with the analysis presented in Section 2.0, and pursuant to Section 21166 of the Public Resources Code and Section 15162, 15164, 15168, and 15183 of the *State CEQA Guidelines*, the City of Eastvale has determined that:

1) The Modified Project does not propose substantial changes that would require major revisions to the previously certified EIR (Prior EIR) due to new significant environmental effects or a substantial increase in the severity of previously identified significant environmental effects; and

2) No substantial changes in circumstances have occurred that require major revisions to the previously certified EIR (Prior EIR) due to new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and

3) No new information of substantial importance as described in Section 15162 (a)(3) has been identified that shows any of the following: a) The project will have one or more significant effects not discussed in the Prior EIR; b) Significant effects previously examined will be substantially more severe than shown in the Prior EIR; c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or d) Mitigation measures or alternatives which are considerably different from those analyzed in the Prior EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

4) The Original EIR was prepared as a Program EIR and as such was evaluated pursuant to CEQA Guidelines § 15168(c). The Lead Agency has determined that the effects of the later activity, in this case the Modified Project, were examined in the program EIR (Original EIR) and pursuant to Section 15162 no subsequent EIR is required.

1.9 Cumulative Impacts

The Modified Project would not change the permitted land uses, limits of disturbance or location of the Project boundary, extent of construction activities, or increase the intensity of development. The most intense short-term construction impacts entail rough grading. Since the limits of grading and the remedial grading requirements based on existing geologic conditions would remain as analyzed for the Original Project, short-term construction impacts for the Modified Project would be the same or less than the Original Project. For this reason, no new or greater cumulative impacts associated with construction activities would occur from the Modified Project. Since the Modified Project reduces the intensity of development by reducing the amount of trip generation, the long-term operational impacts associated with the Modified Project would be the same or less than analyzed in the Prior EIR and no new or greater cumulative impacts associated with operational activities would occur from the Modified Project.

Therefore, the Modified Project would not cause new or increased cumulative impacts.

SECTION 2.0 ENVIRONMENTAL CHECKLIST

The following is an analysis of the topical categories listed in Appendix G of the CEQA Guidelines. It should be noted that the topical categories in Appendix G have changed since the certification of the Prior EIR. For example, there are new sections for Tribal Cultural Resources, Energy, and Wildfire; the question for paleontological impacts has moved to the geology and soils category; and many categories have revised wording of the significance questions. This Addendum is based on the updated version of Appendix G to provide current analysis. Additionally, the findings for each topical category have been revised to be consistent with subsequent review. The findings are "New Potentially Significant Impact," "New Mitigation is Required," "No New Impact/No Impact," and "Reduced Impact." A finding of "New Mitigation is Required" means that the project has a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously approved or certified CEQA document and that new mitigation is required to address the new or substantially more severe significant impact.

2.1 Aesthetics

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Discussion: The Prior EIR determined the Original Project would cause a permanent substantial change in the existing visual character of the Project site from dairy/agricultural to developed uses, but that altering the existing visual character of the site would not necessarily degrade it, as the surrounding area is similarly developed. The Modified Project would also change the visual character of the site from dairy farm to developed uses. While the Modified Project proposes to change the mix and intensity of uses compared to the Original Project, the overall result remains the same that the character of the site would change from dairy farm to a mix of residential and commercial development.

The proposed changes associated with the Modified Project would not change the conclusions in the Prior EIR as there is no new potentially significant impact and previously identified significant impacts are not substantially more severe. The Modified Project would not cause new or increased impacts and impacts are less than significant.

a, b) The Prior EIR determined the Project site does not constitute a scenic vista and is not located near a scenic highway. Furthermore, there are no designated scenic vistas identified in the Eastvale General Plan. The Santa Ana River is identified as a scenic resource; however, the Project site is approximately two miles north of the Santa Ana River. The area surrounding the Project site is currently developed with a mix of residential and commercial uses, similar to the Modified Project.

Therefore, the conclusions presented in the Prior EIR that the Project site does not constitute a scenic vista; does not contain scenic resources; is not located near a scenic highway; and would not block views of a scenic vista, would also apply to the Modified Project.

Therefore, the Modified Project would not cause new or increased impacts and impacts are less than significant.

c) The Prior EIR determined the Original Project would not degrade the existing visual character or quality of the site or surrounding areas. The Leal Master Plan includes design guidelines to ensure the character and quality of development meet the City's goals for Project characteristics and level of quality and is visually compatible with surrounding development.

The Modified Project also includes design guidelines and adds new development standards to guide and regulate future development in greater detail than the Original Project. Furthermore, the Modified Project specifies proposed development intensity and identified the southeast corner of the Project site (Limonite and Hamner) as the Downtown area, which is adjacent to and compatible with surrounding existing commercial development (Eastvale Gateway Center and the Cloverdale Marketplace).

Since the Project site is located within an urbanized area, surrounded by residential and commercial uses, and the Modified Project is consistent with the Leal Master Plan zoning, and no other City regulations govern scenic quality, the Modified Project would have a less than significant impact.

Therefore, the conclusions presented in the Prior EIR remain unchanged as there is no new potentially significant impact and previously identified significant impacts are not substantially more severe. No new or more severe impacts would occur as a result of the Modified Project, and impacts are less than significant.

d) The Prior EIR determined the Project site is located in a suburban setting, surrounded by a developed environment with fixed and mobile sources of exterior light and glare. Fixed sources of light and glare include exterior building-mounted and freestanding light fixtures, illuminated signage on existing land uses, and street lighting along local streets near the Project. Mobile sources of light and glare originate from vehicles along surrounding streets. These existing light sources contribute to moderate levels of nighttime lighting.

Development of the Project site would add nighttime lighting for roadway visibility and safety, and lighting associated with residential and commercial development. The Original Project concluded that consistency with Section 120.05.050, Outdoor Lighting, in Chapter 120.05, Development Standards, of the Eastvale Municipal Code, would reduce impacts from all outdoor lighting fixtures to less than significant.

The Original EIR also determined that development could introduce new sources of glare from windows associated with the proposed non-residential development. Mitigation Measure MM 3.5.1 was included to require future development plans and/or Projects to utilize nonglare glass in all nonresidential buildings to minimize and reduce impacts from glare. With implementation of the mitigation measure, impacts were determined less than significant.

The Modified Project includes a similar mix of uses as the Original Project and both Section 120.05.050 of the Municipal Code and Mitigation Measure 3.5.1 would apply to the Modified Project. Therefore, the conclusions presented in the Prior EIR remain unchanged. No new or more severe impacts would occur as a result of the Modified Project, and impacts are less than significant.

Mitigation Measures: The mitigation measure included in the Prior EIR remains applicable to the Modified Project is shown below.

MM 3.5.1 Nonglare glass shall be used in all nonresidential buildings to minimize and reduce impacts from glare. Buildings that are allowed to use semi-reflective glass must be oriented so that the reflection of sunlight is minimized. Types of nonglare glass shall be specified on final development plans.

Timing/Implementation: *Prior to approval of final development plans*

Enforcement/Monitoring: *City of Eastvale Planning Department*

Conclusion: The changes associated with the Modified Project would not substantially change or increase the visibility of development or substantially change the overall character of the development from the Original Project. The Modified Project would not add new sources of light and glare compared to the Original Project and the Modified Project would have the same level of visual compatibility as the Original Project. Therefore, no changes to the conclusions presented in the Prior EIR are warranted. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with mitigation.

2.2 Agriculture and Forestry Resources

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☒	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☒	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

Discussion: In accordance with State CEQA Guidelines Section 15128, the Prior EIR determined that as a result of the absence of environmental resources or Project characteristics to produce impacts, the potential effect on Agriculture and Forestry Resources was found to be less than significant. The Original Project included a zone

change from Heavy Agriculture (A-2) to Leal Master Plan. In the course of that zone change, the City made findings documenting the rationale for the zone change and the justification for the conclusion that no significant impacts to agricultural resources would occur. The Prior EIR concluded,

> *"However, the City's General Plan and General Plan EIR determined that conversion of agricultural land was a significant and unavoidable impact of land development within the Eastvale city limits. General Plan Policy AQ-39 states that the loss of agricultural productivity on lands designated for urban uses within the city limits is anticipated as a consequence of the city's development.*
>
> *Because this property was designated for development, the conversion of agricultural uses is consistent with the adopted General Plan and General Plan EIR. Therefore, this impact is less than significant."*[9]

The Modified Project would not change the limits of disturbance, which encumbers the entire site, therefore the analysis and conclusions presented in the Prior EIR remain unchanged. Furthermore, no substantial changes in site conditions or substantial changes to the circumstances have occurred that would change the conclusions presented in the Prior EIR.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

a) The Original Project changed the zoning on the Project site from Heavy Agriculture (A-2) to Leal Master Plan. In the course of that zone change, the City made findings documenting the rationale for the zone change and the justification for the conclusion that no significant impacts to agricultural resources would occur. Furthermore, the Prior EIR under Impact 3.9.8 determined that conversion of mapped Farmland was a less than significant impact. The Modified Project would not change the limits of disturbance, which encumbers the entire site, therefore the analysis and conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Original Project changed the zoning on the Project site from Heavy Agriculture (A-2) to Leal Master Plan and no Williamson Act contract applies to the Project site. The Modified Project is consistent with the allowed uses under the Leal Master Plan zoning. No new significant impacts or substantial increase in the severity of significant

[9] Leal Master Plan Draft EIR, July 2015, Section 3.9.8, Page 3.9-6

impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

c) The Project site is currently zoned Leal Master Plan, which designates the site for a mix of residential and commercial uses. The Project site does not contain land zoned as forest land or timberland. The Modified Project is consistent with the allowed uses under the Leal Master Plan zoning conforms to the existing Leal Master Plan zoning. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

d) As discussed above, no land zoned as forest land or timberland exists within the Project site boundaries. Approval of the Modified Project would not result in the loss of forest land or conversion of forest land to other uses. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

e) The Modified Project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland to non-agricultural use or forest land to non-forest use. The Modified Project would not change the limits of disturbance, which encumbers the entire site. No existing farmland occurs adjacent to the Project site. The Project site itself is no longer productive farmland. The entire Project site is surrounded by existing residential and commercial development. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The Original Project included a zone change from Heavy Agriculture (A-2) to Leal Master Plan. In the course of that zone change, the City made findings documenting the rationale for the zone change and the justification for the conclusion that no significant impacts to agricultural resources would occur. The Modified Project would not change the limits of disturbance, which encumbers the entire site, therefore the analysis and conclusions presented in the Prior EIR remain unchanged. Furthermore, no substantial changes in site conditions or substantial changes to the circumstances have occurred that would change the conclusions presented in the Prior EIR. Therefore, the conclusions presented in the Prior EIR remain unchanged as there is no new potentially significant impact and previously identified significant impacts are not substantially more severe. No new or more severe impacts would occur as a result of the Modified Project, and impacts are less than significant.

2.3 Air Quality

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Discussion: Air Quality impacts are analyzed for both operations and construction. Operational emissions are based on the type and intensity of land use. The Prior EIR analyzed operational emissions from the Original Project land use mix and concluded operational emissions would be significant and unavoidable.

Construction emissions result from construction activities, most notably grading activities since grading tends to produce the greatest amount of daily emissions. The Prior EIR determined construction activities would result in a significant unavoidable impact.

The Prior EIR included two mitigation measures, MM 3.3.5a and 3.3.5b, requiring site specific air toxics pollutant analysis in accordance with South Coast Air Quality Management District (SCAQMD) Final Localized Significance Threshold Methodology for both construction and operational activities.

a) The Prior EIR determined that the Original Project "would not conflict with or obstruct implementation of the 2012 AQMP, as it has been anticipated in the City General Plan... The proposed Master Plan is consistent with the City's General Plan and

thus does not exceed the population or job growth projections used by the SCAQMD to develop the 2012 Air Quality Management Plan. "[10]

Since certification of the Prior EIR, a newer 2016 Air Quality Management Plan (AQMP) has been adopted. The 2016 AQMP is based on development intensities assumed in the City's adopted General Plan, which for this Project site is the Leal Master Plan. Since the Modified Project reduces the overall intensity of development compared to the Original Project, resulting in a reduction in the number of vehicle trips generated by the future development[11] and the Modified Project continues to propose a mix of residential and commercial uses, including developing a "downtown," the Modified Project is consistent with the 2016 AQMP.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Prior EIR analyzed both short-term construction emissions and long-term operational emissions. The Prior EIR determined short-term construction emissions and long-term operational impacts would be significant and unavoidable.

Construction

The Prior EIR determined short-term construction emissions would cause a significant unavoidable impact. The Prior EIR states:

> "Quantifying the air quality pollutant emissions from future, short-term, temporary construction activities allowed under the proposed Master Plan is not possible due to project-level variability and uncertainties related to future individual projects in terms of detailed site plans, construction schedules, equipment requirements, etc., which are not currently determined. However, depending on how development proceeds, construction-generated emissions associated with development of the Master Plan area could potentially exceed SCAQMD thresholds of significance. Therefore, future project-level analyses of air quality impacts, in accordance with California Environmental Quality Act (CEQA) requirements, would be conducted on a case-by-case basis as individual, future development projects allowed under the Master Plan proceed."[12]

The Master Plan, as part of the Stage 2 development planning process, is further defined and detailed than the Original Project. The proposed Tentative Tract Map includes a rough grading concept, and a cut/fill analysis has been performed to

[10] Leal Master Plan Draft EIR, July 2015, Section 3.3, Page 3.3-10
[11] Leal Master Plan Amendment Project Traffic Study, RK Engineering Group, Inc., December 22, 2021
[12] Leal Master Plan Draft EIR, July 2015, Section 3.3, Page 3.3-5

determine earthwork quantities. This information was used to prepare the "*Leal Master Plan Amendment Project Air Quality, Greenhouse Gas and Energy Impact Study*" by RK Engineering Group, Inc., December 22, 2021, which is included in Appendix B.

The Modified Project includes several Project Design Features (PDFs) that have emission reduction benefits.

AQ PDF-1 A Construction Management Plan will be prepared that includes the requirements for Air Quality mitigation measures to be submitted to the City of Eastvale for all phases of construction.

AQ PDF-2 The Project commits to following the standard South Coast Air Quality Management District (SCAQMD) rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:

1. All active construction areas shall be watered two (2) times daily.
2. Speed on unpaved roads shall be reduced to less than 15 mph.
3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
6. Access points shall be washed or swept daily.
7. Construction sites shall be sandbagged for erosion control.
8. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
9. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.
10. Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.
11. Replace the ground cover of disturbed areas as quickly possible.
12. A fugitive dust control plan should be prepared and submitted to SCAQMD prior to the start of construction.

AQ PDF-3 All construction equipment to the extent feasible will have Tier 4 low emission "clean diesel" engines (Original Equipment Manufacturer or retrofit) that include diesel oxidation catalysts and diesel particulate filters that meet the latest California Air Resources Board (CARB) best available control technology.

AQ PDF-4 Construction equipment will be maintained in proper tune.

AQ PDF-5 All construction vehicles will be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

AQ PDF-6 The Project will minimize the simultaneous operation of multiple construction equipment units, to the maximum extent feasible.

AQ PDF-7 The use of heavy construction equipment and earthmoving activity will be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.

AQ PDF-8 The Project will establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

AQ PDF-9 Staging areas for the construction equipment will be located as distant as possible from adjacent residential homes.

AQ PDF-10 To the extent possible, the Project will use haul trucks with on-road engines instead of off-road engines for on-site hauling.

The most notable PDF applied to the Modified Project that was not applied to the Original Project is the use of Tier 4 low emission "clean diesel" engines (AQ PDF-3). The Original Project did not mandate the use of all Tier 4 engines allowing grading activity to rely on Tier 3 engines, which emit more emissions than Tier 4 engines.[13]

The Air Quality study calculated construction emissions as summarized in the following table.[14]

[13] Leal Master Plan Draft EIR, July 2015, Section 3.3, Page 3.3-5
[14] Table 16 from "Leal Master Plan Amendment Project Air Quality, Greenhouse Gas and Energy Impact Study," prepared by RK Engineering Group, Inc., dated December 22, 2021

Table 9. Regional Construction Emissions[14]

Maximum Daily Emissions (lbs/day)[1]						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Demolition	0.59	4.80	24.46	0.05	2.32	0.49
Site Preparation	1.66	49.77	31.79	0.24	14.65	6.20
Grading	2.98	94.62	53.41	0.45	16.97	5.81
Building Construction	12.89	40.14	145.48	0.49	41.49	11.45
Paving	1.19	1.24	17.78	0.02	0.21	0.08
Architectural Coating	73.82	1.31	22.10	0.06	7.11	1.91
Maximum[1]	**73.82**	**94.62**	**145.48**	**0.49**	**41.49**	**11.45**
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

As shown in the prior table, construction activities are anticipated to be less than SCAQMD thresholds. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project.

Operations

The Prior EIR determined long-term operational emissions would cause a significant unavoidable impact. The Prior EIR states:

> "…buildout of the Master Plan, assuming the most conservative land use potential, would result in emissions in excess of SCAQMD thresholds for criteria air pollutants and precursors for which the SoCAB is in nonattainment."[15]

The Modified Project, prepared as part of the Stage 2 development planning process, provides greater detail and definition than the Original Project, as shown in Table 3 and the Leal Master Plan Amendment (Appendix A). Similar to the Original Project, the Modified Project allows for flexibility of land uses and establishes specific land use intensities provided development is consistent with the plans and specifications included in the Leal Master Plan Amendment. The air quality analysis provided below is based on the land use intensities established for the Modified Project in Table 3.

The following table summarizes regional operational emissions from the Modified Project.[16] As shown, operational emissions from the Modified Project remain under

[15] Leal Master Plan Draft EIR, July 2015, Section 3.3, Page 3.3-8

SCAQMD thresholds of significance and less than the Original Project. The reason for this change is the reduced level of development intensity presented in the Modified Project compared to the Original Project.

Table 10. Regional Operational Emissions[16]

Maximum Daily Emissions (lbs/day)[1]						
Project Emissions	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	105.36	84.22	788.32	1.58	179.11	48.35
Energy Sources	1.52	13.01	5.80	0.08	1.05	1.05
Area Sources	85.70	37.63	221.51	0.24	4.00	4.00
Total Project Emission	**192.58**	**134.86**	**1015.62**	**1.90**	**184.15**	**53.40**
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold (?)	Yes	Yes	Yes	No	Yes	No
LEAL Master Plan 2015 EIR	268.32	258.6	1,200.15	4.94	326.66	92.99
Exceeds 2015 EIR Levels (?)	**No**	**No**	**No**	**No**	**No**	**No**
Change in Emission Levels	-75.74	-123.742	-184.53	-3.0393	-142.5076	-39.5922
Percentage Change	**-28%**	**-48%**	**-15%**	**-62%**	**-44%**	**-43%**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

Therefore, the Modified Project would not cause new or increased operational impacts to occur.

Cumulative

Air pollution is largely a cumulative impact. Therefore, by SCAQMD policy, if a Project's individual emissions exceed significance thresholds, the project's impacts would be cumulatively considerable. If a project's individual emissions do not exceed significance thresholds, the project's impacts would not be cumulatively considerable.

The Prior EIR concluded the Original Project would cause a significant and unavoidable cumulative impact because individual construction and operational emissions would exceed significance thresholds. The individual construction and operational emissions for the Modified Project are less than the Original Project. Since the Modified Project would not increase the amount of daily nonattainment pollutant emissions as discussed in above, no new significant impacts or substantial increase in

[16] Table 18, from "Leal Master Plan Amendment Project Air Quality, Greenhouse Gas and Energy Impact Study," prepared by RK Engineering Group, Inc., dated December 22, 2021

the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary.

c) The Prior EIR determined Project construction would emit localized pollutants through the on-site use of heavy-duty construction equipment as well as fugitive dust from demolition and ground-disturbing activities on site. These localized emissions could expose nearby sensitive receptors to substantial pollutant concentrations. Similarly, long-term Project operations would emit pollutants that could result in local Carbon Monoxide (CO) hotspots.

The Air Quality Study for the Modified Project calculated Localized Construction Emissions for the Modified Project. The Prior EIR included a requirement for Localized Construction Emissions as Mitigation Measure 3.3.5a, which this analysis satisfies. As shown in the following table, Localized Construction Emissions would be below the SCAQMD thresholds of significance.

Table 11. Localized Construction Emissions[17]

Maximum Daily Emissions (lbs/day)[1]				
Activity	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
On-site Emissions	3.30	33.00	7.72	3.95
SCAQMD Construction Threshold[2]	235.0	1,461.0	10.0	6.9
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes on-site project emissions only.
[2] Reference 2006-2008 SCAQMD Mass Rate Localized Significant Thresholds for construction and operation. SRA-22, Corona/Norco, 4-acre site, receptor distance 25 meters.

A CO hot spot is a localized concentration of carbon monoxide (CO) that is above the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. The Prior EIR conducted a CO hot spot analysis and determined emission levels would be below the California Ambient Air Quality Standards (CAAQS) levels.[18] Since the Modified Project would generate approximately 27,764 fewer daily vehicle trips, it can also be concluded that no new CO hotspots would occur as a result of the Modified Project.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Mitigation Measure 3.3.5.b. would remain applicable.

d) The Prior EIR determined short-term odors can occur during construction, both during grading and painting of structures. Long-term operational odors commonly

[17]Table 17, from "Leal Master Plan Amendment Project Air Quality, Greenhouse Gas and Energy Impact Study," prepared by RK Engineering Group, Inc., dated December 22, 2021.
[18] Leal Master Plan Draft EIR, July 2015, Table 3.3-5, Page 3.3-12

occur from land uses such as, agricultural uses (farming and livestock), chemical plants, composting operations, dairies, fiberglass molding facilities, food processing plants, landfills, refineries, rail yards, and wastewater treatment plants. Since the construction operations would remain similar to the Original Project, and the Modified Project does not contain any new odor producing land uses, the Modified Project would not cause new significant impacts or substantial increase in the severity of significant impacts and no new mitigation is necessary. Impacts would be less than significant.

Mitigation Measures: Mitigation Measures MM 3.3.5b remains applicable to the Modified Project.

MM 3.3.5a A site-specific air toxics pollutant analysis shall be conducted in accordance with the SCAQMD (2008) Final Localized Significance Threshold Methodology for construction activities. If SCAQMD screening thresholds would be exceeded, air toxic reduction measures shall be identified in order to reduce potential impacts to a level that is less than significant. If it is the case that emissions remain in excess of SCAQMD localized significance thresholds despite the imposition of air toxic reduction measures, project-specific construction-related dispersion modeling acceptable to the SCAQMD shall be used to identify potential toxic air contaminant impacts, including diesel particulate matter. If SCAQMD risk thresholds would be exceeded, additional measures shall be identified in the air toxics analysis to address potential impacts and shall be based on site-specific information such as the distance to the nearest sensitive receptors, project site plan details, and construction schedule. The City shall ensure that construction contracts include all identified measures and that the measures reduce the health risk below SCAQMD risk thresholds. Construction-generated air toxics pollutant mitigation measures may include but not be limited to:

1. Limiting the amount of acreage to be graded in a single day.

2. Restricting intensive equipment usage and intensive ground disturbance to hours outside of hours typically spent at home.

3. Notifying affected sensitive receptors one week prior to commencing on-site construction so that any necessary precautions (such as rescheduling or relocating outdoor activities) can be implemented. The written notification shall include the name and telephone number of the individual empowered to manage construction of the project. In the event complaints are received, the individual empowered to manage construction shall respond to the complaint within 24 hours. The response shall include identification of measures being taken by the project construction contractor to reduce construction-related air

pollutants. Such measures may include but are not limited to the relocation of equipment or the rescheduling of construction outside of hours typically spent at home.

Timing/Implementation: *The site-specific air toxics pollutant analysis and any necessary modeling shall be completed prior to grading permit issuance, and measures implemented during construction activities*

Enforcement/Monitoring: *City of Eastvale Planning, Building and Safety, or Public Works Departments*

MM 3.3.5b A site-specific air toxics pollutant analysis shall be conducted in accordance with the SCAQMD (2008) Final Localized Significance Threshold Methodology for operational activities. If SCAQMD screening thresholds would be exceeded, air toxic reduction measures shall be identified in order to reduce potential impacts to a level that is less than significant. If it is the case that emissions remain in excess of SCAQMD localized significance thresholds despite the imposition of air toxic reduction measures, project-specific operations-related dispersion modeling acceptable to the SCAQMD shall be used to identify potential toxic air contaminant impacts, including diesel particulate matter generated by heavy-duty haul trucks. If SCAQMD risk thresholds would be exceeded, additional mitigation measures shall be identified in the air toxics analysis to address potential impacts and shall be based on site-specific information such as the distance to the nearest sensitive receptors, project site plan details, and merchandise delivery schedule. The City shall ensure that operations include all identified measures and that the measures reduce the health risk below SCAQMD risk thresholds. Operations-generated air toxic pollutant mitigation measures may include but not be limited to:

1. Redesigning the project site plan to locate proposed loading dock facilities as far from sensitive receptors as possible.

2. Posting signage stating the State-mandated prohibition on all project trucks idling in excess of 5 minutes under the Heavy-Duty Vehicle Idling Emission Reduction Program.

3. Restricting the number of daily heavy-duty haul truck deliveries.

Timing/Implementation: *The site-specific air toxics pollutant analysis and any necessary modeling shall be completed prior to grading permit issuance, and measures implemented during construction activities*

Enforcement/Monitoring: *City of Eastvale Planning, Building and Safety, or Public Works Departments*

Conclusion: The Modified Project would cause similar daily emissions from construction activities and less operational emissions as a result of approximately 27,764 fewer daily vehicle trips, compared to the Original Project. Therefore, no changes to the conclusions presented in the Prior EIR are necessary. Mitigation Measure MM 3.3.5b required by the Prior EIR remains applicable to the Modified Project. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary.

2.4 Biological Resources

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Discussion: The Prior EIR performed a records search and determined no previously recorded sensitive biological resources have occurred on the Project site. The Project site is disturbed and was previously used as a dairy farm. No surveys for sensitive species were conducted as part of the Prior EIR and mitigation measures were added requiring future surveys. The Prior EIR concluded that with mitigation, all potential biological impacts would be reduced to less than significant.

The potential for biological impacts depends on the area of impact and the condition of the Project site. The Modified Project would not change the limits of disturbance, which encumbers the entire site, and the condition of the Project site remains

essentially unchanged from the time of the Prior EIR. Therefore, the analysis and conclusions presented in the Prior EIR remain unchanged.

In support of this Addendum, a Biological Assessment was conducted for the Modified Project. That assessment, "*Biological Assessment of the Leal Property*," prepared by Carlson Strategic Land Solutions, March 2021, is included as Appendix C. The Biological Assessment included a field survey on June 9, 2021, to map vegetation communities and conduct a jurisdictional delineation. Focused burrowing owl surveys and narrow endemic plant surveys were conducted on June 16, June 23, July 1, and July 13, 2021. Furthermore, a Delhi Sands Flower Loving Fly Assessment was performed on June 18, 2021.

No special status species were observed on-site and none are expected to occur given current site conditions and habitat type. The vegetation communities mapped on the Project site are as follows:

Table 12. Vegetation Communities Observed[19]

Vegetation Community	Acreage within in the Project Site
Ruderal	96.82
Historical Dairy Farm	25.82
Disturbed/Developed	37.87
TOTAL	160.0

The Project site is located within the Western Riverside Multiple Species Habitat Conservation Program (MSHCP) boundaries. However, the Project site is not located within any MCHCP Criteria Areas, Cell Groups, or Subunits, and the Project site is not located in survey areas for Amphibians, Mammals, or Special Linkage areas. The Project site is subject to Riparian and Riverine Areas pursuant to MSHCP Section 6.1.2, Narrow Endemic Plants (Survey Area 7) pursuant to MSHCP Section 6.1.3, Urban/Wildlands Interface guidelines pursuant to MSHCP Section 6.1.4, and Western Burrowing Owl overlay pursuant to MSHCP Section 6.3.2.

The field surveys conducted as part of the Biological Assessment satisfy several of the prior mitigation measures, as described below. Project site conditions have remained very similar to that analyzed in the Prior EIR. There is no evidence of changes that could result in occupation by special status species or riparian/wetland habitats that would be subject to state and federal permits, and the analysis and conclusions presented in the Prior EIR remain valid.

[19] Table 2, from "Biological Assessment of the Leal Property located in the City of Eastvale," prepared by Carlson Strategic Land Solutions, dated November 2, 2021.

a) The Biological Assessment determined no previously recorded sensitive biological resources (i.e., special-status species populations, sensitive habitats, or jurisdictional features) occur on the Project site or within the Study Area. Furthermore, no sensitive biological resources, including, special-status species populations, sensitive habitats, or jurisdictional features occur on the Project site.

The Project site does not contain any suitable habitat for special status species or sensitive species, nor were any observed on-site during recent surveys. The Modified Project would include the removal of non-native and ruderal species; therefore, impacts would not be considered a significant impact and no mitigation is required.

The Modified Project would cause the disruption and removal of ruderal and developed habitat and the loss and displacement of non-sensitive common wildlife species. Due to the level of existing disturbance from the historical use as a dairy farm, human activity on-site and within the vicinity (e.g., nearby development), these impacts would not be expected to reduce the general wildlife populations below self-sustaining levels within the region and impacts to non-sensitive wildlife species do not meet the significance thresholds. Therefore, impacts to common wildlife species would not be considered a significant impact and no mitigation is required.

The Prior EIR identified a potential for impacts to nesting birds. The Project site consists of suitable habitat for nesting, foraging, and/or wintering avian species. While none of the common species carry a Federal or State listing as threatened or endangered, they are all protected under the Migratory Bird Treaty Act (MBTA) during breeding season. Therefore, a pre-construction survey is required in compliance with the MBTA. Implementation of Mitigation Measure MM 3.7.1 from the Prior EIR would reduce potential impacts to the avian species to a less than significant level if nesting individuals are present.

The biological evaluation of the Project site provides greater site-specific detail and analysis than the information presented in the Prior EIR, but this is not a substantial change with respect to the circumstances under which the Modified Project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. The Modified Project would not change the limits of disturbance, which encumbers the entire site, and the existing site conditions of a dairy farm remain consistent with that analyzed in the Prior EIR. Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with implementation of Mitigation Measure 3.7.1 as presented in the Prior EIR.

b, c) Based on the field surveys and focused surveys conducted as part of the Biological Assessment of the Modified Project, no sensitive plant communities or habitats occur on the Project site. Sensitive habitats include those that are of special

concern to resource agencies and those that are protected under the MSHCP, CEQA, Section 1600 of the California Fish and Game Code, and Section 404 of the Clean Water Act.

Furthermore, the Biological Assessment included a formal jurisdictional delineation on the Project site. Based on those results, no jurisdictional features were identified on the Project site subject to Section 1602 of the California Fish and Game Code and the Porter Cologne Act, as regulated by the California Department of Fish and Wildlife (CDFW) and the Regional Water Quality Control Board (RWQCB), and no jurisdictional non-wetland or wetland waters regulated under Section 404 of the Clean Water Act were identified on the Project site.

The Biological Assessment has determined that no sensitive biological resources or jurisdictional features occur on the Project site; therefore, no impacts would occur. Mitigation Measures 3.7.2 and 3.7.3 included in the Prior EIR have been fulfilled by the Biological Assessment.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant and Mitigation Measures 3.7.2 and 3.7.3 presented in the Prior EIR have been fulfilled.

d) The Project site has been disturbed by development and intense historical dairy and agricultural uses and is unlikely to facilitate local wildlife movement. In addition, the Project site is completely surrounded by dense urban development, further impairing wildlife movement.

The Project site supports potential live-in and movement habitat for species on a local scale (i.e., some limited live-in and marginal movement habitat for reptile, bird, and mammal species), however, the Project site provides little to no function to facilitate wildlife movement on a regional scale. Furthermore, the site is not identified as a Special Linkage area within the MSHCP. Movement on a local scale likely occurs with species adapted to urban environments due to the surrounding development and disturbances in the vicinity of the site. Implementation of the Modified Project would not change the lack of wildlife movement across the Project site nor the classification of the Project site in the MSHCP that the Project site is not a Special Linkage area or integral to wildlife movement.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

e) As indicated in the Prior EIR, "The City of Eastvale has no policies or ordinances relating to biological resources."[20] Therefore, the Project site is not subject to any local policies, such as a tree preservation ordinance, and no impacts would occur and no mitigation is required. No change in conclusion from what was analyzed in the Prior EIR would occur.

f) As analyzed in the Prior EIR, and applicable to the Modified Project, the Project site is located within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) and is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Furthermore, the Project site is not located in survey areas for Amphibians, Mammals, or Special Linkage areas. The Project site is subject to Riparian and Riverine Areas pursuant to MSHCP Section 6.1.2, Narrow Endemic Plants Overlay, pursuant to MSHCP Section 6.1.3, Urban/Wildland Interface pursuant to Section 6.1.4, and Western Burrowing Owl overlay pursuant to MSHCP Section 6.3.2.

The Biological Assessment determined no previously recorded sensitive biological resources (i.e., special-status species populations, sensitive habitats, or jurisdictional features) occur on the Project site or within the Study Area. Furthermore, no sensitive biological resources, including i.e., special-status species populations, sensitive habitats, or jurisdictional features occur on the Project site. The MSHCP includes standard measures, some of which apply to the Modified Project as documented in the Biological Assessment. The Biological Assessment provides greater site-specific detail and analysis than the information presented in the Prior EIR, but the assessment and compliance with the MSHCP are not new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR.

Suitable habitat for burrowing owl, white-tailed kite, grasshopper sparrow, and mountain plover exists within the Study Area. These animal species are all covered under the MSHCP. With the City's participation and implementation of the MSHCP, any direct and indirect impacts to sensitive species would be less than significant with the payment of the mitigation fee and compliance with all applicable requirements of the MSHCP. This provides full mitigation under the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and the California Endangered Species Act (CESA) for impacts to MSHCP covered species and habitats. Compliance with the MSHCP and payment of MSHCP fees are not new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would

[20] Leal Master Plan Draft EIR, July 2015, Page 3.7-7

occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: Several measures have already been satisfied and are shown in light grey format. The mitigation measures applicable to the Modified Project are listed below.

MSHCP Standard Condition: *Note: The following discussion highlights the requirements of the MSHCP, which are standard requirements applicable to project sites within the MSHCP boundaries. Because the MSHCP has been adopted by the City, it is not necessary to adopt a mitigation measure to enforce its provisions.*

The MSHCP requires that projects pay a mitigation fee, perform species-specific habitat assessments and surveys, and be reviewed for consistency with Section 6.1.2–Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool, Section 6.1.3–Protection of Narrow Endemic Plan Species, Section 6.3.2–Additional Survey Needs and Procedures, and Section 6.1.4–Guidelines Pertaining to the Urban/Wildlands Interface of the MSHCP.

The following requirements of the MSHCP apply to the proposed Project and will be required of all subsequent development plans and/or projects within the Leal Master Plan area:

A. The Project applicant shall submit fees to the City in accordance with the requirements of the MSHCP Mitigation Fee Ordinance (Chapter 4.62 of the City of Eastvale Municipal Code).
B. The project applicant shall assess the proposed project's consistency with Section 6.1.2, Section 6.1.3, Section 6.3.2, and Section 6.1.4 of the MSHCP.
C. A qualified biologist shall conduct a burrowing owl habitat assessment. If needed, focused surveys and preconstruction surveys shall be conducted, as well as appropriate avoidance and minimization (Section 6.3.2 of the MSHCP).
D. A qualified biologist shall conduct habitat assessments for the required Narrow Endemic Plant Species. If needed, focused surveys and shall be conducted, as well as appropriate avoidance and minimization (Section 6.1.3 of the MSHCP).
E. A qualified biologist shall conduct a habitat assessment for Delhi sands flower-loving fly in areas underlain by Delhi soil series (Species-specific Objective 1B).

As noted above, because the City has adopted the MSHCP and enforces its provisions, these requirements are fully enforceable under the City's Code as standard conditions.

MM 3.7.1 All construction and clearing activities shall be conducted outside of the avian nesting season (January 15–August 31), when feasible. If clearing and/or construction activities occur during the nesting season, preconstruction surveys for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds.

If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the Project applicant shall establish an exclusion zone (no ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged.

Timing/Implementation: *Requirements shall be incorporated into all rough and/or precise grading plan documents. The Project applicant's construction inspector shall monitor to ensure that measures are implemented during construction.*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.7.2 Prior to breaking ground, a qualified biologist shall be retained to determine whether potentially jurisdictional waters are present. If potentially jurisdictional features are identified, the project applicant shall submit a preliminary jurisdictional determination to the US Army Corps of Engineers for verification. The verified delineation will be submitted to the City for its records.

Timing/Implementation: *Prior to approval of grading permits*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.7.3 Projects shall result in no net loss of sensitive habitats, riparian vegetation, and/or federally protected waters through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in Clean Water Act Section 404 and 401 permits and/or a 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided to the City prior to approval of each individual grading permit.

Timing/Implementation: *Prior to approval of grading permits*

Enforcement/Monitoring: *City of Eastvale Planning Department*

Conclusion: A Biological Assessment of the Modified Project determined impacts to biological resources would be less than significant with mitigation incorporated. Mitigation Measures 3.7.2 and 3.7.3 presented in the Prior EIR have been fulfilled. Mitigation Measure 3.7.1 remains applicable as presented in the Prior EIR to reduce impacts to nesting birds to less than significant. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Mitigation Measure 3.7.1 remains applicable to the Modified Project.

2.5 Cultural Resources

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

Discussion: The Prior EIR conducted a records search and determined that no designated or previously identified cultural resources, such as prehistoric sites, historic sites, historic buildings/structures, and isolated artifacts, occur on the Project site. However, the Prior EIR indicated that a formal analysis had not been conducted and whether cultural resources or human remains are present could not be determined.[21] Mitigation Measure 3.8.1 required that future development plans and Projects prepare site-specific cultural resource field surveys and studies.

A site-specific cultural resources study has been prepared for the Modified Project. The report, "*Cultural and Paleontological Resources Assessment, October 2021,*" prepared by Duke CRM is included in Appendix D. The study included a records search and intensive pedestrian field survey of the site on June 17 and 18, 2021.

a) The Prior EIR concluded that while there are no designated or previously identified cultural resources, the Project area had not been formally evaluated for the cultural resources and as a result it was unknown at the time whether cultural resources or human remains were present onsite. As a result, Mitigation Measure 3.8.1 was required within the Prior EIR, which included a detailed, site-specific cultural resource field survey to identify any cultural resources onsite. As part of the Modified Project a Cultural and Paleontological Resources Assessment was prepared (Appendix D) and included both a records search and field survey, which satisfies this mitigation measure. The records search identified two previously recorded cultural resources with ½ mile of the Project site. The resource located off the Project site consists of historic debris, which would not be impacted by the proposed Project. The second result of the records search is the Leal Property itself. A thorough assessment of the Leal Property, including the structures on the property, determined that Property is not

[21] Leal Master Plan Draft EIR, July 2015, Section 3.8.5, Page 3.8-3

eligible for the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), or local designation. Additionally, the field survey did not identify any cultural resources on the Project site. Based on the low sensitivity for cultural resources occurring on the Project site, no archaeological monitoring is required during ground disturbing activities.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project. Mitigation Measure MM 3.8.1 has been satisfied and no new mitigation is necessary. While determined to be highly unlikely, Mitigation Measures MM 3.8.2 and MM 3.8.3 would remain applicable to the Modified Project. Impacts would remain less than significant with mitigation.

b) Archaeological record surveys were conducted as part of the Prior EIR and as part of the Cultural and Paleontological Resources Assessment prepared for the Modified Project. Furthermore, an extensive pedestrian field survey of the Project site took place over two days for the Modified Project. No archaeological resources were identified on the Project site from the records search or the field surveys. The Cultural Resources Assessment for the Modified Project concluded that a low sensitivity exists for archaeological resources to occur on site and therefore, no archaeological monitoring is required during site disturbance activities, such as grading.

The Modified Project would not change the limits of disturbance, which encumbers the entire site, therefore the analysis and conclusions presented in the Prior EIR remain unchanged. Mitigation Measure MM 3.8.1 has been satisfied and no new mitigation is necessary. While determined to be highly unlikely, Mitigation Measures MM 3.8.2 and MM 3.8.3 would remain applicable to the Modified Project. Impacts would remain less than significant with mitigation.

c) The Prior EIR did not identify any evidence suggesting the Project site was used in the past for human burials. The Modified Project would not change the limits of disturbance, which encumbers the entire site, therefore the analysis and conclusions presented in the Prior EIR remain unchanged. Because existing laws and regulations would ensure that impacts on any buried human remains would be reduced to a level below significance, the Modified Project's impact related to the potential of encountering human remains would be less than significant.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: Mitigation Measure MM 3.8.1 has already been satisfied and is shown in light grey format. The mitigation measures applicable to the Modified Project that remain in place are listed below.

MM 3.8.1 A detailed cultural resources field survey of the subject property shall be conducted prior to approval of the project. The cultural resources field survey shall identify any cultural resource finds and will set out measures to mitigate any impacts to any significant resources as defined by CEQA, the California Register of Historical Resources, and/or the National Historic Preservation Act. Mitigation methods to be employed include but are not limited to the following:

- Redesign of the development project to avoid the resource. The resource site shall be deeded to the City or a nonprofit agency to be approved by the City for maintenance of the site.
- If avoidance is determined to be infeasible by the City, the resource shall be mapped, stabilized, and capped pursuant to appropriate standards.
- If capping is determined to be infeasible by the City, the resource shall be excavated and recorded to appropriate standards.

Timing/Implementation: *Prior to approval of development plan or project*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.8.2 If cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered during grading or construction activities in the Project area, work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery.

The City shall consider mitigation recommendations presented by a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history for any unanticipated discoveries. The City and the Project applicant of the site where the discovery is made shall consult and agree on implementation of a measure or measures that the City deems feasible. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The Project applicant shall be required to implement any mitigation necessary for the protection of cultural resources.

Timing/Implementation: *As a condition of project approval and implemented during grading and/or construction activities*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.8.3 If human remains are discovered during any ground-disturbing activities in the Project area, all work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and the Riverside County Coroner must be notified per California Public Resources Code Section 7050.5 and California Health and Safety Code Section 5097.98. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.

Timing/Implementation: *As a condition of project approval and implemented during grading and/or construction activities*

Enforcement/Monitoring: *City of Eastvale Planning Department*

Conclusion: The Modified Project would not change the limits of disturbance compared to the Original Project and no conditions or circumstances have changed relative to historical, archaeological, or tribal cultural resources on the Project site. Therefore, the analysis and conclusions presented in the Prior EIR remain unchanged for the Modified Project. The Prior EIR identified Mitigation Measures MM 3.8.1 through 3.8.4 to reduce impacts associated with archaeological and paleontological resources to less than significant. Mitigation Measure MM 3.8.1 has been satisfied and is no longer applicable, and Mitigation Measures MM 3.8.2 and 3.8.3 remain applicable to the Modified Project. Mitigation Measure 3.8.4 has been revised and is presented in Section 2.7 Geology and Soils, consistent with the revisions to CEQA Guidelines Appendix G.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and impacts remain less than significant with mitigation as presented in the Prior EIR.

2.6 Energy

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Discussion: Since preparation of the Prior EIR, CEQA Guidelines Appendix G has been revised to include a specific section on Energy. The Prior EIR analyzed potential impacts associated with energy consumption in the Utilities section. A Project-specific energy analysis was prepared for the Modified Project. The analysis is included in "*Air Quality, GHG, and Energy Impact Study*", prepared by RK Engineering Group, Inc., dated December 22, 2021, is included in Appendix B. The Prior EIR concluded the increase in energy consumption from the Original Project would be less than significant. No changes to the conclusions presented in the Prior EIR would occur for the Modified Project as confirmed by the Energy Study.

a, b) The Energy Study for the Modified Project quantified projected energy use of electricity, natural gas, and petroleum. The Energy Study determined the Modified Project would not cause a wasteful, inefficient, or unnecessary consumption of energy resources with implementation of the mandatory requirements of California's Building Energy Efficiency Standards (Title 24, Part 6) and Green Building Standards (CALGreen, Title 24, Part 11). California's building energy efficiency standards are some of the strictest in the nation and the Project's compliance with California's building code will ensure that wasteful, inefficient or unnecessary consumption of energy is minimized. The building standards code is designed to reduce the amount of energy needed to heat or cool a building, reduce energy usage for lighting and appliances and promote usage of energy from renewable sources.

Additionally, the Modified Project would not obstruct or conflict with renewable energy plans. Future occupants of the Modified Project will purchase electricity through Southern California Edison which is subject to the requirements of California Senate Bill 100 (SB 100). SB 100 is the most stringent and current energy legislation in California; requiring that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The Energy Study prepared for the Modified Project provides greater site-specific detail and analysis than the information presented in the Prior EIR, but the assessment and compliance with energy standards and regulations are not new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. The changes associated with the Modified Project would not cause wasteful, inefficient, or unnecessary consumption of energy resources or obstruct renewable energy plans. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.7 Geology and Soils

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:	☐	☐	☒	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Discussion: The analysis presented in the Prior EIR was based on a review of published information, surveys, and reports regarding regional geology and soils. Information was obtained from private and governmental agencies and Internet websites,

including the Natural Resources Conservation Service (NRCS), the California Geological Survey (CGS), and the US Geological Survey (USGS).[22]

A site-specific geotechnical evaluation was prepared for the Modified Project. The report, "*Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California,"* prepared by LGC Geotechnical, Inc. and dated June 21, 2021, and *"Geotechnical Responses to City Reviewer Geotechnical Review Comments dated February 16, 2022 for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California,"* prepared by LGC Geotechnical, Inc. and dated April 5, 2021, is included in Appendix E.

a- i) As indicated in the Prior EIR, the Project site is not located within a State of California Alquist-Priolo Earthquake Fault Zone. The Geotechnical Evaluation prepared for the Modified Project confirmed this conclusion and determined that no faults were identified on the Project site as part of the site evaluation. The Modified Project does not change the Project boundary or the conclusion that the potential for rupture of an earthquake fault is less than significant. Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

a – ii) The Project site would be subject to strong ground shaking, as is most of Southern California. The Prior EIR concluded that impacts would be less than significant. The Modified Project does not change the limits of disturbance or the underlying geology. The Modified Project is subject to California Building Code (CBC), which establishes seismic standards for new construction. Furthermore, the Geotechnical Evaluation report evaluated seismic characteristics of the Project site and found no unique conditions, new information, or changes in circumstances pertaining to seismic impacts that were not known or could not have been known with the exercise of reasonable diligence at the time of the Prior EIR.

The Modified Project includes a Project Design Feature (PDF), which is a component of the Modified Project's Project Description, that incorporates the recommendations presented in the Geotechnical Evaluation report. Many of these recommendations require compliance with adopted standards and codes. Some of the recommendations provide greater site-specific details and analysis than the information presented in the Prior EIR, but these recommendations are not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. With

[22] Leal Master Plan Draft EIR, July 2015, Section 3.9.4, Page 3.9-2

incorporation of the geotechnical recommendations, impacts from ground shaking would be less than significant.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

a-iii) The Prior EIR concluded based on Map My County[23], the Project site is located in an area mapped as having "moderate" and "high" liquefaction potential and concluded the potential impact is less than significant. The Geotechnical Evaluation prepared for the Modified Project determined that site soils are not generally susceptible to liquefaction due to a lack of groundwater in the upper 50 feet. Records indicate groundwater levels recorded in the area are at depths greater than 100 feet below the ground surface. However, isolated layers are susceptible to dry sand seismic settlement. Total dynamic settlement is estimated to be on the order 0.5-inch or less. Differential settlement is estimated as half of the total settlement over a horizontal span of 40 feet, which would be minimal.

The Geotechnical Evaluation provides greater site-specific detail and analysis than the information presented in the Prior EIR, but this is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

a-iv) The Prior EIR determined that given the flatness of the Project site, there is no potential for landslides to occur on or near the Project site. The Geotechnical Evaluation for the Modified Project confirms that conclusion. Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) As analyzed in the Prior EIR, the loss of topsoil or soil erosion can occur with any development of the Project site regardless of design. The design revisions associated with the Modified Project would not substantially increase the risk of topsoil loss or erosion. As indicated in the Geotechnical Response dated April 5, 2022 (Appendix E), "The proposed grading activities that will be part of the development of the subject site will include removal of the topsoil across the site and replacement with engineered fill material. The proposed grading plan does not have any natural or

[23] Leal Master Plan Draft EIR, July 2015, Section 3.9.3, Page 3.9-3

steep slopes that would be subject to excessive erosion. The ground surface at the completion of grading will be engineered fill with typical site drainage and typical slope inclinations." During construction, the Modified Project site is subject to the requirements of a National Pollutant Discharge Elimination System (NPDES) General Construction Permit, which requires Best Management Practices (BMPs) to prevent erosion or soil loss during construction.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

c) The stability of the geologic unit underlying the Project site was analyzed in the Prior EIR and impacts were determined to be less than significant. The Geotechnical Evaluation provides a site-specific evaluation and determined the near-surface loose and compressible soils are not suitable for development in the present condition given the quantity of organic rich soils. The Geotechnical Evaluation provides greater site-specific detail and analysis than the information presented in the Prior EIR, but this is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR.

Total organic carbon content generally greater than 2 percent is not suitable for compacted fill soils. From a geotechnical perspective, onsite soils are anticipated to be suitable for use as general compacted fill provided the high organic content soils (soils with organic content greater than 5 percent) are removed from the site and the remaining soils with organic content between 2 and 5 percent are blended and mixed with "clean" soils and screened of construction debris and any oversized material (8 inches in greatest dimension). Therefore, as described in the Project Description and included in Project Design Feature PDF GEO-1, the top layer of organic materials must be removed from the Project site, resulting in approximately 354,400 cubic yards of export. With implementation of the PDFs, the Project site would be suitable for development.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

d) The Prior EIR concluded that based on literature and mapping, the on-site soils would not have a high expansion potential. The Geotechnical Evaluation prepared for the Modified Project includes a more detailed site-specific analysis and concludes based on laboratory testing that site soils are anticipated to have "Very Low" expansion potential.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

e) No septic tanks or alternative wastewater disposal systems were proposed with the Original Project. The Modified Project also does not propose the use of septic systems. Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

f) The Cultural and Paleontological Resources Assessment prepared for the Modified Project determined the Project site includes areas of high sensitivity for paleontological deposits (*Cultural and Paleontological Resources Assessment, October 2021,* prepared by Duke CRM; Appendix D). While no paleontological resources were identified on the Project site during the field surveys, multiple fossil localities have been documented with three miles of the Project site. The eastern portion of the Project site has a higher potential for paleontological resources than the remainder of the site. Therefore, paleontological monitoring in the eastern portion of the site is required during ground disturbance. The Prior EIR included Mitigation Measure MM 3.8.4, which requires that a qualified paleontologist evaluate any paleontological discoveries during grading. The potential for paleontological discoveries has not changed since certification of the Prior EIR and the limits of disturbance have remained the same. This mitigation measure is being revised in this Addendum to require a qualified paleontologist monitor grading activities on the eastern portion of the site, which is more efficient for grading activities instead of the requirement to call a monitor to the site to evaluate paleontological resources if found during grading. Therefore, no change in analysis from the Prior EIR would occur and Mitigation Measure MM 3.8.4 remains applicable to the Modified Project as modified.

Therefore, the conclusions presented in the Prior EIR remain unchanged. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with implementation of the following mitigation measure as presented in the Prior EIR.

Mitigation Measures: The mitigation measure applicable to the Modified Project, which was previously included within the Cultural Resource Section, remains in place, however this mitigation measure has been modified to require paleontological monitoring during ground disturbing activities. The revised language is in underline and strike-through format as shown below.

MM 3.8.4 Prior to issuance of a grading permit, a certified professional

paleontologist will be retained by the developer to provide professional paleontological services, which will include survey, education of construction workers, onsite construction monitoring, appropriate recovery, and reporting.

A paleontological monitor shall be present during ground disturbing activities in the eastern half of the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation).

1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols.

2. The paleontological monitor shall be present full-time during ground disturbance in the eastern half of the Project, including but not limited to grading, trenching, utilities, and offsite easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced.

3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered.

4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area.

5. In consultation with the qualified paleontologist the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared.

6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately.

7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.

For the remaining portions of the Project site, if ~~If~~ any paleontological resources (fossils) are discovered during grading or construction activities in the Project area, work shall be halted immediately within 50 feet of the discovery, and the City Planning Department shall be immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist.

The City shall consider the mitigation recommendations of the qualified paleontologist for any unanticipated discoveries of paleontological resources. The City and the Project applicant shall consult and agree on implementation of a measure or measures that the City deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The Project applicant shall be required to implement any mitigation necessary for the protection of paleontological resources.

Timing/Implementation: *As a condition of project approval and implemented during grading and/or construction activities*

Enforcement/Monitoring: *City of Eastvale Planning Department*

Conclusion: A site-specific Geotechnical Evaluation report was prepared for the Modified Project. The Geotechnical Evaluation provides greater site-specific detail and analysis than the information presented in the Prior EIR but not new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. The additional analysis performed for the Modified Project introduces additional evidence in the record that impacts remain as described in the Prior EIR and less than significant. Therefore, no changes to the conclusions presented in the Prior EIR are warranted No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with mitigation incorporated.

2.8 Greenhouse Gas Emissions

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	☒

Discussion: The Prior EIR analyzed Greenhouse Gas (GHG) emissions from the Original Project by quantifying emissions of metric tons (MT) of Carbon Dioxide (CO_2) equivalents (CO_2e) from construction and operations. The Prior EIR relied on the California Emissions Estimator Model (CalEEMod) version 2013.2.2 computer program developed by the South Coast Air Quality Management District (AQMD). The Prior EIR determined the Original Project would generate 105,649 CO_2e metric tons (MT) per year. The analysis took credit for State-led GHG reduction measures, such as low carbon fuel standards and green building code standards. The reduction dropped CO_2e emissions to 77,375 MT per year[24]. The Prior EIR concluded that emissions from the Original Project represented a 26.7 percent reduction from Business as Usual, greater than the threshold of significance of 21.7 percent, resulting in a less than significant impact.

An analysis of the GHG emissions for the Modified Project is included in the report, "*Leal Master Plan Amendment Project Air Quality, Greenhouse Gas, and Energy Impact Study,*" prepared by RK Engineering Group, Inc. and dated December 22, 2021, included in Appendix B. The GHG Study determined the Modified Project would generate approximately 32,220 MT CO_2e per year. Compared to the Original Project with CO_2e emissions of 77,375 MT per year, the Modified Project (32,220 MT CO_2e per year) would reduce GHG emissions by 45,155 MT CO_2e per year, which represents an approximately 58% reduction in GHG emissions.

a) The Prior EIR determined the Original Project would generate 77,375 MT CO_2e, which represented a 26.7% reduction from Business as Usual, which is a greater reduction than the 21.7% threshold of significance. By comparison, the Modified Project would generate approximately 32,220 MT CO_2e per year, which is 45,155 MT

[24] The 77,375 MT CO_2e emissions per year are 2035 levels. The GHG Study prepared by RK Engineering Group (Appendix B) used 2020 emission levels of 74,317 MT CO_2e per year in Table 20 for comparison with the Modified Project emissions. Since 2020 emission levels have passed, this Addendum relies on the 2035 emission levels for comparison.

CO_2e per year less than the Original Project, which represents an approximately 58% reduction in GHG emissions. Therefore, the Modified Project would generate less GHG emissions than the Original Project.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The project will be required to comply with the mandatory requirements of the latest 2019 California Building Standards Code, including Title 24, Part 11, CALGreen and Title 24, Part 6, Energy Code. The purpose of the building standards is to reduce negative impacts on the environment through improved planning and design, energy efficiency, water efficiency and conservation and material and resource conservation. The California Building Standards were developed to help meet the requirements of the Global Warming Solutions Act (AB 32). As part of the latest Energy Code requirements, the project will be required to include rooftop solar panels, community solar panels, and/or other sources of on-site renewable energy capable of meeting the required California Energy Code Energy Design Rating. Therefore, by complying with the City's GHG reduction policy the project would not conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of greenhouse gases.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The Modified Project would reduce the amount of GHG emissions by approximately 58% compared to the Original Project and remain consistent with State policies for the reduction in GHG emissions. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.9 Hazards and Hazardous Materials

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excess noise for people residing or working in the project area?	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Discussion: The Prior EIR evaluated the Project site as a former dairy farm and agricultural use and concluded that the Project site was suitable for development with a mix of residential and commercial uses. The Prior EIR also concluded that the existing buildings on the Project site may contain asbestos, lead paint, or polychlorinated biphenyls (PCB) and that demolition of the existing structures could expose the environment or humans to hazardous materials. Mitigation Measures MM 3.10.2a, 3.10.2b, and 3.10.2c were included to reduce all impacts related to potential hazardous building materials on-site to less than significant.

The Modified Project includes two site-specific analysis of the Project site. The first study is a "*Phase I Environmental Site Assessment"* prepared by Hillmann Consulting, March 23, 2022, and included in Appendix F.1. The second study, also prepared by Hillmann Consulting is a "*Limited Phase II Subsurface Investigation Report"* dated March 23, 2022, and included in Appendix F.2.

The Phase I Environmental Site Assessment identified five Recognized Environmental Conditions (RECs) on the Project site as follows:

REC #1 There is a possibility for elevated methane gas in soil vapor at areas where livestock wastes accumulated.

REC #2 A historical 550-gallon gasoline underground storage tank (UST) is considered to be a REC due to the possibility for undocumented spills to have occurred.

REC #3 Maintenance and repair of farm equipment and vehicles appears to have been conducted for an extended period of time in an area of the northern portion of the Property, which could have resulted in undocumented spills.

REC #4 The Property was utilized as orchards since approximately 1931 to 1950s, resulting in the potential for residual pesticide concentrations in shallow soils due to historic application of pesticides.

REC #5 The presence of discarded/abandoned drums due to the unknown content and possibility of undocumented chemical spills/releases.

In response to the RECs identified as part of the Phase I Environmental Site Assessment, a Limited Phase II Subsurface Investigation of the Project site was conducted. The Phase II investigation included 96 near surface soil samples and methane testing. The results of the analysis conclude:

- Soil samples detected low levels of 4,4'-dichlorodiphenyldichleorethylene (DDE) and 4,4'-dichlorodiphenyltrichoroethane (DDT), which did not exceed the applicable screening levels for residential applications. DDT was a common pesticide once widely used in the past for insect control for agriculture purposes. DDE is a breakdown product of DDT.

- Soil sample analysis for heavy metals identified low background levels of metals, which did not exceed the applicable screening levels for residential applications.

- Soil gas sampling determined no detectable concentrations of petroleum hydrocarbons or volatile organic compounds (VOC), and no heavy metal concentrations exceeding residential screening levels.

- One sample had benzene concentrations that slightly exceed proposed residential screening levels (if they were to be adopted) but given the depth of the sample (14 feet) and consideration for attenuation provided by new construction, these very low concentrations do not pose a significant environmental or human health concern for the proposed residential use.

- Methane testing identified three samples out of fifteen with detectable concentrations of methane. The methane distribution was determined to not be widespread and the areas that were investigated were still covered with animal waste. The treatment for the areas with detectable methane includes removal of animal waste (organics), which is planned as part of the Project Description and PDFs.

The Phase I and Phase II assessments provide greater site-specific detail and analysis than the information presented in the Prior EIR, but this is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. The Prior EIR evaluated the site as a former agricultural use being converted to allow a mix of uses including residential and commercial. The Modified Project would not change the limits of disturbance, which encumbers the entire site, or the existing site conditions.

a) The Original Project included the same project boundaries and a mix of commercial and residential land uses. The Modified Project would change the intensity of certain land uses but retain the same mix of land uses. The Prior EIR concluded that neither commercial nor residential development is expected to involve the routine transport, use, or disposal of hazardous materials in significant quantities.[25] The same conclusion would apply to the Modified Project because of the same mix of residential and commercial land uses.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Prior EIR determined construction activities could release hazardous materials into the environment, such as petroleum-based fuels or hydraulic fluid used for construction equipment. These materials are routine in construction projects and the risk would apply similarly to the Modified Project. Given the age of the structures on site, a possibility exists for asbestos and/or lead paint to occur within the construction materials used in the structures. The Prior EIR included three mitigation measures to reduce impacts to less than significant. Mitigation Measure MM 3.10.2a requires

[25] Leal Master Plan Draft EIR, July 2015, Section 3.10.5, Page 3.10-3

testing for asbestos, lead paint, and polychlorinated biphenyls (PCB) prior to demolition of the existing structures on site. This mitigation measure would apply to the Modified Project and reduce impacts to less than significant.

Mitigation Measure MM 3.10.2b requires preparation of a Phase I Environmental Site Assessment prior to grading. A Phase I has been prepared for the Modified Project and is included in Appendix F.1. A portion of this mitigation measure has been satisfied, however compliance with the recommendations from a Phase II assessment remains a requirement.

Mitigation Measure MM 3.10.2c requires all trash and debris be removed from the Project site and disposed of properly. This mitigation measure would apply to the Modified Project and reduce impacts to less than significant.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with implementation of mitigation measures.

c) The Project site is located within 0.20 miles of Harada Elementary School. The Prior EIR concluded:

> "However, as described in response to Threshold 1, hazards to the public or to the environment through the routine use, handling, transport, and storage of hazardous materials would be subject to federal, state, and local health and safety requirements. The storage, handling, and disposal of hazardous materials are regulated by the EPA, OSHA, and the Fire Department. Therefore, the proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials."[26]

The Modified Project proposes the same mix of residential and commercial uses as the Original Project. Therefore, there is no change in the potential for release of hazardous materials during construction or operation of the Modified Project. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

d) The Phase I Environmental Site Assessment prepared for the Modified Project determined the Project site is not included on a list of hazardous materials sites and does not pose a risk to the public. Recent site inspections confirm no change in conditions would alter that conclusion presented in the Prior EIR. Therefore, no new

[26] Leal Master Plan Draft EIR, July 2015, Section 3.10.3, Page 3.10-6

significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

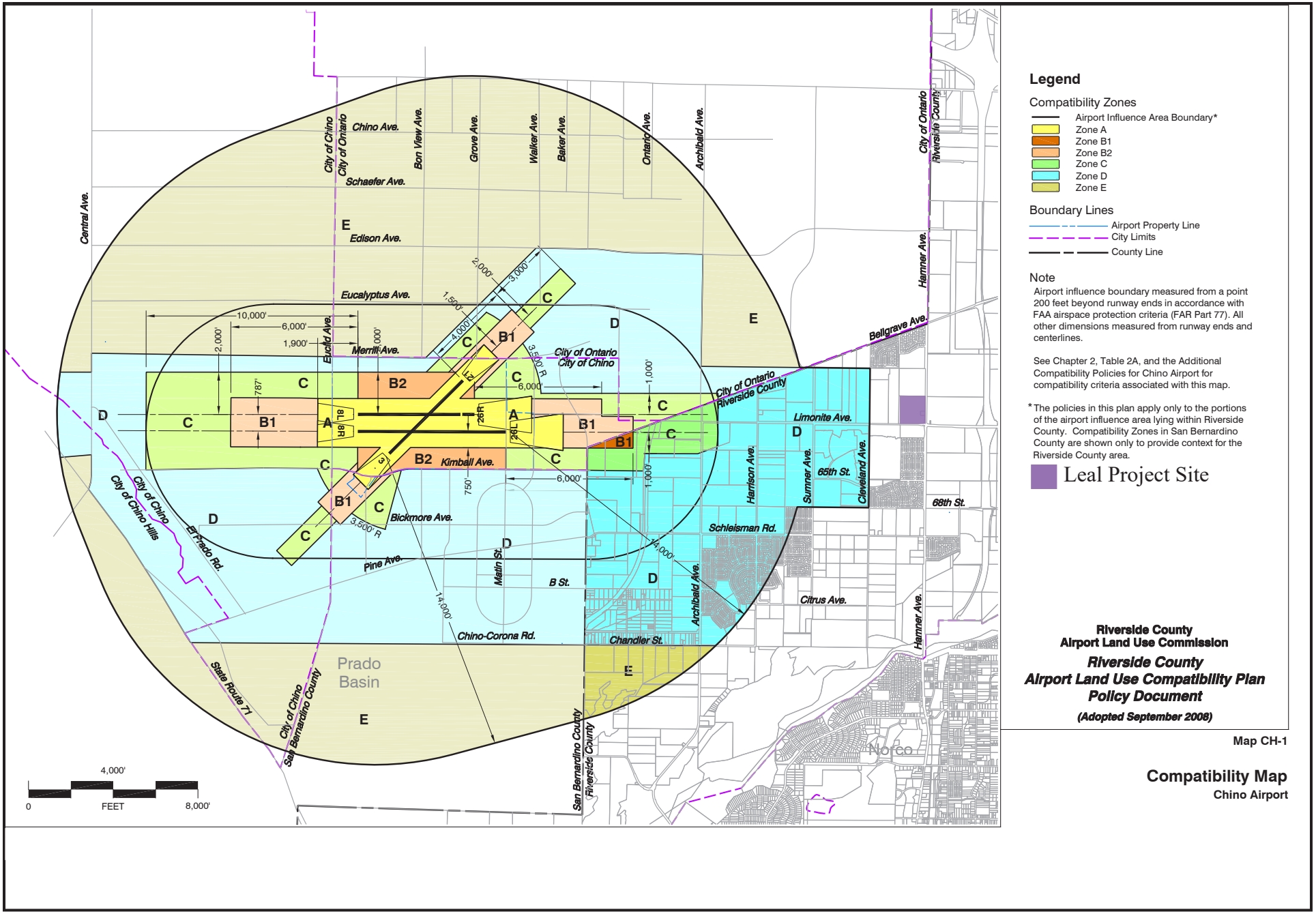
e) The Project site is not located in an airport land use plan (see Figure 5) or near a private or public airstrip. The Modified Project would not change these findings. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

f) The Prior EIR concluded the Original Project would not impair the City's ability to implement its emergency response plan or use its emergency evacuation routes. The Modified Project includes less intensive development than the Original Project. As shown in Section 2.17, the Modified Project would reduce trip generation by 27,764 average daily vehicle trips, thereby reducing the number of potential vehicles on local roadways that may be used by emergency vehicles or for evacuation in the event of an emergency. The Modified Project would improve the surrounding circulation system with additional travel lanes on Limonite and Hamner and the Modified Project would contribute to fewer local roadway trips than the Original Project. The Modified Project would complete street improvements on all four surrounding streets. Therefore, as a result of the Modified Project proposing less intensive development than the Original Project and proposing to complete the surrounding street system, no new impacts would occur, and the conclusions presented in the Prior EIR remain unchanged.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

g) The Prior EIR concluded the Project site is not designated as a fire hazard severity zone. Since there are no changes to the boundaries of the Modified Project, the conclusions in the Prior EIR remain applicable. Furthermore, the California Department of Forestry and Fire Protection (CalFire) website was reviewed; and no change of fire hazard severity designation has occurred on the Project site since the Prior EIR was prepared and adopted[27]. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

[27] CalFire (California Department of Forestry and Fire Protection). 2022. Cal Fire website. http://www.fire.ca.gov/.



Source: Meet&Hunt (June 2008)

N.T.S.

Figure 5
Airport Land Use Plan Map

Mitigation Measures: The measure that has already been satisfied is shown in light grey format. The mitigation measures applicable to the Modified Project that remain in place are listed below.

MM 3.10.2a Asbestos. Prior to the issuance of any permit for the demolition or alteration of existing structure(s), a letter shall be provided to the Planning Department from a qualified asbestos abatement consultant indicating that no asbestos-containing materials (ACM) are present in the building. If ACMs are found to be present, they will need to be abated in compliance with the South Coast Air Quality Management District's Rule 1403 and all other applicable state and federal rules and regulations.

Lead Paint. Prior to issuance of any permit for the demolition or alteration of the existing structure(s), a lead-based paint survey shall be performed to the written satisfaction of the Eastvale Building Safety and Inspection Department. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to OSHA regulations.

Polychlorinated Biphenyls. Prior to issuance of a demolition permit, a polychlorinated biphenyls (PCB) abatement contractor shall conduct a survey of the Project site to identify and assist with compliance with applicable state and federal rules and regulations governing PCB removal and disposal.

Timing/Implementation: *Prior to the issuance of demolition permit*

Enforcement/Monitoring: *City of Eastvale Building and Planning Departments*

MM 3.10.2b Prior to the issuance of any individual grading permit, a Phase I Environmental Site Assessment (ESA) shall be conducted to determine the potential for contaminated soil or groundwater on the site. If the Phase I ESA determines that the potential exists for contaminated soil or groundwater on-site, the project applicant shall conduct a Phase II ESA and shall follow its recommendations to remediate any potentially contaminated soil or groundwater. On-site contaminants must be addressed to the satisfaction of either Cal/EPA or the Riverside County Waste Management Department, with their approval of completion of activities/remedial action plans (RAP) submitted to the Eastvale Department of Building and Construction prior to the issuance of a grading permit.

Timing/Implementation: *Prior to issuance of individual grading permit*

Enforcement/Monitoring: *City of Eastvale Building and Planning Departments*

MM 3.10.2c All trash and debris observed on-site shall be removed prior to construction activities and disposed of at a landfill or approved dumpsite.

Timing/Implementation: *Prior to construction activities*

Enforcement/Monitoring: *City of Eastvale Building and Planning Departments*

Conclusion: A site-specific Phase I Environmental Site Assessment and a Limited Phase II Subsurface Investigation were prepared for the Modified Project. Those studies provide greater site-specific detail and analysis than the information presented in the Prior EIR. The additional analysis performed for the Modified Project introduces additional evidence in the record that impacts remain as described in the Prior EIR and less than significant with mitigation incorporated. The information provided is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. Therefore, no changes to the conclusions presented in the Prior EIR are warranted. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with mitigation.

2.10 Hydrology and Water Quality

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i) Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion: The analysis in the Prior EIR determined the Original Project would have less than significant hydrology and water quality impacts. The Project site is located in Flood Hazard Zone X according to the Federal Emergency Management Agency

(FEMA) Flood Insurance Rate Maps (FIRM)[28]. Flood Zone X indicates the site is subject to minimal risk of flooding.

Two site-specific technical studies were prepared for the Modified Project. One report is titled, "*Preliminary Hydrology Analysis for Leal Ranch (Tentative Map No. 38290)*" prepared by Hunsaker & Associates Irvine, Inc., and dated November 29, 2021 (Appendix G). The second report is the "*Preliminary Water Quality Management Plan (PWQMP) for Tentative Map No. 38290*," prepared by Hunsaker & Associates Irvine, Inc., and dated November 29, 2021 (Appendix H).

The Modified Project proposes a series of storm drains to convey runoff from the Project site to an existing storm drain system within Limonite Avenue. This drainage pattern is consistent with the Eastvale Master Plan of drainage. The Modified Project also includes improvements, including catch basins within 58th Street, Hamner Avenue, Limonite Avenue, and Scholar Way. Catch basin laterals are proposed to join the existing storm drains within those perimeter streets. The Modified Project also includes two (2) water quality basins and one combined water quality/detention basin. These basins may be located either on the surface or buried beneath the surface. Current plans show these facilities buried beneath the surface, allowing for parks, parking lots, or other improvements on the surface above these facilities.

The proposed underground detention basin is currently sized approximately 360 feet long, 120 feet wide, and 6 feet deep. These dimensions may vary as long as equivalent storage is provided. Since the Original Project and Modified Project would convert the Project site from primarily pervious surface to largely impervious (80%), the detention basin is necessary to reduce peak storm flow rates to existing storm drain design flows.

The 100-year storm event is the major storm event used to size storm drain facilities. During a 100-year storm event, storm flow of 252 cubic feet per second (cfs) would flow into the detention basin and flows of 82 cfs would flow out of the basin. The detention provided by the basin allows the runoff from the Modified Project to be less than the existing storm drain design flow rate, as shown in the following table.

Table 13. Existing Storm Drain Design Flow Rate[29]

Node	Flow without Detention (cfs)	Flow Reduction from Detention (cfs)	Flow after Detention (cfs)	Existing Storm Drain Design Flow Rate (cfs)
75	322.0	170.1	151.9	160.0

[28] FEMA (Federal Emergency Management Agency). 2021. Flood Insurance Rate Map (FIRM) Panel 06065Co681G and 06065CO677G. Visited December 2021. http://msc.fema.gove/portal.
[29] Table 2, from "Preliminary Hydrology Analysis for Leal Ranch (Tentative Map No. 38290)," prepared by Hunsaker & Associates Irvine, dated November 29, 2021.

The PWQMP identified potential treatment options for runoff prior to discharge from the Project site in accordance with the Regional Water Quality Control Board Order No. R8-2010-0033 (MS4 Permit). The Original Project and Modified Project would change the existing Project site from largely pervious to a mix of 80% impervious and 20% pervious. As such, the Modified Project is required to treat runoff from the Project site. The MS4 Permit requires projects implement Low Impact Development (LID) principles to the extent feasible. The primary LID principle each Project must analyze is infiltration. Infiltration testing was conducted, and the infiltration rates do not meet minimum standards, therefore, infiltration cannot be relied upon as the primary treatment option. The Modified Project proposes biotreatment/bioretention basins that will allow for incidental infiltration. The biotreatment/bioretention basins rely on proprietary treatment of flows prior to discharge into the storm drain system off the Project site.

a) Short-term water quality requirements apply during construction and long-term water quality requirements apply for the built condition. The Prior EIR analyzed both conditions and determined impacts would be less than significant. During construction water quality impacts could occur from surface water pollutants such as sediment, oil, grease, and trash. Since the development area is greater than 1 acre, a Stormwater Pollution Prevention Plan (SWPPP) must be prepared to identify the best management practices (BMPs) to be implemented during construction. Implementation of the SWPPP would reduce impacts to less than significant. The Modified Project includes the same amount of grading area as the Original Project and would also be subject to a SWPPP. Therefore, the analysis and conclusions presented in the Prior EIR remain unchanged for the Modified Project.

A Preliminary Water Quality Management Plan (PWQMP) was prepared for the Modified Project. The Modified Project relies on two underground biotreatment/bioretention basins that rely on proprietary treatment systems. An example of proprietary treatment system is a modular wetland, which has been accepted by most agencies. The Project site does not qualify to rely on infiltration as the primary source of treatment, however, the treatment basins will allow for incidental infiltration.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Prior EIR determined the Original Project would have a less than significant impact on groundwater recharge. Percolation tests were performed as part of the PWQMP for the Modified Project, which determined that existing percolation rates do not meet the minimum standards to rely on infiltration. Furthermore, the Geotechnical Study for the Modified Project determined that existing groundwater levels are greater than 100-feet below the ground surface (*Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal"*

Property, City of Eastvale, California, prepared by LGC Geotechnical, Inc; Appendix E). The low infiltration rates and low groundwater depth both indicate that the Project site is not substantially contributing to groundwater recharge.

Therefore, the analysis presented in the Prior EIR would apply to the Modified Project because the conditions remain the same. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

c.i, c.iv) The Modified Project would not change the drainage patterns as analyzed in the Prior EIR for the Original Project. Runoff from the Project site continues to flow from north to south, collecting in the southwestern portion of the Project site near Limonite Avenue. No stream or river is located on the Project site. Storm flows are primarily captured in streets or sheet flow over vegetated land. The Modified Project includes details of a storm drain system that would collect surface flows in catch basin inlets in the streets and convey flows via a storm drain system under on-site roadways to an underground detention vault located southwest portion of the Project site.

The Modified Project would increase the amount of impervious surface compared to existing conditions. This increase in impervious surface would increase the amount of runoff, however, through the Project design, peak discharge from the Modified Project would be less than the existing condition and less than the design flows of the existing storm drain in Limonite Avenue. By containing the runoff within proposed and existing storm drains, the Modified Project would not cause erosion or siltation on or off the Project site. The Hydrology Study for the Modified Project provides greater site-specific detail and analysis than the information presented in the Prior EIR, but this is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR.

Therefore, the analysis and conclusions presented in the Prior EIR remain unchanged and no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

c.ii - c.iii) As described above, the Modified Project includes a large subsurface detention basin to restrict peak flows during a 100-year storm event. The detention basin would outlet flows less than the design flows of the existing storm drain in Limonite Avenue. Therefore, the Modified Project would not create or contribute runoff water that would exceed the capacity of the existing stormwater drainage systems. Also as previously described, the Modified Project includes two biotreatment/bioretention facilities designed to treat initial storm flows to meet applicable local and state water quality requirements. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with

the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

d) The Original Project boundary is not located within a FEMA designated 100-year flood zone. The Modified Project does not change the Project boundary and is therefore also located outside of a FEMA designated 100-year flood zone. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

The Original Project site is located over 30 miles from the Pacific Ocean and not located near a large body of water, therefore, the Project site is outside of a tsunami inundation area and not at risk of impacts from a seiche. The Modified Project does not change the Project boundaries and is therefore located outside of a flood zone, and tsunami and seiche inundation area, and therefore not at risk of discharging pollutants during a flood, tsunami or seiche. Furthermore, areas disturbed by grading and construction for the Modified Project would be either paved or landscaped with vegetation to control surface erosion. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

e) The Original Project boundaries are not located within a sustainable ground water management plan. The Modified Project does not change the Project boundaries and is therefore also located outside of a sustainable ground water management plan. The Project site is subject to the Regional Permit issued by the Regional Water Quality Control Board (MS4) and a PWQMP has been prepared to show how the Modified Project will comply with the MS4 requirements. Percolation tests were performed as part of the PWQMP for the Modified Project, which determined that existing percolation rates do not meet the minimum standards to rely on infiltration. Furthermore, the Geotechnical Study for the Modified Project determined that existing groundwater levels are greater than 100-feet below the ground surface. The low infiltration rates and low groundwater depth both indicate that the Project site is not substantially contributing to groundwater recharge.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The Modified Project includes a site-specific hydrology study and preliminary water quality management plan that confirm the analysis and conclusions presented in the Prior EIR. The information provided in the hydrology study and PWQMP is not a substantial change with respect to the circumstances under which the

project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. The Modified Project would reduce peak stormflow discharge below the design flow of the existing storm drain in Limonite Avenue and include water treatment measures consistent with the MS4 requirements. Therefore, the analysis and conclusions presented in the Prior EIR remain unchanged for the Modified Project. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.11 Land Use and Planning

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Discussion: On December 13, 2017, the City of Eastvale certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2015031028) for the 158.6-acre[30] Project site, adopted a Statement of Overriding Considerations for significant but unavoidable impacts, amended the Eastvale General Plan to incorporate the Leal Master Plan (including amending land use policies and the Land Use Map) and voted to adopt the Leal Master Plan and a corresponding change of zone from heavy agriculture (A-2) to Leal Master Plan. On January 10, 2018, the City held the second reading and adopted the Leal Master Plan and change of zone to Leal Master Plan. The Leal Master Plan outlined a multistage planning and development process. The first stage included the adoption of the Leal Master Plan, which identified "the project objectives and specific parameters for the design and quality of overall future development of the project site."[31] Stage 2 of the development process was anticipated to focus on "preparing project-wide development criteria and guidelines that are not included in the Master Plan, creating detailed plans for the first phase(s) of development based on the criteria and guidelines included in the Master Plan."[32] The last development phase outlined in the Master Plan consists of the "submittal of specific development projects through the Development Plan Review process established in the Eastvale Zoning Code."[33]

The Modified Project consists of an amendment to the Leal Master Plan, Development Agreement, Tentative Tract Map (TTM), and Major Development Review. This represents Stage 2 of the development process outlined in the Leal Master Plan. The Leal Master Plan Amendment provides a Project-wide site plan and identifies

[30] The Leal Master Plan EIR identifies the size of the Project site as 161 acres. Based on detailed engineering, the actual size of the Project site is 158.6 acres.
[31] Leal Master Plan EIR, December 2017, Project Description Page 2.0-2
[32] Leal Master Plan EIR, December 2017, Project Description Page 2.0-2
[33] Leal Master Plan EIR, December 2017, Project Description Page 2.0-2

permitted development intensities and development standards. The TTM creates both numbered lots for development areas and lettered lots for streets, parks, and open space.

a) The Prior EIR determined the Original Project would not physically divide an existing community. The Modified Project provides additional planning detail on future development of the Project site, consistent with the original Leal Master Plan. The boundaries of the Project site remain unchanged and the type of future development continues to provide a mix of residential and commercial uses.

Therefore, the Modified Project would not physically divide an existing community and no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Original Leal Master Plan did not establish a maximum number of dwelling units and no minimum development standards were identified. Therefore, development of the Project site had a wide range of flexibility. Given the wide flexibility, the Original Project established the following land use assumptions that were used in the Original Leal Master Plan EIR.

Table 14. Buildout Assumptions for the Original Project

Land Use
660 multi-family homes (apartments)
1,525,000 square feet of general retail (shopping center)
460,000 square feet of general office
460,000 square feet of medical office
450 hotel rooms
100,000-square-foot civic center

The Modified Project proposes a land use intensity of 2,500 residential dwellings, 595,000 square feet of commercial uses and a fire station. As planned in the Stage 2 sequencing, the Modified Project continues to provide development flexibility to allow for development to occur in accordance with market conditions as part of Stage 3 planning. While no Stage 3 development plans have been prepared, the 2,500 dwelling units and 595,000 square feet of commercial uses have been allocated as shown in the following table for purposes of this Addendum. It is important to note that the following mix of uses is conceptual and may change during the Stage 3 planning processes. Since development of the site could take many years and each planning area requires a separate Stage 3 planning process, development of the Project site could vary from the assumptions provided in the table below. If changes to these assumptions occur in the future, the City is responsible to evaluate those changes and determine if additional environmental review pursuant to CEQA is required.

Table 15. Buildout Assumptions for the Modified Project

Land Use
1,840 medium density residential (400 single family detached and 1440 single family attached)
660 high density residential (apartment units)
390,000 square feet of general retail (shopping center)
65,000 square feet of general office
65,000 square feet of medical office
75,000 square feet civic center (City Hall, Library, Police)
12,200 square feet fire station

The following table compares the development assumptions between the Original Project and the Modified Project.

Table 16. Land Use Comparison Table

Land Use	Original Project	Modified Project	Difference
Medium Density Residential	0	1,840	+1,840 units
High Density Residential	660	660	no change
Retail (Shopping Center)	1,525,000	390,000	-1,135,000 sf
General Office	460,000	65,000	-395,000 sf
Medical Office	460,000	65,000	-395,000 sf
Hotel	450	0	- 450 rooms
Civic Center	100,000	75,000	- 25,000 sf
Fire Station	0	12,200	+ 12,200 sf

Therefore, the Modified Project is consistent with adopted plans and policies governing the Project site. Furthermore, as analyzed in the Prior EIR and applicable to the Modified Project, the Project site is located within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP); however, is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits and is not located in survey areas for Amphibians, Mammals, or Special Linkage areas. As analyzed in Section 2.4, Biological Resources, the Project is consistent with the MSHCP and does not provide suitable habitat for sensitive species. Furthermore, as analyzed in the Prior EIR and applicable to the Modified Project, the Project site is not subject to any local policies, such as a tree preservation ordinance.

The conclusions presented in the Prior EIR remain unchanged and no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The Modified Project is consistent with the City's General Plan land use designation, density limit, and policies. The Modified Project is also consistent with the existing Zoning for the Project site as it continues to contain a mix of residential and non-residential uses. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. No impacts would occur.

2.12 Mineral Resources

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

Discussion: In accordance with State CEQA Guidelines Section 15128, the Prior EIR determined that as a result of the absence of environmental resources or Project characteristics to produce impacts, the potential effect on Mineral Resources was found to be less than significant. The Modified Project would not change the limits of disturbance, which encumbers the entire site, therefore the analysis and conclusions presented in the Prior EIR remain unchanged. Furthermore, the site-specific geotechnical analysis evaluated the Project site's soil conditions and found no mineral resources that would be a value to the region (*Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California,* prepared by LGC Geotechnical, Inc; Appendix E).

Therefore, the Modified Project would not create any new or greater significant impacts.

a) Consistent with the findings in the Prior EIR, no known mineral resources are located on the Modified Project site, which is further evidenced by the fact that during extensive geologic subsurface exploration across the entire Project site, no mineral resources were observed. The Project site is mapped Mineral Resource Zone (MRZ) - 3 by the California Department of Conservation[34]. MRZ-3 identifies areas containing mineral deposits, the significance of which cannot be evaluated from available data, however, the extensive geologic subsurface exploration across the entire Project site confirmed no mineral resources are located onsite. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

[34] California Department of Conservation. 2022. California Department of Conservation Mineral Lands Classification website. https://maps.conservation.ca.gov/mineralresources/.

b) The Eastvale General Plan designates the Project site for Leal Master Plan, permitting future development of residential and commercial uses. Therefore, no loss of mineral resources identified on any City land use maps would occur as a result of the Modified Project. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project. No new mitigation is necessary and impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The Modified Project would not change the analysis or conclusions found in the Prior EIR and no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.13 Noise

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

Discussion: The Prior EIR analyzed potential construction, operation, and vibration noise associated with development of the Original Project and determined impacts associated with a substantial permanent increase in ambient noise levels would be significant and unavoidable, even after implementation of mitigation measures.

A Project-specific noise study was prepared for the Modified Project. The study, "*Leal Master Plan Amendment Noise Impact Study*" prepared by RK Engineering Group, Inc. on December 21, 2021, is included in Appendix I. The Noise study analyzed impacts associated with construction and operation of the Modified Project as presented in the Project Description.

The Modified Project includes the following Project Design Features (PDFs) that are recognized for reducing noise levels. The PDFs include:

NOI PDF-1 Prior to the issuance of building permits, the Project will demonstrate that building construction will achieve the minimum interior noise standard of 45 dBA CNEL for all residential units located along arterial roadways and/or adjacent to commercial uses, per the California Building Standards Code. The following noise control measures may be required for dwelling units located near adjacent roadways:

- Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources.

- Install double-paned or upgraded STC sound rated windows.
- Provide sound insulating exterior walls and roofing systems.
- Locate and/or design attic vents to minimize sound propagation into each home.
- Provide forced-air ventilation systems.
- Provide the necessary setbacks for dwelling units fronting along major roadways.

NOI PDF-2 The Project will comply with California Title 24 building insulation requirements for exterior walls, roofs and common separating assemblies (e.g. floor/ceiling assemblies and demising walls).

NOI PDF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors will have a positive seal and leaks/cracks must be kept to a minimum.

NOI PDF-4 The final building plans will ensure that HVAC units are not located within an area of the Project site that would contribute to a noise level exceedance at any adjacent property line, per the City of Eastvale Municipal Code requirements. To meet the City's noise standards the following measures should be followed:

- All HVAC equipment shall be shielded or enclosed from the line of sight of adjacent residential uses.
- The combined noise level of all units operating simultaneously shall not exceed the City of Eastvale daytime and nighttime exterior standards at the nearest surrounding property lines.

NOI PDF-5 Future residents, property management personnel, and commercial tenants will be required to comply with the City of Eastvale Municipal Code Noise Regulations, Chapter 8.52, which specify that no person shall create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness.

To help ensure compliance with the City's Noise Regulations, the following recommendations are provided:

- Deliveries, loading and unloading activities, and trash pick-up hours should be limited to daytime hours only (8 a.m. – 10 p.m.).
- Limit engine idling time for all delivery vehicles and moving trucks to 5 minutes or less.

NOI PDF-6 The Project will prepare a construction management plan and obtain a construction work permit from the City of Eastvale prior to starting

construction. The construction management plan will ensure all contractors implement construction best management practices to reduce construction noise levels. Examples of best management practices may include the following:

- All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).
- Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible.
- If feasible, electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Locate staging area, generators and stationary construction equipment as far from the adjacent residential homes as feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.
- Provide notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator.
- Construction activities shall not take place between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. to 7:00 a.m. during the months of October through May.

NOI PDF-7 The Project will not include pile driving or blasting activities during construction. If impact pile driving or blasting is required, a follow-up noise and vibration impact assessment will be conducted prior to start of any activity.

With implementation of the PDFs, the Modified Project would not generate a substantial temporary or permanent increase in ambient noise levels in excess of City standards. The Modified Project would generate approximately 27,764 fewer average daily trips than the Original Project, resulting in less traffic noise contribution to the surrounding roadways than previously analyzed in the Prior EIR. Lastly, the Modified Project has reduced the amount of commercial land use in favor of a greater amount

of residential use, which is generally considered a more compatible land use with the surrounding community from a noise standpoint.

a) The Noise Study prepared for the Modified Project analyzed noise impacts from long-term operations of the proposed development and short-term construction noise impacts. The Modified Project would generate approximately 27,764 fewer average daily trips than the Original Project, resulting in less operational traffic noise contribution to the surrounding roadways than previously analyzed in the Prior EIR. Furthermore, the Modified Project would not cause a significant impact associated with a change in roadway noise levels as shown in the following table.

Table 17. Roadway Noise Impact Analysis (dBA CNEL)[1] Existing Year Conditions[35]

Roadway[2]	Segment	CNEL at the Nearest Façade			
		Existing Without Project	Existing with Project	Change as a Result of Project	Significant Impact?[3]
Limonite Avenue	Archibald Ave to Harrison Ave	68.2	69.0	0.8	NO
Limonite Avenue	Harrison Avenue to Scholar Way	69.7	70.3	0.6	NO
Limonite Avenue	Scholar Way to Hamner Avenue	69.0	71.3	2.3	NO
Limonite Avenue	Hamner Avenue to I-15 Ramps	70.8	72.2	1.4	NO
Limonite Avenue	I-15 Ramps to Wineville Avenue	70.8	71.3	0.5	NO
Hamner Avenue	Citrus Street to Schleisman Rd	68.7	69.4	0.7	NO
Hamner Avenue	Schleisman Road to 68th Street	65.1	66.2	1.1	NO
Hamner Avenue	68th Street to 58th Street	67.4	67.8	0.4	NO
Hamner Avenue	Limonite Avenue to 58th Street	66.3	69.4	3.1	NO
Hamner Avenue	58th Street to Bellgrave Avenue	66.3	69.4	3.1	NO
Scholar Way	Limonite Avenue to 58th Street	57.8	59.2	1.4	NO
Scholar Way[5]	58th Street to Bellgrave Avenue	54.4	57.0	2.6	NO

[1] Exterior noise levels are calculated at 5 feet above ground level.
[2] Noise levels are calculated approximately 100 feet from the centerline of the subject roadway.
[3] A significant noise impact would occur when project operational activities cause an increase in ambient noise levels of 5 dBA or more and the resulting noise level exceeds 60 dBA CNEL/Ldn.

The land uses proposed as part of the Modified Project are compatible with surrounding land uses and none of the land uses are considered substantial noise generators. Furthermore, future tenants within the commercial areas would be subject to the City's noise ordinance, which places limits on noise generated from stationary

[35] CNEL = Community Noise Equivalent Level, dBA = decibels A ;Table 8, from "Leal Master Plan Amendment Noise Impact Study," prepared by RK Engineering Group, Inc., dated December 21, 2021.

uses. The proposed Project includes several Project Design Features that would further reduce operational noise levels, as follows:

NOI PDF-1 Prior to the issuance of building permits, the Project will demonstrate that building construction will achieve the minimum interior noise standard of 45 dBA CNEL for all residential units located along arterial roadways and/or adjacent to commercial uses, per the California Building Standards Code. The following noise control measures may be required for dwelling units located near adjacent roadways:

- Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources.
- Install double-paned or upgraded sound transmission class (STC) sound rated windows.
- Provide sound insulating exterior walls and roofing systems.
- Locate and/or design attic vents to minimize sound propagation into each home.
- Provide forced-air ventilation systems.
- Provide the necessary setbacks for dwelling units fronting along major roadways.

NOI PDF-2 The Project will comply with California Title 24 building insulation requirements for exterior walls, roofs and common separating assemblies (e.g. floor/ceiling assemblies and demising walls).

NOI PDF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors will have a positive seal and leaks/cracks must be kept to a minimum.

NOI PDF-4 The final building plans will ensure that heating, ventilation, and air conditioning (HVAC) units are not located within an area of the Project site that would contribute to a noise level exceedance at any adjacent property line, per the City of Eastvale Municipal Code requirements. To meet the City's noise standards the following measures should be followed:

- All HVAC equipment shall be shielded or enclosed from the line of sight of adjacent residential uses.
- The combined noise level of all units operating simultaneously shall not exceed the City of Eastvale daytime and nighttime exterior standards at the nearest surrounding property lines.

NOI PDF-5 Future residents, property management personnel, and commercial tenants will be required to comply with the City of Eastvale Municipal Code Noise Regulations, Chapter 8.52, which specify that no person shall create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness.

To help ensure compliance with the City's Noise Regulations, the following recommendations are provided:

- Deliveries, loading and unloading activities, and trash pick-up hours should be limited to daytime hours only (8 a.m. – 10 p.m.).

- Limit engine idling time for all delivery vehicles and moving trucks to 5 minutes or less.

Therefore, no new significant impacts or increase in severity of impacts would occur from long-term operation of the Modified Project.

The Noise Study prepared for the Modified Project analyzed potential construction noise impacts. The Noise Study analyzes potential noise impacts during all expected phases of construction, including, demolition, site preparation, grading, building construction, paving, and architectural coating. Noise levels are calculated based on an average distance of equipment over a 1-hour period to the nearest adjacent property. Demolition activities are expected to occur at approximately 50 feet from the nearest existing residential uses to the north. Therefore, noise levels from demolition activities are analyzed at 50 feet. Noise levels from all other construction activities are conservatively estimated from 200 feet, whereas, in reality, the degree of construction noise will vary depending on the type of construction activity taking place and the location of the activity relative to the surrounding properties.

The proposed Project includes several Project Design Features that would further reduce construction noise levels, as follows:

NOI PDF-6 The Project will prepare a construction management plan and obtain a construction work permit from the City of Eastvale prior to starting construction. The construction management plan will ensure all contractors implement construction best management practices to reduce construction noise levels. Examples of best management practices may include the following:

- All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).

- Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible.

- If feasible, electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load.

- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.

- Locate staging area, generators and stationary construction equipment as far from the adjacent residential homes as feasible.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

- Provide notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator.

- Construction activities shall not take place between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. to 7:00 a.m. during the months of October through May.

NOI PDF-7 The Project will not include pile driving or blasting activities during construction. If impact pile driving or blasting is required, a follow-up noise and vibration impact assessment will be conducted prior to start of any activity.

The following table summarizes construction noise levels and documents that construction noise would not cause a significant impact.

Table 18. Project Construction Noise Levels[36]

Phase	Equipment	Quantity	Equipment Noise Level (dBA Leq)	Combined Noise Level (dBA Leq)
Demolition[2]	Concrete/Industrial Saw	1	74.8	84.6
	Excavators	3	76.7	
	Rubber Tired Dozers	2	77.7	
Site Preparation[1]	Rubber Tired Dozers	3	65.6	75.6
	Tractors/Loaders/Backhoes	4	68.0	
Grading[1]	Excavators	2	64.7	76.2
	Graders	1	69.0	
	Rubber Tired Dozers	1	65.6	
	Scrapers	2	67.6	
	Tractors/Loaders/Backhoes	2	68.0	
Building Construction[1]	Cranes	1	60.6	74.2
	Forklifts	3	59.0	
	Generator Sets	1	65.6	
	Tractors/Loaders/Backhoes	3	68.0	
	Welders	1	58.0	
Paving[1]	Pavers	1	62.2	67.3
	Paving Equipment	1	61.0	
	Rollers	2	61.0	
Architectural Coating[1]	Air Compressors	1	61.6	61.6
Worst Case Construction Phase Noise Level – Leq (dBA)				84.6
FTA Construction Noise Criteria (General Assessment)				90.0
Noise level exceeds FTA criteria?				**NO**

[1] Construction Noise Levels are analyzed at 200 feet

[2] Demolition noise levels are conservatively analyzed at 50 feet. Noise level does not take into account of existing six (6) foot wall along residential uses to the north.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts were originally determined to be significant and unavoidable, however subsequent analysis prepared for the Modified Project with implementation of Project Design Features determined impacts are less than the Original Project and less than significant.

The Prior EIR included Mitigation Measures MM 3.6.1 and 3.6.3, which requires a Project-specific acoustical assessment and a construction-related noise mitigation plan, respectively. Mitigation Measure MM 3.6.1 and Mitigation Measure MM 3.6.3

[36] dBA Leq = Equivalent Continuous Level ;Table 11, from "Leal Master Plan Amendment Noise Impact Study," prepared by RK Engineering Group, Inc., dated December 21, 2021.

have been satisfied with the Project specific Noise Analysis prepared for this Addendum (Appendix I). The Prior EIR included Mitigation Measure MM 3.6.4, which includes several requirements very similar to the PDFs included in the Project Description. Mitigation Measure 3.6.4 would continue to apply to the Modified Project.

b) The Prior EIR concluded the Original Project would have a less than significant impact from groundborne vibration with implementation of Mitigation Measure MM 3.6.2, which requires preparation of a vibration assessment for construction activities. The Noise Study prepared for the Modified Project (Appendix I) includes a groundborne vibration assessment of the Modified Project, which satisfies Mitigation Measure MM 3.6.2. The construction of the proposed Project is not expected to require the use of substantial vibration inducing equipment or activities, such as pile drivers or blasting. The main sources of vibration impacts during construction of the Project would be the operation of equipment such as bulldozer activity during demolition, scrapers and loading trucks during grading and excavation, and vibratory rollers during paving. Based on standard construction equipment, vibration impacts would be less than significant as shown in the following table.

Table 19. Construction Vibration Impact Analysis[37]

Construction Activity	Distance to Nearest Structure (ft)	Duration	Calculated Vibration Level - PPV (in/sec)	City of Eastvale Vibration Threshold- PPV (in/sec)	Significant Impact
Large Bulldozer	100	Continuous/Frequent	0.019	0.0787	NO
Vibratory Roller	100	Continuous/Frequent	0.046		NO
Loaded Trucks	100	Continuous/Frequent	0.017		NO
Caisson Drilling	100	Continuous/Frequent	0.019		NO

The Noise Study prepared for the Modified Project provides greater site-specific detail and analysis than the information presented in the Prior EIR, but this is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. Therefore, the analysis and conclusions presented in the Prior EIR remain unchanged for the Modified Project and no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant. Mitigation Measure MM 3.6.2 requiring preparation

[37] PPV = peak particle velocity; Table 13, from "Leal Master Plan Amendment Noise Impact Study," prepared by RK Engineering Group, Inc., dated December 21, 2021.

of a vibration assessment has been satisfied and is no longer applicable to the Modified Project.

c) The Modified Project site is not located near a public or private airport or airstrip; therefore, the Modified Project would not alter the analysis or conclusions presented in the Prior EIR. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: Several mitigation measures have already been satisfied and are shown in light grey format. The mitigation measures applicable to the Modified Project that remain in place are listed below.

MM 3.6.1 An acoustical assessment shall be prepared that evaluates potential environmental noise impacts associated with the proposed project. Where the acoustical analysis determines that noise levels would exceed applicable City noise standards, noise reduction measures shall be identified and included in the project.

Timing/Implementation: *Prior to approval of development plan or project*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.6.2 A vibration assessment shall be prepared for construction projects that would involve the use of major vibration-generating equipment (e.g., pile drivers, vibratory rollers) within 200 feet of existing structures. Measures to reduce ground vibration levels shall be identified for any potential vibration impacts exceeding a vibration threshold of 0.2 in/sec ppv.

Timing/Implementation: *Prior to approval of development plan or project*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.6.3 A construction-related noise mitigation plan shall be submitted to the City for review and approval prior to issuance of a grading permit. The plan shall depict the location of construction equipment and specify how the noise from this equipment will be mitigated during construction of the project.

Timing/Implementation: *Prior to issuance of grading permit*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.6.4 The following mitigation measures shall be implemented and specified on all project construction plans:

a) Clearing and construction activities shall be conducted outside of 6:00 p.m. and 6:00 a.m. during the months of June through September, and outside of 6:00 p.m. and 7:00 a.m. during the months of October through May. (Municipal Code Chapter 8.52, Noise Regulation).
b) All construction equipment shall be kept properly tuned and use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.
c) Construction equipment staging areas shall be centrally located on the Project site or located at the farthest distance possible from nearby residential land uses.
d) All motorized construction equipment and vehicles shall be turned off when not in use.

Timing/Implementation: *During construction activities, noted on all project construction plans*

Enforcement/Monitoring: *City of Eastvale Planning Department*

Conclusion: A Project-specific Noise and Vibration Study was prepared for the Modified Project, including Project Design Features. This Study provides greater site-specific detail and analysis than the information presented in the Prior EIR but this is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR. The additional analysis performed for the Modified Project introduces additional evidence in the record that impacts from the Modified Project would be less than the Original Project and less than significant. Therefore, where the Prior EIR had concluded a significant unavoidable impact, the analysis of the Modified Project documents that impacts would be less than significant. Mitigation Measure MM 3.6.4 from the Prior EIR remains applicable and Mitigation Measures 3.6.1, 3.6.2, and 3.6.3 have been satisfied by the Noise Study prepared for the Modified Project. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts from the Modified Project would be less than significant with mitigation.

2.14 Population and Housing

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
POPULATION AND HOUSING. Would the project:				
d) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☒	☐
e) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☐

Discussion: The Prior EIR concluded:

> "…that while the proposed Leal Master Plan would facilitate growth on the project site, the growth would be an implementation of the long-range planning process for the project site as envisioned in the City's General Plan. The project would be consistent with the City's General Plan policies and goals intended to promote smart growth. The project requires no mitigation measures to conclude that no impact would occur or impacts would be less than significant and less than cumulatively considerable."[38]

The Original Leal Master Plan allows for residential medium density (14–21 units per acre) with no minimum or maximum and residential high density (22–40 units per acre) with a minimum of 500 dwelling units and a maximum of 660 dwelling units. The Modified Project proposes residential development up to 2,500 dwellings units, which is consistent with the flexibility and mix of uses specified in the Original Leal Master Plan and General Plan.

The State Legislature has declared that California has a housing crisis, and the Legislature has taken steps to encourage the production of additional housing. Through California Government Code Section 65584, the State and Southern California Association of Governments (SCAG) determines a Regional Housing Needs Assessment (RHNA), which is a number of dwelling units local jurisdictions must accommodate through zoning and policies. The City of Eastvale has a RHNA of 3,028 dwelling units from 2021 to 2029. The Modified Project is one component of the City's ability to reach its RHNA target.

[38] Leal Draft Master Plan EIR, July 2015, Section 3.12.1, Page 3.12-1

The Project site has several houses owned by one landowner who is voluntarily selling the property. Therefore, no residents would be unwillingly displaced. Therefore, the Modified Project would not displace people or housing, or induce substantial unplanned population growth or create a need for replacement housing. The analysis and conclusions presented in the Prior EIR remain unchanged for the Modified Project.

a) The Modified Project would provide population growth consistent with the Original Leal Master Plan analyzed in the Prior EIR. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Project site has several houses owned by one landowner who is voluntarily selling the property. Therefore, no residents would be unwillingly displaced. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The analysis and conclusions presented in the Prior EIR remain unchanged. The Modified Project provides residential housing consistent with the Original Leal Master Plan and consistent with the City's General Plan and its policies. Population growth is not unplanned and growth anticipated as a result of the Master Plan is an implementation of the long-range planning process for the site as envisioned in the City's General Plan. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.15 Public Services

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☒	☐
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

Discussion: The Prior EIR analyzed impacts on public services including, fire protection, police protection, schools, parks, and other public facilities, and concluded impacts would be less than significant. In general, the potential for impacts to public services is based on population growth. The larger the population increase, the more demand is generally placed on public services. The number of residential dwelling units identified in the Modified Project is consistent with the Original Leal Master Plan, but greater than analyzed in the Prior EIR.

a) The analysis and conclusions presented in the Prior EIR remain unchanged as follows:

i) Fire Protection: The Prior EIR stated that the Project site would be served within standard response times by existing stations. At the request of the City and not in order to reduce response times to the Project site, the Modified Project includes dedication of 1.22 acres at the corner of Scholar Way and 58th Street for a new fire station. The City has funding to construct the fire station, resulting in greater fire protection services and lower response times to the Project site than analyzed in the Prior EIR. The Original Project planned for 100,000 square feet of civic center uses and the Modified Project proposes approximately 75,000 square feet of civic center uses, consistent with the Original Leal Master Plan. The proposed fire station is approximately 12,200 square feet and combined with the other proposed civic center uses remains less than the 100,000 square feet analyzed in the Prior EIR.

The Project site is not located in a high fire hazards area and the Modified Project is not gated, thereby allowing for unrestricted emergency access. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

ii) Police Protection: The Riverside County Sheriff's Department (RCSD) provides police protection services to the City of Eastvale. Police response times do not come from a fixed location, like a fire station, because RCSD is continuously on patrol throughout the City. The Prior EIR indicated that the City of Eastvale is served by approximately 18 patrol officers operating from the Jurupa Valley Station[39]. At the request of the City, the Modified Project includes a proposal to dedicate several acres of land to the City for the construction of a new Civic Center campus, which would include City Hall, a Library, and a Police Station. While police services would continue to be provided by RCSD, a new Police Station in the City would serve as the law enforcement headquarters for the City instead of deputies stationed at the Jurupa Valley Station. The Modified Project would dedicate the land for the Police Station and the City has funds to construct and operate the facility. The Original Project planned for 100,000 square feet of civic center uses and the Modified Project proposes 75,000 square feet of civic center uses, consistent with the Original Leal Master Plan.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

iii) Schools: The Prior EIR determined student generation from the Original Project would constitute a less than significant impact. Furthermore, Pursuant to Government Code Section 65996, mitigation of impacts on school facilities is limited to the imposition of statutory school fees. The Modified Project would cause an increase in student enrollment in the Corona-Norco Unified School District (CNUSD). The Prior EIR indicates that enrollment at Harada Elementary School exceeds capacity and enrollment at Eleanor Roosevelt High School is projected to exceed capacity in 2024. According to CNUSD facilities staff, enrollment within CNUSD is declining within the center of the District in the Corona and Norco areas, and increasing in the perimeter of the District, in Eastvale and the Temescal Valley. The CNUSD is analyzing the additional students from the Modified Project and considering whether potential changes to school attendance boundaries would be necessary.[40]

Given the payment of school fees pursuant to Government Code Section 65996 and the ability of CNUSD to adjust attendance boundaries as necessary, no new significant impacts or substantial increase in the severity of significant impacts would occur with

[39] Leal Draft Master Plan EIR, July 2015, Section 3.13.2, Page 3.13-3
[40] Personal Communication with CNUSD facilities staff on December 2, 2021

the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

iv) Parks: The Prior EIR concluded that future development on the Project site would be required to comply with City standards including General Plan Policy OS-6, which states that new residential developments would be required to, at a minimum, provide parks consistent with the Quimby Act (California Government Code Section 66477), through land dedication, fees in lieu, or on-site improvements . The Modified Project is subject to the City's policies and regulations, similar to the Original Project and therefore, would not change the conclusions presented in the Prior EIR. Furthermore, the Modified Project has identified approximately 14 acres of parkland, for which the construction and operation of has been analyzed in this Addendum. At the time of the Stage 3 planning process, that amount of park acreage will be assessed against the City's Quimby Act requirement and if a shortfall exists, additional parkland may be added on-site to the Modified Project and/or park fees will be paid.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

v) Other Public Facilities: Other public facilities include libraries and government offices. The Prior EIR determined that impacts to Other Public Facilities from the Original Project would be less than significant. The Modified Project proposes to dedicate land to the City for civic center uses including a new Library and City Hall. This dedication of land would allow the City to expand City Hall and provide a state of the art library within the City. The Original Project planned for 100,000 square feet of civic center uses and the Modified Project proposes 75,000 square feet of civic center uses, consistent with the Original Leal Master Plan.

Therefore, no new impacts or intensification of impacts to other government facilities would occur as a result of the Modified Project and impacts are less than significant.

Mitigation Measures: No mitigation required.

Conclusion: No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.16 Recreation

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
RECREATION. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☒	☐

Discussion: The City of Eastvale General Plan Policy OS-6 states that new residential developments would be required to, at a minimum, provide parks consistent with the Quimby Act (California Government Code Section 66477), through land dedication, fees in lieu, or on-site improvements. The Modified Project provides approximately 14 acres of parkland for which the construction and operation of has been analyzed in this Addendum. At the time of the Stage 3 planning process, that amount of park acreage will be assessed against the City's Quimby Act requirement and if a shortfall exists park fees will be paid. Therefore, the Modified Project would not cause any new or more intense impacts on recreation facilities as compared to the Prior EIR.

a) The Prior EIR concluded that future development on the Project site would be required to comply with City standards including General Plan Policy OS-6, which states that new residential developments would be required to, at a minimum, provide parks consistent with the Quimby Act (California Government Code Section 66477), through land dedication, fees in lieu, or on-site improvements. Since the Modified Project would continue to satisfy local park code requirements through the provision of park acreage and/or payment of park fees, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Prior EIR concluded that future development on the Project site would be required to comply with City standards including General Plan Policy OS-6, which states that new residential developments would be required to, at a minimum, provide parks consistent with the Quimby Act (California Government Code Section 66477), through land dedication, fees in lieu, or on-site improvements. The Modified Project does not trigger the need to construct new or expand existing park or recreation facilities beyond the Project boundaries because the local park code requirement would be satisfied by the creation of on-site parks and/or payment of park fees. The Modified Project currently proposes approximately 14 acres of new on-site parkland.

Since the Modified Project would continue to satisfy local park code requirements, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The analysis or conclusions presented in the Prior EIR remain unchanged for the Modified Project. The Modified Project will comply with the City's local park code requirement through provision of approximately 14 acres of on-site parkland and/or payment of in-lieu fees, which offsets any increase in demand for park or recreation facilities associated with the Modified Project. Therefore, no additional demands on recreation would be created as part of the Modified Project, and no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.17 Transportation/Traffic

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Discussion: The Prior EIR included a Traffic Impact Analysis (TIA) prepared by Fehr and Peers for the Original Project. The TIA determined that with implementation of mitigation measures, traffic volumes from the Original Project would result in direct significant and unavoidable impacts to three roadway segments and cumulatively significant and unavoidable impacts to four roadway segments.

It should be noted that at the time the Prior EIR was prepared, traffic analysis and impacts were based on how roadway intersections and segments function. Traffic studies used a volume to capacity (V/C) methodology to calculate the level of service (LOS) of intersections and roadway segments. Following certification of the Prior EIR, the State Legislature adopted Senate Bill 743 (SB 743), which revised the CEQA Guidelines to add Section 15064.3, removing roadway function as the basis for analysis and replacing it with an analysis of vehicle miles traveled (VMT).[41] The premise is the fewer vehicle miles traveled the less impact would occur to the roadway network. Automobile delay, as described by LOS or similar measures of vehicular capacity or traffic congestion, is no longer considered a significant impact on the environment under CEQA under Public Resources Code section 21099 and case law. (Citizens for Positive Growth & Preservation v. City of Sacramento (2019) 43 Cal.App.5th 609).

[41] The adoption of guidelines for analyzing and evaluating the significance of data does not constitute new information if the underlying information was otherwise known or should have been known at the time the EIR was certified. *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301

A traffic study was prepared for the Modified Project titled, "*Leal Master Plan Amendment Project Traffic Study*," by RK Engineering Group, Inc., and dated November 17, 2021 (Appendix J). Since the Prior EIR was based on a LOS analysis, the Traffic Study for the Modified Project includes a LOS analysis for informational purposes and for the City's discretionary review and approval process, as well as a VMT analysis to be consistent with the current CEQA Guidelines. The Traffic Study for the Modified Project relied on the development mix presented in the Project Description.

Trip generation is the number of vehicle trips generated on a daily (24 hour) basis. The trip generation for each land use is obtained from the Institute of Traffic Engineers (ITE), which is the industry standard. The following table shows a comparison of the trip generation for the Modified Project compared to the Original Project. As shown in this table, the Modified Project reduces the number of daily vehicle trips by 27,764.

Table 20. Modified Project Net Trip Generation Compared to Leal Specific Plan TIA[42]

Land Use	AM			PM			Daily
	In	Out	Total	In	Out	Total	
Modified Project	765	1,066	1,831	1,726	1,605	3,331	36,652
Leal Specific Plan TIA (Fehr & Peers, May 12, 2015)	2,120	911	3,030	2,569	3,740	6,309	64,416
Net Difference	**-1,355**	**155**	**-1,200**	**-842**	**-2,136**	**-2,978**	**-27,764**

The Modified Project would also generate 1,200 fewer AM peak hour trips and approximately 2,978 fewer PM peak hours trips compared to the Original Project.

The Original Project analyzed the buildout of Limonite Avenue and Hamner Avenue both to six lanes. That requires the addition of a travel lane on westbound Limonite Avenue between Hamner Avenue and Scholar Way, and the addition of a southbound travel lane on Hamner Avenue between 58th Street and Limonite Avenue.

The analysis included in the Modified Project Traffic Study does not assume additional travel lanes on Limonite and Hamner. Instead, the Traffic Study assumes two travel lanes and a third drive isle associated with on-street parking for both of the Limonite and Hamner roadway segments.[43] This would reduce each segment by one travel lane compared to what was analyzed in the Prior EIR.

[42] Table 4-3, from "Leal Master Plan Amendment Project Traffic Study," prepared by RK Engineering Group, Inc., dated November 17, 2021.

[43] An early design of the Modified Project proposed two westbound lanes on Limonite with on-street parking and two southbound lanes on Hamner with on-street parking. Shortly before publication of this Addendum the Modified Project was revised to eliminate on-street parking from both Limonite and Hamner and provide three travel lanes on westbound Limonite and three travel lanes on southbound Hamner. Since this late project revision adds more roadway capacity, similar to the Original Project, the

The Modified Project Traffic Study documents within Tables 6-1 and 6-2 that in the existing plus Project conditions and in the cumulative conditions, the Modified Project with two travel lanes on Limonite and Hamner would have a reduced volume to capacity ratio than the Original Project. The result of this study is that the reduction in the trip generation associated with the Modified Project is sufficient to improve the function of Limonite and Hamner with only two travel lanes on each roadway segment, compared to the Original Project. Therefore, the traffic impacts would remain significant and unavoidable, however the Modified Project would reduce the intensity of the impact.

It should be noted that the Modified Project does not propose only two travel lanes on Limonite and Hamner as analyzed in the Traffic Study. As shown on Tentative Tract Map No. 38290, both segments of Limonite and Hamner include three travel lanes, a median, and an access road serving on-street diagonal parking. The Traffic Study analyzed the "worst-case scenario" of only two travel lanes. The Modified Project as proposed with three travel lanes will only improve traffic conditions compared to the Original Project and represented in the TIA for the Modified Project.

Following certification of the Prior EIR, SB 743 was adopted, which changed how traffic is analyzed. Instead of V/C and LOS, traffic analysis in CEQA is now based on VMT. The City's VMT Guidelines state:

> "Residential and office projects located within a low VMT-generating area, as identified in the WRCOG screening tool, may be presumed to have a less than significant impact. In addition, other employment-related and mixed-use land use projects may be screened if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area"

Based on the Western Riverside Council of Governments (WRCOG) VMT screening tool, the Project is located in a low-VMT area because both the residential home-based VMT and home-based work VMT for this area are less than the City of Eastvale city-wide average. Furthermore, the Project consists of residential, employment and retail uses similar in nature to the existing land uses surrounding the site (which also consist of residential and commercial uses). Therefore, the Project would be expected to exhibit similar VMT patterns as the existing uses and utilization of the WRCOG screening maps is appropriate for screening purposes. Lastly, the Modified Project also includes an extensive network of sidewalks and trails to promote and encourage non-motorized mobility, which further reduces VMT.

Leal Master Plan Amendment Project Traffic Study was not updated with the additional travel lanes because the Traffic Study analysis a more conservative and constrained roadway network. The revisions to the Modified Project provide greater roadway capacity, which would further reduce traffic impacts.

A comparison of VMT generated from the Modified Project to the Original Project was performed using CalEEMod. The analysis determined the Modified Project would generate less VMT than the Original Project as shown in the following table.

Table 21. Comparison of VMT from the Modified Project to the Original Project[44]

Scenario	Total Annual VMT (CalEEMod)
Current Project	68,221,050
2015 Project	150,029,705
Delta	-81,808,655

a) The Prior EIR analyzed consistency with adopted plans and policies through a LOS analysis of roadway segments and intersections. The Prior EIR concluded the Original Project would result in significant unavoidable impacts after mitigation because several intersections with operate at deficient LOS standards in conflict with the City's plans and policies.

The Modified Project would reduce trip generation by approximately 27,764 daily trips compared to the Original Project. The Traffic Study for the Modified Project determined that the Modified Project would continue to cause intersections to operate at deficient LOS compared to City policies, however the Modified Project would cause a less intensive significant impact than the Original Project.

The Prior EIR included three mitigation measures, which were part of the original LOS analysis and remain applicable to the Modified Project even though the CEQA Guidelines have changed to a VMT metric. Mitigation Measure MM 3.2.1a and 3.2.1c require the widening of Limonite and Hamner to three lanes, respectively. These two mitigation measures remain applicable to the Modified Project and have been incorporated into the Modified Project design as shown on TTM 38290. Mitigation Measure MM 3.2.1b requires a focused traffic study for the proposed Project. This mitigation measure has been satisfied by the Traffic Study prepared for the Modified Project.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain significant and unavoidable with mitigation incorporated.

[44] "Leal Master Plan Amendment Project Traffic Study," prepared by RK Engineering Group, Inc., dated November 17, 2021

b) The Western Riverside County Council of Governments (WRCOG) has developed a screening tool for VMT analysis. Based on the WRCOG screening tool, the Project site is located within a low VMT generating zone. Land use projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. Utilizing the WRCOG Screening Tool, the Modified Project is located within a low-VMT generating zone based on residential home-based VMT and home-based work VMT. As a result, the Modified Project is exempt from further VMT analysis and the Project consists of residential, employment and retail uses similar in nature to the existing land uses surrounding the site (which also consist of residential and commercial uses). Therefore, the Project would be expected to exhibit similar VMT patterns as the existing uses and utilization of the WRCOG screening maps is appropriate for screening purposes. Lastly, the Modified Project also includes an extensive network of sidewalks and trails to promote and encourage non-motorized mobility, which further reduces VMT. Refer to Attachment A of Appendix J. Therefore, the Modified Project is consistent with CEQA Guidelines Section 15064.3.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would be less than significant.

c) The Prior EIR determined the Original Project would not increase hazards because of design or incompatible uses. The Modified Project relies on roadway networks consistent with City standards and similarly proposes a mix of land uses. Furthermore, the Traffic Study prepared for the Modified Project did not identify any hazardous design features. Additional engineering details will be added during the Stage 3 planning process and those engineering details will be reviewed and checked against adopted standard plans and design criteria for roadway design.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

d) The Modified Project is surrounded by four City streets all of which provide emergency access. The Modified Project proposes to improve all four perimeter roadways to City standards. The Modified Project also proposes to dedicate 1.22 acres for a future fire station.

The Modified Project includes less intensive development than the Original Project by reducing trip generation by 27,764 average daily vehicle trips. The Modified Project would improve the surrounding circulation system with additional travel lanes as contemplated in the Original Project and the Modified Project would contribute to fewer local roadway trips than the Original Project helping to improve emergency access and circulation in the area. The Modified Project would complete street improvements on all four surrounding streets as proposed under the Original Project.

Therefore, as a result of the Modified Project proposing less intensive development than the Original Project and proposing to complete the surrounding street system, no new impacts would occur, and the conclusions presented in the Prior EIR remain unchanged.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: Several measures have already been satisfied and are shown in light grey format. The mitigation measures applicable to the Modified Project that remain in place are listed below.

MM 3.2.1a Fair share of funding shall be paid for widening Limonite Avenue along the Project frontage from two to three lanes in each direction. Funding shall be determined and paid via the Riverside County Transportation Uniform Mitigation Fee (TUMF). Project plans and/or phasing shall establish the timing of this improvement to ensure it is in place prior to LOS D operations and consistent with the Master Plan's infrastructure phasing provisions.

Timing/Implementation: *Prior to approval of development plan or project*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.2.1b A focused traffic study shall be prepared that demonstrates the project's consistency with the transportation impact assessment (TIA) for the Leal Master Plan prepared by Fehr & Peers (2015). The traffic study shall assess the following:

- Parking;
- Site access and on-site circulation;
- Interaction of driveways with adjacent intersections (if appropriate);
- Impacts on local intersections;
- Impacts to pedestrian, transit, and bicycle facilities; and
- Trip generation monitoring study to ensure that, as land develops in the Leal Master Plan area, the total development generates traffic at or below the levels assumed in this Draft EIR.

Timing/Implementation: *Prior to approval of development plan or project*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.2.1c Hamner Avenue shall be widened between Limonite Avenue and Bellegrave Avenue to three lanes in each direction either directly or through fair-share funding as determined by infrastructure and/or facility financing plans approved for the Leal Master Plan. Project plans and/or phasing shall establish the timing of this improvement to ensure it is in place prior to LOS F operations and consistent with infrastructure phasing provisions established as part of Master Plan implementation.

Timing/Implementation: *Prior to approval of development plan or project*

Enforcement/Monitoring: *City of Eastvale Planning Department*

Conclusion: The changes associated with the Modified Project would reduce trip generation by approximately 27,764 average daily trips. Level of service impacts would remain significant and unavoidable; however, the Modified Project would reduce the severity of the significant impact. As evaluated again the new SB 743 standards, the Modified Project is consistent with CEQA Guidelines section 15064.3 and impacts would be less than significant. The Prior EIR included three mitigation measures. Mitigation Measure MM 3.2.1a and 3.2.1c require the widening of Limonite and Hamner to three lanes, respectively. These two mitigation measures remain applicable to the Modified Project. Mitigation Measure MM 3.2.1b requires a focused traffic study for the proposed Project. This mitigation measure has been satisfied by the Traffic Study prepared for Modified Project and is therefore no longer applicable.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain significant and unavoidable.

2.18 Tribal Cultural Resources

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☒	☐

Discussion: Since preparation of the Prior EIR, CEQA Guidelines Appendix G has been revised to include a specific section on Tribal Cultural Resources.[45] The Prior EIR analyzed potential impacts associated with tribal cultural resources in the Cultural Resources section. The Prior EIR concluded that potential impacts to cultural resources would be less than significant with mitigation. No changes to the analysis or conclusions presented in the Prior EIR would occur for the Modified Project.

Notification pursuant to State Bill (SB) 18 and Assembly Bill (AB) 52 was distributed to the Native American Heritage Commission and local tribes as part of the Prior EIR. SB 18 requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving

[45] The adoption of guidelines for analyzing and evaluating the significance of data does not constitute new information if the underlying information was otherwise known or should have been known at the time the EIR was certified. *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301

traditional tribal cultural places. The Final Tribal Guidelines recommend that the Native American Heritage Commission (NAHC) provide written information as soon as possible but no later than 30 days after receiving notice of the Project to inform the lead agency if the proposed Project is determined to be in proximity to a traditional tribal cultural places (TTCP) and another 90 days for tribes to respond to a local government if they want to consult with the local government to determine whether the project would have an adverse impact on the TTCP. Per SB 18, the law requires a city or county to consult with the NAHC and any appropriate Native American tribe for the purpose of preserving relevant TTCP prior to the adoption, revision, amendment, or update of a City's or County's general plan.

AB 52 took effect July 1, 2015 and incorporates tribal consultation and analysis of impacts to tribal cultural resources (TCR) into the CEQA process. It requires TCRs to be analyzed like any other CEQA topic and establishes a consultation process for lead agencies and California tribes. A significant impact on a TCR is considered a significant environmental impact, requiring feasible mitigation measures.

Consultation with the Soboba Band of Luiseno Indians occurred on May 21, 2015. The Prior EIR concluded that a potential for archaeological and paleontological resources exists and included mitigation measures to reduce impacts to a less than significant level.

The potential for tribal cultural resource impacts depends on the area of impact and the condition of the Project site. The Modified Project would not change the area of impact or grading limits compared to the Original Project. Furthermore, Project site conditions for tribal cultural resources have not changed since preparation of the Prior EIR. Therefore, the analysis and conclusions presented in the Prior EIR remain valid and unchanged.

a, b) During preparation of the Prior EIR, the City consulted with the Native American Heritage Commission in accordance with AB 52 and SB 18. No additional consultation has occurred. The Prior EIR conducted archaeological record surveys, which did not identify known tribal, cultural, or paleontological resources on the Project site. However, since site-specific surveys were not conducted as part of the Prior EIR, the Prior EIR included several mitigation measures and determined impacts would be less than significant with implementation of the mitigation measures.

This Addendum includes preparation of the Cultural and Paleontological Resources Assessment prepared for the Modified Project (*Cultural and Paleontological Resources Assessment, October 2021,* prepared by Duke CRM; Appendix D), which included additional record searches and an extensive pedestrian field survey of the Project site over two days on June 17 and June 18, 2021. No archaeological resources were identified on the Project site from the records search or the field surveys. The Cultural and Paleontological Resources Assessment concluded that a low sensitivity exists for

archaeological resources to occur on-site and therefore, no archaeological monitoring is required during site disturbance activities, such as grading.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Several of the mitigation measures included in the Prior EIR have been satisfied with the detailed Cultural and Paleontological Resources Assessment prepared for the Modified Project. Impacts would remain less than significant with mitigation.

Mitigation Measures: Several measures have already been satisfied and are shown in light grey format. The mitigation measures applicable to the Modified Project that remain in place are listed below.

MM 3.8.1 A detailed cultural resources field survey of the subject property shall be conducted prior to approval of the project. The cultural resources field survey shall identify any cultural resource finds and will set out measures to mitigate any impacts to any significant resources as defined by CEQA, the California Register of Historical Resources, and/or the National Historic Preservation Act. Mitigation methods to be employed include but are not limited to the following:

- Redesign of the development project to avoid the resource. The resource site shall be deeded to the City or a nonprofit agency to be approved by the City for maintenance of the site.
- If avoidance is determined to be infeasible by the City, the resource shall be mapped, stabilized, and capped pursuant to appropriate standards.
- If capping is determined to be infeasible by the City, the resource shall be excavated and recorded to appropriate standards.

Timing/Implementation: *Prior to approval of development plan or project*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.8.2 If cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered during grading or construction activities in the Project area, work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery.

The City shall consider mitigation recommendations presented by a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history for any unanticipated discoveries. The City and the Project applicant of the site where the discovery is made shall consult and agree on implementation of a measure or measures that the City deems feasible. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The Project applicant shall be required to implement any mitigation necessary for the protection of cultural resources.

Timing/Implementation: *As a condition of project approval and implemented during grading and/or construction activities*

Enforcement/Monitoring: *City of Eastvale Planning Department*

MM 3.8.3 If human remains are discovered during any ground-disturbing activities in the Project area, all work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and the Riverside County Coroner must be notified per California Public Resources Code Section 7050.5 and California Health and Safety Code Section 5097.98. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.

Timing/Implementation: *As a condition of project approval and implemented during grading and/or construction activities*

Enforcement/Monitoring: *City of Eastvale Planning Department*

Conclusion: The Modified Project would not change the limits of disturbance or grading, which encumbers the entire site, therefore the analysis and conclusions presented in the Prior EIR remain unchanged. Mitigation Measure MM 3.8.1 has been satisfied and no new mitigation is necessary. While determined to be highly unlikely, Mitigation Measures MM 3.8.2 and MM 3.8.3 would remain applicable to the Modified Project. Impacts would remain less than significant with mitigation.

2.19 Utilities and Service Systems

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Discussion: The Prior EIR determined impacts from the Original Project on utility and service systems would be less than significant. The following site-specific utility studies were prepared for the Modified Project.

- "*Sewer System Development Analysis*" prepared by Hunsaker & Associates Irvine, Inc. dated December 6, 2021, is included in Appendix K.
- "*Water Supply Assessment*" dated December 2021, prepared by Kimley Horn is included in Appendix L.
- "*Preliminary Hydrology Analysis for Leal Ranch (Tentative Map No. 38290)*" prepared by Hunsaker & Associates Irvine, Inc., and dated November 29, 2021 (Appendix G).
- "*Preliminary Water Quality Management Plan (PWQMP) for Tentative Map No. 38290*," prepared by Hunsaker & Associates Irvine, Inc., and dated November 29, 2021 (Appendix H).

These studies provide greater site-specific detail and analysis than the information presented in the Prior EIR, but this is not a substantial change with respect to the circumstances under which the project is undertaken or new information that was not known and could not have been known with the exercise of reasonable diligence at the time of the Prior EIR.

a, c) The Prior EIR concluded sufficient capacity exists for wastewater treatment from the Original Project and impacts would be less than significant. The Project site lies within the jurisdiction of Jurupa Community Services District (JCSD) for wastewater treatment. In August 2021, JCSD provided a preliminary hydraulic analysis of the existing sewer system to that would be impacted by the Modified Project. The analysis determined the maximum average daily sewer generation from the Modified Project without causing downstream sewer capacity issues or requiring upsizing of sewer lines. The analysis determined a maximum of 555,000 gallons per day (gpd) from the Modified Project could be accommodated within the existing sewer infrastructure without impacts. The Modified Project is estimated to generate 544,710 gpd, or 1.85% less than the maximum allowed average sewer flows from the Project site.

The Prior EIR also determined that expanded water facilities would not be required. JCSD provides domestic water and service connection points are located within the existing surrounding streets. Sufficient pressure and storage capacity exist such that no additional facilities would be required to serve the Modified Project.

As detailed in Section 2.10, storm water flows to the southwest portion of the Project site. Existing storm drain facilities exist within Limonite Ave. The Modified Project includes a subterranean detention and water quality treatment basin that will reduce peak period discharge rates to existing levels and meet the water quality standards. No new off-site storm drain or water quality infrastructure is required.

According to the Prior EIR, "Southern California Edison (SCE) currently provides electrical service to the Master Plan area and Southern California Gas Company provides natural gas service; properties surrounding the project site have already been developed and are served by existing SCE and Gas Company infrastructure. Per discussions with SCE staff, implementation of the proposed project would not be expected to require the construction of any off-site transmission or distribution infrastructure (Ditta 2015)."[46] The Modified Project would rely on electrical and natural gas service from existing facilities in surrounding streets. The existing above-ground electrical lines along Limonite would be placed underground. No additional off-site improvements are anticipated.

[46] Leal Draft Master Plan EIR, July 2015, Section 3.13.2, Page 3.13-10

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

b) The Original EIR concluded, "Furthermore, the JCSD has demonstrated capacity in its water supply and wastewater treatment systems to accommodate growth in the city, including the proposed project and future development would obtain a water/sewer availability letter from the JCSD and pay any district fees and facilities charges in order to fund any off-site improvements."[47]A Project level water supply analysis was prepared for the Modified Project. The Modified Project is of sufficient size that in accordance with Senate Bill (SB) 610 a Water Supply Assessment (WSA) is required. Appendix L includes the WSA prepared for the Modified Project.

JCSD is the water supplier for the Project site and prepared a 2020 Urban Water Management Plan (UWMP) for its service area. The UWMP analyzes growth assumptions and determines if sufficient domestic water is available to serve the growth assumptions in wet years and dry years.

The WSA relied upon duty factors supplied by JCSD in the UWMP to calculate Project Water Demand as shown in the following table.[48]

Table 22. Project Water Demand[49]

Land Use Category	Duty Factor (gpd/ac)	Area (ac)	Demand (gpd)	Demand (AFY)
Residential	3,600	82.23	296,021	331.59
Mixed Use (Residential)	3,600	14.21	51,151	57.30
Mixed Use (Commercial)	2,000	14.21	51,151	57.30
Commercial Retail	2,000	11.02	22,040	24.69
Open Space Recreation	2,000	7.16	14,312	16.03
Roadway	0	29.76	0	0
Total	--	**158.58**	**411,940**	**461.43**

The 2020 UWMP assumed future growth on the Project site and projected a water demand of 505 acre feet per year (AFY) for the Project site. Based on Table 2-2 and 2-3 from the WSA, the Modified Project will generate a water demand of approximately 461 AFY, less than the 505 AFY assumed in the 2020 UWMP.

The Prior EIR calculated a potable water demand for the Original Project. These estimates are found in Tables 3.13-1 and 3.13-2 of the Prior EIR. The projected water

[47] Leal Draft Master Plan EIR, July 2015, Section 3.13.5, Page 3.13-9
[48] Water Supply Assessment, Kimley Horn, December 2021, Table 2-2, Page 6
[49] gpd/ac = gallons per day per acre; ac=acres; gpd = gallons per day; AFY = acres feet per year. Table 2-2, from "Eastvale Leal Property Water Supply Assessment," prepared by Kimberly Horn, dated December 2021.

demand for the Original Project was 734 AFY or 470,320 gpd. In both cases the potable water demand is less for the Modified Project compared to the Original Project. Furthermore, the WSA determined that sufficient water supplies are available to service this project during normal, dry, and very dry years.

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

c) The Prior EIR determined, "The JCSD has a 3.25 million gallons per day (mgd) capacity right, although the ultimate estimated flow rate from the JCSD to the plant is projected to be 5.7 mgd, based on the projections in the 2007 Master Sewer Plan Addendum. This represents an increase of 2.45 mgd and would still be below the operating capacity of 8.0 mg. The JCSD has a proposed project in its 20-year Capital Improvement Program to obtain additional treatment capacity at the WWTP (JCSD 2011, p.57). As of 2007, the plant was not operating at capacity (treating approximately 5.5 mgd), and the JCSD obtaining additional treatment capacity to accommodate growth in its service area would not necessarily result in expansion of the WWTP. Potential impacts resulting from additional treatment capacity would be subject to CEQA review if necessary."[50]

As demonstrated in the "*Sewer System Development Analysis*" prepared by Hunsaker & Associates Irvine, Inc. dated December 6, 2021, and included in Appendix K, JCSD determined the maximum allowed average daily flows from the Project site would be 555,000 gpd, which accounts for transmission pipe capacity and treatment capacity. The Modified Project is planned to generate 544,710 gpd or 1.85% less than the maximum allowed sewer flows from the site.[51]

Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

d – e) The Prior EIR determined impacts from solid waste would be less than significant since each of the landfills serving the Project site have remaining capacity over 179 million cubic yards.[52] The Modified Project proposes less development intensity, likely resulting in equal or less solid waste generation. Furthermore, the Modified Project would be required to comply with applicable waste reduction regulations found in AB 939, the Green Building Code, and the Eastvale Municipal Code, which apply restrictions to solid waste disposal. Therefore, no new significant impacts or substantial

[50] Leal Draft Master Plan EIR, July 2015, Section 3.13.5, Page 3.13-8 and 9
[51] "*Sewer System Development Analysis*" prepared by Hunsaker & Associates Irvine, Inc. dated December 6, 2021, Page 2
[52] Leal Draft Master Plan EIR, July 2015, Section 3.13.6, Page 3.13-9

increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: Additional Project-specific analysis of utility systems was performed for the Modified Project. This analysis provides evidence supporting the conclusions presented in the Prior EIR. The Prior EIR determined impacts for the Original Project would be less than significant. Based on the more detailed analysis and less intensive development associated with the Modified Project, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.20 Wildfire

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
WILDFIRE. Would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☒	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Discussion: Since preparation of the Prior EIR, CEQA Guidelines Appendix G has been revised to include a specific section on Wildfire.[53] The Prior EIR analyzed potential impacts associated with wildfires in the Hazards and Hazardous Materials and Public Services sections. The Prior EIR concluded that potential impacts from wildfires would be less than significant. No changes to the analysis or conclusions presented in the Prior EIR would occur for the Modified Project.

The Project site is designated a Local Responsibility Area (LRA), which means the City of Eastvale is responsible for fire protection services[54]. The City of Eastvale contracts with Riverside County for fire protection. The Project site is not located in a fire hazard severity zone[54]. The Project site is completely surrounded by development and no wildland areas are within close proximity to the Project site[54].

[53] The adoption of guidelines for analyzing and evaluating the significance of data does not constitute new information if the underlying information was otherwise known or should have been known at the time the EIR was certified. *Concerned Dublin Citizens v. City of Dublin* (2013) 214 Cal.App.4th 1301

[54] CalFire (California Department of Forestry and Fire Protection). 2022. CalFire website. http://www.fire.ca.gov/.

a) The Prior EIR concluded the Original Project would not impair the City's ability to implement its emergency response plan or use its emergency evacuation routes. The Modified Project includes less intensive development than the Original Project. As shown in Section 2.17, the Modified Project would reduce trip generation by 27,764 average daily vehicle trips. The Modified Project would improve the surrounding circulation system with additional travel lanes as contemplated in the Prior EIR and the Modified Project would contribute to fewer local roadway trips than the Original Project. The Modified Project would complete street improvements on all four surrounding streets. Therefore, because of the Modified Project proposing less intensive development than the Original Project and proposing to complete the surrounding street system, no new impacts would occur, and the conclusions presented in the Prior EIR remain unchanged.

b) The Prior EIR determined, "The project site is not designated as a fire hazard severity zone within the Local Responsibility Area (LRA) for Eastvale (Cal Fire 2015). Therefore, no impact would occur."[55] The Project site is not located in a fire hazard severity zone[56]. The Project site is generally flat, completely surrounded by development and no wildland areas are within close proximity to the Project site per the California Depart of Forestry and Fire Protection (CalFire) website. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

c) No infrastructure that could exacerbate wildfire is proposed as part of the Modified Project. The Original Project included underground utility lines in the streets, as is proposed with the Modified Project. Underground utility lines do not pose a risk of starting or exacerbating a wildfire. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

d) The Project site is generally flat with no slope areas or areas that could cause mudslides. The Project site currently drains from north to south. The southern boundary of the Project site is Limonite Avenue, a six-lane arterial roadway with a 14-foot wide median. Storm flows will be collected in storm drains within the Project site and connected to an existing storm drain in Limonite Avenue. The Hydrology Study for the Modified Project prepared by Hunsaker & Associates Irvine, Inc. (Appendix G), documents that post-development flows would be captured in a detention basin and metered out into the existing storm drain. If runoff was to exceed the storm drain system, flows would be captured in Limonite Avenue. Downstream flooding as a result

[55] Leal Draft Master Plan EIR, July 2015, Section 3.10.6, Page 3.10-7
[56] CalFire (California Department of Forestry and Fire Protection). 2022. CalFire website. http://www.fire.ca.gov/.

of runoff or drainage changes is not anticipated. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

Mitigation Measures: No mitigation required.

Conclusion: The Modified Project is not located in a fire hazard severity zone. The Project site is completely surrounded by development and no wildland areas are within close proximity to the Project site. The Modified Project would not conflict with or impede implementation of the City's emergency response plan nor cause significant risk as a runoff, post-fire slope instability, or drainage changes. Therefore, no new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant.

2.21 Mandatory Findings of Significance

Issues:	New Potentially Significant Impact	New Mitigation is Required	No New Impact/No Impact	Reduced Impact
MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) The Modified Project would not change the biological conclusions included in the Prior EIR. The Modified Project would not change the limits of disturbance, which encumbers the entire site, and the condition of the Project site remains essentially unchanged from the time of the Prior EIR. The Modified Project would not cause impacts to sensitive species or habitats. The Prior EIR determined impacts to biological resources would be less than significant with mitigation. A Biological Assessment of the Modified Project determined impacts to biological resources would be less than significant with mitigation incorporated. Mitigation Measures 3.7.2 and 3.7.3 presented in the Prior EIR have been fulfilled. Mitigation Measure 3.7.1 remains applicable as presented in the Prior EIR to reduce impacts to nesting birds to less than significant. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with implementation of Mitigation Measure 3.7.1.

The Modified Project would also not change the conclusions presented in the Prior EIR regarding impacts to major periods of California history or prehistory. The Modified Project would not change the limits of disturbance compared to the Original Project

and no conditions or circumstances have changed relative to historical, archaeological, or tribal cultural resources on the Project site. Therefore, the analysis and conclusions presented in the Prior EIR remain unchanged for the Modified Project. The Prior EIR identified Mitigation Measures MM 3.8.1 through 3.8.4 to reduce impacts associated with archaeological and paleontological resources to less than significant. Mitigation Measure MM 3.8.1 has been satisfied and is no longer applicable, and Mitigation Measures MM 3.8.2 and 3.8.3 remain applicable to the Modified Project. Mitigation Measure 3.8.4 has been revised, which requires that a qualified paleontologist evaluate any paleontological discoveries during grading. The potential for paleontological discoveries has not changed since certification of the Prior EIR and the limits of disturbance have remained the same. This mitigation measure is being revised in this Addendum to require a qualified paleontologist monitor grading activities on the eastern portion of the site, which is more efficient for grading activities instead of the requirement to call a monitor to the site to evaluate paleontological resources if found during grading. Therefore, no change in analysis from the Prior EIR would occur and Mitigation Measure MM 3.8.4 remains applicable to the Modified Project as modified. No new significant impacts or substantial increase in the severity of significant impacts would occur with the Modified Project and no new mitigation is necessary. Impacts would remain less than significant with implementation of mitigation measures.

b) The Modified Project would not change the permitted land uses, limits of disturbance or extent of construction activities, and the condition of the Project site remains essentially unchanged from the time of the Prior EIR. The Project site is surrounded by urban development and represents one of the last remaining undeveloped areas of the City and the General Plan calls for a mix of uses. The Modified Project reduces development intensity which would in turn reduce the number of average daily vehicle trips by approximately 27,764 trips as compared to the Original Project. Therefore, the short-term construction impacts and long-term operational impacts would remain consistent with the analysis provided in the Prior EIR. There would be no changes to the analysis or conclusions regarding cumulative impacts as a result of the Modified Project. The findings of significance presented in the Prior EIR would remain without change and without intensification as a result of the Modified Project.

c) The Master Plan and Original Project contemplated refinement when additional Project-specific details became available and contemplated flexibility to address future market demand. The Modified Project is consistent with the Original Project, the City's General Plan, the City's Zoning Code, and the vision of future development on the Project site. As under the Original Leal Master Plan, the Modified Project's growth would be an implementation of the long-range planning process for the project site as envisioned in the City's General Plan. The Prior EIR determined the Original Project would cause six (6) significant and unavoidable impacts within the following three (3) topic areas: Transportation/ Traffic, Air Quality, and Noise. Throughout the analysis in

this Addendum, evidence has been provided that while those significant and unavoidable impacts would remain, the Modified Project would not cause new impacts or more severe impacts to human beings, either directly or indirectly.

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; Sundstrom v. County of Mendocino,(1988) 202 Cal.App.3d 296; Leonoff v. Monterey Board of Supervisors, (1990) 222 Cal.App.3d 1337; Eureka Citizens for Responsible Govt. v. City of Eureka (2007) 147 Cal.App.4th 357; Protect the Historic Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th at 1109; San Franciscans Upholding the Downtown Plan v. City and County of San Francisco (2002) 102 Cal.App.4th 656.

SECTION 3.0 SOURCES

Carlson Strategic Land Solutions. Biological Assessment of the Leal Property located in the City of Eastvale. March 25, 2022.

Duke CRM. Cultural and Paleontological Resources Assessment. October 2021.

Hillmann Consulting. Phase I Environmental Site Assessment. March 23, 2022.

Hillmann Consulting. Limited Phase II Subsurface Investigation Report. March 23 2022.

Hunsaker & Associates Irvine, Inc. Preliminary Hydrology Analysis for Leal Ranch (Tentative Map No. 38290). November 29, 2021.

Hunsaker & Associates Irvine, Inc. Preliminary Water Quality Management Plan (PWQMP) for Tentative Map No. 38290. November 29, 2021.

Hunsaker & Associates Irvine, Inc. Sewer System Development Analysis. December 6, 2021.

Kimley Horn. Water Supply Assessment. December 2021.

LGC Geotechnical, Inc. "Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California. June 21, 2021. Geotechnical Responses to Comments April 5, 2022.

RK Engineering Group, Inc. Leal Master Plan Amendment Project Air Quality, Greenhouse Gas and Energy Impact Study. December 22, 2021

RK Engineering Group, Inc. Leal Master Plan Amendment Noise Impact Study. December 21, 2021.

RK Engineering Group, Inc. Leal Master Plan Amendment Project Traffic Study. November 17, 2021.

Appendix A

LEAL MASTER PLAN AMENDMENT #1

APRIL 2022

CITY OF EASTVALE

Eastvale City Council
Mayor Clint Lorimore
Mayor Pro Tem Todd Rigby
Council Member Brandon Plott
Council Member Christian Dinco
Council Member Jocelyn Yow

Eastvale Planning Commission
Chair Houston Laney
Vice Chair Kevin Mensen
Commissioner Josh Lee
Commissioner Andrea Hove
Commissioner Michael Rochelle

Executive
Henry Garcia, Interim City Manager
Gina Gibson Williams, Community Development Director
Erica L. Vega, City Attorney

Planning
Gustavo Gonzales, Planning Manager
Jamie Cerda, Senior Planner
Allen Lim, Assistant Planner

Engineering
Jimmy Chung, City Engineer
Cassandra Sanchez, Principal Civil Engineer
Dahi Kim, Senior Engineer

Consultant
Peter Minegar, MBI
Mark Teague, Placeworks

DEVELOPER
A.J. Jarvis, The New Home Company
Matt Gibson, The New Home Company
Peter Carlson, Carlson Strategic Land Solutions
John Moreland, KTGY
Xiaofan Li, KTGY
Doug Staley, Hunsaker & Associates
Joey Valadez, Hunsaker & Associates
Sarah Kleinberg, Jackson Tidus

1 INTRODUCTION AND VISION

1.1. BACKGROUND AND PURPOSE

In the City of Eastvale, a recently incorporated and rapidly growing city in northwestern Riverside County, the Leal property holds significance as one of two major undeveloped pieces of land in the city. The idea of planning for the site's development originated in the 2012 Eastvale General Plan. The Land Use Chapter of the General Plan adopted at that time supported the development of a mixed-use project on the site in cooperation with the property owner and/or the developer.

City of Eastvale Demographics

Eastvale offers the developers of the Leal Master Plan excellent opportunity to serve an affluent and growing population. Current projections for 2018 show the following:

	Eastvale	10-Mile Radius
Population	68,706	1,070,150
Average Household Income	$130,730	$90,507
Average Annual Increase in Household Income 2013-2018	0.94%	3.47%

Eastvale is the most diverse high-income city in California, with a population that includes 40 percent Latino residents, 9 percent black, 24 percent Asian and 24 percent white.

In 2013, the City of Eastvale City Council initiated a long-range planning process for the property. The effort was born out of the desire to create the mixed-use town center project on the site and to safeguard against unsatisfactory development taking the project's place. The Leal Master Plan is the product of this planning process and is a critical step toward bringing unique, regionally significant development to the site. In December of 2017, the City of Eastvale adopted the initial Leal Master Plan. The multiple step process was established in the original Master Plan. This Leal Master Plan is the first amendment to the initial Master Plan as contemplated in the development process.

1.1.1. What Is a Master Plan?

This Master Plan is a long-range planning document that documents how the site will be developed. This Master Plan describes the community's vision for the project area, identifies appropriate land uses, includes the development standards that are necessary to achieve the vision, defines the character of the project's development, lists the steps involved with the development process, and provides guidance on implementation of the plan.

The adoption of this Master Plan represents the second step in planning for the site's development. This document establishes general parameters for development of the Leal property (and the process for defining more specific standards tailored to the ultimate project to be proposed by the property owner/developer). Subsequent development plans will provide precise

development plans for each planning area, facilitating the actual construction of developments.

Note to the Reader: See Chapters 4 and 5 of this Master Plan for detailed information on required future submittals.

Implementation of this Master Plan will ensure that desirable, high-quality development is constructed on the site in an orderly and cohesive fashion. All development occurring on the site is required to comply with this Master Plan.

1.1.2. Community and Stakeholder Input

The original adopted Leal Master Plan was created and adopted in a public forum. The document represents a blending of the City's goals, the owner's ambitions, and the public's aspiration for the property. The participants' contributions to the project are as follows:

1.1.2.1. City Council and Planning Commission

Throughout the planning process, staff was provided with input from the City Council and Planning Commission on important aspects of this Master Plan. Ultimately, the Planning Commission and City Council were responsible for selecting the Master Plan Amendment's overall concept and the land use program and for reviewing and approving the final Master Plan Amendment.

1.1.2.2. Property Owner

Before and during the preparation of this Master Plan, City staff met regularly with the Leal family who has for decades owned the property and the property owner's development representatives. These meetings helped establish the vision for the property and the legacy that the family hopes to leave in the form of the proposed new development.

1.1.2.3. Public Outreach

The preparation of the original Master Plan included a significant online public outreach campaign, including a website dedicated to the project and numerous postings on the City's social media outlets.

The project website provided background information on the

Big Ideas for the Leal Property

When the City asked for "big ideas" and themes for the project site, residents provided thousands of responses, mostly via social media. The following were the top listed categories:

- Lifestyle Centers
- Downtown
- Indoor Regional Mall
- Amusement
- Arts/Cultural
- Concerts/Special Events Venue
- Hospital/Medical Center
- Civic Uses
- 1950s Main Street
- University or Community College
- Sports/Recreation
- Hotel/Resort
- Giant Cow Statue

project and the property, as well as City and project-related documents, and kept the public apprised of upcoming meetings. The website also featured an interactive section that allowed users to share their input on important aspects of the project.

Initially, participants were asked to submit their suggestions for "big ideas" and "themes" for the project site. Residents responded to the City's call for ideas, submitting thousands of comments. Subsequently, an online poll was created to see which of the ideas held the greatest level of support in the community. Of the nearly 2,000 survey responses received, the three most popular categories were:

- Lifestyle Centers
- Downtown
- Indoor Regional Mall

1.2. OBJECTIVES

The General Plan goal of bringing a mixed-use development to the site will be realized through the adoption and the implementation of the Leal Master Plan. This Master Plan seeks to achieve the following objectives:

- Facilitate transformation of the project area into Eastvale's Downtown.
- Encourage a mix of uses, including retail, experiential uses, office, civic, residential, and recreation/entertainment, that respond to market demand.
- Create a Downtown Village destination in Eastvale to meet the needs of patrons from the community and the region.
- Include heavily landscaped spaces, further reinforcing Eastvale's Tree City USA designation.
- Implement high-quality architecture and design that creates a sense of place and enhances the aesthetic and visual quality of the neighborhood.
- Design the site in an efficient fashion that perpetuates a compact, urban form of development.
- Provide safe and entertaining gathering places for Eastvale residents.
- Develop the site in an orderly, comprehensive, and cohesive manner that avoids the piecemeal development of the site with a mix of incompatible uses that do not relate to one another.
- Expand the city's economic base by generating substantial property and sales tax revenue.
- Provide employment opportunities for residents, improving the city's jobs/housing balance and reducing vehicle miles traveled.
- Provide the infrastructure necessary to meet project needs in an efficient and cost-effective manner.
- Provide medium- and high-density housing opportunities.
- Provide ample access for pedestrians, bicyclists, and automobiles throughout the site.

1.3. VISION

The City envisions the project area emerging as the City's Downtown and a destination within the region. The area will be anchored by a downtown village and surrounded by a mixture of complementary office, civic, residential, and recreation/entertainment uses. All aspects of the project will exhibit the hallmarks of thoughtful, high-quality design and landscape.

Note to the Reader: For more information on the vision and the quality of the project's design, refer to Chapter 2, Project Character.



1.4. LOCATION

The project area encompasses the Leal property, an approximately 160-acre landholding that (as of 2014) included one of the city's last operating dairies and a horse farm.

Shown in Figure 1.1: Regional Context Map, the project area is in the northeastern section of Eastvale, approximately one-half mile from the Interstate 15/Limonite Avenue interchange, and south of State Route 60. The site is bounded by 58th Street to the north, Hamner Avenue to the east, Limonite Avenue to the south, and Scholar Way to the west, as shown in Figure 1.2: Local Context Map. The project area is situated immediately west and north of existing commercial and retail developments and is south and east of established and newly developed residential neighborhoods of varying densities.

1.5. RELATIONSHIP TO OTHER DOCUMENTS

1.5.1. General Plan

The Leal Master Plan implements the City of Eastvale General Plan. The land uses permitted by this Master Plan are consistent with the goals, policies, and general land uses described in the General Plan.

1.5.2. Municipal Code

This Master Plan functions as the zoning document for the project area, except as discussed below.

This Master Plan incorporates zoning provisions that vary from, and supersede, those included in the City of Eastvale Zoning Code and introduces additional provisions not found in the Zoning Code. For these development standards, the Master Plan distinguishes between those provisions that apply to the entire project area and the provisions that only apply to individual land uses.

This Master Plan references regulations in the Eastvale Zoning Code. Where the Zoning Code is referenced, the Zoning Code in place at the time of a development project's submittal will be used.

Where this Master Plan is silent on any issue, the applicable standard in the Eastvale Zoning Code will be used.

Figure 1.1: Regional Context Map

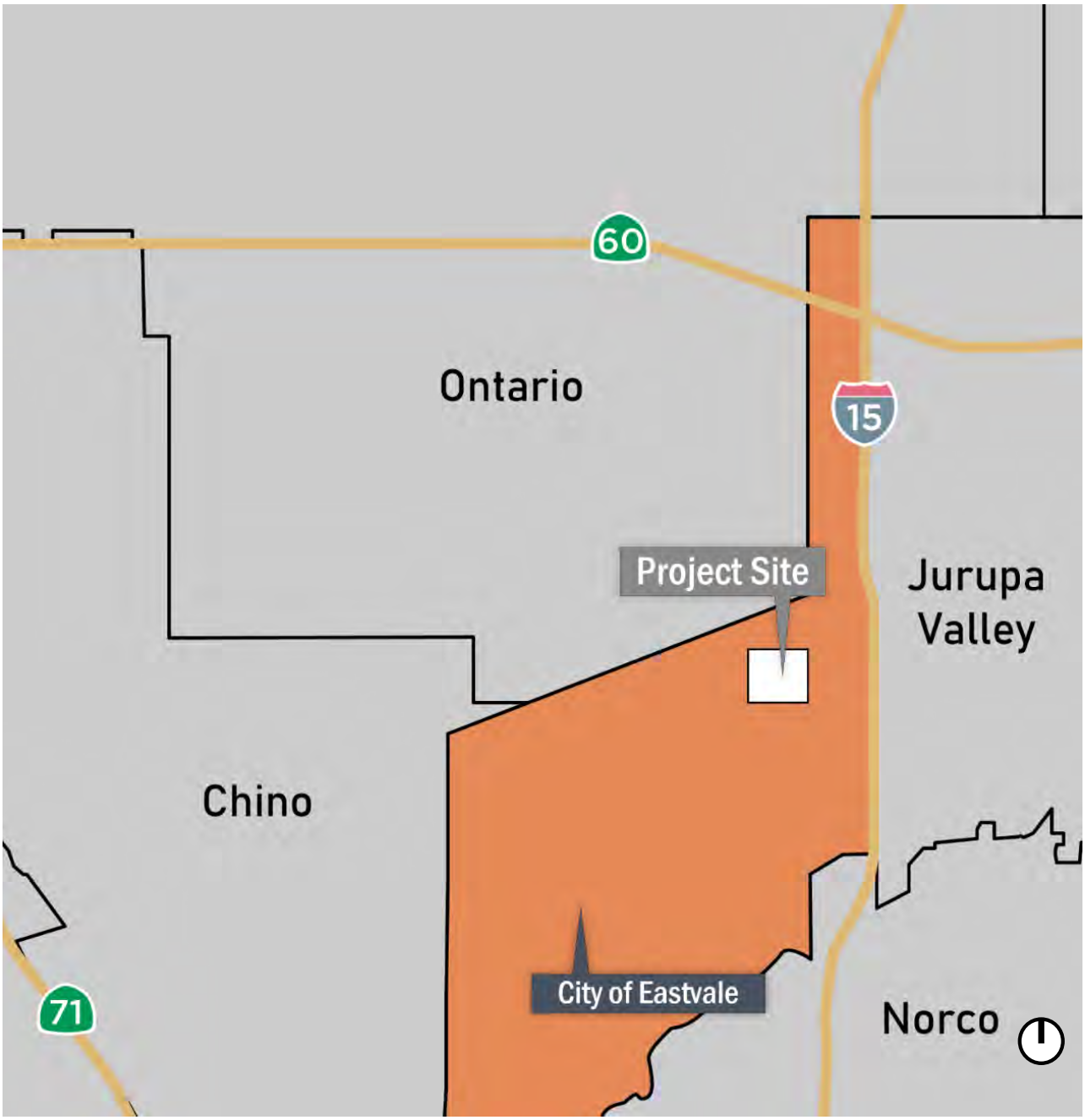
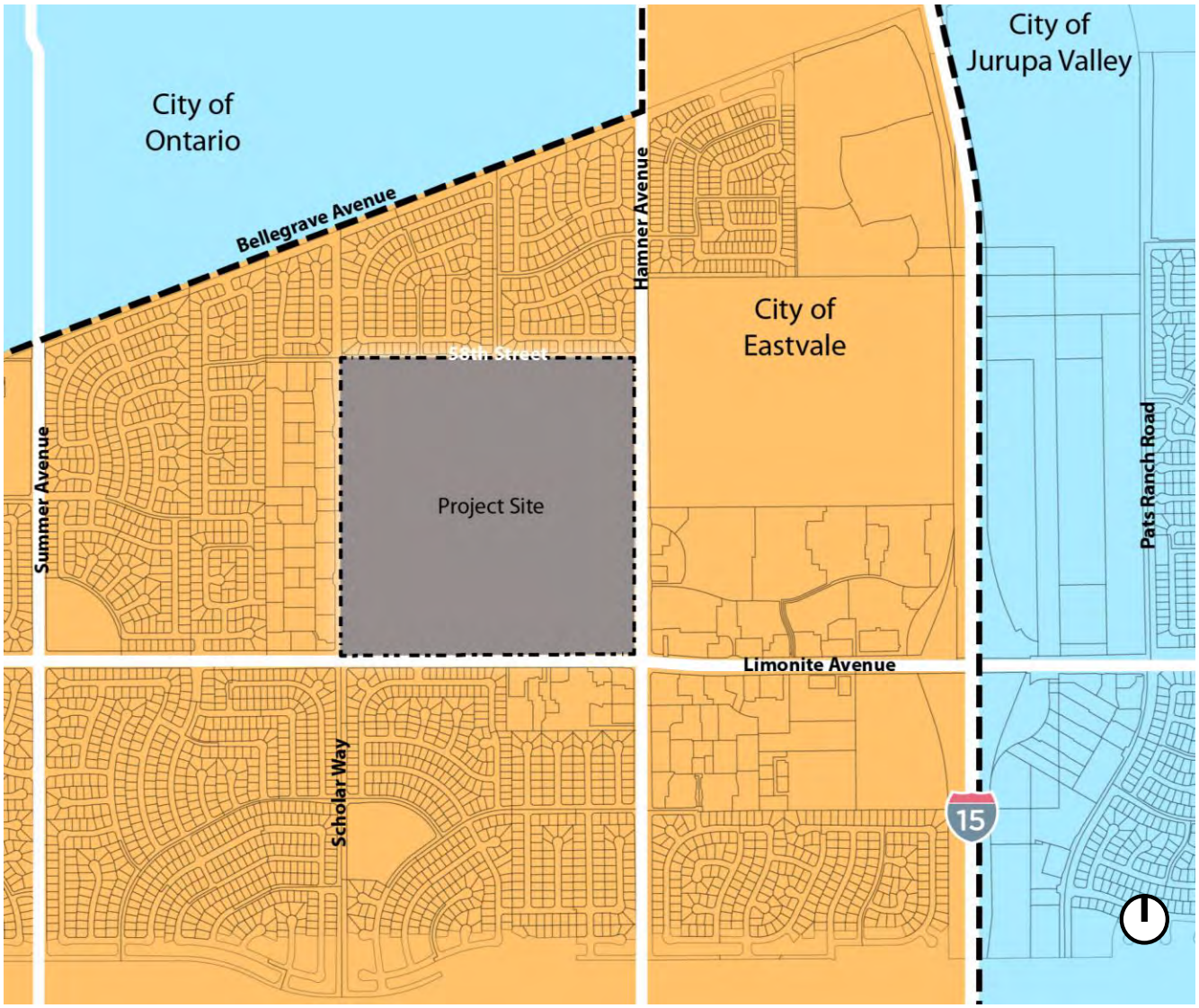


Figure 1.2: Local Context Map



1.6. PLAN ADMINISTRATION

1.6.1. Use of This Master Plan

This Master Plan will be used as the basis for establishing standards of development and evaluating proposed development projects for the Leal property and is intended to be used by a broad range of persons, including:

- The City Council and Planning Commission in decision-making activities.
- City staff in evaluating project consistency with the standards set forth in this Master Plan.
- The development community in preparing development proposals.
- Residents and citizens seeking to understand the vision for the Leal property and the type of development which may occur.

1.6.2. Interpretations of the Master Plan

The City of Eastvale Planning Department is responsible for the administration, implementation, and enforcement of this Master Plan. The Community Development Director or their designee is responsible for making determinations of consistency with this Master Plan as follows:

1.6.2.1. Determination of Intent

Whenever the Community Development Director determines that an ambiguity exists in how a particular standard or regulation applies, or a formal request for an interpretation is made by an applicant, property owner, or interested party, the Community Development Director or their designee will prepare an official interpretation of intent in accordance with the procedure set forth in Eastvale Zoning Code Section 1.5.1 (Official Zoning Interpretation).

1.6.2.2. Determination of Similar Land Use

Recognizing that every conceivable land use cannot be identified in this Master Plan and anticipating that new land uses will evolve over time, the Community Development Director or their designee has the authority to approve uses when their operation, impacts, and scale are similar to those land uses listed in this Master Plan.

Determinations of similar land use will be made pursuant to Section 1.5.1 (Official Zoning Interpretation) of the Eastvale Zoning Code.

1.6.2.3. Amendments to the Master Plan

Over time, various sections of this Master Plan may need to be revised, as economic conditions or City needs dictate. The policies presented in this Master Plan contain some degree of flexibility, but any Master Plan amendments must be judged by relatively fixed criteria. Minor modifications to the plans, guidelines,

regulations and standards contained in this Master Plan may be approved at the discretion of the Community Development Director or their designee as described in Section 5.4.1. Major modifications that do not meet the criteria for minor modifications described in Section 5.4.1 shall require a formal amendment to the adopted Master Plan. Major modifications are described in Section 5.4.2.

Amendments to this plan may be initiated by a developer, any individual property owner, or the City, in accordance with the Eastvale Zoning Code.

1.6.2.4. Actions Which Are Not Amendments to this Master Plan

The following are **not** considered amendments to this Master Plan:

- Determinations of similar use, as discussed in this chapter.
- Minor modifications to the Master Plan, as outlined in Chapter 5 of this Master plan.

2 INTRODUCTION AND VISION

2.1. INTRODUCTION

The City's vision for the Leal Master Plan area is a development that provides employment, retail, public uses, entertainment, and housing in a carefully laid out environment designed to create a memorable and enjoyable experience for both visitors and residents. The City and community expect that development of the Leal property will be of the highest quality, both in design and construction.

The envisioned level of quality is reflected in other regionally significant projects in Southern California, such as Downtown Claremont, downtown Temecula, and downtown Brea. All of these developments are noteworthy for their focus on creating a vibrant and attractive experience for visitors, incorporating vertical development (multiple stories) into a village setting, and for their attention to detail in a variety of features.

This Chapter expresses the City's vision for the Leal Master Plan. The expected level of quality is shown as it should be expressed in various aspects of the project, including:

- Site design
- Circulation
- Architecture
- Landscaping
- Public Spaces
- Buffers/Adjacencies
- Street Furnishings
- Thematic Features
- Signage

2.2. PROJECT CHARACTERISTICS

Attention to detail and incorporation of high-quality materials is a key aspect of developing high quality projects. While the examples provided on the following pages focus on distinguishing characteristics within the Downtown concept, all portions of the project will be required to achieve a similar level of quality and attention to detail.

2.2.1 Site Design

The following principles accompany the vision for Leal Master Plan to form the foundation for the planning and design of the community.

- Create a magical destination.
- Provide energy, vitality and create a central gathering place within the City.
- Public and private spaces are designed to enhance and complement one another.
- Along retail corridors, wide sidewalks and shaded paseos lined with street trees and outdoor seating create an inviting environment for both window shopping and socializing, focusing on the human scale and experience.
- Diversify Eastvale's economy by providing a range of uses within close proximity to each other.









2.2.1 Site Design

Effective site design facilitates access and mobility and integrates building design and orientation, private space, and public space to create a vibrant destination. The following bullets describe the site design vision.

- Downtown will provide opportunities for retail commercial and office uses, as well as central gathering places for residents to interact and connect. This commercial/retail hub should be visually prominent, as it is strategically located at the intersection of Limonite and Hamner Avenue to capture visibility and attract shoppers and direct visitors to this destination center.
- Downtown will be surrounded by higher density neighborhoods that gradually transits to lower density neighborhoods.
- A village green located adjacent to the Downtown will provide a wide variety of active and passive recreation amenities.
- Neighborhoods will be designed to connect to open space and park amenities, shopping, public and civic facilities, and recreational facilities via streets, paseos and pedestrian trails.
- A community wide linear park system will provide focus on community connections and pedestrian experience.
- Wide sidewalks and shaded paseos lined with trees and outdoor seating create an inviting environment both in the Downtown and residential areas.
- Public and private spaces are designed to enhance and complement one another.
- The project is integrated into the surrounding environment to provide for multiple points of access.
- On-street parking, landscaped bulb-outs, and special paving treatments provide convenient access in an aesthetically pleasing manner.
- Parking is conveniently located to destinations and should be tucked away or integrated into parking structures so as not to dominate the experience.










ICE CREAM



2.2.2 Circulation

A carefully devised circulation network allows pedestrians, bicyclists, automobiles, and delivery vehicles to operate without conflict.

- Entries and gateways into the project are distinct and identifiable.
- Circulation patterns are simple and obvious.
- Paving and landscaping materials distinguish the types of circulation routes.
- Plant and material selection along circulation routes are used to identify distinct districts within the overall project.

The Leal Master Plan has six major points of access: two points of access from Limonite Avenue, two points of access from Hamner Avenue, one point of access from 58th Street, and one point of access from Scholar Way, as shown in Figure 3.1, Land Use Plan.

In addition to these major entry points, secondary access may be provided from the major streets surrounding the project as part of subsequent Major Development Review for the Planning Areas.

All of the project's access points will provide an opportunity to create a sense of arrival by creating entryway statements or gateways with landscaping, signage, and buildings. See Section 4.3.3 in Chapter 4 for the design standards for the major entry points.

An internal circulation system is established and shall be designed to be consistent with Chapters 4 and 5 of the Design Standards and Guidelines for residential and nonresidential site and street design.

Pedestrian paths and bicycle lanes identified on circulation cross sections on Section 6.2 shall be designed to comply with the following:

- Pedestrian and bicycle access shall be provided along all major roadways and internally within each development to allow connectivity from the streets to the businesses and residences.
- Pedestrian and bicycle connections shall be provided from the street to the interior of the development that minimize conflicts with vehicular traffic.
- Sidewalks shall be shown on each street section.
- Pedestrian and bicycle access shall be consistent with Chapters 4 and 5 of the Design Standards and Guidelines for residential and nonresidential site design.

2.2.2 Circulation

















2.2.3 Architecture

The Leal Master Plan is designed to include distinctive, identifiable neighborhoods of a walkable size and scale with an appropriate mix of housing types. This section provides the framework for high quality design and expresses the desired character of future development.

Community-wide Residential Development

This section identifies key architectural and site design elements that should be considered in all residential areas within the Leal Master Plan community. These guidelines intend to establish a diversified, yet cohesive level of quality in home design that reflects the character of the surrounding environment while allowing for flexibility in design.

Architecture Forward Design

- Within the Downtown, buildings fronting onto the street shall be designed so that active and articulated architecture visually dominates the street and allows for direct views of the street and outdoor living space to enhance the sense of security. This can be achieved by orienting doors and windows toward the streets and public areas.
- Garages shall be set behind the front face of the building or be oriented to alleys or motorcourt drives to minimize the visual dominance of garages along the street.

Building Siting and Orientation

- In general, buildings shall be located and oriented to define public streets and primary open space areas, as appropriate to the product type.
- Front entries shall face the streets, courtyards, paseos, or open spaces.
- Units shall be sited and design so that each building shall have roof exposure to the south or east, or a portion of the roof with a flat roof.
- Unit entries shall not be provided on 58th Street, Hamner Avenue, or Limonite Avenue.

Corner Lot Buildings

- Corner lots for single-family detached homes generally have wider than minimum required side setbacks from the adjacent public rights-of-way as compared to interior side setbacks (refer to product-specific standards in Chapter 4, Development Standards). This additional setback area is intended for landscaping and/or single-story architectural elements such as porches and courtyards.
- To respond to adjacent streets and intersections appropriately, buildings on corner lots shall be designed for a two-sided corner exposure, addressing the increased public visibility by allowing for architectural enhancements on the side elevation facing the street.

- Corner lot buildings shall feature enhanced elevations that provide a similar level of detail on the street side as the front elevation. Enhancements may include.
    - Wrap-around porches or courtyards
    - Principal window treatments
    - Roof plane breaks
    - Accent colors, materials and detailing
    - Garage access from the side street for conventional single-family homes

Building Form, Massing and Articulation

- Building massing (three-dimensional form of a building, referring to the perception of the general shape and form, and size) along the street shall be varied to create a quality streetscene.
- To reflect a variety of forms and create massing breaks, use horizontal and vertical offsets, such as interconnection and lapping of building forms and heights.
- Plane offsets cantilevered upper floors and varied roof forms are encouraged to avoid large expanses of flat, monotonous walls and roofs in alleys and motorcourts.
- To add interest to building facades, building articulations such as roof overhangs, balconies, and projections should be used in the design of building frontages.
- For attached residential buildings, break down the scale of the buildings into smaller elements through varied building massing and forms, such as varying setbacks on building elements/facades, varying roof lines and directions, incorporating single-story elements or open balconies that provide negative space at prominent corners, utilizing shed roof forms and trellis elements, etc.
- To prevent long expanses of blank walls, walls shall be articulated at least every 20 feet horizontally on each floor. Articulation shall mean a change in material, massing break of at least one foot (1'), or including a window, projecting porch, balcony (recessed or projecting), or other decorative element (e.g. decorative attic vent).

Colors and Materials

- Building materials and colors shall be appropriate to the overall neighborhood design theme and relate to the selected architectural style. Frequent changes in materials shall be avoided.
- Provide a variety in texture and color to allow for diversified expressions of individuality on building elevations, while maintaining visual cohesiveness throughout the community.
- Where color or material changes occur on the building, such changes shall only occur at inside corners or wrapped to appropriate termination points where they provide a finished appearance from the street.

- Color and materials should wrap columns and posts in their entirety.
- Exposed gutters and downspouts must be colored to match or complement the surface to which they are attached.
- Colors shall be neutral tones or muted colors complementary to the chosen architectural style and compatible with the character of surrounding development. Reserve bright or dark colors for trim or accents only.

Roofs

- Select simple and efficient roof forms, pitches and materials that are consistent with the architectural style of the building. Consider roof forms in relationship to the building mass to improve massing relief along public streets and on other publicly visible elevations.
- Varied roof forms, offsets and materials consistent with the architectural style of the building are encouraged to create variation in the skyline and diversity in the streetscene.
- Flat roofs with parapets or decorative cornices are permitted where appropriate to the architectural style of the building.

Mechanical Equipment

- All exposed air conditioning/heating equipment, soft water tanks, and pool and spa equipment shall be hidden from view in vaults, wells, enclosures, behind walls/fences or screened by landscape. Enclosures shall be constructed similarly and finished to match the building or material which they are attached.

Trash Enclosures

- Areas provided for trash and recycling bins shall be concealed from public view.
- Where trash and recycling material collection facilities are shared by several units/buildings, the collection facilities shall be screened by architectural enclosures. The screening enclosure materials and colors shall be similar or complementary to the exterior materials and colors used on the adjacent principal buildings.













Detached Residential Development Design Guidelines and Standards

- Side entries are allowed to give the product design greater flexibility and varies the curb appeal.
- For rear loaded and detached cluster homes, front yard and common area landscaping will be provided by the builders.
- Provide visual harmony by applying a common family of details throughout the cluster complex.
- Provide paving within the courtyards to enhance their use and identity as pedestrian entries to the homes.
- Individual unit entries of cluster homes shall be clearly discernible from the courtyard or access drive.
- Where a central courtyard is provided for detached cluster homes, living space windows shall orient toward the courtyard.
- Provide a minimum of three (3) floor plans in each Planning Area.
- There shall be a minimum of three (3) elevations for each floor plan, for a minimum total of nine elevations.
- No more than two buildings in a row may be plotted with the same elevation style.
- The same plans may be plotted adjacent to each other or across from each other, provided they have different elevation styles.
- Detached cluster units with front facades bordering streets I, E, F, H & G shall have their entries oriented to these streets.










53-59



Attached Residential Development Design Guidelines and Standards

Attached residential buildings tend to have larger building masses. As such, attached residential design should be carefully considered to convey a sense of human scale. Building typology and chosen architectural style should reflect the building's location within the community, and all buildings should exemplify quality design.

Townhomes and Attached Motorcourt Homes

- Where attached residential buildings are located adjacent to single family detached homes, minimize impacts on the adjoining residences with a sensitive transition in scale, massing and height, and design the transition to ensure resident privacy.
- Design the front elevation of attached residential buildings to clearly delineate individual units as a way of breaking up mass.
- Articulate the front building facades to promote individual unit identity by incorporating overhangs, recesses, porches, glazed doors, accent materials and colors, etc., consistent with the architectural style of the building.
- External unit and building entries shall be designed in a manner that is clearly visible to pedestrian and/or vehicular approaches.
- Rear facades along alleys, driveways, or visible from backbone streets shall not be void of articulation. These elevations shall include massing breaks and/or architectural details (i.e. shutters, gable vents), as appropriate to the architectural style of the building.
- Attached residential buildings sited adjacent to lower-density residential neighborhoods should be sensitive to the scale of those neighborhoods. Step down building heights to match the adjacent buildings as a transition to lower adjacent development heights.
- When located next to open space or a paseo, arrange groups of attached residential buildings so that the buildings front onto paseos or the open space. In the event that fronting onto these open spaces is not feasible, the residential buildings shall front onto a courtyard, pathway, or other gathering space that would directly connect to the open space or paseo.

Apartment/Flats

- Building configuration shall form adequately-sized courtyards and gathering spaces, where applicable. Accessible from inside the building or from external pedestrian pathways, courtyards or gather spaces should feature enhancements such as trellises, shade trees, or outdoor furniture.
- Step down corners and ends of multi-family buildings over two-stories in height at highly visible locations, softening the building edges and enhancing the streetscene.
- Provide pedestrian-oriented elements and details on facades facing public sidewalks. Elements such as balconies and awnings can add visual interest and richness to the street environment.

- Transitional spaces such as porches, covered entries or stoop entries shall be provided for ground floor units facing public street. Where common building entries are provided, they should be well defined along the street and/or parking lot edges.
- Arrange attached residential buildings and site landscaping in such a way that they screen parking areas from public view and minimize the impact of parking lots and garages on the public streetscape.
- Parking lots shall be broken up into smaller segments by landscaped islands, but should remain connected to facilitate internal circulation for a common complex.
- Provide a minimum of two (2) unit plans for each building, and a minimum of two (2) building plans (with the ability to add elements to corner units as necessary) in each Planning Area.
- Residential development adjacent to internal Street E, F, G, H and I shall include a primary pedestrian entry along this street frontage facing either the street or a courtyard or a paseo that is accessible by the residents.
- All primary entrances for multi-family dwellings shall provide unit identification.
- ... Exterior elevations shall include at least three (3) materials that accentuate or correspond to variations in building massing and plane changes, but not having too many different materials to avoid a chaotic appearance. Glazing (windows) and accent materials such as shutters and railings may count towards this requirement.













Downtown District Design Guidelines and Standards

The Downtown District will function as a vital commercial center for the City. Appropriate land uses for these areas include residential, commercial, retail services, restaurants, offices, paseos, recreational facilities, community venues, and civic facilities. The mixed- use areas are a place for working, shopping, dining and gathering. Businesses will be situated along the street and provide convenient access for vehicles, pedestrian walkways and landscape areas.

General Criteria

- Buildings shall front onto a street or spine, which may be designed either as a vehicle free zone or in such a manner as to allow for use by both pedestrians and motor vehicles. When vehicles are allowed, design features shall be incorporated to define pedestrian movement through changes in paving materials or grade, articulated walks with landscaping, or overhead structures.
- Both vertical (different uses within the same building, with commercial or office uses located on the ground floor and with office or residential uses located above) and horizontal (single-use buildings located side-by-side or adjacent to each other on a development site) mixed-use are encouraged in the Downtown District. The mix of land uses may be, but are not limited to, commercial mixed with residential or mix of uses of retail, restaurant, office, and civic uses.
- Vertical mixed-use projects are encouraged for 3-story and higher buildings, such as first floor retail with office or residential uses above. Visually, this arrangement divides the façade into two basic parts: the upper façade and the storefront.
- Large monolithic buildings, such as movie theaters and cultural venues, must be set back from a street designated for pedestrian activity and lined with smaller businesses in front to create a more appealing streetscene.
- Plaza areas in mixed-use settings are encouraged and may include seating, fountains, and landscaping.
- Open views into the retail space at the storefront level will enhance the pedestrian experience by providing a visual connection to the use inside the building. On upper levels, windows should continue the aesthetics of the building while serving the occupants' need for privacy.
- Primary entrances into retail buildings shall be clearly marked and provide a sense of welcome and convenient access into the building interior.
- Corner buildings shall be designed with enhanced treatments. These treatments may include: larger building element at the corner, more ornamentation than adjacent buildings, or a plaza to define the space. In addition, corner buildings typically have both primary and secondary façades that relate to the streets on which they front.
- The ground floor of the commercial component of a mixed-use building shall have a finished ceiling height of a minimum of 12 feet.

Building Form, Massing, and Articulation

- Iconic buildings in the Downtown District are encouraged and may include architectural features such as bell or clock tower or similar statements.
- Architecture shall address public areas with high quality materials and should contain architectural elements and other detail relating to the human scale.
- Groups of buildings shall be arranged in clusters around elements such as pedestrian walkways or landscaped areas.
- Retail and restaurant buildings with facades parallel to the street with covered pedestrian arcades are encouraged. Long unarticulated facades shall be avoided along the primary pedestrian corridor.
- No building wall facing a public street should extend more than 25 feet vertically or horizontally without a visual break created by a minimum 1 foot architectural/massing offset. (See graphic footnote 1 in below)



1 *For buildings with 100' or greater of street-frontage, plane breaks at least every 25 feet include glazing and provide adequate articulation.*

2 *A minimum of 30% of exterior walls on ground-floor facing the street shall include windows, doors, or other openings.*

- Within PA3 and PA5, the ground floor shall incorporate abundant glazing. At least thirty (30) percent of the exterior walls on the ground floor facing the identified pedestrian corridor shall include glass windows, glazed doors, or other openings, as illustrated in below. Percentage of fenestration shall be calculated based on the length of the facade frontage and the floor-to-ceiling height of the ground floor, excluding the areas for parking garage ingress/egress. (See graphic footnote 2, above)
- Adjacent to Streets H or G within Planning areas 2, 3, 4 and 5, at least 50 percent of the building (commercial, civic, or residential) shall be located within the 0 to 15 feet of the right-of-way from Streets H and G. The other 50 percent may be reserved for expanded outdoor dining opportunities, courtyards, paseos, or

driveways connecting to surface lots behind the building. Parking lots are not allowed between the building and the street along these corridors.

Materials and Colors

- A mixture of high-quality materials in highly visible locations and in varying quantities have a large impact on the perceived quality of the area.
- Colors should be carefully chosen to complement the architectural style or tenant of each building.
- Exterior elevations shall include at least three (3) materials that accentuate or correspond to variations in building massing and plane changes, but not having too many different materials to avoid a chaotic appearance. Glazing (windows) and accent materials such as shutters and railings may count towards this requirement.
- Colors shall be neutral tones or muted colors complementary to the chosen architectural style and compatible with the character of surrounding development. Reserve bright or dark colors for trim or accents only.

Services, Utilities, and Storage

- Service, loading, and storage areas should be located away from the streets and activity area. When service areas are not able to be located away from streets or activity areas, screening elements such as walls, fences, architectural treatments, landscaping, or similar screening element shall be incorporated. In all cases, the screening shall be integrated into the design and not appear as an afterthought.








OPEN









2.2.4 Landscape

Landscaping can have a significant visual impact on a project through the quality of landscaping materials selected and the how landscaping is integrated throughout the project site. Landscaping both visually ties a project together and identifies distinct districts.

The City of Eastvale has been proudly designated as a "Tree City USA" by the Arbor Day Foundation by providing commitments to installing and maintaining an urban forest. The City and this Master Plan continues this commitment to provide an urban forest to improve the visual appeal, increase property values, reduce home colling costs, and remove air pollutants. The following landscape guidelines are required for the Master Plan:

- To create an urban forest as quickly as possible, fast-growing tree species appropriate to the area and climate shall be used.
- Trees shall be planted as soon as practicable in project phasing to encourage more mature tree growth once buildings are occupied.
- The project should have a consistent plant palette, though variations may occur from street to street.
- Streets, promenades, public plazas, and smaller open spaces should have distinctive planting and landscaping treatments, making them unique and enjoyable pedestrian experiences.
- Plants are selected for specific purposes to enhance the project experience.
- Plant and material selection along circulation routes are used to identify distinct districts within the overall project.
- Streets designated as "Enhanced Parkways' on Figure 3.2: *Open Space/Parks* shall include a double-row planting of trees where the trees are planted at an average of least 20 feet on center. This requirement does not include intersecting streets or driveways. Special exceptions may be made for portions of the right-of-way that include utilities that preclude the planting of trees and for visibility of non-residential buildings.
- Surface parking lots shall have a minimum 6-foot wide landscape buffer from all street rights of way, measured from property line. Curbs and parking overhangs may be included within this required buffer.
- Where pedestrian circulation crosses a vehicular travel zone, a change in material, color, or grade is required.
- Landscape must permit adequate sight distance for vehicular and non-vehicular circulation.
- All new landscape areas must have irrigation installed.

  No plants from the California Invasive Plant Council List shall be planted.

2.2.4 Landscaping









2.2.5 Public Spaces

Public spaces bring people together and allow for community events such as concerts, markets, exhibits, and celebrations.



- Public spaces reflect the needs of the community and project.
- Furniture, signage, paving materials and patterns, colors, landscaping, and other design features of the public space are used to create a sense of place and purpose.
- Surrounding buildings and uses are designed to interact with the public space and vice-versa.
- Common outdoor open space in the form of a pocket park, plaza, courtyard, garden, play area or outdoor amenity should be provided. Common outdoor open space must have a minimum dimension of 15 feet in all directions.
- In the Downtown District, the sidewalk along the designated pedestrian corridor shall have a minimum clear width of 10 feet (illustrated below). The sidewalk may incorporate pedestrian-friendly amenities



2.2.5 Public Spaces



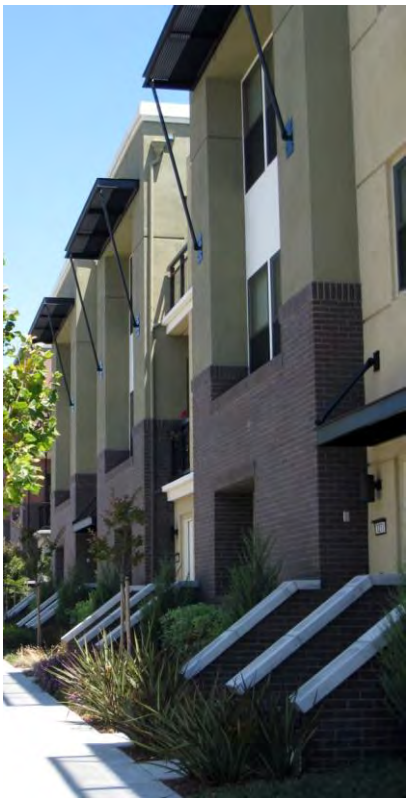


2.2.6 Buffers & Adjacencies

The need to create buffers and address adjacencies between uses also provides an opportunity for continuation of the project theme and elevation of the quality of development.

- Freestanding and retaining walls shall have a minimum 30-inch planter on each exposed side of the wall to allow for the planting of shrubs, flowers, and/or groundcovers to help conceal the wall. Private yards for single-family and multi-family dwellings, open fencing (e.g. tubular steel), and enclosed private areas (e.g. pool deck) are not subject to this guideline.
- Landscaping shall be used as a transition between public and private space.
- Planters matching the theme of the project and planted with colorful flowers are used to separate vehicle and foot traffic and add to visual appeal of the project.





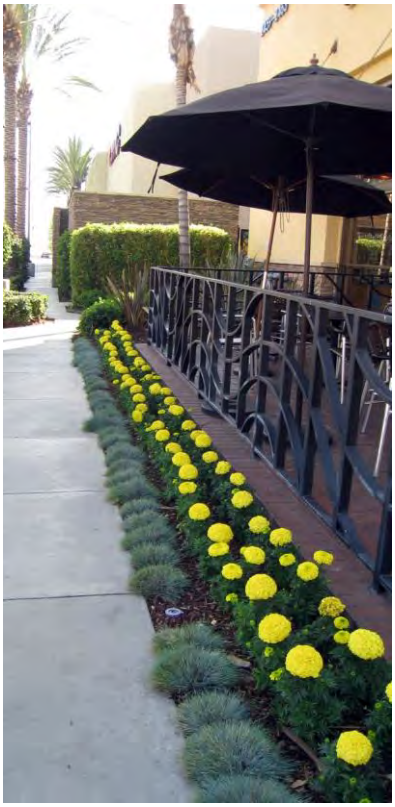


2.2.6 Buffers & Adjacencies





2.2.7 Screens, Fences, & Walls



Screens, fences, and walls act as buffers between land uses, distinguish private space from public space and provide privacy.

- Fences and walls incorporate the project theme and add to the overall visual continuity of the project.
- Landscaping is effectively employed to screen undesirable uses from sight.







2.2.7 Screens, Fences, & Walls





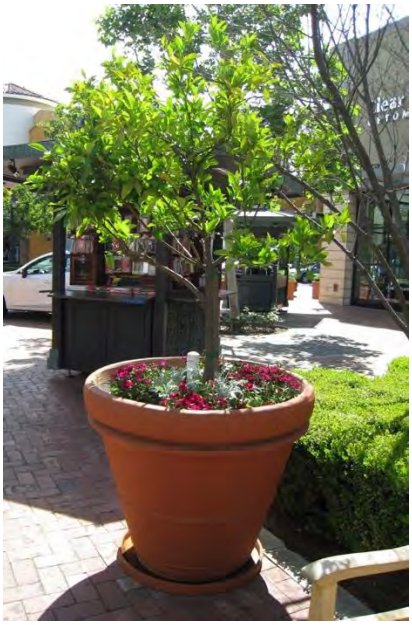


2.2.8 Street Furnishings



Street furnishings shall reflect and complement the overall character of the project and provide consistency between distinct districts, creating an enjoyable and memorable experience.

- Benches and other features are designed to reflect the project theme.
- Tree grates and other project features incorporate the project logo.
- Trash receptacles, newspaper kiosks, light fixtures all feature similar design aesthetic and accent details.
- Bicycle racks are designed for form and function.









2.2.8 Street Furnishings















2.2.9 Thematic Features

Thematic elements incorporated into various design features have a significant impact on establishing a sense of place and identity for a project.

- Project logo may be incorporated into street furnishings, walkways, and signage.
- Artwork/mural on walls within the Downtown District is allowed. Utility boxes may be wrapped with art to provide visual interest on utilitarian infrastructure and may be permitted throughout the entire Master Plan area.
- Material selection and special paving patterns for public spaces shall continue the project theme.
- Project themes are incorporated into building design to reinforce project identity.





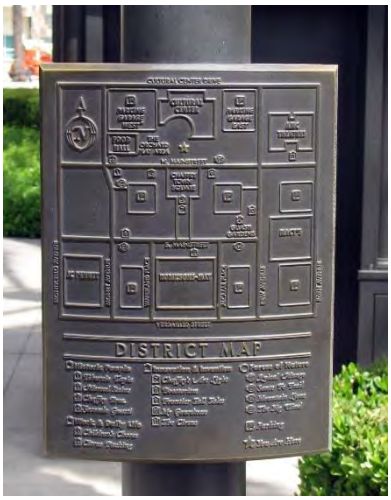


2.2.9 Thematic Features











2.2.10 Signage

Signage plays a significant role in the visual quality of a community. Signs announce one's arrival at a distinct location, direct the flow of traffic, and provide information to the community through a variety of sign types, which are coordinated around a common theme.

General Signage Guidelines

- Signs shall be limited to a maximum of three (3) colors unless the use of corporate color schemes or logos dictates the use of more than three (3) colors. There should be a significant contrast between lettering colors and background colors for legibility.
- Signs for the Downtown District shall be enhanced, including halo-lit, reverse halo-lit, externally illuminated, non-illuminated, or other acceptable "high-quality" design acceptable to the City and approved through a comprehensive sign program.
- Sign conduits, transformers, junction boxes, etc. must be concealed from view.
- No sign shall be placed in such a manner that visibility of signs on an adjacent property is obscured.
- Signs should not extend above the eave line or parapet of the buildings on which they are located, except where such signs form an integral part of the building.
- Select sign colors and materials that contribute to legibility and design integrity.
- The sign copy shall be appropriately sized for the sign structure or wall. Signs should not be too large to overwhelm the elevation, nor should they be too small to be illegible. Sign shall not be more than 80 percent of the width of the unit frontage to which is attached.
- The sign structure shall be consistent with the architectural style of the building that it is placed on or close to.
- Signage may move or rotate, but the mechanism for moving or rotating shall not be visible.
- The use of propellors, flags, or noise-creating devices as part of a permanent sign shall not be allowed.
- The use of light-reflecting materials, messages appearing for less than 30 seconds, or flashing/moving lights is prohibited.

Major and Minor Tenant Identification

The purpose of these signs is to identify major and minor tenants within the Master Plan area. There are typically three (3) different types of signs utilized for tenant identification:

- Monument sigs.

- Walls signs.
- Projecting signs.

Monument Sign Guidelines

- Use a consistent color scheme and design on all free-standing signs within the Downtown District.
- Signs shall be constructed of permanent, durable materials.
- Monument signs should be designed with the width of the base of the sign equal to or more than the width of the sign face.
- Plastic is prohibited except for use for the sign copy. Exterior grade acrylic (e.g. plexiglass) is acceptable.

Wall and Projecting Sign Guidelines

- Locate signs as close to the customer entrance as possible.
- Raceways and sign supports shall not be visible.
- Internally illuminated box signs and banners used as permanent signs are prohibited.
- Projecting signs shall be placed perpendicular to the building wall and should not extend above building eave of a sloped roof or highest point on a flat roof.
- Projecting signs shall be attached to the building fascia or canopy with an attractive and decorative support.
- Exterior signs shall be constructed of permanent and durable materials.
- Creative signage designs and techniques are encouraged.

Changeable Signage

The purpose of changeable signage is to create excitement and provide a visually interesting commercial area. Two (2) styles of this signage used in within the Downtown District to achieve this goal are "pageantry" and "marquee signs."

Pageantry

Pageantry includes flags, pole-mounted banners, kiosks, canopies, lights, directories, ground-mounted graphics, wrapped utility boxes, or other similar, temporary or permanent (but changeable) elements. The intent is to allow regular changes to the pageantry elements in terms of color, design, and other visual content so the pageantry signage can always look current. The intent of pageantry is to help advertise for special events such as fairs, public gatherings, concerts in the park, farmer's markets, etc. and to allow for a variety of different methods to advertise community events within the plan area.

Guidelines for pageantry include:

- Pageantry may be located in any portion of the Downtown District. Pageantry may be placed on street lights and over the public rights-of-way, provided applicable permits have been obtained from Public Works.
- Air-inflated signs, moving signs, paper, cardboard, Styrofoam, stickers, and decals are not acceptable forms of pageantry (directories and kiosks excepted).
- Pageantry shall not include flashing, flickering, rotating, or moving lights.
- Temporary promotional advertising (banners) is not considered to be pageantry.
- Kiosks and directories should provide vertical breaks in the sign structure.
- Individual panels shall be recessed, framed, or treated to avoid a flat appearance of the sign face.

Marquee Signs

Marquee signs are typically used to provide information about current showings or events for theaters and live entertainment uses. Guidelines for marquee signs include:

- Marquee signs may project or be integrated into the building to promote enhanced articulation.
- Plain, rectangular marquee signs without any articulation are discouraged.
- Marquee signs may be manual or electronic.
- Marquee signs may include advertisements.

Directional Signage

The purpose of directional signage is to direct the flow of vehicular and pedestrian traffic within the Mixed-Use District.

Directional and Wayfinding Signs

Directional and wayfinding signs are typically horizontal signs with tenant names and directional arrows. Guidelines for directional/wayfinding signs include:

- Directional and information signs shall be attractive, clear, and consistent in theme, location, and design.
- Place directional signs at strategic locations throughout the Downtown district, providing directions to key destinations and facilities such as parking facilities for automobiles and bicycles, transit stops, and walking and bicycling routes to nearby parks, plazas, neighborhoods, shopping, civic and other destinations.
- The project name may be located on the sign in a smaller, more understated manner to not detract from the wayfinding.
- Directional and signs with exposed Unistrut supports shall be avoided.
- The placement of directional signs shall not limit sight lines.

- Wayfinding signs may be co-located with other streetscape furniture in the Downtown district, such as light standards and transit shelters, where possible, to enhance visibility and reduce visual clutter in the public realm.
- Provide consistency between wayfinding/information signs and street furniture throughout the Downtown district. This can include customized poles and mounts for regulatory signs and lighting fixtures, and an area logo, font, and color scheme.
- Elements such as pole banners or decorative paving elements can serve as public art, branding, and wayfinding.

Temporary Signage

The purpose of temporary signage is to inform the public of a special event of limited duration, such as a grand opening. The duration and requirements for Temporary Signs shall adhere to the provisions within Section 5.7 of the EMC. The guidelines below apply to temporary signage:

- Temporary signage should not be affixed onto the roof of a building, a window or landscape area.
- Temporary signage material should consist of vinyl, nylon, canvas, or cloth.
- Temporary signage should be well maintained.


CITY
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TO PARKING
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THEATRE SQUARE


CULTURAL CENTER
FOODHALL
AMC THEATRES
RESTROOMS
CULTURAL CENTER
AMC THEATRES
MACY'S
RESTROOMS
SEPHORA


AMERICANA
DIRECTORY


ELEVATION 66
brewing company




BANANA REPUBLIC
MAINSTREET


RANCHO VICTORIA
CAFES


Elevator & Stairs
East Terrace

3 LAND USE PROGRAM

3.1. INTRODUCTION

On December 13, 2017, the City of Eastvale City Council adopted a General Plan Amendment to change the land use designation for the Leal Property from Business Park, High Density Residential, and Medium Density Residential to "Leal Property" or as shown on the General Plan Land Use Map, the "Leal Policy Area." As part of this General Plan Amendment, the City Council adopted Policy LU-8.1, which is a land use table that specifies permitted land uses and development intensities. This chapter further describes the land use program for the Leal Master Plan and its consistency with General Plan Policy LU-8.1. The land use program establishes the types and intensity of development allowed within the Leal Master Plan. A land use map specifying locations for these uses is provided in Figure 3.1, Land Use Plan. Access roads showing in the Land Use Plan are described in Section 2.2.2, Circulation Plan.

Concurrent with the City Council's adoption of a General Plan Amendment in 2017 for the Leal Property, the City Council certified an Environmental Impact Report (EIR) (State Clearinghouse No. 2015031028). The adoption of this Master Plan Amendment was accompanied by an Addendum to the Leal Master Plan EIR, which provides further detailed environmental review of the land use program. The environmental analysis presented in the Addendum to the Leal Master Plan EIR determined that to avoid new or more severe significant impacts, the maximum development intensity on the Leal Property is 2,500 residential units and 595,000 square feet of general commercial, office, and civic center uses. Since that land use limitation has been established by the environmental analysis, this Master Plan Amendment incorporates that limitation as the maximum permitted land use intensities.

Figure 3.1: Land Use Plan



3.2. LAND USE TYPES AND DEVELOPMENT POTENTIALS

The City of Eastvale General Plan Policy LU-8.1 references a land use table that has been summarized as follows:

Table 3-1:General Plan Land Use Table

Land Use Type	Minimum/ Maximum Permitted	Details
Lifestyle Center	325,000 SF to 1,300,000 SF	Standard and mixed-use retail
General Commercial	Up to 225,000 SF	"Big Box" Retail
Commercial Office	Up to 920,000 SF No Minimum	
Hotel	Up to 450 rooms No Minimum	Permitted in Lifestyle and General Commercial
Civic Center	Not Specified	Permitted anywhere on Project
Residential Medium Density (14 – 21 du/ac)	No Minimum No Maximum	Single Family Attached, condominiums, townhomes,
Residential High Density (22 – 40 du/ac)	Minimum 500 du Maximum 660 du	Townhomes, condominiums, stacked flats, and apartments

This land use table was incorporated into the General Plan as a general guide to the development of the Leal Property, recognizing that further development planning and detail would occur subsequent to the General Plan Amendment. The Leal Master Plan Amendment provides the next stage in refinement of the development plan and thus refines the proposed land use mix of uses and intensities.

General Plan Policy LU-8.1 includes two residential land use categories, Medium-Density and High-Density. The two residential land use types include density ranges provided in dwelling units per acre and a general description of the types of residential products associated with each residential category.

The Leal Master Plan Amendment distinguishes between the two residential densities by location. The High-Density Residential is located within the Downtown area and consists of either vertical or horizontal mixed use, and primarily consisting of apartments[1]. Within the approximately 52-acre Downtown, residential uses could occur on approximately 21 acres[2]. The maximum of 660 dwelling units planned within the approximately 21 acres

[1] The Leal Master Plan does not regulate ownership of residential units, therefore, there are no limitations on the number of rental or owned units.
[2] The residential acreage within the downtown includes the aggregate of Planning Areas 2, 4, and 10.

where residential is permitted represents a density of approximately 31.0 dwelling units per acre, consistent with the High-Density residential category within the General Plan. The remaining 1,840 dwelling units allowed on the project site would occur over approximately 87.54 acres[3]. This represents a density of approximately 21 dwelling units per acre, which is within the Medium-Density category.

As shown in Figure 3-1, the project site has been organized into different Planning Areas. The Planning Areas represent specific development areas that would be developed either with commercial, residential or mixed-use developments. Other planning areas have been designed for parks and open space and others for right-of-way. Table 3-2, Land Use Summary by Planning Area, shows detailed information for each planning area within the Leal Master Plan area, including land use category and acreages.

Table 3-2: Land Use Summary by Planning Area

Planning Area (PA)	Land Use Category	Approximate Area (AC)	Minimum Intensity DU/AC or SQFT/FAR	Maximum Intensity DU/AC or SQFT/FAR
2	Mixed Use[4]	12.6	660 DU[5] 102,575 sqft[6]	660 DUs[7] Max 40 du/ac No Max sqft
4	Mixed Use	6.5		
5	Commercial Core	4.6		
10	Mixed Use	4.5		
3	Commercial Core	9.8	None	None
1	Residential	7.3		

[3] The residential acreage within the Medium Density category includes the aggregate of Planning Areas 1, 6, 7, 8, 9, 11, 12, 13, K, and L. The two parks are included in this acreage calculation because they serve those residential planning areas.

[4] Subsurface detention and water quality features may be located in Planning Area 2 or Planning Area 1, or a combination of both.

[5] A minimum density of 660 dwelling units is required within the Mixed Use portion of the Downtown, which equals over approximately 21 acres. The dwelling units may be allocated evenly across each planning area or clustered in one or more planning area provided the net density of any individual project does not exceed 40 dwelling units per acre. Net density is calculated by the number of dwelling units applied to only the acreage of the development less any streets, roads, parks, trails, or common open space.

[6] A minimum FAR of 0.10 is applied to Planning Areas 2, 4, and 10, resulting in a minimum requirement of approximately 102,575 square feet. The minimum square footage requirement is approximate based on project site design and for purposes of calculating the minimum square footage per this section including Table3-1, square footage is calculated based on the gross size of the building, including storage, stairwells, mechanical rooms, etc. The City may administratively reduce this minimum square footage requirement without the need for a Master Plan amendment if the City decides it would like additional commercial square footage under the 595,000 square foot cap on Lot 3 or if specific building design and/or site use warrants less square footage.

[7] A maximum of 660 dwelling units is permitted in the Downtown area for consistency with the General Plan, since General Plan density is calculated by the total number of units applied to the approximately 21 acres of Mixed Use residential area.

Planning Area (PA)	Land Use Category	Approximate Area (AC)	Minimum Intensity DU/AC or SQFT/FAR	Maximum Intensity DU/AC or SQFT/FAR
6	Residential	5.6	20 du/ac[8]	1840 DUs Max 40 du/ac[9]
7	Residential	14.1		
8	Residential	3.9		
9	Residential	4.4		
11	Residential	16.6		
12	Residential	17.3		
13	Residential	13.2		
14	Public Facility	1.2	0.6	
A - D	Right-of-Way	9.4	N/A	
E - I	Internal Streets	13.5	N/A	
J-V	Parks and Trails	14.1	N/A	
Total		158.59		
Maximum Development Intensity[10]		2,500 DU	595,000	

3.2.1. Downtown (DT)

The Downtown District (DT) land use category accommodates a mix of residential uses, commercial and office uses such as retail and restaurants, general commercial and commercial office, civic center, and residential. The vision for a lifestyle center included in the City's General Plan occurs within the Downtown District. The DT category applies to approximately 52 gross acres within planning areas 2, 3, 4, 5 and 10 located to the northwest of the Limonite Avenue/Hammer Avenue intersection, in the southeast corner of the Master Plan area. The Master Plan provides for up to 595,000 square feet of commercial, office and civic uses, under the DT land use category. Approximately 21 acres within the DT area can accommodate residential uses. A minimum of 660 dwelling units is required. The

[8] Within the 87.54 acres of Residential Uses (Planning Areas 1, 6, 7, 8, 9, 11, 12, 13, K, and L), a minimum of 730 dwelling units shall be constructed at a minimum net density of 20 dwelling units per acre. The dwelling units may be allocated within one or more planning areas provided the net density of any individual project does not exceed 40 dwelling units per acre. Net density is calculated by the number of dwelling units applied to only the acreage of the development less any streets, roads, parks, trails, or common open space.

[9] A maximum of 1840 dwelling units is permitted in the Residential Uses area for consistency with the General Plan, since General Plan density is calculated by the total number of units applied to the 87.54 acres of Residential Uses area.

[10] Maximum development intensity was determined through the Leal Master Plan EIR and Leal Master Plan EIR Addendum.

dwelling units may be allocated within one or more planning areas provided the net density of any individual project does not exceed 40 dwelling units per acre.

3.2.2. Residential Uses (RU)

The Residential Uses (RU) land use category applies to planning areas 1, 6, 7, 8, 9, 11, 12 and 13. The Master Plan envisions variation in product types, including both detached and attached residential housing types, within the residential category to promote diversity and dynamic neighborhoods. The appropriate residential product types are discussed in Chapter 4, Development Standards. Within the 87.54 acres of Residential Uses (Planning Areas 1, 6, 7, 8, 9, 11, 12, 13, K, and L), a minimum of 730 dwelling units shall be constructed at a minimum net density of 20 dwelling units per acre. The dwelling units may be allocated within one or more planning areas provided the net density of any individual project does not exceed 40 dwelling units per acre. Net density is calculated by the number of dwelling units applied to only the acreage of the development less any streets, roads, parks, trails, or common open space. A maximum of 1,840 dwelling units[11] is permitted in the Residential Uses area for consistency with the General Plan, since General Plan density is calculated by the total number of units over the 87.54 acres of Residential Uses area.

3.2.3. Public Facilities (PF)

The Public Facility (PF) land use category applies to a 1.2-acre area within planning area 14 located at northwest corner of the Master Plan area. The PF land use designation provides for the development of a fire station.

3.2.4. Parks and Open Space (P/OS)

The Master Plan also provides for compatible recreational uses serving the needs of the residents, such as paseo, parks, recreation facilities and open space, as shown in Figure 3.2, Open Space/Parks Plan, which totals approximately 14.12 acres.

[11] The maximum number of dwelling units of 2,500 was determined by the Addendum to the Master Plan EIR to avoid new or more severe significant impacts. Assuming 660 units are constructed in the DT area, the remaining 1,840 units may be constructed in the RU area.

Figure 3.2: Open Space/Parks



Illustrative purpose only, final design may vary.

3.3. PERMITTED USES

3.3.1. Permitted Uses by Land Use Category

Permitted uses within the Leal Master Plan area are identified on Table 3-3, Permitted Uses. Other use or activity not listed in Table 3-3 may be permitted within the Master Plan area if it is compatible with the intent of the Master Plan and is similar to a permitted use, subject to approval by the Community Development Director or his/her designee.

Table 3-3: Permitted Uses

Permitted (P): Permitted by right
Conditional (C): Permitted upon issuance of a Conditional Use Permit
Not Permitted (blank): Not permitted
Temporary Use (T): Permitted short-term activities

LAND USE	RU	DT	PF	P/OS
Agricultural Workers Housing				
Bungalow Courts	P			
Caretakers Unit		P		
Congregate Care Facilities (7 or more persons)	P	P		
Dwelling, Multiple Family[2]	P	P[1]		
Dwelling, Second Unit[2]	P	P[1]		
Dwelling, Single Family[2]	P	P[1]		
Dwelling, Two Family[2]	P	P[1]		
Emergency Shelters				
Family Day Care, Large	P	P		
Family Day Care, Small	P	P		
Group Homes (6 or fewer persons)	P	P		
Home Occupations	P	P		
Live-Work Units, subject to Section 3.4.2.2 of the Leal Master Plan		P		
Planned Residential Developments	P	P	P	P
Restricted Single-Family Residential Subdivisions	P	P	P	P
Senior Housing	P	P	P	P
Banks and Financial Institutions		P		
Barber and Beauty Shops		P		
Bars and Cocktail Lounges		C		

LAND USE	RU	DT	PF	P/OS
Boutique Wine and Beer Stores (Type 20 ABC Licenses), per Section 3.3.2.5 of the Leal Master Plan		P		
Breweries, Wine Blending Businesses, and Distilleries (without a tasting room), subject to Section 3.3.2.4 of the Leal Master Plan				
Breweries, Wine Blending Businesses, and Distilleries (with a tasting room), less than 1,000 square feet subject to Section 3.3.2.4 of the Leal Master Plan		P		
Breweries, Wine Blending Businesses, and Distilleries (with a tasting room), greater than 1,000 square feet subject to Section 3.3.2.4 of the Leal Master Plan		C		
Cigar, Cigarette and Tobacco Sales				
Cigar, Hookah, and Cigarette Lounges				
Clinics/Office, including Medical, Dental, Chiropractic		P		
Day Care Centers				
Department Stores				
Drive-In or Drive-Through Operations or Facilities (any use)				
Farmers Markets, Carnivals, and other similar temporary events, subject to Eastvale Zoning Code Section 1.5.G, Temporary Events and Permits		T		
Fortune-Telling, Spiritualism, or Similar Activity				
Grocery Stores/Market/Specialty Food Stores		P		
Hardware and Home Improvement Centers				
Hotels		C		
Liquor Stores (Type 21 ABC Licenses), subject to Section 3.3.2.5 of the Leal Master Plan				
Massage Parlors, Turkish Baths, or similar personal service establishments				
Medical Marijuana Dispensary				
Motels				
Nurseries and Garden Supply Stores				
Outdoor Kiosks and Vendor Carts		C		
Religious Institutions	C	C	C	C

LAND USE	RU	DT	PF	P/OS
Restaurants and other eating establishments, including fast food restaurants and sandwich shops (excluding drive-through uses), without alcoholic beverage consumption		P		
Restaurants and other eating establishments with alcoholic beverage consumption (Types 41 and 47 ABC Licenses), subject to Section 3.4.2.3 of the Leal Master Plan		C		
Retail Sales and Services, <30,001 sq. ft.		P		
Retail Sales and Services, >30,000 sq. ft.				
Schools, Business and Professional, including Art, Barber, Beauty, Dance, Drama, Music and Swimming		P		
Swap Meets				
Tattoo Parlors				
Theaters, not including Drive-Ins				
Tourist Information Centers				
Wedding Chapels				
Animal Hospitals				
Animal Training				
Apiaries				
Aquaculture				
Auction Houses				
Automobile Parts and Supply Stores				
Automobile Service and Repair				
Bail Bonds/Pawnshops				
Blueprint and Duplicating Services				
Boat and other Marine Sales and Rental				
Boat Services				
Body and Fender Shops and Spray Painting				
Building Materials Sales Yards				
Building Movers Storage Yard				
Car Washes				
Casinos, including Card Clubs/Rooms				

LAND USE	RU	DT	PF	P/OS
Check-Cashing and Payday Advance				
Discount Stores (i.e., 99 Cents Only Store, Dollar General, Dollar Tree, etc.)				
Employment Agencies				
Equipment Rental Services				
Equipment Sales and Storage				
Feed and Grain Sales				
Gasoline Service Stations, with or without the concurrent sale of beer and wine for off-premises consumption				
Golf Cart Sales and Service				
Golf Courses, not including the construction of buildings				
Laboratories, Film, Dental, Medical, Research, or Testing				
Liquid Petroleum Service Stations				
Lumber Yards, including only incidental mill work				
Meteorological Towers				
Mini Storage				
Mobile Home Sales and Storage, Trailer Sales and Rental House Trailers				
Mobile Home Sales Lot				
Parcel Delivery Services				
Petroleum and Bulk Fuel Storage, above ground				
Printers or Publishers				
Professional Offices		P		
Real Estate Offices, Temporary	P	P	P	P
Sale, Rental, Repair, or Demonstration of Motorcycles, Scooters, and Motorbikes				
Sex-oriented Businesses				
Stations, Bus and Taxi				
Tire Recapping				
Tire Sales and Service, not including recapping				
Trailer and Boat Storage				

LAND USE	RU	DT	PF	P/OS
Travel Trailers and Recreational Vehicle Sales and Service				
Truck and Trailer Sales and Rental				
Truck Service				
Airports				
Ambulance Services				
Cemeteries, Crematories and Mausoleums				
Communications and Microwave Installations				
Fire and Police Stations		P	P	
Hazardous Waste Facilities				
Heliports				
Hospitals				
Mortuaries				
Public Infrastructure Facilities, including, but not limited to, drainage, water quality and flood control facilities and public communications facilities	P	P	P	P
Public Utility Substations and Storage Yards				
Sewage Treatment Plants				
Art Gallery, Library, Reading Room, Museum		P		
Community Auction and Sales Yards				P
Fraternity and Sorority Houses				
Indoor Amusement/Entertainment Facility: Establishments providing indoor amusement and entertainment services as primary uses for a fee or admission charge, including dance halls, ballrooms, electronic game arcades, dance classes, karate, yoga, etc.		C		
Establishments with four or more electronic games or coin-operated amusements, or where 50 percent or more of the floor area is occupied by amusement devices, are considered an electronic game arcade as described above; three or fewer machines are not considered a land use separate from the primary use of the site.		C		
Indoor Fitness and Sports Facility: Predominantly participant sports and health activities conducted entirely within an enclosed building. Typical uses include bowling alleys,		C		

LAND USE	RU	DT	PF	P/OS
billiard parlors, ice/roller skating rinks, indoor racquetball courts, indoor climbing facilities, soccer areas, athletic clubs, and health clubs.				
Outdoor Commercial Recreation: Facility for various outdoor participant sports and types of recreation where a fee is charged for use (e.g., amphitheaters, amusement and theme parks, golf driving ranges, health and athletic clubs with outdoor facilities, miniature golf courses, skateboard parks, stadiums and coliseums, swim and tennis clubs, water slides, zoos)		C		P
Private Recreation or Event Facilities				P
Public Recreation, Nonprofit Community Centers and Clubhouses, Social Halls, Parks, Playgrounds, Community Recreation Facilities, Plazas, Trails and Paseos, Community Gardens, Open Space and other similar recreational uses				P
Recycling Collection Facilities				
Schools, Private		C		

Note [1]: Residential uses, including live-work, are not allowed in the Planning Area 3 and 5 in Downtown (DT), except as outlined in the Development Agreement.

Note [2]: Residential use types are further defined in Chapter 4.

3.3.2. Standards Related to Specific Uses

The following standards apply to specific uses within the Leal Master Plan. Uses not listed here will be subject to a determination by the Community Development Director.

3.3.2.1. Outdoor Kiosks and Vendor Carts

A. Signage: All signs on outdoor kiosks and vendor carts shall be regulated by Section 4.5, Signage, of this Master Plan.

B. Minor Development Review: Prior to commencement of each outdoor kiosk and vendor cart on public property, the business owner shall obtain approval from the Community Development Director for the size, design, and aesthetic characteristics, to ensure the facility is consistent with the overall characteristic of the development.

3.3.2.2. Live-Work Units

For live-work development in the Planning Areas 2, 4, and 10, the following commercial/residential activities, conducted wholly within enclosed buildings, shall be permitted, provided the commercial/office uses shall occur in conjunction with residential uses and are not standalone uses:

A. Apparel - custom tailoring and sales of apparel, clothing and other sewing products made on the premises

B. Artists and craft/sculpture products, sales galleries, and studios

C. Internet-based commerce (no inventory, no pornography)

D. Office - creative/tech-based offices and services

E. Office - professional offices and services

F. Photographer/photography studios

G. Residential uses in conjunction with office, retail or other work-related uses as permitted herein for live-work development

H. Spas and personal care to include esthetician/body sculpting with proof of training, nail salons and hair salons (for single patron use only and subject to Homeowners Association/Property Owners Association approval)

I. Similar uses permitted by the determination of the Community Development Director.

The property development standards set forth below shall apply to all live-work units within the confines of the Leal Master Plan:

A. Live-work units include the combination of residential living units and workspace of a building for self-employed residents. Ground floor residential living may be permitted in live-work units.

B. Where live-work uses are operated, the workspace shall be limited to a maximum of 50 percent of the entire unit (minus porches and garages).

C. The working area of a live-work unit shall be used exclusively for work activities and not for residential purposes.

D. Storage of hazardous materials necessary for work activities in live-work occupancies may be stored in controlled areas per the current California Building Code used by the City of Eastvale.

E. The residential portion of the live-work unit shall only be occupied by the individual and his/her household that has their professional occupation established in the same unit.

F. Live-work units are single-tenant spaces that include both residential and commercial/office square footage in a single unit providing for a business to be conducted solely by the resident. In no instance shall the work portion of the live-work unit be sub-leased.

G. Noise levels generated by live-work spaces shall conform to the requirements of the Eastvale Municipal Code for residential use.

H. All signage and lighting shall comply with the requirements of the Leal Master Plan and the Eastvale Zoning Code and must be approved the City of Eastvale.

3.3.2.3. Alcohol Sales with a Bona-Fide Eating Establishment

The sale of beer, wine, or spirits is permitted as an accessory use for any bona-fide eating establishment under a "Type 41 License" or a "Type 47 License" of the California Department of the Alcoholic Beverage Control (ABC) Board.

In addition to the design guidelines and development standards contained in the Leal Master Plan, the following performance standards shall apply to accessory alcohol sales with a bone-fide eating establishment:

A. Food shall be available for purchase at all times during restaurant operating hours.

B. Alcohol sales shall not exceed 50 percent of gross receipts for the establishment.

C. Any sale of spirits for consumption off-premises is strictly prohibited. The consumption of spirits shall be limited to the restaurant area as defined per applicable license from the ABC Board.

D. Beer and wine may be purchased for off-premises consumption; however, the beer and wine sold for off-premises consumption may not be consumed on the premises that it was purchased on.

3.3.2.4. Breweries, Wine Blending Businesses, and Distilleries

Accessory beer, wine, or distilled spirit tastings is permitted within an alcoholic beverage manufacturing facility, provided the area devoted to tastings shall provide parking at the same rate as a restaurant or bar as described in Chapter 4, Table 4-8. The alcohol production area shall provide parking at the same rate as a manufacturing use as described in Chapter 4, Table 4-8. All such uses described within this section shall have an active, valid license from the ABC Board, as applicable.

In addition to the design guidelines and development standards contained in the Leal Master Plan, the following requirements shall apply to craft breweries, wine blending businesses, distilleries, and accessory tasting rooms:

A. A brewery, wine blending, or distillery use with a tasting room equal to or less than 1,000 square feet shall be permitted by right. An accessory tasting room of more than 1,000 square feet shall be required to apply for a Conditional Use Permit.

B. A brewery, wine blending or distillery use may not exceed production of 15,000 barrels per year.

C. All production activities and on-site storage shall be located completely within the facility. Off-site storage is permitted, provided it meets all applicable provisions of the underlying zone. The display of alcoholic beverages shall be located within the manufacturing area and accessory tasting room facility.

D. The brewery, wine blending, or distillery use and accessory tasting room use shall be allowed to operate and be open to the public during the following hours:

   i. Manufacturing and Operation: 7:00 A.M. to 7:00 P.M. Monday through Saturday; and

   ii. Accessory Tasting Room Open to the Public: 11:00 A.M. to midnight daily, 11:00 A.M. to 1:00 A.M. on Friday and Saturday.

E. Service trucks used for the purposes of loading and unloading materials, ingredients, products, and equipment shall be restricted to the hours of 7:00 A.M. to 6:00 P.M. Monday through Friday and 9:00 A.M. to 6:00 P.M. on Saturday.

F. The consumption, tasting and sales of alcoholic beverages shall be limited to only those products produced on site.

G. Ancillary retail sales shall be limited to only those retail items directly associated with the on-site facility and accessory tasting room.

H. The brewery, wine blending, or distillery use or accessory tasting room shall not charge an admission fee, cover charge or require a minimum purchase.

I. A security plan, including a video surveillance system and exterior lighting plan, satisfactory to the Community Development Director, or his/her designee, shall be submitted to and approved prior to the issuing of a Certificate of Occupancy. The video surveillance system shall be installed to assist with monitoring the property on both the interior and exterior. A Digital Video Recorder (DVR) or similar video-recording device, capable of exporting images in TIFF, BMP, or JPG format shall be used. Recording shall be retained for no less than 30 days. Exterior lighting shall clearly illuminate the common areas surrounding the building including, but not limited to, the entrance and exit doors, as well as the business address.

J. No more than 10 percent of the window display area (including any transparent doors) shall be allowed to bear advertising, signs or any other obstructions. All advertising, signage or other obstructions shall be placed and maintained to ensure a clear and unobstructed view of the establishment's interior. Window signs displaying prices shall be prohibited. No advertising or signage shall be placed in the area above 3 feet or below 6 feet in height of all windows measured from grade.

K. Tours of the brewery, wine blending, or distillery use and accessory tasting room use shall occur on regularly scheduled days and times. The operator shall ensure that tours do not negatively impact adjacent businesses or property owners.

L. The use is not considered a nuisance as defined in the Eastvale Municipal Code;

3.3.2.5. Off-Premises Alcohol Sales

Boutique Wine and Beer Stores may permit the sale of wine and beer for off-premises consumptions under a "Type 20 License" of the ABC Board. General Liquor Stores may permit the sale of general alcohol sales, wine, and beer for off-premises consumptions under a "Type 21 License" of the ABC Board.

In addition to the design guidelines and development standards contained in the Leal Master Plan, the following performance standards shall apply to Boutique Wine and Beer Stores and General Liquor Stores:

A. The use does not result in any adverse effects, jeopardize, or endanger the health, peace, or safety of persons residing, visiting, or working in the surrounding area; The exterior lighting and security measures shall comply with applicable requirements.

B. The use is operated and maintained in a neat, quiet, and orderly condition and operated in a manner so as not to be detrimental to surrounding properties and occupants. This shall encompass the upkeep and maintenance of exterior facades of the building, landscaping, designated parking areas serving the use, fences, and the perimeter of the site, including all public sidewalks, alleys, and parkways;

C. The use is not considered a nuisance as defined in the Eastvale Municipal Code;

D. The exterior lighting and security measures shall comply with applicable requirements (including, but not limited to Sections 120.05.050, Outdoor Lighting; 120.05.080, Neighborhood Preservation Standards; 120.05.060, Off-Street Vehicle Parking as applicable)

E. No more than 10 percent of the square footage of the windows and transparent doors of the premises shall be allowed to bear advertising, signs or any other obstructions including products, shelving, display items

and/or coolers. All advertising, signage, product, shelving, display items and/or coolers shall be placed and maintained to ensure a clear and unobstructed view of the establishment's interior. Window signs displaying prices shall be prohibited. No advertising or signage shall be placed in the area above 3 feet or below six (6) feet in height of all windows measured from grade.

F. A copy of these performance standards, additional City or ABC Board imposed operating conditions, and a 24-hour complaint telephone number shall be posted in a conspicuous and unobstructed place visible from the entrance of the establishment in public view.

4 DEVELOPMENT STANDARDS

This chapter contains the permitted uses and development standards for the Leal Master Plan. Standards not addressed in this chapter are subject to the City of Eastvale Municipal Code in effect at the time of approval of this Master Plan. Additionally, in order to be approved by the City, development will need to comply with the quality expectations and community features identified in Chapter 2 of this Master Plan.

4.1. DEVELOPMENT STANDARDS

4.1.1. Downtown Development Standards

The Downtown (DT) District is envisioned to be the focal point in the City. The intent is to develop an open-air marketplace for retail and specialty uses that are not currently present in Eastvale and in nearby communities (including Live/Work units).

The mix of uses may be horizontal (different uses within a Planning Area separated horizontally) or vertical (different uses within the same building, with commercial or office uses located on the ground floor and with office or residential uses located above). The residential component of this land use district is intended to provide for the development of multi-family residential dwellings in an urban atmosphere.

Minimum and maximum development intensities and densities are outlined in Chapter 3 of this Master Plan.

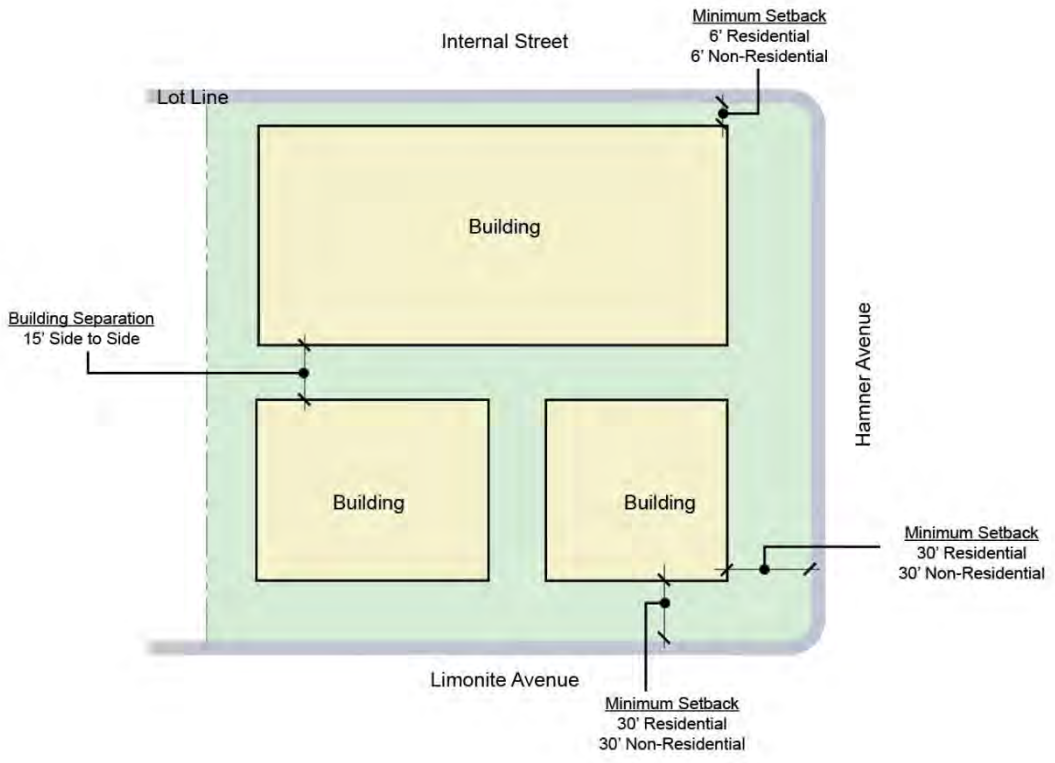
DT District includes planning areas 2, 3, 4, 5 and 10.

Table 4-1 establishes the development standards for the Downtown District. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.1. Residential uses within the Downtown District are subject to the development standards provided in Table 4-1. Where Table 4-1 is silent on a development standard, the development standards presented later in this chapter for specific product types would apply for the project type proposed. If there is a conflict in development standards between Table 4-1 and the development standards for product types, Table 4-1 shall govern.

Table 4-1:Downtown Development Standards

	RESIDENTIAL BUILDINGS	NON-RESIDENTIAL/ MIXED-USE BUILDINGS
Maximum Site Coverage	75%	N/A
Maximum Building Height	65' (4 stories)	
Minimum Building Setbacks From		
Hamner Avenue ROW	30'	30'
Limonite Avenue ROW	30'	30'
Lot Line Along Internal Street	6'	6'
Minimum Building Separation		
Residential - Front to Front (entries) - at open space	20'	N/A
Residential - Side to Side (no entries) - at open space	15'	N/A
Non-Residential/Mixed-Use – Side to Side	N/A	15'

Figure 4.1 Downtown Setback Diagram



4.1.2. Residential Development Standards

The development standards and product types included herein are intended to establish the minimum design parameters. An appropriate mix of building types shall be incorporated into the residential land use and mixed-use districts to avoid monotonous neighborhoods.

Table 3-2 within Chapter 3 establishes permitted uses, including Dwelling – Multiple Family, Second Unit, Single Family, and Two-Family. Those permitted residential land use categories are further defined in this Chapter through the following description of residential product types permitted in the Master Plan area.

Development standards for residential uses within the Downtown District are presented above in Table 4-1. Development standards for residential uses within the Residential Uses District (Planning Areas 1, 6, 7, 8, 9, 11, 12 and 13) are presented below by housing type.

Conventional Single Family Detached Homes typically have street front orientation where primary entries and walks face the street or the side, and have private rear and side yards. Garages are in the front or side and face the street. Resident parking spaces are provided in garages and guest parking spaces are provided in driveways or on local streets.

Zero-Lot Line Homes are designed to fit together along a common property line by providing one home with a deeply recessed garage. Reciprocal use easements are used to maximize the side yard areas. Zero-lot line homes typically have street front orientation where primary entries face the street, and have private rear and side yards. Garages with driveways face the street. Resident parking spaces are provided in garages and guest parking spaces are provided in driveways or on local streets.

Rear Loaded Homes have street-facing primary entries and are designed to take garage access from a shared access drive behind the homes. Private yard space is provided in a side yard, a courtyard behind the front portion of the house or behind the house between a detached garage and the home. Resident parking spaces are provided in garages and guest parking spaces are provided in driveways (18' minimum in length where provided), on the street or in a common parking area. Reciprocal use easements may be used to maximize side yard areas.

Detached Cluster Homes are single-family detached dwellings oriented on a shared access drive. Each cluster module typically consists of 4 to 10 dwelling units. Resident parking spaces are provided in garages and guest parking spaces are provided on the street or in a common parking area. Reciprocal use easements may be used to maximize side yard areas.

Row Townhomes are single-family attached homes with primary entries facing street or common open space. The units have private outdoor living space. Automobile access is via an alley or shared access drive. Resident parking spaces

are provided in garages, and guest parking spaces are provided on public or private local streets or in designated parking areas.

Attached Motorcourt Homes are buildings mixed with townhomes and flats. The entries are from the street or common open space. Automobile access is via an alley or shared access drive. Resident parking spaces are provided in garages, and guest parking spaces are provided on public or private local streets or in designated parking areas.

Apartments/Flats are buildings with either walk-up units or flats in multiple story configurations. The entries can either be external from the street or common open space, or internal and elevator served. Resident parking spaces are provided either in garages, surface parking, or in multiple story parking structures. The units tend to be for rent as opposed to for sale.

Detailed design standards per product types are presented below and shown in Tables 4-2 to 4-7.

4.1.2.1. Conventional SFD Residential

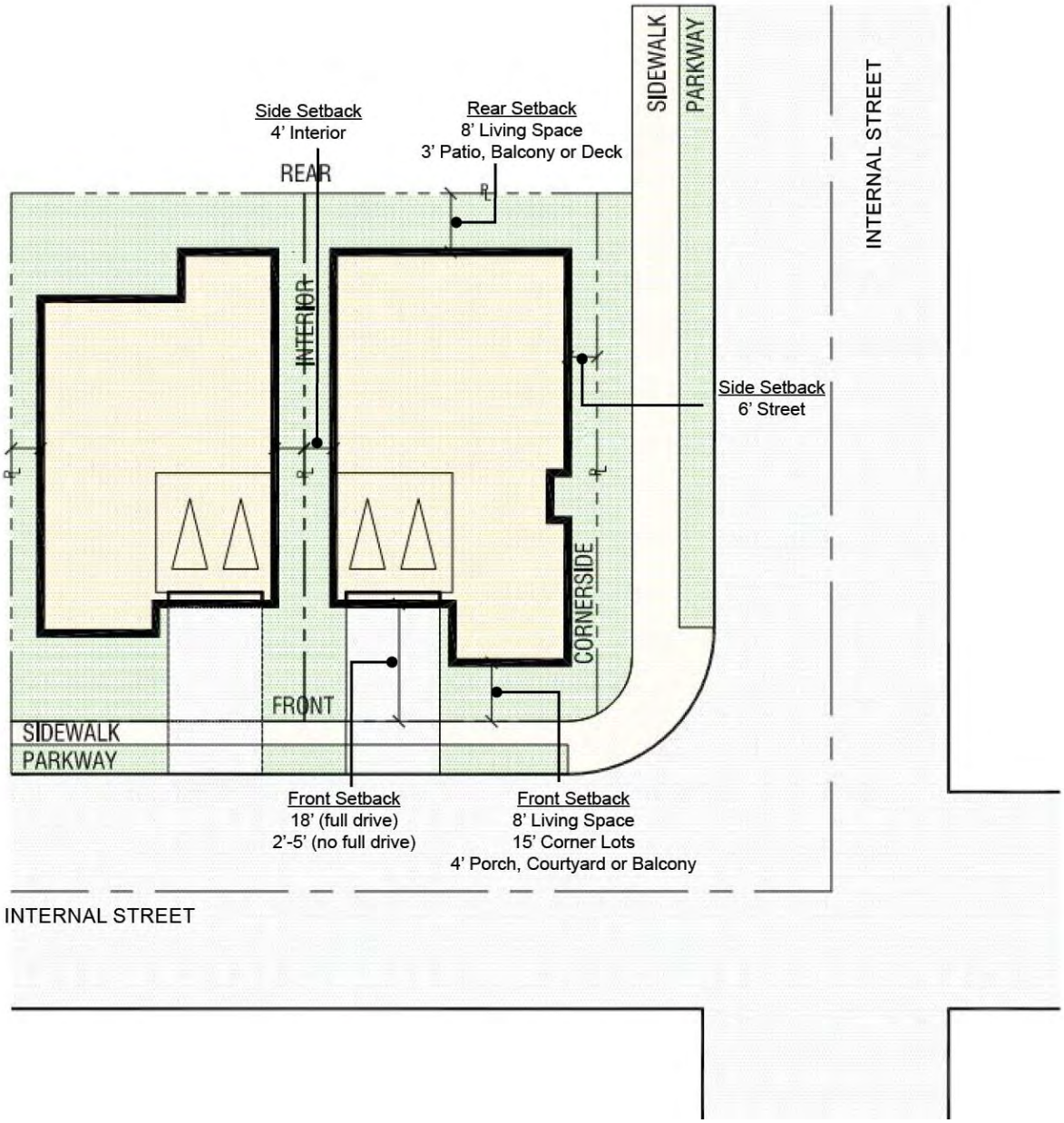
The development standards provided in Table 4-2 have been established to encourage forward-facing living space. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.3. These standards allow for the placement of entries, windows, front porches and living spaces closer to the street to provide more active and visually interesting streetscape.

Table 4-2:Conventional SFD Residential Development Standards

	Conventional SFD Homes
Minimum Lot Size	2,500 sq. ft.
Minimum Lot Width[1]	40'
Maximum Building Coverage	70%
Maximum Building Height	50' (3 stories)
Minimum Front Setback (from Property Line)	
Living Space	8' (15' at the corner lots)
Porch, Courtyard or Balcony	4'
Front Entry Garage	18' (full driveway)/ 2'-5' (no full driveway)
Minimum Side Setback (from Property Line)	
Interior Side	4'
Internal Street Right-of-Way Side	6'
Minimum Rear Setback (from Property Line)	
Living Space	10'
Patio Cover, Balcony or Deck	3'

[1] The minimum lot width for knuckle and cul-de-sac lots shall be the average of the widths measured at the front and rear edges of the lot

Figure 4.3 Conventional SFD Residential Setback Diagram



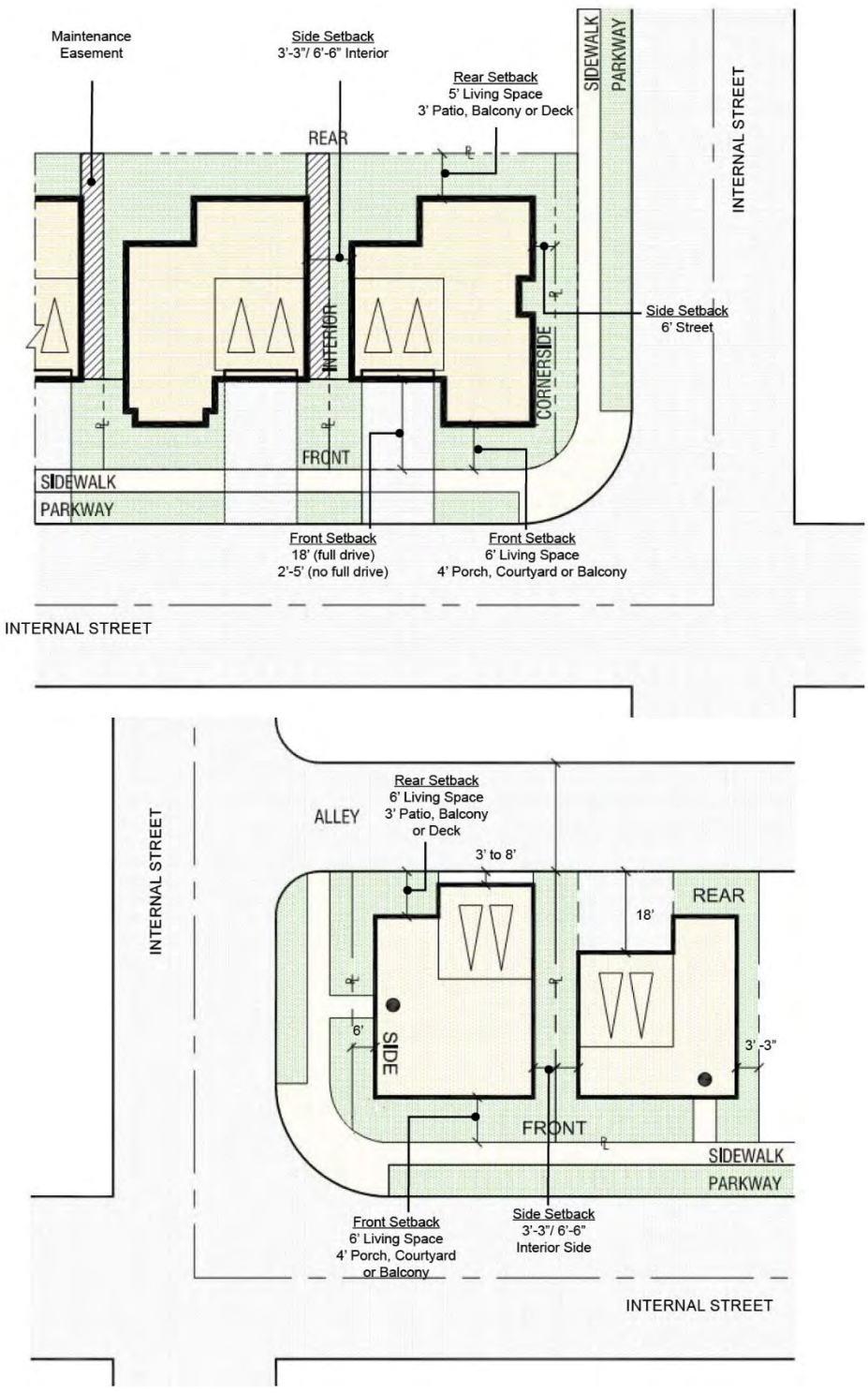
4.1.2.2. Zero-Lot Line and Rear Loaded SFD Residential

Table 4-3 establishes the development standards for front loaded zero-lot line and rear loaded SFD residential development. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.4. Note: Zero-Lot Line Homes may be front or rear loaded. In the event that a rear-loaded Zero-Lot Line Home is proposed, the Rear-Loaded Homes standards shall apply (with a maintenance easement for the side yard).

Table 4-3: Zero-Lot & Rear Loaded SFD Residential Development Standards

	Zero-Lot Line Homes	Rear Loaded Homes
Minimum Lot Size	2,500 sq. ft.	2,000 sq. ft.
Maximum Building Height	50' (3 stories)	50' (3 stories)
Maximum Building Coverage	70%	70%
Minimum Front Setback (from Property Line)		
Living Space	6'	6'
Porch, Courtyard or Balcony	4'	4'
Front Entry Garage	18' (full driveway/2'- 5')	N/A
Minimum Side Setback (from Property Line)		
Interior Side (one side/between buildings)	3'/6'	3'/6'
Internal Street Right-of-Way Side	6'	6'
Minimum Rear Setback (from Property Line)		
Living Space	5'	5'
Patio Cover, Balcony or Deck	3'	3'
Rear Entry Garage Setback (from Access Drive)	N/A	3' to 8' or 18' min.

Figure 4.4 Front Loaded Zero-Lot & Rear Loaded SFD Residential Setback Diagrams



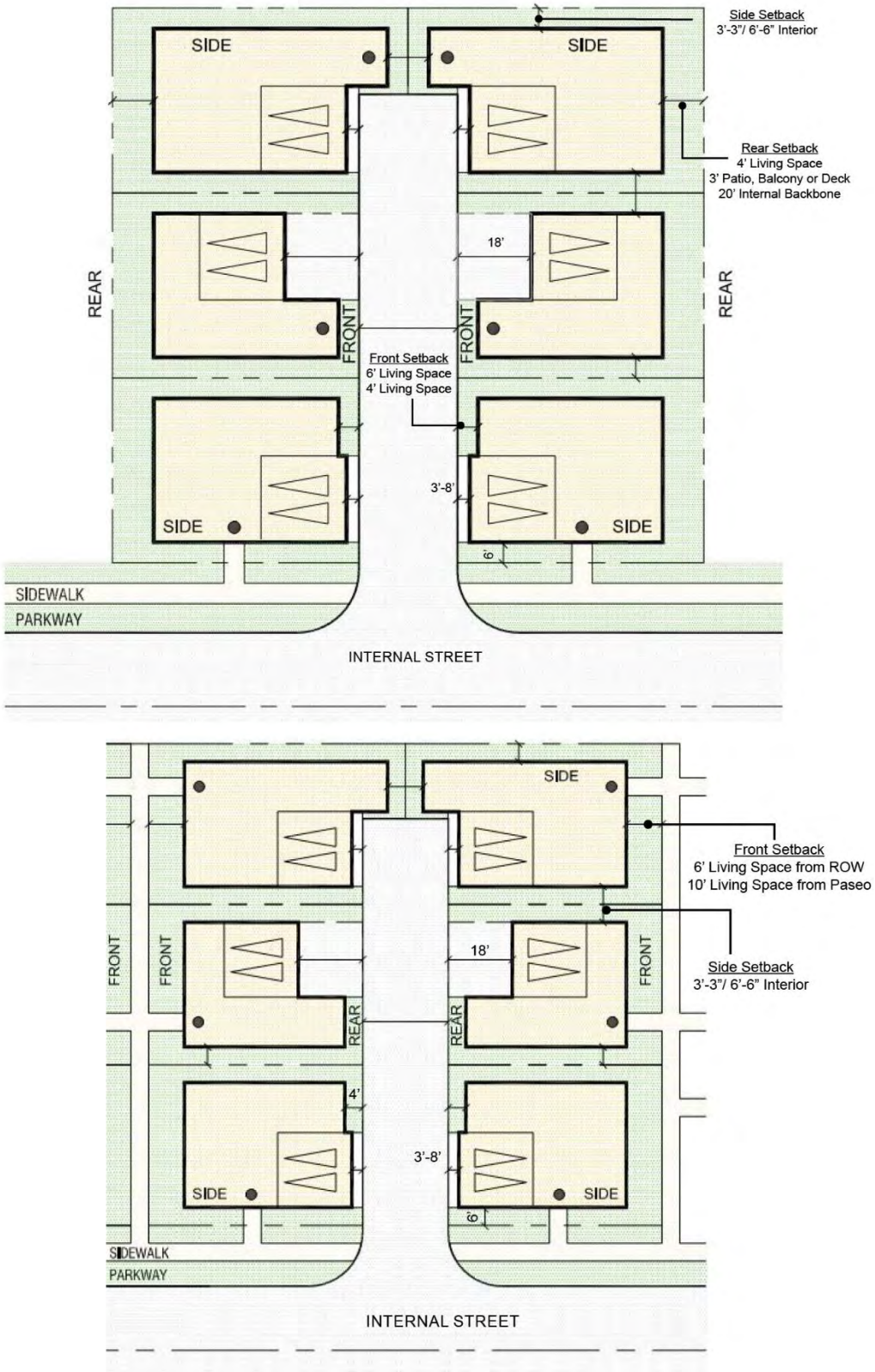
4.1.2.3. Detached Cluster Residential Development

Table 4-4 establishes the development standards for detached cluster residential development. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.5.

Table 4-4:Detached Cluster Home Development Standards

	Front-Loaded Cluster Homes	Rear-Loaded Cluster Homes
Minimum Lot Size	1,500 sq. ft. (or Condo Map)	1,500 sq. ft. (or Condo Map)
Maximum Building Height	50' (3 stories)	50' (3 stories)
Maximum Building Coverage	70%	70%
Minimum Front Setback		
Living Space from Internal Street Right-of-Way	6'	6'
Living Space from Access Drive	4'	N/A
Living Space from Paseo Walkway	N/A	10'
Minimum Side Setback		
Interior Side (one side/between buildings)	3'-3"/6'-6"	3'-3"/6'-6"
Internal Street Side (from internal street right-of-way)	6'	6'
Minimum Rear Setback (from Lot Line)		
Living Space	4'	4'
Patio Cover, Balcony or Deck	3'	N/A
Garage Face from Access Drive	3' to 8' or 18' min.	3' to 8' or 18' min.

Figure 4.5 Detached Cluster Home Setback Diagram



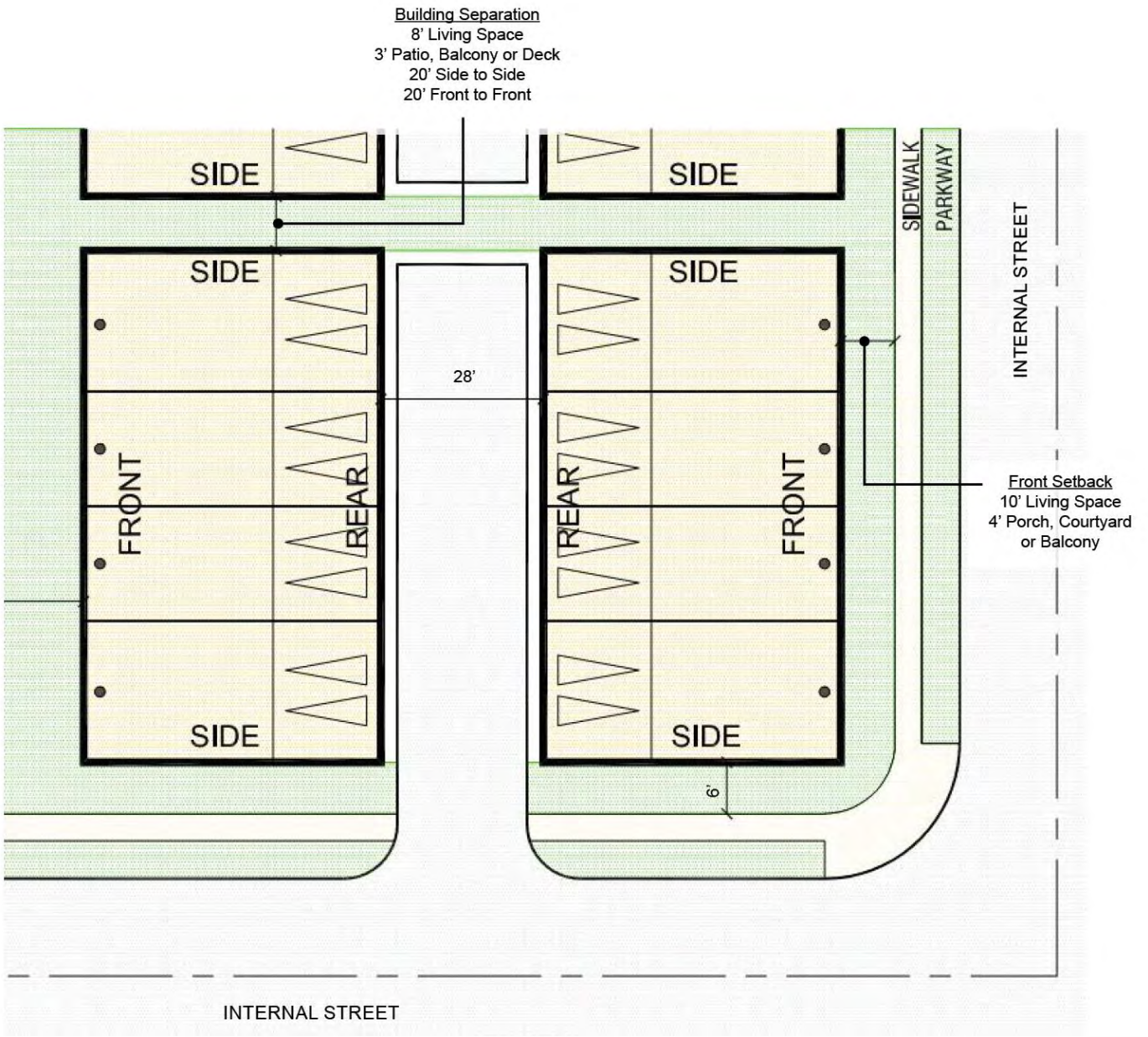
4.1.2.4. Row Townhomes

Table 4-5 establishes the development standards for row townhomes. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.6.

Table 4-5:Row Townhome Development Standards

	Row Townhomes
Minimum Parcel Size	1 ac
Maximum Site Coverage	N/A
Maximum Building Height	50' (3 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	4'
Minimum Side Setback (from Internal Street Right-of-Way)	
Street Side	6'
Minimum Building Separation	
Living Space	8'
Patio Cover, Balcony or Deck	3'
Front to Front (entries) - at open space	20'
Side to Side with entries	20'
Garage Door to Garage Door at Alley	28'

Figure 4.6 Row Townhome Setback Diagram



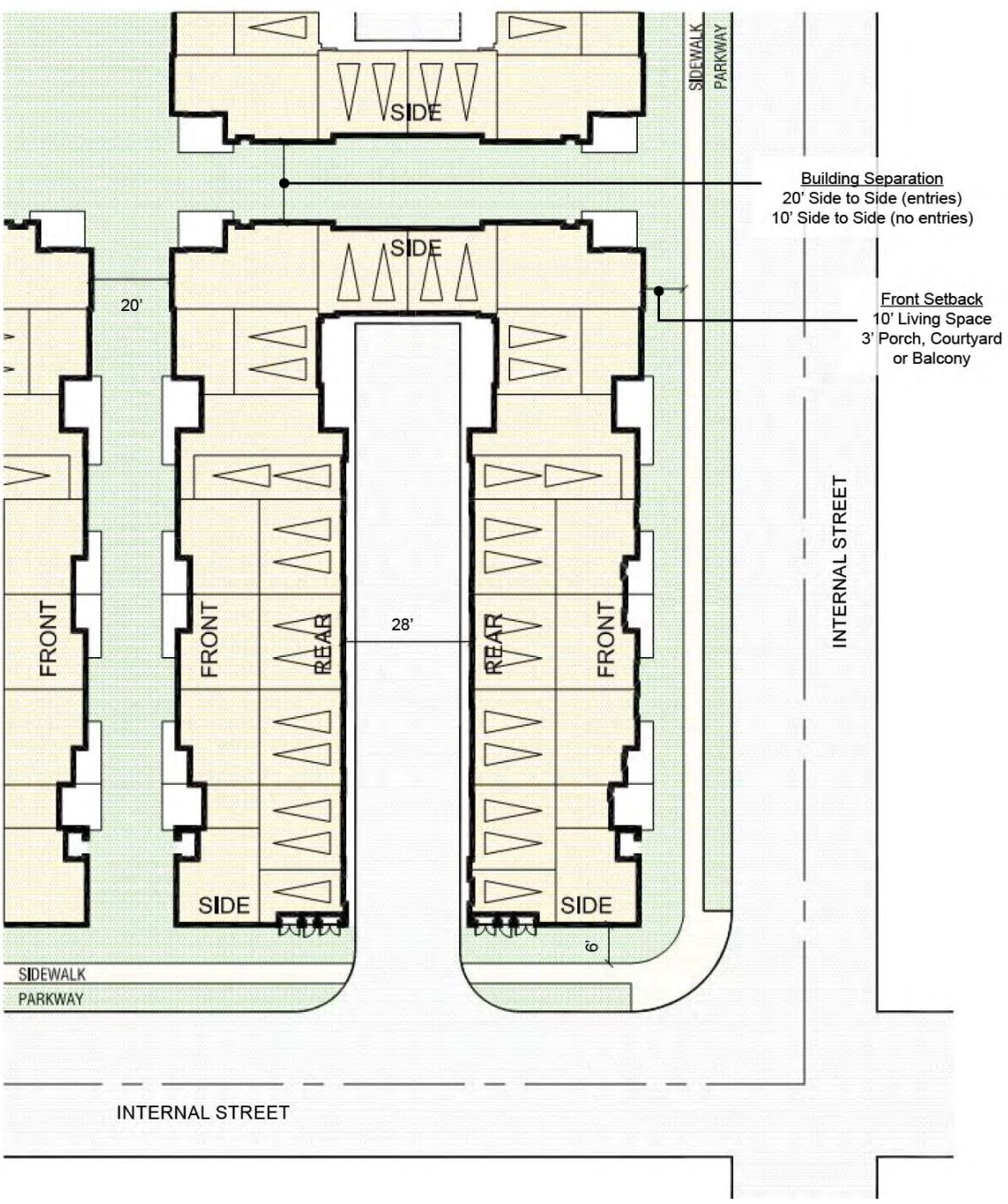
4.1.2.5. Attached Motorcourt Homes

Table 4-6 establishes the development standards for attached motorcourt homes. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.7.

Table 4-6: Attached Motorcourt Home Development Standards

	Attached Motorcourt Homes
Maximum Site Coverage	75%
Maximum Building Height	50' (3 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	3'
Minimum Side Setback (from Internal Street Right-of-Way)	
Street Side	6'
Minimum Building Separation	
Front to Front (entries) - at open space	20'
Side to Side (entries)	20'
Side to Side (no entries)	10'
Garage Door to Garage Door at Alley	28'

Figure 4.7 Attached Motorcourt Home Setback Diagram



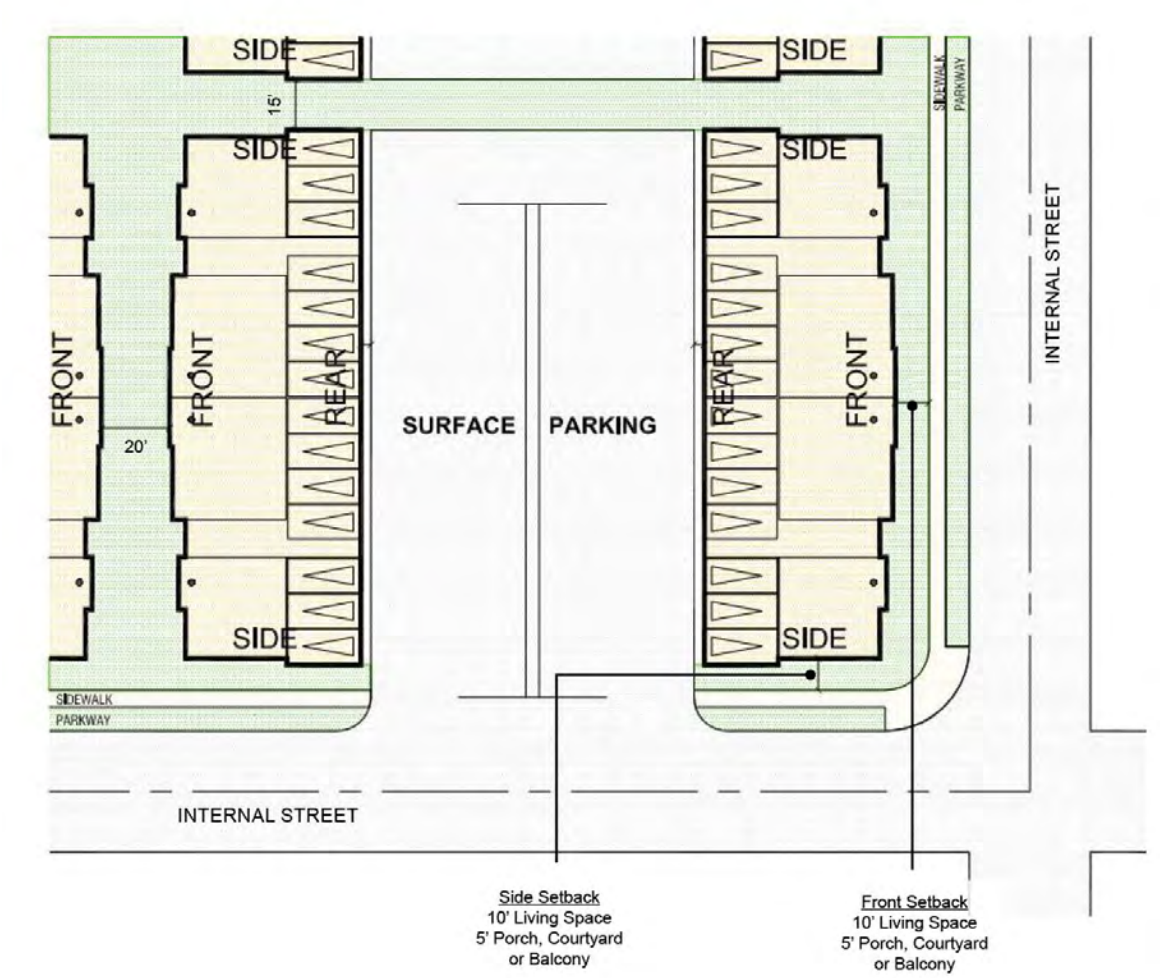
Apartments/Flats

Table 4-7 establishes the development standards for residential apartments/flats. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.8.

Table 4-7: Apartments/Flats Development Standards

	Apartments/Flats
Maximum Site Coverage	75%
Maximum Building Height	65' (4 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	3'
Minimum Side Setback (from Internal Street Right-of-Way)	
Living Space	10'
Porch, Courtyard or Balcony	5'
Minimum Building Separation	
Front to Front (entries) - at open space	20'
Side to Side (no entries) - at open space	15'

Figure 4.8 Apartments/Flats Setback Diagram



4.1.3. Public Facility Standards

PA 14 is a public-institutional planning area for a fire station located at the southeast corner of Scholar Avenue and 58th Street.

- Maximum Building Height: None.

4.1.4. Parks and Open Space Standards

The Parks and Open Space (P/OS) District includes Panning Areas J through V. Planning Areas J, K, and L are parks and Planning Areas M through V are trails and open space areas. Planning Area J (PA J) is a village green located between PA 5 and 3, which could be used for community events, such as concerts, movies, art fairs, farmers markets, etc. Planning Area L (PA L) is adjacent to PA 6 and 8 and planned for a community park. Planning Area K (PA K) is adjacent to PA 7 and 12 and is planned as a private recreation facility for the residents of the Leal Master Plan.

- Parking Area Setback from Internal Backbone Street Right-of-Way: 10'
- Building and Structure Setback from Internal Backbone Street Right-of-Way: 6'
- Maximum Building Height: 40' (2 stories); 15' for accessory structure

4.1.5. Allowable Projections and Encroachments

An encroachment is a permitted allowance into a ground-floor or upper-level setback. A projection is an element that is allowed to project above the height limit. In all cases, all encroachments and projections shall comply with the California Building Code (CBC), as well as other applicable codes and regulations such as the American Disability Act. The permitted encroachments and projections are discussed below.

A. Detached accessory buildings, including garages, or parking spaces required in the absence of garages, may occupy not more than 25 percent of a required rear or interior side yard, provided such building is not more than 15 feet in height and the wall of such building or parking space is located not less than 6 feet from the nearest wall of a main building on the same lot or a contiguous lot.

B. A breezeway connecting a main building to another building may be permitted. Such breezeway shall remain open on one side and shall not be considered part of a main building.

C. A covered patio, attached or unattached, which is enclosed on not more than 3 sides may encroach into any setback provided the distance between the property line and the patio at the nearest point is not less than 6 feet.

D. Eaves, cornices, canopies, belt courses, sills, buttresses, bay windows, planter boxes, light fixtures, or other similar architectural features may encroach into any required setback, provided such extensions shall not be nearer than 2 feet to any property line. Where more than one building is located on the same lot or parcel, such features shall not be nearer than 2 feet to a line midway between the main walls of such buildings. Chimneys and fireplaces may encroach into any setback not more than 2 feet, provided such chimneys or fireplaces shall not be nearer than 3 feet to any property line. Where more than one building is located on the same lot or parcel, such chimneys or fireplaces shall not be nearer than 3 feet to a line midway between the main walls of such buildings.

E. Open, unenclosed stairways or balconies not covered by roofs or canopies may encroach into any setback not more than 3 feet.

F. Uncovered porches, platforms, or landings which do not extend above the level of the first floor of the building may encroach into any setback not more than 6 feet; provided, however, an open-work railing, glass or glass like material, no more than 3 ½ feet in height may be installed or constructed on such porch, platform, or landing.

G. Open-work fences, hedges, guard railings, or other landscaping or architectural devices for safety protection around depressed ramps may encroach into any required setback provided such devices are not more than 3 ½ feet in height.

H. Fences and walls, pursuant to Section 5.3 of the Eastvale Zoning Code.

I. Signs may project and/or encroach into any required setback or public right-of-way, subject to applicable requirements in this Master Plan and the Eastvale Zoning Code.

J. Landscape elements such as benches, fountains, and other decorative features may encroach into any setback, provided they do not obstruct any path of travel or intersection visibility requirements per the Eastvale Zoning Code.

K. Mechanical equipment may encroach into any required setback area up to the property line, provided the equipment is screened by landscape or material (e.g. wall) to the maximum extent feasible and allowed by the applicable utility provider.

L. Stairwells, elevator penthouses, mechanical equipment, and roof attachments such as flagpoles, towers, wireless masts, television antennas, and similar diminutive roof attachments, may project above the height limits set forth within the Leal Master Plan, provided such projections shall not exceed 20 feet above the prescribed height limit.

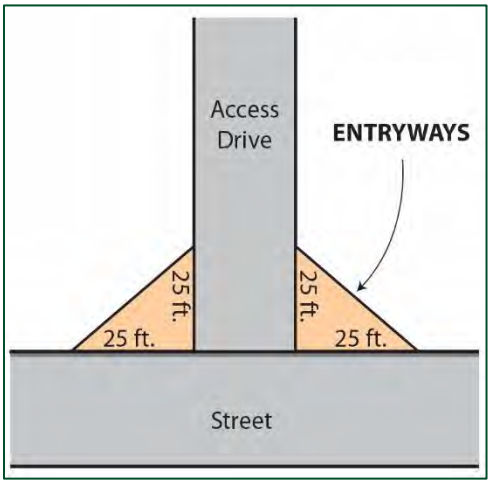
M. Parapets, security railing, and other appurtenances on a flat roof may project above the height limits set forth within the Leal Master Plan,

provided such appurtenances shall not exceed forty-two (42) inches above the prescribed height limit.

4.2. COMMUNITY FEATURES STANDARDS

Community features such as entry monuments, parks, and trails are significant components in the Leal Master Plan. The development and design standards for entryway statements shall be consistent with Chapter 2, Project Character, of this Master Plan and the following:

A. Entryways into the Master Plan shall be identified with special gateway treatments to announce arrival into the project area. The minimum sizes of each are shown in the figures below.



B. Entryway feature treatments may include public art and/or special architectural elements such as sculptures, signage, or enhanced landscaping. All entry points shall be defined through the use of landscaping, trees, and/or architectural elements.

C. Entryway statements shall satisfy the design guidelines provided in the Eastvale Design Standards and Guidelines.

D. Entryways should be designed to provide a clear sense of arrival and set the tone for the overall design quality in Eastvale.

4.3. PARKING

4.3.1. Parking Requirements

Vehicular and bicycle parking shall comply with the parking standards and requirements listed in Table 4-8, *Parking Requirements*, below.

Table 4-8: Parking Requirements

USE TYPE	PARKING REQUIREMENTS
General Commercial/Retail Uses	
General Retail including, but not limited to, neighborhood, community and regional shopping centers, including those with restaurants[1]	4 spaces/1,000 sq ft. of net leasable floor area, except where reduced through a shared parking and/or TDM (see Section 4.3.4)
Professional Business Offices	3 spaces/1,000 sq. ft. of net leasable floor area
Breweries, Wine Blending Businesses and Distilleries	2 spaces/3 employees on the largest shift plus 1 parking space per 100 square feet of tasting area.
Medical Uses	
Medical and Dental Offices, Clinics, and Medical Business Offices	4 spaces/1,000 sq. ft. of net leasable floor area
Civic Uses	
Civic Center, Police Station, Fire Station and the like	3 spaces/1,000 sq. ft. of net floor area. Areas devoted to storage, hallways, restrooms, utility rooms and the like shall not be included within this calculation.
Residential Uses	
Single Family Detached Residential - Conventional SFD, Front-loaded Zero-lot Line SFD, Rear-loaded SFD, and Detached Cluster Homes	1 space/unit within a garage, 1 open space/unit within the lot
Attached Residential - Row Townhomes and Attached Motorcourt Homes	1-bedroom or studio unit: 1.25 spaces/unit 2-bedroom dwelling unit: 1.5 spaces/unit 3+ bedroom dwelling unit: 2.0 spaces/unit
Attached Residential – Apartments and Flats, Residential Units in Mixed-Use Residential Buildings	1-bedroom or studio unit: 1.25 spaces/unit 2-bedroom dwelling unit: 1.5 spaces/unit 3+ bedroom dwelling unit: 2.0 spaces/unit

[1] For designated outdoor dining areas, no parking spaces are required for the first 500 square feet. Any outdoor dining area that is more than 500 square feet in size shall provide 1 space per 100 square feet for the area beyond 500 square feet.

Parking requirements for uses not indicated in Table 4-8, *Parking Requirements*, shall be reviewed and approved by the Community Development Director. Uses not specified shall be compared to a similar use or uses that could satisfy the minimum parking demand. When there is no similar use in Table 4-8, *Parking Requirements*, parking requirements found in Section 5.6 of the Eastvale Zoning Code shall apply or a parking study prepared by a firm acceptable to the Community Development Director shall be submitted that provides justification, and data supporting the proposed minimum parking requirement.

Parking may be shared within the Leal Area Master Plan, with some limitations. Figure 4.9, Parking Distribution identifies the location of where parking may be shared for residential and commercial uses within the Master Plan area.

Figure 4.9 Parking Distribution



4.3.2. On-Street Parking

On-street parking spaces immediately adjacent to and on the same side of the street of a property along the internal backbone streets may be counted toward meeting the off-street parking requirement for that property. These spaces may be parallel or angled spaces. With respect to parallel parking spaces that are not marked, each 24-foot length may be counted as one space. No credit is allowed for street frontage where parking is prohibited, such as loading zones and red curb areas.

4.3.3. Tandem Parking

Tandem parking is permitted for both residential and commercial uses within the Leal Master Plan area. Two tandem parking spaces shall have a minimum depth of 36 feet and shall meet the Development Standards for Off-Street Parking Facilities in Section 5.6 of the Eastvale Zoning Code.

4.3.4. Alternative Programs for Parking

Shared parking and other alternative programs for parking may be permitted pursuant to Section 5.6.B of the Eastvale Zoning Code.

A Parking Management Plan/Transportation Demand Management is required for all non-residential uses that increase parking demand by ten (10) parking spaces. The Parking Management Plan/Transportation Demand Management Plan may reduce the overall parking requirements by up to 25 percent, depending on the findings of said plan. This plan shall include at least the following items:

- Information related to carpooling, van pools and staggered work hours.
- Projected effectiveness of carpool, vanpool, staggered work hours or similar transportation programs.
- Proximity to public transportation facilities serving a significant portion of employees and/or customers.
- Shared parking/overlapping parking demands.
- Specific parking management programs increasing parking efficiency, such as valet parking.
- Evidence that employees and/or customers utilize on transportation alternatives on a consistent basis.

4.3.5. Parking Lot Design

The design standards for the parking area shall be consistent with the Eastvale Design Standards and Guidelines and with the following:

A. Parking lots and structures shall be designed to be functionally and visually integrated and connected. Developments on separate parcels shall provide common access and parking areas.

B. All parking areas shall be screened with landscaping and/or decorative walls from all residential developments and pedestrians along the public right-of-way.

C. Parking lots should be visually separated into smaller units with landscaping or low walls however adjacent parking lots shall be connected for vehicle and pedestrian access.

D. Different landscape design should be used to differentiate major access aisles from the rest of the parking area.

E. Common parking areas shall be landscaped with shade trees to create an attractive pedestrian environment.

4.4. SIGNAGE

Except as identified in the Leal Master Plan, signage shall conform to the applicable provisions of Eastvale Zoning Code, Section 5.7, Signs.

Downtown District: A comprehensive Sign Program for the DT District identifying the location and design standards of thematic signage elements, including the sign type, size, material, and illumination, shall receive the Community Development Director's approval prior to the installation of signs. The standards shall include design standards for signs provided in the DT District and a Master Plan Area Map, consistent the signage guidelines included in Section 2.2.10 of the Leal Master Plan.

Residential Use Districts: Signage for the Residential Use (RU) Districts identifying the signage location and design standards, including the sign type, size, material, and illumination, shall receive Community Development Director's approval prior to the installation of signs.

In addition to the sign types listed in Section 2.2.10, Signage, of the Leal Master Plan, the sign standards for the DT and RU Districts shall also address standards for the following, as applicable:

- Grand opening/coming soon signs for commercial and residential development
- For sale/lease signs for commercial and residential development
- Model home signs
- Signs on kiosks

4.4.1. General Sign Standards

The following requirements shall apply to signs within the Leal Master Plan area:

A. All signs and community monumentation in the DT District shall be included as part of an approved Sign Program.

B. Projecting Signs Clearance. A minimum eight (8) feet vertical clearance is required from the bottom of a projecting sign, marquee, blade or awning to the sidewalk or grade immediately below the sign.

C. Moving or Animated Signs. Unless otherwise permitted herein, signs that include, but are not limited to, rotating, flashing, swinging, blinking, strobing, or otherwise changing appearance are prohibited, except for signs that include time and/or temperature that are located at least 100 feet away from a residential land use District. In cases where illuminated signs display temperature and time, said sign shall receive City approval and shall include a mechanism to reduce the brightness of said sign when in proximity to a residential neighborhood. Signs, except for public service time and temperature signs, shall not be flashing, animated, or revolving in nature.

D. Sign Illumination. All signs may be internally or externally illuminated. All direct light rays from all signs shall be confined onto the site on which the sign is located and shall not shine directly upon neighboring property. All exposed raceways are prohibited. Temporary lighting, such as search or flood lights that are used on a permanent basis, are prohibited.

E. Approval of Sign Modifications. The Planning Commission may grant approval of signs that do not comply with the regulations contained in the Leal Master Plan or in the approved Sign Program.

4.4.2. Changeable Signage

A. Pageantry

Pageantry is allowed in the DT District and includes flags, pole-mounted banners, community banners over the right-of-way, kiosks, canopies, lights, directories, ground-mounted graphics, and other similar temporary or permanent (but changeable) elements. The purpose of changeable pageantry signage is to create excitement and provide a visually interesting commercial area. The intent is to allow regular changes to the pageantry elements in terms of color, design, and other visual content so the pageantry signage can look current. Pageantry signage shall comply with the following:

1) No limit on the number of permitted pageantry signs. Maximum sign area per sign face shall be 24 square feet. Maximum height of the sign shall not exceed 20 feet. Minimum setbacks for the freestanding signs shall be the same as the setbacks established for the DT District. Banners over or within the public rights-of-way do not have any size limitation, however, applicable permits from Public Works shall be obtained.

2) Pageantry may consist of murals or other decorative graphics for products sold or offered on or off the premises. All pageantry with off-premises signage must be located within the commercial portion of the project and shall be oriented towards internal uses and shall not be readily visible from properties outside of the Master Plan area.

3) Pageantry may be located in any portion of the DT District, except that pageantry shall not be located at least 20 feet from the curved portion of the street corner to maintain visibility for motorists.

4) Air-inflated signs, moving signs, paper, cardboard, freestanding billboards, styrofoam, stickers, and decals are not acceptable forms of pageantry (directories and kiosks excepted).

5) Pageantry shall not include flashing, flickering, rotating, or moving lights.

6) Temporary promotional advertising (banners) is not considered to be pageantry.

7) Kiosks and directories should provide vertical breaks in the sign structure.

8) Individual panels shall be recessed, framed, or treated to avoid a flat appearance of the sign face.

B. Marquee Signs

The height of manual letters located on a marquee shall be affixed flat to the surface of the sign and shall not have a vertical height of more than 2 feet and shall not extend vertically or horizontally beyond the marquee. An electronic marquee display is permitted, provided that the individual letters shall not have a vertical height of more than 2 feet.

4.4.3. Exempted Signs

The following signs and/or sign structures are exempt from any sign permit requirement as identified in Section 5.7 of the Eastvale Zoning Code; provided, however, that such signs shall comply with all other applicable requirements of the Leal Master Plan and Eastvale Zoning Code.

A. Exempted signs identified in the Eastvale Zoning Code.

B. Temporary contractor's, future development and building sale signs that comply with the provisions in the Eastvale Zoning Code.

C. Public Notices and Signs. Public notices posted pursuant to law, signs erected by governmental agencies and public utilities and warning or information signs required by law for public health and safety.

D. Copy or Message on Changeable Copy Signs. The changing of advertising copy or message on bulletin boards and pageantry, where the basic board or pageantry is permitted under the provisions of this Master Plan, may be changed digitally or manually.

4.5. MASTER PLAN AREA MAPS

Large area maps should be placed at the information booths in the Downtown District. These maps could be combined with local area information/history, advertising, events calendars, etc.

4.6. LANDSCAPING

Landscaping within the Leal Master Plan area shall comply with Section 5.4, Landscaping, General Provisions, of the Eastvale Zoning Code.

5 DEVELOPMENT PROCESS

The goal of the Leal Master Plan is to encourage development of the desired development and level of quality (see Chapter 2, Project Character, and Chapter 3, Land Use Program), while allowing flexibility in the design and implementation of the project. To achieve this, a staged development process has been established which provides for the developer(s) flexibility while this document serves as a guide for the development of the project.

The intent of the staged development process is to allow prospective developers to respond to market demand by first creating a framework of development standards and design guidelines at the time of project conception instead of establishing strict requirements prior to any development being proposed for the Leal Master Plan. In the second phase, an amendment to the Master Plan will be conducted to establish development standards and enhanced guidelines, ensuring that overall design quality meets the City's goals for the project as stated in Chapter 2.

While the City intends to allow flexibility in the project design and layout through implementation of the staged development process, this Master Plan also establishes specific parameters for the design and quality of the project, which must be met by any future development.

Phasing requirements have also been established to ensure that a unifying theme for the Leal Master Plan and comprehensive project-wide plans are developed prior to any development taking place. These phasing requirements will ensure that the City's goal of a comprehensive, high-quality project may be updated.

This chapter establishes the process through which all proposed development is submitted, reviewed, and approved, including requirements for the staged development process and requirements for phasing of developments.

5.1. GENERAL PROVISIONS

The City of Eastvale shall administer the provisions of the Leal Master Plan in accordance with the City of Eastvale General Plan, the City of Eastvale Municipal Code, the Subdivision Map Act, and other applicable State and City regulations. The Master Plan development procedures, regulations, standards, and specifications shall supersede the relevant provisions of the City's Municipal Code, as they currently exist or may be amended in the future. Any development regulation and building requirement not addressed in this Master Plan shall be subject to the City's adopted codes and regulations.

5.1.1. Interpretation

In instances where any section, subsection, sentence, clause, phrase, portion or word contained within this Master Plan is undefined, unclear or vague, then the

Community Development Director, or his/her designee, shall make a determination as to its meaning and intent. The Community Development Director may elect to forward any item to the Planning Commission for final determination. Said determination shall be judged to be final.

5.1.2. Severability

If any section, subsection, sentence, clause, phrase, or portion of this Master Plan, or any future amendments or additions hereto, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Master Plan, or any future amendments or additions hereto. The City hereby declares that it would have adopted these requirements and each sentence, subsection, clause, phrase, or portion or any future amendments or additions thereto, irrespective of the fact that any one or more sections, subsections, clauses, phrases, portions or any future amendments or additions thereto may be declared invalid or unconstitutional.

5.2. STAGED DEVELOPMENT PROCESS SUMMARY

The staged development process has been established for all proposed developments in the Leal Master Plan. The process consists of the following stages:

- Stage 1, Initial Leal Master Plan
- Stage 2, Master Plan Amendment to Create Development Standards and Enhanced Guidelines
- Stage 3, Rough Grading Permit
- Stage 4, Development Plan Review
- Stage 5, Precise Grading and Building Permits

Table 5-1, Staged Development Process, illustrates these steps.

Table 5-1: Staged Development Process

Stage 1: Initial Leal Master Plan (Adopted in 2017)
• Identified Project Objectives and Project Character
• Established Permitted and Conditionally Permitted Uses and Other Development Requirements
• Outlined the Staged Development Review Process
• Amended the General Plan and Zoning Code.
Stage 2: Master Plan Amendment to Create Development Standards and Enhance Guidelines (this document)
• Refine land use and zoning designations within the Master Plan.
• Establish project-wide Land Use Plan, Circulation Plan, and Infrastructure Plans.
• Determine project-wide development standards, design guidelines and project theme.
Stage 3: Rough Grading Permit
• Tentative Tract Map (A Map) will be reviewed and approved to allow to grade the site.
• The site would be cleared and backbone infrastructure such as streets and utilities would be installed.
Stage 4: Development Plan Review
• Submittal of detailed development plans. Development Plans will be reviewed per the Leal Master Plan and the Eastvale Municipal Code, as applicable.
• Any required conditional use permits for specific uses will be reviewed and approved as provided in the Eastvale Municipal Code.
Stage 5: Precise Grading and Building Permits
• Will be reviewed and issued based on the approved Development Plan.
• May occur concurrently with Stage 4.

Stage 1: Initial Leal Master Plan

This first stage in the approval process was completed with the adoption of the Initial Leal Master Plan and the associated General Plan Amendment and Change of Zone. These approvals accomplished the following:

- Identified the project objectives and project character.
- Established permitted and conditionally permitted uses and other development requirements.
- Outlined the staged development review process.
- Created an expanded General Plan policy for the Leal Master Plan and amended the General Plan Land Use Map to show uses consistent with the new Leal Master Plan policy.
- Amended the Zoning Code to provide for the creation and adoption of Master Plans (including this Master Plan) and amended the Zoning Map to reflect the Leal Master Plan.

The Stage 1 process also included the certification of a Final Environmental Impact Report (FEIR), which provided an analysis of the impacts of this Master Plan.

Stage 2: Master Plan Amendment to Create Development Standards and Enhance Guidelines

Stage 2 prepares project-wide development criteria and guidelines which are not included in the Initial Master Plan. The 2022 Amendment conducts this phase. The submittals required in Stage 2 will amend the initial Master Plan to:

- Refine land use and zoning designations within the Master Plan.
- Establish project-wide land use plan, circulation plan, and infrastructure plans.
- Determine project-wide development standards and design guidelines.
- Establish the project theme.
- Refine the permitted and conditionally permitted uses to better reflect anticipated, future development trends.

The submittal of the Stage 2 materials triggered additional environmental review in the form of an Addendum to the Leal Master Plan EIR, which concluded that no new or more severe impacts would occur as a result of the State 2 submittal. The Addendum to the Leal Master Plan EIR prepared for this stage established land use intensity limits within this Master Plan.

Stage 3: Rough Grading Permit

In Stage 3, rough grading permit(s) will be reviewed and issued pursuant to an approved Tentative Tract Map and established grading permit processes in the

City of Eastvale. This phase will consist of clearing the site and installing backbone infrastructure.

Stage 4: Development Review

Stage 4 will consist of the submittal of specific development projects through the Development Review process established in the Leal Master Plan and in the Eastvale Zoning Code, as applicable. During this stage, any required Conditional Use Permits for specific uses will be reviewed and approved as provided in the Eastvale Zoning Code.

Table 5-2, Development Process Approvals, is intended to clarify the process of entitlement through the City of Eastvale for various applications and actions. Table 5-2 applies only to future developments being implemented within the Leal Master Plan area.

Table 5-2: Development Process Approvals

	Action Required By:		
	Community Development Director	Planning Commission	City Council
Development Plan Review and Conditional Use Permits		X	
Master Plan – Interpretations	X		
Master Plan – Minor Adjustments	X		
Master Plan – Amendments		X	X
Tentative Tract Map		X	

The following administrative provisions apply to the implementation of development applications (e.g., Development Plan Reviews) for future developments within the Master Plan area:

A. No vertical development shall occur or building permits issued within the Master Plan area until the proposed development is reviewed by the City's Planning Division and found to be consistent with the adopted Master Plan. Criteria for review and approval of proposed development shall include, but not be limited to, the following:

    i. Conformance with the land use program;

    ii. Conformance with the specific development standards, goals, and policies of the Master Plan; and

B. All Tentative Tract or Parcel Maps shall be consistent with this Master Plan.

Stage 5: Precise Grading and Building Permits

Finally, grading and building permits will be reviewed and issued based on the approved development plans. This process may occur concurrently with Stage 3, pursuant to existing permit processes in the City of Eastvale.

5.3. STAGED DEVELOPMENT PROCESS SUBMITTAL REQUIREMENTS

The following sections describe the items that must be submitted at various points in the development process. Since Stages 1 and 2 were completed with the adoption of the Master Plan and subsequent amendment, no submittal requirements apply and are therefore not shown here.

5.3.1. Stage 1: Initial Leal Master Plan

The Leal Master Plan is the implementing mechanism for the MP (Master Plan) zone district for the Leal property. It sets the vision for development of the project site, assigns a land use program, establishes development standards, and outlines the process by which the property will develop, and the Master Plan will be implemented. As noted above, there are no submittal requirements for Stage 1, which was completed with the adoption of the initial Master Plan.

5.3.2. Stage 2: Master Plan Amendment to Create Development Standards and Enhance Guidelines

The Master Plan Amendment establishes the project-wide development plan components and development standards/enhanced guidelines. As noted above, there are no submittal requirements for Stage 2, which was completed with the adoption of the Master Plan Amendment. Future amendments or adjustments to the Master Plan are discussed in Section 5.4, Master Plan Adjustments and Amendments.

5.3.3. Stage 3: Rough Grading Permits

Submittals of rough grading permits for development within the Leal Master Plan area shall be pursuant to the submittal requirements and procedures established by the City of Eastvale Community Development Department.

5.3.4. Stage 4: Development Review

Each development within the Leal Master Plan must submit a development entitlement application to the City of Eastvale Planning Division for review per the Major or Minor Development Review provisions of the Eastvale Zoning Code (Section 2.1).

5.3.5. Stage 5: Precise Grading and Building Permits

Submittals of precise grading and building permits for development within the Leal Master Plan area shall be pursuant to the submittal requirements and procedures established by the City of Eastvale Community Development Department.

5.4. MASTER PLAN ADJUSTMENTS AND AMENDMENTS

5.4.1. Minor Adjustments to the Master Plan

Minor adjustments to the plans, guidelines, regulations, and standards contained in the adopted Master Plan be approved at the discretion of the Community Development Director, or his/her designee; provided, however, that such deviations are deemed to be in substantial conformance with this Master Plan and are not detrimental to the public health, safety, and welfare. Minor adjustments to the Master Plan must be consistent with the purpose and intent of the originally approved Master Plan. Any decisions made by the Community Development Director may be appealed to the Planning Commission. Decisions of the Planning Commission may be appealed to the City Council. Decisions by the City Council shall be deemed final.

All minor adjustments must comply with the following findings:

A. The total number of dwelling units within the Leal Master Plan area shall not exceed 2,500 dwelling units.[1]

B. The total gross leasable commercial area (office, retail, city hall, library, police station etc.) within the Leal Master Plan shall not exceed 595,000 square feet.[1]

C. The public health, safety, and welfare shall not be jeopardized by the proposed adjustments.

D. No potentially significant environmental impacts are expected to occur as a result of the proposed adjustments, unless if the significant impacts have already been analyzed in a previously environmental document.

E. Substantial conformance to the design guidelines included in Chapter 2, Project Character.

The following modifications constitute "minor adjustments" to the approved Master Plan and may be approved without amending the Master Plan.

A. Slight modifications to the Master Plan area boundaries, as shown in Figure 3.1, Land Use Plan, that respond to more accurate or recent data or actual on-site conditions.

[1] As established by the Leal Master Plan EIR Addendum to avoid new or more severe significant impacts.

B. Minor adjustments to a development standard or intensity limitation not exceeding 20%.

C. Modifications to individual park sizes, provided a total of 14.06 acres is provided for parks or open space.

D. Minor changes to the circulation concept to accommodate actual conditions on-site or modify ingress and egress locations, or to respond to new information that was not available at the time the Master Plan was approved.

E. Minor changes to the design of the street cross sections, provided that the streets have adequate capacity to handle the anticipated volumes of traffic and the design changes are deemed acceptable by the City's Traffic Engineer.

F. Modifications to the Master Plan that allow the Project master developer to move and adjust components of the plan; provided, however, that a plan is submitted to the City and reviewed and approved by the Community Development Director, or his/her designee, and the City Engineer. The plan shall depict the location of all land uses and the relationships of the uses to one another. In evaluating the plan, all of the following conditions must be met for the site plan to be approved:

   i. A maximum of 2,500 dwelling units and 595,000 square feet of commercial gross leasable area (which does not include any civic or public facility uses) shall be allowed within the Master Plan area.[2]

   ii. The land use modifications would not result in any new environmental impacts that were not previously assessed in the approved California Environmental Quality Act (CEQA) documentation for the Master Plan.

G. Minor modifications to the architectural or landscape design guidelines included in Chapter 2. *Project Character*.

H. Minor modifications to the water, sewer, and/or drainage plan(s).

I. Any modifications to the Master Plan phasing.

[2] As established by the Leal Master Plan EIR Addendum to avoid new or more severe significant impacts.

5.4.2. Master Plan Amendments

A. The Project master developer, property owner, or designee shall have the authority to initiate an amendment to the adopted Master Plan at any time. No authorization by City staff, the Planning Commission, or the City Council shall be necessary to initiate a Master Plan Amendment for The Leal Master Plan area. However, the City shall be the approving authority of any requested amendments.

B. Said amendment shall not require a concurrent General Plan Amendment unless it is determined by the City of Eastvale that the proposed amendment would substantively affect the General Plan goals, objectives, policies, or programs for the Leal Master Plan area.

C. All Master Plan Amendments shall be subject to the requirements of CEQA and any applicable City of Eastvale environmental guidelines.

D. The Planning Commission shall review at a noticed public hearing all proposed amendments to the adopted Master Plan. Upon the close of the required public hearing, the Planning Commission shall act by resolution to recommend to adopt, reject, or modify the proposed Master Plan Amendment and forward its recommendation and findings to the City Council for action.

E. The City Council, at a noticed public hearing, shall review the Planning Commission's findings and recommendations. Upon the close of the required public hearing, the City Council shall act by resolution to adopt, reject, or modify the proposed Master Plan Amendment.

F. Prior to approving or conditionally approving any Master Plan Amendment, the Planning Commission and City Council must make the following findings regarding the Amendment:

   i. It is consistent with the goals and policies of the City of Eastvale General Plan;

   ii. It is consistent with the vision, purpose and intent of the Master Plan;

   iii. Results in development of desirable character that will be compatible with existing and proposed development in the surrounding neighborhoods; and

   iv. Respects the aesthetic assets of the community consistent with economic realities.

6 IMPLEMENTATION PLAN

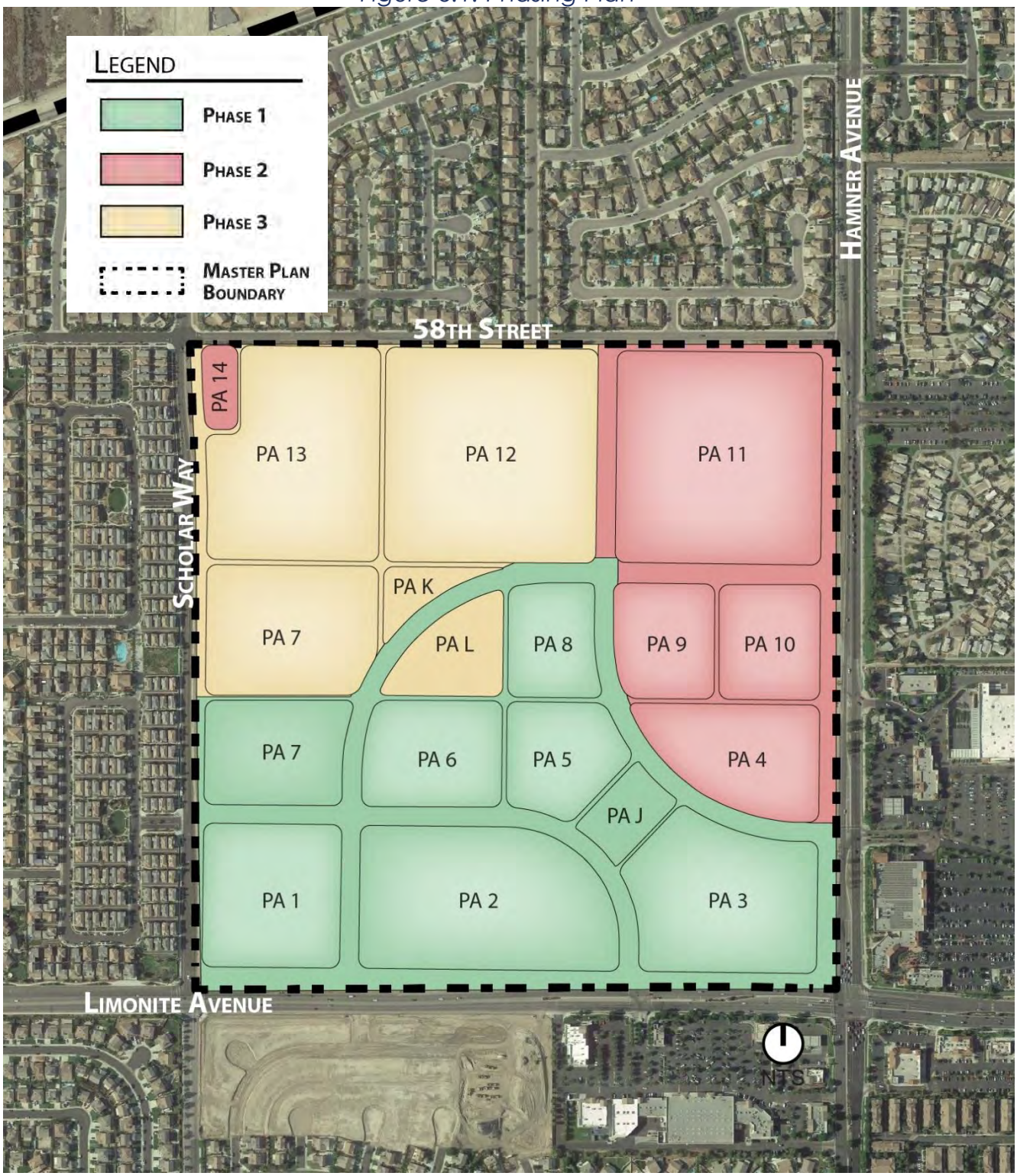
This chapter describes the implementation of this Master Plan, including the phasing of infrastructure and development. Information on the administration of this Master Plan can be found in Chapter 1.

6.1. PHASING

A conceptual Phasing Plan is shown in Figure 6.1. Phasing of the infrastructure as described below shall begin along Limonite Avenue and move north through the project site. The development of uses and the boundaries of each phase will be determined by market forces[1] and the developer(s) of the property, however phasing of residential uses shall be such that several different types of housing shall be offered concurrently.

[1] Since phasing is tied to market conditions, changes to the conceptual phasing plan do not require administrative approval. The Phasing Plan provides information only and is not regulatory. Phasing is at the sole discretion of the developer and may adjust according to market conditions.

Figure 6.1: Phasing Plan



Source: Hunsaker & Associates

6.2. INFRASTRUCTURE COORDINATION

To ensure that infrastructure is developed in a coordinated way and so that all phases of development will have sufficient infrastructure capacity, the following requirements are imposed. Should the project be developed in a single phase, all infrastructure will be installed in the first phase.

The following requirements relate to the coordination of infrastructure with development of uses:

1) Backbone Sewer/Water/Storm Drain Infrastructure – This infrastructure must be developed in conjunction with each phase of development as shown in Figure 6.2. Preparation of an infrastructure plan for backbone water/sewer/drainage infrastructure is a required Stage 3 component (see Chapter 5, Development Process).

   Backbone water/sewer/storm drainage infrastructure includes:

   - Water – Hamner and Limonite Avenues have 30-inch water mains located within the rights-of-way. Water services for the project will use these existing lines to serve the project area.
   - Sewer – Sewer service is available in all of the streets bordering the project (Hamner, Limonite, Scholar, and 58th). Sewer service inside the project area will be built to accommodate development as it proceeds and will all connect to the existing sewer in Limonite.
   - Storm Drainage – These improvements will include water quality and drainage improvements to ensure that stormwater runoff from the site does not degrade downstream environments. Integration of water quality improvements into parks, parkways, and landscaped areas is encouraged throughout the Leal Master Plan.

Figure 6.2: Water Plan



Source: Hunsaker & Associates

Figure 6.3: Sewer Plan

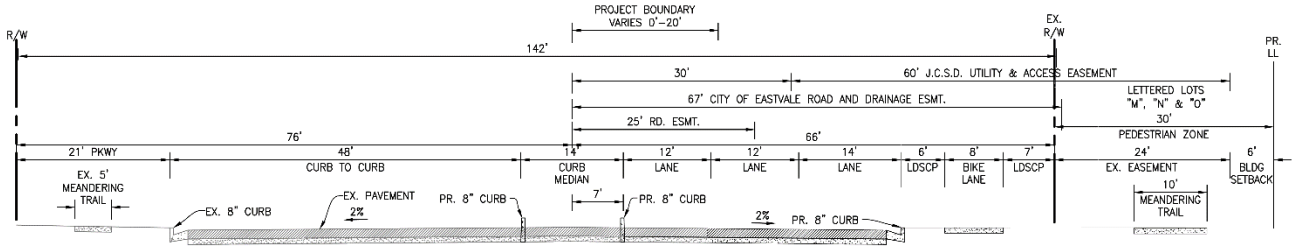


Source: Hunsaker & Associates

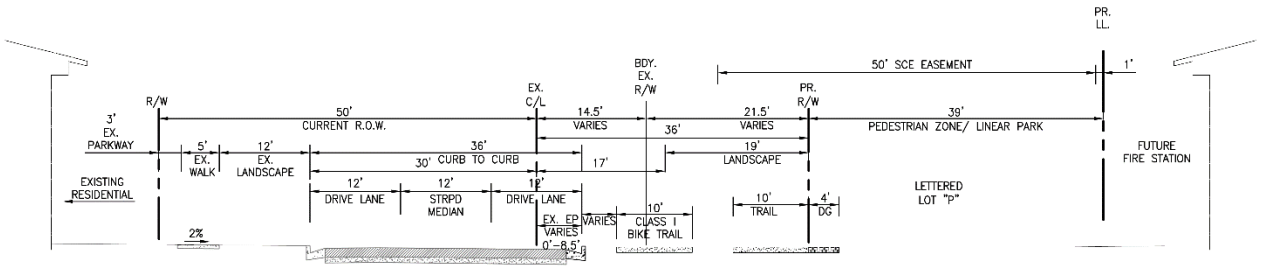
Figure 6.4: Storm Drainage Plan



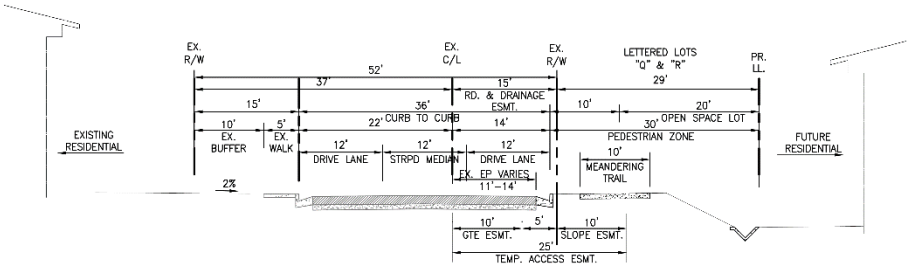
2) External Circulation – Half-width public improvements to Hamner Avenue, Limonite Avenue, Scholar Way and 58th Street shall be constructed with the Phasing Plan as shown in Figure 6.1. Improvements to Scholar Way and 58th Street may be provided in the form of half-width pavement and sidewalks, with the provision that landscaping must be installed at the time that development occurs adjacent to the street. Class I trails are provided on both sides of Limonite Avenue. Class I trails are also provided on one side of Scholar Way, 58th Street and Hamner Avenue. One bike lane is provided on one side of Limonite Avenue. Bike lanes are also provided on both sides of Scholar Way.



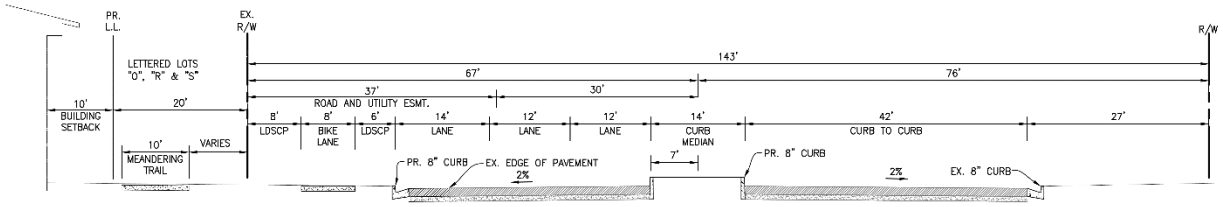
SECTION A-A
LIMONITE AVE. PROPOSED



SECTION F-F
SCHOLAR WAY PROPOSED



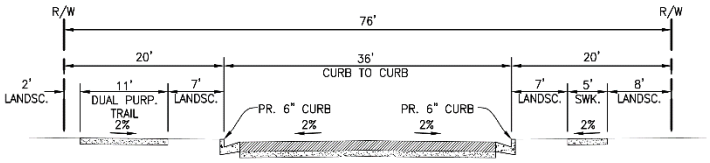
SECTION C-C
58TH STREET PROPOSED



SECTION D-D
HAMNER AVE. PROPOSED

Source: Hunsaker & Associates

3) Internal Circulation – Internal roadways within the proposed phase will be constructed to provide adequate ingress/egress to all proposed development in the phase. As needed, roadways in the undeveloped portions of the site shall be constructed to provide adequate emergency access.



SECTION E-E
INTERNAL STREET PROPOSED

Source: Hunsaker & Associates

4) Major/Minor Entries – Major and minor entries shall be developed at the time that a phase containing the entry(ies) is developed. Preparation of a detailed design for both types of entries and a plan for their locations is a required Stage 3 component (see Chapter 5).

5) Signature Iconic Element (Clock-tower, art, etc.) - A unique iconic element such as an art sculpture, mural, clock-tower, or the like that helps define the project and would be unique to the City shall be provided as part of the project. The element shall be located within a publicly accessible space or at a focal point or project entry.

Additional development standards and requirements related to each increment of development are included in Chapter 4, Development Standards, and Chapter 5, Development Process.

6.3. MAINTENANCE

Successful operation of maintenance districts and associations are important in ensuring that the Master Plan area is well-maintained. Maintenance responsibilities for the open spaces, landscape areas, lighting, and common project facilities will be maintained by the homeowner association's property manager.[2] Table 6-1, Maintenance Responsibilities, identifies the maintenance responsibilities for various infrastructure and landscape improvements associated with the project.

Table 6-1: Maintenance Responsibilities

Maintenance Area	City/JCSD	HOA	POA
Internal Streets		X	
Perimeter Right-of-Way	X		
The commercial area, including any parking structures			X
Water System	X		
Sewer System	X		
Internal Storm Drainage Systems		X	
Water Quality Basins		X	
Parks and trails[3]		X	

[2] Funding for private maintenance responsibilities may occur through the homeowner's association, community facilities district, or other maintenance district.

[3] Except for Planning Area J, which will be a City-owned and maintained park.

Appendix B

LEAL MASTER PLAN AMENDMENT PROJECT
AIR QUALITY, GREENHOUSE GAS AND ENERGY IMPACT STUDY
City of Eastvale, California



LEAL MASTER PLAN AMENDMENT PROJECT
AIR QUALITY, GREENHOUSE GAS AND ENERGY IMPACT STUDY
City of Eastvale, California

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April 8, 2022

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1.0 Introduction

This report contains analyses of air quality and greenhouse gas (GHG) emissions and energy usage for the proposed Leal Master Plan Amendment Project (hereinafter referred to as project). This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.).

The methodology follows the California Air Resources Board (CARB), the South Coast Air Quality Management District (SCAQMD), and City of Eastvale recommendations for quantification of emissions and evaluation of potential impacts.

The purpose of this analysis is to review changes in air quality and GHG emissions that would occur as a result of the proposed project in comparison to the previously approved project described in the Leal Master Plan Draft Environmental Impact Report, prepared by Michael Baker International, July 2015 (hereinafter referred to as 2015 EIR).

1.1 Site Location

The proposed project site is located near the northwest corner (NWC) of Hamner Avenue and Limonite Avenue, in the City of Eastvale. The project site is bound by 58th Street to the north, Limonite Avenue to the south, Hamner Avenue to the east, and Scholar Avenue to the west.

The project site is located within the South Coast Air Basin (SCAB), the SCAQMD Riverside Valley General Forecast Area, and the Corona/Norco air monitoring area-22.

The project site is currently vacant and is zoned as the Leal Master Plan in the City of Eastvale Zoning Map. The City of Eastvale General Plan Land Use Map designates the project site as Leal Policy Area.

The project location map is provided in Exhibit A.

1.2 Project Description

The project consists of amending the Leal Master Plan to allow for the construction and operation of a total of 2,500 residential dwelling units, a 1.6 acre community recreational center, 12.5 acres of community park, and 28.17 acres of mixed use development (including a new civic center, retail/commercial and residential uses).

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The total gross site area is approximately 158.6 acres.

The buildout of the project will also include approximately 22.9 acres of roadway improvement to 58th Street, Limonite Avenue, Hamner Avenue and Scholar Way, along with new internal street improvements.

The site plan used for this analysis, provided by the HUNSAKER & ASSOCIATES, is illustrated in Exhibit B. Table 1 summarizes the land use assumptions used for this analysis.

Table 1
Land Use Summary

Land Use	CalEEMod Use	Quantity	Metric[1]	Acre
Single Family Residential	Single Family Detached	400	DU	47.148
Multifamily Residential	Townhomes/Condos	1,000	DU	35.277
	Apartments	1,100	DU	28.169
Retail	Regional Shopping Center	390.0	TSF	
General Office	General Office	65.0	TSF	
Medical Office	Medical Office Building	65.0	TSF	
Civic Center	Government (Civic Center)	40.0	TSF	11.019
Fire Station		12.2	TSF	
Police		10.0	TSF	
Library	Library	25.0	TSF	
Parking	Parking Structure	2,820.0	Spaces	
Parking	Parking Lot	978.0	Spaces	
Recreational Center	City Park	1.584	Acre	1.584
Park	City Park	12.478	Acre	12.478
On-site / Off-site Street Improvements	Parking Lot	22.9	Acre	22.917
Total				**158.592**

[1] D.U. – Dwelling units; T.S.F. – Thousand Square Feet

Construction of the project is estimated to begin in the year 2022 and last approximately 56 months. Construction activities are expected to consist of demolition, site preparation, grading, building construction, paving, and architectural coating. The construction phase length is provided by the applicant.

RK engineering group, inc.
rkengineer.com

The project is expected to demolish approximately 67,500 square feet of the exiting on-site building structures and export approximately 340,000 cubic yards of on-site dairy waste. The project is also expected to require the import of approximately 542,000 cubic yards of earthwork materials during site grading. The project is expected to be operational in the year 2026.

1.3 Sensitive Receptors

Sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases.

For CEQA purposes, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24-hours or longer, such as residences, hospitals, and schools. Several sensitive land use areas are present surrounding the project site, including;

- Existing residential dwelling units located to the north, south, east and west of the project site.

The sensitive receptors are expected to be located less than 25 meters from the project site

1.4 Recommended Project Design Features

The following section provides a summary of the recommended project design features that are expected to be included in the latest project to help reduce Air Quality and GHG emissions. The recommended project design features include several standard rules and requirements, best practices and project design elements know for reducing Air Quality and GHG emissions.

Construction Design Features:

DF-1 Prepare and implement a Construction Management Plan which shall include the Air Quality design features to be submitted to the City of Eastvale for all phases of construction.

DF-2 Follow the SCAQMD rules and requirements for fugitive dust control, which includes, but are not limited to the following:

1. All active construction areas shall be watered two (2) times daily.

2. Speed on unpaved roads shall be reduced to less than 15 mph.

3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.

4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.

5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.

6. Access points shall be washed or swept daily.

7. Construction sites shall be sandbagged for erosion control.

8. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).

9. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.

10. Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.

11. Replace the ground cover of disturbed areas as quickly possible.

12. A fugitive dust control plan should be prepared and submitted to SCAQMD prior to the start of construction.

DF-3 Require all construction equipment to have Tier 4 low emission "clean diesel" engines (OEM or retrofit) that include diesel oxidation catalysts and diesel particulate filters that meet the latest CARB best available control technology.

DF-4 Construction equipment shall be maintained in proper tune.

DF-5 All construction vehicles shall be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

DF-6 Minimize the simultaneous operation of multiple construction equipment units, to the maximum extent feasible.

DF-7 The use of heavy construction equipment and earthmoving activity should be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.

DF-8 Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

DF-9 Establish staging areas for the construction equipment that are as distant as possible from adjacent residential homes.

DF-10 Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

Operational Design Features:

DF-11 Implement trip reduction measures and project design features to reduce the number of auto-based trips generated by the project and encourage the use of transit, bicycling, and walking through the following measures;

1. Improve the walkability design of the project by providing pedestrian and bicycling connections within the project site and to adjacent off-site facilities (i.e. sidewalks, bike lanes, trails, parcel-to-parcel connections, crosswalks, wayfinding signage, etc.).

2. Provide traffic calming measures (i.e. marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.)

3. Provide bicycle parking at the commercial, civic center and community center areas.

4. Provide secure bicycle parking areas at the multi-family uses.

5. Provide electric vehicle charging stations and parking for all uses (i.e. common area charging stations for the multi-family, retail/commercial, and civic center uses and garages setup with dedicated circuits and plugs for single family/condos).

DF-12 No wood burning fireplaces will be allowed in any residential dwelling.

DF-13 Install rooftop solar panels, community solar panels, and/or other sources of on-site renewable energy capable of meeting the required California Energy Code Energy Design Rating for all single family, multifamily residences and municipal building uses.

DF-14 Comply with the mandatory requirements of California Building Standards Code Title 24 Part 6 (Energy Code) and Title 24 Part 11 (CAL Green).

DF-15 Implement water conservation strategies, including low flow fixtures and toilets, water efficient irrigation systems, drought tolerant/native landscaping, and limit the amount of turf/sod.

DF-16 Participate in the local waste management recycling and composting programs.

DF-17 The home-owners associations and property management companies should encourage landscape maintenance crews to use electric landscaping equipment, such as lawn mowers and leaf blowers, wherever feasible.

2.0 Air Quality Setting

The Federal Clean Air Act (§ 7602) defines air pollution as any agent or combination of such agents, including any physical, chemical, biological, or radioactive substance which is emitted into or otherwise enters the ambient air. Household combustion devices, motor vehicles, industrial facilities and forest fires are common sources of air pollution. Air pollution can cause disease, allergies and death. It affects soil, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate. It can also cause damage to and deterioration of property, present hazards to transportation, and negatively impact the economy.

This section provides background information on criteria air pollutants, the applicable federal, state and local regulations concerning air pollution, and the existing physical setting of the project within the context of local air quality.

2.1 Description of Air Pollutants[1].

The following section describes the air pollutants of concern related to the project. Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health. The following descriptions of criteria air pollutants have been provided by the SCAQMD.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, and biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, and competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs in the body. The ambient air quality standard for carbon monoxide is intended to protect persons whose medical condition already compromises their circulatory system's ability to deliver oxygen. These medical conditions include certain heart ailments, chronic lung diseases, and anemia. Persons with these conditions have reduced exercise capacity even when exposed to relatively low levels of CO. Fetuses are at risk because their blood has an even greater affinity to bind with CO. Smokers are also at risk from ambient CO levels because smoking

[1] SCAQMD. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning (May 6, 2005)

increases the background level of CO in their blood. The South Coast basin has recently achieved attainment status for carbon monoxide by both USEPA and CARB.

- **Nitrogen Dioxide (NO_2)** is a byproduct of fuel combustion. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in young children has also been observed at concentrations below 0.3 parts per million (ppm). NO_2 absorbs blue light which results in a brownish red cast to the atmosphere and reduced visibility. Although NO_2 concentrations have not exceeded national standards since 1991 and the state hourly standard since 1993, NO_x emissions remain of concern because of their contribution to the formation of O_3 and particulate matter.

- **Ozone (O_3)** is one of a number of substances called photochemical oxidants that are formed when volatile organic compounds (VOC) and NO_x react in the presence of ultraviolet sunlight. O_3 concentrations in the South Coast basin are typically among the highest in the nation, and the damaging effects of photochemical smog, which is a popular name for a number of oxidants in combination, are generally related to the concentrations of O_3. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the subgroups most susceptible to O_3 effects. Short-term exposures (lasting for a few hours) to O_3 at levels typically observed in southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. The South Coast Air Basin is designated by the USEPA as an extreme non-attainment area for ozone. Although O_3 concentrations have declined substantially since the early 1990s, the South Coast basin continues to have peak O_3 levels that exceed both state and federal standards.

- **Fine Particulate Matter (PM_{10})** consists of extremely small suspended particles or droplets 10 microns or smaller in diameter that can lodge in the lungs, contributing to respiratory problems. PM_{10} arises from such sources as re-entrained road dust, diesel soot, combustion products, tire and brake abrasion, construction operations, and fires. It is also formed in the atmosphere from NO_x and SO_2 reactions with ammonia. PM_{10} scatters light and significantly reduces visibility. Inhalable particulates

pose a serious health hazard, alone or in combination with other pollutants. More than half of the smallest particles inhaled will be deposited in the lungs and can cause permanent lung damage. Inhalable particulates can also have a damaging effect on health by interfering with the body's mechanism for clearing the respiratory tract or by acting as a carrier of an absorbed toxic substance. The South Coast basin has recently achieved federal attainment status for PM_{10}, but is non-attainment based on state requirements.

- **Ultra-Fine Particulate Matter ($PM_{2.5}$)** is defined as particulate matter with a diameter less than 2.5 microns and is a subset of PM_{10}. $PM_{2.5}$ consists mostly of products from the reaction of NO_x and SO_2 with ammonia, secondary organics, finer dust particles, and the combustion of fuels, including diesel soot. $PM_{2.5}$ can cause exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease, declines in pulmonary function growth in children, and increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in $PM_{2.5}$ levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma. The South Coast basin is designated as non-attainment for $PM_{2.5}$ by both federal and state standards.

- **Sulfur dioxide (SO_2)** is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Health effects include acute respiratory symptoms and difficulty in breathing for children. Individuals with asthma may experience constriction of airways with exposure to SO_2. Though SO_2 concentrations have been reduced to levels well below state and federal standards, further reductions in SO_2 emissions are needed because SO_2 is a precursor to sulfate and PM_{10}. The South Coast basin is considered a SO_2 attainment area by USEPA and CARB.

- **Lead (Pb)** is a toxic heavy metal that can be emitted into the air through some industrial processes, burning of leaded gasoline and past use of lead-based consumer products. Lead is a neurotoxin that accumulates in soft tissues and bones, damages the nervous system, and causes blood disorders. It is particularly problematic in children, in that permanent brain damage may result, even if blood levels are promptly normalized with treatment. Concentrations of lead once exceeded the state and federal air quality standards by a wide margin, but as a result of the removal of lead from motor vehicle gasoline, ambient air quality standards for lead have not been exceeded since 1982. Though special monitoring sites immediately downwind of lead sources recorded localized violations of the state standard in 1994, no violations have been recorded since. Consequently, the South Coast basin is designated as an attainment area for lead by both the USEPA and CARB. This report

does not analyze lead emissions from the project, as it is not expected to emit lead in any significant measurable quantity.

- **Volatile Organic Compounds (VOC),** although not actually a criteria air pollutant, VOCs are regulated by the SCAQMD because they cause chemical reactions which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM_{10} and lower visibility levels. Sources of VOCs include combustion engines, and evaporative emissions associated with fuel, paints and solvents, asphalt paving, and the use of household consumer products such as aerosols. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC. Some hydrocarbon components classified as VOC emissions are hazardous air pollutants. Benzene, for example, is a hydrocarbon component of VOC emissions that are known to be a human carcinogen. The term reactive organic gases (ROG) are often used interchangeably with VOC.

- **Toxic Air Contaminants (TACs)** are defined as air pollutants which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health, and for which there is no concentration that does not present some risk. This contrasts with the criteria pollutants, in that there is no threshold level for TAC exposure below which adverse health impacts are not expected to occur. The majority of the estimated health risk from TACs can be attributed to a relatively few compounds, the most common being diesel particulate matter (DPM) from diesel engine exhaust. In addition to DPM, benzene and 1,3-butadiene are also significant contributors to overall ambient public health risk in California.

2.2 Federal and State Ambient Air Quality Standards

The Federal Clean Air Act, which was last amended in 1990, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for criteria pollutants considered harmful to public health and the environment. The State of California has also established additional and more stringent California Ambient Air Quality Standards (CAAQS) in addition to the seven criteria pollutants designated by the federal government.

AAQS are designed to protect the health and welfare of the populace with a reasonable margin of safety. The standards are divided into two categories, primary standards and secondary standards. Primary standards are implemented to provide protection for the "sensitive" populations such as those with asthma, or the children and elderly. Secondary standards are to provide protection against visible pollution as well as damage to the surrounding environment, including animals, crops, and buildings.

Table 2 shows the Federal and State Ambient Air Quality Standards.

Table 2
Federal and State Ambient Air Quality Standards (AAQS)[1]

Air Pollutant	Averaging Time [2]	Federal Standard (NAAQS)[2]	California Standard (CAAQS)[2]
Ozone	1 Hour	--	0.09 ppm
	8 Hour	0.070 ppm	0.070 ppm
Carbon Monoxide (CO)	1 Hour	35 ppm	20 ppm
	8 Hour	9 ppm	9 ppm
Nitrogen Dioxide (NO_2)	1 Hour	0.100 ppm	0.18 ppm
	Annual	0.053 ppm	0.030 ppm
Sulfur Dioxide (SO_2)	1 Hour	0.075 ppm	0.25 ppm
	3 Hour	0.5 ppm[3]	--
	24 Hour	--	0.04 ppm
Particulate Matter (PM_{10})	24 Hour	150 $\mu g/m^3$	50 $\mu g/m^3$
	Mean	--	20 $\mu g/m^3$
Particulate Matter (PM2.5)	24 Hour	35 $\mu g/m^3$	--
	Annual	12 $\mu g/m^3$	12 $\mu g/m^3$
Lead	30-day	--	1.5 $\mu g/m$
	Quarter	1.5 $\mu g/m$	--
	3-month average	0.15 $\mu g/m$	--
Visibility reducing particles	8 Hour	--	0.23/km extinction coefficient. (10-mile visibility standard)
Sulfates	24 Hour	--	25 $\mu g/m$
Vinyl chloride	24 Hour	--	0.01 ppm
Hydrogen sulfide	24 Hour	--	0.03 ppm

[1] Source: USEPA: https://www.epa.gov/criteria-air-pollutants/naaqs-table and
CARB: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards

[2] ppm = parts per million of air, by volume; µg/m3 = micrograms per cubic meter; Annual = Annual Arithmetic Mean; 30-day = 30-day average; Quarter = Calendar quarter.

[3] Secondary standards

Several pollutants listed in Table 2 are not addressed in this analysis. Lead is not included because the project is not anticipated to emit lead. Visibility-reducing particles are not explicitly addressed in this analysis because particulate matter is addressed. The project is not expected to generate or be exposed to vinyl chloride because proposed project uses do not utilize the chemical processes that create this pollutant and there are no such uses in the project vicinity. The proposed project is not expected to cause exposure to hydrogen sulfide because it would not generate hydrogen sulfide in any substantial quantity.

2.3 Attainment Status

The Clean Air Act requires states to prepare a State Implementation Plan (SIP) to ensure air quality meets the NAAQS. The California Air Resources Board (CARB) provides designations of attainment for air basins where AAQS are either met or exceeded. If the AAQS are met, the area is designated as being in "attainment", if the air pollutant concentrations exceed the AAQS, than the area is designated as being "nonattainment". If there is inadequate or inconclusive data to make a definitive attainment designation, the area is considered "unclassified."

National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or 'form' of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual $PM_{2.5}$ standard is met if the three-year average of the annual average $PM_{2.5}$ concentration is less than or equal to the standard.

When a state submits a request to the EPA to re-designate a nonattainment area to attainment, the Clean Air Act (CAA) section 175A(a) requires that the state (or states, if the area is a multi-state area) submit a maintenance plan ensuring the area can maintain the air quality standard for which the area is to be re-designated for at least 10 years following the effective date of re-designation. Table 3 lists the attainment status for the criteria pollutants in the South Coast Air Basin (SCAB).

Table 3
South Coast Air Basin Attainment Status[1]

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)[2]
Carbon monoxide	Attainment	Attainment (Maintenance)
Nitrogen dioxide	Attainment	Attainment (Maintenance)
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment
Lead	Attainment	Nonattainment (Partial)[3]

[1] Source: California Air Resources Board. http://www.arb.ca.gov/desig/adm/adm.htm
[2] 8-Hour Ozone.
[3] Partial Nonattainment designation – Los Angeles County portion of Basin only.

2.4 South Coast Air Quality Management District (SCAQMD)

The agency responsible for air pollution control for the South Coast Air Basin (SCAB) is the South Coast Air Quality Management District (SCAQMD). SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the SCAB. SCAQMD, in coordination with the Southern California Association of Governments, is also responsible for developing, updating, and implementing the Air Quality Management Plan (AQMP) for the SCAB. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as nonattainment of the federal and/or California ambient air quality standards. The term nonattainment area is used to refer to an air SCAB where one or more ambient air quality standards are exceeded.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The latest version is the 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. While air quality has dramatically improved over the years, the SCAB still exceeds federal public health standards for both ozone and particulate matter (PM) and experiences some of the worst air pollution in the nation. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time.

The most significant air quality challenge in the SCAB is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. Based on the inventory and modeling results, 522 tons per day (tpd) of total SCAB NOx 2012 emissions are projected to drop to 255 tpd and 214 tpd in the 8-hour ozone attainment years of 2023 and 2031 respectively, due to continued implementation of already adopted regulatory actions ("baseline emissions"). The analysis suggests that total SCAB emissions of NOx must be reduced to approximately 141 tpd in 2023 and 96 tpd in 2031 to attain the 8-hour ozone standards. This represents an additional 45 percent reduction in NOx in 2023, and an additional 55 percent NOx reduction beyond 2031 levels.

The SCAQMD establishes a program of rules and regulations to obtain attainment of the state and federal standards in conjunction with the AQMP. Several of the rules and regulations that may be applicable to this project include, but are not limited to, the following:

SCAQMD Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403 governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

SCAQMD Rule 445 restricts wood burning devices from being installed into any new development and is intended to reduce the emissions of particulate matter for wood burning devices.

SCAQMD Rule 1113 governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of project must comply with Rule 1113.

SCAQMD Rule 1143 governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment,

and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186 limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1303 governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM10 among other pollutants.

SCAQMD Rule 2202 On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

Connect SOCAL 2024: On September 3, 2020, the Southern California Association of Governments (SCAG) adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal or "Plan" herein) for the six-county region including Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura Counties. Connect SoCal reflects the region's commitment to improve the region's mobility, sustainability and economy. To achieve these goals, the Plan demonstrates how the region will reduce greenhouse gas (GHG) emissions from transportation sources to comply with Senate Bill 375 (SB 375) and meet Federal Transportation Conformity Requirements pursuant to the Federal Clean Air Act.

2.5 South Coast Air Basin

The project is located within the South Coast Air Basin (SCAB). To the west of the SCAB is the Pacific Ocean. To the north and east are the San Gabriel, San Bernardino, and San Jacinto mountains, while the southern limit of the SCAB is the San Diego County line. The SCAB consists of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

The local dominant wind blows predominantly from the south-southwest with relatively low velocities. The annual average annual wind speed is about 10 miles per hour. Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion limit the vertical dispersion of air pollutants throughout the SCAB.

The region also experiences periods of hot, dry winds from the desert, known as Santa Ana winds. If the Santa Ana winds are strong, they can surpass the sea breeze, which blows from the ocean to the land, and carry the suspended dust and pollutants out to the ocean. If the winds are weak, they are opposed by the sea breeze and cause stagnation, resulting in high pollution events.
The annual average temperature varies little throughout much of the SCAB, ranging from the low to middle 60s (°F). With more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

The mountains surrounding the region form natural horizontal barriers to the dispersion of air contaminants. Air pollution created in the coastal regions and Los Angeles metropolitan area are transported inland until reaching the mountains, where the combination of mountains and temperature inversion layers generally prevent further dispersion. This poor ventilation results in a gradual degradation of air quality from the coastal areas to inland areas of the SCAB. Air stagnation may occur during the early evening and early morning periods of transition between day and nighttime flows.

Temperature inversions are an important feature that limits the vertical depth through which pollution can be mixed. During the summer, coastal areas are characterized by a sharp discontinuity between the cool marine air at the surface and the warm, sinking air aloft within the high-pressure cell over the ocean to the west. This marine/subsidence inversion allows for good local mixing, but acts like a giant lid over the SCAB. The air remains stagnant, as the average wind speed in downtown Los Angeles becomes less than five mph.

The second type of inversion forms on clear winter nights when cold air off the mountains sinks to the valley floor while the air aloft over the valley remains warm. This forms radiation inversions. These inversions, in conjunction with calm winds, trap pollutants such as those from automobile exhaust near their source. They lead to air pollution "hotspots" in heavily developed coastal areas of the SCAB, although onshore breezes often push the pollutants along canyons into the inland valleys. Summers are often periods of hazy visibility and occasionally unhealthful air, while winter air quality impacts tend to be highly localized and can consist of elevated levels of nitrogen dioxide and fine particulate matter.

2.6 Local Climate and Meteorology

The weather station closest to the project site is a National Weather Service Cooperative weather station located at Corona Station, (042031). Climatological data from the National Weather Service at this station is summarized in Table 4.

Table 4
Meteorological Summary[1]

Month	Temperature (˚F)			Mean Precipitation (inches)
	Max.	Min.	Mean	Max.
January	65.3	39.7	52.5	2.61
February	67.7	41.2	54.4	2.62
March	70.5	42.8	56.6	2.00
Total	74.9	45.7	60.3	0.98
May	79.3	49.9	64.6	0.26
June	85.5	53.7	69.6	0.04
July	92.3	57.7	75.0	0.02
August	92.2	58.3	75.2	0.09
September	89.1	55.6	72.4	0.25
October	81.6	50.2	65.9	0.55
November	73.5	44.3	58.9	1.14
December	66.8	40.4	53.6	2.15
Annual	**78.2**	**48.3**	**63.3**	**12.71**

[1] Source: Western Regional Climate Center 2012. Averages derived from measurements recorded between 1908 and 1988 at Corona Station No. 042031.

2.7 Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the Final 2016 Air Quality Management Plan, prepared by SCAQMD, March 2017, indicate that collectively, mobile sources account for 60 percent of the VOC, 90 percent of the NOx emissions, 95 percent of the CO emissions and 34 percent of directly emitted PM2.5, with another 13 percent of PM2.5 from road dust.

The SCAQMD has divided the SCAB into fourteen general forecasting areas and thirty eight Source Receptor Areas (SRA) for monitoring and reporting local air quality. The SCAQMD provides daily reports of the current air quality conditions in each general forecast area and

SRA. The monitoring areas provide a general representation of the local meteorological, terrain, and air quality conditions within the SCAB.

The project is located within the Riverside Valley general forecasting area and Corona/Norco air monitoring area (SRA-22). Due to lack of sufficient data at Corona/Norco air monitoring station, air quality data is derived from the nearest adjacent Metropolitan Riverside Station-1 (SRA-23).

Table 5 summarizes the published air quality monitoring data from 2018 through 2020, which is the most recent 3-year period available. These pollutant levels were used to comprise a "background" for the project location and existing local air quality.

Table 5
Local Air Quality

Air Pollutant Location	Averaging Time	Item	2018	2019	2020
Carbon Monoxide -- Metropolitan Riverside County 1	1 Hour	Max 1-Hour (ppm)	2.2	1.5	1.9
		Exceeded State Standard (20 ppm)	No	No	No
		Exceeded National Standard (35 ppm)	No	No	No
	8 Hour	Max 8 Hour (ppm)	2.0	1.2	1.4
		Days > State Standard (9 ppm)	No	No	No
		Days >National Standard (9 ppm)	No	No	No
Ozone -- Metropolitan Riverside County 1	1 Hour	Max 1-Hour (ppm)	0.123	0.123	0.143
		Days > State Standard (0.09 ppm)	22.0	24.0	46.0
	8 Hour	Max 8 Hour (ppm)	0.101	0.096	0.115
		Days > State Standard (0.070 ppm)	53	59	81
		Days >National Standard (0.070 ppm)	53	59	81
Nitrogen Dioxide -- Metropolitan Riverside County 1	1 Hour	Max 1-Hour (ppm)	0.055	0.056	0.066
		Exceeded State Standard (0.18 ppm)	No	No	No
	Annual	Annual Average (ppm)	0.014	0.014	0.014
		Exceeded State Standard (0.030 ppm)	No	No	No
		Exceeded National Standard (0.053 ppm)	No	No	No
Sulfur Dioxide -- Metropolitan Riverside County 1	1 Hour	Max 1 Hour (ppm)	0.0017	0.0018	0.0022
		Exceeded State Standard (0.25 ppm)	No	No	No
		Exceeded National Standard (0.075 ppm)	No	No	No
Suspended Particles (PM10) -- Metropolitan Riverside County 1	24 Hour	Max 24-Hour ($\mu g/m^3$)	126	99	104
		Days > State Standard (50 $\mu g/m^3$)	132	21	110
		Days >National Standard (150 $\mu g/m^3$)	0	0	0
	Annual	Annual Average ($\mu g/m^3$)	44.00	34.40	30.00
		Exceeded State Standard (20 $\mu g/m^3$)	Yes	Yes	Yes
Fine Particulates (PM2.5) -- Metropolitan Riverside County 1	24 Hour	Max 24-Hour ($\mu g/m^3$)	50.70	46.70	41.00
		Days >National Standard (35 $\mu g/m^3$)	2	4	4
	Annual	Annual Average ($\mu g/m^3$)	12.41	11.13	12.63
		Exceeded State Standard (12 $\mu g/m^3$)	Yes	No	Yes
		Exceeded National Standard (15 $\mu g/m^3$)	No	No	No

Source: https://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year
$\mu g/m^3$ = micrograms per cubic meter
ppm = part per million

3.0 Global Climate Change Setting

Global climate change is the change in the average weather of the earth that is measured by such things as alterations in temperature, wind patterns, storms, and precipitation. Current data shows that the recent period of warming is occurring more rapidly than past geological events. The average global surface temperature has increased by approximately 1.4° Fahrenheit since the early 20th Century. 1.4° Fahrenheit may seem like a small change, but it's an unusual event in Earth's recent history, and as we are seeing, even small changes in temperature can cause enormous changes in the environment.

The planet's climate record, preserved in tree rings, ice cores, and coral reefs, shows that the global average temperature has been stable over long periods of time. For example, at the end of the last ice age, when the Northeast United States was covered by more than 3,000 feet of ice, average global temperatures were only 5° to 9° Fahrenheit cooler than today. The Intergovernmental Panel on Climate Change (IPCC), which includes more than 1,300 scientists from the United States and other countries, forecasts a temperature rise of 2.5° to 10° Fahrenheit over the next century. Therefore, significant changes to the environment are expected in the near future.

The consequences of global climate change include more frequent and severe weather, worsening air pollution by increasing ground level ozone, higher rates of plant and animal extinction, more acidic and oxygen depleted oceans, strain on food and water resources, and threats to densely populated coastal and low lying areas from sea level rise.

The impacts of climate change are already visible in the Southwest United States. In California, the consequences of climate change include;

- A rise in sea levels resulting in the displacement of coastal businesses and residencies
- A reduction in the quality and supply of water from the Sierra snowpack
- Increased risk of large wildfires
- Exacerbation of air quality problems
- Reductions in the quality and quantity of agricultural products
- An increased temperature and extreme weather events
- A decrease in the health and productivity of California's forests

3.1 Greenhouse Gases

Most scientists agree the main cause of the current global warming trend is anthropogenic (human-induced) augmentation of the greenhouse effect. The greenhouse effect refers to the way gases in the earth's atmosphere trap and re-emits long wave infrared radiation, acting like a blanket insulating the earth. Activities such as fossil fuel combustion, industrial processes, agriculture, and waste decomposition have elevated the concentration of greenhouse gases in the atmosphere beyond the level of naturally occurring concentrations.

GHGs comprise less than 0.1 percent of the total atmospheric composition, yet they play an essential role in influencing climate. Greenhouse gases include naturally occurring compounds such as carbon dioxide (CO_2), methane (CH_4), water vapor (H_2O), and nitrous oxide (N_2O), while others are synthetic. Man-made GHGs include the chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs), as well as sulfur hexafluoride (SF_6). Different GHGs have different effects on the Earth's warming. GHGs differ from each other in their ability to absorb energy (their "radiative efficiency") and how long they stay in the atmosphere, also known as the "lifetime".

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, relative to the emissions of 1 ton of CO_2. The larger the GWP, the more than a given gas warms the Earth compared to CO_2 over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases and allows policymakers to compare emissions reduction opportunities across sectors and gases.

Table 6 lists the 100-year GWP of GHGs from the Intergovernmental Panel on Climate Change (IPCC) fifth assessment report (AR5).

Table 6
Global Warming Potential of Greenhouse Gases[1, 2]

Gas Name	Formula	Lifetime (years)	GWP
Carbon Dioxide	CO_2		1
Methane	CH_4	12	28
Nitrous Oxide	N_2O	114	265
Sulphur Hexafluoride	SF_6	3200	23,500
Nitrogen Trifluoride	NF_3	740	16,100
Hexafluoroethane (PFC-116)	C_2F_6	10,000	11,100
Octafluoropropane (PFC-218)	C_3F_8	2,600	8,900
Octafluorocyclobutane (PFC-318)	C_4F_8	3,200	9,540
Tetrafluoromethane (PFC-14)	CF_4	50,000	6,630
Hydrofluorocarbon 125	HFC-125	29	3,170
Hydrofluorocarbon 134a	HFC-134a	14	1,300
Hydrofluorocarbon 143a	HFC-143a	52	4,800
Hydrofluorocarbon 152a	HFC-152a	1	138
Hydrofluorocarbon 227ea	HFC-227ea	34	3,350
Hydrofluorocarbon 23	HFC-23	270	12,400
Hydrofluorocarbon 236fa	HFC-236fa	240	8,060
Hydrofluorocarbon 245fa	HFC-245fa	8	858
Hydrofluorocarbon 32	HFC-32	5	677
Hydrofluorocarbon 365mfc	HFC-365mfc	9	804
Hydrofluorocarbon 43-10mee	HFC-43-10mee	16	1,650

[1] Source: IPCC Fifth Assessment Report (AR5)
https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf
[2] GWPs are used to convert GHG emission values to "carbon dioxide equivalent" (CO_2e) units

3.2 GHG Regulatory Setting - International

Intergovernmental Panel on Climate Change. In 1988, the United Nations and the World Meteorological Organization established the Intergovernmental Panel on Climate Change to assess the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations. The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). Under the Convention, governments gather and share information on greenhouse gas emissions, national policies, and best practices; launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change. The 2014 UN Climate Change Conference in Lima Peru provided a unique opportunity to engage all countries to assess how developed countries are implementing actions to reduce emissions.

Kyoto Protocol. The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008 – 2012 (UNFCCC 1997). On December 8, 2012, the Doha Amendment to the Kyoto Protocol was adopted. The amendment includes: New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from 2013 – 2020, a revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period, and Amendments to several articles of the Kyoto Protocol, which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period.

The Paris Agreement. The Paris agreement is the first comprehensive global climate agreement to be ratified by the United States, United Nations, China, and India; the largest producers of greenhouse gas emissions in the world. The agreement was negotiated by a total of 195 nations and entered into force on November 4, 2016. The central aim is to strengthen the global response to the threat of climate change by keeping the global temperature rise this century well below 2 degrees Celsius compared to pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius.

Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. Currently, 123 parties have ratified the agreement.

3.3 GHG Regulatory Setting – National

Greenhouse Gas Endangerment. On December 2, 2009, the EPA announced that GHGs threaten the public health and welfare of the American people. The EPA also states that GHG emissions from on-road vehicles contribute to that threat. The decision was based on *Massachusetts v. EPA* (Supreme Court Case 05-1120) which argued that GHGs are air pollutants covered by the Clean Air Act and that the EPA has authority to regulate those emissions.

Clean Vehicles. Congress first passed the Corporate Average Fuel Economy (CAFE) law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the United States. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States.

The first phase of the national program applied to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. They required these vehicles to meet an estimated combined average emissions level of 250 grams of carbon dioxide per mile, equivalent to 35.5 miles per gallon if the automobile industry were to meet this carbon dioxide level solely through fuel economy improvements. Together, these standards were estimated to cut carbon dioxide emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016).

The second phase of the national program for passenger cars, light-duty trucks, and medium-duty passenger vehicles covers model years 2017 through 2025. The final standards were established in 2012 and were projected to result in an average industry fleetwide level of 163 grams/mile of carbon dioxide (CO2) in model year 2025, which is equivalent to 54.5 miles per gallon (mpg) if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation also implemented the first national standards to reduce greenhouse gas emissions and improve the fuel efficiency of medium-

and heavy-duty engines and vehicles trucks and buses in 2010. The standards applied to all on-road vehicles rated at a gross vehicle weight at or above 8,500 pounds, and the engines that power them, except those covered by the current GHG emissions and CAFE standards for light duty vehicles, for model year 2014 to 2018. In 2016, the EPA and NHTSA finalized phase 2 of the standards which applied to model years 2018 through 2027.

The Safer Affordable Fuel Efficient (SAFE) Vehicles. The National Highway Traffic Safety Administration (NHTSA) and the Environmental Protection Agency (EPA) have amended certain previous Corporate Average Fuel Economy (CAFE) and greenhouse gas emissions standards for passenger cars and light trucks and establish new standards, covering model years 2021 through 2026. The (SAFE) Vehicles Rule published on April 30, 2020 and is effective as of June 29, 2020.

Mandatory Reporting of Greenhouse Gases. On January 1, 2010, the EPA started requiring large emitters of heat-trapping emissions to begin collecting GHG data under a new reporting system. Under the rule, suppliers of fossil fuels or industrial greenhouse gases, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of greenhouse gas emissions are required to submit annual reports to the EPA.

Climate Adaptation Planning. The EPA's Climate Change Adaptation Plan identifies priority actions the EPA will take to incorporate considerations of climate change into its programs, policies, rules and operations to ensure they are effective under future climatic conditions. Under the Trump administration, the EPA has said it would continue to advance climate adaptation efforts and that the agency recognizes the challenges that communities face in adapting to a changing climate. The EPA currently runs the Climate Change Adaptation Resource Center (ARC-X) to help local governments prepare for climate change.

3.4 GHG Regulatory Setting – State of California

The State of California has been a leader in climate change legislation and has passed numerous bills to reduce greenhouse gas emissions across all sectors of the economy. Some of the key climate legislation in the State include the following:

Assembly Bill (AB) 32, California Global Warming Solutions Act of 2006. AB 32 set the stage for the State's transition to a sustainable, low-carbon future. AB 32 was the first program in the country to take a comprehensive, long-term approach to addressing

climate change.[2] AB 32 was followed by Senate Bill (SB) 32, which further requires GHG emissions to be reduced to 40% below 1990 levels by 2030 and appointing CARB to develop policies (i.e. cap-and-trade) to achieve this goal.

Senate Bill (SB) 375, Sustainable Communities & Climate Protection Act of 2008. SB 375 requires the Air Resources Board to develop regional greenhouse gas emission reduction targets for passenger vehicles GHG reduction targets for 2020 and 2035 for each region covered by the State's 18 metropolitan planning organizations.[3]

Senate Bill (SB) 100, California Renewables Portfolio Standard Program. SB 100 established a landmark policy requiring renewable energy and zero-carbon resources supply 100 percent of electric retail sales to end-use customers by 2045.[4]

3.5 GHG Emissions Inventory

Table 7 shows the latest GHG emission inventories at the national, state, regional and local levels.

Table 7
GHG Emissions Inventory[1]

United States (2019)[2]	State of California (2019)[3]	SCAG (2020)[4]	City of Eastvale
6,558 $MMTCO_2e$	418.2 $MMTCO_2e$	216.4 $MMTCO_2e$	--

[1] $MMTCO_2e$ = Million Metric Tons of Carbon Dioxide Equivalent
[2] https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks
[3] https://ww3.arb.ca.gov/cc/inventory/pubs/reports/2000_2019/ghg_inventory_trends_00-19.pdf
[4] http://www.scag.ca.gov/programs/Pages/GreenhouseGases.aspx

[2] California Air Resources Board. AB 32 Global Warming Solutions Act of 2006. https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006
[3] California Air Resources Board. Sustainable Communities and Climate Protection Program. https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-climate-protection-program/about
[4] California Energy Commission. SB 100 Joint Agency Report. https://www.energy.ca.gov/sb100

4.0 Modeling Parameters and Assumptions

The California Emissions Estimator Model Version 2020.4.0 (CalEEMod) was used to calculate criteria air pollutants and GHG emissions from the construction and operation of the project. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify criteria air pollutant and GHG emissions.

The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from off-site energy generation, solid waste disposal, vegetation planting and/or removal, and water use. The model also identifies mitigation measures to reduce criteria pollutant and GHG emissions. The model was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California air districts.

4.1 Construction Assumptions

Construction of the project is assumed to begin in the year 2022 and last approximately 56 months. Construction activity will consist of demolition, site preparation, grading, building construction, paving, and architectural coating.

The project is expected to demolish approximately 67,500 square feet of existing on-site building structures and export approximately 340,000 cubic yards of on-site dairy waste. The project is also expected to require the import of approximately 542,000 cubic yards of earthwork materials.

The project is expected to be operational in the year 2026. The construction phase lengths are provided by the applicant and has been adjusted to meet 2026 opening year deadline.

The CalEEMod default construction equipment list is used and is based on survey data and the size of the site. The parameters used to estimate construction emissions, such as the worker and vendor trips and trip lengths, utilize the CalEEMod defaults. The construction equipment list is shown in Table 8.

A soil disturbance rate is applied to tractors/loaders/backhoes as a worst-case estimate of fugitive dust emissions and is based on similar type equipment, such as rubber-tired dozers and crawler tractors. The maximum daily disturbance footprint is calculated to be 4.0 acres per 8-hour day with all equipment in use.

Table 8
Construction Equipment Assumptions Phase[1]

Phase	Equipment	Amount	Hours Per Day	Soil Disturbance Rate (Acres/ 8hr-Day)	Equipment Daily Disturbance Footprint (Acres)	Total Phase Daily Disturbance Footprint (Acres)
Demolition	Concrete/Industrial Saw	1	8	0.0	0.00	1.0
	Excavators	3	8	0.0	0.00	
	Rubber Tired Dozers	2	8	0.5	1.00	
Site Preparation	Rubber Tired Dozers	3	8	0.5	1.50	3.5
	Tractors/Loaders/Backhoes	4	8	0.5	2.00	
Grading	Excavators	2	8	0.0	0.00	4.0
	Graders	1	8	0.5	0.50	
	Rubber Tired Dozers	1	8	0.5	0.50	
	Scrapers	2	8	1.0	2.00	
	Tractors/Loaders/Backhoes	2	8	0.5	1.00	
Building Construction	Cranes	1	7	0.0	0.00	1.3
	Forklifts	3	8	0.0	0.00	
	Generator Sets	1	8	0.0	0.00	
	Tractors/Loaders/Backhoes	3	7	0.5	1.31	
	Welders	1	8	0.0	0.00	
Paving	Pavers	1	8	0.0	0.00	0.0
	Paving Equipment	1	8	0.0	0.00	
	Rollers	2	8	0.0	0.00	
Architectural Coating	Air Compressors	1	6	0.0	0.00	0.0

[1] CalEEMod Defaults

4.2 Localized Construction Analysis Modeling Parameters

CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. This report identifies the following parameters in the project design in order to compare CalEEMod reported emissions against the localized significance threshold lookup tables:

1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions.
2) The maximum number of acres disturbed on the peak day.
3) Any emission control devices added onto off-road equipment.
4) Specific dust suppression techniques used on the day of construction activity with maximum emissions.

4.3 Operational Assumptions

Operational emissions occur over the life of the project and are considered "long-term" sources of emissions. Operational emissions include both direct and indirect sources. This section briefly describes the operational sources of emissions analyzed for the project.

4.3.1 Mobile Source Emissions

Mobile source emissions are the largest source of long-term air pollutants from the operation of the project. Mobile sources are direct sources of project emissions that are primarily attributed to tailpipe exhaust and road dust (tire, brake, clutch, and road surface wear) from motor vehicles traveling to and from the site.

Estimates of mobile source emissions require information on four parameters: trip generation, trip length, vehicle type (also known as fleet mix), and emission factors (quantity of pollutants emitted for each mile traveled or time spent idling by each vehicle).

The trip generation estimates are based on the LEAL Master Plan Amendment Project Traffic Study Scoping Agreement, RK Engineering Group, Inc., November 2021 and the latest version of the ITE Trip Generation Manual.

The Emission Factors (EMFAC) 2017 model is used to estimate the mobile source emissions are embedded in the CalEEMod emissions model. No adjustments have been made to default emission factors.

The project's total unmitigated vehicle miles traveled is shown in the Table 9.

Table 9
Operational Vehicle Miles Traveled

Land Use	Annual Vehicle Miles Traveled (VMT)[1]
Project Total	68,221,050

[1] CalEEMod Default VMT, with project design features.

The operational vehicle fleet mix has been adjusted to reflect vehicle types used for typical residential home-based trips and retail/commercial (non-industrial) land uses. To be conservative, the Air Quality/GHG analysis has assumed that 2% of the total home-based

trips will include trucks with a gross vehicle weight rating (GVWR) of 10,000 pound or greater. This includes LHD2, MHD, HHD, OBUS, UBUS, and SBUS vehicles. The 2% mix is also consistent with the default Highway Capacity Manual (HCM) assumptions.

Table 10 summarizes vehicle mix used for this project.

Table 10
Operational Vehicle Fleet Mix[1]

YUY	Vehicle Mix (%)
Light Duty Automobile (LDA)	55.64%
Light Duty Truck (LDTI)	5.81%
Light Duty Truck (LDT2)	17.88%
Medium Duty Truck (MDV)	13.74%
Light Heavy Truck (LHD1)	2.53%
Light Heavy Truck (LHD2)	0.32%
Medium Heavy Truck (MHD)	0.53%
Heavy Heavy Truck (HHD)	0.85%
Other Bus (OBUS)	0.03%
Urban Bus (UBUS)	0.01%
Motorcycle (MCY)	2.40%
School Bus (SBUS)	0.05%
Motor Home (MH)	0.21%
Total	**100.0%**

[1] Adjusted fleet mix to include 2% total trucks over 10,000 lbs GVWR. (LHD2, MHD, HHD, OBUS, UBUS, SBUS, MH)

4.3.2 Energy Source Emissions

Energy usage includes both direct and indirect sources of emissions. Direct sources of emissions include on-site natural gas usage (non-hearth) for heating, while indirect emissions include electricity generated by offsite power plants. Natural gas use is measured in units of a thousand British Thermal Units (kBTU) per size metric for each land use subtype and electricity use is measured in kilowatt hours (kWh) per size metric for each land use subtype.

CalEEMod divides building electricity and natural gas use into uses that are subject to Title 24 standards and those that are not. Lighting electricity usage is also calculated as a separate category in CalEEMod. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24, such as space heating, space cooling, water heating, and ventilation. Non-Title 24 uses include all other end uses, such as appliances, electronics, and other miscellaneous plug-in uses. Because some lighting is not considered as part of the building envelope energy budget, CalEEMod makes lighting a separate category.

For natural gas, uses are likewise categorized as Title 24 or Non-Title 24. Title 24 uses include building heating and hot water end uses. Non-Title 24 natural gas uses include cooking and appliances (including pool/spa heaters).

The baseline values are based on the California Energy Commission (CEC) sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies.

The total annual electricity and natural gas usage for the proposed project is discussed further in Section 9 of this report.

The project will be required to provide on-site renewable energy photovoltaic installations (solar panels) for the residential uses, as required by the latest 2019 CA Energy Code requirements. The Energy Code requires all new residential construction to achieve net-zero emissions associated with electricity usage through the use of on-site renewable sources. However, for purposes of this analysis, no reductions in emissions have been accounted for as a result of on-site renewables. The result is a conservative estimate of energy source emissions.

4.3.3 Area Source Emissions

Area source emissions are direct sources of emissions that fall under four categories: hearths, consumer products, architectural coatings, and landscaping equipment. Per SCAQMD rule 445, no wood burning devices are allowed in new developments; therefore, no wood hearths are included in this project. Consumer products are various solvents used in non-industrial applications which emit ROGs during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics, and toiletries.

4.3.4 Other Sources of Operational Emissions

Water. Greenhouse gas emissions are generated from the upstream energy required to supply and treat the water used on the project site. Indirect emissions from water usage are counted as part of the project's overall impact. The estimated water usage for the project is reported in Table 11 and recommendations to reduce water usage are discussed in Section 6.0.

Waste. CalEEMod calculates the indirect GHG emissions associated with waste that is disposed of at a landfill. The program uses annual waste disposal rates from the California Department of Resources Recycling and Recovery (CalRecycle) data for individual land uses. The program quantifies the GHG emissions associated with the decomposition of the waste which generates methane based on the total amount of degradable organic carbon.

The estimated waste generation by the project is reported in Table 11 and recommendations to reduce waste generation in landfills are discussed in Section 6.0

Table 11
Operational Water Usage and Waste Generation

Land Use	Water Usage (gallons/year)			Waste Generation (tons/year)[1]
	Indoor	Outdoor	Total	
Apartments Low Rise	71,669,400	45,182,900	116,852,300	506.00
City Park	0	16,752,200	16,752,200	1.21
Condo/Townhouse	65,154,000	41,075,400	106,229,400	460.00
General Office Building	11,552,700	7,080,680	18,633,380	60.45
Government (Civic Center)	12,356,600	7,573,420	19,930,020	354.54
Library	782,223	1,223,480	2,005,703	23.02
Medical Office Building	8,156,230	1,553,570	9,709,800	702.00
Regional Shopping Center	28,888,300	17,705,700	46,594,000	409.50
Single Family Housing	26,061,600	16,430,100	42,491,700	469.04
Total	**224,621,053**	**154,577,450**	**379,198,503**	**2,985.76**

[1] CalEEMod default estimates.

5.0 Significance Thresholds

5.1 Air Quality Regional Significance Thresholds

The SCAQMD has established air quality emissions thresholds for criteria air pollutants for the purposes of determining whether a project may have a significant effect on the environment per Section 15002(g) of the Guidelines for implementing CEQA. By complying with the thresholds of significance, the project would be in compliance with the SCAQMD Air Quality Management Plan (AQMP) and the federal and state air quality standards.

Table 12 lists the air quality significance thresholds for the six air pollutants analyzed in this report. Lead is not included as part of this analysis as the project is not expected to emit lead in any significant measurable quantity.

Table 12
SCAQMD Regional Significance Thresholds

Pollutant	Construction (lbs/day)	Operation (lbs/day)
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550

[1] Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf

5.2 Air Quality Localized Significance Thresholds

Air quality emissions were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold (LST) Look-up Tables.

Table 13 lists the Localized Significance Thresholds (LST) used to determine whether a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard.

LSTs are developed based on the ambient concentrations of four applicable air pollutants for source receptor area (SRA-22) – Corona/Norco.

The nearest existing sensitive receptors are located along the northern and eastern property line of the site, less than 25 meters from potential areas of on-site construction and operational activity. Although receptors may be located closer than 25 meters to the site, SCAQMD LST methodology states that projects with boundaries located closer than 25 meters to the nearest receptor should use the LSTs for receptors located at 25 meters.

The daily disturbance area is calculated to be 4 acres, however LST thresholds are only based on 1, 2 and 5-acre sites. In order to be conservative, a linear progression model was used to estimate the threshold for 4-acre site based on the established LST thresholds.

Table 13
SCAQMD Localized Significance Thresholds[1] (LST)

Pollutant	Construction (lbs/day)	Operational (lbs/day)
NO_X	235.2	235.2
CO	1,461.2	1,461.2
PM_{10}	10.0	2.6
$PM_{2.5}$	6.9	1.9

[1] Source: SCAQMD Mass Rate Localized Significance Thresholds for 4-acre site in SRA-22 at 25 meters

According to SCAQMD LST methodology, LSTs would apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings).

5.3 Microscale CO Concentration Standards

The significance of localized CO impacts depends on whether ambient CO levels in the vicinity of the project are above or below federal or state standards. If ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of the AAQS. If ambient levels already exceed State or federal standards, project emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more or 8-hour CO concentrations by 0.45 ppm or more.

Current CO levels in the SCAB are in attainment of both federal and state standards, and local air quality monitoring data indicates there have not been any localized exceedances of CO over the past three years. As described in subsequent sections of this report, the project's impact to CO concentrations is reviewed based upon the changes in regional emissions and vehicular trip generation in relation to the previous estimates from the 2015 EIR.

5.4 GHG Significance Thresholds

5.4.1 SCAQMD Recommended GHG Thresholds

SCAQMD has developed recommended GHG thresholds of significance to assist local agencies with determining the impact of a project for CEQA. SCAQMD's objective in providing the GHG guidelines is to establish a performance standard that will ultimately contribute to reducing GHG emissions below 1990 levels, and thus achieve the requirements of the California Global Warming Solutions Act (AB 32).

SCAQMD first issued the *Interim CEQA Greenhouse Gas (GHG) Significance Thresholds* guidance document in October 2008, and has since help several stakeholder working group meetings where staff has presented updated recommendations that serve in addendum to the interim document. The latest recommended GHG thresholds are based on the GHG CEQA Significance Threshold Stakeholder Working Group #15, September 2010.

The SCAQMD describes a five-tiered approach for determining GHG Significance Thresholds.

- **Tier 1 -** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2 -** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment based on the following tiers.

- **Tier 3 -** Consists of screening values that are intended to capture 90 percent of the GHG emissions from projects. If a project's emissions are under the screening

thresholds, then the project is less than significant. SCAQMD has presented two options that lead agencies could choose for screening values. Option #1 sets the thresholds for residential projects to 3,500 $MTCO_2e$/year, commercial projects to 1,400 $MTCO_2e$/year), and the mixed use to 3,000 $MTCO_2e$/year. Option #2 sets a single numerical threshold for all non-industrial projects of 3,000 $MTCO_2e$/year. The current staff recommendation is to use option #2, but allows lead agencies to choose option #1 if they prefer. Regardless of which option a lead agency chooses to follow, it is recommended that the same option is consistently used for all projects.

Table 14 shows the screening levels described in option #2, which has been used previously in the City of Eastvale.

Table 14
SCAQMD Tier 3 GHG Screening Values

Land Use	Screening Value
Industrial Projects	10,000 $MTCO_2e$/Yr
Residential/Commercial Projects	3,000 $MTCO_2e$/Yr

- **Tier 4 -** includes performance standards compliance options to demonstrate that a project is not significant for GHG emissions.

  Compliance Option 3 consists of staffs currently proposed Tier 4 performance standards for establishing efficiency-based standards at the plan level (program-level projects such as general plans and specific plans) and project level. Efficiency standards are based on the amount of GHG emissions ($MTCO_2e$/year) per Service Population (SP). SP is defined as the sum of the residential and employment populations provided by a project.

Table 15
SCAQMD Tier 4 Efficiency Thresholds

Project Type	Efficiency Thresholds[1]
	Target Year 2035
Plan (Program) Level	4.1 $MTCO_2e$/yr/SP
Project Level	3.0 $MTCO_2e$/yr/SP

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- **Tier 5 –** involves implementing off-site mitigation or the purchasing of offsets to reduce GHG emissions to less than the proposed screening level. The project proponent would be required to provide offsets for the life of the project, which is defined as 30 years.

By complying with the SCAQMD GHG thresholds of significance, the project is considered to be in compliance with the applicable State GHG legislation.

5.4.2 City of Eastvale GHG Thresholds

The City of Eastvale does not have an adopted threshold of significance for GHG emissions, and that the City has selected the 10,000MTCO2e/Yr significance criterion for CEQA purposes, based on substantial evidence.

6.0 Air Quality Impact Analysis

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality would occur if the proposed project is determined to:

a) Conflict with or obstruct implementation of the applicable air quality plan.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable Federal or State ambient air quality standard.

c) Expose sensitive receptors to substantial pollutant concentrations.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

6.1 Short Term Air Quality Impacts - Construction

6.1.1 Regional Emissions - Construction

Regional air quality emissions include both on-site and off-site emissions associated with construction of the project. Regional daily emissions of criteria pollutants are compared to the SCAQMD regional thresholds of significance.

As shown in Table 16, regional daily emissions of criteria pollutants are expected to be below the allowable thresholds of significance.

CalEEMod daily emissions outputs are provided in Appendix A.

Table 16
Regional Construction Emissions

Maximum Daily Emissions (lbs/day)[1]						
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Demolition	0.59	4.80	24.46	0.05	2.32	0.49
Site Preparation	1.66	49.77	31.79	0.24	14.65	6.20
Grading	2.98	94.62	53.41	0.45	16.97	5.81
Building Construction	12.89	40.14	145.48	0.49	41.49	11.45
Paving	1.19	1.24	17.78	0.02	0.21	0.08
Architectural Coating	73.82	1.31	22.10	0.06	7.11	1.91
Maximum[1]	**73.82**	**94.62**	**145.48**	**0.49**	**41.49**	**11.45**
SCAQMD Threshold	75	100	550	150	150	55
Exceeds Threshold (?)	**No**	**No**	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

The project must follow all standard SCAQMD rules and requirements with regards to fugitive dust control, as described in Section 6.1.3. SCAQMD dust control requirements are assumed to be included as part of the project design features.

Table 16 shows that the project's daily construction emissions will be below the applicable SCAQMD regional air quality standards and thresholds of significance. As a result, the project would not contribute substantially to an existing or projected air quality violation.

Furthermore, by complying with the SCAQMD standards, the project would not contribute to a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

The project's short-term construction impact on regional air resources is less than significant with mitigation.

6.1.2 Localized Emissions - Construction

Table 17 illustrates the construction related localized emissions and compares the results to SCAQMD LST thresholds. As shown in Table 17, the emissions will be below the SCAQMD thresholds of significance for localized construction emissions. The project must follow all standard SCAQMD rules and requirements with regards to fugitive dust control, as described in Section 6.1.3. Compliance with the dust control is considered a standard requirement and included as part of the project's design features, not mitigation.

The project's short-term construction impact to localized air resources is less than significant.

Table 17
Localized Construction Emissions

Maximum Daily Emissions (lbs/day)[1]				
Activity	**NOx**	**CO**	**PM_{10}**	**$PM_{2.5}$**
On-site Emissions	3.30	33.00	7.72	3.95
SCAQMD Construction Threshold[2]	235.0	1,461.0	10.0	6.9
Exceeds Threshold (?)	**No**	**No**	**No**	**No**

[1] Maximum daily emission during summer or winter; includes on-site project emissions only.
[2] Reference 2006-2008 SCAQMD Mass Rate Localized Significant Thresholds for construction and operation. SRA-22, Corona/Norco, 4-acre site, receptor distance 25 meters.

6.1.3 Fugitive Dust - Construction

The Project is required to comply with regional rules that assist in reducing short-term air pollutant emissions associated with suspended particulate matter, also known as fugitive dust. Fugitive dust emissions are commonly associated with land clearing activities, cut-and-fill grading operations, and exposure of soils to the air and wind. SCAQMD Rule 403 requires that fugitive dust is controlled with best-available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rules 402 and 403 require implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site.

To ensure full compliance with the applicable dust control standards, the following design features are recommended for the project:

DF-1 Prepare and implement a Construction Management Plan which shall include the Air Quality design features to be submitted to the City of Eastvale for all phases of construction.

DF-2 Follow the standard SCAQMD rules and requirements with regards to fugitive dust control, which includes, but are not limited to the following:

1. All active construction areas shall be watered two (2) times daily.
2. Speed on unpaved roads shall be reduced to less than 15 mph.
3. Any visible dirt deposition on any public roadway shall be swept or washed at the site access points within 30 minutes.
4. Any on-site stockpiles of debris, dirt or other dusty material shall be covered or watered twice daily.
5. All operations on any unpaved surface shall be suspended if winds exceed 15 mph.
6. Access points shall be washed or swept daily.
7. Construction sites shall be sandbagged for erosion control.
8. Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
9. Cover all trucks hauling dirt, sand, soil, or other loose materials, and maintain at least 2 feet of freeboard space in accordance with the requirements of California Vehicle Code (CVC) section 23114.
10. Pave or gravel construction access roads at least 100 feet onto the site from the main road and use gravel aprons at truck exits.
11. Replace the ground cover of disturbed areas as quickly possible.
12. A fugitive dust control plan should be prepared and submitted to SCAQMD prior to the start of construction.

The regional and localized analysis of daily fugitive dust emissions, as shown in Table 18 and Table 19, indicate that with standard control measures the project would be below the

applicable thresholds established by the SCAQMD. **The proposed project's short-term construction activities would cause less than significant fugitive dust impacts.**

6.1.4 Odors - Construction

Heavy-duty equipment in the project area during construction will emit odors; however, the construction activity would cease to occur after individual construction is completed. The project is required to comply with Rule 402 during construction, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. No other sources of objectionable odors have been identified for the proposed Project.

Therefore, the project impact from odor emissions is less than significant.

6.1.5 Asbestos - Construction

Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the Environmental Protection Agency (EPA) and regulated through the National Emissions Standards for Hazardous Air Pollutants (NESHAP). Asbestos fibers imbedded within construction materials become a health hazard once they are disturbed and rendered airborne, such as through physical contact like building renovation and demolition activities.

SCAQMD is the local enforcement authority for asbestos. SCAQMD Rule 1403 establishes the survey requirements, notification, and work practices to prevent asbestos emissions from emanating during building renovation and demolition activities.

Asbestos also occurs naturally in serpentine and ultramafic rock. Based on the California Division of Mines and Geology General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos, naturally occurring asbestos has not been shown to occur within in the vicinity of the project site. Therefore, the potential risk for naturally occurring asbestos (NOA) during project construction is small. However, in the event NOA is found on the site, the project will be required to comply with SCAQMD and NESHAP standards.

The project also includes demolition of existing structures that would be subject to the National Emissions Standards for Asbestos (40CFR Part 61 Subpart M). Prior to demolition of existing structures, an asbestos evaluation must be completed in accordance with the Asbestos NESHAP regulations. Section 61.145 requires written notification of demolition operations. Asbestos NESHAP demolition/Renovation Notification Form can be downloaded at http://www.arb.ca.gov/enf/asbestosform.pdf.

By following the required asbestos abatement protocols, **the project impact is less than significant**.

6.1.6 Diesel Particulate Matter - Construction

The California Office of Environmental Health Hazard Assessment (OEHHA) adopted the Guidance Manual for Preparation of Health Risk Assessments (HRA Guidelines) to provide procedures for use in the Air Toxics Hot Spots Program or for the permitting of existing, new, or modified stationary sources.[5] The HRA Guidelines provide risk factors based on exposure to toxic substances over a 30-year lifetime span.

The project will generate diesel particulate matter (DPM) during construction from off-road diesel equipment and trucks. However, the project's construction activity is not expected to be a long-term (i.e., 30 years) source of toxic air contaminant emissions and short-term risk factors have not been developed. Due the significantly reduced risk from short-term exposure, SCAQMD does not typically require the evaluation of long-term cancer risk or chronic health impacts for construction operations from a project such as the one being proposed.

Hence, the impacts from short-term exposure to DMP during project construction are presumed to be less than significant without the need for a detailed HRA study.

To help further reduce the potential health risks associated with DPM exposure during construction, the following project design features are recommended. Project design features include a recommendation for Tier 4 engines on all off-road diesel equipment. Tier 4 engines, along with the latest national fuel standards, have been shown to yield PM reductions of over 95% from the typical Tier 2 and Tier 3 engines.[6]

[5] OEHHA. Air Toxics Hot Spots Program. Risk Assessment Guidelines. Guidance for Preparation of Health Risk Assessments. February 2015.
[6] EPA. Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel; Final Rule. (40 CFR Parts 9, 69, et al.)

DF-3 Require all construction equipment to have Tier 4 low emission "clean diesel" engines (OEM or retrofit) that include diesel oxidation catalysts and diesel particulate filters that meet the latest CARB best available control technology.

DF-4 Construction equipment shall be maintained in proper tune.

DF-5 All construction vehicles shall be prohibited from excessive idling. Excessive idling is defined as five (5) minutes or longer.

DF-6 Minimize the simultaneous operation of multiple construction equipment units, to the maximum extent feasible.

DF-7 The use of heavy construction equipment and earthmoving activity should be suspended during Air Alerts when the Air Quality Index reaches the "Unhealthy" level.

DF-8 Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible.

DF-9 Establish staging areas for the construction equipment that are as distant as possible from adjacent residential homes.

DF-10 Use haul trucks with on-road engines instead of off-road engines for on-site hauling.

6.2 Long Term Air Quality Impacts - Operation

6.2.1 Regional Emissions - Operation

Long-term operational air pollutant impacts from the project are shown in Table 18 and are compared to the previously approved 2015 EIR emission levels. As shown in Table 18, the project is expected to generate fewer emissions compared to the previously approved 2015 EIR emission levels.

As a result, the proposed project would not result in any additional regional operational impacts. CalEEMod daily emissions outputs are provided in Appendix A.

All previously identified mitigation measures to reduced operational emissions in the 2015 EIR are still applicable.

Table 18
Regional Operational Emissions

Maximum Daily Emissions (lbs/day)[1]						
Project Emissions	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	105.36	84.22	788.32	1.58	179.11	48.35
Energy Sources	1.52	13.01	5.80	0.08	1.05	1.05
Area Sources	85.70	37.63	221.51	0.24	4.00	4.00
Total Project Emission	**192.58**	**134.86**	**1015.62**	**1.90**	**184.15**	**53.40**
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold (?)	Yes	Yes	Yes	No	Yes	No
LEAL Master Plan 2015 EIR	268.32	258.6	1,200.15	4.94	326.66	92.99
Exceeds 2015 EIR Levels (?)	**No**	**No**	**No**	**No**	**No**	**No**
Change in Emission Levels	-75.74	-123.742	-184.53	-3.0393	-142.5076	-39.5922
Percentage Change	**-28%**	**-48%**	**-15%**	**-62%**	**-44%**	**-43%**

[1] Maximum daily emission during summer or winter; includes both on-site and off-site project emissions.

6.2.2 Odors - Operation

Land uses that commonly receive odor complaints include agricultural uses (farming and livestock), chemical plants, composting operations, dairies, fiberglass molding facilities, food processing plants, landfills, refineries, rail yards, and wastewater treatment plants. The proposed project does not contain land uses that would typically be associated with significant odor emissions.

The project will be required to comply with standard building code requirements related to exhaust ventilation, as well as comply with SCAQMD Rule 402. Rule 402 requires that a person may not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Project related odors are not expected to meet the criteria of being a nuisance. **The project's operation would result in less than significant odor impacts.**

6.2.3 Toxic Air Contaminants - Operations

The project would consist of mixed used residential and commercial/retail land uses with civic center, community parks and a community center. This type of project does not include major sources of toxic air contaminants (TAC) emissions that would result in significant exposure of sensitive receptors to substantial pollutant concentrations. Therefore, **the project impact is considered less than significant.**

6.3 CO Hot Spot Emissions

A CO hot spot is a localized concentration of carbon monoxide (CO) that is above the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. At the time of the publishing of the 1993 CEQA Air Quality Handbook, the SCAB was designated nonattainment, and projects were required to perform hot spot analyses to ensure they did not exacerbate an existing problem. Since this time, the SCAB has achieved attainment status and the potential for hot spots caused by vehicular traffic congestion has been greatly reduced. In fact, the SCAQMD Air Quality Management Plan (AQMP) found that peak CO concentrations were primarily the result of unusual meteorological and topographical conditions, not traffic congestion. Additionally, the 2003 SCAQMD AQMP found that, at four of the busiest intersections in SCAB, there were no CO hot spots concentrations. Therefore, it is reasonable to conclude that the project would not significantly increase traffic congestion in the vicinity of the site that would lead to the formation of CO Hot Spots.

Based on the 2015 EIR report the CO hot spot emission levels are predicted to be below the California Ambient Air Quality Standards (CAAQS) levels. Since, the proposed project is expected to generate approximately 27,764 fewer daily trips and is not expected to have any additional traffic impacts on the roadways, it can also be concluded that no new CO hotspots would occur as a result of the project. **The project impact to CO Hot Spots is considered to be less than significant.**

7.0 Greenhouse Gas Impact Analysis

Consistent with CEQA Guidelines, a significant impact related to greenhouse gas would occur if the proposed project is determined to:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases.

7.1 Greenhouse Gas Emissions - Construction

Greenhouse gas emissions are estimated for on-site and off-site construction activity using CalEEMod. Table 19 shows the construction greenhouse gas emissions, including equipment and worker vehicle emissions for all phases of construction. Construction emissions are amortized over 30 years and added to the long-term operational emissions, pursuant to SCAQMD recommendations. CalEEMod annual GHG output calculations are provided in Appendix B.

Table 19
Construction Greenhouse Gas Emissions

Activity	Emissions ($MTC0_2e$)[1]		
	On-site	Off-site	Total
Demolition	25.67	9.93	35.60
Site Preparation	202.26	1,248.17	1,450.43
Grading	274.88	1,932.38	2,207.26
Building Construction	676.34	12,097.70	12,774.04
Paving	70.63	4.26	74.89
Architectural Coating	42.70	842.76	885.46
Total	1,292.48	16,135.20	17,427.68
Amortized over 30 years[2]	43.08	537.84	580.92

[1] $MTCO_2e$ = metric tons of carbon dioxide equivalents (includes carbon dioxide, methane, nitrous oxide, and/or hydrofluorocarbon).
[2] The emissions are amortized over 30 years and added to the operational emissions, pursuant to SCAQMD recommendations.

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Because impacts from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. By itself, the construction activities from this project are less than significant when compared to the thresholds recommended by SCAQMD. However, SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime and added to the overall project operational emissions. In doing so, construction GHG emissions are included in the overall contribution of the project, as further discussed in the following section.

7.2 Greenhouse Gas Emissions - Operation

Greenhouse gas emissions are estimated for on-site and off-site operational activity using CalEEMod. Greenhouse gas emissions from mobile sources, area sources and energy sources are shown in Table 20. CalEEMod annual GHG output calculations are provided in Appendix B.

Table 20
Operational Greenhouse Gas Emissions

Emission Source	Unmitigated GHG Emissions ($MTCO_2e$)[1]
Mobile Source	21,034.65
Energy Source	7,413.89
Area Source	556.56
Water	1,133.26
Waste	1,501.54
Construction (30-year amortization)	580.92
Total Annual Emissions	32,220.82
LEAL Master Plan 2015 EIR Emission Levels[2]	74,317
Change in Emission Levels	-42,096.18
Percentage Change	**-57%**

[1] $MTCO_2e$ = metric tons of carbon dioxide equivalents.

[2] As stated in the 2015 EIR, emissions account for 2035 vehicle fleet modernization associated with the turnover of older, less efficient makes and models. All other emission sources are limited to the 2020 condition due to lack of specific GHG-reducing regulatory mechanisms for target years beyond 2020.

As shown in Table 20, project GHG emissions are not expected to exceed LEAL Master Plan EIR 2015 – Master Plan Buildout GHG Emissions Year 2035 conditions. The project's operational GHG emissions are expected to be 57% less than the previously approved 2015 EIR levels. All previously identified mitigation measures to reduced operational emissions in the 2015 EIR are still applicable.

7.3 Project Consistency With GHG Reduction Plans

The project will be required to comply with the mandatory requirements of the latest 2019 California Building Standards Code, including Title 24, Part 11, CALGreen and Title 24, Part 6, Energy Code. The purpose of the building standards is to reduce negative impacts on the environment through improved planning and design, energy efficiency, water efficiency and conservation and material and resource conservation. The California Building Standards were developed to help meet the requirements of the Global Warming Solutions Act (AB 32). The project shall design all project buildings to meet the California Building

Code (CBC) Title 24 energy standard, including, but not limited to, any combination of the following:

- Increase insulation such that heat transfer and thermal bridging are minimized.
- Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.
- Incorporate Energy Star or better rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment.
- Install energy-efficient lighting (e.g., light-emitting diodes [LEDs] and lighting control systems). Use daylight as an integral part of the lighting systems in buildings.
- Install light-colored "cool" roofs (e.g., Energy Star roofing) or other highly reflective, highly emissive roofing materials.

Also, as part of the latest Energy Code requirements, the project will be required to include rooftop solar panels, community solar panels, and/or other sources of on-site renewable energy capable of meeting the required California Energy Code Energy Design Rating. Therefore, by complying with the City's GHG reduction policy the project would not conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of greenhouse gases and the impact is considered less than significant.

7.4 Project Design Features

The mixed-use Master Plan project includes many design features that will help reduce Air Quality and GHG emissions. The following operational project features will be included as part of the project's design:

Operational Design Features:

DF-11 Implement trip reduction measures and project design features to reduce the number of auto-based trips generated by the project and encourage the use of transit, bicycling, and walking through the following measures;

1. Improve the walkability design of the project by providing pedestrian and bicycling connections within the project site and to adjacent off-

site facilities (i.e. sidewalks, bike lanes, trails, parcel-to-parcel connections, crosswalks, wayfinding signage, etc.).

2. Provide traffic calming measures (i.e. marked crosswalks, count-down signal timers, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles, on-street parking, planter strips with street trees, chicanes/chokers, and others.)

3. Provide bicycle parking at the commercial, civic center and community center areas.

4. Provide secure bicycle parking areas at the multi-family uses.

5. Provide electric vehicle charging stations and parking for all uses (i.e. common area charging stations for the multi-family, retail/commercial, and civic center uses and garages setup with dedicated circuits and plugs for single family/condos).

DF-12 No wood burning fireplaces will be allowed in any residential dwelling.

DF-13 Install rooftop solar panels, community solar panels, and/or other sources of on-site renewable energy capable of meeting the required California Energy Code Energy Design Rating for all single family, multifamily residences and municipal building uses.

DF-14 Comply with the mandatory requirements of California Building Standards Code Title 24 Part 6 (Energy Code) and Title 24 Part 11 (CAL Green).

DF-15 Implement water conservation strategies, including low flow fixtures and toilets, water efficient irrigation systems, drought tolerant/native landscaping, and limit the amount of turf/sod.

DF-16 Participate in the local waste management recycling and composting programs.

DF-17 The home-owners associations and property management companies should encourage landscape maintenance crews to use electric landscaping equipment, such as lawn mowers and leaf blowers, wherever feasible.

8.0 Energy Conservation Analysis

8.1 Study Objectives

The purpose of this energy conservation analysis is to review the energy implications of the proposed LEAL Master Plan Amendment (project) and provide recommendations to reduce wasteful, inefficient and unnecessary consumption of energy during construction and operation. This analysis has been prepared within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.).

CEQA Guidelines, Appendix F, Energy Conservation, describes the framework within which energy conservation should be analyzed. Conserving energy implies the wise and efficient use of energy through decreasing overall per capita energy consumption, decreasing reliance on fossil fuels (such as coal, natural gas and oil), and increasing reliance on renewable energy sources. This analysis considers energy impacts to include:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction and operation.

2. The effects of the project on local and regional energy supplies and on requirements for additional capacity.

3. The effects of the project on peak and base period demands for electricity and other forms of energy.

4. The degree to which the project complies with existing energy standards.

5. The effects of the project on energy resources.

8.2 Utility Providers

The project will be served by the following utility providers, as shown in Table 21.

Table 21
Utility Providers

Utility	Provider
Electricity	Southern California Edison
Natural Gas	Southern California Gas Company
Water	Jurupa Community Service
Sewer	Waste Management / Burrtec Waste Industries
Telephone	T-Mobile, AT&T, Spectrum & Google Fi
Cable	Direct TV, Spectrum & Verizon

8.3 Energy Consumption Methodology

The three (3) main types of energy expected to be consumed by the project include electricity, natural gas and petroleum products in the form of gasoline and diesel fuel.

The California Emissions Estimator Model Version 2020.4.0 (CalEEMod) is used to calculate energy usage from project construction and operational activities.

The CalEEMod Unmitigated Reports for the project are provided in Appendix A.

8.4 Electricity Consumption

The project will use electricity for many different operational activities including, but not limited to, building heating and cooling, lighting, appliances, electronics, mechanical equipment, electric vehicle charging, and parking lot lighting. Indirect electricity usage will also be required to supply, distribute, and treat water and wastewater. Electricity will be provided to the site by Southern California Edison.

Temporary electricity usage for construction activities may include lighting, electric equipment and mobile office uses, however, CalEEMod does not calculate electricity usage during construction. Electricity usage during construction is expected to be short-term and relatively minor compared to the operational demand, and therefore electricity usage during construction is not counted in this analysis.

Table 22 shows the project's estimated operational electricity consumption in kilowatt-hours per year (kWh/year) and millions of Btu per year.

Table 22
Project Electricity Consumption

Land Use/Activity	Electricity Consumption[1]	
	(kWhr/yr)[2]	(MBtu/yr)[2]
General Office Building	597,350.00	2,038.16
Government (Civic Center)	571,618.00	1,950.36
Medical Office Building	597,350.00	2,038.16
Library	248,000.00	846.18
Enclosed Parking with Elevator	6,136,320.00	20,937.12
Parking Lot	136,920.00	467.17
Street Lighting	349,438.00	1,192.28
Apartments Low Rise	4,586,950.00	15,650.67
Condo/Townhouse	4,973,760.00	16,970.47
Single Family Housing	3,185,860.00	10,870.15
Regional Shopping Center	4,734,600.00	16,154.46
Water Supply and Treatment	2,394,345.79	8,169.51
Total	28,512,511.79	97,284.69

[1] Source: CalEEMod Unmitigated Default.

[2] kWhr/yr = Kilowatt Hours per Year
MBtu/yr = Million British Thermal Units per Year

8.5 Natural Gas Consumption

The project will use natural gas for such things as building heating and cooling, cooking, kitchen appliances, and gas water heaters. Natural gas is not expected to be used during construction in any significant quantities and is not included in the overall calculation of the project's natural gas consumption.

Table 23 shows the project's estimated operational natural gas consumption in millions of Btu per year.

Table 23
Project Natural Gas Consumption

Land Use/Activity	Natural Gas Consumption[1] (MBtu/yr)[2]
General Office Building	0.22
Government (Civic Center)	0.21
Medical Office Building	0.22
Library	0.81
Apartments Low Rise	16.64
Condo/Townhouse	21.10
Single Family Housing	11.31
Regional Shopping Center	0.86
Total	51.38

[1] Source: CalEEMod Unmitigated Default.
[2] MBtu/yr = Millions of British Thermal Units per Year

8.6 Petroleum Consumption

The project's energy consumption from petroleum products is primarily associated with transportation related activities. This includes gasoline and diesel fuel usage for auto and truck trips during construction and operation and off-road equipment usage during construction.

8.6.1 Petroleum Consumption - Construction

Construction of the project is estimated to last approximately 14 months and consist of site preparation, grading, building construction, paving, and architectural coating phases. Construction activities will consume energy in the form of motor vehicle fuel (gasoline and diesel) for off-road construction equipment and on-road vehicle trips. Vehicle trips include workers and vendors traveling to and from the job-site.

Table 24 shows the project's energy consumption for all off-road equipment during construction. For purposes of this analysis, all off-road equipment is assumed to run on diesel fuel. Table 25 shows the project's energy consumption from on-road vehicle trips during construction.

Table 24
Construction Off-Road Equipment Energy Consumption

Phase[1]	Phase Duration (Days)[1]	Equipment[1]	Amount[1]	Hours/ Day[1]	Horspower (HP)[1]	Load Factor[1]	HP-hrs[2]	Fuel Consumption Rate[3] (hp-hr/gal)	Diesel Fuel Consumption (gal.)	Diesel Fuel Consumption by Phase (gal.)	MBtu[4]
Demolition	15	Concrete/Industrial Saw	1	8	81	0.73	7095.6	18.5	383.5	2833.6	389.286
		Excavators	3	8	158	0.38	21614.4		1168.3		
		Rubber Tired Dozers	2	8	247	0.4	23712		1281.7		
Site Preparation	120	Rubber Tired Dozers	3	8	247	0.40	284,544.0		15,380.8	22,830.4	3,136.457
		Tractors/Loaders/Backhoes	4	8	97	0.37	137,817.6		7,449.6		
Grading	100	Excavators	2	8	158	0.38	96,064.0		5,192.6	24,327.8	3,342.180
		Graders	1	8	187	0.41	7,360.3		397.9		
		Rubber Tired Dozers	1	8	247	0.40	7,360.3		397.9		
		Scrapers	2	8	367	0.48	281,856.0		15,235.5		
		Tractors/Loaders/Backhoes	2	8	97	0.37	57,424.0		3,104.0		
Building Construction	580	Cranes	1	7	231	0.29	271,979.4		14,701.6	72,506.3	9,960.984
		Forklifts	3	8	89	0.20	247,776.0		13,393.3		
		Generator Sets	1	8	84	0.74	288,422.4		15,590.4		
		Tractors/Loaders/Backhoes	3	7	97	0.37	437,140.2		23,629.2		
		Welders	1	8	46	0.45	96,048.0		5,191.8		
Paving	70	Pavers	1	8	130	0.42	30,576.0		1,652.8	4,931.6	677.513
		Paving Equipment	1	8	132	0.36	26,611.2		1,438.4		
		Rollers	2	8	80	0.38	34,048.0		1,840.4		
Architectural Coating	334	Air Compressors	1	6	78	0.48	75,029.8		4,055.7	4,055.7	557.171
								Total Energy Requirements		**131,485.4**	**18,063.591**

[1] Source: CalEEMod (CalEEMod v.2020.4.0)

[2] HP-hrs = Horsepower Hours.

[3] Source: Carl Moyer Program Guidelines. 2017 Revisions. Table D-21. https://www.arb.ca.gov/msprog/moyer/guidelines/current.htm

[4] Mbtu = Millions of Btu; assuming 1 gallon of diesel fuel = 137,381 Btu.

Table 25
Construction On-Road Trips Energy Consumption

Construction Phase[1]	Phase Duration (Days)[1]	Trips /Day[1]	Trip Length[1]	Phase VMT	Vehicle Class[1]	Vehicle Mix[1]	Average Fuel Economy (MPG)[2]	Gasoline			Diesel			Total MBtu[3]
								Fuel Split[2]	Fuel Consumption by Veh. Class (gal.)	Fuel Consumption by Phase (gal.)	Fuel Split[2]	Fuel Consumption by Veh. Class (gal.)	Fuel Consumption by Phase	
Worker Trips														
Demolition	15	15	14.7	3307.5	LDA	0.5	31.57	0.9941	52.1	116.3	0.006	0.31	0.49	14.08
					LDT1	0.25	26.69	0.9996	30.97		0.0004	0.01		
					LDT2	0.25	24.72	0.995	33.28		0.0050	0.17		
Site Preparation	120	18	14.7	31,752	LDA	0.50	31.57	0.9941	499.92	1,116.72	0.0059	2.97	4.69	135.13
					LDT1	0.25	26.69	0.9996	297.30		0.0004	0.12		
					LDT2	0.25	24.72	0.9950	319.51		0.0050	1.61		
Grading	100	20	14.7	29,400	LDA	0.50	31.57	0.9941	462.88	1,034.00	0.0059	2.75	4.34	125.12
					LDT1	0.25	26.69	0.9996	275.27		0.0004	0.11		
					LDT2	0.25	24.72	0.9950	295.84		0.0050	1.49		
Building Construction	580	3,167	14.7	27,001,842	LDA	0.50	31.57	0.9941	425,127.20	949,658.49	0.0059	2,523.14	3,989.69	114,914.53
					LDT1	0.25	26.69	0.9996	252,819.79		0.0004	101.17		
					LDT2	0.25	24.72	0.9950	271,711.50		0.0050	1,365.38		
Paving	70	15	14.7	15,435	LDA	0.50	31.57	0.9941	243.01	542.85	0.0059	1.44	2.28	65.69
					LDT1	0.25	26.69	0.9996	144.52		0.0004	0.06		
					LDT2	0.25	24.72	0.9950	155.32		0.0050	0.78		
Architectural Coating	334	633	14.7	3,107,903	LDA	0.50	31.57	0.9941	48,932.00	109,305.39	0.0059	290.41	459.21	13,226.63
					LDT1	0.25	26.69	0.9996	29,099.48		0.0004	11.64		
					LDT2	0.25	24.72	0.9950	31,273.91		0.0050	157.16		
					Sub-Total Worker Trips Energy Consumption				Gasoline (gal.)	1,061,657.45		Diesel (gal.)	4,460.22	128,467.09
Vendor Trips														
Building Construction	580	880	6.9	3,521,760	MHDT	0.50	9.22	0.2648	50,572.78	50,843.68	0.7352	140,412.04	411,045.75	62,592.93
					HHDT	0.50	6.50	0.0010	270.90		0.9990	270,633.71		
Hauling Trips														
Demolition	15	307	20.0	92,100	HHDT	1.00	6.5	0.001	14.17	14.17	1.00	14,155.06	14,155.06	1,946.34
Site Preparation	120	42,500	20.0	102,000,000	HHDT	1.00	6.5	0.001	15,692.31	15,692.31	1.00	15,676,615.38	15,676,615.38	2,155,558.91
Grading	100	67,750	20.0	135,500,000	HHDT	1.00	6.5	0.001	20,846.15	20,846.15	0.9990	20,825,307.69	20,825,307.69	2,863,512.08
Total On-Road Construction Trips Energy Consumption									**Gasoline (gal.)**	**1,149,053.77**		**Diesel (gal.)**	**36,931,584.10**	**5,212,077.35**

[1] Source: CalEEMod Defaults (CalEEMod v.2020.4.0)

[2] Source: EMFAC2017 Web Database. https://www.arb.ca.gov/emfac/2017/. (See Appendix C for more details.)

[3] Mbtu = Millions of Btu; assuming 1 gallon of gasoline fuel = 120,429 Btu and 1 gallon of diesel fuel = 137,381 Btu

8.6.2 Petroleum Consumption - Operation

The project is expected to consume energy from auto and truck trips generated by the proposed land uses. Operational vehicle trips are associated with workers, customers and vendors/non-workers (i.e., delivery, service, maintenance vehicles, etc.) traveling to and from the site. EMFAC2017 vehicle fuel consumption data is provided in Appendix C.

Table 26 shows the project's petroleum energy consumption for all operational trips generated by the project on an annual basis.

Table 26
Operational Trips Energy Consumption - Annual

Vehicle Class	Vehicle Mix	Average Fuel Economy (MPG)	Annual VMT	Gasoline		Diesel		MBtu
				Fuel Split	Fuel Consumption (gal.)	Fuel Split	Fuel Consumption (gal.)	
LDA	55.64%	31.57	68,221,050	0.9941	1,195,362.88	0.0059	7,094.50	144,931.01
LDT1	5.81%	26.69		0.9996	148,452.70	0.0004	59.40	17,886.17
LDT2	17.88%	24.72		0.9950	490,972.56	0.0050	2,467.20	59,466.28
MDV	13.74%	20.13		0.9826	457,490.71	0.0174	8,101.30	56,208.11
LHD1	2.53%	13.52		0.7287	93,009.83	0.2713	34,628.20	15,958.34
LHD2	0.32%	13.88		0.5425	8,467.34	0.4575	7,140.66	2,000.70
MHD	0.53%	9.22		0.2648	10,360.02	0.7352	28,763.91	5,199.26
HHD	0.85%	6.50		0.0010	89.07	0.9990	88,980.01	12,234.89
OBUS	0.03%	5.31		0.4636	1,652.27	0.5364	1,911.72	461.62
UBUS	0.01%	4.87		0.9868	1,879.51	0.0132	25.14	229.80
MCY	2.40%	36.31		1.0000	45,039.86	0.0000	0.00	5,424.11
SBUS	0.05%	8.05		0.2990	1,261.33	0.7010	2,957.16	558.16
MH	0.21%	5.96		0.8499	20,812.74	0.1501	3,675.72	3,011.43
Total Operational Trips Energy Usage				Gasoline Consumption (gal.)	2,474,850.82	Diesel Consumption (gal.)	185,804.92	323,569.88

[1] Source: CalEEMod Defaults. (CalEEMod v.2020.4.0)
[2] Source: EMFAC2017 Web Database. https://www.arb.ca.gov/emfac/2017/. (See Appendix C for more details.)
[3] MBtu/yr = Millions of Btu per year; assuming 1 gallon of gasoline fuel = 120,429 Btu and 1 gallon of diesel fuel = 137,381 Btu

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8.7 Summary of Project Energy Consumption

Table 27 provides a summary of the project's annual operational energy consumption.

Table 27
Annual Energy Consumption

Activity	Energy Consumption (MBtu/yr)[1]
Electricity	97,284.69
Natural Gas	51.38
Petroleum	323,569.88
Total Annual Operational Energy Consumption	**420,905.94**

[1] MBtu/yr = Millions of Btu per year. Operational activities only.

8.8 Energy Impact Analysis

This analysis has been prepared within the context of the CEQA Guidelines, Appendix F, Energy Conservation, and Appendix G, Environmental Checklist Form. According to CEQA, the goal of conserving energy implies the wise and efficient use of energy through decreasing overall per capita energy consumption, decreasing reliance on fossil fuels (such as coal, natural gas and oil), and increasing reliance on renewable energy sources.

8.9 Energy Impact – 1

Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project's impact is considered less than significant with the inclusion of the mandatory requirements of California's Building Energy Efficiency Standards (Title 24, Part 6) and Green Building Standards (CALGreen, Title 24, Part 11). California's building energy efficiency standards are some of the strictest in the nation and the project's compliance with California's building code will ensure that wasteful, inefficient or unnecessary consumption of energy is minimized. The building standards code is designed to reduce the amount of energy needed to heat or cool a building, reduce energy usage for lighting and appliances and promote usage of energy from renewable sources.

The project will also implement several project design features for reducing energy demand, as described in Section 1.4 of this report.

8.10 Energy Impact – 2

Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project's impact is considered less than significant as the project will purchase electricity through Southern California Edison which is subject to the requirements of California Senate Bill 100 (SB 100). SB 100 is the most stringent and current energy legislation in California; requiring that renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all state agencies by December 31, 2045.[7]

The project will be required to comply with the mandatory requirements of California's Green Building and Building Energy Efficiency standards that promote renewable energy and energy efficiency. The project will include on-site solar for all new single family homes and low-rise multifamily homes, per the requirements of the California Energy Code Energy Design Rating.

The project will also comply with the City of Eastvale General Plan applicable goals and policies regarding energy efficiency and conservation policies including but not limited to the following goals as shown in Table 28.

[7] SB-100 California Renewables Portfolio Standard Program. http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

Table 28
Project Consistency with the City of Eastvale
Applicable Energy Efficiency and Conservation Policies

Energy Efficiency and Conservation Policies	Project's Consistency
Policy AQ-26: Permit and encourage the use of passive solar devices and other state-of-the-art energy conservation measures.	The project will include on-site solar for all new single-family homes and low-rise multifamily homes, per the requirements of the California Energy Code Energy Design Rating.
POLICY AQ-27: Support and encourage voluntary efforts to provide active and passive solar access opportunities in new developments.	
POLICY AQ-30: Promote coordination of new public facilities with mass transit service and other alternative transportation services, including bicycles, and design structures to promote mass transit, bicycle, and pedestrian use.	As previously explained in Design Feature – 11 (DF-11), the project will include alternative transportation services, including bicycles, and design structures to promote mass transit, bicycle, and pedestrian use.
POLICY AQ-32: Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste disposed of in landfills.	The project will participate in the local waste management recycling and composting programs.

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Exhibits

Location Map



Legend:

✳ = Project Site

N

Exhibit B

Site Plan



N

Appendices

Appendix A

Daily Emissions Calculations Output
(CalEEMod)

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

LEAL Master Plan Modification Project-Unmitigated

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	65.00	1000sqft	0.00	65,000.00	0
Government (Civic Center)	62.20	1000sqft	11.02	62,200.00	0
Medical Office Building	65.00	1000sqft	0.00	65,000.00	0
Library	25.00	1000sqft	0.00	25,000.00	0
Enclosed Parking with Elevator	2,820.00	Space	0.00	1,128,000.00	0
Parking Lot	978.00	Space	0.00	391,200.00	0
Parking Lot	22.92	Acre	22.92	998,395.20	0
City Park	14.06	Acre	14.06	612,540.72	0
Apartments Low Rise	1,100.00	Dwelling Unit	28.17	1,100,000.00	3146
Condo/Townhouse	1,000.00	Dwelling Unit	35.28	1,000,000.00	2860
Single Family Housing	400.00	Dwelling Unit	47.15	720,000.00	1144
Regional Shopping Center	390.00	1000sqft	0.00	390,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use - The project land uses are summarized in Table 1: Land Use Summary in the Air Quality Report.

Construction Phase - The construction phases has been updated to meet opening year 2026.

Demolition - The project is expected to demolish all existing structures of approximately 67,500 square feet of building material.

Grading - The project is expecting to export approx. 340,000 cy of organic dairy waste and import approx. 542,000 cy of earthwork material.

Architectural Coating -

Vehicle Trips - Project Trip Generation Rates are based on LEAL Masterplan Amendment Project Traffic Study, by RK Engineering Group.

Woodstoves - SCAQMD Rule 445 restricts wood burning hearths/fireplaces from being installed in new development.

Consumer Products -

Area Coating -

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control. The project is expected to use Tier 4 diesel engine construction equipment.

Area Mitigation - The project is expected use only natural gas hearth.

Energy Mitigation -

Fleet Mix - Operational fleet mix adjusted to equal 2% trucks with GVWR > 10,000 lbs.

Trips and VMT -

Mobile Land Use Mitigation - The project is proposing to implement traffic calming measures as a part of their design feature.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	15.00
tblConstructionPhase	NumDays	310.00	100.00
tblConstructionPhase	NumDays	3,100.00	580.00
tblConstructionPhase	NumDays	220.00	70.00
tblConstructionPhase	NumDays	220.00	334.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	55.00	0.00
tblFireplaces	NumberWood	50.00	0.00
tblFireplaces	NumberWood	20.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	MDV	0.13	0.14
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblGrading	MaterialExported	0.00	340,000.00
tblGrading	MaterialImported	0.00	542,000.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	1.49	0.00
tblLandUse	LotAcreage	1.43	11.02
tblLandUse	LotAcreage	1.49	0.00
tblLandUse	LotAcreage	0.57	0.00
tblLandUse	LotAcreage	25.38	0.00
tblLandUse	LotAcreage	8.80	0.00
tblLandUse	LotAcreage	68.75	28.17
tblLandUse	LotAcreage	62.50	35.28
tblLandUse	LotAcreage	129.87	47.15
tblLandUse	LotAcreage	8.95	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	7.32	6.59
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	7.32	6.59
tblVehicleTrips	WD_TR	9.74	9.68
tblVehicleTrips	WD_TR	33.98	23.80
tblVehicleTrips	WD_TR	72.05	64.84
tblVehicleTrips	WD_TR	34.80	31.32
tblVehicleTrips	WD_TR	37.75	35.01
tblVehicleTrips	WD_TR	9.44	8.50
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.8461	125.4211	49.0803	0.4536	26.4158	2.6417	28.5552	11.9096	2.4673	13.8971	0.0000	47,772.7123	47,772.7123	2.5114	6.5511	49,787.7192
2023	14.1353	102.2186	144.2659	0.4921	41.0360	2.2421	42.1522	11.0110	2.0928	12.0619	0.0000	50,725.5074	50,725.5074	2.5127	6.2691	51,702.4040
2024	13.2353	48.5680	136.6590	0.4797	41.0359	1.0207	42.0566	11.0110	0.9609	11.9719	0.0000	49,705.8492	49,705.8492	1.4354	3.0588	50,653.2530
2025	73.9659	46.7004	129.0386	0.4668	41.0358	0.9274	41.9632	11.0110	0.8733	11.8843	0.0000	48,661.7778	48,661.7778	1.3734	2.9663	49,580.0636
2026	73.8439	2.1797	20.8264	0.0594	7.0755	0.0801	7.1556	1.8764	0.0778	1.9543	0.0000	6,203.3030	6,203.3030	0.1230	0.1211	6,242.4738
Maximum	**73.9659**	**125.4211**	**144.2659**	**0.4921**	**41.0360**	**2.6417**	**42.1522**	**11.9096**	**2.4673**	**13.8971**	**0.0000**	**50,725.5074**	**50,725.5074**	**2.5127**	**6.5511**	**51,702.4040**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.9828	89.8777	53.0379	0.4536	15.8645	1.1084	16.9729	5.6378	1.0648	6.2038	0.0000	47,772.7123	47,772.7123	2.5114	6.5511	49,787.7192
2023	12.8904	71.0030	145.4822	0.4921	41.0360	0.9192	41.4933	11.0110	0.8838	11.4442	0.0000	50,725.5074	50,725.5074	2.5127	6.2691	51,702.4040
2024	12.0915	37.3590	137.9525	0.4797	41.0359	0.4482	41.4841	11.0110	0.4248	11.4358	0.0000	49,705.8492	49,705.8492	1.4354	3.0588	50,653.2530
2025	73.8248	36.4655	130.4142	0.4668	41.0358	0.4406	41.4764	11.0110	0.4178	11.4288	0.0000	48,661.7778	48,661.7778	1.3734	2.9663	49,580.0636
2026	73.7028	1.1630	20.8497	0.0594	7.0755	0.0326	7.1080	1.8764	0.0303	1.9067	0.0000	6,203.3030	6,203.3030	0.1230	0.1211	6,242.4738
Maximum	**73.8248**	**89.8777**	**145.4822**	**0.4921**	**41.0360**	**1.1084**	**41.4933**	**11.0110**	**1.0648**	**11.4442**	**0.0000**	**50,725.5074**	**50,725.5074**	**2.5127**	**6.5511**	**51,702.4040**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.06**	**27.44**	**-1.64**	**0.00**	**6.74**	**57.34**	**8.25**	**13.40**	**56.41**	**18.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197
Energy	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433
Mobile	120.6838	106.2988	1,085.8612	2.3442	267.2824	1.5399	268.8223	71.0849	1.4351	72.5200		246,009.8094	246,009.8094	12.0798	9.3439	249,096.2788
Total	**207.9055**	**156.9362**	**1,313.1663**	**2.6630**	**267.2824**	**6.5836**	**273.8661**	**71.0849**	**6.4789**	**77.5638**	**0.0000**	**307,942.5952**	**307,942.5952**	**13.6179**	**10.4725**	**311,403.8417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197
Energy	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433
Mobile	105.3620	79.2966	788.3161	1.5820	178.0279	1.0800	179.1079	47.3473	1.0060	48.3533		166,018.6471	166,018.6471	9.4041	7.0175	168,344.9714
Total	**192.5837**	**129.9341**	**1,015.6212**	**1.9007**	**178.0279**	**6.1238**	**184.1517**	**47.3473**	**6.0498**	**53.3971**	**0.0000**	**227,951.4329**	**227,951.4329**	**10.9422**	**8.1461**	**230,652.5343**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.37**	**17.21**	**22.66**	**28.63**	**33.39**	**6.98**	**32.76**	**33.39**	**6.62**	**31.16**	**0.00**	**25.98**	**25.98**	**19.65**	**22.21**	**25.93**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2022	5/20/2022	5	15	
2	Site Preparation	Site Preparation	5/21/2022	11/4/2022	5	120	
3	Grading	Grading	11/5/2022	3/24/2023	5	100	
4	Building Construction	Building Construction	3/25/2023	6/13/2025	5	580	
5	Paving	Paving	6/14/2025	9/19/2025	5	70	
6	Architectural Coating	Architectural Coating	9/20/2025	12/31/2026	5	334	

Acres of Grading (Site Preparation Phase): 180

Acres of Grading (Grading Phase): 300

Acres of Paving: 22.92

Residential Indoor: 5,710,500; Residential Outdoor: 1,903,500; Non-Residential Indoor: 910,800; Non-Residential Outdoor: 303,600; Striped Parking Area: 151,056 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	307.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	42,500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	67,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,167.00	880.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	633.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.4569	0.0000	4.4569	0.6748	0.0000	0.6748			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**4.4569**	**1.2427**	**5.6996**	**0.6748**	**1.1553**	**1.8301**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0647	2.6139	0.5813	0.0118	0.3582	0.0304	0.3886	0.0982	0.0291	0.1273		1,255.3270	1,255.3270	0.0170	0.1978	1,314.6806
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0383	0.5980	1.5200e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		155.0309	155.0309	3.8400e-003	3.8100e-003	156.2632
Total	**0.1238**	**2.6522**	**1.1793**	**0.0133**	**0.5259**	**0.0312**	**0.5571**	**0.1427**	**0.0298**	**0.1725**		**1,410.3578**	**1,410.3578**	**0.0208**	**0.2016**	**1,470.9437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7048	0.0000	1.7048	0.2581	0.0000	0.2581			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.7048**	**0.0616**	**1.7664**	**0.2581**	**0.0616**	**0.3198**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0647	2.6139	0.5813	0.0118	0.3582	0.0304	0.3886	0.0982	0.0291	0.1273		1,255.3270	1,255.3270	0.0170	0.1978	1,314.6806
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0591	0.0383	0.5980	1.5200e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		155.0309	155.0309	3.8400e-003	3.8100e-003	156.2632
Total	**0.1238**	**2.6522**	**1.1793**	**0.0133**	**0.5259**	**0.0312**	**0.5571**	**0.1427**	**0.0298**	**0.1725**		**1,410.3578**	**1,410.3578**	**0.0208**	**0.2016**	**1,470.9437**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.0158	0.0000	20.0158	10.1568	0.0000	10.1568			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**20.0158**	**1.6126**	**21.6284**	**10.1568**	**1.4836**	**11.6404**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1200	45.2322	10.0586	0.2036	6.1988	0.5257	6.7246	1.6995	0.5030	2.2025		21,722.8812	21,722.8812	0.2938	3.4220	22,749.9690
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0709	0.0460	0.7176	1.8300e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		186.0370	186.0370	4.6100e-003	4.5800e-003	187.5158
Total	**1.1909**	**45.2782**	**10.7762**	**0.2055**	**6.4000**	**0.5267**	**6.9268**	**1.7528**	**0.5039**	**2.2568**		**21,908.9182**	**21,908.9182**	**0.2984**	**3.4265**	**22,937.4848**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6560	0.0000	7.6560	3.8850	0.0000	3.8850			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.6560**	**0.0621**	**7.7181**	**3.8850**	**0.0621**	**3.9471**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1200	45.2322	10.0586	0.2036	6.1988	0.5257	6.7246	1.6995	0.5030	2.2025		21,722.8812	21,722.8812	0.2938	3.4220	22,749.9690
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0709	0.0460	0.7176	1.8300e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		186.0370	186.0370	4.6100e-003	4.5800e-003	187.5158
Total	**1.1909**	**45.2782**	**10.7762**	**0.2055**	**6.4000**	**0.5267**	**6.9268**	**1.7528**	**0.5039**	**2.2568**		**21,908.9182**	**21,908.9182**	**0.2984**	**3.4265**	**22,937.4848**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8899	0.0000	9.8899	3.7577	0.0000	3.7577			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.8899**	**1.6349**	**11.5248**	**3.7577**	**1.5041**	**5.2618**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1424	86.5265	19.2415	0.3895	11.8580	1.0057	12.8637	3.2510	0.9622	4.2132		41,554.5939	41,554.5939	0.5621	6.5460	43,519.3525
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0788	0.0511	0.7973	2.0300e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		206.7078	206.7078	5.1200e-003	5.0800e-003	208.3509
Total	**2.2212**	**86.5776**	**20.0388**	**0.3916**	**12.0816**	**1.0068**	**13.0884**	**3.3103**	**0.9632**	**4.2735**		**41,761.3017**	**41,761.3017**	**0.5672**	**6.5511**	**43,727.7034**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7829	0.0000	3.7829	1.4373	0.0000	1.4373			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.7829**	**0.1015**	**3.8844**	**1.4373**	**0.1015**	**1.5389**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1424	86.5265	19.2415	0.3895	11.8580	1.0057	12.8637	3.2510	0.9622	4.2132		41,554.5939	41,554.5939	0.5621	6.5460	43,519.3525
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0788	0.0511	0.7973	2.0300e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		206.7078	206.7078	5.1200e-003	5.0800e-003	208.3509
Total	**2.2212**	**86.5776**	**20.0388**	**0.3916**	**12.0816**	**1.0068**	**13.0884**	**3.3103**	**0.9632**	**4.2735**		**41,761.3017**	**41,761.3017**	**0.5672**	**6.5511**	**43,727.7034**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8899	0.0000	9.8899	3.7577	0.0000	3.7577			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.8899**	**1.4245**	**11.3144**	**3.7577**	**1.3105**	**5.0682**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4826	67.6578	18.6050	0.3723	11.8575	0.8166	12.6741	3.2508	0.7813	4.0321		39,755.4076	39,755.4076	0.5639	6.2644	41,636.3033
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0731	0.0452	0.7337	1.9700e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		201.2406	201.2406	4.5900e-003	4.6900e-003	202.7537
Total	**1.5557**	**67.7030**	**19.3387**	**0.3743**	**12.0810**	**0.8176**	**12.8987**	**3.3101**	**0.7822**	**4.0923**		**39,956.6482**	**39,956.6482**	**0.5685**	**6.2691**	**41,839.0570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7829	0.0000	3.7829	1.4373	0.0000	1.4373			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.7829**	**0.1015**	**3.8844**	**1.4373**	**0.1015**	**1.5389**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.4826	67.6578	18.6050	0.3723	11.8575	0.8166	12.6741	3.2508	0.7813	4.0321		39,755.4076	39,755.4076	0.5639	6.2644	41,636.3033
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0731	0.0452	0.7337	1.9700e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		201.2406	201.2406	4.5900e-003	4.6900e-003	202.7537
Total	**1.5557**	**67.7030**	**19.3387**	**0.3743**	**12.0810**	**0.8176**	**12.8987**	**3.3101**	**0.7822**	**4.0923**		**39,956.6482**	**39,956.6482**	**0.5685**	**6.2691**	**41,839.0570**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9919	28.7502	11.8380	0.1538	5.6364	0.2504	5.8868	1.6229	0.2395	1.8624		16,303.8482	16,303.8482	0.1663	2.4092	17,025.9522
Worker	11.5707	7.1498	116.1840	0.3114	35.3996	0.1661	35.5657	9.3881	0.1529	9.5410		31,866.4494	31,866.4494	0.7276	0.7430	32,106.0457
Total	**12.5626**	**35.9000**	**128.0219**	**0.4651**	**41.0360**	**0.4165**	**41.4525**	**11.0110**	**0.3924**	**11.4035**		**48,170.2975**	**48,170.2975**	**0.8939**	**3.1522**	**49,131.9979**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9919	28.7502	11.8380	0.1538	5.6364	0.2504	5.8868	1.6229	0.2395	1.8624		16,303.8482	16,303.8482	0.1663	2.4092	17,025.9522
Worker	11.5707	7.1498	116.1840	0.3114	35.3996	0.1661	35.5657	9.3881	0.1529	9.5410		31,866.4494	31,866.4494	0.7276	0.7430	32,106.0457
Total	**12.5626**	**35.9000**	**128.0219**	**0.4651**	**41.0360**	**0.4165**	**41.4525**	**11.0110**	**0.3924**	**11.4035**		**48,170.2975**	**48,170.2975**	**0.8939**	**3.1522**	**49,131.9979**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9763	28.7525	11.7023	0.1513	5.6363	0.2487	5.8850	1.6229	0.2379	1.8608		16,052.5709	16,052.5709	0.1721	2.3685	16,762.6911
Worker	10.7874	6.3718	108.7899	0.3015	35.3996	0.1587	35.5583	9.3881	0.1461	9.5342		31,097.5794	31,097.5794	0.6589	0.6903	31,319.7542
Total	**11.7637**	**35.1243**	**120.4922**	**0.4528**	**41.0359**	**0.4074**	**41.4433**	**11.0110**	**0.3840**	**11.3950**		**47,150.1503**	**47,150.1503**	**0.8310**	**3.0588**	**48,082.4453**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9763	28.7525	11.7023	0.1513	5.6363	0.2487	5.8850	1.6229	0.2379	1.8608		16,052.5709	16,052.5709	0.1721	2.3685	16,762.6911
Worker	10.7874	6.3718	108.7899	0.3015	35.3996	0.1587	35.5583	9.3881	0.1461	9.5342		31,097.5794	31,097.5794	0.6589	0.6903	31,319.7542
Total	**11.7637**	**35.1243**	**120.4922**	**0.4528**	**41.0359**	**0.4074**	**41.4433**	**11.0110**	**0.3840**	**11.3950**		**47,150.1503**	**47,150.1503**	**0.8310**	**3.0588**	**48,082.4453**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9635	28.5160	11.5701	0.1486	5.6362	0.2489	5.8851	1.6228	0.2381	1.8609		15,769.6084	15,769.6084	0.1785	2.3221	16,466.0609
Worker	10.0844	5.7147	101.3839	0.2912	35.3996	0.1509	35.5505	9.3881	0.1389	9.5271		30,335.6951	30,335.6951	0.5940	0.6442	30,542.5047
Total	**11.0479**	**34.2307**	**112.9539**	**0.4398**	**41.0358**	**0.3998**	**41.4356**	**11.0110**	**0.3770**	**11.3880**		**46,105.3034**	**46,105.3034**	**0.7725**	**2.9663**	**47,008.5656**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9635	28.5160	11.5701	0.1486	5.6362	0.2489	5.8851	1.6228	0.2381	1.8609		15,769.6084	15,769.6084	0.1785	2.3221	16,466.0609
Worker	10.0844	5.7147	101.3839	0.2912	35.3996	0.1509	35.5505	9.3881	0.1389	9.5271		30,335.6951	30,335.6951	0.5940	0.6442	30,542.5047
Total	**11.0479**	**34.2307**	**112.9539**	**0.4398**	**41.0358**	**0.3998**	**41.4356**	**11.0110**	**0.3770**	**11.3880**		**46,105.3034**	**46,105.3034**	**0.7725**	**2.9663**	**47,008.5656**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.8579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7730**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0478	0.0271	0.4802	1.3800e-003	0.1677	7.1000e-004	0.1684	0.0445	6.6000e-004	0.0451		143.6803	143.6803	2.8100e-003	3.0500e-003	144.6598
Total	**0.0478**	**0.0271**	**0.4802**	**1.3800e-003**	**0.1677**	**7.1000e-004**	**0.1684**	**0.0445**	**6.6000e-004**	**0.0451**		**143.6803**	**143.6803**	**2.8100e-003**	**3.0500e-003**	**144.6598**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.8579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1383**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0478	0.0271	0.4802	1.3800e-003	0.1677	7.1000e-004	0.1684	0.0445	6.6000e-004	0.0451		143.6803	143.6803	2.8100e-003	3.0500e-003	144.6598
Total	**0.0478**	**0.0271**	**0.4802**	**1.3800e-003**	**0.1677**	**7.1000e-004**	**0.1684**	**0.0445**	**6.6000e-004**	**0.0451**		**143.6803**	**143.6803**	**2.8100e-003**	**3.0500e-003**	**144.6598**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**71.9503**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0156	1.1422	20.2640	0.0582	7.0755	0.0302	7.1056	1.8764	0.0278	1.9042		6,063.3075	6,063.3075	0.1187	0.1288	6,104.6433
Total	**2.0156**	**1.1422**	**20.2640**	**0.0582**	**7.0755**	**0.0302**	**7.1056**	**1.8764**	**0.0278**	**1.9042**		**6,063.3075**	**6,063.3075**	**0.1187**	**0.1288**	**6,104.6433**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**71.8092**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0156	1.1422	20.2640	0.0582	7.0755	0.0302	7.1056	1.8764	0.0278	1.9042		6,063.3075	6,063.3075	0.1187	0.1288	6,104.6433
Total	**2.0156**	**1.1422**	**20.2640**	**0.0582**	**7.0755**	**0.0302**	**7.1056**	**1.8764**	**0.0278**	**1.9042**		**6,063.3075**	**6,063.3075**	**0.1187**	**0.1288**	**6,104.6433**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**71.9503**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8936	1.0342	19.0172	0.0564	7.0755	0.0286	7.1041	1.8764	0.0263	1.9028		5,921.8549	5,921.8549	0.1076	0.1211	5,960.6419
Total	**1.8936**	**1.0342**	**19.0172**	**0.0564**	**7.0755**	**0.0286**	**7.1041**	**1.8764**	**0.0263**	**1.9028**		**5,921.8549**	**5,921.8549**	**0.1076**	**0.1211**	**5,960.6419**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**71.8092**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8936	1.0342	19.0172	0.0564	7.0755	0.0286	7.1041	1.8764	0.0263	1.9028		5,921.8549	5,921.8549	0.1076	0.1211	5,960.6419
Total	**1.8936**	**1.0342**	**19.0172**	**0.0564**	**7.0755**	**0.0286**	**7.1041**	**1.8764**	**0.0263**	**1.9028**		**5,921.8549**	**5,921.8549**	**0.1076**	**0.1211**	**5,960.6419**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	105.3620	79.2966	788.3161	1.5820	178.0279	1.0800	179.1079	47.3473	1.0060	48.3533		166,018.6471	166,018.6471	9.4041	7.0175	168,344.9714
Unmitigated	120.6838	106.2988	1,085.8612	2.3442	267.2824	1.5399	268.8223	71.0849	1.4351	72.5200		246,009.8094	246,009.8094	12.0798	9.3439	249,096.2788

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	7,249.00	8,954.00	6908.00	25,436,791	16,942,598
City Park	0.00	0.00	0.00		
Condo/Townhouse	6,590.00	8,140.00	6280.00	23,124,355	15,402,362
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	629.20	143.65	45.50	1,534,865	1,022,322
Government (Civic Center)	1,480.36	0.00	0.00	3,265,389	2,174,967
Library	1,621.00	2,002.25	1052.25	4,024,890	2,680,845
Medical Office Building	2,035.80	557.05	92.30	4,012,458	2,672,565
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	13,653.90	17,986.80	8229.00	29,193,851	19,445,051
Single Family Housing	3,400.00	3,816.00	3420.00	11,831,156	7,880,339
Total	36,659.26	41,599.75	26,027.05	102,423,756	68,221,050

4.3 Trip Type Information

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Government (Civic Center)	16.60	8.40	6.90	75.00	20.00	5.00	50	34	16
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
City Park	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Condo/Townhouse	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Enclosed Parking with Elevator	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
General Office Building	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Government (Civic Center)	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Library	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Medical Office Building	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Parking Lot	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Regional Shopping Center	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Single Family Housing	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139

5.0 Energy Detail

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433
NaturalGas Unmitigated	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	45584.9	0.4916	4.2010	1.7876	0.0268		0.3397	0.3397		0.3397	0.3397		5,362.9334	5,362.9334	0.1028	0.0983	5,394.8027
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	57808.1	0.6234	5.3274	2.2670	0.0340		0.4307	0.4307		0.4307	0.4307		6,800.9573	6,800.9573	0.1304	0.1247	6,841.3720
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	610.822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Government (Civic Center)	584.51	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7658	68.7658	1.3200e-003	1.2600e-003	69.1745
Library	2214.38	0.0239	0.2171	0.1824	1.3000e-003		0.0165	0.0165		0.0165	0.0165		260.5157	260.5157	4.9900e-003	4.7800e-003	262.0638
Medical Office Building	610.822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2350.68	0.0254	0.2305	0.1936	1.3800e-003		0.0175	0.0175		0.0175	0.0175		276.5512	276.5512	5.3000e-003	5.0700e-003	278.1946
Single Family Housing	30999.4	0.3343	2.8568	1.2157	0.0182		0.2310	0.2310		0.2310	0.2310		3,646.9866	3,646.9866	0.0699	0.0669	3,668.6588
Total		**1.5180**	**13.0098**	**5.7950**	**0.0828**		**1.0488**	**1.0488**		**1.0488**	**1.0488**		**16,560.4329**	**16,560.4329**	**0.3174**	**0.3036**	**16,658.8432**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	45.5849	0.4916	4.2010	1.7876	0.0268		0.3397	0.3397		0.3397	0.3397		5,362.9334	5,362.9334	0.1028	0.0983	5,394.8027
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	57.8081	0.6234	5.3274	2.2670	0.0340		0.4307	0.4307		0.4307	0.4307		6,800.9573	6,800.9573	0.1304	0.1247	6,841.3720
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.610822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Government (Civic Center)	0.58451	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7658	68.7658	1.3200e-003	1.2600e-003	69.1745
Library	2.21438	0.0239	0.2171	0.1824	1.3000e-003		0.0165	0.0165		0.0165	0.0165		260.5157	260.5157	4.9900e-003	4.7800e-003	262.0638
Medical Office Building	0.610822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.35068	0.0254	0.2305	0.1936	1.3800e-003		0.0175	0.0175		0.0175	0.0175		276.5512	276.5512	5.3000e-003	5.0700e-003	278.1946
Single Family Housing	30.9994	0.3343	2.8568	1.2157	0.0182		0.2310	0.2310		0.2310	0.2310		3,646.9866	3,646.9866	0.0699	0.0669	3,668.6588
Total		**1.5180**	**13.0098**	**5.7950**	**0.0828**		**1.0488**	**1.0488**		**1.0488**	**1.0488**		**16,560.4329**	**16,560.4329**	**0.3174**	**0.3036**	**16,658.8432**

6.0 Area Detail

6.1 Mitigation Measures Area

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197
Unmitigated	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5683					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.7819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.1250	35.2500	15.0000	0.2250		2.8500	2.8500		2.8500	2.8500	0.0000	45,000.0000	45,000.0000	0.8625	0.8250	45,267.4125
Landscaping	6.2285	2.3776	206.5101	0.0109		1.1450	1.1450		1.1450	1.1450		372.3529	372.3529	0.3582		381.3072
Total	**85.7036**	**37.6276**	**221.5101**	**0.2359**		**3.9950**	**3.9950**		**3.9950**	**3.9950**	**0.0000**	**45,372.3529**	**45,372.3529**	**1.2207**	**0.8250**	**45,648.7197**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5683					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.7819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.1250	35.2500	15.0000	0.2250		2.8500	2.8500		2.8500	2.8500	0.0000	45,000.0000	45,000.0000	0.8625	0.8250	45,267.4125
Landscaping	6.2285	2.3776	206.5101	0.0109		1.1450	1.1450		1.1450	1.1450		372.3529	372.3529	0.3582		381.3072
Total	**85.7036**	**37.6276**	**221.5101**	**0.2359**		**3.9950**	**3.9950**		**3.9950**	**3.9950**	**0.0000**	**45,372.3529**	**45,372.3529**	**1.2207**	**0.8250**	**45,648.7197**

7.0 Water Detail

7.1 Mitigation Measures Water

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

LEAL Master Plan Modification Project-Unmitigated

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	65.00	1000sqft	0.00	65,000.00	0
Government (Civic Center)	62.20	1000sqft	11.02	62,200.00	0
Medical Office Building	65.00	1000sqft	0.00	65,000.00	0
Library	25.00	1000sqft	0.00	25,000.00	0
Enclosed Parking with Elevator	2,820.00	Space	0.00	1,128,000.00	0
Parking Lot	978.00	Space	0.00	391,200.00	0
Parking Lot	22.92	Acre	22.92	998,395.20	0
City Park	14.06	Acre	14.06	612,540.72	0
Apartments Low Rise	1,100.00	Dwelling Unit	28.17	1,100,000.00	3146
Condo/Townhouse	1,000.00	Dwelling Unit	35.28	1,000,000.00	2860
Single Family Housing	400.00	Dwelling Unit	47.15	720,000.00	1144
Regional Shopping Center	390.00	1000sqft	0.00	390,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use - The project land uses are summarized in Table 1: Land Use Summary in the Air Quality Report.

Construction Phase - The construction phases has been updated to meet opening year 2026.

Demolition - The project is expected to demolish all existing structures of approximately 67,500 square feet of building material.

Grading - The project is expecting to export approx. 340,000 cy of organic dairy waste and import approx. 542,000 cy of earthwork material.

Architectural Coating -

Vehicle Trips - Project Trip Generation Rates are based on LEAL Masterplan Amendment Project Traffic Study, by RK Engineering Group.

Woodstoves - SCAQMD Rule 445 restricts wood burning hearths/fireplaces from being installed in new development.

Consumer Products -

Area Coating -

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control. The project is expected to use Tier 4 diesel engine construction equipment.

Area Mitigation - The project is expected use only natural gas hearth.

Energy Mitigation -

Fleet Mix - Operational fleet mix adjusted to equal 2% trucks with GVWR > 10,000 lbs.

Trips and VMT -

Mobile Land Use Mitigation - The project is proposing to implement traffic calming measures as a part of their design feature.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	15.00
tblConstructionPhase	NumDays	310.00	100.00
tblConstructionPhase	NumDays	3,100.00	580.00
tblConstructionPhase	NumDays	220.00	70.00
tblConstructionPhase	NumDays	220.00	334.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	55.00	0.00
tblFireplaces	NumberWood	50.00	0.00
tblFireplaces	NumberWood	20.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	MDV	0.13	0.14
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblGrading	MaterialExported	0.00	340,000.00
tblGrading	MaterialImported	0.00	542,000.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	1.49	0.00
tblLandUse	LotAcreage	1.43	11.02
tblLandUse	LotAcreage	1.49	0.00
tblLandUse	LotAcreage	0.57	0.00
tblLandUse	LotAcreage	25.38	0.00
tblLandUse	LotAcreage	8.80	0.00
tblLandUse	LotAcreage	68.75	28.17
tblLandUse	LotAcreage	62.50	35.28
tblLandUse	LotAcreage	129.87	47.15
tblLandUse	LotAcreage	8.95	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	7.32	6.59
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	7.32	6.59
tblVehicleTrips	WD_TR	9.74	9.68
tblVehicleTrips	WD_TR	33.98	23.80
tblVehicleTrips	WD_TR	72.05	64.84
tblVehicleTrips	WD_TR	34.80	31.32
tblVehicleTrips	WD_TR	37.75	35.01
tblVehicleTrips	WD_TR	9.44	8.50
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.7389	130.1620	49.4573	0.4538	26.4158	2.6431	28.5559	11.9096	2.4686	13.8978	0.0000	47,784.9626	47,784.9626	2.5064	6.5562	49,801.3855
2023	13.3364	106.2517	122.8239	0.4632	41.0360	2.2433	42.1531	11.0110	2.0939	12.0627	0.0000	47,773.3863	47,773.3863	2.5069	6.2791	48,757.7230
2024	12.5165	50.5465	116.6476	0.4519	41.0359	1.0216	42.0575	11.0110	0.9617	11.9727	0.0000	46,830.8404	46,830.8404	1.4312	3.0826	47,785.2406
2025	73.8506	48.6395	110.5217	0.4399	41.0358	0.9282	41.9640	11.0110	0.8741	11.8850	0.0000	45,864.8643	45,864.8643	1.3710	2.9887	46,789.7802
2026	73.7410	2.2175	17.2933	0.0541	7.0755	0.0801	7.1556	1.8764	0.0778	1.9543	0.0000	5,650.6713	5,650.6713	0.1234	0.1239	5,690.6747
Maximum	**73.8506**	**130.1620**	**122.8239**	**0.4632**	**41.0360**	**2.6431**	**42.1531**	**11.9096**	**2.4686**	**13.8978**	**0.0000**	**47,784.9626**	**47,784.9626**	**2.5069**	**6.5562**	**49,801.3855**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.8756	94.6186	53.4149	0.4538	15.8645	1.1097	16.9742	5.6378	1.0661	6.2045	0.0000	47,784.9626	47,784.9626	2.5064	6.5562	49,801.3855
2023	12.0914	75.0362	124.0402	0.4632	41.0360	0.9203	41.4941	11.0110	0.8849	11.4451	0.0000	47,773.3863	47,773.3863	2.5069	6.2791	48,757.7230
2024	11.3727	39.3374	117.9411	0.4519	41.0359	0.4491	41.4850	11.0110	0.4256	11.4366	0.0000	46,830.8404	46,830.8404	1.4312	3.0826	47,785.2406
2025	73.7094	38.4045	111.8972	0.4399	41.0358	0.4415	41.4772	11.0110	0.4186	11.4296	0.0000	45,864.8643	45,864.8643	1.3710	2.9887	46,789.7802
2026	73.5999	1.2008	17.3166	0.0541	7.0755	0.0326	7.1080	1.8764	0.0303	1.9067	0.0000	5,650.6713	5,650.6713	0.1234	0.1239	5,690.6747
Maximum	**73.7094**	**94.6186**	**124.0402**	**0.4632**	**41.0360**	**1.1097**	**41.4941**	**11.0110**	**1.0661**	**11.4451**	**0.0000**	**47,784.9626**	**47,784.9626**	**2.5069**	**6.5562**	**49,801.3855**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**3.09**	**26.41**	**-1.89**	**0.00**	**6.74**	**57.30**	**8.24**	**13.40**	**56.37**	**18.06**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197
Energy	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433
Mobile	101.4260	113.0164	968.6874	2.1632	267.2824	1.5406	268.8230	71.0849	1.4358	72.5207		227,002.7926	227,002.7926	12.4531	9.5889	230,171.6089
Total	**188.6477**	**163.6538**	**1,195.9925**	**2.4819**	**267.2824**	**6.5843**	**273.8668**	**71.0849**	**6.4796**	**77.5645**	**0.0000**	**288,935.5784**	**288,935.5784**	**13.9911**	**10.7175**	**292,479.1719**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197
Energy	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433
Mobile	86.3480	84.2206	719.3863	1.4616	178.0279	1.0807	179.1086	47.3473	1.0067	48.3540		153,387.9957	153,387.9957	9.8602	7.2044	155,781.4074
Total	**173.5697**	**134.8580**	**946.6914**	**1.7804**	**178.0279**	**6.1245**	**184.1524**	**47.3473**	**6.0505**	**53.3978**	**0.0000**	**215,320.7815**	**215,320.7815**	**11.3982**	**8.3330**	**218,088.9703**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.99**	**17.60**	**20.84**	**28.27**	**33.39**	**6.98**	**32.76**	**33.39**	**6.62**	**31.16**	**0.00**	**25.48**	**25.48**	**18.53**	**22.25**	**25.43**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2022	5/20/2022	5	15	
2	Site Preparation	Site Preparation	5/21/2022	11/4/2022	5	120	
3	Grading	Grading	11/5/2022	3/24/2023	5	100	
4	Building Construction	Building Construction	3/25/2023	6/13/2025	5	580	
5	Paving	Paving	6/14/2025	9/19/2025	5	70	
6	Architectural Coating	Architectural Coating	9/20/2025	12/31/2026	5	334	

Acres of Grading (Site Preparation Phase): 180

Acres of Grading (Grading Phase): 300

Acres of Paving: 22.92

Residential Indoor: 5,710,500; Residential Outdoor: 1,903,500; Non-Residential Indoor: 910,800; Non-Residential Outdoor: 303,600; Striped Parking Area: 151,056 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	307.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	42,500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	67,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,167.00	880.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	633.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.4569	0.0000	4.4569	0.6748	0.0000	0.6748			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**4.4569**	**1.2427**	**5.6996**	**0.6748**	**1.1553**	**1.8301**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0616	2.7571	0.5972	0.0118	0.3582	0.0304	0.3886	0.0982	0.0291	0.1273		1,256.2853	1,256.2853	0.0168	0.1979	1,315.6806
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0552	0.0398	0.4846	1.3800e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		140.4261	140.4261	3.8100e-003	3.9000e-003	141.6847
Total	**0.1169**	**2.7968**	**1.0819**	**0.0132**	**0.5259**	**0.0313**	**0.5571**	**0.1427**	**0.0299**	**0.1726**		**1,396.7114**	**1,396.7114**	**0.0206**	**0.2018**	**1,457.3653**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7048	0.0000	1.7048	0.2581	0.0000	0.2581			0.0000			0.0000
Off-Road	0.4623	2.0032	23.2798	0.0388		0.0616	0.0616		0.0616	0.0616	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**0.4623**	**2.0032**	**23.2798**	**0.0388**	**1.7048**	**0.0616**	**1.7664**	**0.2581**	**0.0616**	**0.3198**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0616	2.7571	0.5972	0.0118	0.3582	0.0304	0.3886	0.0982	0.0291	0.1273		1,256.2853	1,256.2853	0.0168	0.1979	1,315.6806
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0552	0.0398	0.4846	1.3800e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		140.4261	140.4261	3.8100e-003	3.9000e-003	141.6847
Total	**0.1169**	**2.7968**	**1.0819**	**0.0132**	**0.5259**	**0.0313**	**0.5571**	**0.1427**	**0.0299**	**0.1726**		**1,396.7114**	**1,396.7114**	**0.0206**	**0.2018**	**1,457.3653**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					20.0158	0.0000	20.0158	10.1568	0.0000	10.1568			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**20.0158**	**1.6126**	**21.6284**	**10.1568**	**1.4836**	**11.6404**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0666	47.7095	10.3347	0.2038	6.1988	0.5264	6.7253	1.6995	0.5037	2.2032		21,739.4648	21,739.4648	0.2913	3.4246	22,767.2745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0663	0.0477	0.5816	1.6600e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		168.5113	168.5113	4.5800e-003	4.6800e-003	170.0216
Total	**1.1329**	**47.7572**	**10.9162**	**0.2055**	**6.4000**	**0.5274**	**6.9275**	**1.7528**	**0.5046**	**2.2574**		**21,907.9761**	**21,907.9761**	**0.2958**	**3.4293**	**22,937.2960**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.6560	0.0000	7.6560	3.8850	0.0000	3.8850			0.0000			0.0000
Off-Road	0.4656	2.0175	20.8690	0.0380		0.0621	0.0621		0.0621	0.0621	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**0.4656**	**2.0175**	**20.8690**	**0.0380**	**7.6560**	**0.0621**	**7.7181**	**3.8850**	**0.0621**	**3.9471**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.0666	47.7095	10.3347	0.2038	6.1988	0.5264	6.7253	1.6995	0.5037	2.2032		21,739.4648	21,739.4648	0.2913	3.4246	22,767.2745
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0663	0.0477	0.5816	1.6600e-003	0.2012	1.0000e-003	0.2022	0.0534	9.2000e-004	0.0543		168.5113	168.5113	4.5800e-003	4.6800e-003	170.0216
Total	**1.1329**	**47.7572**	**10.9162**	**0.2055**	**6.4000**	**0.5274**	**6.9275**	**1.7528**	**0.5046**	**2.2574**		**21,907.9761**	**21,907.9761**	**0.2958**	**3.4293**	**22,937.2960**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8899	0.0000	9.8899	3.7577	0.0000	3.7577			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**9.8899**	**1.6349**	**11.5248**	**3.7577**	**1.5041**	**5.2618**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0404	91.2655	19.7696	0.3898	11.8580	1.0071	12.8651	3.2510	0.9635	4.2145		41,586.3173	41,586.3173	0.5571	6.5510	43,552.4568
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0736	0.0530	0.6462	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		187.2348	187.2348	5.0800e-003	5.2000e-003	188.9129
Total	**2.1140**	**91.3185**	**20.4158**	**0.3917**	**12.0816**	**1.0082**	**13.0898**	**3.3103**	**0.9645**	**4.2748**		**41,773.5521**	**41,773.5521**	**0.5622**	**6.5562**	**43,741.3697**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7829	0.0000	3.7829	1.4373	0.0000	1.4373			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.7829**	**0.1015**	**3.8844**	**1.4373**	**0.1015**	**1.5389**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.0404	91.2655	19.7696	0.3898	11.8580	1.0071	12.8651	3.2510	0.9635	4.2145		41,586.3173	41,586.3173	0.5571	6.5510	43,552.4568
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0736	0.0530	0.6462	1.8400e-003	0.2236	1.1100e-003	0.2247	0.0593	1.0300e-003	0.0603		187.2348	187.2348	5.0800e-003	5.2000e-003	188.9129
Total	**2.1140**	**91.3185**	**20.4158**	**0.3917**	**12.0816**	**1.0082**	**13.0898**	**3.3103**	**0.9645**	**4.2748**		**41,773.5521**	**41,773.5521**	**0.5622**	**6.5562**	**43,741.3697**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.8899	0.0000	9.8899	3.7577	0.0000	3.7577			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**9.8899**	**1.4245**	**11.3144**	**3.7577**	**1.3105**	**5.0682**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3628	71.6893	18.9968	0.3729	11.8575	0.8177	12.6752	3.2508	0.7824	4.0332		39,817.5812	39,817.5812	0.5581	6.2743	41,701.2630
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0685	0.0469	0.5958	1.7800e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		182.3421	182.3421	4.5800e-003	4.8000e-003	183.8876
Total	**1.4313**	**71.7361**	**19.5926**	**0.3746**	**12.0810**	**0.8188**	**12.8998**	**3.3101**	**0.7833**	**4.0934**		**39,999.9233**	**39,999.9233**	**0.5627**	**6.2791**	**41,885.1505**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.7829	0.0000	3.7829	1.4373	0.0000	1.4373			0.0000			0.0000
Off-Road	0.7616	3.3000	32.9991	0.0621		0.1015	0.1015		0.1015	0.1015	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**0.7616**	**3.3000**	**32.9991**	**0.0621**	**3.7829**	**0.1015**	**3.8844**	**1.4373**	**0.1015**	**1.5389**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.3628	71.6893	18.9968	0.3729	11.8575	0.8177	12.6752	3.2508	0.7824	4.0332		39,817.5812	39,817.5812	0.5581	6.2743	41,701.2630
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0685	0.0469	0.5958	1.7800e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		182.3421	182.3421	4.5800e-003	4.8000e-003	183.8876
Total	**1.4313**	**71.7361**	**19.5926**	**0.3746**	**12.0810**	**0.8188**	**12.8998**	**3.3101**	**0.7833**	**4.0934**		**39,999.9233**	**39,999.9233**	**0.5627**	**6.2791**	**41,885.1505**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9185	30.4902	12.2365	0.1541	5.6364	0.2513	5.8877	1.6229	0.2404	1.8633		16,344.3103	16,344.3103	0.1630	2.4172	17,068.7232
Worker	10.8451	7.4185	94.3435	0.2821	35.3996	0.1661	35.5657	9.3881	0.1529	9.5410		28,873.8661	28,873.8661	0.7252	0.7604	29,118.5938
Total	**11.7636**	**37.9086**	**106.5799**	**0.4363**	**41.0360**	**0.4174**	**41.4533**	**11.0110**	**0.3933**	**11.4043**		**45,218.1764**	**45,218.1764**	**0.8881**	**3.1776**	**46,187.3170**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0269		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**0.3278**	**2.2347**	**17.4603**	**0.0269**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9185	30.4902	12.2365	0.1541	5.6364	0.2513	5.8877	1.6229	0.2404	1.8633		16,344.3103	16,344.3103	0.1630	2.4172	17,068.7232
Worker	10.8451	7.4185	94.3435	0.2821	35.3996	0.1661	35.5657	9.3881	0.1529	9.5410		28,873.8661	28,873.8661	0.7252	0.7604	29,118.5938
Total	**11.7636**	**37.9086**	**106.5799**	**0.4363**	**41.0360**	**0.4174**	**41.4533**	**11.0110**	**0.3933**	**11.4043**		**45,218.1764**	**45,218.1764**	**0.8881**	**3.1776**	**46,187.3170**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9032	30.4944	12.0997	0.1517	5.6363	0.2496	5.8859	1.6229	0.2387	1.8616		16,092.6882	16,092.6882	0.1688	2.3764	16,805.0616
Worker	10.1417	6.6083	88.3811	0.2732	35.3996	0.1587	35.5583	9.3881	0.1461	9.5342		28,182.4532	28,182.4532	0.6580	0.7063	28,409.3714
Total	**11.0449**	**37.1027**	**100.4808**	**0.4249**	**41.0359**	**0.4083**	**41.4442**	**11.0110**	**0.3848**	**11.3958**		**44,275.1415**	**44,275.1415**	**0.8268**	**3.0826**	**45,214.4329**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.9032	30.4944	12.0997	0.1517	5.6363	0.2496	5.8859	1.6229	0.2387	1.8616		16,092.6882	16,092.6882	0.1688	2.3764	16,805.0616
Worker	10.1417	6.6083	88.3811	0.2732	35.3996	0.1587	35.5583	9.3881	0.1461	9.5342		28,182.4532	28,182.4532	0.6580	0.7063	28,409.3714
Total	**11.0449**	**37.1027**	**100.4808**	**0.4249**	**41.0359**	**0.4083**	**41.4442**	**11.0110**	**0.3848**	**11.3958**		**44,275.1415**	**44,275.1415**	**0.8268**	**3.0826**	**45,214.4329**

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8906	30.2447	11.9671	0.1490	5.6362	0.2497	5.8859	1.6228	0.2389	1.8617		15,809.2462	15,809.2462	0.1752	2.3298	16,507.8983
Worker	9.5075	5.9251	82.4699	0.2640	35.3996	0.1509	35.5505	9.3881	0.1389	9.5271		27,499.1437	27,499.1437	0.5948	0.6590	27,710.3839
Total	**10.3981**	**36.1698**	**94.4370**	**0.4129**	**41.0358**	**0.4007**	**41.4364**	**11.0110**	**0.3778**	**11.3888**		**43,308.3900**	**43,308.3900**	**0.7700**	**2.9887**	**44,218.2822**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.3278	2.2347	17.4603	0.0270		0.0408	0.0408		0.0408	0.0408	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**0.3278**	**2.2347**	**17.4603**	**0.0270**		**0.0408**	**0.0408**		**0.0408**	**0.0408**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.8906	30.2447	11.9671	0.1490	5.6362	0.2497	5.8859	1.6228	0.2389	1.8617		15,809.2462	15,809.2462	0.1752	2.3298	16,507.8983
Worker	9.5075	5.9251	82.4699	0.2640	35.3996	0.1509	35.5505	9.3881	0.1389	9.5271		27,499.1437	27,499.1437	0.5948	0.6590	27,710.3839
Total	**10.3981**	**36.1698**	**94.4370**	**0.4129**	**41.0358**	**0.4007**	**41.4364**	**11.0110**	**0.3778**	**11.3888**		**43,308.3900**	**43,308.3900**	**0.7700**	**2.9887**	**44,218.2822**

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.8579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.7730**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0450	0.0281	0.3906	1.2500e-003	0.1677	7.1000e-004	0.1684	0.0445	6.6000e-004	0.0451		130.2454	130.2454	2.8200e-003	3.1200e-003	131.2459
Total	**0.0450**	**0.0281**	**0.3906**	**1.2500e-003**	**0.1677**	**7.1000e-004**	**0.1684**	**0.0445**	**6.6000e-004**	**0.0451**		**130.2454**	**130.2454**	**2.8200e-003**	**3.1200e-003**	**131.2459**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2805	1.2154	17.2957	0.0228		0.0374	0.0374		0.0374	0.0374	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.8579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1383**	**1.2154**	**17.2957**	**0.0228**		**0.0374**	**0.0374**		**0.0374**	**0.0374**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0450	0.0281	0.3906	1.2500e-003	0.1677	7.1000e-004	0.1684	0.0445	6.6000e-004	0.0451		130.2454	130.2454	2.8200e-003	3.1200e-003	131.2459
Total	**0.0450**	**0.0281**	**0.3906**	**1.2500e-003**	**0.1677**	**7.1000e-004**	**0.1684**	**0.0445**	**6.6000e-004**	**0.0451**		**130.2454**	**130.2454**	**2.8200e-003**	**3.1200e-003**	**131.2459**

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**71.9503**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9003	1.1843	16.4836	0.0528	7.0755	0.0302	7.1056	1.8764	0.0278	1.9042		5,496.3555	5,496.3555	0.1189	0.1317	5,538.5769
Total	**1.9003**	**1.1843**	**16.4836**	**0.0528**	**7.0755**	**0.0302**	**7.1056**	**1.8764**	**0.0278**	**1.9042**		**5,496.3555**	**5,496.3555**	**0.1189**	**0.1317**	**5,538.5769**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**71.8092**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9003	1.1843	16.4836	0.0528	7.0755	0.0302	7.1056	1.8764	0.0278	1.9042		5,496.3555	5,496.3555	0.1189	0.1317	5,538.5769
Total	**1.9003**	**1.1843**	**16.4836**	**0.0528**	**7.0755**	**0.0302**	**7.1056**	**1.8764**	**0.0278**	**1.9042**		**5,496.3555**	**5,496.3555**	**0.1189**	**0.1317**	**5,538.5769**

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**71.9503**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2026

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7907	1.0720	15.4842	0.0511	7.0755	0.0286	7.1041	1.8764	0.0263	1.9028		5,369.2232	5,369.2232	0.1080	0.1239	5,408.8429
Total	**1.7907**	**1.0720**	**15.4842**	**0.0511**	**7.0755**	**0.0286**	**7.1041**	**1.8764**	**0.0263**	**1.9028**		**5,369.2232**	**5,369.2232**	**0.1080**	**0.1239**	**5,408.8429**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	71.7794					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0297	0.1288	1.8324	2.9700e-003		3.9600e-003	3.9600e-003		3.9600e-003	3.9600e-003	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**71.8092**	**0.1288**	**1.8324**	**2.9700e-003**		**3.9600e-003**	**3.9600e-003**		**3.9600e-003**	**3.9600e-003**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

3.7 Architectural Coating - 2026

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7907	1.0720	15.4842	0.0511	7.0755	0.0286	7.1041	1.8764	0.0263	1.9028		5,369.2232	5,369.2232	0.1080	0.1239	5,408.8429
Total	**1.7907**	**1.0720**	**15.4842**	**0.0511**	**7.0755**	**0.0286**	**7.1041**	**1.8764**	**0.0263**	**1.9028**		**5,369.2232**	**5,369.2232**	**0.1080**	**0.1239**	**5,408.8429**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	86.3480	84.2206	719.3863	1.4616	178.0279	1.0807	179.1086	47.3473	1.0067	48.3540		153,387.9957	153,387.9957	9.8602	7.2044	155,781.4074
Unmitigated	101.4260	113.0164	968.6874	2.1632	267.2824	1.5406	268.8230	71.0849	1.4358	72.5207		227,002.7926	227,002.7926	12.4531	9.5889	230,171.6089

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	7,249.00	8,954.00	6908.00	25,436,791	16,942,598
City Park	0.00	0.00	0.00		
Condo/Townhouse	6,590.00	8,140.00	6280.00	23,124,355	15,402,362
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	629.20	143.65	45.50	1,534,865	1,022,322
Government (Civic Center)	1,480.36	0.00	0.00	3,265,389	2,174,967
Library	1,621.00	2,002.25	1052.25	4,024,890	2,680,845
Medical Office Building	2,035.80	557.05	92.30	4,012,458	2,672,565
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	13,653.90	17,986.80	8229.00	29,193,851	19,445,051
Single Family Housing	3,400.00	3,816.00	3420.00	11,831,156	7,880,339
Total	36,659.26	41,599.75	26,027.05	102,423,756	68,221,050

4.3 Trip Type Information

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Government (Civic Center)	16.60	8.40	6.90	75.00	20.00	5.00	50	34	16
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
City Park	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Condo/Townhouse	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Enclosed Parking with Elevator	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
General Office Building	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Government (Civic Center)	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Library	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Medical Office Building	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Parking Lot	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Regional Shopping Center	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Single Family Housing	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139

5.0 Energy Detail

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433
NaturalGas Unmitigated	1.5180	13.0098	5.7950	0.0828		1.0488	1.0488		1.0488	1.0488		16,560.4329	16,560.4329	0.3174	0.3036	16,658.8433

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	45584.9	0.4916	4.2010	1.7876	0.0268		0.3397	0.3397		0.3397	0.3397		5,362.9334	5,362.9334	0.1028	0.0983	5,394.8027
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	57808.1	0.6234	5.3274	2.2670	0.0340		0.4307	0.4307		0.4307	0.4307		6,800.9573	6,800.9573	0.1304	0.1247	6,841.3720
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	610.822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Government (Civic Center)	584.51	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7658	68.7658	1.3200e-003	1.2600e-003	69.1745
Library	2214.38	0.0239	0.2171	0.1824	1.3000e-003		0.0165	0.0165		0.0165	0.0165		260.5157	260.5157	4.9900e-003	4.7800e-003	262.0638
Medical Office Building	610.822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2350.68	0.0254	0.2305	0.1936	1.3800e-003		0.0175	0.0175		0.0175	0.0175		276.5512	276.5512	5.3000e-003	5.0700e-003	278.1946
Single Family Housing	30999.4	0.3343	2.8568	1.2157	0.0182		0.2310	0.2310		0.2310	0.2310		3,646.9866	3,646.9866	0.0699	0.0669	3,668.6588
Total		**1.5180**	**13.0098**	**5.7950**	**0.0828**		**1.0488**	**1.0488**		**1.0488**	**1.0488**		**16,560.4329**	**16,560.4329**	**0.3174**	**0.3036**	**16,658.8432**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	45.5849	0.4916	4.2010	1.7876	0.0268		0.3397	0.3397		0.3397	0.3397		5,362.9334	5,362.9334	0.1028	0.0983	5,394.8027
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	57.8081	0.6234	5.3274	2.2670	0.0340		0.4307	0.4307		0.4307	0.4307		6,800.9573	6,800.9573	0.1304	0.1247	6,841.3720
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0.610822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Government (Civic Center)	0.58451	6.3000e-003	0.0573	0.0481	3.4000e-004		4.3600e-003	4.3600e-003		4.3600e-003	4.3600e-003		68.7658	68.7658	1.3200e-003	1.2600e-003	69.1745
Library	2.21438	0.0239	0.2171	0.1824	1.3000e-003		0.0165	0.0165		0.0165	0.0165		260.5157	260.5157	4.9900e-003	4.7800e-003	262.0638
Medical Office Building	0.610822	6.5900e-003	0.0599	0.0503	3.6000e-004		4.5500e-003	4.5500e-003		4.5500e-003	4.5500e-003		71.8614	71.8614	1.3800e-003	1.3200e-003	72.2884
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	2.35068	0.0254	0.2305	0.1936	1.3800e-003		0.0175	0.0175		0.0175	0.0175		276.5512	276.5512	5.3000e-003	5.0700e-003	278.1946
Single Family Housing	30.9994	0.3343	2.8568	1.2157	0.0182		0.2310	0.2310		0.2310	0.2310		3,646.9866	3,646.9866	0.0699	0.0669	3,668.6588
Total		**1.5180**	**13.0098**	**5.7950**	**0.0828**		**1.0488**	**1.0488**		**1.0488**	**1.0488**		**16,560.4329**	**16,560.4329**	**0.3174**	**0.3036**	**16,658.8432**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197
Unmitigated	85.7036	37.6276	221.5101	0.2359		3.9950	3.9950		3.9950	3.9950	0.0000	45,372.3529	45,372.3529	1.2207	0.8250	45,648.7197

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5683					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.7819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.1250	35.2500	15.0000	0.2250		2.8500	2.8500		2.8500	2.8500	0.0000	45,000.0000	45,000.0000	0.8625	0.8250	45,267.4125
Landscaping	6.2285	2.3776	206.5101	0.0109		1.1450	1.1450		1.1450	1.1450		372.3529	372.3529	0.3582		381.3072
Total	**85.7036**	**37.6276**	**221.5101**	**0.2359**		**3.9950**	**3.9950**		**3.9950**	**3.9950**	**0.0000**	**45,372.3529**	**45,372.3529**	**1.2207**	**0.8250**	**45,648.7197**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5683					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	68.7819					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.1250	35.2500	15.0000	0.2250		2.8500	2.8500		2.8500	2.8500	0.0000	45,000.0000	45,000.0000	0.8625	0.8250	45,267.4125
Landscaping	6.2285	2.3776	206.5101	0.0109		1.1450	1.1450		1.1450	1.1450		372.3529	372.3529	0.3582		381.3072
Total	**85.7036**	**37.6276**	**221.5101**	**0.2359**		**3.9950**	**3.9950**		**3.9950**	**3.9950**	**0.0000**	**45,372.3529**	**45,372.3529**	**1.2207**	**0.8250**	**45,648.7197**

7.0 Water Detail

7.1 Mitigation Measures Water

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Annual Emission Calculations Output
(CalEEMod)

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

LEAL Master Plan Modification Project-Unmitigated

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	65.00	1000sqft	0.00	65,000.00	0
Government (Civic Center)	62.20	1000sqft	11.02	62,200.00	0
Medical Office Building	65.00	1000sqft	0.00	65,000.00	0
Library	25.00	1000sqft	0.00	25,000.00	0
Enclosed Parking with Elevator	2,820.00	Space	0.00	1,128,000.00	0
Parking Lot	978.00	Space	0.00	391,200.00	0
Parking Lot	22.92	Acre	22.92	998,395.20	0
City Park	14.06	Acre	14.06	612,540.72	0
Apartments Low Rise	1,100.00	Dwelling Unit	28.17	1,100,000.00	3146
Condo/Townhouse	1,000.00	Dwelling Unit	35.28	1,000,000.00	2860
Single Family Housing	400.00	Dwelling Unit	47.15	720,000.00	1144
Regional Shopping Center	390.00	1000sqft	0.00	390,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2026
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use - The project land uses are summarized in Table 1: Land Use Summary in the Air Quality Report.

Construction Phase - The construction phases has been updated to meet opening year 2026.

Demolition - The project is expected to demolish all existing structures of approximately 67,500 square feet of building material.

Grading - The project is expecting to export approx. 340,000 cy of organic dairy waste and import approx. 542,000 cy of earthwork material.

Architectural Coating -

Vehicle Trips - Project Trip Generation Rates are based on LEAL Masterplan Amendment Project Traffic Study, by RK Engineering Group.

Woodstoves - SCAQMD Rule 445 restricts wood burning hearths/fireplaces from being installed in new development.

Consumer Products -

Area Coating -

Construction Off-road Equipment Mitigation - Project will be required to comply with SCAQMD Rule 403 regarding fugitive dust control. The project is expected to use Tier 4 diesel engine construction equipment.

Area Mitigation - The project is expected use only natural gas hearth.

Energy Mitigation -

Fleet Mix - Operational fleet mix adjusted to equal 2% trucks with GVWR > 10,000 lbs.

Trips and VMT -

Mobile Land Use Mitigation - The project is proposing to implement traffic calming measures as a part of their design feature.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	200.00	15.00
tblConstructionPhase	NumDays	310.00	100.00
tblConstructionPhase	NumDays	3,100.00	580.00
tblConstructionPhase	NumDays	220.00	70.00
tblConstructionPhase	NumDays	220.00	334.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	55.00	0.00
tblFireplaces	NumberWood	50.00	0.00
tblFireplaces	NumberWood	20.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	HHD	0.02	8.4860e-003
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDA	0.54	0.56
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LDT2	0.17	0.18
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD1	0.02	0.03
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	LHD2	6.9600e-003	3.1760e-003
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MCY	0.02	0.02
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14
tblFleetMix	MDV	0.13	0.14

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	MDV	0.13	0.14
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MH	4.6890e-003	2.1390e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	MHD	0.01	5.2880e-003
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	OBUS	6.0800e-004	2.7700e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	SBUS	1.0910e-003	4.9800e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblFleetMix	UBUS	2.9800e-004	1.3600e-004
tblGrading	MaterialExported	0.00	340,000.00
tblGrading	MaterialImported	0.00	542,000.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	1.49	0.00
tblLandUse	LotAcreage	1.43	11.02
tblLandUse	LotAcreage	1.49	0.00
tblLandUse	LotAcreage	0.57	0.00
tblLandUse	LotAcreage	25.38	0.00
tblLandUse	LotAcreage	8.80	0.00
tblLandUse	LotAcreage	68.75	28.17
tblLandUse	LotAcreage	62.50	35.28
tblLandUse	LotAcreage	129.87	47.15
tblLandUse	LotAcreage	8.95	0.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	7.32	6.59
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	7.32	6.59
tblVehicleTrips	WD_TR	9.74	9.68
tblVehicleTrips	WD_TR	33.98	23.80
tblVehicleTrips	WD_TR	72.05	64.84
tblVehicleTrips	WD_TR	34.80	31.32
tblVehicleTrips	WD_TR	37.75	35.01
tblVehicleTrips	WD_TR	9.44	8.50
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3964	7.6662	2.9755	0.0241	2.1686	0.1908	2.3594	0.8732	0.1775	1.0508	0.0000	2,294.5574	2,294.5574	0.1339	0.3069	2,389.3489
2023	1.4252	8.3955	14.1921	0.0601	4.7681	0.1789	4.9470	1.3044	0.1679	1.4723	0.0000	5,644.1006	5,644.1006	0.2045	0.4600	5,786.2801
2024	1.5732	6.6024	15.8759	0.0600	5.2883	0.1338	5.4221	1.4210	0.1259	1.5469	0.0000	5,640.5415	5,640.5415	0.1706	0.3675	5,754.3097
2025	3.4207	3.2475	7.9928	0.0292	2.6415	0.0724	2.7139	0.7090	0.0679	0.7769	0.0000	2,757.5837	2,757.5837	0.1008	0.1650	2,809.2640
2026	9.6100	0.2930	2.3644	7.2100e-003	0.9080	0.0105	0.9184	0.2411	0.0102	0.2513	0.0000	683.6656	683.6656	0.0146	0.0149	688.4841
Maximum	**9.6100**	**8.3955**	**15.8759**	**0.0601**	**5.2883**	**0.1908**	**5.4221**	**1.4210**	**0.1775**	**1.5469**	**0.0000**	**5,644.1006**	**5,644.1006**	**0.2045**	**0.4600**	**5,786.2801**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1605	4.9135	3.1451	0.0241	1.2126	0.0582	1.2708	0.4391	0.0560	0.4951	0.0000	2,294.5570	2,294.5570	0.1339	0.3069	2,389.3485
2023	1.2239	6.2440	14.4622	0.0601	4.5371	0.0734	4.6105	1.2293	0.0699	1.2992	0.0000	5,644.1001	5,644.1001	0.2045	0.4600	5,786.2797
2024	1.4234	5.1340	16.0453	0.0600	5.2883	0.0588	5.3471	1.4210	0.0557	1.4767	0.0000	5,640.5412	5,640.5412	0.1706	0.3675	5,754.3093
2025	3.3320	2.3487	8.1700	0.0292	2.6415	0.0286	2.6701	0.7090	0.0272	0.7361	0.0000	2,757.5835	2,757.5835	0.1008	0.1650	2,809.2637
2026	9.5915	0.1603	2.3674	7.2100e-003	0.9080	4.2500e-003	0.9122	0.2411	3.9500e-003	0.2451	0.0000	683.6655	683.6655	0.0146	0.0149	688.4840
Maximum	**9.5915**	**6.2440**	**16.0453**	**0.0601**	**5.2883**	**0.0734**	**5.3471**	**1.4210**	**0.0699**	**1.4767**	**0.0000**	**5,644.1001**	**5,644.1001**	**0.2045**	**0.4600**	**5,786.2797**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.23**	**28.25**	**-1.82**	**0.00**	**7.52**	**61.93**	**9.47**	**11.20**	**61.30**	**16.60**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**5-2-2022**	**8-1-2022**	2.3680	1.3118
2	**8-2-2022**	**11-1-2022**	2.7457	1.6361
3	**11-2-2022**	**2-1-2023**	4.1264	2.9224
4	**2-2-2023**	**5-1-2023**	2.8992	2.1022
5	**5-2-2023**	**8-1-2023**	2.1167	1.6765
6	**8-2-2023**	**11-1-2023**	2.1305	1.6904
7	**11-2-2023**	**2-1-2024**	2.1271	1.6989

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8	**2-2-2024**	**5-1-2024**	2.0131	1.6160
9	**5-2-2024**	**8-1-2024**	2.0307	1.6248
10	**8-2-2024**	**11-1-2024**	2.0451	1.6392
11	**11-2-2024**	**2-1-2025**	2.0417	1.6481
12	**2-2-2025**	**5-1-2025**	1.9057	1.5474
13	**5-2-2025**	**8-1-2025**	1.0904	0.7772
14	**8-2-2025**	**11-1-2025**	1.3527	1.1949
15	**11-2-2025**	**2-1-2026**	2.5005	2.4625
16	**2-2-2026**	**5-1-2026**	2.4151	2.3783
17	**5-2-2026**	**8-1-2026**	2.4979	2.4599
18	**8-2-2026**	**9-30-2026**	1.6291	1.6043
		Highest	4.1264	2.9224

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	14.5815	0.7378	26.0013	4.1800e-003		0.1788	0.1788		0.1788	0.1788	0.0000	552.5155	552.5155	0.0504	9.3600e-003	556.5633
Energy	0.2770	2.3743	1.0576	0.0151		0.1914	0.1914		0.1914	0.1914	0.0000	7,373.7057	7,373.7057	0.4435	0.0977	7,413.8940
Mobile	14.9433	16.6273	145.9476	0.3222	38.4934	0.2250	38.7184	10.2508	0.2097	10.4605	0.0000	30,673.6995	30,673.6995	1.6416	1.2784	31,095.6956
Waste						0.0000	0.0000		0.0000	0.0000	606.0823	0.0000	606.0823	35.8184	0.0000	1,501.5432
Water						0.0000	0.0000		0.0000	0.0000	71.2619	823.2642	894.5262	7.3888	0.1813	1,133.2569
Total	**29.8018**	**19.7394**	**173.0064**	**0.3415**	**38.4934**	**0.5952**	**39.0886**	**10.2508**	**0.5799**	**10.8307**	**677.3442**	**39,423.1849**	**40,100.5291**	**45.3427**	**1.5666**	**41,700.9531**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	14.5815	0.7378	26.0013	4.1800e-003		0.1788	0.1788		0.1788	0.1788	0.0000	552.5155	552.5155	0.0504	9.3600e-003	556.5633
Energy	0.2770	2.3743	1.0576	0.0151		0.1914	0.1914		0.1914	0.1914	0.0000	7,373.7057	7,373.7057	0.4435	0.0977	7,413.8940
Mobile	12.7194	12.3486	107.7492	0.2176	25.6392	0.1578	25.7969	6.8277	0.1470	6.9747	0.0000	20,716.8224	20,716.8224	1.2946	0.9579	21,034.6523
Waste						0.0000	0.0000		0.0000	0.0000	606.0823	0.0000	606.0823	35.8184	0.0000	1,501.5432
Water						0.0000	0.0000		0.0000	0.0000	71.2619	823.2642	894.5262	7.3888	0.1813	1,133.2569
Total	**27.5780**	**15.4607**	**134.8080**	**0.2369**	**25.6392**	**0.5279**	**26.1671**	**6.8277**	**0.5171**	**7.3448**	**677.3442**	**29,466.3078**	**30,143.6520**	**44.9957**	**1.2462**	**31,639.9098**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.46**	**21.68**	**22.08**	**30.63**	**33.39**	**11.30**	**33.06**	**33.39**	**10.82**	**32.18**	**0.00**	**25.26**	**24.83**	**0.77**	**20.45**	**24.13**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/2/2022	5/20/2022	5	15	
2	Site Preparation	Site Preparation	5/21/2022	11/4/2022	5	120	
3	Grading	Grading	11/5/2022	3/24/2023	5	100	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	3/25/2023	6/13/2025	5	580	
5	Paving	Paving	6/14/2025	9/19/2025	5	70	
6	Architectural Coating	Architectural Coating	9/20/2025	12/31/2026	5	334	

Acres of Grading (Site Preparation Phase): 180

Acres of Grading (Grading Phase): 300

Acres of Paving: 22.92

Residential Indoor: 5,710,500; Residential Outdoor: 1,903,500; Non-Residential Indoor: 910,800; Non-Residential Outdoor: 303,600; Striped Parking Area: 151,056 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	307.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	42,500.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	67,750.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	3,167.00	880.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	633.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0334	0.0000	0.0334	5.0600e-003	0.0000	5.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0198	0.1929	0.1545	2.9000e-004		9.3200e-003	9.3200e-003		8.6600e-003	8.6600e-003	0.0000	25.4927	25.4927	7.1600e-003	0.0000	25.6717
Total	**0.0198**	**0.1929**	**0.1545**	**2.9000e-004**	**0.0334**	**9.3200e-003**	**0.0428**	**5.0600e-003**	**8.6600e-003**	**0.0137**	**0.0000**	**25.4927**	**25.4927**	**7.1600e-003**	**0.0000**	**25.6717**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.8000e-004	0.0207	4.4100e-003	9.0000e-005	2.6500e-003	2.3000e-004	2.8800e-003	7.3000e-004	2.2000e-004	9.5000e-004	0.0000	8.5438	8.5438	1.2000e-004	1.3500e-003	8.9478
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.1000e-004	3.8300e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9778	0.9778	3.0000e-005	3.0000e-005	0.9865
Total	**8.7000e-004**	**0.0210**	**8.2400e-003**	**1.0000e-004**	**3.8900e-003**	**2.4000e-004**	**4.1200e-003**	**1.0600e-003**	**2.3000e-004**	**1.2800e-003**	**0.0000**	**9.5216**	**9.5216**	**1.5000e-004**	**1.3800e-003**	**9.9343**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0128	0.0000	0.0128	1.9400e-003	0.0000	1.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4700e-003	0.0150	0.1746	2.9000e-004		4.6000e-004	4.6000e-004		4.6000e-004	4.6000e-004	0.0000	25.4926	25.4926	7.1600e-003	0.0000	25.6717
Total	**3.4700e-003**	**0.0150**	**0.1746**	**2.9000e-004**	**0.0128**	**4.6000e-004**	**0.0133**	**1.9400e-003**	**4.6000e-004**	**2.4000e-003**	**0.0000**	**25.4926**	**25.4926**	**7.1600e-003**	**0.0000**	**25.6717**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.8000e-004	0.0207	4.4100e-003	9.0000e-005	2.6500e-003	2.3000e-004	2.8800e-003	7.3000e-004	2.2000e-004	9.5000e-004	0.0000	8.5438	8.5438	1.2000e-004	1.3500e-003	8.9478
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.1000e-004	3.8300e-003	1.0000e-005	1.2400e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.3000e-004	0.0000	0.9778	0.9778	3.0000e-005	3.0000e-005	0.9865
Total	**8.7000e-004**	**0.0210**	**8.2400e-003**	**1.0000e-004**	**3.8900e-003**	**2.4000e-004**	**4.1200e-003**	**1.0600e-003**	**2.3000e-004**	**1.2800e-003**	**0.0000**	**9.5216**	**9.5216**	**1.5000e-004**	**1.3800e-003**	**9.9343**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2010	0.0000	1.2010	0.6094	0.0000	0.6094	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1902	1.9850	1.1819	2.2800e-003		0.0968	0.0968		0.0890	0.0890	0.0000	200.6363	200.6363	0.0649	0.0000	202.2586
Total	**0.1902**	**1.9850**	**1.1819**	**2.2800e-003**	**1.2010**	**0.0968**	**1.2977**	**0.6094**	**0.0890**	**0.6984**	**0.0000**	**200.6363**	**200.6363**	**0.0649**	**0.0000**	**202.2586**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0659	2.8617	0.6104	0.0122	0.3665	0.0316	0.3981	0.1007	0.0302	0.1308	0.0000	1,182.7790	1,182.7790	0.0159	0.1863	1,238.7014
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7800e-003	2.9400e-003	0.0368	1.0000e-004	0.0119	6.0000e-005	0.0119	3.1500e-003	6.0000e-005	3.2100e-003	0.0000	9.3865	9.3865	2.5000e-004	2.6000e-004	9.4702
Total	**0.0696**	**2.8646**	**0.6472**	**0.0123**	**0.3784**	**0.0316**	**0.4100**	**0.1038**	**0.0303**	**0.1341**	**0.0000**	**1,192.1655**	**1,192.1655**	**0.0162**	**0.1866**	**1,248.1715**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4594	0.0000	0.4594	0.2331	0.0000	0.2331	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0279	0.1211	1.2521	2.2800e-003		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	200.6361	200.6361	0.0649	0.0000	202.2584
Total	**0.0279**	**0.1211**	**1.2521**	**2.2800e-003**	**0.4594**	**3.7200e-003**	**0.4631**	**0.2331**	**3.7200e-003**	**0.2368**	**0.0000**	**200.6361**	**200.6361**	**0.0649**	**0.0000**	**202.2584**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0659	2.8617	0.6104	0.0122	0.3665	0.0316	0.3981	0.1007	0.0302	0.1308	0.0000	1,182.7790	1,182.7790	0.0159	0.1863	1,238.7014
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7800e-003	2.9400e-003	0.0368	1.0000e-004	0.0119	6.0000e-005	0.0119	3.1500e-003	6.0000e-005	3.2100e-003	0.0000	9.3865	9.3865	2.5000e-004	2.6000e-004	9.4702
Total	**0.0696**	**2.8646**	**0.6472**	**0.0123**	**0.3784**	**0.0316**	**0.4100**	**0.1038**	**0.0303**	**0.1341**	**0.0000**	**1,192.1655**	**1,192.1655**	**0.0162**	**0.1866**	**1,248.1715**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3138	0.0000	0.3138	0.0886	0.0000	0.0886	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0725	0.7769	0.5808	1.2400e-003		0.0327	0.0327		0.0301	0.0301	0.0000	109.0692	109.0692	0.0353	0.0000	109.9511
Total	**0.0725**	**0.7769**	**0.5808**	**1.2400e-003**	**0.3138**	**0.0327**	**0.3465**	**0.0886**	**0.0301**	**0.1187**	**0.0000**	**109.0692**	**109.0692**	**0.0353**	**0.0000**	**109.9511**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0420	1.8248	0.3892	7.7900e-003	0.2337	0.0201	0.2539	0.0642	0.0193	0.0834	0.0000	754.1956	754.1956	0.0102	0.1188	789.8543
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-003	1.0900e-003	0.0136	4.0000e-005	4.4000e-003	2.0000e-005	4.4200e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.4765	3.4765	9.0000e-005	1.0000e-004	3.5075
Total	**0.0434**	**1.8258**	**0.4029**	**7.8300e-003**	**0.2381**	**0.0202**	**0.2583**	**0.0654**	**0.0193**	**0.0846**	**0.0000**	**757.6721**	**757.6721**	**0.0103**	**0.1189**	**793.3618**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1200	0.0000	0.1200	0.0339	0.0000	0.0339	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0152	0.0660	0.6600	1.2400e-003		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003	0.0000	109.0691	109.0691	0.0353	0.0000	109.9510
Total	**0.0152**	**0.0660**	**0.6600**	**1.2400e-003**	**0.1200**	**2.0300e-003**	**0.1221**	**0.0339**	**2.0300e-003**	**0.0359**	**0.0000**	**109.0691**	**109.0691**	**0.0353**	**0.0000**	**109.9510**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0420	1.8248	0.3892	7.7900e-003	0.2337	0.0201	0.2539	0.0642	0.0193	0.0834	0.0000	754.1956	754.1956	0.0102	0.1188	789.8543
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-003	1.0900e-003	0.0136	4.0000e-005	4.4000e-003	2.0000e-005	4.4200e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.4765	3.4765	9.0000e-005	1.0000e-004	3.5075
Total	**0.0434**	**1.8258**	**0.4029**	**7.8300e-003**	**0.2381**	**0.0202**	**0.2583**	**0.0654**	**0.0193**	**0.0846**	**0.0000**	**757.6721**	**757.6721**	**0.0103**	**0.1189**	**793.3618**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3741	0.0000	0.3741	0.1217	0.0000	0.1217	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0997	1.0355	0.8415	1.8600e-003		0.0427	0.0427		0.0393	0.0393	0.0000	163.6056	163.6056	0.0529	0.0000	164.9285
Total	**0.0997**	**1.0355**	**0.8415**	**1.8600e-003**	**0.3741**	**0.0427**	**0.4168**	**0.1217**	**0.0393**	**0.1610**	**0.0000**	**163.6056**	**163.6056**	**0.0529**	**0.0000**	**164.9285**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0430	2.1414	0.5631	0.0112	0.3506	0.0245	0.3751	0.0963	0.0235	0.1197	0.0000	1,082.6756	1,082.6756	0.0153	0.1706	1,133.8974
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9500e-003	1.4400e-003	0.0188	5.0000e-005	6.5900e-003	3.0000e-005	6.6300e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.0780	5.0780	1.3000e-004	1.3000e-004	5.1208
Total	**0.0449**	**2.1428**	**0.5819**	**0.0112**	**0.3572**	**0.0245**	**0.3817**	**0.0980**	**0.0235**	**0.1215**	**0.0000**	**1,087.7536**	**1,087.7536**	**0.0154**	**0.1707**	**1,139.0182**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1431	0.0000	0.1431	0.0465	0.0000	0.0465	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.0990	0.9900	1.8600e-003		3.0500e-003	3.0500e-003		3.0500e-003	3.0500e-003	0.0000	163.6054	163.6054	0.0529	0.0000	164.9283
Total	**0.0229**	**0.0990**	**0.9900**	**1.8600e-003**	**0.1431**	**3.0500e-003**	**0.1461**	**0.0465**	**3.0500e-003**	**0.0496**	**0.0000**	**163.6054**	**163.6054**	**0.0529**	**0.0000**	**164.9283**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0430	2.1414	0.5631	0.0112	0.3506	0.0245	0.3751	0.0963	0.0235	0.1197	0.0000	1,082.6756	1,082.6756	0.0153	0.1706	1,133.8974
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9500e-003	1.4400e-003	0.0188	5.0000e-005	6.5900e-003	3.0000e-005	6.6300e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.0780	5.0780	1.3000e-004	1.3000e-004	5.1208
Total	**0.0449**	**2.1428**	**0.5819**	**0.0112**	**0.3572**	**0.0245**	**0.3817**	**0.0980**	**0.0235**	**0.1215**	**0.0000**	**1,087.7536**	**1,087.7536**	**0.0154**	**0.1707**	**1,139.0182**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1573	1.4385	1.6244	2.6900e-003		0.0700	0.0700		0.0658	0.0658	0.0000	231.8048	231.8048	0.0551	0.0000	233.1833
Total	**0.1573**	**1.4385**	**1.6244**	**2.6900e-003**		**0.0700**	**0.0700**		**0.0658**	**0.0658**	**0.0000**	**231.8048**	**231.8048**	**0.0551**	**0.0000**	**233.1833**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0954	3.0172	1.2020	0.0154	0.5559	0.0251	0.5810	0.1604	0.0240	0.1844	0.0000	1,480.6044	1,480.6044	0.0150	0.2189	1,546.2199
Worker	1.0280	0.7616	9.9423	0.0289	3.4809	0.0166	3.4975	0.9243	0.0153	0.9396	0.0000	2,680.3322	2,680.3322	0.0661	0.0703	2,702.9303
Total	**1.1234**	**3.7787**	**11.1443**	**0.0443**	**4.0369**	**0.0417**	**4.0786**	**1.0847**	**0.0393**	**1.1240**	**0.0000**	**4,160.9366**	**4,160.9366**	**0.0810**	**0.2892**	**4,249.1502**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0328	0.2235	1.7460	2.6900e-003		4.0800e-003	4.0800e-003		4.0800e-003	4.0800e-003	0.0000	231.8045	231.8045	0.0551	0.0000	233.1830
Total	**0.0328**	**0.2235**	**1.7460**	**2.6900e-003**		**4.0800e-003**	**4.0800e-003**		**4.0800e-003**	**4.0800e-003**	**0.0000**	**231.8045**	**231.8045**	**0.0551**	**0.0000**	**233.1830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0954	3.0172	1.2020	0.0154	0.5559	0.0251	0.5810	0.1604	0.0240	0.1844	0.0000	1,480.6044	1,480.6044	0.0150	0.2189	1,546.2199
Worker	1.0280	0.7616	9.9423	0.0289	3.4809	0.0166	3.4975	0.9243	0.0153	0.9396	0.0000	2,680.3322	2,680.3322	0.0661	0.0703	2,702.9303
Total	**1.1234**	**3.7787**	**11.1443**	**0.0443**	**4.0369**	**0.0417**	**4.0786**	**1.0847**	**0.0393**	**1.1240**	**0.0000**	**4,160.9366**	**4,160.9366**	**0.0810**	**0.2892**	**4,249.1502**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	**0.1928**	**1.7611**	**2.1179**	**3.5300e-003**		**0.0803**	**0.0803**		**0.0756**	**0.0756**	**0.0000**	**303.7223**	**303.7223**	**0.0718**	**0.0000**	**305.5179**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1230	3.9528	1.5568	0.0199	0.7283	0.0326	0.7609	0.2101	0.0312	0.2413	0.0000	1,909.7124	1,909.7124	0.0203	0.2820	1,994.2395
Worker	1.2575	0.8885	12.2013	0.0366	4.5600	0.0208	4.5808	1.2109	0.0191	1.2300	0.0000	3,427.1068	3,427.1068	0.0785	0.0855	3,454.5523
Total	**1.3805**	**4.8413**	**13.7580**	**0.0565**	**5.2883**	**0.0534**	**5.3417**	**1.4210**	**0.0504**	**1.4713**	**0.0000**	**5,336.8192**	**5,336.8192**	**0.0988**	**0.3675**	**5,448.7918**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.2928	2.2873	3.5300e-003		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	**0.0429**	**0.2928**	**2.2873**	**3.5300e-003**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**303.7220**	**303.7220**	**0.0718**	**0.0000**	**305.5175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1230	3.9528	1.5568	0.0199	0.7283	0.0326	0.7609	0.2101	0.0312	0.2413	0.0000	1,909.7124	1,909.7124	0.0203	0.2820	1,994.2395
Worker	1.2575	0.8885	12.2013	0.0366	4.5600	0.0208	4.5808	1.2109	0.0191	1.2300	0.0000	3,427.1068	3,427.1068	0.0785	0.0855	3,454.5523
Total	**1.3805**	**4.8413**	**13.7580**	**0.0565**	**5.2883**	**0.0534**	**5.3417**	**1.4210**	**0.0504**	**1.4713**	**0.0000**	**5,336.8192**	**5,336.8192**	**0.0988**	**0.3675**	**5,448.7918**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0807	0.7357	0.9490	1.5900e-003		0.0311	0.0311		0.0293	0.0293	0.0000	136.8325	136.8325	0.0322	0.0000	137.6366
Total	**0.0807**	**0.7357**	**0.9490**	**1.5900e-003**		**0.0311**	**0.0311**		**0.0293**	**0.0293**	**0.0000**	**136.8325**	**136.8325**	**0.0322**	**0.0000**	**137.6366**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0547	1.7655	0.6933	8.7800e-003	0.3280	0.0147	0.3427	0.0946	0.0141	0.1087	0.0000	844.9434	844.9434	9.4800e-003	0.1245	882.2794
Worker	0.5301	0.3587	5.1260	0.0159	2.0538	8.9100e-003	2.0627	0.5454	8.2000e-003	0.5536	0.0000	1,505.9749	1,505.9749	0.0319	0.0359	1,517.4808
Total	**0.5847**	**2.1242**	**5.8193**	**0.0247**	**2.3817**	**0.0236**	**2.4054**	**0.6400**	**0.0223**	**0.6623**	**0.0000**	**2,350.9183**	**2,350.9183**	**0.0414**	**0.1604**	**2,399.7602**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0193	0.1319	1.0302	1.5900e-003		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	136.8323	136.8323	0.0322	0.0000	137.6364
Total	**0.0193**	**0.1319**	**1.0302**	**1.5900e-003**		**2.4100e-003**	**2.4100e-003**		**2.4100e-003**	**2.4100e-003**	**0.0000**	**136.8323**	**136.8323**	**0.0322**	**0.0000**	**137.6364**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0547	1.7655	0.6933	8.7800e-003	0.3280	0.0147	0.3427	0.0946	0.0141	0.1087	0.0000	844.9434	844.9434	9.4800e-003	0.1245	882.2794
Worker	0.5301	0.3587	5.1260	0.0159	2.0538	8.9100e-003	2.0627	0.5454	8.2000e-003	0.5536	0.0000	1,505.9749	1,505.9749	0.0319	0.0359	1,517.4808
Total	**0.5847**	**2.1242**	**5.8193**	**0.0247**	**2.3817**	**0.0236**	**2.4054**	**0.6400**	**0.0223**	**0.6623**	**0.0000**	**2,350.9183**	**2,350.9183**	**0.0414**	**0.1604**	**2,399.7602**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0320	0.3004	0.5102	8.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	70.0674	70.0674	0.0227	0.0000	70.6339
Paving	0.0300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0621**	**0.3004**	**0.5102**	**8.0000e-004**		**0.0147**	**0.0147**		**0.0135**	**0.0135**	**0.0000**	**70.0674**	**70.0674**	**0.0227**	**0.0000**	**70.6339**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4900e-003	1.0100e-003	0.0144	4.0000e-005	5.7700e-003	3.0000e-005	5.8000e-003	1.5300e-003	2.0000e-005	1.5600e-003	0.0000	4.2313	4.2313	9.0000e-005	1.0000e-004	4.2637
Total	**1.4900e-003**	**1.0100e-003**	**0.0144**	**4.0000e-005**	**5.7700e-003**	**3.0000e-005**	**5.8000e-003**	**1.5300e-003**	**2.0000e-005**	**1.5600e-003**	**0.0000**	**4.2313**	**4.2313**	**9.0000e-005**	**1.0000e-004**	**4.2637**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8200e-003	0.0425	0.6054	8.0000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	70.0673	70.0673	0.0227	0.0000	70.6338
Paving	0.0300					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0399**	**0.0425**	**0.6054**	**8.0000e-004**		**1.3100e-003**	**1.3100e-003**		**1.3100e-003**	**1.3100e-003**	**0.0000**	**70.0673**	**70.0673**	**0.0227**	**0.0000**	**70.6338**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4900e-003	1.0100e-003	0.0144	4.0000e-005	5.7700e-003	3.0000e-005	5.8000e-003	1.5300e-003	2.0000e-005	1.5600e-003	0.0000	4.2313	4.2313	9.0000e-005	1.0000e-004	4.2637
Total	**1.4900e-003**	**1.0100e-003**	**0.0144**	**4.0000e-005**	**5.7700e-003**	**3.0000e-005**	**5.8000e-003**	**1.5300e-003**	**2.0000e-005**	**1.5600e-003**	**0.0000**	**4.2313**	**4.2313**	**9.0000e-005**	**1.0000e-004**	**4.2637**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6200					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2400e-003	0.0418	0.0660	1.1000e-004		1.8800e-003	1.8800e-003		1.8800e-003	1.8800e-003	0.0000	9.3194	9.3194	5.1000e-004	0.0000	9.3321
Total	**2.6262**	**0.0418**	**0.0660**	**1.1000e-004**		**1.8800e-003**	**1.8800e-003**		**1.8800e-003**	**1.8800e-003**	**0.0000**	**9.3194**	**9.3194**	**5.1000e-004**	**0.0000**	**9.3321**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0655	0.0444	0.6338	1.9700e-003	0.2540	1.1000e-003	0.2551	0.0674	1.0100e-003	0.0685	0.0000	186.2148	186.2148	3.9500e-003	4.4400e-003	187.6375
Total	**0.0655**	**0.0444**	**0.6338**	**1.9700e-003**	**0.2540**	**1.1000e-003**	**0.2551**	**0.0674**	**1.0100e-003**	**0.0685**	**0.0000**	**186.2148**	**186.2148**	**3.9500e-003**	**4.4400e-003**	**187.6375**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.6200					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0800e-003	4.7000e-003	0.0669	1.1000e-004		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	9.3194	9.3194	5.1000e-004	0.0000	9.3321
Total	**2.6210**	**4.7000e-003**	**0.0669**	**1.1000e-004**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**9.3194**	**9.3194**	**5.1000e-004**	**0.0000**	**9.3321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0655	0.0444	0.6338	1.9700e-003	0.2540	1.1000e-003	0.2551	0.0674	1.0100e-003	0.0685	0.0000	186.2148	186.2148	3.9500e-003	4.4400e-003	187.6375
Total	**0.0655**	**0.0444**	**0.6338**	**1.9700e-003**	**0.2540**	**1.1000e-003**	**0.2551**	**0.0674**	**1.0100e-003**	**0.0685**	**0.0000**	**186.2148**	**186.2148**	**3.9500e-003**	**4.4400e-003**	**187.6375**

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3672					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	**9.3895**	**0.1495**	**0.2361**	**3.9000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**	**0.0000**	**33.3200**	**33.3200**	**1.8200e-003**	**0.0000**	**33.3654**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2205	0.1435	2.1283	6.8200e-003	0.9080	3.7300e-003	0.9117	0.2411	3.4400e-003	0.2445	0.0000	650.3456	650.3456	0.0128	0.0149	655.1187
Total	**0.2205**	**0.1435**	**2.1283**	**6.8200e-003**	**0.9080**	**3.7300e-003**	**0.9117**	**0.2411**	**3.4400e-003**	**0.2445**	**0.0000**	**650.3456**	**650.3456**	**0.0128**	**0.0149**	**655.1187**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2026

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	9.3672					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.8800e-003	0.0168	0.2391	3.9000e-004		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	**9.3711**	**0.0168**	**0.2391**	**3.9000e-004**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**33.3199**	**33.3199**	**1.8200e-003**	**0.0000**	**33.3654**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2205	0.1435	2.1283	6.8200e-003	0.9080	3.7300e-003	0.9117	0.2411	3.4400e-003	0.2445	0.0000	650.3456	650.3456	0.0128	0.0149	655.1187
Total	**0.2205**	**0.1435**	**2.1283**	**6.8200e-003**	**0.9080**	**3.7300e-003**	**0.9117**	**0.2411**	**3.4400e-003**	**0.2445**	**0.0000**	**650.3456**	**650.3456**	**0.0128**	**0.0149**	**655.1187**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Density

Improve Destination Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	12.7194	12.3486	107.7492	0.2176	25.6392	0.1578	25.7969	6.8277	0.1470	6.9747	0.0000	20,716.8224	20,716.8224	1.2946	0.9579	21,034.6523
Unmitigated	14.9433	16.6273	145.9476	0.3222	38.4934	0.2250	38.7184	10.2508	0.2097	10.4605	0.0000	30,673.6995	30,673.6995	1.6416	1.2784	31,095.6956

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	7,249.00	8,954.00	6908.00	25,436,791	16,942,598
City Park	0.00	0.00	0.00		
Condo/Townhouse	6,590.00	8,140.00	6280.00	23,124,355	15,402,362
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	629.20	143.65	45.50	1,534,865	1,022,322
Government (Civic Center)	1,480.36	0.00	0.00	3,265,389	2,174,967
Library	1,621.00	2,002.25	1052.25	4,024,890	2,680,845
Medical Office Building	2,035.80	557.05	92.30	4,012,458	2,672,565
Parking Lot	0.00	0.00	0.00		

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Regional Shopping Center	13,653.90	17,986.80	8229.00	29,193,851	19,445,051
Single Family Housing	3,400.00	3,816.00	3420.00	11,831,156	7,880,339
Total	36,659.26	41,599.75	26,027.05	102,423,756	68,221,050

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Government (Civic Center)	16.60	8.40	6.90	75.00	20.00	5.00	50	34	16
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
City Park	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Condo/Townhouse	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Enclosed Parking with Elevator	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
General Office Building	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Government (Civic Center)	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Library	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Medical Office Building	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Parking Lot	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Regional Shopping Center	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139
Single Family Housing	0.556450	0.058102	0.178799	0.137382	0.025295	0.003176	0.005288	0.008486	0.000277	0.000136	0.023972	0.000498	0.002139

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,631.9403	4,631.9403	0.3910	0.0474	4,655.8357
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,631.9403	4,631.9403	0.3910	0.0474	4,655.8357
NaturalGas Mitigated	0.2770	2.3743	1.0576	0.0151		0.1914	0.1914		0.1914	0.1914	0.0000	2,741.7654	2,741.7654	0.0526	0.0503	2,758.0583
NaturalGas Unmitigated	0.2770	2.3743	1.0576	0.0151		0.1914	0.1914		0.1914	0.1914	0.0000	2,741.7654	2,741.7654	0.0526	0.0503	2,758.0583

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.66385e+007	0.0897	0.7667	0.3263	4.8900e-003		0.0620	0.0620		0.0620	0.0620	0.0000	887.8938	887.8938	0.0170	0.0163	893.1701
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.11e+007	0.1138	0.9723	0.4137	6.2100e-003		0.0786	0.0786		0.0786	0.0786	0.0000	1,125.9748	1,125.9748	0.0216	0.0206	1,132.6659
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	222950	1.2000e-003	0.0109	9.1800e-003	7.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	11.8975	11.8975	2.3000e-004	2.2000e-004	11.9682
Government (Civic Center)	213346	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3850	11.3850	2.2000e-004	2.1000e-004	11.4526
Library	808250	4.3600e-003	0.0396	0.0333	2.4000e-004		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	43.1313	43.1313	8.3000e-004	7.9000e-004	43.3876
Medical Office Building	222950	1.2000e-003	0.0109	9.1800e-003	7.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	11.8975	11.8975	2.3000e-004	2.2000e-004	11.9682
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	858000	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003	0.0000	45.7862	45.7862	8.8000e-004	8.4000e-004	46.0582
Single Family Housing	1.13148e+007	0.0610	0.5214	0.2219	3.3300e-003		0.0422	0.0422		0.0422	0.0422	0.0000	603.7995	603.7995	0.0116	0.0111	607.3876
Total		**0.2770**	**2.3743**	**1.0576**	**0.0151**		**0.1914**	**0.1914**		**0.1914**	**0.1914**	**0.0000**	**2,741.7654**	**2,741.7654**	**0.0526**	**0.0503**	**2,758.0583**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	1.66385e+007	0.0897	0.7667	0.3263	4.8900e-003		0.0620	0.0620		0.0620	0.0620	0.0000	887.8938	887.8938	0.0170	0.0163	893.1701
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	2.11e+007	0.1138	0.9723	0.4137	6.2100e-003		0.0786	0.0786		0.0786	0.0786	0.0000	1,125.9748	1,125.9748	0.0216	0.0206	1,132.6659
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	222950	1.2000e-003	0.0109	9.1800e-003	7.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	11.8975	11.8975	2.3000e-004	2.2000e-004	11.9682
Government (Civic Center)	213346	1.1500e-003	0.0105	8.7800e-003	6.0000e-005		7.9000e-004	7.9000e-004		7.9000e-004	7.9000e-004	0.0000	11.3850	11.3850	2.2000e-004	2.1000e-004	11.4526
Library	808250	4.3600e-003	0.0396	0.0333	2.4000e-004		3.0100e-003	3.0100e-003		3.0100e-003	3.0100e-003	0.0000	43.1313	43.1313	8.3000e-004	7.9000e-004	43.3876
Medical Office Building	222950	1.2000e-003	0.0109	9.1800e-003	7.0000e-005		8.3000e-004	8.3000e-004		8.3000e-004	8.3000e-004	0.0000	11.8975	11.8975	2.3000e-004	2.2000e-004	11.9682
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	858000	4.6300e-003	0.0421	0.0353	2.5000e-004		3.2000e-003	3.2000e-003		3.2000e-003	3.2000e-003	0.0000	45.7862	45.7862	8.8000e-004	8.4000e-004	46.0582
Single Family Housing	1.13148e+007	0.0610	0.5214	0.2219	3.3300e-003		0.0422	0.0422		0.0422	0.0422	0.0000	603.7995	603.7995	0.0116	0.0111	607.3876
Total		**0.2770**	**2.3743**	**1.0576**	**0.0151**		**0.1914**	**0.1914**		**0.1914**	**0.1914**	**0.0000**	**2,741.7654**	**2,741.7654**	**0.0526**	**0.0503**	**2,758.0583**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	4.58695e+006	813.4743	0.0687	8.3200e-003	817.6708
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.97376e+006	882.0742	0.0745	9.0200e-003	886.6247
Enclosed Parking with Elevator	6.13632e+006	1,088.2490	0.0919	0.0111	1,093.8631
General Office Building	597350	105.9374	8.9400e-003	1.0800e-003	106.4839
Government (Civic Center)	571618	101.3739	8.5600e-003	1.0400e-003	101.8969
Library	248000	43.9817	3.7100e-003	4.5000e-004	44.2086
Medical Office Building	597350	105.9374	8.9400e-003	1.0800e-003	106.4839
Parking Lot	136920	24.2822	2.0500e-003	2.5000e-004	24.4074
Parking Lot	349438	61.9713	5.2300e-003	6.3000e-004	62.2910
Regional Shopping Center	4.7346e+006	839.6602	0.0709	8.5900e-003	843.9919
Single Family Housing	3.18586e+006	564.9988	0.0477	5.7800e-003	567.9135
Total		**4,631.9403**	**0.3910**	**0.0474**	**4,655.8357**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	4.58695e+006	813.4743	0.0687	8.3200e-003	817.6708
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse	4.97376e+006	882.0742	0.0745	9.0200e-003	886.6247
Enclosed Parking with Elevator	6.13632e+006	1,088.2490	0.0919	0.0111	1,093.8631
General Office Building	597350	105.9374	8.9400e-003	1.0800e-003	106.4839
Government (Civic Center)	571618	101.3739	8.5600e-003	1.0400e-003	101.8969
Library	248000	43.9817	3.7100e-003	4.5000e-004	44.2086
Medical Office Building	597350	105.9374	8.9400e-003	1.0800e-003	106.4839
Parking Lot	136920	24.2822	2.0500e-003	2.5000e-004	24.4074
Parking Lot	349438	61.9713	5.2300e-003	6.3000e-004	62.2910
Regional Shopping Center	4.7346e+006	839.6602	0.0709	8.5900e-003	843.9919
Single Family Housing	3.18586e+006	564.9988	0.0477	5.7800e-003	567.9135
Total		**4,631.9403**	**0.3910**	**0.0474**	**4,655.8357**

6.0 Area Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	14.5815	0.7378	26.0013	4.1800e-003		0.1788	0.1788		0.1788	0.1788	0.0000	552.5155	552.5155	0.0504	9.3600e-003	556.5633
Unmitigated	14.5815	0.7378	26.0013	4.1800e-003		0.1788	0.1788		0.1788	0.1788	0.0000	552.5155	552.5155	0.0504	9.3600e-003	556.5633

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1987					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.5527					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0516	0.4406	0.1875	2.8100e-003		0.0356	0.0356		0.0356	0.0356	0.0000	510.2914	510.2914	9.7800e-003	9.3600e-003	513.3238
Landscaping	0.7786	0.2972	25.8138	1.3700e-003		0.1431	0.1431		0.1431	0.1431	0.0000	42.2241	42.2241	0.0406	0.0000	43.2395
Total	**14.5815**	**0.7378**	**26.0013**	**4.1800e-003**		**0.1787**	**0.1787**		**0.1787**	**0.1787**	**0.0000**	**552.5155**	**552.5155**	**0.0504**	**9.3600e-003**	**556.5633**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.1987					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	12.5527					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0516	0.4406	0.1875	2.8100e-003		0.0356	0.0356		0.0356	0.0356	0.0000	510.2914	510.2914	9.7800e-003	9.3600e-003	513.3238
Landscaping	0.7786	0.2972	25.8138	1.3700e-003		0.1431	0.1431		0.1431	0.1431	0.0000	42.2241	42.2241	0.0406	0.0000	43.2395
Total	**14.5815**	**0.7378**	**26.0013**	**4.1800e-003**		**0.1787**	**0.1787**		**0.1787**	**0.1787**	**0.0000**	**552.5155**	**552.5155**	**0.0504**	**9.3600e-003**	**556.5633**

7.0 Water Detail

7.1 Mitigation Measures Water

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	894.5262	7.3888	0.1813	1,133.2569
Unmitigated	894.5262	7.3888	0.1813	1,133.2569

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	71.6694 / 45.1829	277.2619	2.3568	0.0578	353.3912
City Park	0 / 16.7522	33.0071	2.7900e-003	3.4000e-004	33.1773
Condo/Townhouse	65.154 / 41.0754	252.0563	2.1426	0.0525	321.2647
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	11.5527 / 7.08068	44.2939	0.3799	9.3000e-003	56.5635
Government (Civic Center)	12.3566 / 7.57342	47.3763	0.4063	9.9500e-003	60.4997
Library	0.782223 / 1.22348	4.4651	0.0258	6.4000e-004	5.3034
Medical Office Building	8.15623 / 1.55357	24.4831	0.2676	6.5000e-003	33.1104
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	28.8883 / 17.7057	110.7600	0.9499	0.0233	141.4408
Single Family Housing	26.0616 / 16.4301	100.8225	0.8570	0.0210	128.5059
Total		**894.5262**	**7.3888**	**0.1813**	**1,133.2569**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	71.6694 / 45.1829	277.2619	2.3568	0.0578	353.3912
City Park	0 / 16.7522	33.0071	2.7900e-003	3.4000e-004	33.1773
Condo/Townhouse	65.154 / 41.0754	252.0563	2.1426	0.0525	321.2647
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	11.5527 / 7.08068	44.2939	0.3799	9.3000e-003	56.5635
Government (Civic Center)	12.3566 / 7.57342	47.3763	0.4063	9.9500e-003	60.4997
Library	0.782223 / 1.22348	4.4651	0.0258	6.4000e-004	5.3034
Medical Office Building	8.15623 / 1.55357	24.4831	0.2676	6.5000e-003	33.1104
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	28.8883 / 17.7057	110.7600	0.9499	0.0233	141.4408
Single Family Housing	26.0616 / 16.4301	100.8225	0.8570	0.0210	128.5059
Total		**894.5262**	**7.3888**	**0.1813**	**1,133.2569**

8.0 Waste Detail

8.1 Mitigation Measures Waste

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	606.0823	35.8184	0.0000	1,501.5432
Unmitigated	606.0823	35.8184	0.0000	1,501.5432

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	506	102.7134	6.0702	0.0000	254.4682
City Park	1.21	0.2456	0.0145	0.0000	0.6085
Condo/Townhouse	460	93.3758	5.5184	0.0000	231.3347
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	60.45	12.2708	0.7252	0.0000	30.4004
Government (Civic Center)	354.54	71.9684	4.2532	0.0000	178.2987
Library	23.02	4.6729	0.2762	0.0000	11.5768
Medical Office Building	702	142.4997	8.4215	0.0000	353.0369
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	409.5	83.1248	4.9125	0.0000	205.9382
Single Family Housing	469.04	95.2109	5.6268	0.0000	235.8809
Total		**606.0823**	**35.8184**	**0.0000**	**1,501.5432**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	506	102.7134	6.0702	0.0000	254.4682
City Park	1.21	0.2456	0.0145	0.0000	0.6085
Condo/Townhouse	460	93.3758	5.5184	0.0000	231.3347
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	60.45	12.2708	0.7252	0.0000	30.4004
Government (Civic Center)	354.54	71.9684	4.2532	0.0000	178.2987
Library	23.02	4.6729	0.2762	0.0000	11.5768
Medical Office Building	702	142.4997	8.4215	0.0000	353.0369
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	409.5	83.1248	4.9125	0.0000	205.9382
Single Family Housing	469.04	95.2109	5.6268	0.0000	235.8809
Total		**606.0823**	**35.8184**	**0.0000**	**1,501.5432**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

LEAL Master Plan Modification Project-Unmitigated - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix C

March 25, 2022

AJ Jarvis
The New Home Company
15231 Laguna Canyon Road, Suite 250
Irvine, CA 92618

Subject: Biological Assessment of the Leal Property located in the City of Eastvale

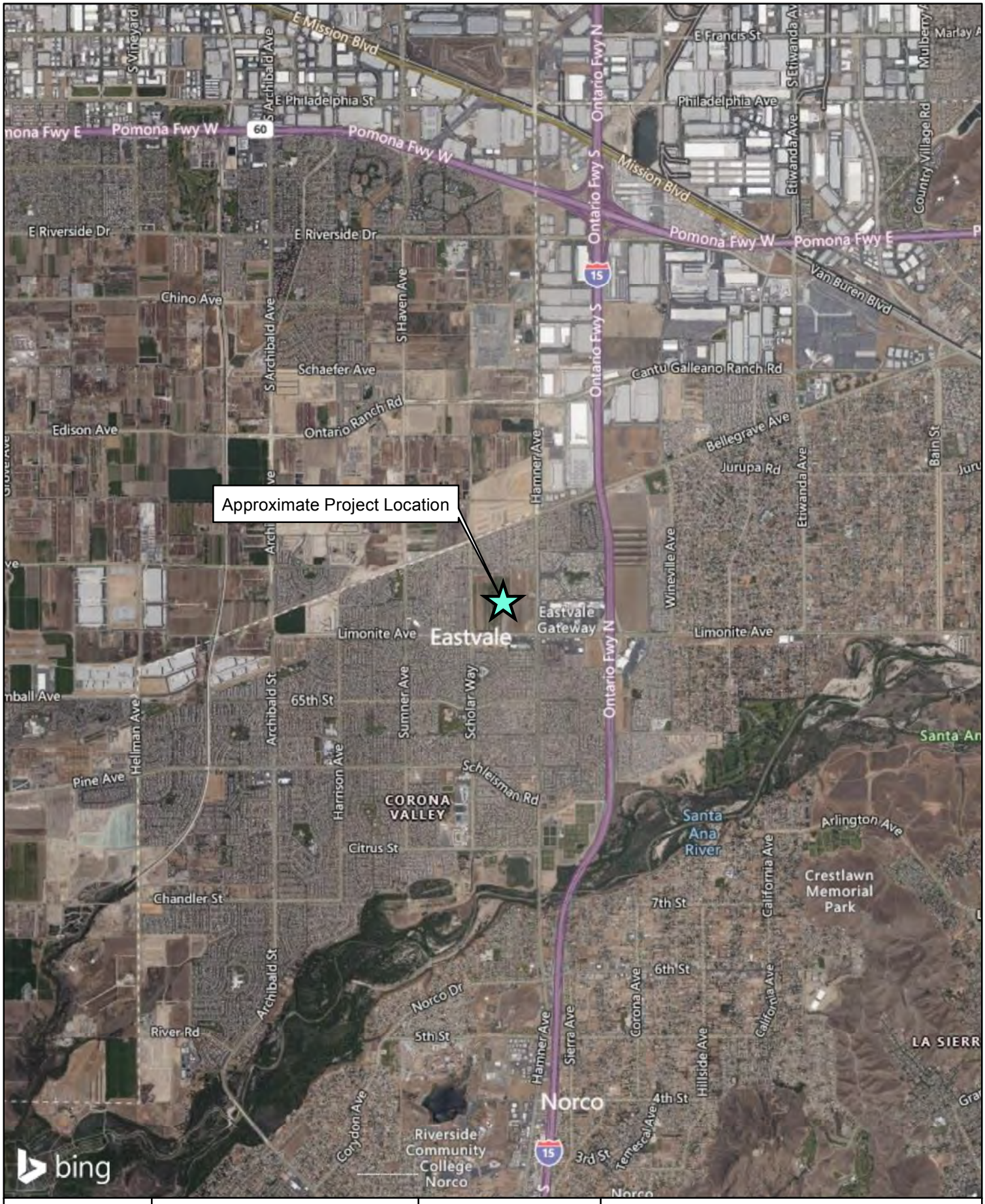
Dear Mr. Jarvis:

On behalf of The New Home Company (Applicant), Carlson Strategic Land Solutions (CSLS) prepared a focused biological assessment, summarized in the following letter report and graphics, documenting the findings of the biological field review of the proposed 160-acres Leal Project site (Project site) and surrounding 500-feet (Study Area). The Study Area is located within the City of Eastvale in the County of Riverside (Figures 1 and 2). In support of Project efforts, CSLS biologist Brianna Bernard and Justinne Manahan conducted an analysis of biological resources and jurisdictional waters within the Study Area on June 9, 2021, and focused burrowing owl surveys and narrow endemic plant surveys on June 16, 23, July 1 and 13, 2021. Furthermore, a Delhi Sands Flower Loving Fly Assessment was performed on June 18, 2021. The results of the field surveys are described in further detail below.

1.0 Project Location

The Project site is bounded by 58th Street to the north, Hamner Avenue to the east, Limonite Avenue to the south, and Scholar Way to the west. It is situated immediately west and north of existing commercial and retail developments and south and east of established residential neighborhoods of varying densities. The Project site is located approximately half a mile west of Interstate 15 (I-15). The Project site is within the *Corona North* U.S. Geological Survey 7.5-minute topographic map. Please refer to attached Figure 1 and Figure 2. Access to the Project site is provided off the Hamner Avenue or 58th Street.

The Assessor's Parcel Numbers include: 164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024, and 164-030-025.



GIS Prepared By:
Carlson SLS

Created: June 8, 2021

0 1,250 2,500 5,000 7,500 Feet

1 inch = 5,000 feet

Data Source: Bing Maps

The New Home Company: Leal Project

Regional Location Map

FIGURE 1



GIS Prepared By:
Carlson SLS

Created: June 8, 2021

0 50 100 200 300 400 500 600 Feet
1 inch = 500 feet

Data Source: Bing Map

The New Home Company: Leal Project

Project Site Map

FIGURE 2

2.0 Background and Existing Conditions

The Project site historically functioned as a dairy with associated agriculture, a horse farm, and the Leal family home. The dairy activities and associated agriculture is no longer in use. The Project site currently has 3 horses and associated horse corrals, several homes and associated trailers found scattered around the property, along with dairy and farm equipment. The Project site consists primarily of disturbed land associated with historical dairy activities, as well as developed and ruderal habitat communities.

The Leal Master Plan Environmental Impact Report (EIR) was completed and adopted in 2015. The document identified the general parameters for future development of the 160-acre Project site. The overall approach to planning for development of the Project site, including the envisioned level of quality, expected project characteristics, allowed land uses, etc., is discussed within the adopted Master Plan. The Master Plan is proposed to occur in stages from Adoption of the Master Plant to physical Development of the Project Site.

As part of the 2015 EIR and Master Plan, a brief biological assessment and database search was completed in order to determine the level of impacts to biological resources as a result of the potential Project construction. It was determined that many of the biological impacts would be less than significant with mitigation measures incorporated or no impact. Minor biological impacts occur as a result of potential develop and would require mitigation measures to lessen impacts to a less than significant level. Those Mitigation Measures (MM) include the following:

MM 3.7.1 *All construction and clearing activities shall be conducted outside of the main avian nesting season (January 15– August 31), when feasible. Preconstruction surveys for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds.*

If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the project applicant shall establish an exclusion zone (no ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged.

MM 3.7.2 *Prior to breaking ground, a qualified biologist shall be retained to determine whether potentially jurisdictional waters are present. If potentially jurisdictional features are identified, the project applicant shall submit a preliminary jurisdictional determination to the US Army Corps of Engineers for verification. The verified delineation will be submitted to the City for its records.*

MM 3.7.3 *Projects shall result in no net loss of sensitive habitats, riparian vegetation, and/or federally protected waters through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in Clean Water Act Section 404 and 401 permits and/or a 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided to the City prior to approval of each individual grading permit.*

Furthermore, since the Project site occurs within the Western Riverside Multiple Species Conservation Plan (MSHCP) Area, and the City of Eastvale is a participating entity (signatory participant). As such, the following mitigation measures and standard conditions also apply to the Project.

MSHCP A. *The project applicant shall submit fees to the City in accordance with the requirements of the MSHCP Mitigation Fee Ordinance (Chapter 4.62 of the City of Eastvale Municipal Code).*

MSHCP B. *The project applicant shall assess the proposed project's consistency with Section 6.1.2, Section 6.1.3, Section 6.3.2, and Section 6.1.4 of the MSHCP.*

MSHCP C. *A qualified biologist shall conduct a burrowing owl habitat assessment. If needed, focused surveys and preconstruction surveys shall be conducted, as well as appropriate avoidance and minimization (Section 6.3.2 of the MSHCP).*

MSHCP D. *A qualified biologist shall conduct habitat assessments for the required Narrow Endemic Plant Species. If needed, focused surveys and shall be conducted, as well as appropriate avoidance and minimization (Section 6.1.3 of the MSHCP).*

MSHCP E. *A qualified biologist shall conduct a habitat assessment for Delhi sands flower-loving fly in areas underlain by Delhi soil series (Species-specific Objective 1B).*

3.0 Methodology

3.1 Historical Documentation

Prior to the field investigation, the original Environmental Documents and historical aerials were reviewed and utilized to understand prior biological components, jurisdictional delineation, and authorized impacts. These documents included the following:

- City of Eastvale Leal Master Plan Draft Environmental Impact Report (SCH 2015031028)
- City of Eastvale Leal Master Plan Final Environmental Impact Report (SCH 2015031028)
- Google Earth Historical Imagery

3.2 Biological Survey

Available literature and databases were reviewed regarding sensitive habitats and special status plant and wildlife species occurring within the Project vicinity. CSLS reviewed and consulted literature and databases focused on Riverside County, California, including the California Natural Diversity Database (CNDDB) and the U.S. Fish and Wildlife Service (USFWS) Critical Habitat. The CNDDB is a California Department of Fish and Wildlife (CDFW) species account database that inventories status and locations of rare plants and wildlife in California. The Project Site is located within the United States Geological Survey (USGS) 7.5-Minute Topographic Map *Corona North* Quadrangle. The CNDDB was used to identify any sensitive plant communities and special status plants and wildlife that have potential to occur within the Study Area and the adjacent quadrangles (Corona South, Black Star Canyon, Prado Dam, Riverside West, Lake Mathews, Fontana, Guasti, and Ontario).

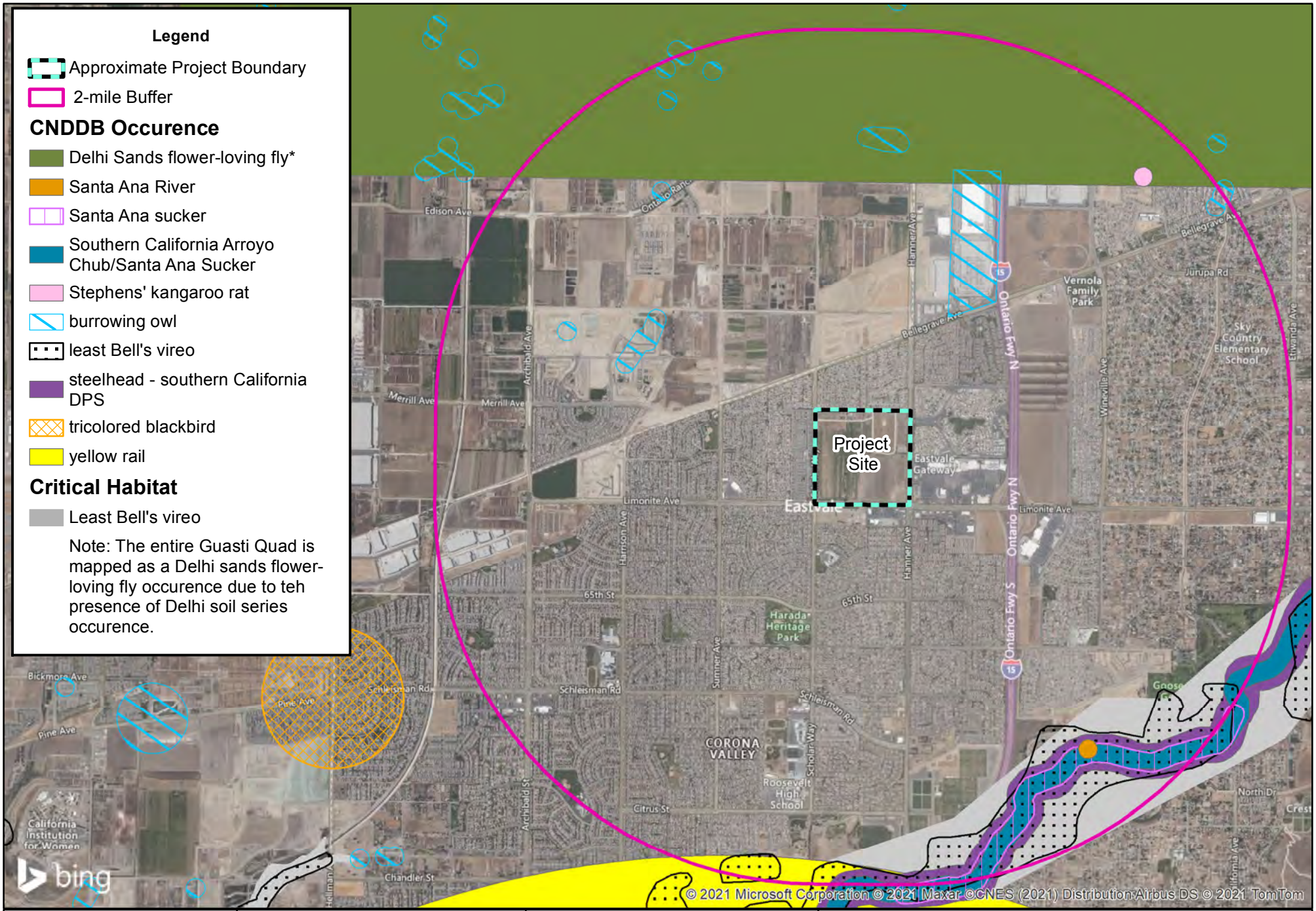
A two-mile radius surrounding the Study Area was assessed for special status plant and wildlife occurrences (Figure 3).

3.2.1 General Plant Inventory

All plant species observed during the general and focused surveys were either identified in the field or collected and later identified using taxonomic keys. Vegetation communities were characterized utilizing vegetation alliances in accordance with The Manual of California Vegetation, Second Edition (MCVII) (Sawyer et al. 2009). All plant species observed were recorded in field notes.

3.2.2 General Wildlife Inventory

All wildlife species observed on the Project site, as well as any diagnostic sign (call, tracks, nests, scat, remains, or other sign), were recorded in field notes. Binoculars and regional field guides were utilized for the identification of wildlife, as necessary. Wildlife taxonomy follows Stebbins (2003) and California Herps (2015) for amphibians and reptiles, the American Ornithologists' Union (1998) for birds, and Jameson and Peeters (1988) for mammals. All wildlife species detected were recorded in field notes.



GIS Prepared By:
Carlson SLS

Created: June 8, 2021

0 875 1,750 3,500 5,250 7,000 Feet
1 inch = 3,500 feet

Data Source: Bing Map
CNDDB (June 2021)

The New Home Company: Leal Project

CNDDB Occurences and Critical Habitat

FIGURE 3

3.2.3 Delhi Sands Flower-loving Fly Assessment

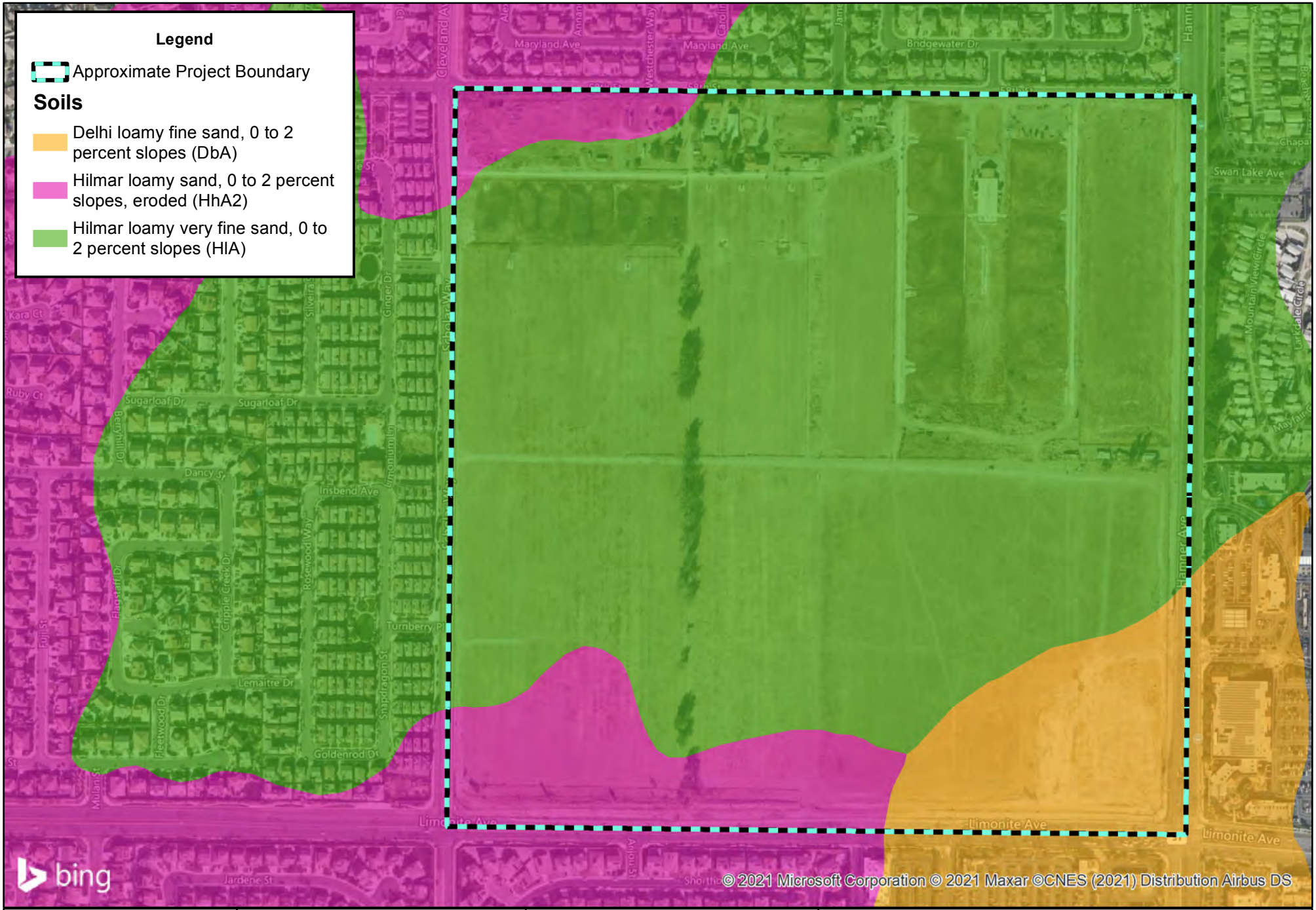
Approximately 15-acres of the southeastern portion of the Project site consist of Delhi loamy fine sands (Figure 4). This soil series is suitable to the Delhi Sands Flower-Loving Fly (DSF). Due to the presence of the soil series a DSF Assessment was conducted. Prior to a site visit, soil maps covering the Project site were reviewed, along with aerial imagery to gain an understanding of historical land use regimens. Photographs were taken of the site, along with field notes on vegetation and soil conditions. The site is then rated based on its potential to support DSF based on the following scale of 1 to 5, with 5 being the best quality and most suitable habitat:

1. Developed areas, non-Delhi sands soils with high clay, silt, and/or gravel content. Delhi sands extensively and deeply covered by dumping of exotic soils, rubble, trash, manure, or organic debris. *Unsuitable*.
2. Delhi sands are present, but the soil characteristics include a predominance of exotic soils such as alluvial materials, or predominance of other foreign contamination as gravels, manure, or organic debris. Severe and frequent disturbance (such as a maintenance yard or high use roadbed). *Very Low Quality*.
3. Moderately contaminated Delhi sands. Delhi sands with moderate to high disturbance (such as annual disking). Sufficient Delhi Sands are present to prevent soil compaction (related to contamination by foreign soils). Some sandy soils exposed on the surface due to fossorial animal activity. *Low Quality*.
4. Abundant clean Delhi Sands with little or no foreign soils (such as alluvial material) present. Moderate abundance of exposed sands on the soil surface. Low vegetative cover. Evidence of moderate degree of fossorial animal activity by vertebrates and invertebrates. May represent high quality habitat with mild or superficial disturbance. *Moderate Quality*.
5. Sand dune habitat with clean Delhi Sands. High abundance of exposed sands on the soil surface. Low vegetative cover. Evidence (soil surface often gives under foot) of high degree of fossorial animal activity by vertebrates and invertebrates. Sand associated plant and arthropod species may be abundant and vegetation species composition is often indicative of low disturbance. *High Quality*.

It should be noted that habitat qualities often vary spatially within a site and may range in quality of suitability for DSF habitat. Further, overall habitat quality is affected by the overall habitat area on a site, such that very small areas diminish the overall habitat value of a site. Habitat conditions rated from Very Low Quality up to High Quality, are formally considered as representing Suitable conditions for the DSF.

3.3 Multiple Species Habitat Conservation Plan (MSHCP)

The Project site is not located within MSHCP Criteria Cell, or Criteria Area Plant Species, Amphibians, Mammals, or Special Linkage Areas. The Study Area was assessed for MSHCP Section 6.1.2 Riparian and Riverine Areas and associated species; MSHCP Section 6.1.4 Urban/Wildlands Interface; MSHCP Section 6.1.3 Narrow Endemic Plant Species, and Section 6.3.2 Species Survey Requirements for the western burrowing owl (*Athene cunicularia hypugaea* [BUOW]) habitat (Figure 5).



GIS Prepared By:
Carlson SLS

Created: May 13, 2021

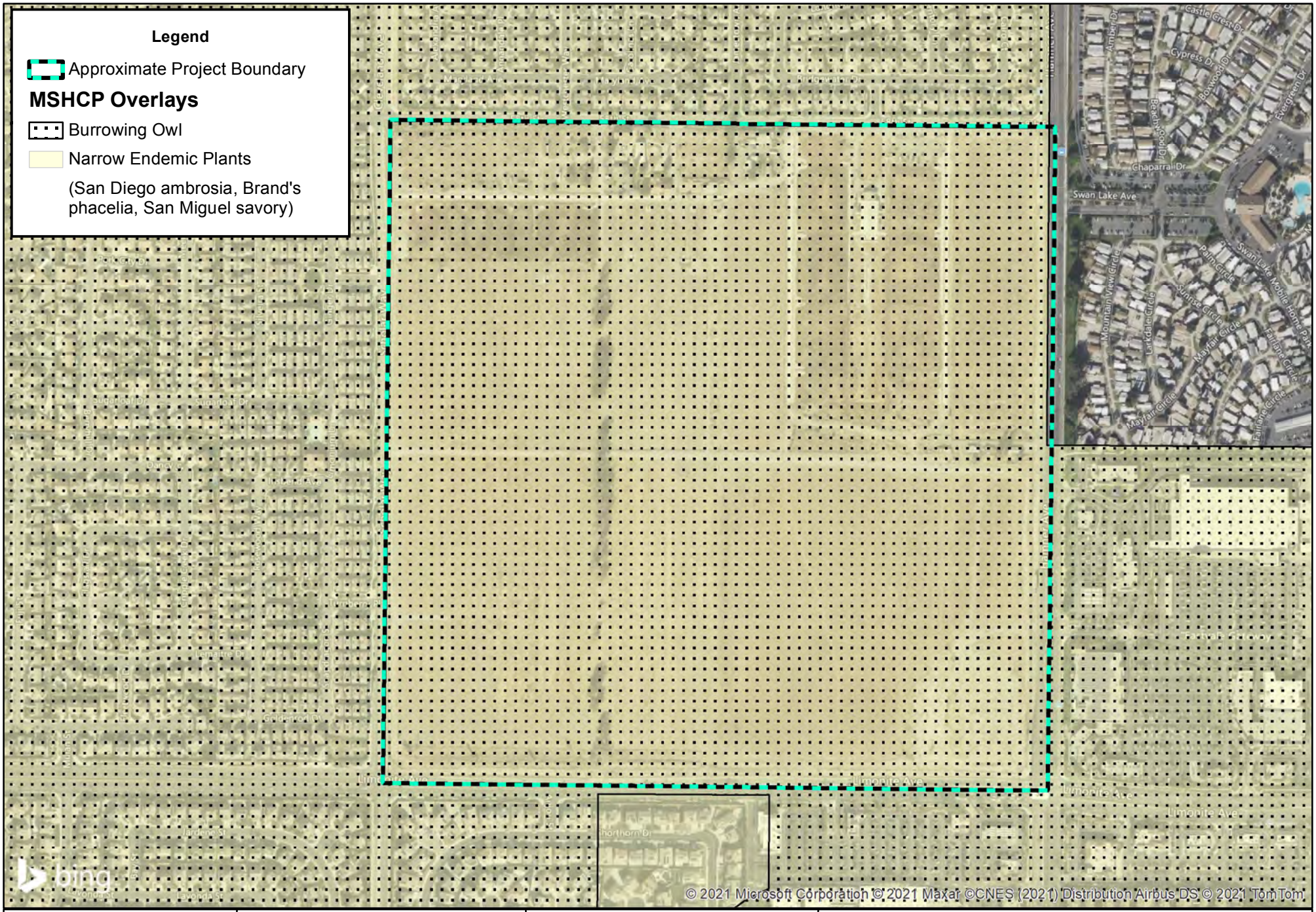
0 50 100 200 300 400 500 600 Feet
1 inch = 450 feet

Data Source: Bing Map

The New Home Company: Leal Project

Soil Map

FIGURE 4



GIS Prepared By:
Carlson SLS

Created: June 8, 2021

0 50 100 200 300 400 500 600 Feet
1 inch = 500 feet

Data Source: Bing Map

The New Home Company: Leal Project

MSHCP Overlays

FIGURE 5

3.3.1 Section 6.1.2 Riparian/Riverine Areas and Vernal Pools

Volume I, Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSHCP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Conservation Area are maintained. The MSHCP requires that as projects are proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed. The Study Area was evaluated for the presence/absence of MSHCP riparian/riverine areas and vernal pools. With respect to riparian habitat, the Study Area was evaluated for the potential habitat to support the special status species including the least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii traillii*), the western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), listed fairy shrimp, and other species identified in Section 6.1.2 of the MSHCP.

The Project site was evaluated to determine the limits of MSHCP riparian/riverine areas and vernal pools. Suspected areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Any MSHCP riparian/riverine limits were recorded onto a 200-scale (1" = 200') color aerial photograph and a GPS unit paired with the ARCGIS Collector Application.

3.3.1 Section 6.1.3 Narrow Endemic Plants- Survey Area Number 7

The Project site falls within Narrow Endemic Plants (Survey Area Number 7). The CNDDB and MSHCP were reviewed to determine known occurrences of special- status plants in the region. Based on this information, a list of target plants (including their suitable habitats and soil) was developed and incorporated into a survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floral compendium; and (3) document the distribution and abundance of any special-status plant species within the Project site.

General surveys were conducted to identify potential sensitive plant habitats, and to establish the accuracy of the data identified from the literature review and previous biological assessment and search. An aerial photograph and topographic map were used to determine the community types and other physical features that may support sensitive species or communities within the Project site and surrounding buffer area. The reconnaissance surveys also considered the guidelines adopted by CNPS and CDFW (Nelson 1984, CNPS 2001).

Where potentially suitable habitat was present, focused plant surveys included those MSCHP Covered Species identified by the NEPSSA Survey Area Number 7. For any locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species are met. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met.

3.3.2 Section 6.1.4 Urban/Wildlands Interface

The MSHCP Urban/Wildlands Interface guidelines presented in Section 6.1.4 are intended to address indirect effects associated with locating commercial, mixed uses and residential developments in proximity to an MSHCP Conservation Area. In order to evaluate direct, indirect, and cumulative impacts of the proposed Project on urban/wildlands interface, an analysis of wildlife use/movement was conducted for the Project site and adjacent buffer area. The analysis considered the movement and use of large mammals (i.e., mountain lion and mule deer), medium-sized mammals (mesocarnivores), and other wildlife such as small mammals, birds, reptiles, and amphibians. Methods utilized for the wildlife analysis included a review of existing information on wildlife use (including the MSHCP), general and focused biological surveys to document the presence/absence of wildlife, and opportunistic observations of mammal tracks and scat.

3.3.3 Section 6.3.2 Burrowing Owl Habitat Assessment

Prior to the field survey, available literature and databases including the CNDDB, were reviewed to identify sensitive habitats and special status wildlife species, including BUOW in the vicinity of the Study Area. Consistent with the MSHCP Survey Instructions, pedestrian survey transects were spaced approximately 10 to 15 meters apart to allow 100 percent visual coverage of the ground surface.

Consistent with the MSHCP guidelines and where feasible, CSLS biologists walked the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Project boundary. Parcels of land that could not be accessed (e.g. private property) were viewed using binoculars from vantage points to survey for BUOW activity or signs thereof, as well as other nesting bird activity.

3.4 Jurisdictional Waters

Prior to the field investigation, CSLS biologist reviewed historic aerial imagery, topographic maps, and background information for the Study Area to determine the potential for perennial, intermittent, or ephemeral drainages and associated riparian resources.

3.4.1 Federal Clean Water Act (CWA)

The Clean Water Act (CWA), Section 401 provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project applicant to obtain a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Board administers the certification program in California. Section 404 establishes a permit program administered by the United States Army Corps of Engineers (Corps) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The Corps implementing regulations are found at 33 CFR 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed

by the United States Environmental Protection Agency in conjunction with the Corps (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

3.4.2 Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and fall under the jurisdiction of several regulatory agencies. The Corps exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. The extent of waters of the United States is generally defined as the portion that falls within the limits of the Ordinary High-Water Mark (OHWM). The OHWM is defined as the "line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

The definition of Navigable Waters has undergone several iterations, including a much more streamlined definition which was published and formally adopted in April 2020. However, in August 2021, the April 2020 Navigable Waters definition was challenged in the case *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this case and subsequent order from US District Court for the District of Arizona, the U.S. Environmental Protection Agency (EPA) and Corps have halted implementation of the Navigable Waters Protection Rule from 2020 and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice.

The pre-2015 definition of Navigable Waters includes (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) All interstate waters including interstate wetlands; (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (4) All impoundments of waters otherwise defined as waters of the United States under this definition; (5) Tributaries of waters identified in paragraphs (s)(1) through (4) of this section; (6) The territorial sea; and (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by Corps as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33

CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by Corps (USACE 1987).

It is important to note that the RWQCB definition of wetland was redefined and the new definition went into effect May 28, 2020. The definition of a wetland is as follows: An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation. This RWQCB modified three-parameter definition is similar to the federal definition in that it identifies three wetland characteristics that determine the presence of a wetland: wetland hydrology, hydric soils, and hydrophytic vegetation. Unlike the federal definition, however, the RWQCB wetland definition allows for the presence of hydric substrates as a criterion for wetland identification (not just wetland soils) and wetland hydrology for an area devoid of vegetation (less than 5% cover) to be considered a wetland.

However, if any vegetation is present, then the Corps delineation procedures would apply to the vegetated component (i.e., hydrophytes must dominate). Examples of waters that would be considered wetlands by the RWQCB definition, but not by the federal wetland definition, are non-vegetated wetlands, or wetlands characterized by exposed bare substrates like mudflats and playas, as long as they meet the three-parameters as described in the RWQCB definition. It is important to note that while the Corps may not designate a feature as a wetland, that feature could be considered a special aquatic site or other water of the U.S. by the Corps and potentially subject to Corps' jurisdiction.

3.4.3 Porter-Cologne Water Quality Act – California Code, Division 7

The RWQCB also has jurisdiction over waters deemed "isolated" or not subject to Section 404 jurisdiction under the Solid Waste Agency of Northern Cook County v. Corps decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the state and prospective dischargers are required to obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

Under Section 401 of the CWA, the local RWQCB must certify that actions receiving authorization under Section 404 of the CWA also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the state is required.

3.4.4 California Fish and Game Code Section 1600-1616

Waters of the State are regulated by the California Department of Fish and Wildlife (CDFW) through Section 1600 et seq. of the California Fish and Game Code. Section 1600 et seq. requires notifying the CDFW prior to any project activity that might (1) substantially divert or

obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. If, after this notification, the CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will need to be obtained. CDFW may then place conditions in the Section 1602 Streambed Alteration Agreement to avoid, minimize, and mitigate any potentially significant adverse impacts within CDFW jurisdictional limits.

The limits of Waters of the State are defined as the "body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." Therefore, the limits extend from the channel bed to the top of the bank, with the addition of the canopy of any riparian habitat associated with the watercourse.

4.0 Project Description

The Applicant proposes to construct a mix of residential units and commercial development and associated infrastructure on the site.

5.0 Results

5.1 Biological Survey

CSLS biologist conducted an analysis of biological resources and jurisdictional waters within the Study Area on June 9, 2021, and focused burrowing owl surveys and narrow endemic plant surveys on June 16, 23, July 1, and 13, 2021. Furthermore, a Delhi Sands Flower Loving Fly Assessment was performed on June 18, 2021. The June 9 Biological assessment survey was performed between 7:00 am and 1:50 pm, the temperature measured 82° F with clear skies. CSLS biologists conducted all the surveys by foot, hiking all accessible areas. Any inaccessible or restricted areas were surveyed using binoculars. The vegetation, jurisdictional waters, and wildlife observed were documented and representative photographs of the Study Area were taken (Attachment A). The following table summarized the field survey data.

Table 1. Survey Information

Survey Date	Time	Surveys	Surveyors
June 9, 2021	0700 - 1350	Biological Assessment, Jurisdictional Delineation, Burrowing Owl Assessment, Narrow Endemic Plant Survey.	Brianna Bernard
June 16, 2021	0715 - 1208	Biological Assessment, Jurisdictional Delineation,	Brianna Bernard

Survey Date	Time	Surveys	Surveyors
		Burrowing Owl Survey #1, Narrow Endemic Plant Survey.	
June 18, 2021	1200 - 1300	Delhi Sands Flower Loving Fly Assessment	Ken Osborne
June 23, 2021	0730 - 1145	Burrowing Owl Survey #2, Narrow Endemic Plant Survey.	Brianna Bernard
July 1, 2021	0658 - 1054	Burrowing Owl Survey #3, Narrow Endemic Plan Survey.	Brianna Bernard and Justinne Manahan
July 13, 2021	0715 - 1100	Burrowing Owl Survey #4, Narrow Endemic Plan Survey.	Brianna Bernard and Justinne Manahan

5.1.1 Vegetation Communities

The vegetation community remains consistent with the original assumptions in the 2015 Biological Assessment. The communities include disturbed historic dairy farm, ruderal, and developed vegetation communities. Vegetation communities were mapped in the field directly onto a 200-scale (1" = 200') aerial photograph and CSLS biologists utilized a Trimble R1 GNSS Receiver paired with the ARCGIS Collector Application. Vegetation mapping and acreages for each vegetation community is based on the observations of the field survey and is listed below in Table 2 and graphically depicted on Figure 6.

The surrounding 500 feet consists of developed vegetation community, including residential development and commercial development.

Table 2. Vegetation Communities Observed

Vegetation Community	Acreage within in the Project Site	Acreage within in the Surrounding Buffer	Total Acreage within the Study Area
Ruderal	96.82	-	96.82
Historical Dairy Farm	25.82	-	25.82
Disturbed/Developed	37.87	138.64	176.51
TOTAL	160.0	138.64	299.15

The general description of the vegetation communities observed during the 2021 field surveys are described below.

Ruderal

A majority of the ruderal vegetation community occurs within the southern 80-acres. The vegetation within this area is comprised of predominantly of London rocket (*Sisymbrium irio*) and summer mustard (*Hirschfeldia incana*). Other species include Russian thistle (*Salsola tragus*), cheeseweed (*Malva parviflora*), rat-tail fescue (*Festuca microstachys*), foxtail brome (*Bromus madritensis ssp. rubens*), ripgut brome (*Bromus diandrus*), tocalote (*Centaurea melitensis*), Jimson weed (*Datura stramonium*), and scattered Mexican fan palms (*Washingtonia robusta*),

and mulefat (*Baccharis salicifolia*). A row of trees bisects the Project site from the north to south and includes mulberry trees (*Morus alba*), and Shamuel ash (*Fraxinus uhdei*).

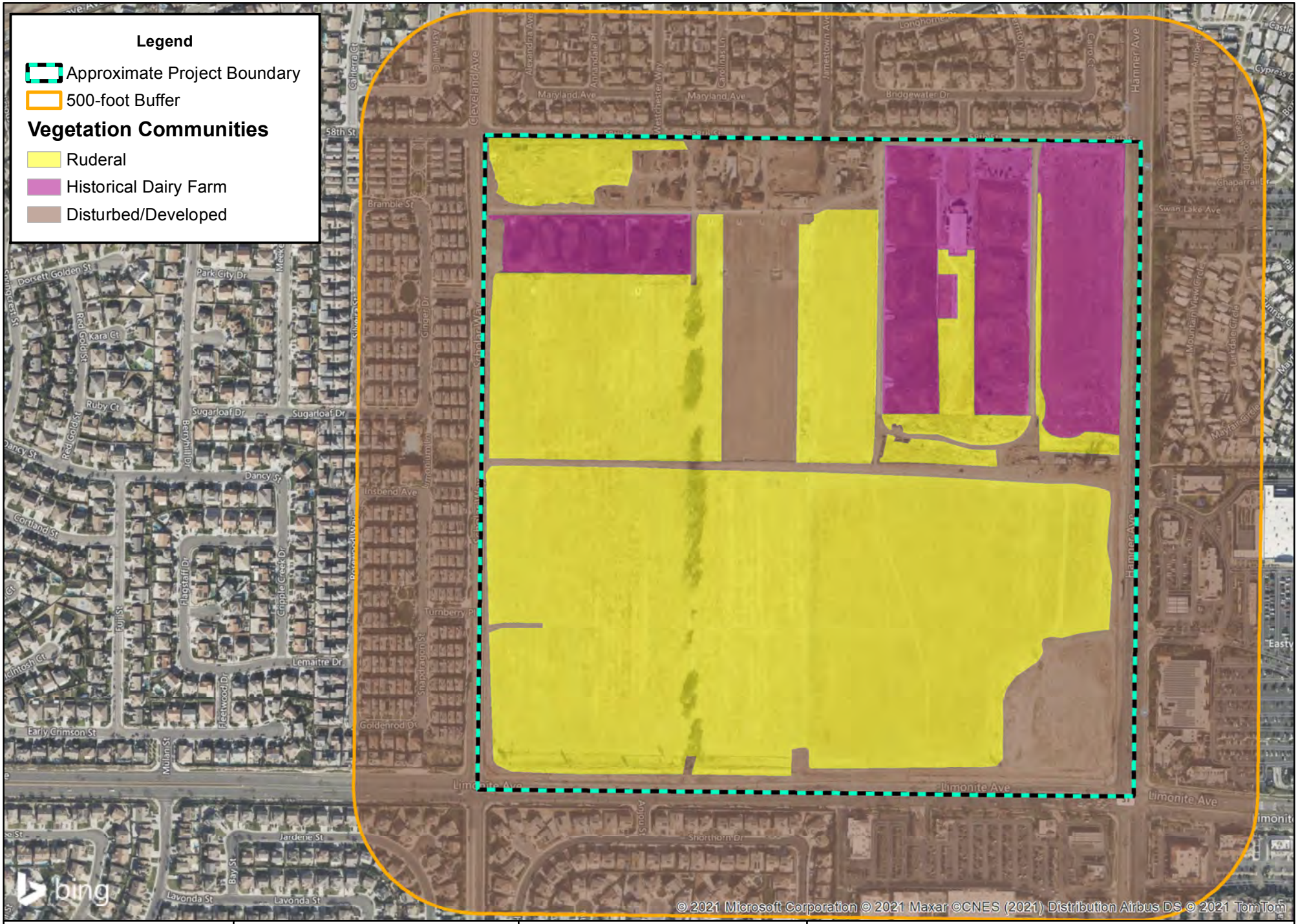
Historical Dairy Farm
This community consists of former dairy activities. The historical dairy farm includes old cow-pens and dried manure settling basins, prior grazing areas, and associated outbuildings and infrastructure. The dairy farm is no longer in use and includes areas mostly devoid of vegetation, with the exception of patchy areas supporting non-native ruderal vegetation.

Disturbed/Developed
This community includes bare dirt, residential structures, concrete roads, dirt roads and asphalt roads.

5.1.1 CNDDB and Critical Habitat

The Study Area contains no special-status vegetation type listed by the CNDDB and CDFW. No sensitive wildlife species were observed during the 2021 surveys.

The Study Area is not located within any designated critical habitat. The closest designated critical habitat is for the least Bell's vireo (*Vireo bellii pusillus* [LBV]) and it is located an approximate 1.5 miles to the south of the Project site (Figure 3). No habitat suitable for LBV occurs on the Project site.



GIS Prepared By:
Carlson SLS

Created: June 8, 2021

0 50 100 200 300 400 500 600 Feet
1 inch = 500 feet

Data Source: Bing Map

The New Home Company: Leal Project

Vegetation Community Map

FIGURE 6

5.1.2 Wildlife Species

Observations regarding the wildlife species present were made during the field visit (Table 3). Other species observed include California ground squirrel (Otospermophilus beecheyi), desert cottontail *(Sylvilagus audubonii),* and coyote *(Canis latrans*).

Table 3. Wildlife Species Observed Onsite

Scientific Name	Common Name
Buteo jamaicensis	red-tailed hawk
Calypte anna	Anna's hummingbird
Cathartes aura	turkey vulture
Carpodacus mexicanus	house finch
Charadrius vociferus	killdeer
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Eremophila alpestris	California horned lark
Euphagus cyanocephalus	Brewer's blackbird
Falco sparverius	American kestrel
Hirundo rustica	Barn swallow
Icterus cucullatus	Hooded oriole
Melospiza melodia	song sparrow
Mimus polyglottos	Northern mockingbird
Pyrocephalus rubinus	Vermilion flycatcher
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Spinus psaltria	Lesser goldfinch
Tyrannus vociferans	Cassin's kingbird
Zenaida macroura	mourning dove

5.1.3 Sensitive Wildlife Species

Sensitive wildlife include those species listed as Endangered or Threatened under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA), candidates for listing by the USFWS or CDFW, and California Watch List, Fully Protected and Species of Special Concern to CDFW. No listed wildlife was identified or observed within the Project site during the field surveys.

5.2 CMSHCP Assessment

The Project site is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Furthermore, the Project site is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits, and the Project site is not located in survey areas for Amphibians, Mammals, or Special Linkage areas. The Project site is subject to Riparian and Riverine Areas pursuant to MSHCP Section 6.1.2, Narrow Endemic Plants (Survey Area 7) pursuant to MSHCP Section 6.1.3, Urban/Wildlands Interface guidelines pursuant to MSHCP Section 6.1.4, and Western Burrowing Owl overlay pursuant to MSHCP Section 6.3.2.

5.2.1 Riparian and Riverine Areas and Vernal Pools (Section 6.1.2)

The Project site was assessed for MSHCP riparian/riverine areas and vernal pools pursuant to Section 6.1.2 of the MSHCP. The Project site does not contain any MSHCP riparian/riverine features.

Species Protected under Section 6.1.2

During vegetation mapping conducted for the Project site, no special status plants were detected during the 2021 surveys. Likewise, the Project site did not contain any suitable habitat for the avian species listed in Section 6.1.2: Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools.

Vernal Pools

The Project site does not contain vernal pools or any suitable habitat for any of the riparian/riverine vernal pool species listed in Section 6.1.2 of the MSHCP, including listed fairy shrimp.

5.2.2 Narrow Endemic Plant – Survey Area Number 7 (Section 6.1.3)

The Project site is located within the Narrow Endemic Plant Species Survey Areas (NEPSSA) Number 7 overlay, which include the following target species:

- San Diego ambrosia (*Ambrosia pumila*)
  Status: California Rare Plant Rank 1B.1, federally endangered
  Distribution: Riverside and San Diego Counties.
  Habitat(s): Habitats supporting chaparral, coastal scrub, valley and foothill grasslands, and vernal pools. Observed in sandy loam or clay soils, sometimes alkaline soils. Known from 20 to 415 meters (65 to 1360 feet) MSL. Blooms April through October.
  Status onsite: None. The Project site lacks suitable habitat and soils. Not observed during field visit.

- Brand's phacelia (*Phacelia stellaris*)
  Status: California Rare Plant Rank 1B.1
  Distribution: Orange, Riverside, San Bernardino, and San Diego Counties.
  Habitat(s): Habitats supporting coastal dunes and coastal scrub. Known from 1 to 400 meters (5 to 1,310 feet) MSL. Blooms May through June.
  Status onsite: None. The Project site lacks suitable habitat and soils. Not observed during field visit.

- San Miguel savory (*Satureja chandleri*)
  Status: California Rare Plant Rank 1B.2
  Distribution: Orange, Riverside, and San Diego Counties.
  Habitat(s): Habitats supporting chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grasslands. Observed in rocky, gabbroic, or

metavolcanic soils. Known from 120 to 1,075 meters (395 to 3,525 feet) MSL. Blooms March through July.
Status onsite: None. The Project site lacks suitable habitat and soils. Not observed during field visit.

No special status plant species were observed during the 2021 surveys and none are expected to occur onsite due to the lack of suitable habitat or suitable soil found on the Project site.

5.2.3 Urban/Wildlands Interface (Section 6.1.4)

The Project site is not located adjacent to an existing or proposed MSHCP Conservation Area. Furthermore, the Project site is isolated from any large open space areas and instead is surrounded by residential and commercial development and does not function as a regional movement corridor.

5.2.4 Focused Burrowing Owl Survey (Section 6.3.2)

Step I Habitat Assessment survey was conducted on June 9, 2021 to determine if the Project site contains suitable BUOW habitat. Based on the Habitat Assessment it was determined the Project site does contain suitable habitat for BUOW. Therefore, a total of four focused burrowing owl surveys were performed on June 16, 23, July 1, and 13, 2021. The surveys took place between 6:45 a.m. and 12:00 p.m. Temperatures during the survey ranged between 65° F and 85° F, with generally predominant sunny, clear skies and 0-2 mph winds. The surveys were conducted during typical BUOW peak activity time and was not conducted during rain, high winds (> 20 miles per hour), dense cloud cover >75%. Prior to the commencement of the survey, CSLS biologist scanned the Study Area, consisting of the Project site and the surrounding 500-foot buffer, using binoculars to look for burrowing owl. The Study Area was assessed for the suitability to support burrowing owls and all suitable burrows were inspected for signs of use by burrowing owls.

No BUOWs or evidence of BUOWs were observed within the Study Area during the focused survey. A majority of the Project site is characterized by disturbed dairy land, ruderal, and developed vegetation communities, lacking necessary sized burrows to provide suitable nesting habitat for BUOW. The surrounding buffer area is developed with residential and commercial developments. California ground squirrels and their burrows were observed within the Study Area. These burrows were actively utilized by the California ground squirrels and contained no BUOW or keys signs (sight, whitewash, burrows, bones, feathers, pellets, nests, and calls). Furthermore, debris piles and farm equipment were thoroughly examined for any BUOW key signs. Based on the results of the focused surveys and lack of diagnostic signs for burrowing owl, the Project site is not occupied by the burrowing owl. Please refer to Attachment B for the complete results for the focused survey.

5.2.5 Delhi Sands Flower-Loving Fly Assessment

Due to the location of the Project site within the Ontario Recovery Unit for the Delhi Sands flower-loving fly, a habitat assessment for this species was conducted by Ken Osborne on June 18, 2021 (see Attachment C). The Delhi Sands flower-loving fly is a Federally Endangered

species which is dependent on Delhi sands and Delhi sand dunes with less than 50% vegetation cover. Typical vegetation includes California buckwheat (Eriogonum fasciculatum), California croton (Croton californicus), and telegraph weed (Heterotheca grandiflora).

The Project site contains a total of 13-acres of Delhi sand series located in the south eastern portion of the property (Figure 4). The remaining portions of the site includes Hilmar loamy sands. Of the total 13-acres, a total of 5-acres of Delhi sands is overlain with a meter depth of exotic soils dominated by alluvial gravely materials. Remaining peripheral areas mapped with Delhi fine soils are intermixed with fine loam soils (Hilmar classification), the mixing and contamination likely the result of decades of dairy operations where pasture lands have been disked. The site has been largely surrounded by residential and commercial development since 2004, isolating the Project site from areas with Delhi Sands Flower-loving fly populations. The last known extant Delhi Sands Flower-loving fly population site in the Ontario Recovery Unit area is located some six kilometers north northeast of the site. Plant species normally associated with Delhi sands ecosystems do not occur on the site.

The entire site is in historical dairy and associated developed residential and dairy infrastructure. Aerial imagery available on Google Earth, shows that the dairy operations have been maintained since 1985 and is no longer in use today. Site conditions feature continuously irrigated pastures, cattle pens, and developed buildings (including residences) with irrigated landscaping, and ponds. Lands so managed with dairy operations are not suitable for the Delhi Sands flower-loving fly. Northern, western, and central portions of the site are mapped (and field investigation confirms) with Hilmar loamy sands – soils unsuitable for Delhi Sands flower-loving fly. The site is further set within the larger context of adjacent and surrounding developed lands, further reinforcing the unsuitability of habitat conditions for Delhi Sands flower-loving fly. The entire Project site is determined to be Unsuitable for Delhi Sands flower-loving fly.

5.3 Jurisdictional Waters

The National Wetlands Inventory map was reviewed, along with USGS 7.5-minute topo map to determine the potential presence or absence of jurisdictional streams/drainages, wetlands, and their location within any watersheds associated with the site, and other features that might contribute to federal authority located within watersheds associated with the Project Site. Lastly, a field survey was performed on June 9 and 16, 2021.

California Department of Fish and Wildlife (CDFW) commented on the Draft EIR in 2015 regarding a potential jurisdictional feature on the southwestern portion of the Project Site. The entire site was inspected for jurisdictional features, specifically the area CDFW referenced in the comment letter, was thoroughly examined for any signs meeting the definition of jurisdictional waters. The Project site consists primarily of disturbed agriculture lands, ruderal, and developed vegetation communities. No wetlands, riparian, or drainage features were observed.

Based on the field survey, there are no features identified on the Project site that meet the definition and are considered jurisdictional Waters of the United States or Waters of the State, pursuant to Section 1600-1603 of the California Fish and Game Code and Section 401 and 404 of the Clean Water Act, respectively.

6.0 Thresholds of Significance

The Draft EIR, and subsequent Final EIR, analyzed Biological Impacts as a result of Project implementation. The thresholds below mimic those found within the EIR for the Leal Master Plan.

The thresholds include the following:

Threshold 1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

Threshold 2 Have a substantial adverse effect on any riparian habitat or other sensitive plant community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

Threshold 3 Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Threshold 4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery areas.

Threshold 5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Threshold 6 Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

Threshold 7 Reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels.

Threshold 8 Cumulative impacts to biological resources.

The 2015 EIR analyzed the Project based on a biological desktop review. In 2021, the Project site was formally evaluated for sensitive resources, including performing a jurisdictional delineation and all focused surveys for sensitive wildlife and plant species, as specified within the MSHCP and 2015 EIR. Based on the 2021 results, the Project site does not contain any sensitive biological resources. Below is a summary of the impact analysis and determination within the 2015 EIR in comparison to the 2021 field results and results from the jurisdictional delineation and additional special status species focused surveys. As part of the Project implementation the entire 160-acre site will be permanently impacted.

Table 4. Threshold Comparison

Threshold Number	2015 Determination	2021 Determination	Change from 2015 to 2021
1	Less Than Significant with Mitigation	Less Than Significant with Mitigation	No change
2	Less Than Significant with Mitigation	No Impact	Less impactful
3	Less Than Significant with Mitigation	No Impact	Less impactful
4	Less Than Significant	Less Than Significant	No change
5	No Impact	No Impact	No change
6	Less Than Significant	Less Than Significant	No change
7	Less Than Significant with Mitigation	Less Than Significant	Less impactful
8	Less Than Cumulatively Considerable with Mitigation	Less Than Cumulatively Considerable with Mitigation	No change

6.1 Threshold 1

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation.

6.1.1 Sensitive Plant Species

Development of the Project site would result in the direct removal of non-native and ruderal plant species. The Project site does not contain any suitable habitat for special status species or sensitive species, nor were any observed onsite. The Project would include the removal of non-native and ruderal species; therefore, impacts would not be considered a significant impact and no mitigation is required. No change from what was analyzed in the 2015 EIR.

6.1.2 Sensitive Wildlife Species

Development of the Project site would result in the disruption and removal of ruderal and developed habitat and the loss and displacement of non-sensitive common wildlife species. Due to the level of existing disturbance from the historical use as a dairy farm, human activity onsite and within the vicinity (e.g., nearby development), these impacts would not be expected to reduce the general wildlife populations below self-sustaining levels within the region and impacts to non-sensitive wildlife species do not meet the significance thresholds. Therefore, impacts to common wildlife species would not be considered a significant impact and no mitigation is required. No change from what was analyzed in the 2015 EIR.

As stated in the 2015 EIR analysis, the Project site consists of suitable habitat for nesting, foraging, and/or wintering avian species. While none of the common species carry a Federal or State listing as threatened or endangered, they are all protected under the MBTA during breeding season. Therefore, a pre-construction survey is required in compliance with the MBTA. Implementation of Mitigation Measure MM 3.7.1 would reduce potential impacts to the avian species to a less than significant level if nesting individuals are present. This 2015 mitigation measure is still applicable following the 2021 field survey and biological analysis.

MM 3.7.1 *All construction and clearing activities shall be conducted outside of the main avian nesting season (January 15– August 31), when feasible. Preconstruction surveys for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds.*

If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the project applicant shall establish an exclusion zone (no ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged.

6.2 Threshold 2

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Widlife or U.S. Fish and Wildlife Service?

No impact.

Based on the 2021 field surveys and focused surveys, no sensitive plant communities or habitats occur on the Project site. Sensitive habitats include those that are of special concern to resource agencies and those that are protected under the MSHCP, CEQA, Section 1600 of the California Fish and Game Code, and Section 404 of the Clean Water Act.

Furthermore, the 2021 included a formal jurisdictional delineation on the Project site. Based on those results, no jurisdictional features were identified on the Project site subject to Section 1602 of the California Fish and Game Code, as regulated by CDFW.

Based on the detailed 2021 biological surveys and investigations of the Project site, no sensitive biological resources or jurisdictional features were identified on the Project site, therefore, no impacts would occur. Mitigation Measure 3.7.2 and 3.7.3 have been fulfilled and are no longer required.

~~*MM 3.7.2 Prior to breaking ground, a qualified biologist shall be retained to determine whether potentially jurisdictional waters are present. If potentially jurisdictional features are identified, the project applicant shall submit a preliminary jurisdictional determination to the US Army Corps of Engineers for verification. The verified delineation will be submitted to the City for its records.*~~

~~*MM 3.7.3 Projects shall result in no net loss of sensitive habitats, riparian vegetation, and/or federally protected waters through impact avoidance, impact minimization, and/or compensatory mitigation, as determined in Clean Water Act Section 404 and 401 permits and/or a 1602 Streambed Alteration Agreement. Evidence of compliance with this mitigation measure shall be provided to the City prior to approval of each individual grading permit.*~~

The analysis from the 2015 EIR concluded the impacts less than significant with mitigation. However, based on the lack of sensitive biological resources and jurisdictional resources found onsite during the field investigations, the 2021 conclusion is no impact. The 2021 conclusion is less impactful than what was analyzed in the 2015 EIR.

6.3 Threshold 3

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact.

No jurisdictional non-wetland or wetland waters regulated under Section 404 of the CWA were identified on the Project site. Based on the detailed 2021 biological surveys and jurisdictional investigations of the Project site, no sensitive biological resources or jurisdictional features were identified on the Project site, therefore, no impacts would occur and Mitigation Measure 3.7.2 and 3.7.3 have been fulfilled and are no longer required.

The analysis from the 2015 EIR concluded the impacts less than significant with mitigation. However, based on the lack of jurisdictional resources found onsite during field investigations, the 2021 conclusion is no impact. The 2021 conclusion is less impactful than what was analyzed in the 2015 EIR.

6.4 Threshold 4

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?

Less than Significant.

6.4.1 Wildlife Movement

As stated in the 2015 EIR analysis and verified during the 2021 field surveys, the entire Project site has been disturbed by development and intense historical dairy and agricultural uses and is unlikely to facilitate local wildlife movement. In addition, the Project site is completely surrounded by dense urban development, further impairing wildlife movement.

The site supports potential live-in and movement habitat for species on a local scale (i.e., some limited live-in and marginal movement habitat for reptile, bird, and mammal species), however, the site provides little to no function to facilitate wildlife movement on a regional scale. Furthermore, the site is not identified as a Special Linkage area within the MSHCP. Movement on a local scale likely occurs with species adapted to urban environments due to the surrounding development and disturbances in the vicinity of the site. Although implementation of the Project would result in disturbances to local wildlife movement within the site, those species adapted to urban areas would be expected to persist on-site following construction. As such, impacts would be less than significant, and no mitigation measures would be required. No change in conclusion from what was analyzed in the 2015 EIR.

6.5 Threshold 5

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact.

The Project is not subject to any local policies, such as a tree preservation ordinance. Therefore, no impacts would occur, and no mitigation is required. No change in conclusion from what was analyzed in the 2015 EIR.

6.6 Threshold 6

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant.

The Project site is located within the MSHCP. The Project site is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Furthermore, the Project site is not located in survey areas for Amphibians, Mammals, or Special Linkage areas. The Project site is subject to Riparian and Riverine Areas pursuant to MSHCP Section 6.1.2, Narrow Endemic Plants Overlay, pursuant to MSHCP Section 6.1.3, Urban/Wildland Interface pursuant to Section 6.1.4, and Western Burrowing Owl overlay pursuant to MSHCP Section 6.3.2. Detailed biological surveys and investigations of the Project site were conducted in 2021 for MSHCP riparian/riverine features and associated special status species, narrow endemic plants, burrowing owl, and Delhi Sands Flower-Loving Fly. Results of the 2021 surveys are discussed below. Since the Project site occurs within the MSHCP and the City of Eastvale is a participating entity several mitigation measure and standard conditions were applied to the Project within the 2015 EIR. The following MSHCP measures still apply. Several of the measures were completed as part of the field surveys and detail investigations conducted for the 2021 update. Those measures are discussed below.

MSHCP A. *The project applicant shall submit fees to the City in accordance with the requirements of the MSHCP Mitigation Fee Ordinance (Chapter 4.62 of the City of Eastvale Municipal Code).*

~~*MSHCP B.* *The project applicant shall assess the proposed project's consistency with Section 6.1.2, Section 6.1.3, Section 6.3.2, and Section 6.1.4 of the MSHCP.*~~

~~*MSHCP C.* *A qualified biologist shall conduct a burrowing owl habitat assessment. If needed, focused surveys and preconstruction surveys shall be conducted, as well as appropriate avoidance and minimization (Section 6.3.2 of the MSHCP).*~~

~~*MSHCP D. A qualified biologist shall conduct habitat assessments for the required Narrow Endemic Plant Species. If needed, focused surveys and shall be conducted, as well as appropriate avoidance and minimization (Section 6.1.3 of the MSHCP).*~~

~~*MSHCP E. A qualified biologist shall conduct a habitat assessment for Delhi sands flower-loving fly in areas underlain by Delhi soil series (Species-specific Objective 1B).*~~

6.6.1 Riparian and Riverine Areas and Vernal Pools (Section 6.1.2)

There are no features identified on the Project site that are considered riparian and/or riverine, nor meet the definition of riparian and/or riverine as outline within the MSHCP Section 6.1.2. The Project site does not contain suitable habitat for any of the riparian/riverine vernal pool species listed in Section 6.1.2 of the MSHCP, including listed fairy shrimp. No impacts to those species listed in Section 6.1.2 of the MSHCP are associated with Project implementation due to the lack of suitable habitat onsite. Therefore, the Project is consistent with MSHCP Section 6.1.2. As part of the 2015 EIR, MSHCP B standard condition was to be applied to the Project because the City is a signatory to the MSHCP. MSHCP B has been fulfilled and is considered complete with the 2021 field surveys and detailed jurisdictional investigations.

6.6.2 Narrow Endemic Plant – Survey Area Number 7 (Section 6.1.3)

Portions of the Project site are located within the Narrow Endemic Plant Species Survey Areas Number 7, which include the following target species:

- San Diego ambrosia (*Ambrosia pumila*)
- Brand's phacelia (*Phacelia stellaris*)
- San Miguel savory (*Satureja chandleri*)

No special status plant species were observed during the 2021 surveys and none are expected to occur onsite due to the lack of suitable habitat or suitable soil found on the Project site; therefore, there are no potential impacts to special status plants due to Project implementation. As part of the 2015 EIR, MSHCP D standard condition was to be applied to the Project because the City is a signatory to the MSHCP. MSHCP D has been fulfilled and is considered complete with the 2021 field surveys and detailed investigations.

6.6.3 Urban/Wildlands Interface (Section 6.1.4)

The Project site is not located to an existing or proposed MSHCP Conservation Area as pursuant to Section 6.1.4 of the MSHCP. Therefore, there are no potential impacts to Urban/Wildlands Interface due to Project implementation. As part of the 2015 EIR, MSHCP B standard condition was to be applied to the Project because the City is a signatory to the MSHCP. MSHCP B has been fulfilled and is considered complete with the 2021 field surveys and detailed investigations.

6.6.4 Focused Burrowing Owl Surveys (Section 6.3.2)

Based on the Habitat Assessment it was determined the Project site contains suitable habitat for BUOW; therefore, four additional focused BUOW surveys were conducted by qualified

biologist. Based on the focus surveys, no BUOWs or evidence of BUOWs were observed within the Study Area during the focused surveys. A majority of the Project site is characterized by disturbed dairy land, ruderal, and developed vegetation communities, lacking necessary sized burrows to provide suitable nesting habitat for BUOW. The surrounding buffer area is developed with residential and commercial developments. California ground squirrels and their burrows were observed within the Study Area. These burrows were actively utilized by the California ground squirrels and contained no BUOW or keys signs (sight, whitewash, burrows, bones, feathers, pellets, nests, and calls). Furthermore, debris piles and farm equipment were thoroughly examined for any BUOW key signs. Based on the results of the focused surveys and lack of diagnostic signs for burrowing owl, the Project site is not occupied by the burrowing owl. As part of the 2015 EIR, MSHCP C standard conditions were to be applied to the Project because the City is a signatory to the MSHCP. MSHCP C has been partially fulfilled with the 2021 field surveys and detailed investigations. As part of MSHCP C standard condition, should suitable habitat be observed, a pre-construction burrowing owl survey is to be performed within 30-days of ground disturbances. The following Standard Conditions is to be incorporated as part of MSHCP C measure.

SC MSHCP C: *Prior to impacts, a pre-construction survey for burrowing owl within the Study Area (Project site and surrounding 500-foot buffer) shall be conducted by a qualified biologist where suitable habitat is present within 30 days to the commencement of ground disturbing activities.*

If active burrowing owl burrows are detected during the breeding season, all work within 300 feet of any active burrow will be halted until that nesting effort is finished. The on-site biologist will review and verify compliance with these boundaries and will verify the nesting effort has finished. Work can resume when no other active burrowing owl nesting efforts are observed.

If active burrowing owl burrows are detected outside the breeding season, then passive and/or active relocation pursuant to a Burrowing Owl Exclusion Plan that shall be prepared by the Applicant and approved by the County of Riverside Environmental Programs Department (EPD) in consultation with CDFW. The Burrowing Owl Exclusion Plan shall be prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (March 2012) and MSHCP.

Burrowing owl burrows shall be excavated with hand tools by a qualified biologist when determined to be unoccupied, and backfilled to ensure that animals do not reenter the holes/dens.

6.6.5 Delhi Sands Flower-Loving Fly (Species-specific Objective 1B)

Due to the location of the Project site within the Ontario Recovery Unit for the Delhi Sands flower-loving fly, a habitat assessment for this species was conducted. The entire site is in

historical dairy and associated developed residential and dairy infrastructure. Aerial imagery available on Google Earth, shows that the dairy operations have been maintained since 1985 to the up to 2020. Site conditions feature continuously irrigated pastures, cattle pens, and developed buildings (including residences) with irrigated landscaping, and ponds. Lands so managed with dairy operations are not suitable for the Delhi Sands flower-loving fly. Northern, western, and central portions of the site are mapped (and field investigation confirms) with Hilmar loamy sands – soils unsuitable for Delhi Sands flower-loving fly. The site is further set within the larger context of adjacent and surrounding developed lands, further reinforcing the unsuitability of habitat conditions for Delhi Sands flower-loving fly. The entire Project site is determined to be Unsuitable for Delhi Sands flower-loving fly. As part of the 2015 EIR, MSHCP E standard condition was to be applied to the Project because the City is a signatory to the MSHCP. MSHCP E has been fulfilled and is considered complete with the 2021 field surveys and detailed investigations.

6.7 Threshold 7

> *Reduce the number or restrict the range of an endangered, rare, or threatened plant or animal species or biotic community, thereby causing the species or community to drop below self-sustaining levels.*

Less than Significant.

There are no previously recorded sensitive biological resources (i.e., special-status species populations, sensitive habitats, or jurisdictional features) within the Study Area. No sensitive biological resources, including i.e., special-status species populations, sensitive habitats, or jurisdictional features occur onsite as confirmed by the 2021 Biological Surveys.

However, suitable habitat for burrowing owl, white-tailed kite, grasshopper sparrow, and mountain plover exists within the Study Area. All of these animal species are covered under the MSHCP. With the City's participation and implementation of the MSHCP, any direct and indirect impacts to sensitive species would be less than significant with the payment of the mitigation fee and compliance with all applicable requirements of the MSHCP. This provides full mitigation under the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and the California Endangered Species Act (CESA) for impacts to MSHCP covered species and habitats. The MSHCP also addresses indirect impacts through cores and linkages, criteria cells, and plan fees.

Project compliance with the MSHCP A standard condition fully mitigates impacts for these covered species. Additional surveys/assessments were performed in 2021, and no burrowing owl, narrow endemic plant species, or Delhi sands flower-loving fly occur onsite and no mitigation is required.

The analysis from the 2015 EIR concluded the impacts less than significant with mitigation. However, based on the lack of sensitive biological resources (i.e., special-status species

populations, sensitive habitats, or jurisdictional features) within the Study Area, the 2021 conclusion is less than significant. The 2021 conclusion is less impactful than what was analyzed in the 2015 EIR.

6.8 Threshold 8

Cumulative impacts to biological resources.

Less than Cumulatively Considerable with Mitigation.

The City participates in the MSHCP, which is designed to protect over 150 species and conserve over 500,000 acres in western Riverside County. Project compliance with the MSHCP fully mitigates for impacts on covered species and ensures large segments of natural communities in western Riverside County will be preserved.

Adherence to the standards and conditions of the MSHCP, and implementation of mitigation measure MM 3.7.1, ensures that impacts to avian species and their habitats are minimized. Based on the detailed 2021 biological surveys and investigations of the Project site, no sensitive biological resources or jurisdictional features were identified on the Project site, therefore, no impacts would occur. MM 3.7.2 and MM 3.7.3 have been fulfilled and are no longer required.

Detailed biological surveys and investigations of the Project site were conducted in 2021 for MSHCP riparian/riverine features and associated special status species, narrow endemic plants, burrowing owl, and Delhi Sands Flower-Loving Fly. Based on those results, Standard Conditions MSHCP B, MSHCP D, and MSHCP E have been fulfilled and are no longer required. MSHCP A is the fulfillment of MSHCP Fees and still applicable. Furthermore, a portion of MSHCP C is fulfilled with focused protocol Burrowing Owl Surveys. It was determined that the Study Area is not occupied with burrowing owls, however, due to the suitable habitat found onsite, avoidance and minimization measures for the Burrowing Owl are still appliable. Participation in and implementation of the MSHCP will effectively reduce the project's contribution to cumulative impacts to less than cumulatively considerable.

7.0 Summary

In summary, the 2015 EIR analyzed the Project based on a biological desktop review. In 2021, the Project site was formally evaluated for sensitive resources, including performing a jurisdictional delineation and all focused surveys for sensitive wildlife and plant species, as specified within the MSHCP and 2015 EIR. Based on the 2021 results, the Project site does not contain any sensitive biological resources. As part of the Project implementation the entire 160-acre site will be permanently impacted.

The Project site is located within the MSHCP. The Project site is not located within any MSHCP Criteria Areas, Cell Groups, or Subunits. Furthermore, the Project site is not located in survey

areas for Amphibians, Mammals, or Special Linkage areas. The Project site is subject to Riparian and Riverine Areas pursuant to MSHCP Section 6.1.2, Narrow Endemic Plants Overlay, pursuant to MSHCP Section 6.1.3, Urban/Wildland Interface pursuant to Section 6.1.4, and Western Burrowing Owl overlay pursuant to MSHCP Section 6.3.2.

Adherence to the standards and conditions of the MSHCP, and implementation of mitigation measure MM 3.7.1, ensures that impacts to special-status avian species and their habitats are minimized. Based on the detailed 2021 biological surveys and investigations of the Project site, no sensitive biological resources or jurisdictional features were identified on the Project site, therefore, no impacts would occur. MM 3.7.2 and MM 3.7.3 have been fulfilled and are no longer required.

Detailed biological surveys and investigations of the Project site were conducted in 2021 for MSHCP riparian/riverine features and associated special status species, narrow endemic plants, burrowing owl, and Delhi Sands Flower-Loving Fly. Based on those results, Standard Conditions MSHCP B, MSHCP D, and MSHCP E have been fulfilled and are no longer required. MSHCP A is the fulfillment of MSHCP Fees and still applicable. Furthermore, a portion of MSHCP C is fulfilled with focused protocol Burrowing Owl Surveys. It was determined that the Study Area is not occupied with burrowing owls, however, due to the suitable habitat found onsite, avoidance and minimization measures for the Burrowing Owl are still appliable.

Based on the updated 2021 detailed Biological Surveys, it is determined that impacts are either the same as analyzed in the 2015 EIR or less impactful with Project implementation. The Project is not anticipated to have a greater impact than what was originally analyzed in the 2015 EIR.

Please contact me at bbernard@carlsonsls.com or 949.542.7042, should you have any questions or comments.

Brianna Bernard
Project Manager and Project Biologist

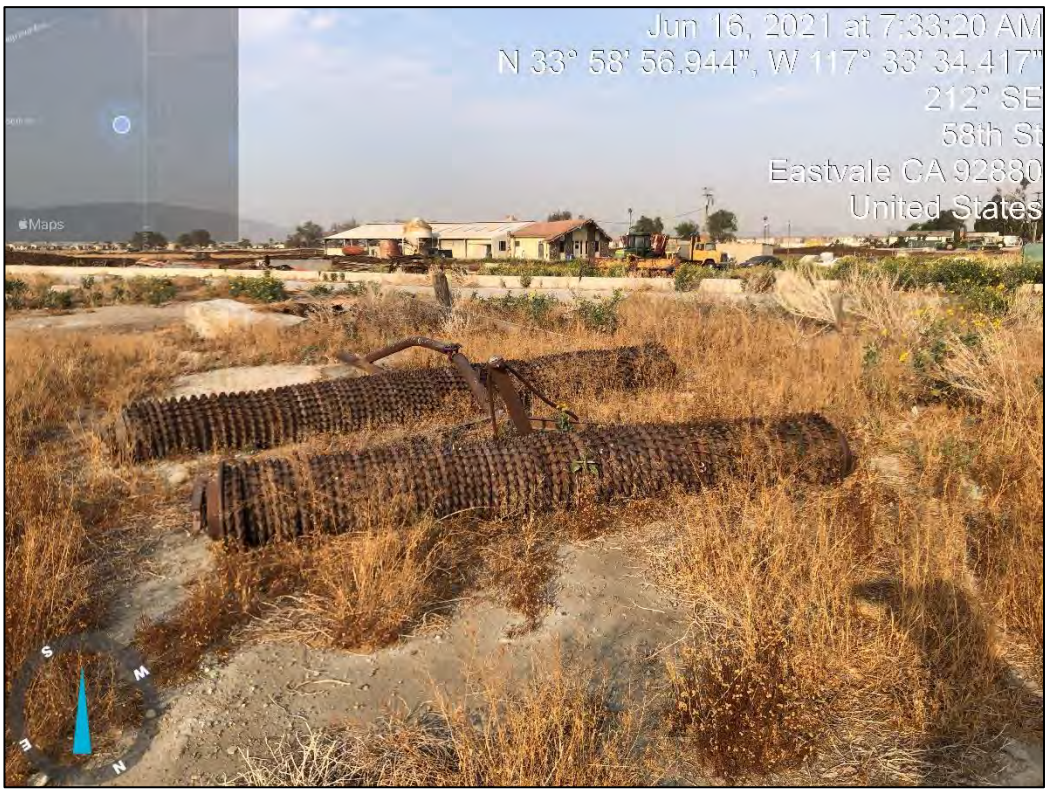
Enclosures:

- Attachment A: Photopages
- Attachment B: Burrowing Owl Survey Results
- Attachment C: Delhi Sands Flower-Loving Fly Assessment

Attachment A: Photopages



Looking over the Project site in the north-east corner.



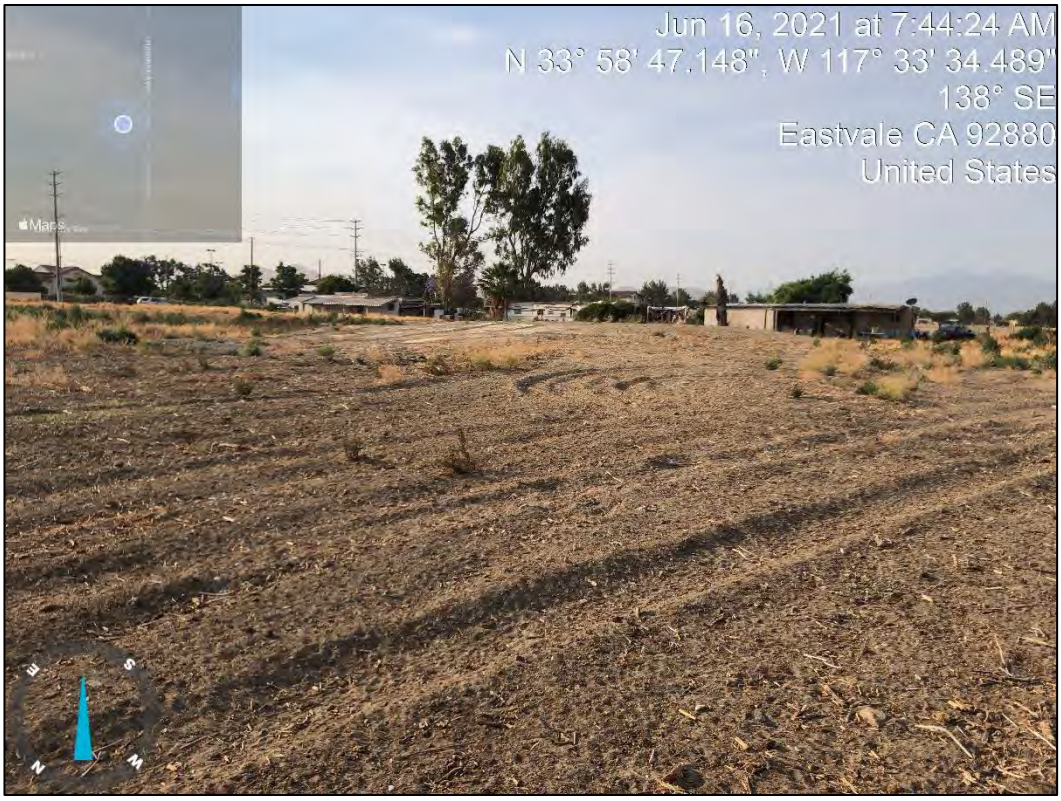
Historical agriculture and dairy equipment is scattered throughout the site.



Typical burrow observed.



A majority of the site is disturbed.



Old homes and trailers are scattered throughout the site.



A majority of the site include ruderal habitat.



Ruderal Habitat found onsite.



The site also includes disturbed habitat.

Attachment B: Burrowing Owl Survey Results

CARLSON STRATEGIC LAND SOLUTIONS, INC.

Information Summary

Report Date:	November 2, 2021
Report Title:	Results of MSHCP Focused Burrowing Owl Survey for the Leal Project in Riverside County, California
APN Numbers:	164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024, and 164-030-025.
Principal Investigator:	Brianna Bernard Carlson Strategic Land Solutions 27134A Paseo Espada, Suite 323 San Juan Capistrano, CA 92675 949.542.7042 Office 916.218.2644 Mobile bbernard@carlsonsls.com

Report Summary

This letter describes the methods and results of a focused burrowing owl (*Athene cunicularia* [BUOW]) survey for the Leal Project (Project) located in the City of Eastvale. The Project site is generally located in the Hemet area of Riverside County. The Project site is bounded by 58th Street to the north, Hamner Avenue to the east, Limonite Avenue to the south, and Scholar Way to the west. It is situated immediately west and north of existing commercial and retail developments and south and east of established residential neighborhoods of varying densities. The Project site is located approximately half a mile west of Interstate 15 (I-15). The Project site is within the *Corona North* U.S. Geological Survey 7.5-minute topographic map. Please refer to attached Figure 1 and Figure 2. Access to the Project site is provided off the Hamner Avenue or 58th Street. The Project site and surrounding 500-foot buffer (Study Area) was surveyed.

The surveys were performed on the following days:

Survey	Survey Date	Time	Surveyors
Burrowing Owl Assessment	June 9, 2021	0700 - 1350	Brianna Bernard
Burrowing Owl Survey #1	June 16, 2021	0715 - 1208	Brianna Bernard
Burrowing Owl Survey #2	June 23, 2021	0730 - 1145	Brianna Bernard
Burrowing Owl Survey #3	July 1, 2021	0658 - 1054	Brianna Bernard and Justinne Manahan

Survey	Survey Date	Time	Surveyors
Burrowing Owl Survey #4	July 13, 2021	0715 - 1100	Brianna Bernard and Justinne Manahan

The Project site historically functioned as a dairy with associated agriculture, a horse farm, and the Leal family home. The Project site currently has 3 horses and associated horse corrals, several homes and associated trailers found scattered around the property, along with dairy and farm equipment. The Project site consists primarily of disturbed land associated with historical dairy activities, as well as developed and ruderal habitat communities. Scattered burrows were observed on the Project site. All observed burrows were inspected carefully for any evidence of BUOW presence. Based on the lack of direct observation of BUOW or evidence of BUOW activity (e.g. evidence of active burrows with whitewash, pellets, feather, etc.) during the survey, the Study Area is not currently considered occupied by BUOW.

Field Survey Methods

Prior to the field survey, available literature and databases including the California Natural Diversity Database (CNDDB), were reviewed to identify sensitive habitats and special status wildlife species, including BUOW in the vicinity of the Study Area. Consistent with the MSHCP Survey Instructions, a burrowing owl habitat assessment was conducted on June 9, 2021 and pedestrian survey transects were spaced approximately 15 to 25 meters apart to allow 100 percent visual coverage of the ground surface.

According to the MSHCP guidelines, the biologist should also walk the perimeter of the property, which consists of a 150-meter (approximately 500 feet) buffer zone around the Project boundary. If permission to access the buffer area cannot be obtained, the biologist shall not trespass, but visually inspect adjacent habitats with binoculars. Parcels of land that could not be accessed (e.g. private property) were viewed using binoculars from vantage points to survey for BUOW activity or signs thereof, as well as other nesting bird activity.

The Project site and surrounding 500-foot buffer, collectively referred to as the Study Area, was assessed for the suitability to support burrowing owls and all suitable burrows were inspected for signs of use by burrowing owls. After the initial assessment of the site and surrounding areas, the Project site was systematically walked in an east-west direction of the Project site within suitable habitat for BUOW. Adjacent suitable areas, where accessible, were also surveyed to determine possible presence of owls within the buffer area (500-feet surrounding the Project site). Areas not accessible were surveyed using binoculars.

All encountered burrows or structure entrances were checked for the presence of BUOWs, molted feathers, cast pellets, prey remains, eggshell fragments, tracks, or

excrement at or near a burrow entrance. Natural or man-made structures and debris piles that could support BUOWs were also surveyed.

All wildlife species encountered, visually or audibly during the field survey, were identified and recorded in the field notes. Binoculars were used to aid in the identification of observed wildlife. Photographs were taken to document existing conditions within the Project site (Attachment A).

Results

The BUOW survey was performed on June 9, 2021 between the hours of 7:00 a.m. – 1:50 p.m. on the Project site and surrounding 500-foot area within suitable Burrowing Owl habitat (Figure 2). The survey was performed by Carlson Strategic Land Solutions (CSLS) biologists Brianna Bernard. The Biologists performed transects within areas that could potentially provide suitable BUOW habitat. Weather conditions during the survey was conducive to observing signs of BUOW activity, such as owls outside burrows. Temperatures during the survey ranged from 68° F to 90° F with clear skies and winds from 0-1 mph. The survey was conducted during typical BUOW peak activity time and was not conducted during rain, high winds, or dense fog.

Following the habitat assessment, additional focused surveys took place on June 16, June 23, July 1, and July 13, 2021 generally between 7:00 a.m. and 12:00 p.m. by CSLS Biologists Brianna Bernard and Justinne Manahan on select dates. Temperatures during the surveys ranged between 70° F and 98° F, with predominant sunny, clear skies and 0-2 mph winds. The survey was conducted during typical BUOW peak activity time and was not conducted during rain, high winds (> 20 miles per hour), dense cloud cover >75%, or extreme temperatures.

The Study Area consist primarily of historical dairy activities, ruderal habitat, and disturbed/developed habitat. The ruderal habitat appears to be routinely maintained. The ruderal habitat is dominated by London rocket (*Sisymbrium irio*) and summer mustard (*Hirschfeldia incana*). Other species include Russian thistle (*Salsola tragus*), cheeseweed (*Malva parviflora*), rat-tail fescue (*Festuca microstachys*), foxtail brome (*Bromus madritensis ssp. rubens*), ripgut brome (*Bromus diandrus*), tocalote (*Centaurea melitensis*), Jimson weed (*Datura stramonium*), and scattered Mexican fan palms (*Washingtonia robusta*), and mulefat (*Baccharis salicifolia*). A row of trees bisects the Project site from the north to south and includes mulberry trees (*Morus alba*), and Shamuel ash (*Fraxinus uhdei*).

The Study Area contains a small population of California ground squirrels (*Spermophilus beecheyi*), specifically located in the historical dairy activities community, which in turn results in various burrows that could potentially support suitable BUOW foraging and nesting habitat. These areas were inspected carefully for the presence of

BUOWs and active nests. No pellets, whitewash, feathers, tracks or any other signs indicative of burrowing owl presence were observed within the Study Area.

The Study Area provides suitable foraging and nesting habitats to support wildlife. Bird activity during the survey was moderate. During the field surveys the following species were observed/detected:

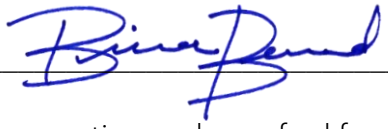
- red-tailed hawk *(Buteo jamaicensis)*
- Anna's hummingbird (*Calypte anna)*
- Coyote (*Canis latrans)*
- house finch (*Carpodacus mexicanus)*
- Turkey Vulture (*Cathartes aura)*
- Killdeer (*Charadrius vociferus)*
- American crow (*Corvus brachyrhynchos)*
- California horned lark (*Eremophila alpestris*)
- Common raven (*Corvus corax)*
- Brewer's blackbird (Euphagus cyanocephalus)
- American Kestrel (*Falco sparverius*)
- Barn swallow (Hirundo rustica)
- Hooded oriole (*Icterus cucullatus)*
- Song Sparrow *(Melospiza melodia)*
- Northern mockingbird (*Mimus polyglottos*)
- Vermilion flycatcher (*Pyrocephalus rubinus*)
- Black phoebe (*Sayornis nigricans*)
- Say's phoebe (*Sayornis saya*)
- California ground squirrel *(Spermophilus (Otospermophilus) beecheyi)*
- lesser goldfinch *(Spinus psaltria)*
- desert cottontail *(Sylvilagus audubonii)*
- mourning dove *(Zenaida macroura)*

Conclusion

Based on the lack of direct observation of BUOW or evidence of BUOW activity (e.g. evidence of active burrows with whitewash, pellets, feather, etc.) during the survey, the Study Area is not currently considered occupied by BUOW.

Certification

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed:  Dated: 11/02/2021

If you have any questions, please feel free to contact me at bbernard@carlsonsls.com or at 916-218-2644.

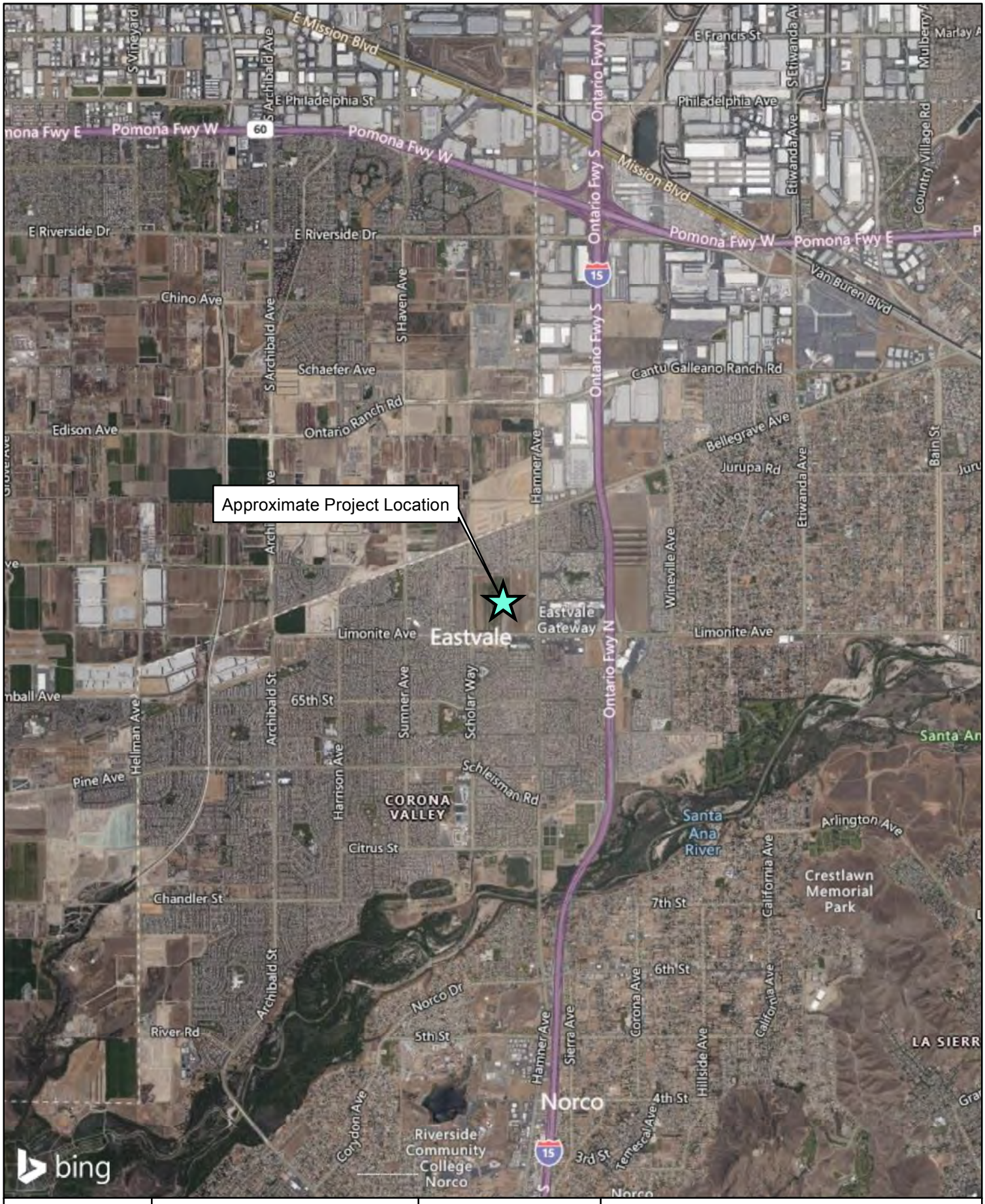
Figures

- Figure 1: Site Location Map
- Figure 2: Study Area Map

Attachments

- Attachment A: Site Photographs

Figures



GIS Prepared By:
Carlson SLS

Created: June 8, 2021

0 1,250 2,500 5,000 7,500 Feet

1 inch = 5,000 feet

Data Source: Bing Maps

The New Home Company: Leal Project

Regional Location Map

FIGURE 1



GIS Prepared By:
Carlson SLS

Created: June 8, 2021

0 50 100 200 300 400 500 600 Feet
1 inch = 500 feet

Data Source: Bing Map

The New Home Company: Leal Project

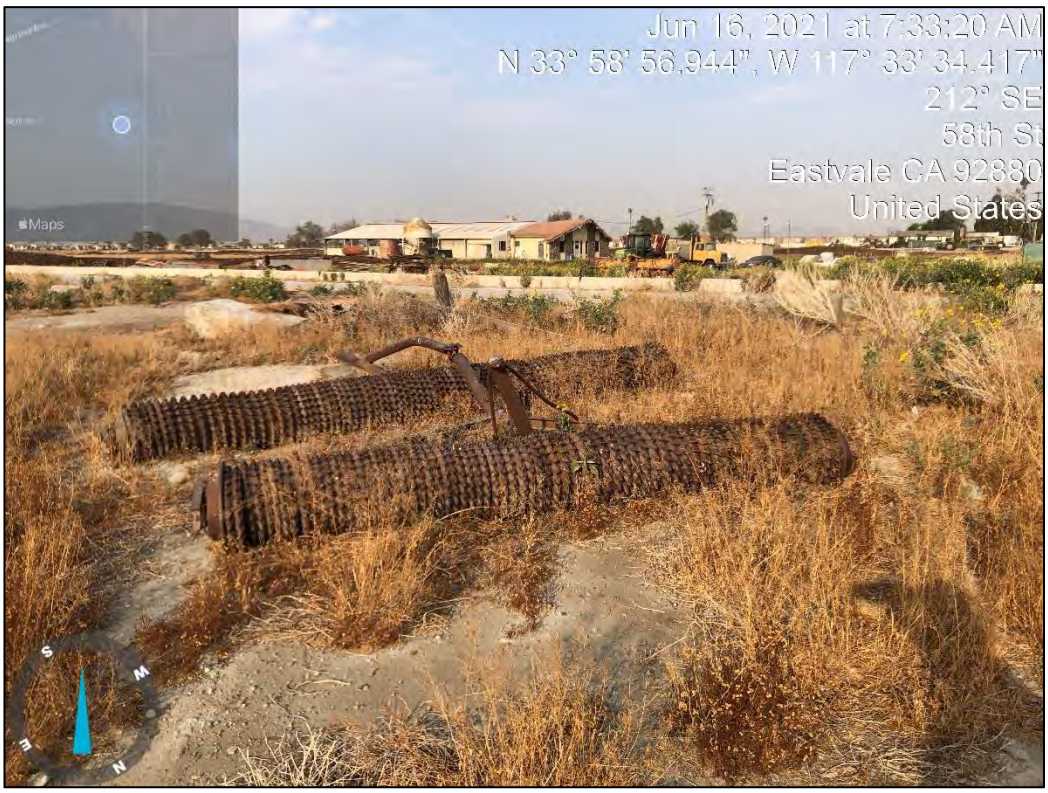
Project Site Map

FIGURE 2

Attachment A:
Site Photographs



Looking over the Project site in the north-east corner.



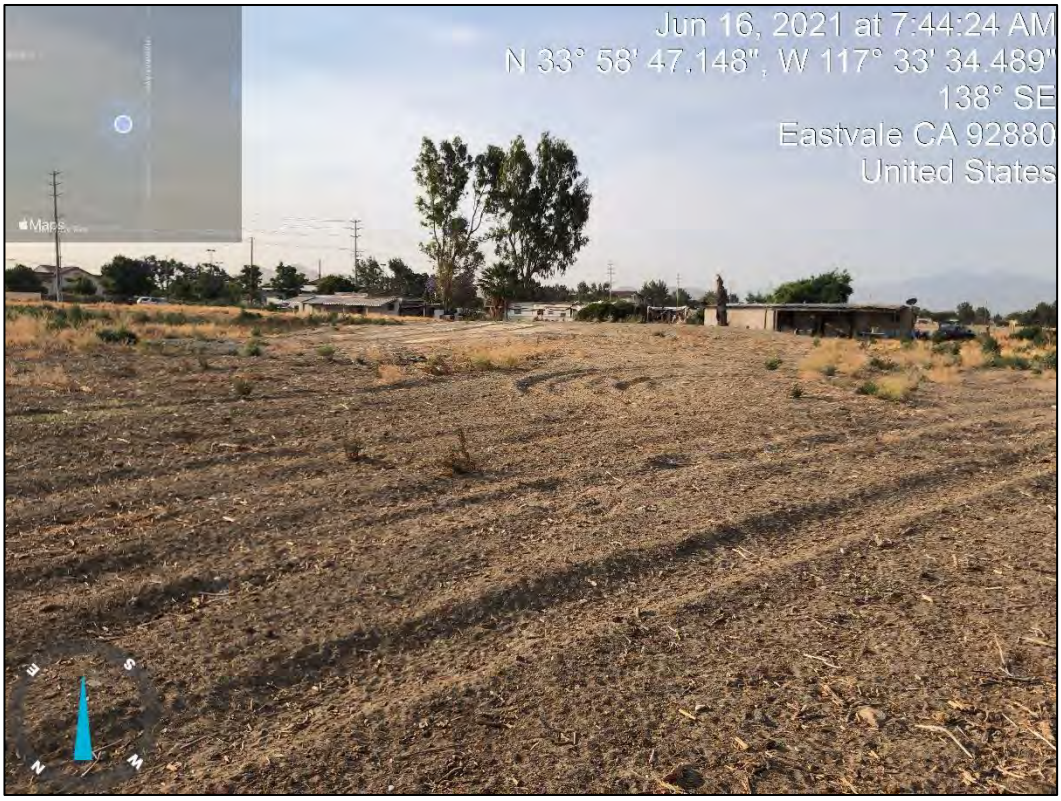
Historical agriculture and dairy equipment is scattered throughout the site.



Typical burrow observed.



A majority of the site is disturbed.



Old homes and trailers are scattered throughout the site.



A majority of the site include ruderal habitat.



Ruderal Habitat found onsite.



The site also includes disturbed habitat.

Attachment C: Delhi Sands Flower-Loving Fly Assessment

Ken H. Osborne
Osborne Biological Consulting
6675 Avenue Juan Diaz
Riverside, CA 92509

June 18, 2021

Attn: Ms. Brianna Bernard
Project Manager/Biologist
Carlson Strategic Land Solutions
27134 A, Paseo Espada, Suite 323
San Juan Capistrano, CA 92675

RE: Habitat conditions for Delhi Sands Flower-loving Fly on a portion of a proposed Leal development site located at the northwestern intersection of Limonite Avenue and Hamner Avenue, Eastvale.

To Whom It May Concern:

At the request of Carlson Strategic Land Solutions and on behalf of The New Home Company, I have conducted an evaluation of habitat suitability for the federally endangered Delhi Sands Flower-loving Fly (DSF, *Rhaphiomidas terminatus abdominalis*), for a 160-acre proposed Leal Project in Eastvale, California, with Assessor's Parcel Numbers 164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024, and 164-030-025. This area is indicated on the attached maps (Figures 1 and 2), and is located northwest of the intersection of Limonite Avenue and Hamner Avenue, Eastvale. For the purpose of this habitat assessment, I have evaluated site conditions for DSF suitability in terms of site characteristics on the basis of a detailed grading system I have developed in recent years.

Summary Conclusions: All lands on the subject site have a long history (since before 1985) in active dairy use. Site conditions feature continuously irrigated pastures, cattle pens, and developed buildings (including residences) with irrigated landscaping, and ponds. Lands so managed with dairy operations are not suitable for the DSF. Northern, western, and central portions of the site are mapped (and field investigation confirms) with Hilmar loamy sands – soils unsuitable for DSF. The site is further set within the larger context of adjacent and surrounding developed lands, further reinforcing the unsuitability of habitat conditions for DSF. The entire project area is determined to be Unsuitable for DSF.

Qualifications: Although I possess USFWS 10(a) permitting to survey for the federally endangered Delhi Sands Flower-loving Fly, such permitting is generally awarded to biologists only on the basis of a biologist's experience with and/or ability to identify adult DSF, such permitting not awarded on the basis of any real understanding of DSF biology, ecology, or habitat requirements. Traditionally, USFWS considered any land (within the known range of DSF) to have been mapped with Delhi Sands soils (Woodruff 1980) as subject to formal survey for the DSF. Thus, my additional qualifications in this regard include BS, MS, degrees in entomology, 45 years general entomological experience, thirty years experience with, research, and discoveries, in

Rhaphiomidas, life history, biology, and ecology, such that I am now a leading expert in this narrow field of study.

Methods: On June 18, 2021, I visited the study site in order to investigate habitat suitability for the DSF. I have reviewed soil maps covering the subject site, prepared by the California Department of Agriculture (Woodruff 1980, Knecht 1971). Aerial imagery covering the site, dating from 1985 to 2020 (Google Earth) was reviewed in order to gain an understanding of land use regimens in recent years. Photographs were taken of the site along with field notes on vegetation and soil conditions. I examined the subject site to rate its potential to support DSF, the rating based on the following scale of 1 to 5, with 5 being the best quality and most suitable habitat in my judgment:

1. Developed areas, non-Delhi sands soils with high clay, silt, and/or gravel content. Delhi sands extensively and deeply covered by dumping of exotic soils, rubble, trash, manure, or organic debris. *Unsuitable.*

2. Delhi sands are present but the soil characteristics include a predominance of exotic soils such as alluvial materials, or predominance of other foreign contamination as gravels, manure, or organic debris. Severe and frequent disturbance (such as a maintenance yard or high use roadbed). *Very Low Quality.*

3. Moderately contaminated Delhi sands. Delhi sands with moderate to high disturbance (such as annual disking). Sufficient Delhi Sands are present to prevent soil compaction (related to contamination by foreign soils). Some sandy soils exposed on the surface due to fossorial animal activity. *Low Quality.*

4. Abundant clean Delhi Sands with little or no foreign soils (such as alluvial material) present. Moderate abundance of exposed sands on the soil surface. Low vegetative cover. Evidence of moderate degree of fossorial animal activity by vertebrates and invertebrates. May represent high quality habitat with mild or superficial disturbance. *Moderate Quality*

5. Sand dune habitat with clean Delhi Sands. High abundance of exposed sands on the soil surface. Low vegetative cover. Evidence (soil surface often gives under foot) of high degree of fossorial animal activity by vertebrates and invertebrates. Sand associated plant and arthropod species may be abundant and vegetation species composition is often indicative of low disturbance. *High Quality*

It should be noted that habitat qualities often vary spatially within a site so that conditions on a site fall within a range of qualities. Further, overall habitat quality is affected by the overall habitat area on a site, such that very small areas diminish the overall habitat value of a site. Habitat conditions rated from *Very Low Quality* up to *High Quality*, are formally considered as representing *Suitable* conditions for the DSF. Use of this habitat rating system is somewhat subjective and best undertaken by a biologist who has extensive experience with *Rhaphiomidas* species. It must be noted that these ratings do not infer or imply actual occupancy by DSF, only relative potential to harbor the species, and relative conservation value of the land should DSF be found.

Results: Department of Agriculture, Soil Conservation Service map (Woodruff 1980) and associated web based resources (https://casoilresource.lawr.ucdavis.edu/gmap/) show the site to have Delhi fine sand soils on a southeastern portion of the site, amounting to approximately 13 acres (Figure 3). The remaining portions of the site are on Hilmar loamy sands (Knecht 1971). Soil conditions on the extreme southeastern corner of the site, over an area of approximately five acres, where mapped with Delhi fine sands, is overlain with a meter depth of exotic soils dominated by alluvial gravely materials. Remaining peripheral areas mapped with Delhi fine soils are intermixed with fine loam soils (Hilmar classification)) – the mixing and contamination likely the result of decades of dairy operations where pasture lands have been disked. Aerial imagery available on Google Earth, shows that the dairy operations have been maintained since at least 1985 up to 2020 for the entire site. The site has been largely surrounded by residential and commercial development since 2004 (Google Earth), isolating the site from areas with Delhi Sands Flower-loving fly populations. The last known extant DSF population site in the Ontario area is located some six kilometers north northeast of the site. Plant species normally associated with Delhi sands ecosystems do not occur on the site. The entire site (160 acres) has been used in dairy operations and is so developed and/or covered in manure, ponds, irritated pasture, or with developed residences with irrigated landscaping, developed dairy buildings, storage facilities, gravel paved roads, drives, stalls or equipment lots, that the entire site has no potential for the DSF and is rated *Unsuitable* for the species. A list of plant species (not including exotic landscape plants) on the site and their context as to whether marginal, or dominant, is presented in Table 1.

Discussion: A long history of agricultural use has likely resulted in onsite cross contamination of Delhi sand soils with fine silty loamy soils on southeastern portions of the site, and the importation of approximately 24,000 cubic yards of exotic alluvial soils onto the southeastern portion of the site (seen to be underway in June 2004, Google Earth) with the result that all soils on the site that were mapped as Delhi sands (Knecht 1971) actually contain significant quantities contaminating soils rendering them *Unsuitable* for DSF beyond the long history of diary operation.

In general, the northern, western, and central portions of the project site may be ruled as *Unsuitable* for DSF on the basis of soil conditions (Figure 3) alone. A long and ongoing history (since before 1985) of agricultural dairy use further foreclosed on DSF suitability for the entire site. The southeastern portions of the site, where they occur over mapped Delhi sands also must be rated as *Unsuitable* for DSF due to intense degradation of habitat conditions and natural ecological function owing to contaminated soils. Similar findings have previously been made on similar agricultural and dairy lands of southern Ontario on consultation with USFWS (Osborne 2004) and areas with active irrigated agriculture (Osborne 2019).

Conclusions and Recommendations: On the basis of my experience, conditions on the subject site are *Unsuitable* for DSF. Interim General Survey Guidelines for the DSF, suggested by the USFWS (1996) typically recommend protocol surveys for DSF where undeveloped Delhi sands occur, and agency biologists sometimes assert that such undeveloped areas have potential for DSF. I would strongly disagree with such and assertion, and view it as an absurdity.

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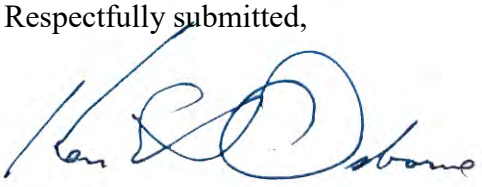
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Respectfully submitted,



Ken H. Osborne

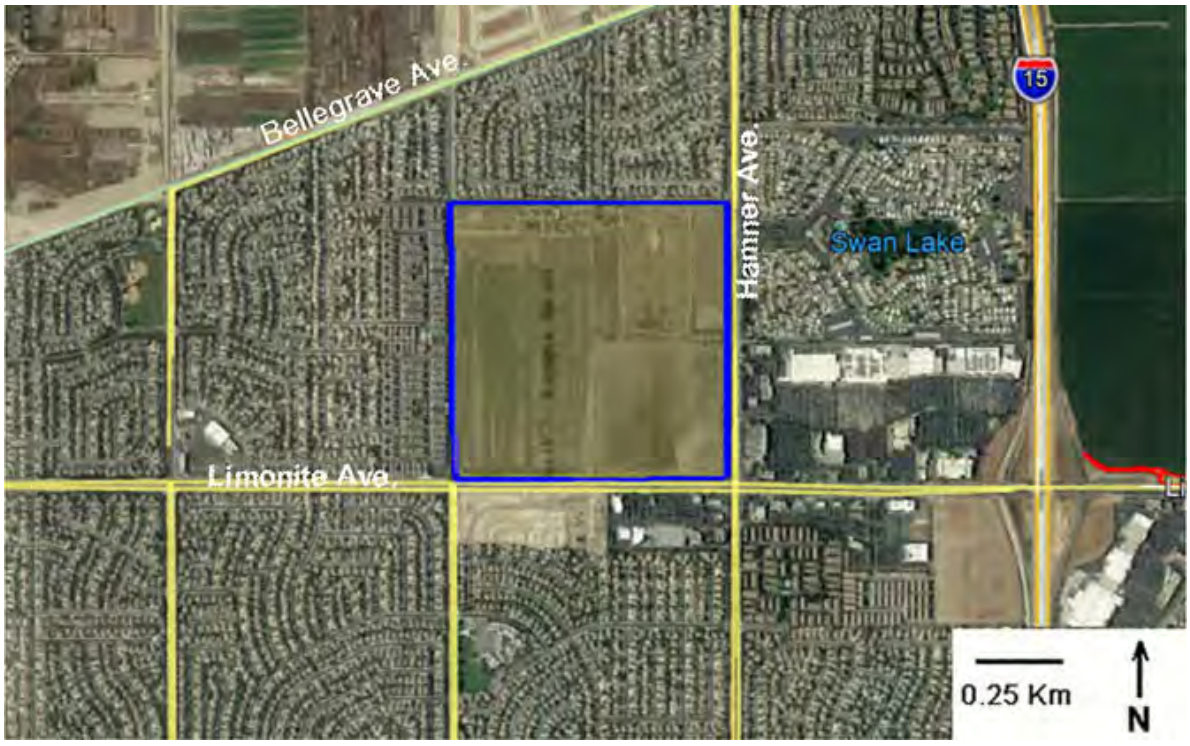


Figure 1. Aerial image with vicinity and habitat conditions surrounding the subject site (outlined in blue).

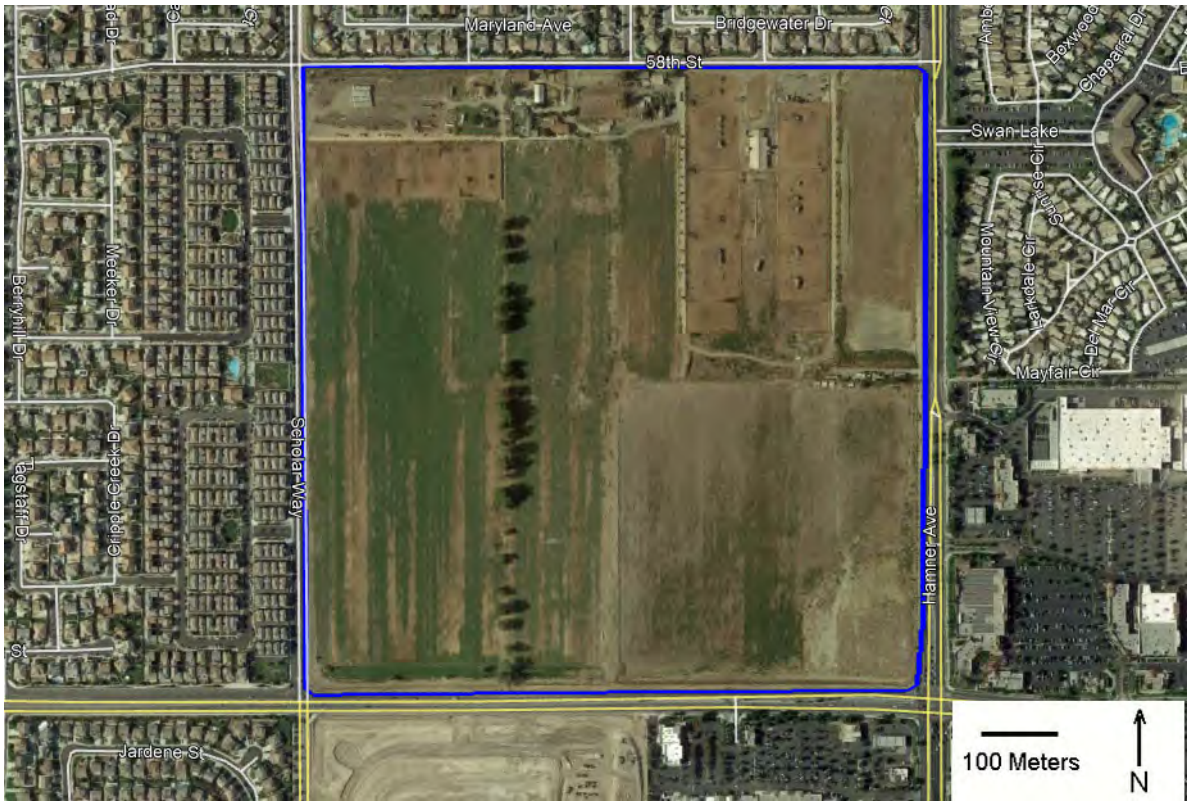


Figure 2. Aerial image showing the subject site (outlined in blue).



Figure 3. Soil types and habitat conditions on the subject site (outlined in blue): Yellow lines separate soils: Db = Delhi sands; HlA = Hilmar loamy very fine sands; HhA2 = Hilmar loamy sands.



Figure 4. Photograph of recent dairy cattle pen areas on a northern portion of the site with heavy manure contamination. Soils with high organic contamination are *Unsuitable* for DSF. View looking to the south from a central northern edge of the site.



Figure 5. Photograph of the southeastern portion of the site with exotic fill soils over what once were Delhi sand soils. These conditions represent habitat *Unsuitable* for DSF.



Figure 6. Photograph of soil surface (showing alluvial gravels) on the southeastern portion of the site. Alluvial fill soils present conditions *Unsuitable* for DSF.

Table 1. Plant species encountered on the subject site.

FAMILY	Species	Comment
ARECACEAE		
fan palm	*Washingtonia*	filed margins
ASTERACEAE		
mule fat	*Baccharis salicifolia*	filed margins
thistle	*Ciricium*	occasional
prickly lettus	*Lactuca serriola*	occasional
golden crownbeard	*Verbesina encelioides*	common
BRASSICACEAE		
shortpod mustard	*Hirschfeldia incana*	common
London rocket	*Sisymbrium irio*	dominant throughout
CHENOPODIACEAE		
Australian saltbush	*Atriplex semibaccata*	common
lamb's quarters	*Chenopodium album*	common
Kochia	*Kochia scoparia*	common
Russion thistle	*Salsola tragus*	common
GERANIACEAE		
red-stem filaree	*Erodium cicutarium*	dominant in areas
LAMINACEAE		
Horehound	*Marubium vulgare*	occasional
MALVACEAE		
cheeseweed	*Malva parviflora*	dominant throughout
OLEACEAE		
Ash	*Fraxinus*	filed margins
POACEAE		
Mediterranean barley	*Hordeum murinum*	dominant throughout
Shismus	*Schismus barbatus*	occasional
SOLANACEAE		
Tree tobacco	*Nicotiana glouca*	occasional

Appendix D

Cultural and Paleontological Resources Assessment

Leal Master Plan, City of Eastvale, Riverside County, California

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April 2022

T2S, R7W Section 24, USGS *Corona North, Calif.*, 7.5-minute quad
Keywords: P-33-015333

MANAGEMENT SUMMARY

Duke Cultural Resources Management, LLC (DUKE CRM) is under contract to Carlson Strategic Land Solution and The New Home Company, to provide cultural and paleontological resources services for the Leal Master Plan Project, located in the City of Eastvale, Riverside County, California. The property is approximately 156 acres in size. The purpose of this study is to provide the necessary information and analysis to the City of Eastvale (CITY) as the lead agency to determine whether the proposed Project would cause impacts to historical, archaeological, or paleontological resources that may exist in or adjacent to the Project area. This work was conducted in compliance with the California Environmental Quality Act (CEQA).

The cultural and paleontological resources assessment included a records search for cultural resources at the Eastern Information Center (EIC), and a records search for paleontological resources at the Western Science Center (WSC) and locality searches on the University of California Museum of Paleontology (UCMP) and San Diego Natural History Museum (online collections, the online Paleobiology Database and FAUNMAP, and other published resources.

Cultural Resources

The results of the EIC records search indicate that there is one previously recorded cultural resource within ½ mile of the Project and one resource located within the Project. The resource within the Project is the Leal Property, resource (33-015333). The survey and evaluation of the properties found it to be ineligible for the National Register of Historic Place (NRHP), the California Register of Historical Resources (CRHR), or local designation (6Z). Additionally, the field survey did not identify any cultural resources within the Project boundary. The research conducted indicates a low sensitivity for prehistoric cultural resources and a low sensitivity for historic resources within the Project boundaries. Therefore, any disturbance of native soils has a low potential to directly impact unique cultural resources according to CEQA. According to CEQA, a "unique archaeological resource" is defined as an "archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: contains information needed to answer important scientific research questions, has a special and particular quality, or is directly associated with a scientifically recognized important prehistoric or historic event or person (Section 21083.2 (g)).DUKE CRM does not recommend any further cultural resources efforts. However, if any cultural resources are discovered during grading and/or ground disturbance during construction an archaeologist shall be retained to assess the nature and significance of the discovery and make recommendations.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Paleontological Resources

The records searches by the WSC and other resources indicate that there are no known fossil specimens within the Project boundaries but did indicate multiple fossil localities from similar deposits nearby (within 3 miles). The Project is situated on young alluvial-fan deposits (middle Holocene Epoch, *Qyf*), young eolian deposits (late Pleistocene to Holocene Epochs, *Qye*), and very old axial channel deposits (early to middle Pleistocene Epoch, *Qvoa*). Due to their age (early Pleistocene to late Pliocene Epochs) and history of producing fossil material nearby, the young eolian deposits (*Qye*) and very old axial channel deposits (*Qvoa*) underlying the Project area are assigned a high paleontological sensitivity.

Ground disturbance in the eastern half of the Project area will impact high-sensitivity deposits (*Qye* and *Qvoa*), and has the potential to directly impact unique paleontological resources. This would result in potentially significant impacts to paleontological resources according to CEQA. Therefore, paleontological construction monitoring is recommended during ground disturbance in this area. This, along with appropriate recording and recovery efforts, will mitigate the potential impact to a level that is less than significant for the purposes of CEQA.

Paleontological Monitoring - A paleontological monitor shall be present during ground disturbing activities in the eastern half of the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation).

1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols.
2. The paleontological monitor shall be present full-time during ground disturbance in the eastern half of the Project, including but not limited to grading, trenching, utilities, and off-site easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced.
3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered.
4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area.
5. In consultation with the qualified paleontologist the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared.
6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately.
7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.

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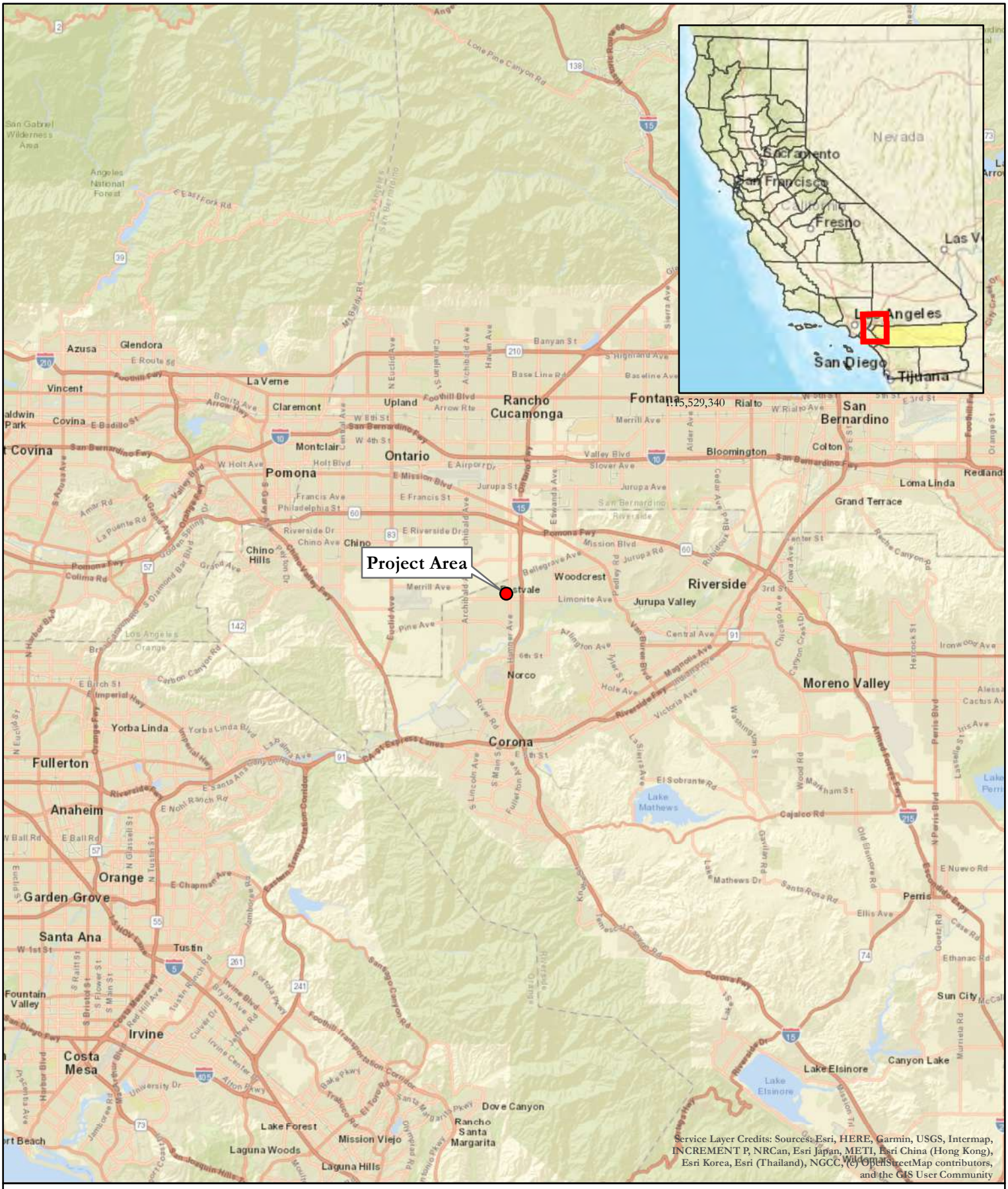
B.A.	Bachelor of Arts
B.S.	Bachelor of Science
CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CITY	City of Eastvale
CLIENT	Carlson Strategic Land Solution
CRHR	California Register of Historical Resources-
DPR	State of California Department of Parks and Recreation 523 series forms
DUKE CRM	Duke Cultural Resources Management, LLC
EIC	Eastern Information Center
LACM	Natural History Museum of Los Angeles County
M.A.	Master of Arts
M.S.	Master of Science
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places-
PCT	Paleocoastal Tradition
Qvoa	early to middle Pleistocene Epoch very old axial channel deposits
Qye	late Pleistocene to Holocene Epochs young eolian deposits
Qyf	middle Holocene Epoch young alluvial-fan deposits
RPA	Registered Professional Archaeologist
UCMP	University of California Museum of Paleontology
WPLT	Western Pluvial Lakes Tradition
WSC	Western Science Center

INTRODUCTION

Duke Cultural Resources Management, LLC (DUKE CRM) is under contract to Carlson Strategic Land Solution (CLIENT) to provide cultural and paleontological resources services for the Leal Master Plan, Eastvale Project, located in the City of Eastvale, Riverside County, California. The property is approximately 156-acres in size. The purpose of this study is to provide the necessary information and analysis to the City of Eastvale (CITY) as the lead agency to determine whether the proposed Project would cause substantial significant impacts to historical, archaeological, or paleontological resources that may result from the Project in or adjacent to the Project area to comply with the California Environmental Quality Act (CEQA).

PROJECT DESCRIPTION

The Project is situated on the Leal dairy farm property located on Limonite Avenue, with 58th street to the north, Hamner Avenue to the east and Scholar Way to the west (see Figure 1, Project Vicinity Map). The Project is located in the Section 24, Township 2 South, Range 7 West, San Bernadino Base and Meridian, USGS *Corona North, Calif.* 7.5-minute quadrangle (see Figure 2, USGS Project Location Map). The Project is located within a dairy farm that is no longer in use (see Figure 3, Project Aerial Photograph). The Project will have 660 multi-family homes and 1840 single-family/single-family attached homes. Maximum depth will be 15 feet (ft.), with the majority of the project being excavated down to 3 ft.



Map 1 - Project Vicinity

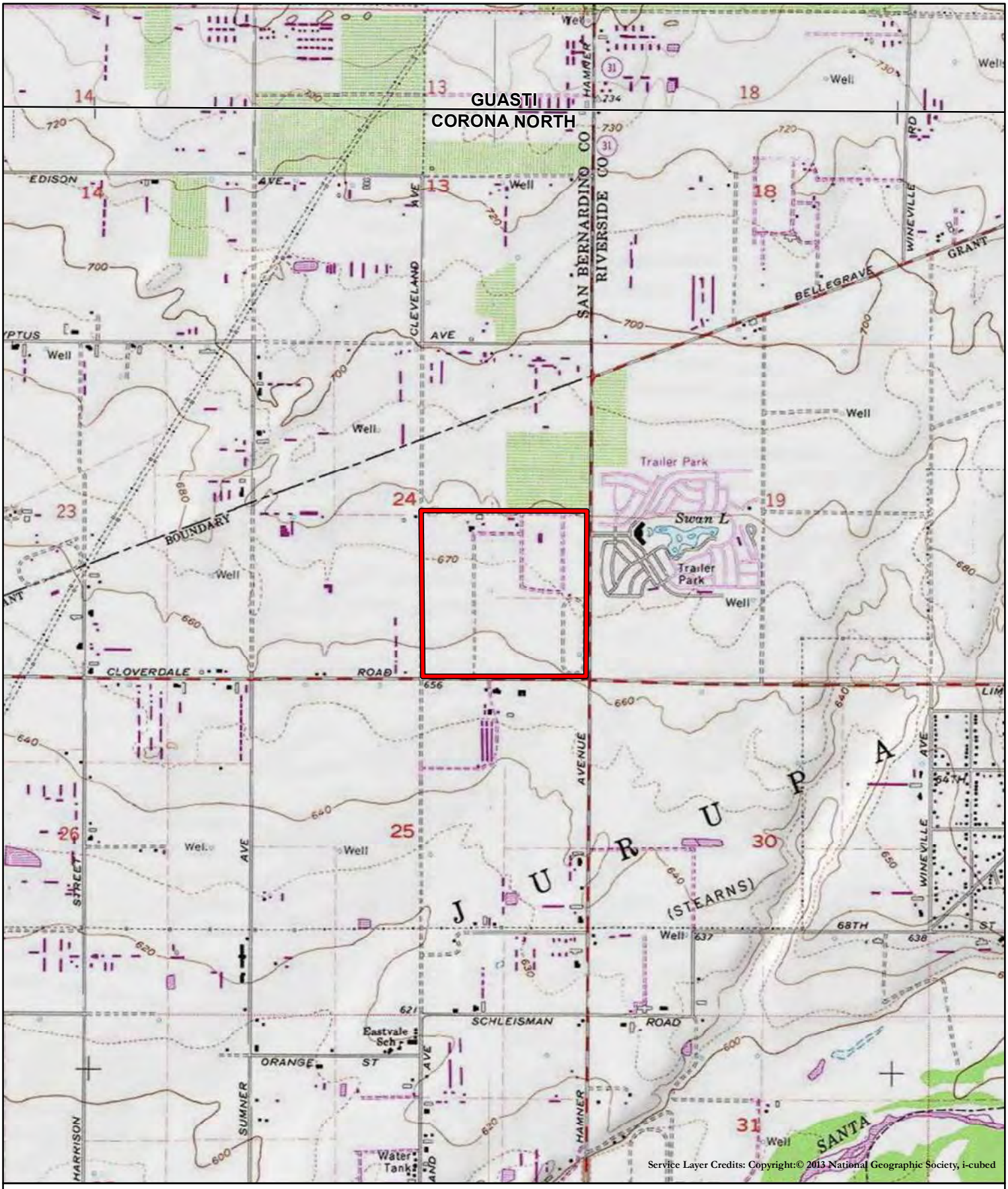
Leal Master Plan, Eastvale, C-0362

DUKE CRM

Project Area

0 6 12 Miles N

1 inch = 6 miles 1:360,000



Map 2 - Project Location
Leal Master Plan, Eastvale, C-0362

DUKE CRM

Corona North, Calif USGS 7.5-Minute Quadrangle
T2S R7W Section 24
Project Area
USGS 7.5' Quads

0 0.25 0.5 Miles
0 0.25 0.5 Kilometers
N
1 inch = 2,000 feet 1:24,000



Map 3 - Project Aerial

Leal Master Plan, Eastvale, C-0360

DUKE CRM

Project Area

0 200 400 Feet

1 inch =400 feet

N

1:4,800

SETTING

Geology

California is divided into 11 geomorphic provinces, each naturally defined by unique geologic and geomorphic characteristics. The Project is located in the northwestern portion of the Peninsular Ranges geomorphic province. The Peninsular Ranges province is distinguished by northwest trending mountain ranges and valleys following faults branching from the San Andreas Fault. The Peninsular Ranges are bound to the east by the Colorado Desert and extend north to the San Bernardino – Riverside County line (Norris and Webb 1976), west into the submarine continental shelf, and south to the tip of Baja California.

Project elevation is approximately 730 feet above mean sea level. The geology of the Project area has been mapped by Morton and Miller (2006) at a scale of 1:250,000 (Figure 4). A review of this map indicated that the Project area is predominantly underlain in the western half by young alluvial-fan deposits (*Qyf*), and in the eastern half by young eolian deposits (*Qye*) and very old axial channel deposits (*Qvoa*).

Vegetation within the Project is dominated by grasses and other shrubs present in high density on the south side. The northern half of the site has little vegetation due to the soil being recently turned and several residential and dairy properties along the northern edge.

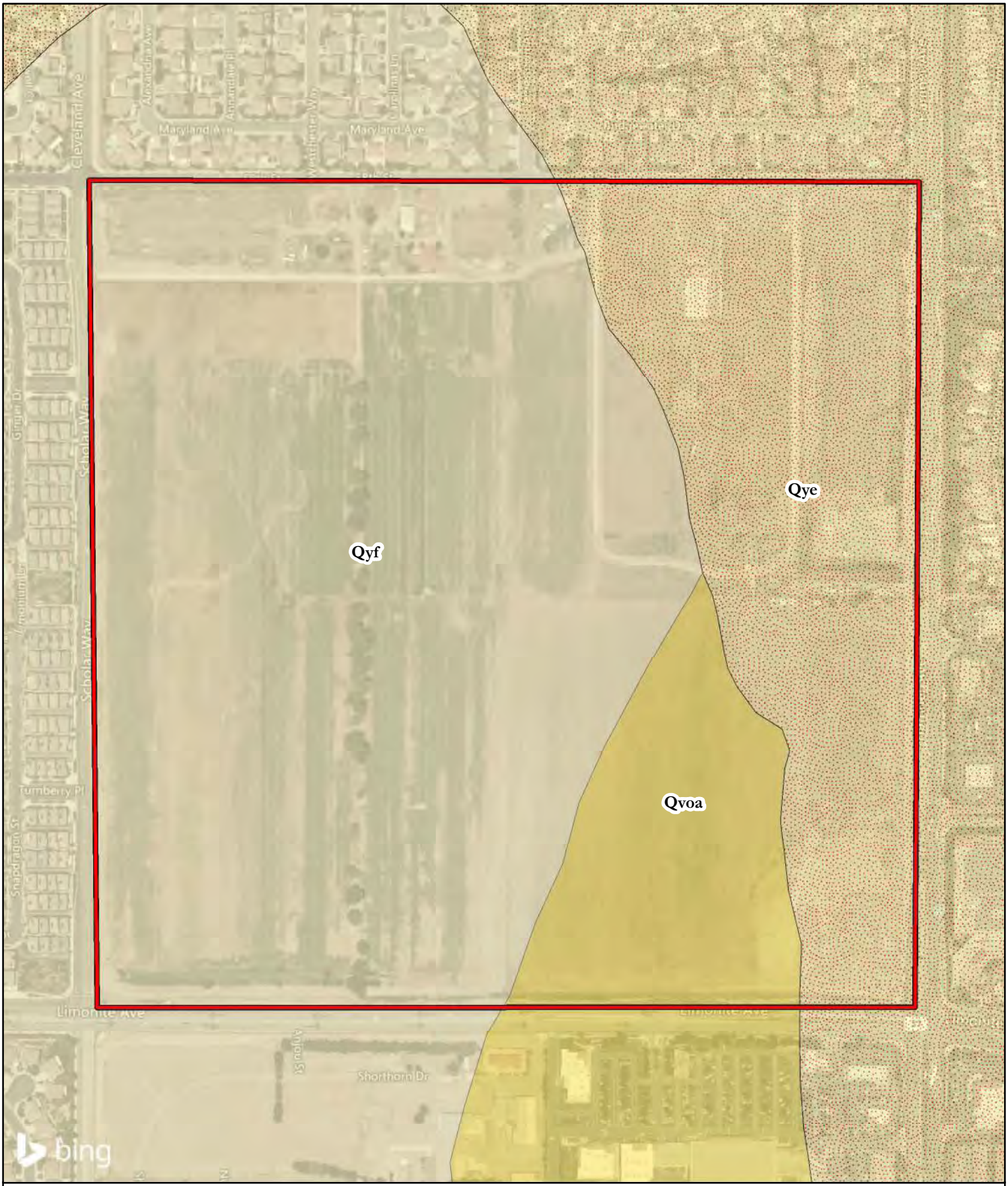
Cultural

Prehistory

Two primary regional schema are commonly cited in the archaeological literature for western Riverside County where the Project is located. These schema or syntheses generalize the presence or absence of certain artifact types into explanatory frameworks of temporal chronologies and/or subsistence practices. Schemas are necessary because many archaeological sites lack absolute datable material (ex. carbon for radiometric C_{14} dating) and so researchers need to cross-date sites by comparison to either coastal or desert chronologies with established chronological sequences backed by absolute dates. In western Riverside County, where the Project is located, it is thought to be the meeting ground of both schemas and consequently neither schema (coastal vs inland desert) exclusively explain prehistoric finds.

The first schema, advanced by Wallace (1955), defines four cultural horizons for the southern California coastal province, each with characteristic local variations:

I. Early Man (~9000–8500 B.P.) is a hunting culture based on almost exclusive evidence of chipped-stone hunting materials: dart points, scrapers, choppers, and bifaces.
II. Milling Stone (8500–4000 B.P.) reflects a change to a more sedentary, plant-collecting lifestyle as evidenced by the introduction and dominance of milling stone artifacts and a decrease in well-made projectile points.
III. Intermediate (4000–1500 B.P.) is characterized by a larger dependency on hunting, introduction of the bow and arrow, and the shift from using the mano/metate to mortar/pestle. However, knowledge of this horizon suffers from lack of knowledge about what occurred during this time, not a lack of inhabitants along the southern California coast.
IV. Late Prehistoric (1500~200 B.P.) contains a more nuanced artifact assemblage indicative of a more complex lifestyle and an increase of population. This horizon is characterized by an increase in bow and arrow use, steatite containers, pottery, circular fishhooks, perforated stones, asphaltum, diversified bone tools, ample shell ornaments, and elaborate mortuary customs.



Map 4 - Project Geology

Leal Master Plan, Eastvale, C-0360

DUKE CRM

Project Area

Qyf: young alluvial-fan deposits, middle Holocene

Qye: young eolian deposits, Holocene and late Pleistocene

Qvoa: very old axial-channel deposits, middle to early Pleistocene

0 200 400 Feet

N

1 inch =400 feet

1:4,800

Warren and Crabtree (1986) employ a more ecological approach to the deserts of southern California, defining five traditions in prehistory:

I. Lake Mojave (12000–7000 B.P.)
II. Pinto (7000–4000 B.P.)
III. Gypsum (4000–1500 B.P.)
IV. Saratoga Springs (1500–800 B.P.)
V. Shoshonean (800~200 B.P.)

Warren and Crabtree (1986) viewed cultural continuity and change in terms of various significant environmental shifts, defining the cultural ecological approach for archaeological research of the California deserts. The authors viewed changes in settlement pattern and subsistence as cultural adaptations to a changing environment, beginning with the gradual environmental warming in the late Pleistocene, the desiccation of the desert lakes during the early Holocene, the short return to pluvial conditions during the middle Holocene, and the general warming and drying trend, with periodic reversals, that continues to this day. The work by Warren and Crabtree (1986) is built upon, in part, Warren (1980) in which he argued for a chronology based on projectile points as period markers backed by radiocarbon assays providing absolute dates.

The two-schema contrast in important ways. The units employed by Warren are "traditions," and in contrast to Wallace (1955), traditions may be spatially restricted but display temporal continuity. For Wallace, "horizons" or "periods," are extensive through space but restricted in time. More recent schema has been attempted to reconcile these differences. More recently, Koerper and Drover (1983) synthesized chronologies for coastal southern California and employed Wallace's (1955) horizon terminology but use radiometric data to sequence stylistic changes observed in the artifact assemblages, which they interpreted as material indication of cultural change through time. Regardless of the overall schema to best explain the prehistory of western Riverside County, the region can be understood within broad chronological frameworks and as the meeting ground of the coastal and desert subsistence patterns.

Early Holocene (11,600 – 7,600 BP)

Traditional models of the prehistory of California hypothesize that its first inhabitants were the big game hunting Paleoindians who lived at the close of the last ice-age (~11,000 years before present [BP]). As the environment warmed and dried, large Ice Age fauna died out, requiring adaption by groups to survive. The western Great Basin and deserts of southern California were characterized by large pluvial (rainfall-fed) lakes, streams, marshes, and grasslands. The human response to this environment is known as the Western Pluvial Lakes Tradition (WPLT) (Moratto 1984). The WPLT is generally identified by an advanced flaked-stone industry of foliate knives/points, Silver Lake and Lake Mojave points, lanceolate bifaces, and long-stemmed points (Warren & Crabtree 1986). Other flaked-stone tools include crescents, scrapers, choppers, scraper-planes, hammer stones, cores, drills, and gravers. People of this period hunted diverse populations of smaller animals and collected a wide number of plants from diverse eco-zones. Importantly, this period lacks widespread evidence of milling stones, and, therefore, hard seed processing was likely not widely practiced. Sites are generally found along the shores of former pluvial lakes, marshes, and streams (Moratto 1984). The desert manifestation of the WPLT is the Lake Mojave Complex, while along the coast the WPLT is seen in the San Dieguito Complex. Along the coast, rising sea levels created bays and estuaries. Following initial settlement along the coast, groups adopted marine subsistence including fish and shellfish. These shell middens contain flaked cobble tools, metates, manos, discoidals, and flexed burials and allowed for a semi sedentary lifestyle (Byrd and Raab 2007). Eventually, shellfish became the primary source of food, while plant gathering, hunting and fishing were less important.

Middle Holocene (7,600 – 3,650 BP)

The middle Holocene is a time of change and transition. As conditions continued to warm and dry, lakes and streams in the desert disappeared. This resulted in a shift in subsistence strategies, namely a shift to the gathering of plant seeds, grasses and shellfish along the coast as the primary dietary staple. Fishing and the

hunting of smaller animals played a less important role in day-to-day activity. This shift in subsistence is what Wallace named the Millingstone Horizon (Wallace 1955) and this name has continued among archaeologists working on the coastal province of southern California. Large habitations are seen in the inland areas and considerable variability is seen along coastal occupation of southern California. Occupation revolved around seasonal and semi-sedentary movements in coastal Orange and San Diego counties. Trade networks are postulated by researchers that have dated *Olivella* grooved rectangle shell beads as far north as central Oregon dating to 4900-3500 BP (Byrd and Raab 2007). Characteristics of the middle Holocene sites include ground stone artifacts (manos and metates) used for processing plant material and shellfish, flexed burial beneath rock or milling stone cairns, flaked core or cobble tools, dart points, cogstones, discoidals, and crescentics.

Late Holocene (3,650 – 233 BP)

During the late Holocene there was a migration of Takic speakers from the Great Basin into southern California. This intrusion is known as the "Takic Wedge." Characteristics of the late Holocene include the introduction of the bow and arrow, mortar and pestle, use of ceramics, and a change in mortuary behavior from inhumations to cremations in much of southern California. This was also a period of climatic fluctuation. Paleoenvironmental data show that periods of drought alternated with cooler and moister periods (Vellanoweth and Grenda 2002; Byrd and Raab 2007; Jones et al. 2004). This resulted in dynamic regional cultural patterns with considerable local variation. Byrd and Raab (2007) suggest that foragers in southern California over-exploited high-ranked food, such as shellfish, fish, marine and land mammals, and plant remains. This led to resource depression, causing people to forage more costly resources that were more abundant, such as acorns.

Ethnography

The Project is located along the periphery of the traditional territory of four Native American groups, the Gabrielino, the Luiseno, the Cahuilla, and the Serrano (Kroeber 1925). The Native American languages of these Tribes are part of the Takic subfamily of the larger Uto-Aztecan language family. Similarly, these groups were organized into independent but interconnected village communities. These groups were hunters and gatherers who exploited both large and small game, as well as numerous plant resources.

Gabrielino

The Gabrielino are one of the least ethnographically understood Native American groups in California. Generally, their territory included all of the Los Angeles Basin, parts of the Santa Ana and Santa Monica Mountains along the coast from Aliso Creek in the south to Topanga Canyon in the north, and San Clemente, San Nicolas, and Santa Catalina Islands. The environmental conditions within this territory are very diverse, including the following zones: interior mountains/foothills, Prairie, exposed coast, and sheltered coast (Bean and Smith 1978a, Shipley 1978).

The Gabrielino lived in villages year-round and utilized smaller camps from which they could hunt and gather, likely on a seasonal basis. Villages were almost always situated near water. Gabrielino families lived in domed, round structures with thatching made from local plants. Other structures included semi-circular, earth covered sweathouses, menstrual huts, and ceremonial structures. Villages were politically autonomous from other villages, while each village was led by a chief who would, at times, reign over several villages (Bean and Smith 1978a). Acorns were the most important food for the Gabrielino; although the types and quantity of different foods varied by season and locale, common and important sources of food were acorn, piñon nuts, yucca, cacti, many varieties of seeds and grasses, deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, quail, doves, ducks and other fowl, fish, shellfish, and marine mammals (Bean and Smith 1978a, Shipley 1978).

Luiseño

The Luiseño share many similar cultural traits to the Gabrielino. The Luiseño lived in sedentary and independent village groups, each with specific subsistence territories encompassing hunting, food gathering, and fishing areas. Villages were usually located in valley basins, along creeks and streams adjacent to mountain ranges where water was available and where the villages would be protected from environmental conditions

and potential enemies. Most inland populations had access to fishing and food gathering sites on the coast (Bean and Shipek 1978).

Luiseño economic and subsistence practices centered upon the seasonal gathering of acorns and seeds; the hunting of deer and small mammals such as rabbits, wood rats, ground squirrels, and birds. Coastal foods included sea mammals, fish and shellfish. Tool technologies were organized around food collection, storage, and preparation strategies, which was reflected in the type, size, and quantity of food items gathered. Stone (lithic) tools included two types: ground stone and flaked stone tools. Ground stone equipment included: mortars, pestles, manos and metate grinding slicks, made from granite, schist, and gneiss. Flaked tools included: bifaces, projectile points, scrapers, and gravers, fabricated from siliceous rock such as chert and jasper, microcrystalline chalcedony, obsidian, fine grain ingenious rocks such as basalt rhyolite, and andesite, and hard silica such as quarts and quartzite. Utilitarian tools were constructed from wood, animal bones, skins, and/or woven from flora materials depending on need (Lovin 1963). Hunting activities were conducted both on an individual basis and/or organized into group activities, depending on seasonal factors and the game hunted. Acorns encompassed as much 50 percent of the Luiseño diet (White 1963). Acorns provided a reliable and abundant food source that was high in calories and could be easily stored for future use. Acorn collection was a central tenant in the lives of the Luiseños and dominated their economic and social structure (Basgall 1987, Johnson and Earle 1987).

Villages were organized around an inherited chief who exerted sole control over the economy, religious rituals, and territorial matters within the village (Bean and Shipek 1978:555). The chief at times would consult with a council of elders and shamans on matters of religious practices and on environmental conditions effecting village life. Large villages may have had a complex behavioral and political structure due to their territorial size and economic control, while the smaller villages' political complexity was limited by their territorial size (Strong 1929; Bean and Shipek 1978:555).

Cahuilla

The Project is located near the western boundaries of Cahuilla Indians. The center of their territory included the Coachella Valley, the San Jacinto and Santa Rosa Mountain ranges. Ethnographers have divided this population by habitation locale (Mountain, Pass, and Desert) whereas the Cahuilla divided themselves by patrilineal descent clans and one of two moieties (Wildcat and Coyote). Further distinctions were made within clans of politically important and independent subsidiary lineages. These lineages occupied their own villages as documented by Cahuilla ethnographic consultants in the early 20th century and from Franciscan Mission records (Earle 2004).

The three ethnographically documented zones of Cahuilla habitation (Pass, Mountain, and Desert) serve as general guidelines for understanding their subsistence practices. In general, Mountain and Pass Cahuilla diet emphasized acorn, salvia islay, yucca, agave and pinyon gathering in the mountain and foothill regions. In contrast Desert Cahuilla focused on the gathering of mesquite, cactus, and hard seeds such as screwbean, juniper and mesquite (Bean and Saubel 1972). These generalizations can only be broadly applied as the Cahuilla inhabiting different zones however were not mutually exclusive to each other. Desert Cahuilla in the Coachella Valley retained gathering areas in the Santa Rosa Mountains or other upland regions. Desert Cahuilla also utilized the resources in the foothills. The eastern foothills of the Coachella Valley produced agave and hard seeds. Also, the foothills on the western side of the Coachella Valley produced cactus, agave and hard seeds and higher upslope, pinyon, for the Desert Cahuilla.

The Cahuilla were also observed to cultivate small quantities of corn, beans, squashes, pumpkins, melons and wheat as early as 1824 by the Romero expedition. These crops and the cultivation of them potentially made their way from the Colorado River area to the Coachella Valley. The inhabitants of the Coachella did not practice flood recessional agriculture of the Colorado River groups (Bean and Lawton 1973). Based upon ethnographic interviews, Strong (1929:38) noted that he had been told by *Francisco Nombre* that his grandfather told him that the cultivation of corn and other crops by the Cahuilla was a recent practice and that the Cahuilla used to obtain corn from the "Yumas". Corn would likely have been available to the Cahuilla via

exchange systems between foraging groups who have access to resources outside of the Colorado River and horticulturalists along the river. Regardless of the timing of cultivation of these crops, by the 1850s oasis gardens and to a lesser extent, canyon gardens were important sources of foodstuffs (Bean et al. 1995).

Serrano

The Project is located within the southwester area of the Serrano Indians, though Bean and Smith (1978b:570) note difficulty of determining traditional Serrano use-areas due to the lack of data and the nature of Serrano sociopolitical structure in that, as Strong (1929) organized themselves into autonomous localized lineages that favored a home base from which generalized land usage was practiced, no a pan-tribal land holding. Serrano territory extends across the San Bernardino Mountains east of the Cajon Pass south to and in the Yucaipa Valley and north to at least to the area of Victorville and as far east as Twentynine Palms.

Water availability was a large determining factor of Serrano habitation though they lived in diverse ecozones such as the high desert basins of the Lower Sonoran, the Upper Sonoran, and the Transition zone as well as a range of elevations from as low as 1,500 feet to over 11,000 feet in the mountains. Like their neighboring groups, the Serranos were hunter-gathers but with their diverse topographical access to different ecozones, food varied by elevation. They hunted mountain sheep, deer, rabbits, antelope, and small rodents; and gathered acorns, piñon nuts, berries, mesquite, yucca, and various bulbs, seed-grasses, tubers, roots and shoots. Also, like other Native groups in Southern California, the Serrano situated their most dense populations around water sources. Their houses were round, with a domed of willow frames and thule thatching protecting the inhabitants during sleep. Additional structures consisted of a ramada where most of the day's activities occurred, and each family had a central fire pit. Each village had a large ceremonial structure ore the leader of the lineage of the village lived. Other structures included sweat lodges, and granaries. Serrano material culture closely resembled the Cahuilla (Bean and Smith 1978b).

History

In California, the historic era is generally divided into three periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present). The first Europeans in the Jurupa Valley/Eastvale area came through the area in the 1770's. But no known settlements occurred in the area until in 1838 when *Rancho Jurupa* was granted to Juan Bandini. Within a few years Bandini divided *Rancho Jurupa* into two properties. He sold Able Stearns, his son-in-law, approximately 25,000 acres which continued to operate as *Rancho Jurupa*. About 1889 a six square mile portion of the Rancho was purchased by the Fuller family who established the Pioneer Ranch. The following history is largely adapted from Meissner's (2014) book, "Fuller Ranch at Eastvale" which is a comprehensive history of the area. The Fuller family owned the bulk of the ranch until 1954 and during the early 20th century the ranch had a reputation as one of the best cattle and racehorse ranches in California. Also, according to Meissner, the name of the ranch was changed to the Fuller Rancho and became a guest ranch in the 1930's, hosting some of the biggest names in entertainment at the time. The main Hacienda of the ranch was approximately a half mile northeast of the Project property. In 1954 the ranch was sold to dairyman Walter Koenig who, according to Meissner, almost immediately sold off parcels of the ranch to individual buyers. Historic aerial photographs show that the Project property was being used for agriculture in 1938 and that purpose continued until the first home appeared on the property sometime after 1994 (HistoricAerials.com 2021).

Research Objectives

The manner by which archaeological material is recovered and analyzed at each site is based on the formulation of research questions and associated research domains. The domains focus data recovery efforts on regionally important archaeological research issues and have been developed to identify basic knowledge common to archaeological research. These research objectives include:

1. Conduct a record search with the EIC and other archives.
2. Conduct an intensive pedestrian survey of the property.
3. Document and evaluate the three historic buildings on the property.
4. Summarize survey results in report.

METHODS

Research

On June 6, 2021, Morgan Bender, M.A., RPA, DUKE CRM conducted a records search at the EIC. The EIC is the Riverside County regional office of the California Historical Resources Information System (CHRIS) and is located at the University of California, Riverside. This research was undertaken to establish the status and extent of previous surveys in the Project and to note what types of cultural resources have been identified or might be expected to occur within or adjacent to the Project. In addition, the records search identified cultural resources listed on or determined eligible for listing on the NRHP and/or CRHR located within or near the Project area. In addition, Ms. Bender contacted the NAHC for a search of the Sacred Land Files on June 8, 2021. The internal archives at DUKE CRM along with a review of historic aerial photographs and historical USGS topographical maps were also inspected for relevant background information.

DUKE CRM requested a paleontological records search from the Western Science Center (WSC), and received the response on June 15, 2021. On June 16, 2021 (Appendix A), DUKE CRM Paleontologist Benjamin Scherzer conducted locality searches on the University of California Museum of Paleontology (UCMP) and San Diego Natural History Museum (online collections, the online Paleobiology Database and FAUNMAP, and other published resources.

Field Survey

On June 17 and 18, 2021, a pedestrian survey of the property was conducted by Morgan Bender, M.A., RPA, Benjamin Scherzer, M.S, Edgar Alverez, B.S., and Zachary Duke. The goal of the pedestrian survey was to identify all historic built environment resources, prehistoric/ historic period archaeological resources, and paleontological resources within the Project boundaries. Transects were spaced no greater than 15 meters apart. A Garmin Etrex GPS, an IPhone X with Google Earth, and field map was used to locate the Project boundary and to record the location of identified cultural resources. Built-environment resources were documented on State of California Department of Parks and Recreation (DPR) 523 series forms. Photographs were taken on a Fuji FinePix XP70 16.0 MP digital camera, an IPhone X camera.

CRHR Criteria

The regulatory framework for this historic resource study and the evaluation lies within the guidelines imposed for the CEQA and the CRHR under Public Relations Code section 5024.1. CEQA guidelines define a significant cultural resource as "a resource listed in or eligible for the listing on the CRHR". A historical resource may be eligible for inclusion in the CRHR if it:

1. Is associated with events that made a significant contribution to the broad patters of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possess high artistic values; or
4. Has yielded, or may likely to yield, information important to prehistory or history.

The CRHR also requires that a resource possess integrity, which is defined as the ability of a property to convey its significance. The aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. To determine which of these factors are most important will depend on the particular CRHR criterion under which the resource is considered eligible for listing.

Key Personnel

This report was prepared by Morgan Bender, M.A, RPA and Benjamin Scherzer, M.S., under the direct supervision of Curt Duke, MA, RPA. Ms. Bender holds a Bachelor of Arts degree in Anthropology/ Sociology and minored in Classical Studies from Agnes Scott College in Decatur, Georgia. She received her

MA in Anthropology California State University, Los Angeles. She meets the Secretary of Interior Standards for principal investigator, is RPA-certified and has over four years of experience in California archaeology. Ms. Bender acted as field technician and the laboratory director for the Project and assisted in artifact analysis.

Mr. Scherzer has worked in all phases of paleontology (archival research, field survey, excavation, laboratory analysis, construction monitoring) since 2006. Mr. Scherzer is a certified paleontologist for Riverside County. Mr. Scherzer holds a Master of Science degree in Earth Sciences with an emphasis in vertebrate paleontology from Montana State University, Bozeman, and a Bachelor of Arts degree in Geosciences and Math from Earlham College, Indiana. Mr. Scherzer has worked throughout southern California, Nevada, South Dakota, Utah, and Wyoming.

Edgar Alvarez (DUKE CRM) holds a Bachelor of Arts degree in Anthropology from California State University, Northridge and has five years of experience in California archaeology. Mr. Alvarez served as field technician and GPS/GIS specialist.

Mr. Duke is the Principal Archaeologist of DUKE CRM. Mr. Duke meets the professional qualifications of the Secretary of the Interior for prehistoric and historical archaeology; he is also a Registered Professional Archaeologist (RPA) who has worked in all phases of archaeology (archival research, field survey, testing and data recovery excavation, laboratory analysis, construction monitoring) since 1994. He is also listed on the County of Riverside's list of qualified archaeologists. Mr. Duke holds a Master of Arts degree in Anthropology with an emphasis in archaeology from California State University, Fullerton and a Bachelor of Arts degree in Anthropology from the University of California, Santa Cruz. Mr. Duke has worked throughout southern and Northern California and parts of Arizona and Nevada. Please see Appendix B for Mr. Duke's resume.

RESULTS

Records Search

Cultural Resources

The map data from the EIC records search indicates that there are two previously recorded cultural resources within ½ mile of the Project area. These resources are summarized below in Table 1. Additionally, On June 29, 2021, the NAHC responded with a negative result for tribal resources within the Project (See Appendix C). DUKE CRM did not conduct any tribal outreach.

Table 1. Previously Recorded Cultural Resources Within ½ Mile of the Project

Site No.	Age	Description	Distance
P-33-001848	Historic	Historic Debris	2,500 ft. east
P-33-015333	Historic	Leal Property	Project

Site P-33-015333 was recorded by Bai "Tom" Tang and Kelli Olgren-Leblond from December 2005 – August 2006 during an intensive survey. In addition to the pedestrian survey, the westernmost house was also evaluated. The survey found the westernmost building to be ineligible for NRHP, CRHR, or local designation (6Z).

Reports

Twenty-one (21) reports within ½ mile of the Project area are on file at the EIC. Of these, one is the Project area property. *Historical/Archaeological Resources Survey Report: The Leal Property Near the City of Norco, Riverside County, California* as a result of the intensive survey done by Tang et al. (2005). One of the historical buildings on the property was recorded, however no other cultural or historical resources were recorded within the Project.

Paleontological Resources

The paleontological records search by the WSC did not produce any documented fossil localities in the Project but did produce one fossil locality 2 miles north of the Project. In addition, the review of other online and published databases produced two additional fossil localities within 3 miles of the Project:

- Vanderham produced limb remains from *Camelops* (Western camel) at a depth of 11 ft approximately 2 miles north of the Project in young eolian deposits (*Qye*) (Appendix A);
- Corona East (UCRV 8601) produced remains of *Mammut* (mastodon), horse (*Equus*), western camel (*Camelops*), bison (*Bison*), rabbit/hare (lagomorphs), rodent (rodentia), lizard (sauria), and bony fish (Osteichthyes) approximately 3 miles southeast of the Project in deposits from the Pleistocene Epoch (UCMP, Jefferson 1991a, b);
- Corona (LACM 1207) produced remains of deer (*Odocoileus*) approximately 3 miles south of the Project in deposits from the Pleistocene Epoch (Jefferson 1991b)

The young alluvial-fan deposits (*Qyf*) underlying the western half of the Project are too young to have accumulated or preserved significant biological material and have a low potential for containing paleontological resources. The young eolian deposits (*Qye*) and very old axial channel deposits (*Qvoa*) in the eastern half of the Project have a high potential to contain paleontological resources, and ground disturbing activities in this area has the potential to impact these resources.

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Field Survey

An intensive pedestrian survey was conducted on June 17 and 18, 2021. Ground visibility varied, with 0-15 percent visibility in the south half and 100% visibility in the north half where the soil has been turned (Figures 6 and 7). Visible sediment is 10YR 4/2 dark gray silt. Gravel density varied throughout site but on average was low. The land within the Project has been disturbed by activities such as cattle and farming (Figures 8 through 13). The three historic homes were photographed and documented as well as the non-historic buildings on the property. Other than the homes, no additional cultural resources were observed.



Figure 5: Zero percent visibility. View to west.



Figure 6: Freshly turned soil, 100% visibility. View to north.



Figure 7: Site overview. View to east.



Figure 8: Site overview. View to east.



Figure 9: Site overview. View to north.



Figure 10: Site overview. View to southeast.



Figure 11: Site overview. View to southwest.



Figure 12: Site overview. View to south.

CRHR Evaluation

The subject property, which encompasses 160-acres, is today one of the last remaining dairy farms left in present-day Eastvale. The dairy, however, was established in the mid to late-1950s by John C. and Elizabeth Leal, who later passed the ranch onto their son Bradley Leal, who owned and operated it until his death in 2016. The Leal Ranch and Dairy was not one of the first or pioneer dairy operations in Corona in what later became Eastvale. Historic photographs and maps indicate that the subject property was cultivated with a walnut orchard in the late-1920s, which included a small residence, barn, and outbuildings. Between 1954-1967, the westernmost residence, dating to the late-1920s, was likely demolished and replaced with the current Spanish Revival style residence, which was the former home of John C. and Elizabeth Leal. On the far east of the main core buildings and structures within the ranch was a bunkhouse, which dates before 1954. Between 1967 and 1980, as well as other improvements.

In order for a property to be significant under any criteria, it must retain integrity. The National Park Service, along with state and local agencies, define integrity as retaining location, design, setting, materials, workmanship, feeling, and association. In applying the definition of integrity to the subject property, the following findings are made below:

Location – The subject property retains its original location, although the original function of the property has changed since it was settled in the 1920s from a cultivated orchard to a ranch and dairy.

Design – The original farmhouse was either demolished or rebuilt in its current configuration. Two other residences were built in subsequent years, both of which appear to retain their original architectural design, but the easternmost house is in very poor condition with structural deterioration, and it partially collapsed.

Setting – The setting of the property has changed since its initial development. Today, the property is surrounded by contemporary residential housing tracts and commercial shopping centers.

Materials- All three residences retain most of their original materials, although the westernmost residence may have been rebuilt with more contemporary materials, such as windows and doors.

Workmanship – The workmanship of the three residences is consistent with the post-World War popularity of California Ranch architecture in the "Spanish" or "Mediterranean" style. None of the residences display a high-level or workmanship or craftsmanship.

Feeling – The feeling of the original pre-1950s orchard and farm no longer exists, however, the property as a whole still looks and feels like a dairy and cattle ranch.

Association – The property's association with its original owner and occupant no longer exists. The property bears a strong association with post-1950s dairy operations in Eastvale.

In summary, the subject property does not appear to be eligible for the CRHR under Criterion 1 since it is not associated with a significant event or events in the History of Corona or Eastvale. Under CRHR Criterion 2, the subject property does not appear to be associated with a person or persons of significance in the history of Corona or Eastvale, however, Brad Leal, the former owner of the Leal Ranch, was a respected rancher, who served on numerous agricultural related committees and commissions locally, regionally, and statewide, and was a person of importance in Eastvale before and after its incorporation as a city. Under CRHR Criterion 3, as a whole, the extant residences and outbuildings remaining within the ranch do not appear to be significant examples of Spanish Revival or California Ranch style architecture. Finally, under Criterion 4, there is no evidence that the various properties within the ranch have the potential to provide "significant" archaeological data associated with early-day ranching, farming, dairying, given that most of the development on the property occurred in the late 1950s-1980s with early-day ranching, farming, dairying, given that most of the development on the property occurred between the 1950s-1980s. See Appendix C for the DPR 523 site record.

IMPACTS ANALYSIS AND RECOMMENDATIONS

DUKE CRM evaluated the proposed Project for impacts to cultural and paleontological resources according to CEQA. The records search and field survey identified one previously recorded cultural resource within the Leal Project area. The pedestrian survey did not yield significant cultural resources, this indicates a low sensitivity for prehistoric cultural resources and a low sensitivity for historic cultural resources. None of the three extant buildings are recommended CRHR-eligible or important cultural resources under CEQA. Based on the low sensitivity for cultural resources DUKE CRM recommends an archaeologist does not need to be present during ground disturbing activity. Therefore, any disturbance of native soils has a low potential to directly impact unique cultural resources according to CEQA. DUKE CRM does not recommend any further cultural resources efforts. However, if any cultural resources are discovered during grading and/or ground disturbance during construction an archaeologist shall be retained to assess the nature and significance of the discovery and make recommendations.

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

No paleontological resources were identified within the Project boundaries, but multiple fossil localities in similar deposits are documented nearby (within 3 miles). Ground disturbance in the eastern half of the Project area will impact high-sensitivity deposits (*Qye* and *Qvoa*) and has the potential to directly impact unique paleontological resources. This would result in a potentially significant impact to paleontological resources according to CEQA. Therefore, paleontological construction monitoring is recommended during ground disturbance in this area. This will mitigate the potential impact to a level that is less than significant for the purposes of CEQA.

Paleontological Monitoring- A paleontological monitor shall be present during ground disturbing activities in the eastern half of the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation).

1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols.
2. The paleontological monitor shall be present full-time during ground disturbance in the eastern half of the Project, including but not limited to grading, trenching, utilities, and off-site easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced.
3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered.
4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area.
5. In consultation with the qualified paleontologist the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared.
6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately.
7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, and removal of the find, removal of sediment from around the specimen (in the laboratory), research to

identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.

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APPENDIX A (CONFIDENTIAL)
Paleontological Record Searches

WESTERN SCIENCE CENTER

Duke CRM
Benjamin Scherzer
18 Technology Drive, Suite 103
Irvine, CA 92618

June 15, 2021

Dear Mr. Scherzer,

This letter presents the results of a record search conducted for the Leal MP Eastvale Project in Riverside County, California. The project site is located north of Limonite Avenue, south of 58th Street, west of Hamner Avenue, and east of Scholar Way in Section 24 of Township 2 South and Range 7 West on the *Corona North, CA* USGS 7.5 minute topographic quadrangles.

The geologic units underlying the project area are mapped entirely as Quaternary alluvial fan and channel deposits dating from the early Pleistocene to Holocene epochs (Morton, Gray, Bovard & Dawson, 2002). Pleistocene sedimentary units are considered to be of high paleontological sensitivity. The Western Science Center does not have localities within the project area or a one mile radius, but does have numerous localities throughout the region in similarly mapped sediments including one locality associated with the Vanderham Project that is less than two miles northeast of the Leal MP Eastvale Project area. The Vanderham Project locality produced a camleops specimen that indicates the alluvial units in the area are indeed Pleistocene in age.

Any fossils recovered from the Leal MP Eastvale Project area would be scientifically significant. Excavation activity associated with development of the area has the potential to impact the paleontologically sensitive Pleistocene units and it is the recommendation of the Western Science Center that a paleontological resource mitigation plan be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If you have any questions, or would like further information about the Vanderham Project, please feel free to contact me at dradford@westerncentermuseum.org

Sincerely,

Darla Radford
Collections Manager

APPENDIX B (CONFIDENTIAL)
Resumes

DUKE CRM

18 Technology Drive, #103
Irvine, CA 92618
949-356-6660
www.dukecrm.com

Morgan Bender

Archaeologist

Professional Experience: 4 Years

Expertise

Cultural Resources Management
California Prehistory
Historical Archaeology
Prehistoric Archaeology

Education

California State University, Los Angeles, M.A. Anthropology, 2019
Agnes Scott College, B.A., Anthropology/ Sociology, 2014

Professional Registrations

RPA, No. 18011

Professional Memberships

Society for California Archaeology
Society for American Archaeology

Professional Experience

Ms. Bender attended Agnes Scott College in Decatur, Georgia where she obtained her BA in 2014 in Anthropology/ Sociology and minored in Classical Studies. During her time there, she studied abroad and traveled throughout Turkey where she visited many archaeological sites. Ms. Bender attended California State University, Los Angeles where she received her MA in Anthropology, emphasis in California Archaeology in 2019. Her thesis focused on tracking climatic shifts using crab and sea urchin remains from a Middle Holocene site on San Nicolas Island, California (CA-SNI-40). She has four years of professional experience as a staff archaeologist where she became a Registered Professional Archaeologist. During this time, she has monitored major infrastructure sites such as Metro and utility projects as well as private commercial and residential developments projects. While monitoring, she identifies historic and prehistoric resources and is cross trained in paleontology. Additionally, she prepares the necessary DPR and archaeological reports for these finds. She has also surveyed sites in Arizona and California. Ms. Bender partook in the Woolsey Fire reconnaissance work with Cardno and Southern California Edison. She has training and significant experience in faunal and shellfish analysis, and lithic identification.

Selected Project Experience

San Marcos Creek Project, San Marcos 2021.
Metro Purple Line Section 3, West Los Angeles 2019-2021.
I-405 Project, Orange County 2020-2021.
ICF Metro Division 20, Los Angeles 2019-2021.
ICF Metro Regional Connector, Los Angeles 2017-2021.
Southern California Edison, Los Angeles and Ventura Counties, 2019-2021.
Moorefield French Valley, Murrieta 2020.
Caltrans Collection, Redlands 2019.
Stanton Energy Reliability Center, Stanton 2019.
Southern California Edison Pole Survey, Lake Isabella 2019.
10 West Walnut Morley Construction, Pasadena June 2019.
Survey, Redlands November 2018.
Woolsey Fire, Los Angeles December 2018.
Survey, Nothing July 2018.
Brookfield Residential Nelles Project, Whittier 2018-2020.
Brookfield Kaplan Project North, Ontario 2017-2018.
Brookfield Kaplan Project, Eastvale 2017.

DUKE CRM

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Irvine, CA 92618
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Curt Duke

President/Principal Archaeologist



Expertise

Cultural Resources Management
California Prehistory
Section 106 Compliance
CEQA Compliance
Native American Consultation

Education

CSU, Fullerton, M.A., Anth, 2006
SDSU, Grad Studies, Anth, 1996-97
UC Santa Cruz, B.A., Anth, 1994

Professional Registrations

RPA, No. 15969
County of Riverside (No. 151)
County of Orange

Professional Memberships

Society for California Archaeology
Society for American Archaeology
Pacific Coast Archaeological Society
Assoc. of Environmental Professionals
Building Industry Association

Professional Experience

President/Principal Archaeologist, DUKE CRM, March 2011 to present
Archaeologist/Principal, LSA Associates, 1997-2011
Archaeological/Paleontological Technician, Various Companies, 1995-97
Archaeological Technician/Teachers Assistant, Cabrillo College, 1994
Anthropological Laboratory Technician, UC Santa Cruz, 1994

Selected Project Experience

Reid/Baldwin Adobe, LA Arboretum, Arcadia, 2019-Present
Veteran Affairs Medical Clinic, Santa Rosa, 2019
Deane Dana Friendship Park, Rancho Palos Verdes, 2019
Makayla Mine Expansion Project, Olancha, 2019
Sweeny Road, Lompoc, 2018
Vantage Point Church, Eastvale, 2016 and 2018
VA West Los Angeles Campus Master Plan, 2017-Present
Avenue S-8 and 40th St. E. Roundabout, Palmdale, 2017-18
SR-110 Improvements, Los Angeles, 2017
Diamond Valley Estates Specific Plan, Hemet, 2017
VA West Los Angeles Campus Hospital Replacement, 2016-Present
Shoemaker Bridge Replacement, Long Beach, 2016-Present
Spruce Goose Hangar, Playa Vista, 2016
Rice Avenue at 5th Street Grade Separation, Oxnard, 2015-Present
Vila Borba, Chino Hills, 2013-Present
Skyridge Residential, Mission Viejo, 2011-Present
Baker Water Treatment Plant, Lake Forest, 2014-2015
VA Clinic, Loma Linda, 2014-Present
Evanston Inn, Pasadena, 2014-2016
Petersen Ranch, Leona Valley, 2013-2014
California Street/Highway 101, Ventura, 2014-Present
6th Street Bridge Replacement, Los Angeles, 2013-Present
I-15/I-215 IC Project, Devore, 2008-10
Colton Crossing Rail-to-Rail Grade Separation, 2008-11
City of LA DPW BOE, On-Call, Cultural/Paleo Services, 2008-11
Mid County Parkway, Riverside County, 2014-10
McSweeny Farms Specific Plan, Hemet, 2004-08
Mesquite Regional Landfill, Coachella Valley, 2006-08
Hacienda at Fairview Valley Specific Plan, Apple Valley2007-08
Majestic Hills Specific Plan, Hesperia, 2006-07
Chuckwalla Solar I Project, Desert Center, 2007-08
Needles Highway Improvement Project, 2004-06
Superstition Solar I Project, Salton Sea, Imperial County, 2008
Muddy Canyon Archaeological Project, Newport Beach, 1997-2001
Temecula 32, Archaeological Phase II Testing, 2007
Mammoth Lakes Parks/Rec and Trail System Master Plan, 2010
24th Street Improvements, City of Bakersfield, 2008-11
California Valley Solar Ranch, San Luis Obispo County, 2009-10
Delano-Alpaugh Water Pipeline, Kern/Tulare Counties, 2006-09
I-15/SR-79 IC Project, Temecula, 2006-10
Westlake Historic Resources Survey, Los Angeles, 2008-09
CETAP, western Riverside County, 1999-2001
Los Coches Creek Elementary School, near Alpine, 2003-06
Oak Valley Specific Plan 1 Amendment, Beaumont, 2004
San Nicolas Island, Naval Base Ventura County, CA, 1997

APPENDIX C (CONFIDENTIAL)
Native American Heritage Commission for Sacred Land Files

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
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Paiute/White Mountain Apache

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Chumash

COMMISSIONER
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EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

June 29, 2021

Morgan Bender
Duke CRM

Via Email to: morganbender@dukecrm.com

Re: Leal MP (C-0362) Project, Riverside County

Dear Ms. Bender:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

APPENDIX D (CONFIDENTIAL)
Department of Parks and Recreation (DPR) 523 Record

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code: _____
Other Listings _____
Review Code ____ Reviewer _____ Date _____

 ***Resource Name or #:** Leal Ranch and Dairy

P1. Other Identifier: Leal Ranch and Dairy
***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Riverside
***b. USGS 7.5' Quadrangle**: Corona North, California 1967 and 2012 Portion of SE 1/4 of Section 24 Township 2 South Range 7 West
c. Address: 12740 58th Street **City:** Eastvale **Zip**: 92880
d. UTM:
e. Other Locational Data (APN #164030025**):** The ranch is bordered on the north by 58th Street, on the west by Scholar Way, on the east by Hammer Avenue, and on the south by Limonite Avenue.

***P3a. Description:** The property consists of a part of a former 160-acre ranch and dairy located in Eastvale, Riverside County, California. The ranch was acquired by John and Elizabeth Leal and later owned and managed by their son Brad Leal until his death in 2016. Besides a cow barn, Quonset hut, sheds, calving barns, pastures, cross-fencing, corrals, and other ranch related infrastructure, there are four single-family residences built from the 1950s through the 1980s. Three of the oldest residences are described in this record. The first house is the westernmost residence, which appears to have either replaced an older residence built in the late-1920s or the older residence was extensively remodeled when the Leal family acquired the ranch in the 1950s. The residence is characterized by a red clay barrel tile cross-gable roof, stucco exterior wall cladding, wood-sash and metal windows, French doors, an arcaded veranda along the building's south elevation, and shed roof verandas along the building's south elevation. The second residence lies to the east and is characterized by its irregular-shape created through numerous additions to the original residence. Like the westernmost house, the second residence features an intersecting gable roof, asphalt shingles atop the roof, brick walls covered with stucco and painted white, along with wood shingle sided exterior walls. The residence also features an arched brick entryway facing north, vertical board cladding above some of the gable ends, metal and aluminum casement and slider windows, replacement doors with security metal screens, shed-roof porches supported by 4" x 4" wood columns, a brick exterior chimney on the gable end, a leaded and stained-glass window to the left of the chimney, and a shed-roof veranda facing south towards the pastures (refer to Primary Record, Page 2 of 2).

***P3b. Resource Attributes:** HP33 – Ranch/Dairy
***P4. Resources Present:** ■ Building ■ Structure ☐ Object ☐ Site ☐ District ☐ Element of District

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects).



P5b. Description of Photo: View looking northeast at the westernmost residence.

***P6. Date Constructed/Age and Sources:** ■ Historic Circa 1950-1980.

***P7. Owner and Address:**

***P8. Recorded by:** Dana E. Supernowicz, Historic Resource Associates, 3142 Bird Rock Road, Pebble Beach, CA 93953.

***P9. Date Recorded:** July 2021

***P10. Type of Survey:** ■ Architectural
Describe: CEQA Evaluation

***P11. Report Citation:** Architectural Assessment Study of 12740 58th Street, Eastvale, Riverside County, California 92880. Prepared for Duke Cultural Resources Management, LLC, 18 Technology Drive, Suite 103, Irvine, CA 92618. Prepared by Historic Resource Associates, 3142 Bird Rock Road, Pebble Beach, CA 93953. July 2020.

***Attachments:** Building, Structure, and Object Record; Photograph Record

***P3a. Description: (Continued):**

Immediately to the east of the irregular-shaped residence is a third residence, a contemporary Spanish style residence reportedly built in the 1980s. Further to the east is what is referred to as the "bunkhouse." The bunkhouse is a simple rectangular-shaped, gabled-roof painted brick building with a detached chimney that appears to have once been part of the house. The grouting technique used on the brick masonry walls of the residence was designed to give it the appearance of adobe bricks. The gabled roof of the building is in very poor condition and is clad with wood shingles, with stucco used beneath the gable ends. The south elevation of the residence features a large, rectangular picture style window with a large wooden header. The west elevation of the residence once included a shed-roof porch supported by simple wood columns, but is now largely collapsed. The most unusual feature of the residence is a wrap-around metal-sash corner Modernist style window.

B1. Historic Name: Leal Ranch
B2. Common Name: Same as above
B3. Original Use: Walnut Orchard and Farm/Cattle Ranch/Dairy **B4. Present Use:** Ranch
***B5. Architectural Style:** California Ranch/Mediterranean/Vernacular
***B6. Construction History:** Based upon oral history and historic aerial photographs, the Leal Ranch began as a cultivated walnut orchard during the 1920s through the late-1940s. By the late-1950s, the farm transitioned to a dairy and cattle ranch after it was acquired by the Leal family. The westernmost house appears to have been the first residence constructed within the 160-acre farm, although it may have been added on to and remodeled when the Leals purchased the property since historic topographic maps suggest it started as a simple rectangle. Besides one primary residence, there was once a small shed to its east and another barn or shed further east. Later, a cow barn was built near 58th Street at the entrance to the ranch. By 1959, a second residence had been constructed to the east of the original farm residence, and during the 1970s, yet another house was built further to the east. By the 1980s, a more contemporary or modern residence was built, that in later years had multiple additions. Besides the residences, development on the property included a Quonset hut, cross-fencing, corrals, wells, pastures, cultivated fields, and sheds where feed was stored and dairy cows were raised.
***B7. Moved?** ■ No ☐ Yes ☐ Unknown **Date:** **Original Location:**
***B8. Related Features:** Outbuildings, a Quonset hut, barn, sheds, corrals, wells, pastures, and cross-fencing.
B9a. Architect: Undetermined **B9b. Builder:** Undetermined
***B10. Significance: Theme:** Agriculture/Ranching/Dairies **Area:** Eastvale **Period of Significance:** 1950s-1974
Property Type: Farm/Ranch/Dairy **Applicable Criteria:** CRHR 1, 2, 3, and 4

The historic context of the subject parcel is largely tied to the development of Corona and the area that later became part of Eastvale during the 1950s. Eastvale's history is associated with its neighbors - Corona, Norco, Chino, and Ontario. For at least the last 176 years, the land now part of Eastvale was used for ranching and farming, particularly dairies. It wasn't until 1893, that Riverside County was created. In the minutes of one of the first meetings of the Riverside County Board of Commissioners, "East Vale" is listed as one of 53 school districts. During the late-1920s much of Eastvale, like other parts of Riverside County, featured walnut orchards and citrus groves intermixed with farms and ranches (Netronline Website 2021). By the 1950s, Los Angeles' population had expanded into outlying farm lands and dairymen began moving their operations into the valley. Dairies in Eastvale, the Chino Valley, and Ontario were owned and primarily operated by Dutch and Portuguese (Azorean) families. In the spring of 2007, five individuals were tasked by residents to explore cityhood for Eastvale. These five residents formed the Eastvale Incorporation Committee. Today, Eastvale is still tied to Corona and Norco as a member of the Corona-Norco Unified School District and shares a zip code with the City of Corona (92880) and the City of Jurupa Valley (91752). Until incorporation, Eastvale was a community residing in an unincorporated area of Western Riverside County (City of Eastvale Website. "History." 2021). Refer to BSO, Page 2 of 18.

B11. Additional Resource Attributes: N/A
B12. References: Ancestry.com Website. https://www.ancestry.com/search, accessed July 2021; City of Eastvale Website. "History." https://www.eastvaleca.gov/our-city/about-eastvale/history. Accessed July 6, 2021; City of Eastvale Website. "Leal Master Plan." https://www.eastvaleca.gov/home/showpublisheddocument/9676/636675443383230000. Accessed July 6, 2021); Halsted, Byron D., ed. *Barns, Sheds and Outbuildings*. New York: O. Judd Co., 1881. Reprinted Brattleboro, VT: Stephen Greene Press. 1977; Legacy Website. "Obituary: Brad William Leal." https://www.legacy.com/us/obituaries/pe/name/brad-leal-obituary. November 2016 (refer to BSO, Page 7 of 18).
B13. Remarks:
B14. Evaluator: Dana E. Supernowicz, Architectural Historian, 3142 Bird Rock Road, Pebble Beach, CA 93953
Date of Evaluation: July 2020

Aerial Photograph (Google Earth 2021)



(This space reserved for official comments.)

***B10. Significance (Continued):**



Figure 1: 3D Aerial view of the former Leal Ranch (Google Earth 2021).



Figure 2: 3D Aerial view looking north at the main buildings, structures, and objects within the former Leal Ranch and Dairy. The three black boxes represent the evaluated residences in the ranch built from the 1950s-1970s.

***B10. Significance (Continued):**



Figure 3: Street view of the entrance to the Leal Ranch from 58th Streeet.

The Leal family are of Portuguese descent, and Portuguese immigrants began settling in California in the mid-1800s with a dream to build a new life for their families and to escape the restrictions of the old world that limited their opportunities. With varied skills and little education, they were determined to improve their quality of life. A number of Portuguese Americans have been prominent in contributing to the development of American culture and society. Benjamin Cardoza, the Supreme Court Justice (1932-1938), John Dos Passos (1896-1970), the author of the famous USA trilogy and other works on American society, and John Phillip Sousa (1854-1932), the composer of many of America's best-loved marching songs, were men of Portuguese heritage who played important roles in the history of the United States. Just as important, but rarely told, is the story of the everyday immigrant, such as those who established farms and dairies throughout parts of Riverside County during the first few decades the twentieth century (Portuguese Historical Museum 2016).

The area that was once part of Corona and later became Eastvale attracted a wide range of immigrants, many of whom came from the Azores, Portugal, as well as the Netherlands. Most came for economic reasons and particularly the lands surrounding Eastvale that were conducive to dairy operations. Portuguese immigrant dairy owners and workers had a large presence in Eastvale and many reportedly settled in and around Chandler Street, between Archibald and Hellman Avenues, an area that had been subdivided before 1915 as part of the Persimmon Acres Tract. Over time, people constructed houses afterwhich the area was common referred to as "Portugee Village" (Meissner and Johnson 2013: 119-120). Around 1900, there were an estimated 80 dairies in what is now Eastvale with about 90,000 cows. Beginning in the late-twentieth century and early twenty-first century, Eastvale dairy farmers began a mass migration to other parts of California and other states to escape urban sprawl, stricter regulations, and aging dairy machinery (Stockley 2013; City of Eastvale Website. "Leal Master Plan." 2021). By the time the city was incorporated in 2010, nine dairies remained. By 2020, there was reportedly only one dairy still operating in Eastvale owned by the David Downey (Press-Enterprise Website 2020).

***B10. Significance (Continued):**

In 1881, the lands that were later acquired by the Leal family and other Portuguese ranchers had not as yet been subdivided into smaller parcels (Figure 4). The Leal Ranch was located just south of the border of San Bernardino County in Section 24.

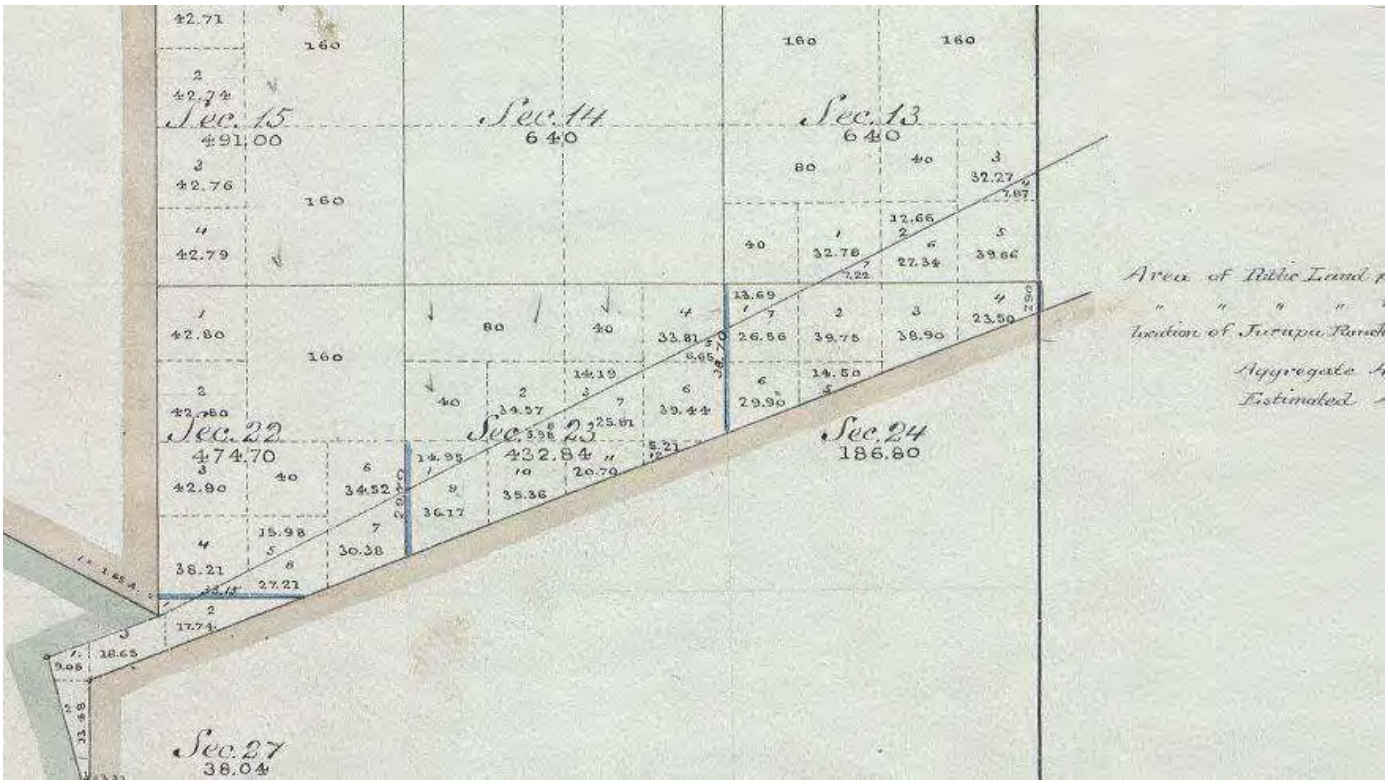


Figure 4: General Land Office Survey Plat Map 1881 (T2S, R7E).

While the Leal Ranch appears to have been established in the mid to late-1950s by John and Elizabeth (nee Kruidhof) Leal, and later owned and operated by their son Bradley Leal, the 160-acre parcel appears to have been previously cultivated as a walnut orchard with a single residence and a small barn or shed (Ancestry.com Website 2021; Netronline Website 2021). Elizabeth Leal, whose parent were from the Netherlands, was born on March 10, 1932 and died on July 22, 2009, while her husband, John C. Leal was born in 1923 and died in 1978. John and Elizabeth were married in Los Angeles in 1949, and had four children: Sonia, Bradley, Brenda, and Craig. The various residences within the ranch were built by the Leal family and occupied by different family member from the 1950s through the 2010s. Bradley was apparently the primary heir to the ranch.

On November 11, 2016, Bradley William Leal passed away. According to his obituary in 2016, Brad was survived by his brother, Craig Leal of Corona; sister, Brenda Martin of Porterville; and sister, Sonia Leal of Chino. Besides his dairy business for over 40 years, Bradley was chairman on multiple boards in the dairy industry, including the Southern Dairyman's Association, Southern California Producers Council, and "Land O Lakes." He was on the Board of Directors for the Southern California Environmental Foundation, Chairman for the Leadership Council, Nominating Committee, Leader Development Committee, Credentials Committee, and the "Policy and Resolutions" Committee. On a state level, Brad was appointed to the State of California Department of Food and Agriculture Producers Review Board. He also acted as a lobbyist in the House of Congress on Capitol Hill, Washington DC. advocating special interests for the Agricultural Industry (Legacy Website 2016).

***B10. Significance (Continued):**

A review of historic topographic maps and aerial photographs helped illustrate the evolution of the Leal Ranch. As previously described the ranch evolved in the second decade of the twentieth century as a small farm producing walnuts. The farm remained largely intact through the early 1950s, with the main residence on the left adjacent to an outbuilding on the right, perhaps a detached garage, a barn to the north still intact, and to the right of another residence referred to as the "bunkhouse" (Figure 5). By 1967, the westernmost residence (Figure 6) was enlarged or entirely rebuilt, creating an "L" shaped residence, the bunkhouse to the east remained intact, and other outbuildings had been constructed.

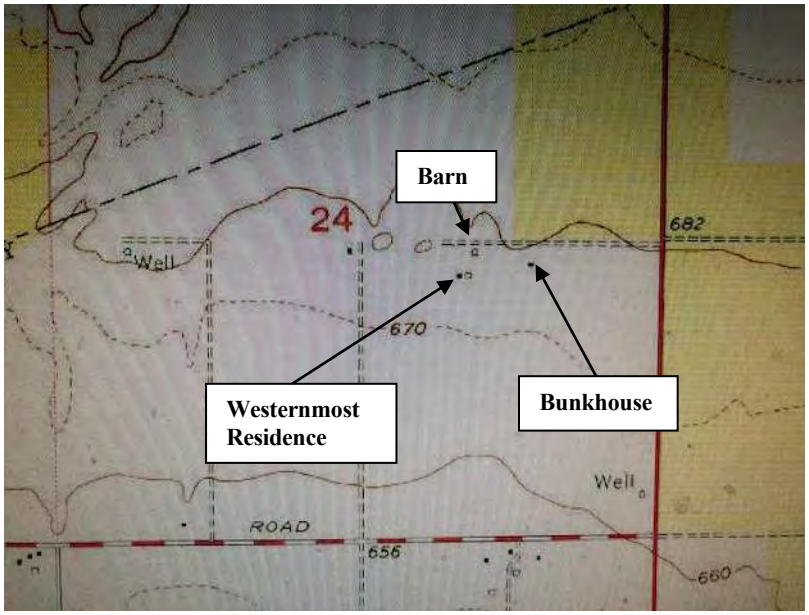


Figure 5: USGS 7.5' Corona North, CA Topographic Map, 1954.

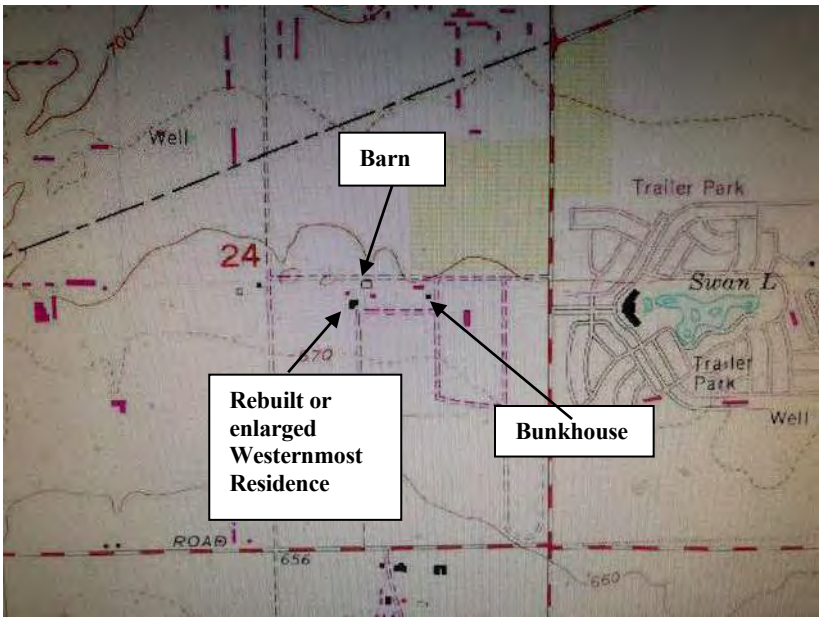


Figure 6: USGS 7.5' Corona North, CA Topographic Map, 1967.

***B10. Significance (Continued):**

REGULATORY AND EVALUATION FRAMEWORK

The regulatory framework for this historic resource study and the evaluation lies within the guidelines imposed for the California Environmental Quality Act (CEQA) and the California Register of Historic Resources (CRHR) under Public Resources Code section 5024.1. CEQA guidelines define a significant cultural resource as "a resource listed in or eligible for listing on the CRHR. A historical resource may be eligible for inclusion in the CRHR if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important to prehistory or history.

Even if a resource is not listed in, or determined eligible for listing in the CRHR, the lead agency may consider the resource to be an "historical resource" for the purposes of CEQA provided that the lead agency determination is supported by substantial evidence (CEQA Guidelines 14 CCR 15064.5). According to the state guidelines, a project with an effect that may cause a substantial adverse change in the significance of a historical resource or a unique archaeological resource is a project that may have a significant effect on the environment (14 CCR 15064.5[b]). CEQA further states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter those physical characteristics of a historical resource that convey its significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC 5020.1(k) and 5024.1(g).

STATEMENT OF SIGNIFICANCE

The subject property, which encompasses 160 acres, is today one of the last remaining dairy farms left in present-day Eastvale. The dairy, however, was established in the mid to late-1950s by John C. and Elizabeth Leal, who later passed the ranch onto their son Bradley Leal, who owned and operated it until his death in 2016. The Leal Ranch and Dairy was not one of the first or pioneer dairy operations in Corona in what later became Eastvale. Historic photographs and maps indicate that the subject property was cultivated with a walnut orchard in the late-1920s, which included a small residence, barn, and outbuildings. Between 1954 and 1967, the westernmost residence, dating to the late-1920s, was likely demolished and replaced with the current Spanish Revival style residence, which was the former home of John C. and Elizabeth Leal. On the far east of the main core of buildings and structures within the ranch was a bunkhouse, which dates before 1954. Between 1967 and 1980, two other residential California Ranch style houses were built between the 1950s residence and the bunkhouse, as well as other improvements.

In order for a property to be significant under any criteria, it must retain integrity. The National Park Service, along with state and local agencies, define integrity. Integrity is defined as retaining location, design, setting, materials, workmanship, feeling, and association. In applying the definition of integrity to the subject property, the following findings are made below:

Location - The subject property retains its original location, although the original function of the property has changed since it was settled in the 1920s from a cultivated orchard to a ranch and dairy.

Design - The original farm house was either demolished or rebuilt in its current configuration. Two other residences were built in subsequent years, both of which appear to retain their original architectural design, but the easternmost house is in very poor condition with structural deterioration and is partially collapsed.

***B10. Significance (Continued):**

Setting - The setting of the property has changed since its initial development. Today, the property is surrounded by contemporary residential housing tracts and commercial shopping centers.

Materials - All three residences retain most of their original materials, although the westernmost residence may have been rebuilt with more contemporary materials, such as windows and doors.

Workmanship - The workmanship of the three residences is consistent with the post-World War popularity of California Ranch architecture in the "Spanish" or "Mediterranean" style. None of the residences display a high-level or workmanship or craftsmanship.

Feeling - The feeling of the original pre-1950s orchard and farm no longer exists, however, the property as a whole still looks and feels like a dairy and cattle ranch.

Association - The property's association with its original owner and occupant no longer exists. The property bears a strong association with post-1950s dairy operations in Eastvale.

APPLICATION OF THE SIGNIFICANCE CRITERIA

In summary, the subject property does not appear to be eligible for the CRHR under Criterion 1, since it is not associated with a significant event or events in the history of Corona or Eastvale Under CRHR Criterion 2, the subject property does not appear to be associated with a person or persons of significance in the history of Corona or Eastvale, however, Brad Leal, the former owner of the Leal Ranch was a respected rancher, who served on numerous agricultural related committees and commissions locally, regionally, and statewide, and was a person of importance in Eastvale before and after its incorporation as a city. Under CRHR Criterion 3, as a whole, the extant residences and outbuildings remaining within the ranch lack integrity and do not appear to be significant examples of Spanish Revival or California Ranch style architecture. Finally, under CRHR Criterion 4, there is no evidence that the various properties within the ranch have the potential to provide "significant" archaeological data associated with early-day ranching, farming, dairying, given that most of the development on the property occurred in the late-1950s-1980s.

B12. References: (Continued):

May, Cliff. *Sunset Western Ranch Houses.* Editorial Staff of *Sunset Magazine* in Collaboration with Cliff May. 1946, reprinted with permission, Hennessey+Ingalls. 1999; May, Cliff. *Western Ranch Houses.* Editorial Staff of *Sunset Magazine* and Books. 1958, reprinted with permission, Hennessey+Ingalls. 1997; Meissner, Loren P. and Kim Jarrell Johnson. *A Brief History of Eastvale*. Charleston, S.C.: History Press. 2013; NetroOnline Website. "Historic Aerials." https://www.historicaerials.com. Accessed July 10, 2020; Portuguese Historical Museum. "History." www.portugesemuseum.org. Accessed July 2021; Press-Enterprise Website. "On Eastvale's 10th anniversary." https://www.pe.com/2020/10/01/on-eastvales-10th-anniversary-here-are-5-things-to-watch-for. October 1, 2020; Rumsey, Davis. Historical Map Collection. http://www.davidrumsey.com. Accessed March 25, 2016; Schuler, Stanley. *American Barns: In a Class by Themselves*. Exton, PA: Schiffer Publishing Ltd., 1984; Schultz, LeRoy G., comp. *Barns, Stables and Outbuildings: A World Bibliography in English, 1700-1983*. Jefferson, NC and London: McFarland and Company. 1986; Stockley, Sandra. Press-Enterprise Website. "Eastvale: Dairies are a Bittersweet Link to the Past." https://www.pe.com/2013/09/27/eastvale-dairies-are-bittersweet-link-to-past. September 27, 2013; USDI, National Park Service. National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, n.d.

***B10. Significance (Continued):**

PHOTOGRAPH RECORD



Photograph 1: View looking south at the westernmost residence, built between 1954 and 1967.



Photograph 2: View looking southwest at the westernmost residence.

*B10. Significance (Continued):



Photograph 3: View looking southeast at the west elevation of the westernmost residence.



Photograph 4: View looking southeast at the westernmost residence.

*B10. Significance (Continued):



Photograph 5: View looking north at the westernmost residence.



Photograph 6: View looking west at the westernmost residence.

***B10. Significance (Continued):**



Photograph 7: View looking north at the arcaded porch of the westernmost residence.



Photograph 8: View looking at the altered window detail of the westernmost residence.

***B10. Significance (Continued):**



Photograph 9: View looking at the French doors and porch brackets on the westernmost residence.



Photograph 10: View looking at the front elevation of the residence to the right or east of the late-1950s era residence. This residence, which was added onto numerous times, was likely built between 1967 and 1980.

***B10. Significance (Continued):**



Photograph 11: View looking east at the centermost residence.



Photograph 12: View looking northeast at the centermost residence.

***B10. Significance (Continued):**



Photograph 13: View looking at the side entrance on the centermost residence.



Photograph 14: View looking at the fireplace on the east end wall of the centermost residence.

***B10. Significance (Continued):**



Photograph 15: View looking at the side elevation of the bunkhouse residence, built prior to 1954.



Photograph 16: View looking northeast at the southeast elevation of the bunkhouse residence.

***B10. Significance (Continued):**



Photograph 17: View of the south elevation of the bunkhouse residence.



Photograph 18: View looking at the south elevation of the bunkhouse residence.

***B10. Significance (Continued):**

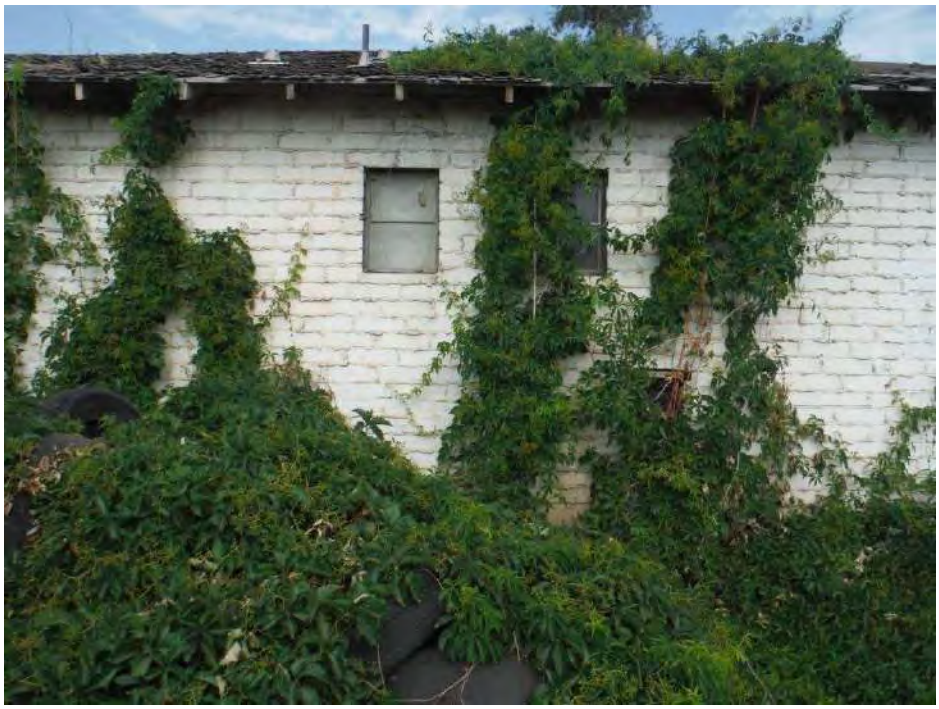


Photograph 19: View of the east elevation of the bunkhouse residence and the brick chimney.



Photograph 20: View looking east at the brick chimney.

***B10. Significance (Continued):**



Photograph 21: View of the brick masonry wall detail on the bunkhouse residence.



Photograph 22: View of window detail and wooden header above the window of the bunkhouse residence.

Appendix E

June 21, 2021 Project No. 21116-01

Mr. A.J. Jarvis
The New Home Company
85 Enterprise, Suite 450
Aliso Viejo, CA 92656

Subject: ***Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California***

In accordance with your request, LGC Geotechnical, Inc. has performed a geotechnical evaluation including near surface organic content for the proposed approximate 160-acre "Leal" property located southwest of the intersection of Hamner Avenue and 58th Street in the City of Eastvale, California. This report summarizes the results of our background review, subsurface exploration, and geotechnical analyses of the data collected, and presents our findings, conclusions, and preliminary recommendations for the proposed residential project.

If you should have any questions regarding this report, please do not hesitate to contact our office. We appreciate this opportunity to be of service.

Respectfully,

LGC Geotechnical, Inc.

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Distribution: (1) Addressee (electronic copy, wet signed copies can be provided upon request)

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1.0 INTRODUCTION

1.1 Purpose and Scope of Services

This report presents the results of our geotechnical evaluation including near surface organic content for the proposed approximately 160-acre "Leal" property in the City of Eastvale, California (see Site Location Map, Figure 1). The purpose of our work was to collect subsurface data in order to prepare a geotechnical report providing recommendations for design and construction of the proposed project. Our scope of services included:

- Review of pertinent readily available geotechnical information and geologic maps (Appendix A).
- Subsurface investigation including excavation, sampling, and logging of ten small-diameter hollow stem borings.
- Excavation of 10 exploratory geotechnical trenches throughout the site to aid in estimating the depth of required removals during grading and assist in characterizing the near surface soils.
- Excavation of 25 shallow trenches to assess the organic content of near surface "soils".
- Laboratory testing of representative samples obtained during our subsurface investigation (Appendix C).
- Geotechnical analysis and evaluation of the data obtained, including:
  - Suitability of the site for the proposed development from a geotechnical standpoint;
  - Description of the site geology, and subsurface soil and groundwater conditions;
  - Assessment of the organic content of near surface "soils" including recommendations for offsite organic export and/or mixing;
  - Evaluation of the seismic conditions at the site, including seismic design criteria based on the 2019 California Building Code (CBC); and
  - Recommendations for remedial grading operations and site preparation.
- Preparation of this report presenting our findings, conclusions and recommendations with respect to the proposed site development.

1.2 Existing Site Conditions and Proposed Improvements

The square shaped site is approximately 160 acres in size with minor relief. The site is composed of four adjacent 40-acre parcels, and is bounded to the north by 58th street, the south by Limonite Avenue, the west by Scholar Way, and to the East by Hamner Avenue. The northern portion of the site is a former dairy that has been inactive for several years, while the south has remained as open pasture for decades. A review of historic aerial photographs suggests the site has been used as a dairy or agricultural farm dating back to the earliest available photos in 1938.

As of the date of this report, neither a conceptual plan nor grading plan was available. It is our understanding that the site will most likely consist of residential units, parks and associated street improvements and underground utilities. We expect the proposed residential development will be at-grade with relatively light building loads (column and wall loads assumed to be a maximum of approximately 30 kips and 3 kips per lineal foot, respectively). A preliminary grading plan was not available at this time either.

The recommendations provided herein are based upon the estimated structural loading and expected layout information above. We understand that the project plans are currently being developed at this time; LGC Geotechnical should be provided with updated project plans and any changes to the assumed structural loads when they become available, in order to either confirm or modify the recommendations provided herein.

1.3 Subsurface Evaluation

LGC Geotechnical performed a subsurface geotechnical evaluation of the site consisting of the excavation of 10 hollow-stem auger borings, 2 infiltration borings, 10 exploratory geotechnical trenches with organic testing, and 25 near surface organic trenches.

10 hollow-stem borings (HS-1 through HS-10) were drilled to depths ranging from approximately 25 to 50 feet below existing grade. An LGC Geotechnical representative observed the drilling operations, logged the borings, and collected soil samples for laboratory testing. The borings were excavated using a track-mounted drill rig equipped with 8-inch-diameter hollow-stem augers. Driven soil samples were collected by means of the Standard Penetration Test (SPT) and Modified California Drive (MCD) sampler generally obtained at 2.5 to 5-foot vertical increments. The MCD is a split-barrel sampler with a tapered cutting tip and lined with a series of 1-inch-tall brass rings. The SPT sampler and MCD sampler were driven using a 140-pound automatic hammer falling 30 inches to advance the sampler a total depth of 18 inches. The raw blow counts for each 6-inch increment of penetration were recorded on the boring logs. Bulk samples were also collected and logged at select depths for laboratory testing. At the completion of drilling, the borings were backfilled with the native soil cuttings and tamped. Some settlement of the backfill soils may occur over time.

Ten exploratory geotechnical trenches (TP-1 through TP-10) were excavated utilizing a standard backhoe in order to estimate removal depths and obtain samples for laboratory testing. A staff geologist observed the operation, logged the geotechnical trenches and collected the soil samples. Each exploratory geotechnical trench was also logged and sampled for the organic content of the near surface "soils." The exploratory geotechnical trenches were subsequently backfilled with tamped native soils.

Twenty-five additional shallow trenches (T-1 through T-25) were excavated utilizing a standard backhoe in order to assess the organic content of near surface "soils". Samples were collected at various depths within each trench. In general, based on visual observations, 2 layers of soil were identified including 1) near surface heavily tainted organic "soils" and 2) "clean" (organic free) soils. In some areas there was a "transitional" layer in between these two. The shallow trenches were subsequently backfilled and tamped with native soils. There are 4 areas identified as having thick zones of buried or stockpiled high-organic material. These 4 areas have been outlined on our Geotechnical Map (Figure 2).

LGC Geotechnical, Inc. was asked to avoid the northwest corner of the property during our evaluation as this area is currently occupied by a local farmer. This area was not explored during our evaluation. The boundary for this area is shown on the Geotechnical Map (Figure 2).

The approximate locations of borings and trenches are shown on the Geotechnical Map (Figure

2). Boring and geotechnical trench logs are presented in Appendix B. The Encumbrance Map prepared by Hunsaker & Associates (H&A, 2021) was utilized as a base map for our Geotechnical Map.

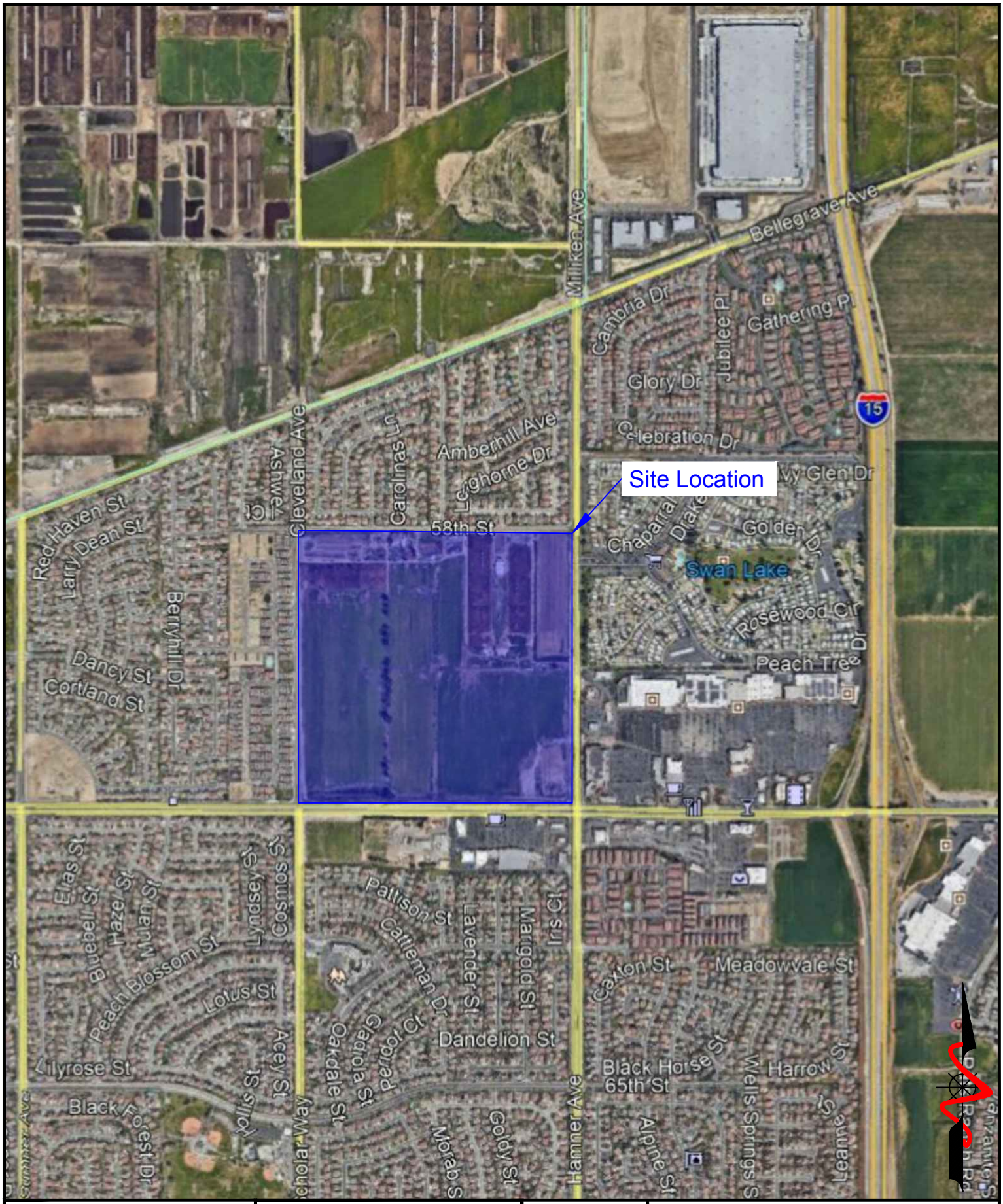
1.4 Laboratory Testing

Laboratory testing was performed on representative soil samples obtained from our subsurface evaluation. Laboratory testing included in-situ moisture and density tests, fines content/sieve analysis, Atterberg Limits (liquid limit and plastic limits), consolidation, collapse/swell potential, expansion index, laboratory compaction and corrosion (sulfate and chloride). Additionally, the near surface organic content trench samples were tested for characterization of the organic content (ASTM 2974).

The following is a summary of the laboratory test results.

- Dry density of the samples collected ranged from approximately 90 pounds per cubic foot (pcf) to 122 pcf, with an average of approximately 109 pcf. Field moisture contents ranged from approximately 1.1 percent to 32.0 percent, with an average of approximately 12 percent.
- One sample tested for fines content indicated a fines content (passing No. 200 sieve) of 83 percent. According to the Unified Soils Classification System (USCS), the tested sample is classified as "fine grained" soil.
- One Atterberg Limit (liquid limit and plastic limit) test was performed. The result indicated a Plasticity Index value of 11.
- One consolidation test was performed. The deformation versus vertical stress plot is provided in Appendix C.
- One swell/collapse test was performed. The plots are provided in Appendix C.
- One Expansion Index (EI) test was performed. The result indicates an EI value of 11, corresponding to "Very Low" expansion potential.
- One laboratory compaction test of a near surface sample indicated maximum dry density of 125.0 pcf with an optimum moisture content of 8.5 percent.
- Corrosion testing indicated soluble sulfate content of 78 parts per million (ppm) and chloride content of 100 ppm.
- The organic content of the samples ranged from approximately 0.1 to 33.2 percent.

A summary of the results is presented in Appendix C. The moisture and dry density test results are presented on the boring logs in Appendix B.



PROJECT NAME	TNHC - Eastvale
PROJECT NO.	21116-01
ENG. / GEOL.	BJE / BPG
SCALE	Not to Scale
DATE	June 2021

LGC Geotechnical, Inc.

FIGURE 1
Site Location Map

2.0 GEOTECHNICAL CONDITIONS

2.1 Regional Geology

The subject site is located south of the San Gabriel Mountains within the broad alluvial plain of the Santa Ana River Basin, within the Peninsular Ranges Geomorphic Province. Specifically, the site is located within the northern portion of the Perris Block, a geologic zone consisting of granitics overlain by sedimentary deposits that are bounded by active faults including the northwest-trending Whittier-Elsinore Fault Zone at the southwest and the northwest-trending San Jacinto Fault Zone at the northeast (USGS, 2002). The roughly rectangular Perris Block is transected by the southwest-trending Santa Ana River that passes approximately 2 miles south of the subject site.

Regional geologic mapping and local topographic expressions do not indicate the presence of large-scale landslides within or adjacent to the project area.

2.2 Site Geology and Generalized Subsurface Conditions

Based on regional mapping (USGS, 2002 & 2003), the subject site is underlain by Holocene- to Pleistocene-age alluvial fan deposits (Qyf), minor amounts of similar age eolian (wind-blown) deposits (Qye), and older early Pleistocene age alluvial channel deposits at depth. For this report however, alluvial and eolian deposits have been undifferentiated as general Quaternary deposits. As indicated in our field explorations, soils generally consisted of medium dense to dense sands and silty sands with thinner layers of stiff to very stiff fine-grained soils (i.e., silts and clays) to the maximum explored depth of approximately 50 feet below existing grade. Descriptions of the subsurface conditions are presented on the boring and geotechnical trench logs located in Appendix B. A brief description of the site geologic units can be found below.

2.3 Groundwater

Groundwater was not encountered in any of our borings. Groundwater levels recorded in the area by California Department of Water Resources are at depths greater than 100 feet below the ground surface (CDWR, 2021).

In general, groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present within the near-surface deposits due to local seepage or during rainy seasons. Groundwater conditions below the site may be variable, depending on numerous factors including seasonal rainfall, local irrigation and groundwater pumping, among others.

2.4 Field Infiltration Testing

Two field percolation tests were performed on Borings I-1 and I-2 to approximate depths of 10 feet below existing grade, respectively. Estimation of infiltration rates was performed in general accordance with guidelines set forth by the Riverside County Flood Control (2011). In general, a 3-inch diameter perforated PVC pipe was placed in each borehole to be tested and

the annulus was backfilled with gravel, including placement of about 2 inches of gravel at the bottom of the borehole. The infiltration wells were pre-soaked prior to testing. Based on the County of Riverside methodology, the calculated (observed) infiltration rates are provided in Table 1 below. These infiltration rates do not include any factor of safety (to be determined by the project Civil Engineer); however, they have been normalized to correct the 3-D flow that occurs within the field test to 1-D flow out of the bottom of the boring only. The locations and depths of the infiltration tests were coordinated with the civil engineer. The approximate infiltration test locations are shown on the Geotechnical Map (Figure 2) and the infiltration test data is included in Appendix D and summarized below.

TABLE 1

Summary of Infiltration Testing

Infiltration Test Location	Infiltration Test Depth Below Existing Grade (ft)	Observed Infiltration Rate* (Inch/Hr.)
I-1	10	3.8
I-2	10	0.6

*Normalized to One-Dimensional Flow, does not include any Factor of Safety.

It should be emphasized that infiltration test results are only representative of the location and depth where they are performed. Varying subsurface conditions may exist outside of the test locations which could alter the calculated infiltration rates indicated above. Infiltration tests are performed using relatively clean water free of particulates, silt, etc. Refer to Section 4.8 for subsurface water infiltration recommendations.

2.5 Faulting and Seismic Hazards

Prompted by damaging earthquakes in California, State legislation and policies concerning the classification and land-use criteria associated with faults have been developed. Their purpose was to prevent the construction of urban developments across the trace of active faults, resulting in the Alquist-Priolo Earthquake Fault Zoning Act. Earthquake Fault Zones have been delineated along the traces of active faults within California. Where developments for human occupation are proposed within these zones, the State requires detailed fault evaluations be performed so that engineering geologists can mitigate the hazards associated with active faulting by identifying the location of active faults and allowing for a setback from zones of previous ground rupture.

The subject site is not located within an Alquist-Priolo Earthquake Fault Zone and no faults were identified on the site during our site evaluation. The possibility of damage due to ground rupture is considered low since no active faults are known to cross the site.

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the Southern California region, which may affect the site, include ground lurching, shallow ground rupture, soil liquefaction and dynamic settlement. These secondary effects of seismic shaking

are a possibility throughout the Southern California region and are dependent on the distance between the site and causative fault and the onsite geology. Some of the major active nearby faults that could produce these secondary effects include the Chino-Central, Elsinore, Cucamonga and San Andreas Faults, among others (CGS, 2018). A discussion of these secondary effects is provided in the following sections.

2.5.1 Liquefaction and Dynamic Settlement

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions coexist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Studies indicate that loose, saturated, near-surface, cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils, and cohesive soils exhibit low to negligible liquefaction potential. In general, cohesive soils are not considered susceptible to liquefaction. Effects of liquefaction on level ground include settlement, sand boils, and bearing capacity failures below structures. Furthermore, dynamic settlement of dry sands can occur as the sand particles tend to settle and densify as a result of a seismic event.

Based on our review of the City of Eastvale General Plan (CE, 2012), the subject site is located in an area of "High" liquefaction susceptibility based only on soil type (sediments being less than 10,000 years old and unconsolidated). Site soils are not generally susceptible to liquefaction due to a lack of groundwater in the upper 50 feet. However, isolated layers may be susceptible to dry sand seismic settlement. Seismically induced dry sand settlements were estimated by the procedures outlined by Pradel (Pradel, 1998) using the PGA_M per the 2019 CBC and a moment magnitude of 6.71 (USGS, 2014). Based on the data obtained from our field evaluation, seismic settlement due to dry sands is estimated to be on the order of about 0.5-inch or less. Differential settlement may be estimated as half of the total settlement over a horizontal span of 40 feet.

2.5.2 Lateral Spreading

Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures.

Due to the depth to groundwater, low potential for liquefaction and lack of nearby "free face" conditions, the potential for lateral spreading is considered extremely low.

2.6 Seismic Design Criteria

The site seismic characteristics were evaluated per the guidelines set forth in Chapter 16, Section 1613 of the 2019 California Building Code (CBC) and applicable portions of ASCE 7-16 which has been adopted by the CBC. **Please note that the following seismic parameters are only applicable for code-based acceleration response spectra and are not applicable for where site-specific ground motion procedures are required by ASCE 7-16.** Representative site coordinates of latitude 33.975696 degrees north and longitude -117.566832 degrees west were utilized in our analyses. The maximum considered earthquake (MCE) spectral response accelerations (S_{MS} and S_{M1}) and adjusted design spectral response acceleration parameters (S_{DS} and S_{D1}) for Site Class D are provided in Table 1 on the following page. Since site soils are Site Class D, additional adjustments are required to code acceleration response spectrums as outlined below and provided in ASCE 7-16. The structural designer should contact the geotechnical consultant if structural conditions (e.g., number of stories, seismically isolated structures, etc.) require site-specific ground motions.

A deaggregation of the PGA based on a 2,475-year average return period (MCE) indicates that an earthquake magnitude of 6.71 at a distance of approximately 14.03 km from the site would contribute the most to this ground motion. A deaggregation of the PGA based on a 475-year average return period (Design Earthquake) indicates that an earthquake magnitude of 6.7 at a distance of approximately 17.24 km from the site would contribute the most to this ground motion (USGS, 2014).

Section 1803.5.12 of the 2019 CBC (per Section 11.8.3 of ASCE 7) states that the maximum considered earthquake geometric mean (MCE_G) Peak Ground Acceleration (PGA) should be used for liquefaction potential. The PGA_M for the site is equal to 0.74g (SEAOC, 2021).

TABLE 2

Seismic Design Parameters

Selected Parameters from 2019 CBC, Section 1613 - Earthquake Loads	Seismic Design Values	Notes/Exceptions
Distance to applicable faults classifies the site as a "Near-Fault" site.		Section 11.4.1 of ASCE 7
Site Class	D*	Chapter 20 of ASCE 7
Ss (Risk-Targeted Spectral Acceleration for Short Periods)	1.63g	From SEAOC, 2021
S_1 (Risk-Targeted Spectral Accelerations for 1-Second Periods)	0.586g	From SEAOC, 2021
F_a (per Table 1613.2.3(1))	1.0	For Simplified Design Procedure of Section 12.14 of ASCE 7, F_a shall be taken as 1.4 (Section 12.14.8.1)
F_v (per Table 1613.2.3(2))	1.714	Value is only applicable per requirements/exceptions per Section 11.4.8 of ASCE 7
S_{MS} for Site Class D [Note: $S_{MS} = F_aS_S$]	1.63g	-
S_{M1} for Site Class D [Note: $S_{M1} = F_vS_1$]	1.004g	Value is only applicable per requirements/exceptions per Section 11.4.8 of ASCE 7
S_{DS} for Site Class D [Note: $S_{DS} = (^2/_3)S_{MS}$]	1.087g	-
S_{D1} for Site Class D [Note: $S_{D1} = (^2/_3)S_{M1}$]	0.669g	Value is only applicable per requirements/exceptions per Section 11.4.8 of ASCE 7
C_{RS} (Mapped Risk Coefficient at 0.2 sec)	0.941	ASCE 7 Chapter 22
C_{R1} (Mapped Risk Coefficient at 1 sec)	0.918	ASCE 7 Chapter 22
*Since site soils are Site Class D and S_1 is greater than or equal to 0.2, the seismic response coefficient Cs is determined by Eq. 12.8-2 for values of $T \leq 1.5T_s$ and taken equal to 1.5 times the value calculated in accordance with either Eq. 12.8-3 for $T_L \geq T > T_s$, or Eq. 12.8-4 for $T > T_L$. Refer to ASCE 7-16.		

2.7 Organic Rich Soils

Approximately 60 bag soil samples were collected to determine their organic content (based on ASTM 2974). The organic content of the samples ranged from approximately 0.1 to 33.2 percent. In general, the organic content is higher near existing grade and decreases with depth. Table 6 (Appendix C) summarizes the measured organic content and also notes where the

organic content was estimated to be greater than 10% based on observation.

For most of the site there is a distinct contact between high organic content (greater than 5%) and low organic content (less than 2%) at the 1-foot depth. This upper 1-foot of soil across the site requires removal and disposal off-site due to high organic content (greater than 5.0 percent). In a few areas, there is a "transition zone" from 1-foot below the ground surface to approximately 2 feet below the ground surface where the organic content is greater than 2%. Below approximately 2 feet on average is generally free of organics.

There are 4 locations noted on our geotechnical map where appreciable amounts of high organic material is known to be stockpiled above the adjacent ground surface or buried below the ground surface. The depths of high organic material within these areas are noted on the Geotechnical Map (Figure 2). The material noted in these areas will need to be disposed of off-site.

Recommendations for off-site disposal and/or mixing to dilute organics to geotechnically acceptable organic levels (less than 2 percent) are provided in the following "Organic Rich Soil Recommendations" Section 4.1.2.

3.0 CONCLUSIONS

Based on the results of our subsurface geotechnical evaluation, it is our opinion that the proposed improvements are feasible from a geotechnical standpoint, provided that the recommendations contained in the following sections are incorporated during site grading and development. A summary of our geotechnical conclusions are as follows:

- The near-surface loose and compressible soils are not suitable for the planned improvements in their present condition (refer to Section 4.1). Organic rich soils (total organic carbon content generally greater than 2 percent) are not suitable for compacted fill soils from a geotechnical perspective.
- From a geotechnical perspective, onsite soils are anticipated to be suitable for use as general compacted fill provided the high organic content soils (soils with organic content greater than 5 percent) are removed from the site and the remaining soils with organic content between 2 and 5 percent are blended and mixed with "clean" soils and screened of construction debris and any oversized material (8 inches in greatest dimension).
- Records indicate groundwater levels recorded in the area are at depths greater than 100 feet below the ground surface.
- The subject study area is not located within a mapped State of California Earthquake Fault Zone, and based upon our review of published geologic mapping, no known active or potentially active faults are known to exist within or in the immediate vicinity of the site. Therefore, the potential for ground rupture as a result of faulting is considered very low.
- The main seismic hazard that may affect the site is ground shaking from one of the active regional faults. The subject site will likely experience strong seismic ground shaking during its design life.
- Site soils are not generally susceptible to liquefaction due to a lack of groundwater in the upper 50 feet. However, isolated layers are susceptible to dry sand seismic settlement. Total dynamic settlement is estimated to be on the order 0.5-inch or less. Differential settlement may be estimated as half of the total settlement over a horizontal span of 40 feet.
- Based on the results of preliminary laboratory testing, site soils are anticipated to have "Very Low" expansion potential. Final design expansion potential must be determined at the completion of grading.
- Based on the corrosion test results, soils are not considered corrosive per the Caltrans criteria (Caltrans, 2015).
- Excavations into the existing site soils should be feasible with heavy construction equipment in good working order. We anticipate that the sandy and silty earth materials generated from the excavations will be generally suitable for re-use as compacted fill, provided they are relatively free of rocks larger than 8 inches in dimension, construction debris, and significant organic material.
- Some portion of the onsite soils have high fines content; therefore, are not suitable for backfill of site retaining walls. Therefore, import of sandy soils meeting project recommendation is required.
- Field testing resulted in observed infiltration rates ranging from 0.6 to 3.8 inches per hour. The observed infiltration rates do not include a factor of safety. Discussion regarding infiltration is provided in Section 4.8.

4.0 RECOMMENDATIONS

The following recommendations are to be considered preliminary and should be confirmed upon completion of grading and earthwork operations. In addition, they should be considered minimal from a geotechnical viewpoint, as there may be more restrictive requirements from the architect, structural engineer, building codes, governing agencies, or the owner.

It should be noted that the following geotechnical recommendations are intended to provide sufficient information to develop the site in general accordance with the 2019 CBC requirements. With regard to the possible occurrence of potentially catastrophic geotechnical hazards such as fault rupture, earthquake-induced landslides, liquefaction, etc. the following geotechnical recommendations should provide adequate protection for the proposed development to the extent required to reduce seismic risk to an "acceptable level." The "acceptable level" of risk is defined by the California Code of Regulations as "that level that provides reasonable protection of the public safety, though it does not necessarily ensure continued structural integrity and functionality of the project" [Section 3721(a)]. Therefore, repair and remedial work of the proposed improvement may be required after a significant seismic event. With regards to the potential for less significant geologic hazards to the proposed development, the recommendations contained herein are intended as a reasonable protection against the potential damaging effects of geotechnical phenomena such as expansive soils, fill settlement, groundwater seepage, etc. It should be understood, however, that our recommendations are intended to maintain the structural integrity of the proposed development and structures given the site geotechnical conditions but cannot preclude the potential for some cosmetic distress or nuisance issues to develop as a result of the site geotechnical conditions.

The geotechnical recommendations contained herein must be confirmed to be suitable or modified based on the actual as-graded conditions.

4.1 Site Earthwork

Rough grading shall include removal of high organic content soils, remedial earthwork grading and placement of engineered compacted fill to design grades. Geotechnical recommendations for precise grading and construction of the proposed new improvements will be provided, as necessary.

We recommend that earthwork onsite be performed in accordance with the following recommendations, future grading plan review report(s), the 2019 CBC/City of Eastvale requirements, and the General Earthwork and Grading Specifications for Rough Grading included in Appendix D. In case of conflict, the following recommendations shall supersede those included in Appendix D. The following recommendations may be revised within future grading plan review reports or based on the actual conditions encountered during site grading.

4.1.1 Site Preparation

Prior to grading, areas to be developed should undergo the stripping and clearing of vegetation, high organic content soil removal/export and clearing of surface obstructions, pavements, foundation and slab elements from the site. Vegetation, debris and excessive organic material from livestock holding areas should be removed and properly disposed of offsite. Recommendations for removal of organic rich soils are provided in the following section. Holes resulting from removals of buried obstructions, which extend below proposed remedial and/or finish grades, should be replaced with suitable compacted fill material.

If cesspools or septic systems are encountered, they should be removed in their entirety. The resulting excavation should be backfilled with properly compacted fill soils. As an alternative, cesspools can be backfilled with lean sand-cement slurry. Any encountered wells should be properly abandoned in accordance with regulatory requirements.

4.1.2 Organic Rich Soil Recommendations

We recommend soils with an organic content greater than 5 percent be removed and exported from the site. For most of the site this is the top 1 foot. Figure 2 outlines areas that contains high organic content with more than 1-foot in thickness. Our recommendations are based on the following assumptions; 1) all soils with "high" organic contents greater than 5 percent shall be removed and disposed of off-site, 2) "transitional" soils (soils with organic content ranging from 2 to 5 percent) shall be adequately mixed or blended with the "clean" soils (soils with organic content less than 2.0 percent), and 3) There will be sufficient "clean" soils to dilute the limited "transitional" soils during the grading operation. From a geotechnical perspective, organic content of compacted fill soils should not exceed 2 percent.

After export of the top 1 foot of material, remedial grading as described in the following section should result in organic content of the fill materials to be approximately 1 percent. To satisfy the City's requirement of documenting the organic content in the fill, samples should be collected during grading and tested for organic content.

We recommend the geotechnical consultant be present during grading to observe the mixing of the onsite soils and perform periodic testing of the compacted fill. Organic materials shall be thoroughly mixed such that no nesting of organic materials occurs. Removal of organic materials is to satisfy geotechnical concerns and does not mitigate the potential for methane gas. Some methane gas should be expected after grading especially in former wastewater areas. Methane potential shall be evaluated by others.

4.1.3 Removal Depths and Limits

In order to provide a relatively uniform bearing condition for the planned improvements, we recommend the site soils be removed and recompacted. We recommend that soils within building pads be removed and recompacted to a minimum depth of 5 feet below

existing grade (not below base of organic removal). The envelope for removal and recompaction should extend laterally a minimum distance of 5 feet beyond the edges of the proposed improvements. In areas of design cut, over-excavation shall extend a minimum of 5 feet below existing grade or a minimum of 3 feet below finished grade, whichever is deeper. In the design cut areas, this depth may be reduced if in-place alluvial materials are tested and found to have an in-situ dry density equal or greater than 90 percent relative compaction (based on American Standard of Testing and Materials [ASTM] Test Method D1557) and exhibit uniform conditions. The Remedial Grading Diagram (Figure 5) provides a simplified example of the building pad remedial recommendations.

As shown on the attached Geotechnical Map (Figure 2), there is one isolated area of the site on the eastern edge of the property where removals will extend a minimum of 15 feet to remove a buried stockpile of manure. A representative from LGC geotechnical should be on site to approve the removal bottom to ensure it is acceptable from a geotechnical standpoint, and free of organic content.

For minor site structures such as free-standing and screen walls, the removals should extend at least 3 feet beneath the existing grade or 2 feet beneath the base of foundations, whichever is deeper. Within pavement and hardscape areas, removals should extend to a depth of at least 2 feet below the existing grade. The over-excavation in any design cut areas of the pavement may be reduced by the depth of the design cut but should not be less than 1-foot below the finished subgrade (i.e., below planned aggregate base/asphalt concrete). In general, the envelope for over-excavation should extend laterally a minimum distance of 2 feet beyond the edges of the proposed improvements mentioned above.

Local conditions may be encountered during excavation that could require additional over-excavation beyond the above-noted minimum in order to obtain an acceptable subgrade. The actual depths and lateral extents of grading will be determined by the geotechnical consultant, based on subsurface conditions encountered during grading. Removal areas and areas to be over-excavated should be accurately staked in the field by the Project Surveyor.

4.1.4 Temporary Excavations

Temporary excavations should be performed in accordance with project plans, specifications, and applicable Occupational Safety and Health Administration (OSHA) requirements. Excavations should be laid back or shored in accordance with OSHA requirements before personnel or equipment are allowed to enter. Based on our field investigation, the majority of site soils are anticipated to be OSHA Type "C" soils (refer to the attached boring logs). Sandy soils are present and should be considered susceptible to caving. Soil conditions should be regularly evaluated during construction to verify conditions are as anticipated. The contractor shall be responsible for providing the "competent person" required by OSHA standards to evaluate soil conditions. Close coordination with the geotechnical consultant should be maintained to facilitate construction while providing safe excavations. Excavation safety is the sole responsibility

of the contractor.

Vehicular traffic, stockpiles, and equipment storage should be set back from the perimeter of excavations a minimum distance equivalent to a 1:1(horizontal to vertical) projection from the bottom of the excavation or 5 feet, whichever is greater. Once an excavation has been initiated, it should be backfilled as soon as practical. Prolonged exposure of temporary excavations may result in some localized instability. Excavations should be planned so that they are not initiated without sufficient time to shore/fill them prior to weekends, holidays, or forecasted rain.

It should be noted that any excavation that extends below a 1:1 (horizontal to vertical) projection of an existing foundation will remove existing support of the structure foundation. If requested, temporary shoring parameters will be provided.

4.1.5 Subgrade Preparation

In general, areas to receive compacted fill should be scarified to a minimum depth of 6 inches, brought to a near-optimum moisture condition (generally within optimum and 2 percent above optimum moisture content), and re-compacted per project requirements. Removal bottoms and areas to receive fill should be observed and accepted by the geotechnical consultant prior to subsequent fill placement.

4.1.6 Material for Fill

From a geotechnical perspective, the onsite soils are generally considered suitable for use as general compacted fill, provided they are screened of organic materials, construction debris and any oversized material (8 inches in greatest dimension). From a geotechnical perspective, soils with an organic content of less than 2 percent are generally considered suitable for re-use as compacted fill.

From a geotechnical viewpoint, import soils for general fill (i.e., non-retaining wall backfill) should consist of clean, granular soils of Very Low expansion potential (expansion index 20 or less based on ASTM D4829). Import for retaining wall backfill should meet the criteria outlined in the paragraph below. Source samples should be provided to the geotechnical consultant for laboratory testing a minimum of three working days prior to any planned importation.

Retaining wall backfill should consist of granular free draining soils (sand equivalent of 30 or greater as determined by ASTM D2419 or CTM 217). Soils should also be screened of organic materials, construction debris, and any material greater than 3 inches in maximum dimension. The onsite soils are not considered suitable for retaining wall backfill due to their fines content (i.e., silt and clay content). Therefore, import of suitable soils meeting the criteria outlined above will be required.

Aggregate base should conform to the requirements of Section 200-2 of the most recent version of the Standard Specifications for Public Works Construction ("Greenbook") for

untreated base materials and/or City of Ontario requirements. It is our understanding that the City of Ontario only allows crushed aggregate base (CAB) and crushed miscellaneous base (CMB) is not allowed.

4.1.7 Placement and Compaction of Fills

Material to be placed as fill should be brought to near-optimum moisture content (generally within optimum and 2 percent above optimum moisture content) and recompacted to at least 90 percent relative compaction (per ASTM D1557). Moisture conditioning of site soils will be required in order to achieve adequate compaction. Drying and/or mixing the very moist soils will be required prior to reusing the materials in compacted fills. Soils are also present that will require additional moisture in order to achieve the required compaction.

The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in compacted thickness. Each lift should be thoroughly compacted and accepted prior to subsequent lifts. Generally, placement and compaction of fill should be performed in accordance with local grading ordinances and with observation and testing by LGC Geotechnical. Oversized material as previously defined should be removed from site fills.

During backfill of excavations, the fill should be properly benched into firm and competent soils of temporary backcut slopes as it is placed in lifts.

Aggregate base material should be compacted to a minimum of 95 percent relative compaction at or slightly above optimum moisture content per ASTM D1557. Subgrade below aggregate base should be compacted to a minimum of 90 percent relative compaction per ASTM D1557 at near-optimum moisture content (generally within optimum and 2 percent above optimum moisture content).

4.1.8 Trench and Retaining Wall Backfill and Compaction

The onsite soils may generally be suitable as trench backfill, provided the soils are screened of rocks and other material greater than 6 inches in diameter and organic matter. If trenches are shallow or the use of conventional equipment may result in damage to the utilities, sand having a sand equivalent (SE) of 30 or greater (per California Test Method [CTM] 217) may be used to bed and shade the pipes. Sand backfill within the pipe bedding zone may be densified by jetting or flooding and then tamping to ensure adequate compaction. Subsequent trench backfill should be compacted in uniform thin lifts by mechanical means to at least the recommended minimum relative compaction (per ASTM D1557).

Retaining wall backfill should consist of sandy soils as outlined in preceding Section 4.1.6. The contractor should anticipate the importing of soils for the required retaining wall backfill. The limits of select sandy backfill should extend a minimum ½ the height of the

retaining wall or the width of the heel (if applicable), whichever is greater, refer to Figures 3 and 4 (rear of text). Retaining wall backfill soils should be compacted in relatively uniform thin lifts to at least 90 percent relative compaction (per ASTM D1557). Jetting or flooding of retaining wall backfill materials should not be permitted.

A representative from LGC Geotechnical should observe, probe, and test the backfill to verify compliance with the project recommendations.

4.1.9 Shrinkage and Subsidence

Allowance in the earthwork volumes budget should be made for an estimated 0 to 5 percent reduction in volume of near-surface (upper approximate 5 feet) soils. It should be stressed that these values are only estimates and that an actual shrinkage factor would be extremely difficult to predetermine. Subsidence due to earthwork equipment is expected to be up to 0.1 feet. These values are estimates only and exclude losses due to removal of vegetation or debris. The effective change in volume of onsite soils will depend primarily on the type of compaction equipment, method of compaction used onsite by the contractor, and accuracy of the topographic survey.

Due to the combined variability in topographic surveys, inability to precisely model the removals and variability of on-site near-surface conditions, it is our opinion that the site will not balance at the end of grading. If importing/exporting a large volume of soils is not considered feasible or economical, we recommend a balance area be designated onsite that can fluctuate up or down based on the actual volume of soil. We recommend a "balance" area that can accommodate on the order of 5 percent (plus or minus) of the total grading volume be considered.

4.2 Preliminary Foundation Recommendations

Provided that the remedial grading recommendations provided herein are implemented, the site may be considered suitable for the support of the residential structures using a conventional or post-tensioned foundation system. Site soils are anticipated to be "Very Low" expansion potential (EI of 20 or less per ASTM D4829) and special design considerations from a geotechnical perspective is not required, however, this must be verified based on as-graded conditions. Please note that the following foundation recommendations are preliminary and must be confirmed by LGC Geotechnical.

Preliminary foundation recommendations are provided in the following sections. Recommended soil bearing and estimated settlement due to structural loads are provided in Section 4.3.

4.2.1 Provisional Conventional Foundation Design

Due to the very low expansion potential of the onsite soils, the foundation/structural engineer may design a conventional foundation system that is tied together based upon the anticipated dead and live loads (wind, seismic) that will be imparted by the

structure. The recommendations provided in the "Soil Bearing and Lateral Resistance" section may be utilized in the design of a rigid slab-on-grade conventional foundation designed in accordance with Section 1808 of the 2019 C.B.C.

4.2.2 Provisional Post-Tensioned Foundation Design Parameters

The foundation designer may use a modulus of vertical subgrade reaction (k) of 200 pounds per cubic inch (pounds per square inch per inch of deflection). This value is for a 1-foot by 1-foot square loaded area and should be adjusted by the structural designer for the area of the proposed footing using the following formula:

$k = 200 \times [(B+1)/2B]^2$
k = modulus of vertical subgrade reaction, pounds per cubic inch (pci)
B = foundation width (feet)

The moisture content of near surface fill soils should be maintained at the level it was placed up to the time of concrete placement.

4.2.3 Shallow Foundation Maintenance

The geotechnical parameters provided herein assume that if the areas adjacent to the foundation are planted and irrigated, these areas will be designed with proper drainage and adequately maintained so that ponding, which causes significant moisture changes below the foundation, does not occur. Our recommendations do not account for excessive irrigation and/or incorrect landscape design. Plants should only be provided with sufficient irrigation for life and not overwatered to saturate subgrade soils. Sunken planters placed adjacent to the foundation, should either be designed with an efficient drainage system or liners to prevent moisture infiltration below the foundation. Some lifting of the perimeter foundation beam should be expected even with properly constructed planters.

In addition to the factors mentioned above, future owners/property management personnel should be made aware of the potential negative influences of trees and/or other large vegetation. Roots that extend near the vicinity of foundations can cause distress to foundations. Future owners (and the owner's landscape architect) should not plant trees/large shrubs closer to the foundations than a distance equal to half the mature height of the tree or 20 feet, whichever is more conservative unless specifically provided with root barriers to prevent root growth below the building foundation.

It is the owner's responsibility to perform periodic maintenance during hot and dry periods to ensure that adequate watering has been provided to keep soil from separating or pulling back from the foundation. Future owners and property management personnel should be informed and educated regarding the importance of maintaining a constant level of soil-moisture. The owners should be made aware of the potential negative consequences of both excessive watering, as well as allowing potentially expansive soils to become too dry. Expansive soils can undergo shrinkage

during drying, and swelling during the rainy winter season, or when irrigation is resumed. This can result in distress to building structures and hardscape improvements. The builder should provide these recommendations to future owners and property management personnel.

4.2.4 Slab Underlayment Guidelines

The following is for informational purposes only since slab underlayment (e.g., moisture retarder, sand or gravel layers for concrete curing and/or capillary break) is unrelated to the geotechnical performance of the foundation and thereby not the purview of the geotechnical consultant. Post-construction moisture migration should be expected below the foundation. The foundation engineer/architect should determine whether the use of a capillary break (sand or gravel layer), in conjunction with the vapor retarder, is necessary or required by code. Sand layer thickness and location (above and/or below vapor retarder) should also be determined by the foundation engineer/architect.

4.3 Soil Bearing and Lateral Resistance

Provided our earthwork recommendations are implemented, an allowable soil bearing pressure of 2,000 pounds per square foot (psf) may be used for the design of footings having a minimum width of 12 inches and minimum embedment of 15 inches below lowest adjacent ground surface. This value may be increased by 400 psf for each additional foot of embedment and 200 psf for each additional foot of foundation width to a maximum value of 3,000 psf. A mat foundation a minimum of 6 inches below lowest adjacent grade may be designed for an allowable soil bearing pressure of 1,200 psf. These allowable bearing pressures are applicable for level (ground slope equal to or flatter than 5H:1V) conditions only. Bearing values indicated are for total dead loads and frequently applied live loads and may be increased by ⅓ for short duration loading (i.e., wind or seismic loads).

Soil settlement is a function of footing dimensions and applied soil bearing pressure. In utilizing the above-mentioned allowable bearing capacity, assumed structural loads, and provided our earthwork recommendations are implemented, foundation settlement due to structural loads is anticipated to be on the order of 1-inch or less and ½-inch over a horizontal span of 40 feet for total and differential settlement, respectively. Differential settlement should be anticipated between nearby columns or walls where a large differential loading condition exists Furthermore, seismic settlement due to dry-sand settlement is anticipated to be 0.5 inches or less. Differential seismic settlement may be taken as half of the seismic settlement (i.e., ¼-inch over a horizontal span of 40 feet).

Resistance to lateral loads can be provided by friction acting at the base of foundations and by passive earth pressure. For concrete/soil frictional resistance, an allowable coefficient of friction of 0.35 may be assumed with dead-load forces. An allowable passive lateral earth pressure of 270 psf per foot of depth (or pcf) to a maximum of 2,700 psf may be used for the sides of footings poured against properly compacted fill. Allowable passive pressure may be increased to 360 pcf (maximum of 3,600 psf) for short duration seismic loading. This passive pressure is applicable for level (ground slope equal to or flatter than 5H:1V) conditions only. Frictional resistance and

passive pressure may be used in combination without reduction. We recommend that the upper foot of passive resistance be neglected if finished grade will not be covered with concrete or asphalt. The provided allowable passive pressures are based on a factor of safety of 1.5 and 1.1 for static and seismic loading conditions, respectively. The structural designer should incorporate appropriate factors of safety and/or load factors in their design.

4.4 Lateral Earth Pressures and Retaining Wall Design Considerations

Lateral earth pressures are provided as equivalent fluid unit weights, in pound per square foot (psf) per foot of depth or pcf. The values for the active condition do not contain an appreciable factor of safety, so the retaining wall designer should apply the applicable factors of safety and/or load factors during design. A soil unit weight of 120 pcf may be assumed for calculating the actual weight of soil over the wall footing.

Lateral earth pressures are presented in Table 2. Table 2 contains values for approved select sandy backfill for both drained and undrained conditions. Typically, retaining walls are designed for a drained condition with select sandy soils used as backfill. Should retaining walls have constraints limiting the ability to install or drain or appropriately outlet a drain, the values for undrained conditions should be used. Approved select sandy soils should have a sand equivalent of 30 or greater as determined by ASTM D2419.

The retaining wall designer should clearly indicate on the retaining wall plans if drains are required.

TABLE 3

Lateral Earth Pressures – Select Sand Backfill

Condition	**Equivalent Fluid Weight (pcf)**	
	Level Backfill	
	Approved Sandy Backfill Material - Drained	**Approved Sandy Backfill Material - Undrained**
Active	35	80

The drained equivalent fluid pressure values assume free-draining conditions and a drainage system will be installed and maintained to prevent the build-up of hydrostatic pressures. A relatively sandy backfill along with a subdrain pipe wrapped in drainage aggregate and filter fabric (e.g., “burrito” subdrain) properly outletted to a suitable discharge point is typically used for conventional retaining walls. Retaining wall structures should be provided with appropriate drainage and appropriately waterproofed. Typical conventional (i.e., backfilled) retaining wall drainage is shown in Figure 3. At similar sites, wall drainage through the face has been a preferred option. For this condition wall drainage is shown in Figure 4. If conditions other than

those assumed above are anticipated, the equivalent fluid pressure values should be provided on an individual-case basis by the geotechnical consultant.

Surcharge loading effects from any adjacent structures should be evaluated by the retaining wall designer. In general, structural loads within a 1:1 (horizontal to vertical) upward projection from the bottom of the proposed retaining wall footing will surcharge the proposed retaining structure. Uniform surcharges may be estimated using the applicable coefficient of lateral earth pressure using a rectangular distribution. A factor of 0.5 and 0.33 may be used for at-rest and active conditions, respectively. The retaining wall designer should contact the geotechnical engineer for any required geotechnical input in estimating any applicable surcharge loads.

If required, the retaining wall designer may use a seismic lateral earth pressure increment of 5 pcf for retaining walls up to a maximum of 10 feet in height with level backfill. This increment should be applied in addition to the applicable static lateral earth pressure using a triangular distribution with the resultant acting at H/3 in relation to the base of the retaining structure (where H is the retained height). For the restrained, at-rest condition, the seismic increment may be added to the applicable active lateral earth pressure (in lieu of the at-rest lateral earth pressure) when analyzing short duration seismic loading. Per Section 1803.5.12 of the 2019 CBC, the seismic lateral earth pressure is applicable to structures assigned to Seismic Design Category D through F for retaining wall structures supporting more than 6 feet of backfill height. This seismic lateral earth pressure is estimated using the procedure outlined by the Structural Engineers Association of California (Lew, et al, 2010). The provided seismic lateral earth pressure is for a level backfill condition and a maximum of 10 feet in height; a sloping backfill condition and greater retaining wall heights are not anticipated. However, if a sloping backfill condition or retaining walls greater than 10 feet in height are proposed, the retaining wall designer should contact the geotechnical engineer for specific seismic lateral earth pressure increments based on the configuration of the planned retaining wall structures.

For soil bearing and lateral resistance (friction coefficient and passive resistance) is provided in Section 4.3 “Soil Bearing and Lateral Resistance”. Earthwork considerations (temporary backcuts, backfill, compaction, etc.) for retaining walls are provided in Section 4.1 “Site Earthwork” and the subsequent earthwork related sub-sections.

4.5 Corrosivity to Concrete and Metal

Although not corrosion engineers (LGC Geotechnical is not a corrosion consultant), several governing agencies in Southern California require the geotechnical consultant to determine the corrosion potential of soils to buried concrete and metal facilities. We therefore present the results of our testing with regard to corrosion for the use of the client and other consultants, as they determine necessary.

Corrosion testing of near-surface bulk samples indicated a soluble sulfate content value of 78 ppm (less than 0.02 percent) and a chloride content of 100 ppm. Based on Caltrans Corrosion Guidelines (2015), soils are considered corrosive if the chloride concentration is 500 ppm or greater, or the sulfate concentration is 2,000 ppm (0.2 percent) or greater. Based on the test results, soils are not considered corrosive using Caltrans criteria.

Based on our laboratory test results of representative site soil samples, onsite soils should be considered as having a severity categorization of "not applicable" and are designated class "S0" per ACI 318, Table 19.3.1.1, sulfate. As a result, the minimum compressive strength of the concrete shall be 2,500 psi.

Laboratory testing may need to be performed at the completion of grading by the project corrosion engineer to further evaluate the as-graded soil corrosivity characteristics. Accordingly, revision of the corrosion potential may be needed, should future test results differ substantially from the conditions reported herein. The client and/or other members of the development team should consider this during the design and planning phase of the project and formulate an appropriate course of action.

4.6 Preliminary Asphalt Concrete Pavement Sections

For the purposes of these preliminary recommendations, we have selected a preliminary design R-value of 40 and calculated pavement sections for Traffic Indices of 5.5, 6.0 and 6.5. R-value testing of the street subgrade will need to be performed to confirm our preliminary testing results/assumptions once the streets have been graded to finish subgrade elevations and the final Traffic Index is determined by the Civil Engineer. It is our understanding that the City of Ontario requires that local streets have a minimum pavement section consisting of 4 inches of asphalt over 6 inches of crushed aggregate base (CAB).

TABLE 4

Preliminary Pavement Sections

Assumed Traffic Index	5.5	6.0	6.5
R -Value Subgrade	40	40	40
AC Thickness	4.0 inches	4.0 inches	4.0 inches
CAB Thickness	6.0 inches	6.0 inches	6.0 inches

Increasing the thickness of asphalt or adding additional base material will reduce the likelihood of the pavement experiencing distress during its service life. The above recommendations are based on the assumption that proper maintenance and irrigation of the areas adjacent to the roadway will occur through the design life of the pavement. Failure to maintain a proper maintenance and/or irrigation program may jeopardize the integrity of the pavement.

Earthwork recommendations regarding aggregate base and subgrade are provided in the previous Section "Site Earthwork" and the related sub-sections of this report.

4.7 Nonstructural Concrete Flatwork

Nonstructural concrete (such as flatwork, sidewalks, patios, etc.) has a potential for cracking due to changes in soil volume related to soil-moisture fluctuations. To reduce the potential for excessive cracking and lifting, concrete should be designed in accordance with the minimum guidelines outlined in Table 5 below. These guidelines will reduce the potential for irregular cracking and promote cracking along construction joints but will not eliminate all cracking or lifting. Thickening the concrete and/or adding additional reinforcement will further reduce cosmetic distress.

TABLE 5

Preliminary Geotechnical Parameters for Nonstructural Concrete Flatwork Placed on Very Low to Low Expansion Potential Subgrade

	Homeowner Sidewalks	**Private Drives**	**Patios/Entryways**	**City Sidewalk Curb and Gutters**
Minimum Thickness (in.)	4 (nominal)	4 (full)	4 (full)	City/Agency Standard
Presoaking	Wet down prior to placing	Wet down prior to placing	Wet down prior to placing	City/Agency Standard
Reinforcement	—	No. 3 at 24 inches on centers	No. 3 at 24 inches on centers	City/Agency Standard
Thickened Edge (in.)	—	8 x 8	—	City/Agency Standard
Crack Control Joints	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness	City/Agency Standard
Maximum Joint Spacing	5 feet	10 feet or quarter cut whichever is closer	6 feet	City/Agency Standard
Aggregate Base Thickness (in.)	—	—	—	City/Agency Standard

To reduce the potential for driveways to separate from the garage slab, the builder may elect to install dowels to tie these two elements together. Similarly, future homeowners should

consider the use of dowels to connect flatwork to the foundation.

4.8 Subsurface Water Infiltration

Recent regulatory changes have occurred that mandate storm water be infiltrated below grade rather than collected in a conventional storm drain system. Typically, a combination of methods are implemented to reduce surface water runoff and increase infiltration including; permeable pavements/pavers for roadways and walkways, directing surface water runoff to grass-lined swales, retention areas, and/or drywells, etc. It should be noted that collecting and concentrating surface water for the purpose of intentionally infiltrating below grade, conflicts with the geotechnical engineering objective of directing surface water away from slopes, structures and other improvements. The geotechnical stability and integrity of a site is reliant upon appropriately handling surface water. In general, we do not recommend that surface water be intentionally infiltrated into the subsurface soils.

Considering the results of the infiltration testing, if required, stormwater may be infiltrated into the subsurface soils at the depths tested below existing grade, using the values presented in Table 1 and the appropriate County of Riverside Flood Control (2011) safety factors. The Civil Engineer should determine the appropriate safety factor applicable to the proposed infiltration system. Results of field infiltration testing are provided in Appendix D.

The following should be considered for design of any required infiltration system:

- Water discharge from any infiltration systems should not occur within the zone of influence of foundation footings (column and load bearing wall locations). For preliminary purposes we recommend a minimum setback of 15 feet from the structural improvements, or the County recommended minimum setback, whichever is more conservative.
- An adequate setback distance between any infiltration facility and adjacent private property should be maintained.
- It may be prudent to provide an overflow system directly connected to the storm drain system in order to prevent failure of the infiltration system, either as a result of lower than anticipated infiltration and/or very high flow volumes. It should be noted that if pretreatment of runoff to remove debris, soil particles, etc., cannot be performed, design infiltration rates may need to be further reduced. Over time, siltation and plugging may reduce the infiltration rate and subsequent effectiveness of the infiltration system.
- Any designed infiltration system will require routine periodic maintenance.
- As with any systems that are designed to concentrate the surface flow and direct the water into the subsurface soils, some type of nuisance water and/or other water-related issues should be expected.

LGC Geotechnical should be provided with details for any planned required infiltration system early in the design process for geotechnical input.

4.9 Control of Surface Water and Drainage Control

From a geotechnical perspective, we recommend that compacted finished grade soils adjacent to proposed structures be sloped away from the proposed structures and towards an approved drainage device or unobstructed swale. Drainage swales, wherever feasible, should not be constructed within 5 feet of buildings. Where lot and building geometry necessitates that drainage swales be routed closer than 5 feet to structural foundations, we recommend the use of area drains together with drainage swales. Drainage swales used in conjunction with area drains should be designed by the project civil engineer so that a properly constructed and maintained system will prevent ponding within 5 feet of the foundation. Code compliance of grades is not the purview of the geotechnical consultant.

Planters with open bottoms adjacent to buildings should be avoided. Planters should not be designed adjacent to buildings unless provisions for drainage, such as catch basins, liners, and/or area drains, are made. Overwatering must be avoided.

4.10 Supplemental Field Explorations

It should be noted that a portion in the northwestern corner of the site was not accessible at the time of our field evaluation (see Figure 2). This area was not explored and did not receive testing for near surface organic rich soils. We recommend performing a future evaluation addressing the organic content of the area prior to the export of high organic "soils" from the site.

4.11 Geotechnical Plan Review

Project plans (grading, foundation, etc.) should be reviewed by this office prior to construction to verify that our geotechnical recommendations have been incorporated. Additional or modified geotechnical recommendations may be required based on the proposed layout.

4.12 Geotechnical Observation and Testing

The recommendations provided in this report are based on limited subsurface observations and geotechnical analysis. The interpolated subsurface conditions should be checked in the field during construction by a representative of LGC Geotechnical. Geotechnical observation and testing is required per Section 1705 of the 2019 California Building Code (CBC).

Geotechnical observation and/or testing should be performed by LGC Geotechnical at the following stages:

- During grading (removal bottoms, fill placement, etc.);
- During retaining wall backfill and compaction;
- During utility trench backfill and compaction;

- After presoaking building pad and other concrete-flatwork subgrades, and prior to placement of aggregate base or concrete;
- Preparation of pavement subgrade and placement of aggregate base;
- After building and wall footing excavation and prior to placement of steel reinforcement and/or concrete; and
- When any unusual soil conditions are encountered during any construction operation subsequent to issuance of this report.

5.0 LIMITATIONS

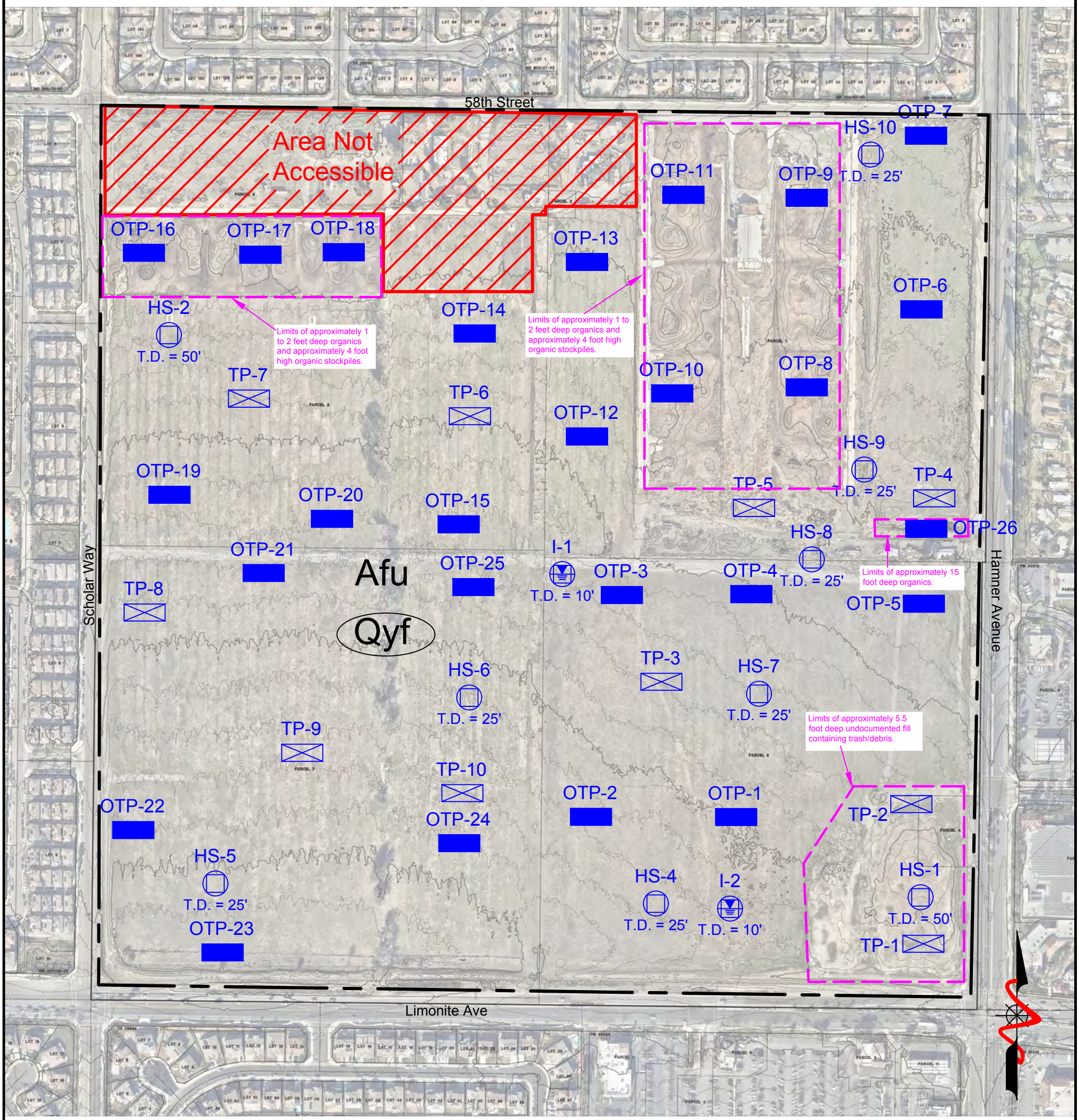
Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable soils engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

This report is based on data obtained from limited observations of the site, which have been extrapolated to characterize the site. While the scope of services performed is considered suitable to adequately characterize the site geotechnical conditions relative to the proposed development, no practical evaluation can completely eliminate uncertainty regarding the anticipated geotechnical conditions in connection with a subject site. Variations may exist and conditions not observed or described in this report may be encountered during grading and construction.

This report is issued with the understanding that it is the responsibility of the owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of the other consultants (at a minimum the civil engineer, structural engineer, landscape architect) and incorporated into their plans. The contractor should properly implement the recommendations during construction and notify the owner if they consider any of the recommendations presented herein to be unsafe, or unsuitable.

The findings of this report are valid as of the present date. However, changes in the conditions of a site can and do occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. The findings, conclusions, and recommendations presented in this report can be relied upon only if LGC Geotechnical has the opportunity to observe the subsurface conditions during grading and construction of the project, in order to confirm that our preliminary findings are representative for the site. This report is intended exclusively for use by the client, any use of or reliance on this report by a third party shall be at such party's sole risk.

In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and modification.



Legend

SCALE: 1"=300'

300' 0 300' 600'

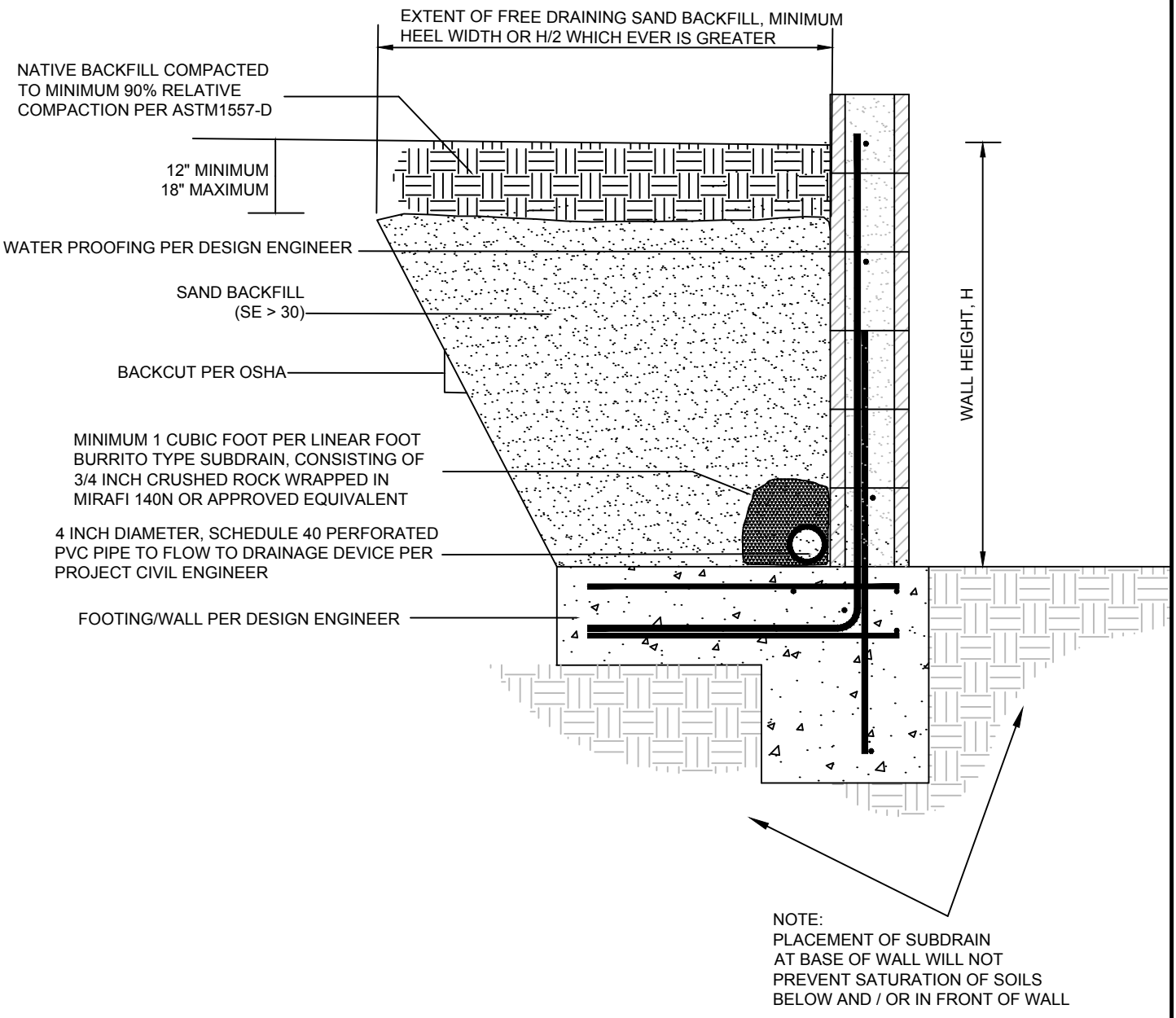
Afu	Artificial Fill - Undocumented
Qyf	Quaternary Alluvial Fan/Eolian Deposits - Undifferentiated (Circled Where Buried)
----	Approximate Limits of This Report
OTP-26	Approximate Location of Organic Test Pit
TP-10	Approximate Location of Geotechnical Test Pit
HS-10 T.D. = 25'	Approximate Location of Hollow Stem Auger Boring by LGC Geotechnical, Inc, with Total Depth in Feet
I-2 T.D. = 10'	Approximate Location of Hollow Stem Auger Infiltration Boring by LGC Geotechnical, Inc, with Total Depth in Feet

LGC Geotechnical, Inc.

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TEL (949) 369-6141 FAX (949) 369-6142

FIGURE 2
Geotechnical Map

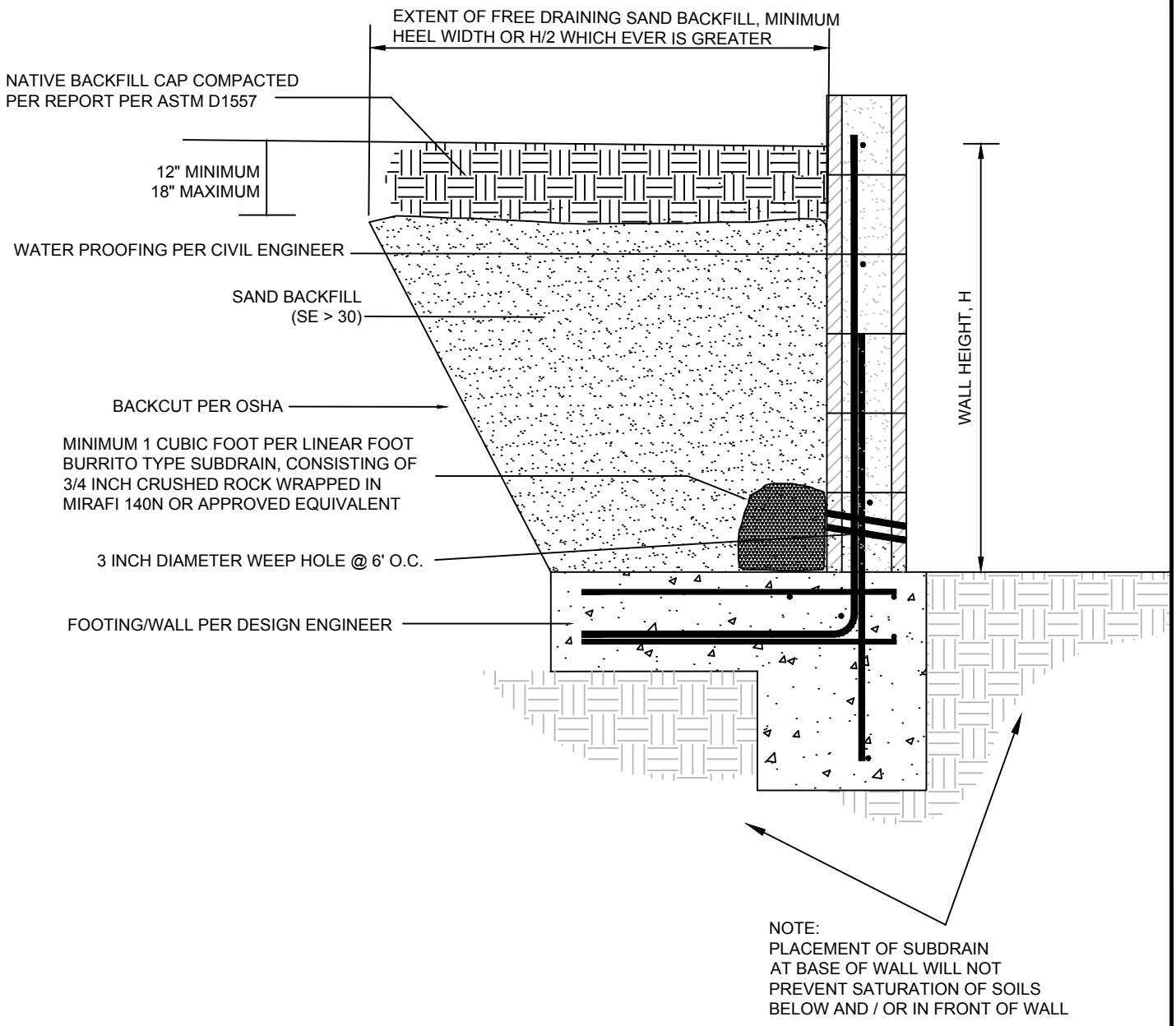
PROJECT NAME	TNHC - Eastvale
PROJECT NO.	21116-01
ENG. / GEOL.	BJE / BPG
SCALE	1" = 300'
DATE	June 2021



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FIGURE 3
Retaining Wall Backfill Detail Option 1

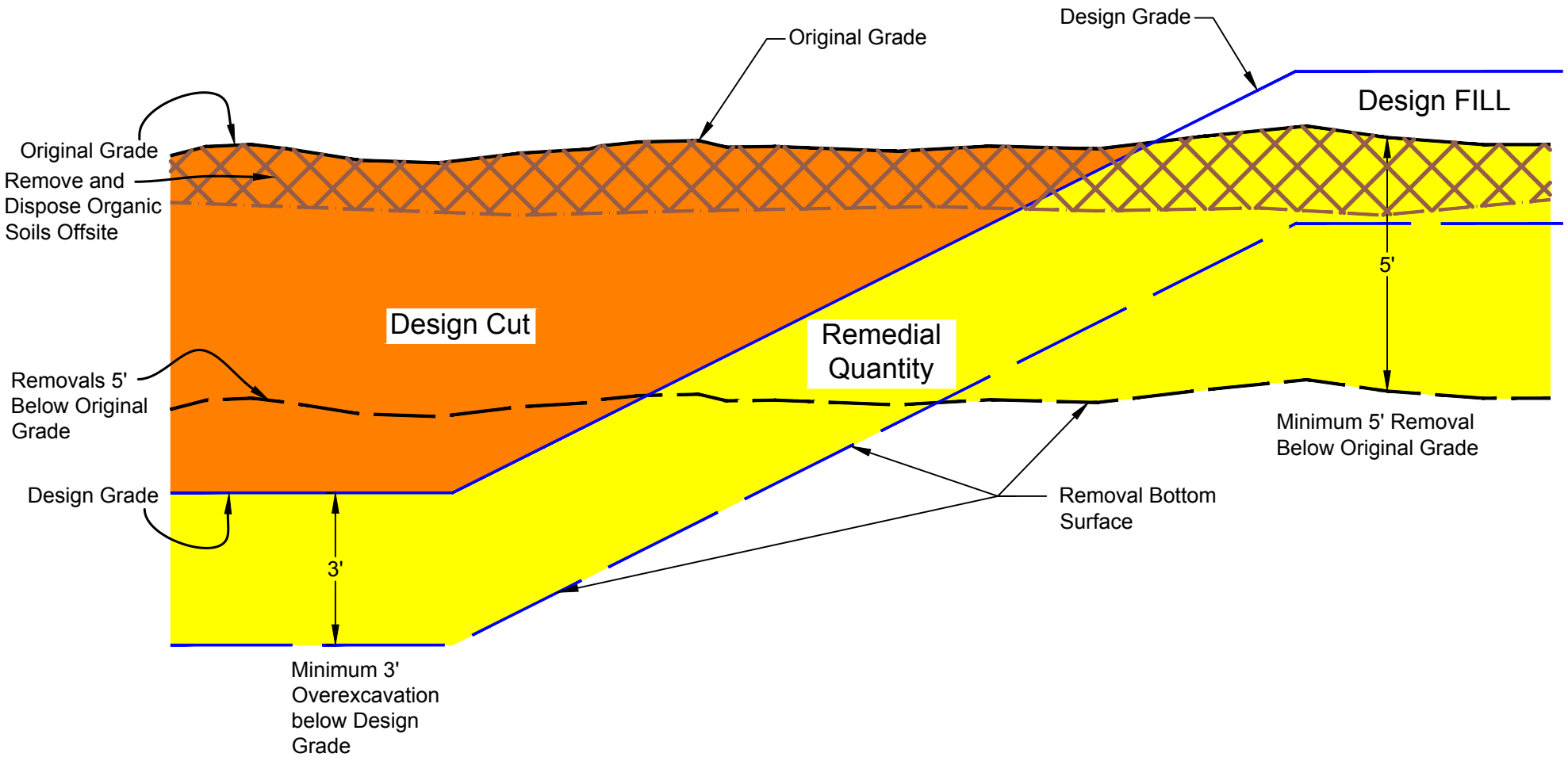
PROJECT NAME	The New Home Company - Eastvale
PROJECT NO.	21116-01
ENG./GEO.	BJE/BPG
SCALE	Not to Scale
DATE	June 2021



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FIGURE 4
Retaining Wall Backfill Detail Option 2

PROJECT NAME	The New Home Company - Eastvale
PROJECT NO.	21116-01
ENG./GEO.	BJE/BPG
SCALE	Not to Scale
DATE	June 2021



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FIGURE 5
Remedial Grading Diagram

PROJECT NAME	*The New Home Company - Eastvale*
PROJECT NO.	*21116-01*
ENG. / GEOL.	*BJE/BPG*
SCALE	*NTS*
DATE	*June 2021*

Appendix A
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APPENDIX A

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Appendix B
Boring, CPT & Geotechnical Trench Logs

Geotechnical Boring Log Borehole HS-1

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~671' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 2

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
670	0							**@ 0 to 7.5' - <u>Undocumented Artificial Fill (Afu)</u>**	
			R-1	18 20 28	116.7	4.2	SM	@2.5' Silty SAND: light brown, slightly moist, dense	
665	5	B-1	SPT-1	4 6 9		2.9	SP	@5' SAND: gray to brown, slightly moist, medium dense **@ 7.5' to 40' - <u>Quaternary Young Alluvial Fan deposits (Qyf)</u>**	
			R-2	4 9 12				@7.5' Silty SAND: brown, slightly moist, medium dense	
660	10		SPT-2	2 7 9		10.7	SM	@10' Silty SAND: olive brown, slightly moist, medium dense	
655	15		R-3	7 18 22	110.6	13.3		@15' Silty SAND: orangish olive brown, slightly moist, medium dense	
650	20		SPT-3	6 9 9		21.3	CL	@20' CLAY with sand: light brown, moist, medium dense	
645	25		R-4	8 15 22	115.0	17.4	SM	@25' Silty SAND w/ Clay: brown, moist, medium dense	
	30								

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THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-1

Date: 5/21/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~671' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
640	30		SPT-4	3 5 7		23.5	CL	@30' Sandy Lean CLAY: brown, moist, medium dense	
635	35		R-5	8 10 15	103.3	23.2	CL	@35' Sandy Lean CLAY: light brown, moist, very stiff	
								@ 40' to T.D. - <u>Quaternary Very Old Alluvial Channel deposits (Qvoa)</u>	
630	40		SPT-5	10 18 20		9.2	SC	@40' Clayey SAND: orange brown, moist, dense	
625	45		R-6	15 19 27	120.2	15.3	SM/ML	@45' Silty SAND/Sandy SILT: reddish brown, moist, dense	
620	50		SPT-6	16 19 25		9.1	SM	@50' Silty SAND: orangish brown, moist, very dense	
615	55							Total Depth = 51.5' Groundwater Not Encountered Backfilled with Cuttings on 5/21/2021	
	60								

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▽	GROUNDWATER TABLE

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EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Geotechnical Boring Log Borehole HS-2

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~673' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 2

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 5' <u>Artificial Undocumented Fill</u>**	
670			R-1	9 11 18	104.1	5.4	SM	@2.5' Silty SAND with Gravel: light gray, slightly moist, medium dense	
								@5' to T.D. <u>Quaternary Young Alluvial Fan Deposits</u>	
	5	B-1	SPT-1	6 9 13		11.7	SM/ML	@5' Sandy SILT: light gray, slightly moist, very stiff	
665			R-2	12 15 21	118.8	14.1	SM	@7.5' Silty SAND: grayish light brown, slightly moist, medium dense	
	10		SPT-2	9 9 15		13.6		@10' Silty SAND: grayish light brown, moist, medium dense	
660									
	15		R-3	9 12 19	122.1	8.5		@15' Silty SAND: brown, moist, medium dense	
655									
	20		SPT-3	10 12 15		3.7	SP	@20' SAND with Gravel: grayish light brown, moist, dense, poorly graded	
650									
	25		R-4	12 15 19	99.7	14.9	SP/SM	@25' Silty CLAY transition to Silty SAND to Sandy SILT: olive gray to orangish brown, moist, verty stiff to medium dense	
645									
	30								

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▽	GROUNDWATER TABLE

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AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-2

Date: 5/21/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~673' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	30		SPT-4	9 9 12		20.2	SC	@30' Clayey SAND: orangish light brown, moist, medium dense	
640									
	35		R-5	9 12 20	111.7	16.9	SM	@35' Silty SAND to Sandy SILT: brown, moist, medium dense to very stiff	
635									
	40		SPT-5	12 15 21		19.6	CL	@40' Sandy Lean CLAY: brown, moist, dense	
630									
	45		R-6	27 25 50/4"	118.5	6.0	SP	@45' SAND: brown, moist, very dense, poorly graded	
625									
	50		SPT-6	8 12 15		28.3	CL	@50' CLAY w/ Sand: light brown, moist, hard	
620								Total Depth = 51.5' Groundwater Not Encountered Backfilled with Cuttings on 5/21/2021	
	55								
615									
	60								

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

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▽	GROUNDWATER TABLE

TEST TYPES:

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MD	MAXIMUM DENSITY
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CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Geotechnical Boring Log Borehole HS-3

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~667' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 1

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
665	0							**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D. Quaternary Young Fan Deposits (Qyf)**	
			R-1	12 28 34	116.3	5.2	SM	@2.5' Silty SAND: light gray, slightly moist, dense	
660	5	B-1	SPT-1	10 12 15		6.8		@5' Silty SAND: light gray, slightly moist, dense	
			R-2	10 15 19	103.2	3.2	SM	@7.5' Silty SAND: light gray, slightly moist, medium dense	
655	10		SPT-2	7 9 11		2.1	SP	@10' SAND: grayish light brown, slightly moist, medium dense	
	15		R-3	13 19 22	105.5	12.6	SC	@15' Clayey SAND: orangish light brown, slightly moist, dense	
650									
	20		SPT-3	8 12 16		22.2	ML	@20' Sandy SILT: light brown, moist, dense	
645									
	25		R-4	9 12 13	105.8	22.7	ML	@25' Sandy SILT: light brown, moist, medium dense	
640								Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/21/2021	
	30								

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SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-4

Date: 5/24/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~663' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 1

Logged By SHH
Sampled By SHH
Checked By MJG

Elevation (ft)	Depth (ft)	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0						**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D. Quaternary Young Fan Deposits (Qyf)**	
660		R-1	8 8 13	106.7	1.9	SM	@2.5' Silty SAND: light brown, slightly moist, medium dense	
	5	SPT-1	6 7 9		4.0		@5' Silty SAND: grayish light brown, slightly moist, medium dense	
655		R-2	12 15 21	114.8	7.0	CL	@7.5' Sandy CLAY: grayish light brown, slightly moist, medium dense	
	10	SPT-2	6 9 11		12.3	SM	@10' Silty SAND: light brown, slightly moist, medium dense	
650								
	15	R-3	12 18 20	107.7	8.0	SC	@15' Clayey SAND: light brown, slightly moist, medium dense	
645								
	20	SPT-3	9 10 15		32	CL	@20' CLAY: light brown, moist, medium dense to very stiff	
640								
	25	R-4	12 50/5"	118.9	12.8	CL	@25' Sandy CLAY: brown, moist, hard to very dense	
635							Total Depth = 26' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	
	30							

B-1

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-5

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~659' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By MJG

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D. Quaternary Young Fan Deposits (Qyf)**	
655			R-1	9 14 17	108.3	2.9	SM	@2.5' Silty SAND: grayish light brown, slightly moist, medium dense	
	5	B-1	SPT-1	5 9 9		8.2	SM	@5' Silty SAND: light brown, slightly moist, medium dense	
			R-2	8 12 14	103.0	13.1	SC	@7.5' Clayey SAND: light brown, slightly moist, medium dense	
650	10		SPT-2	4 4 6		25.2	ML	@10' Sandy SILT: olive light brown, moist, medium dense to stiff	
645	15		R-3	27 38 50/4"	113.2	1.5	SP	@15' Poorly Graded SAND: light gray, slightly moist, very dense	
640	20		SPT-3	4 5 6		25.4	ML	@20' Sandy SILT: brown, moist, stiff to medium dense	
635	25		R-4	9 12 18	103.0	18.9	SC	@25' Clayey SAND: brown, moist, very stiff to medium dense	
630	30							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-6

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~665' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D.' Quaternary Young Fan Deposits (Qyf)**	
			R-1	7 9 9	115.3	5.1	ML	@2.5' SILT: light gray, slightly moist, medium dense	
660	5	B-1	SPT-1	5 7 9		6.4	SM	@5' Silty SAND: grayish light brown, slightly moist, medium dense	
			R-2	7 9 12				@7.5' Silty SAND: grayish light brown, slightly moist, medium dense	
655	10		SPT-2	12 18 21		2.3	SP	@10' SAND w/ Gravel: brown, moist, dense, poorly graded	
650	15		R-3	10 12 18	97.9	19.6	ML	@15' SILT: olive light brown, moist, very stiff	
645	20		SPT-3	8 10 10		21.4	ML	@20' Sandy SILT to SILT: olive brown, moist, very stiff	
640	25		R-4	12 15 19	90.5	25.5	ML	@25' Sandy SILT: orangish brown, moist, medium dense	
	30							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-7

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~668' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0						**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D.' Quaternary Young Fan Deposits (Qyf)**	
665		R-1	9 12 12	104.1	3.6	SM	@2.5' Silty SAND: light gray, slightly moist, medium dense	
	5	SPT-1	9 10 10		8.3		@5' Silty SAND: light gray, slightly moist, medium dense	
660		R-2	7 9 12	106.3	7.2	SM	@7.5' Silty SAND: light gray, slightly moist, medium dense	
	10	SPT-2	7 7 9		8.3		@10' Silty SAND to Sandy SILT: light brown, slightly moist, medium dense to very stiff	
655								
	15	R-3	12 18 22	111.4	5.3		@15' Silty SAND: light brown, slightly moist, medium dense	
650								
	20	SPT-3	5 7 9		24.4	CL	@20' Sandy CLAY: light brown, moist, very stiff	
645								
	25	R-4	9 12 18	95.4	27.1	CL	@25' CLAY: light brown, moist, very stiff	
640							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	
	30							

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-8

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~671' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
670	0						**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D.' Quaternary Young Fan Deposits (Qyf)**	
		R-1	4 7 9	110.2	1.9	SM	@2.5' Silty SAND: light gray, slightly moist, medium dense	
665	5	SPT-1	4 4 7		8.6		@5' Silty SAND: light gray, slightly moist, medium dense	
		R-2	9 10 15	103.0	9.6	ML	@7.5' Sandy SILT: light gray, slightly moist, medium dense to very stiff	
660	10	SPT-2	5 7 9		10.6	CL	@10' CLAY: light gray, slightly moist, very stiff	
655	15	R-3	12 19 21	94.8	15.5	MH	@15' SILT: light gray, slightly moist, very stiff	
650	20	SPT-3	15 19 19		3.8	SP	@20' SAND: brownish light gray, slightly moist, dense, poorly graded	
645	25	R-4	14 15 19	115.3	15.2	SC/CL	@25' Clayey SAND transition to Silty SAND w/ Clay: brown, slightly moist, medium dense	
	30						Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-9

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~676' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
675	0							**@0' to 5' Undocumented Artificial Fill (Afu)**	
			R-1	6 6 6	112.1	9.8	SM	@2.5' Silty SAND: light brown, slightly moist, loose	
								@5' to T.D.' Quaternary Young Eolian Deposits (Qye)	
670	5	B-1	SPT-1	4 6 9		8.2		@5' Silty SAND: grayish light brown, slightly moist, medium dense	
			R-2	9 13 17	118.1	12.3	SM/ML	@7.5' Silty SAND to Sandy SILT: gray, slightly moist, medium dense to very stiff	
665	10		SPT-2	5 7 9		17.0	ML	@10' Sandy SILT: brownish gray, slightly moist, very stiff	
660	15		R-3	12 18 21	120.4	8.1	SM	@15' SAND: brown, slightly moist, medium dense	
655	20		SPT-3	9 9 13		17.8	CL	@20' Sandy CLAY: orangish brown, moist, medium dense	
650	25		R-4	10 11 15	109.0	8.0	SM	@25' Silty SAND: orangish brown to brown, moist, medium dense to very stiff	
	30							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-10

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~682' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 5' Undocumented Artificial Fill (Afu)**	
680			R-1	9 7 9	105.6	8.2	SM	@2.5' Silty SAND: light brown, slightly moist, medium dense	
								@5' to T.D.' Quaternary Young Eolian Deposits (Qye)	
	5		SPT-1	4 7 7		13.0	SM	@5' Silty SAND: grayish light brown, slightly moist, medium dense	
675			R-2	12 14 15	113.2	15.1	CL/SC	@7.5' CLAY/Clayey Silty SAND: grayish brown, moist, medium dense	
	10		SPT-2	3 5 5		25.8	ML	@10' Sandy SILT: orangish brown, moist, stiff	
670									
	15		R-3	13 16 21	115.4	6.0	SM	@15' Silty SAND: brown, moist, medium dense	
665									
	20		SPT-3	5 7 8		20.1	CL	@20' Sandy CLAY: brown, moist, medium dense to stiff	
660									
	25		R-4	9 15 21	111.7	8.9	SM	@25' Silty SAND: light brown, moist, very stiff to medium dense	
655								Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	
	30								

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole I-1

Date: 5/21/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~668' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
665	0							**@0 to .5' - Undocumented Artificial Fill (Afu)** **@.5 to T.D. - QuaternaryAlluvial Fan Deposits**	
660	5		SPT-1	4 6 7		3.9	SM	@7.5' SAND with Gravel: light gray, slightly moist, medium dense	
655	10							Total Depth = 10' Groundwater Not Encountered 3" Perforated Pipe Surrounded by Gravel Installed on 5/21/2021 and Presoaked on 5/24/2021 Backfilled with Cuttings on 5/25/2021	
650	15								
645	20								
640	25								
	30								

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
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CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole I-2

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~663' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 1

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
660	0							**@0 to .5' - Undocumented Artificial Fill (Afu)** **@.5 to T.D. - QuaternaryAlluvial Fan Deposits**	
655	5		SPT-1	4 6 6		9.8	CL	@7.5' CLAY with Sand: light gray, slightly moist, medium dense	
650	10							Total Depth = 10' Groundwater Not Encountered 3" Perforated Pipe Surrounded by Gravel Installed on 5/21/2021 and Presoaked on 5/24/2021 Backfilled with Cuttings on 5/25/2021	
645	15								
640	20								
635	25								
	30								

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

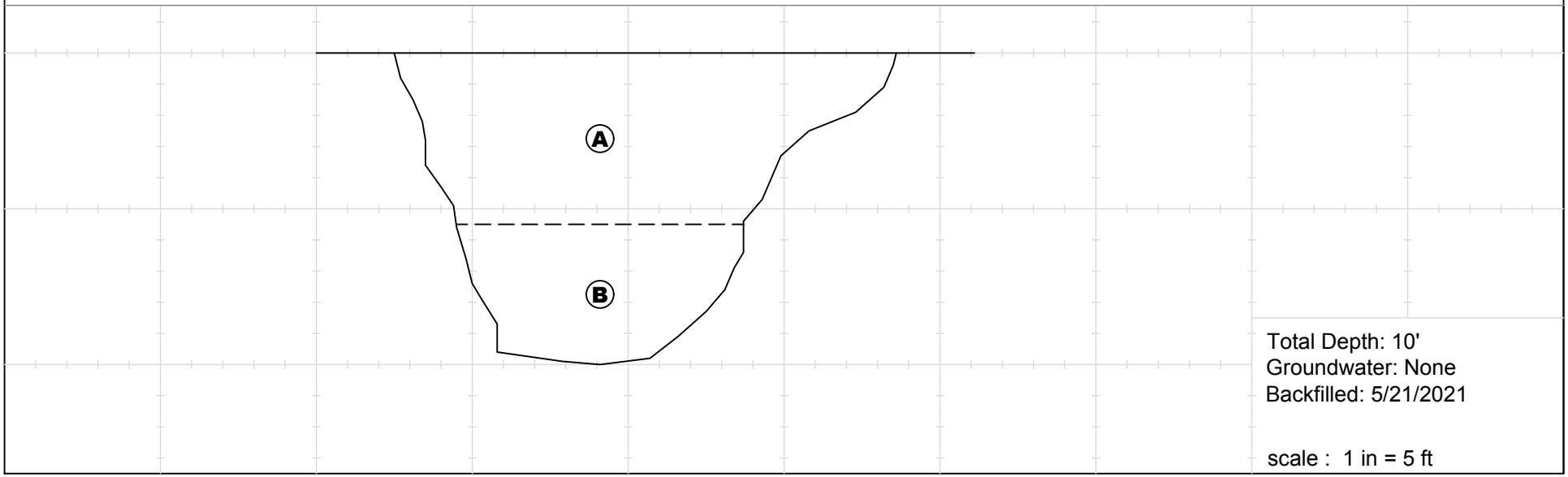
DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-1	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' to 5.5' - Artifical Fill - Undocumented (Afu) @ 0' - Silty SAND with gravel: gray, dry, loose to medium dense, trash down to 5' to 5.5' (nails, tarps, plastic, etc.)	Afu		G-1		
	B	@ 5.5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf) @ 5.5' - SAND: light brown to gray, slightly moist to moist, loose, fine grained	Qyf		G-2, G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**

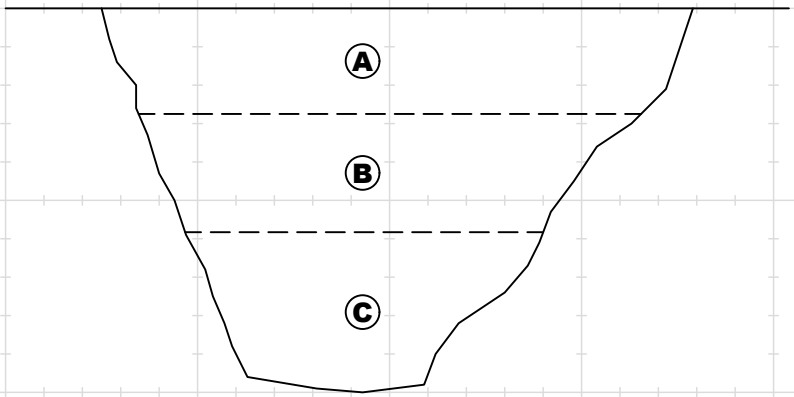


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-2	
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 5.83' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND with gravel: gray, dry, loose in upper 1'-2' then medium dense beyond 2', rootlets, minor trash present, some cobbles (~3" diameter)	Afu	SM	G-1		
	B	@ 2.75' - SAND/SAND with Silt: gray to light brown, dry to slightly moist, medium dense, (~10") metal pipe running north to south through trench at ~3.25' below the surface			G-2, B-1		
		@ 5.83' to T.D. - Quaternary Young Eolian deposits (Qye)					
	C	@ 5.83' - Silty SAND/Sandy SILT: dark gray, moist, fine sand	Qye		G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 668 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/21/2021

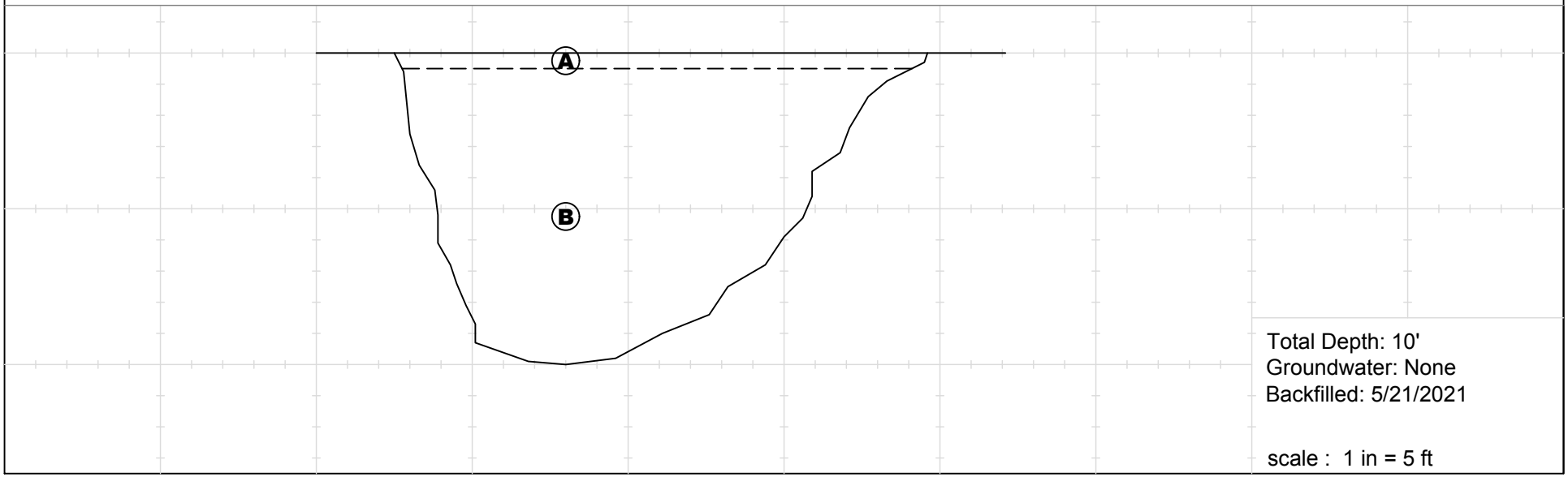
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-3	
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to .5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM			
		@ .5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	B	@ 0.5' - Silty SAND to Silt: gray with white mottle, moist, varied density with depth, ~6" layer of softer moist sand at 7' grading into a stiffer silt.	Qyf		G-1, G-2, G-3, B-1		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 667 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**

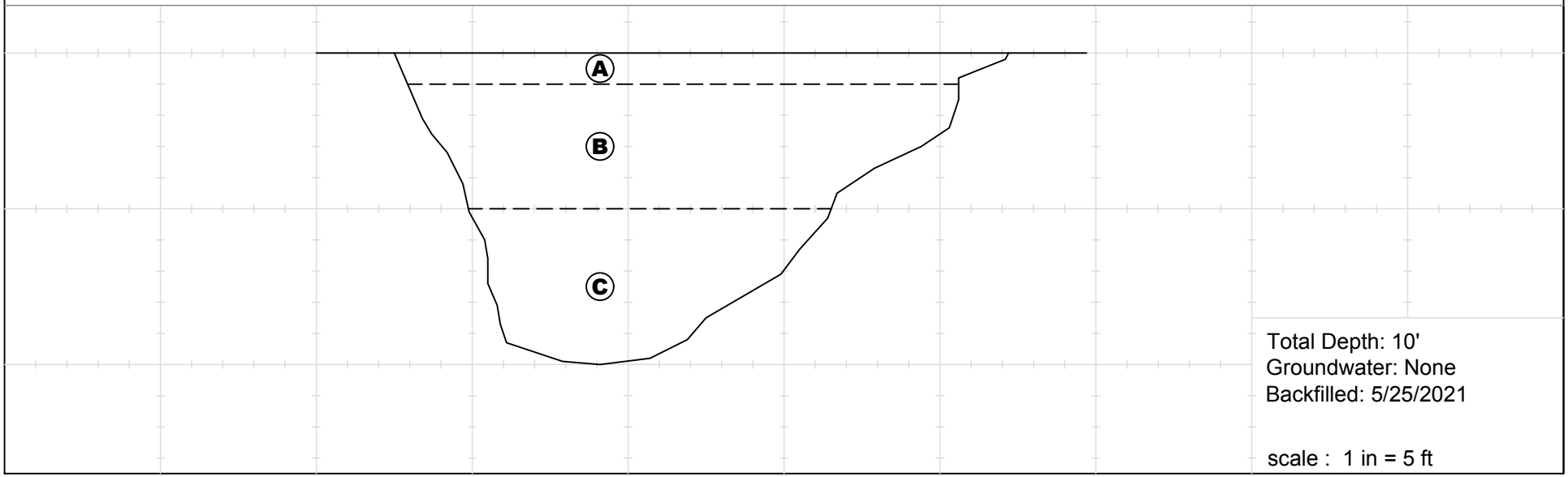


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-4	
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND/ Sandy Silt: gray, slightly moist, loose, roots	Afu	SM			
	B	@ 1' Silty SAND: olive gray, slightly moist to moist, trash (tarp, rope, charcoal)			G-1, G-2		
		@ 5' to T.D. - Quaternary Young Eolian deposits (Qye)					
	C	@ 5' Silty SAND: olive gray to gray, slightly moist, medium dense, some cobbles	Qye		G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 677 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**

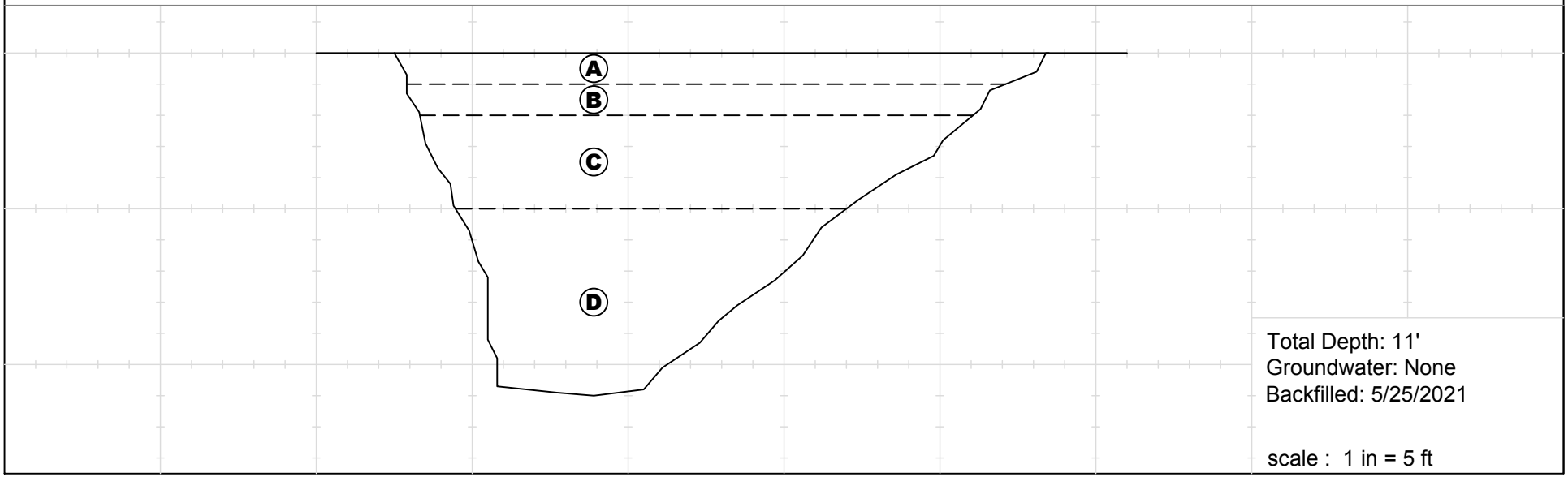


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-5	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to T.D. - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Pure cow dung down to 6", mixed organics and silt past 6" to 1'. dry and loose overall	Afu		G-1		
	B	@ 1' - Silty SAND with gravel: olive gray, moist to slightly moist, medium dense, gravel, roots, grading into unit "C"		SM	G-2		
		@ 2' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	C	@ 2' - Silty SAND: olive gray, slightly moist, dense, minor gravel present	Qyf		G-3		
	D	@ 5' Silt: gray to olive gray, slightly moist, dense, some oxidation		ML	G-4		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 672 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**

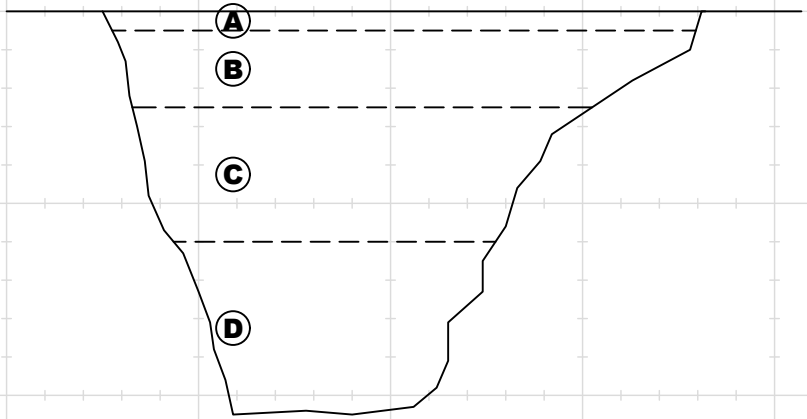


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-6	
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 2.5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light brown to light gray, dead vegetation, dry, loose	Afu	SM			
	B	@ 0.5' - Silty SAND: light gray, dry, charcoal pieces, medium dense, mixed gravel, disturbed appearance			G-1		
		@ 2.5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)	Qyf		G-2, B-5		
	C	@ 2.5' - Silty SAND: gray, dry to slightly moist (moisture increases with depth), medium dense					
				SP	G-3		
	D	@ 6' - SAND: gray sand transitioning into 6" thick layer of finer sand which is oxidized along the bottom, this grades back into the coarser gray sand, layer is friable, with visible moisture darkening material at 10' and the 6" finer sand layer					

GRAPHICAL REPRESENTATION BELOW: **Elevation : 672 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10.5'
Groundwater: None
Backfilled: 5/25/2021

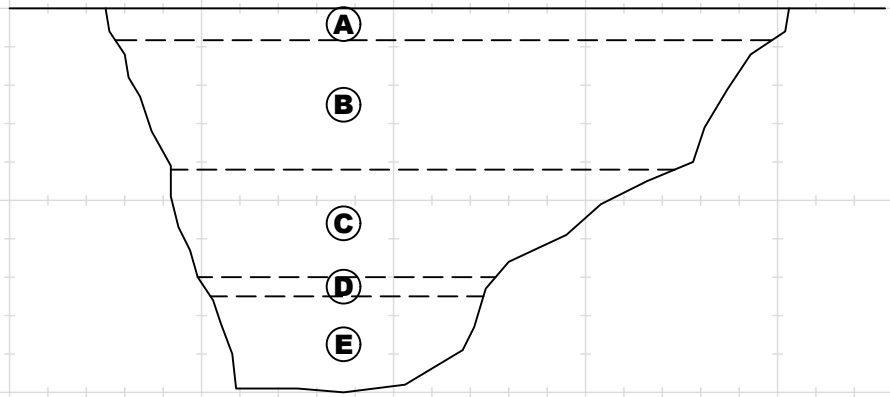
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-7	
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 4.2' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light brown, gray, dry, loose, dead vegetation and roots	Afu	SM			
	B	@ 0.83' - SILT: white to gray, dry, slightly indurated, porous (~5%), rootlets		ML	G-1, B-1		
		@ 4.2' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)	Qyf		G-2		
	C	@ 4.2' - SILT: olive gray, few pores, roots, dry, medium dense					
	D	@ 7' - 6" thick clay seam - dark gray, slightly moist, low plasticity, medium dense		CL	G-3		
	E	@ 7.5' - Silty SAND: olive gray, slightly moist, less dense than previous layers		SM	G-4		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 671 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

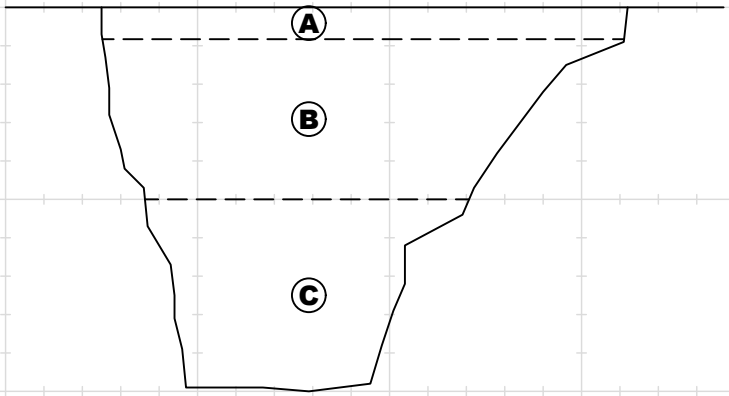
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-8	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 0.83' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light gray, dry, dead vegetation, rootlets	Afu				
		@ 0.83' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	B	@ 0.83' - SILT: gray, roots, mildly porous, dry, medium dense, grades into "C"	Qyf	ML	G-1		
	C	@ 5' - SAND: light gray, loose, dry, some caving, coarse grained with tightly packed layers of 3" rocks, rounded to subangular		SP	G-2, G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 666 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

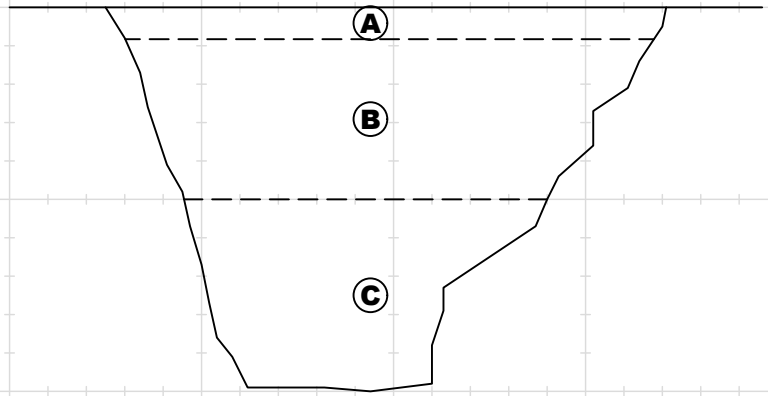
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-9	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light gray, dead vegetation, dry, loose	Afu	SM			
	B	@ 0.83' - SILT: light gray to brown, porous (~5-10%), charcoal pieces, rootlets, 10" concrete pipe filled with mud runs north to south through trench			G-1, G-2		
		@ 5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	C	@ 5' - SILT: olive gray, slightly moist, dense to medium dense	Qyf	ML	G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 662 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

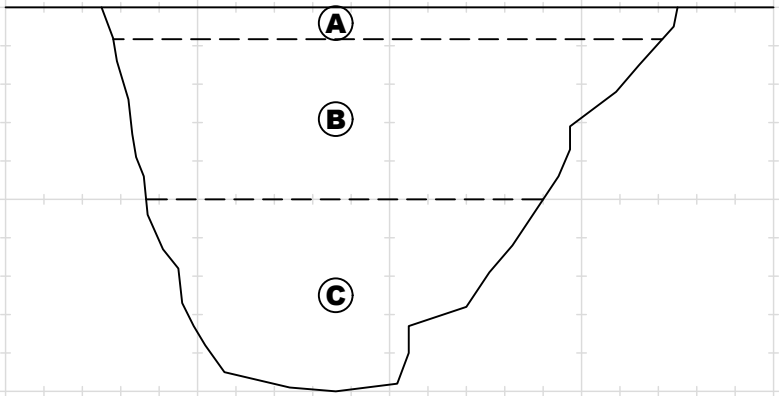
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-10	
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 0.83' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - SILT: light gray, dry, cracked, dead vegetation and roots, loose	Afu	ML			
		@ 0.83' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	B	@ 0.83' - SILT: light gray, dry, slightly porous, minor rootlets, dense to medium dense, some mottled white mineralization & oxidation stains @ contact with "C"	Qyf		G-1, B-1		
	C	@ 5' - SILT - olive gray, light gray, dry to slightly moist, decrease in density from "B" iron oxide.			G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 662 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

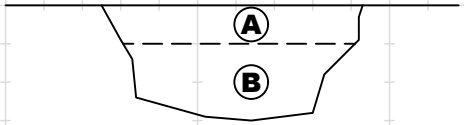
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-1
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Sandy SILT: dry, gray brown, loose, rootlets, sand is fine grained	Afu	SM	G1		
	B	@ 1' - SILT: white, dry, medium dense to dense, minor rootlets		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 665 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

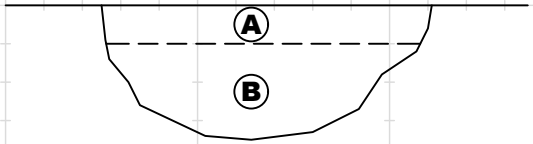
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-2
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

LGC Geotechnical, Inc.

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM	G-1		
	B	@ 1' - Silt: light gray, medium dense, dry		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 664 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/21/2021

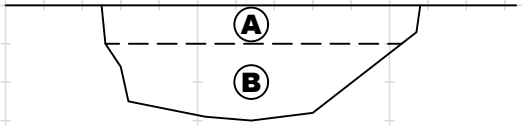
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-3
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Silty SAND: light brown, loose, dry @ 1' - SILT: gray, medium dense, white mottle, minor rootlets, dry	Afu	SM ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 669 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

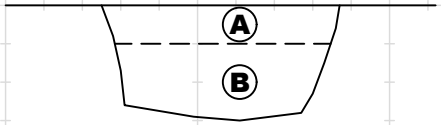
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-4
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

LGC Geotechnical, Inc.

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM	G-1		
	B	@ 1' - SILT: gray, dry, medium dense, slightly porous (<5%)	Qyf	ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

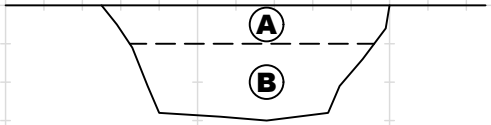
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-5
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM	G-1		
	B	@ 1' - SILT: light gray, slightly moist, medium dense	Qyf	ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 672 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

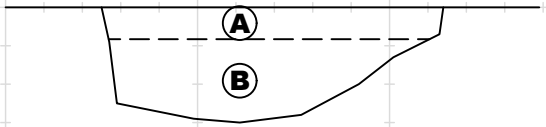
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-6
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: brown to gray, dry, loose	Afu	SM	G-1		
	B	@ 0.83' - Silty SAND: light gray brown, dry to slightly moist		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 679 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

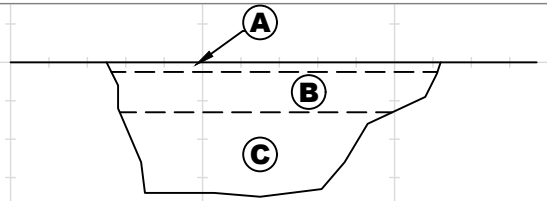
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-7
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B C	@ 0' - Asphalt section @ 0.25' - Compacted base @ 1.3' - SILT: moist, gray, dense	Afu	ML	G-1		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 682 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/21/2021

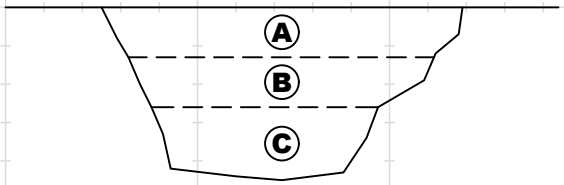
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-8
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Cow Dung					
	B	@ 1.3' - Silty SAND: olive gray, slightly moist, some white mineralization	Afu	SM	G-1, G-2		
	C	@ 2.6' - SAND with gravel: olive gray, slightly moist, medium dense	Qyf	SP	G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 676 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/21/2021

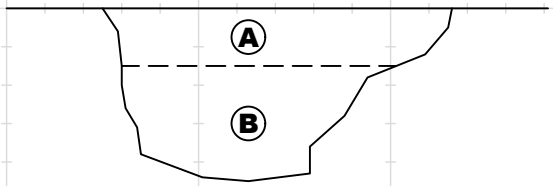
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-9
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1.5' - SILT: olive gray, slightly moist, trace of gravel at bottom of trench	Afu	ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 680 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

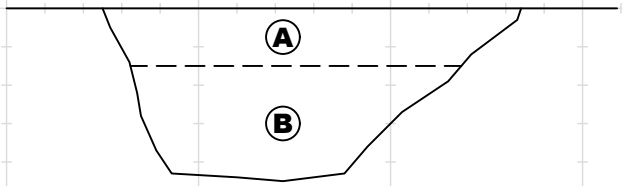
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-10
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

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Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1.5' - Silty SAND: olive brown, dry to slightly moist, slight gravel presence, medium dense to dense	Afu	ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

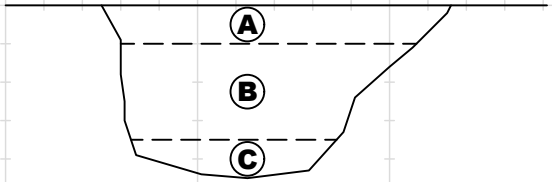
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-11
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

LGC Geotechnical, Inc.

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Cow Dung					
	B	@ 1' - SILT: olive gray, slightly moist, medium dense to dense	Afu	ML	G-1		
	C	@ 3.5' - SAND: gray, loose, slightly moist, gravel	Qyf	SP	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 679 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/25/2021

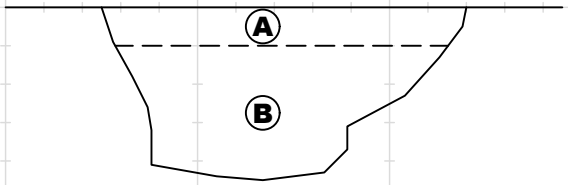
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-12
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Silty SAND: brown, dry, loose, rootlets @ 1' - SILT: dry, medium dense to dense, some gravel, slightly disturbed appearance	Afu	SM ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/25/2021

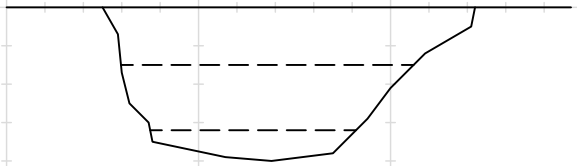
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-13
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' - Silty SAND: light brown, dry, loose, dead vegetation and rootlets		SM	G-1		
		@ 1.5' - Silty SAND: olive gray, dry, medium dense, some minor rootlets			G-2		
		@ 3.2' - SILT: gray, dry, medium dense	Qyf	ML	G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/25/2021

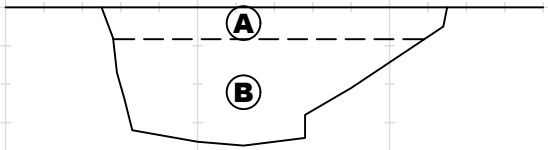
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-14
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - SILT: light brown, dry, loose, rootlets, dead vegetation	Afu	ML			
	B	@ 0.83' - SILT: olive gray, dry to slightly moist, medium dense, roots to total depth, minor gravel presence			G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 673 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.6'
Groundwater: None
Backfilled: 5/25/2021

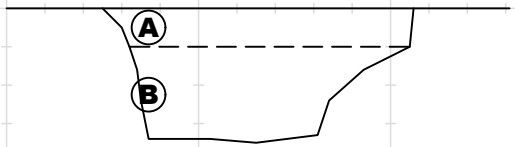
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-15
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silt: light gray, dry to loose, roots/dead vegetation, grades into "B"	Afu	ML	G-1		
	B	@ 1' - SILT: light gray, dry, medium dense to dense, slightly porous, some random gravel fragments, bottom 10" grades into olive gray silt			G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/25/2021

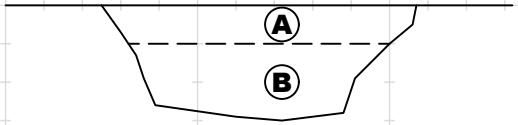
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-16
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Cow Dung	Afu		G-1		
	B	@ 1' - SILT: olive gray, slightly moist, dense		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/25/2021

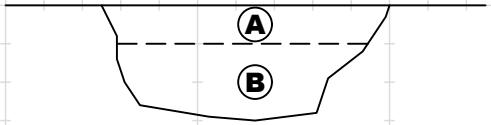
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-17
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1' - SILT: olive gray, slightly moist, trace gravel, slightly porous	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/25/2021

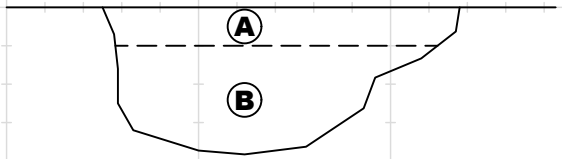
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-18
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1' - SILT: olive gray, medium dense, slightly moist, upper 3' is disturbed, lower 10" appears undisturbed and free of debris	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 676 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.83'
Groundwater: None
Backfilled: 5/25/2021

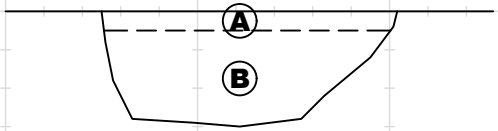
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-19
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, dry, loose, rootlets @ 0.5' - SILT: light gray, dry, medium dense to dense, slightly porous (5-10%)	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

scale : 1 in = 5 ft

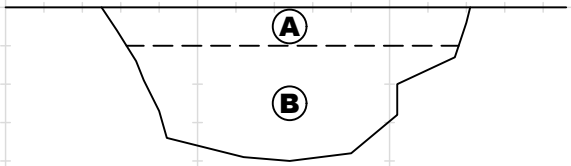
Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-20
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

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Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' SILT: light gray, dry, loose, rootlets @ 1' SILT: light gray, dry, dense, slightly porous	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 668 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/26/2021

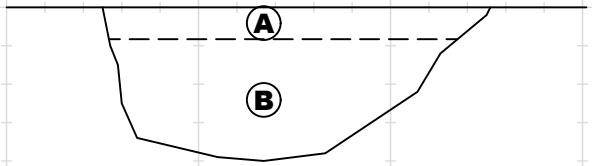
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-21
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - SILT: light brown to gray, dry, loose, dead vegetation	Afu				
	B	@ 0.83' - SILT: gray to light gray, dry, medium dense, slightly porous (~10%) looks disturbed, rootlets		ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 667 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/26/2021

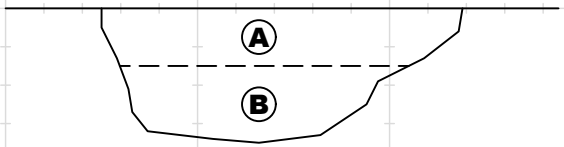
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-22
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - SILT: light brown to gray, dry, loose, dead vegetation, roots	Afu		G-1		
	B	@ 1.5' - SILT: light gray, slightly moist, porous (5-10%)		SM	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 661 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/26/2021

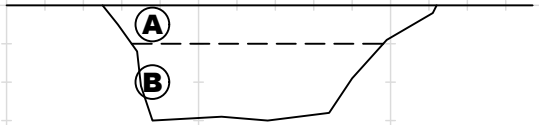
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-23
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, loose, dead grass, dry @ 1'- SILT: light gray, dry, dense, roots, porous (~10%)	Afu	SM	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 659 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

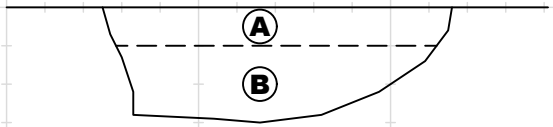
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-24
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, dry, loose, cracked, roots @ 1' - SILT: light gray, dry, medium dense looks disturbed, porous (~5-10%), transitions to olive gray silt at 2' which is slightly moist.	Afu	SM	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 660 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

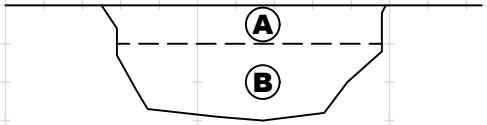
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-25
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, dry, cracked, loose @ 1' - SILT: light gray, dry, dense, slightly disturbed from 1'-2', past 2' begins to transition to an undisturbed olive gray silt which persists to the bottom of the trench.	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 666 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

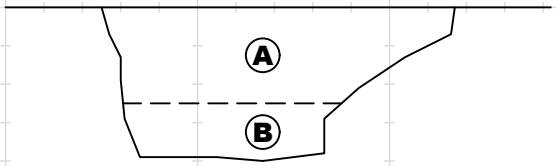
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-26
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: dry, gray, loose @ 2.5' - Cow Dung, farmer stated there is a stockpile of cow dung 15' deep beyond this point	Afu	ML			

GRAPHICAL REPRESENTATION BELOW: **Elevation : 674 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/26/2021

scale : 1 in = 5 ft

Last Edited: 6/10/2021

Appendix C
Laboratory Test Results

APPENDIX C

Laboratory Test Results

The laboratory testing program was directed towards providing quantitative data relating to the relevant engineering properties of the site soils. Samples considered representative of site conditions were tested in general accordance with American Society for Testing and Materials (ASTM) procedure and/or California Test Methods (CTM), where applicable. The following summary is a brief outline of the test type and a table summarizing the test results.

Moisture and Density Determination Tests: Moisture content (ASTM D2216) and dry density determinations (ASTM D2937) were performed on driven samples obtained from the test borings. The results of these tests are presented in the boring logs. Where applicable, only moisture content was determined from undisturbed or disturbed samples.

Grain Size Distribution/Fines Content: Representative samples were dried, weighed, and soaked in water until individual soil particles were separated (per ASTM D421) and then washed on a No. 200 sieve (ASTM D1140). Where applicable, the portion retained on the No. 200 sieve was dried and then sieved on a U.S. Standard brass sieve set in accordance with ASTM D6913 (sieve).

Sample Location	Description	% Passing # 200 Sieve
I-2	Clay with Sand	83

Atterberg Limits: The liquid and plastic limits ("Atterberg Limits") were determined per ASTM D4318 for engineering classification of fine-grained material and presented in the table below. The USCS soil classification indicated in the table below is based on the portion of sample passing the No. 40 sieve and may not necessarily be representative of the entire sample. The plot is provided in this Appendix.

Sample Location	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	USCS Soil Classification
HS-8 @ 7.5 ft	32	21	11	CL

Consolidation: One consolidation test was performed per ASTM D2435. A sample (2.4 inches in diameter and 1-inch in height) was placed in a consolidometer and increasing loads were applied. The sample was allowed to consolidate under "double drainage" and total deformation for each loading step were recorded. The percent consolidation for each load step was recorded as the ratio of the amount of vertical compression to the original sample height. The consolidation pressure curve is provided in this Appendix.

Collapse/Swell Potential: One collapse test was performed per ASTM D4546. A sample (2.4 inches in diameter and 1-inch in height) was placed in a consolidometer and loaded to the approximate in-situ effective stress. The curve is presented in this Appendix.

Maximum Density Tests: The maximum dry density and optimum moisture content of a typical material was determined in accordance with ASTM D1557. The result of this test is presented in the table below:

Sample Location	Sample Description	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
HS-3 @ 0-5 ft	Brown Silty Sand	125.0	8.5

Expansion Index: The expansion potential of selected representative samples was evaluated by the Expansion Index Test per ASTM D4829.

Sample Location	Expansion Index	Expansion Potential*
HS-2 @ 0-5 ft	11	Very Low

* Per ASTM D4829

Soluble Sulfates: The soluble sulfate content of a select sample was determined by standard geochemical methods (CTM 417). The test result is presented in the table below.

Sample Location	Sulfate Content, ppm
HS-1 @ 0-5 ft	78

Chloride Content: Chloride content was tested per CTM 422. The results are presented below.

Sample Location	Chloride Content, ppm
HS-1 @ 0-5 ft	100

Organic Matter Content of Soils: Organic matter content tests were performed in general accordance with ASTM D 2974 (Test Methods A & C). The results are presented in this Table 6.

TP-1	
Depth (ft)	% Organics
6'-9'	0.3

TP-2	
Depth (ft)	% Organics
4'-5.17'	0.2

TP-5	
Depth (ft)	% Organics
0.5'-1.5'	16.3
1.5'-2'	0.9
3'-5'	0.8

TP-9	
Depth (ft)	% Organics
1'-2'	1.4
3'-4'	0.5
7'-8'	0.4

OTP-1	
Depth (ft)	% Organics
0'-1'	6.5
1'-3'	0.4

OTP-2	
Depth (ft)	% Organics
0'-1'	12.9
1'-3'	0.5

OTP-3	
Depth (ft)	% Organics
0'-1'	7.0
1'-3'	0.7

OTP-4	
Depth (ft)	% Organics
0'-0.5'	15.8
0.5'-3'	0.4

OTP-5	
Depth (ft)	% Organics
0'-1'	8.2
1'-3'	0.7

OTP-6	
Depth (ft)	% Organics
0'-0.83'	8.8
0.83'-3'	0.8

OTP-7	
Depth (ft)	% Organics
3.5'	0.8

OTP-8*	
Depth (ft)	% Organics
0'-1'	>10
1.5'	2.3
2'-2.6'	0.5
3'-4.5'	0.2

OTP-9	
Depth (ft)	% Organics
0'-1'	1.5
1'-3'	0.6

OTP-10*	
Depth (ft)	% Organics
0'-1'	>10
1.5'-2'	1.2
2'-4.5'	0.5

OTP-11*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	0.9
3.5'-4.5'	0.1

OTP-12	
Depth (ft)	% Organics
0'-1'	10.0
1'-3.5'	0.9

OTP-13	
Depth (ft)	% Organics
0'-1'	8.7
1'-3'	0.6
4'	0.5

OTP-14*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	0.6
2'-3'	0.5

OTP-15	
Depth (ft)	% Organics
0'-1'	3.0
1'-3.5'	0.6

OTP-16	
Depth (ft)	% Organics
0'-1'	33.2
1'-3'	1.2

OTP-17*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.2
2'-3'	1.3

OTP-18*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.2
3'-3.5'	0.8

OTP-19	
Depth (ft)	% Organics
1'-2'	1.4
2'-3'	0.9

OTP-20	
Depth (ft)	% Organics
1'-2'	0.9
2'-4'	0.6

OTP-21*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.0
2'-4'	0.5

OTP-22*	
Depth (ft)	% Organics
0'-1'	>10
1'-1.5'	2.8
2'-3'	0.7

OTP-23*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.1
2'-3'	0.8

OTP-24	
Depth (ft)	% Organics
1'-2'	0.8
2'-3'	0.4

OTP-25	
Depth (ft)	% Organics
1'-2'	0.8
2'-3'	0.9

Legend

> 5%	Recommended for Offsite Removal
2 to 5%	Recommended for Mixing/Blending with "Clean" Soils
< 2%	"Clean" Soils

Note: * Indicates Soil Visually Confirmed to Have greater than 10% Organics at 0'-1'

LGC Geotechnical, Inc.

Table 6
Summary of Measured Organic Content vs Depth of Sample

Project Name	TNHC - Eastvale
Project Number	21116-01
ENG./GEOL.	BJE/BPG
Date	Jun-21

Appendix D
Infiltration Test Data

Infiltration Test Data Sheet

LGC Geotechnical, Inc

131 Calle Iglesia Suite 200, San Clemente, CA 92672 tel. (949) 369-6141

Project Name: Eastvale

Project Number: 21116-01

Date: 5/25/2021

Boring Number: I-1

Test hole dimensions (if circular)	
Boring Depth (feet)*:	10
Boring Diameter (inches):	8
Pipe Diameter (inches):	3

*measured at time of test

Test pit dimensions (if rectangular)	
Pit Depth (feet):	
Pit Length (feet):	
Pit Breadth (feet):	

*Pre-Test (Sandy Soil Criteria)**

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval (min)	Initial Depth to Water (feet)	Final Depth to Water (feet)	Total Change in Water Level (feet)	Greater Than or Equal to 0.5 feet (yes/no)
1	9:14	9:39	25.0	7.53	9.10	1.57	Yes
2	9:40	10:05	25.0	7.65	9.33	1.68	Yes

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight, and then obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25 inches

Main Test Data

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval, Δt (min)	Initial Depth to Water, D_o (feet)	Final Depth to Water, D_f (feet)	Change in Water Level, ΔD (feet)	Observed Infiltration Rate(in/hr)
1	10:06	10:16	10.0	7.90	8.45	0.55	3.3
2	10:17	10:27	10.0	7.82	8.33	0.51	2.9
3	10:28	10:38	10.0	8.11	8.67	0.56	3.8
4	10:39	10:49	10.0	8.00	8.53	0.53	3.3
5	10:50	11:00	10.0	7.85	8.47	0.62	3.7
6	11:01	11:11	10.0	7.91	8.52	0.61	3.8

Observed Infiltration Rate (Does Not Include Any Factor of Safety) **3.8**

Sketch:

Notes:

LGC Geotechnical, Inc.

Infiltration Test Data Sheet

LGC Geotechnical, Inc
131 Calle Iglesia Suite 200, San Clemente, CA 92672 tel. (949) 369-6141

Project Name: Eastvale
Project Number: 21116-01
Date: 5/25/2021
Boring Number: I-2

Test hole dimensions (if circular)	
Boring Depth (feet)*:	10
Boring Diameter (inches):	8
Pipe Diameter (inches):	3

*measured at time of test

Test pit dimensions (if rectangular)	
Pit Depth (feet):	
Pit Length (feet):	
Pit Breadth (feet):	

*Pre-Test (Sandy Soil Criteria)**

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval (min)	Initial Depth to Water (feet)	Final Depth to Water (feet)	Total Change in Water Level (feet)	Greater Than or Equal to 0.5 feet (yes/no)
1	7:03	7:28	25.0	7.56	7.82	0.26	No
2	7:29	7:54	25.0	7.63	7.89	0.26	No

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight, and then obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25 inches

Main Test Data

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval, Δt (min)	Initial Depth to Water, D_o (feet)	Final Depth to Water, D_f (feet)	Change in Water Level, ΔD (feet)	Observed Infiltration Rate(in/hr)
1	8:50	9:20	30.0	7.60	7.99	0.39	0.7
2	9:21	9:51	30.0	7.63	8.00	0.37	0.6
3	9:52	10:22	30.0	7.59	7.91	0.32	0.5
4	10:23	10:53	30.0	7.61	7.95	0.34	0.6
5	10:54	11:24	30.0	7.65	7.93	0.28	0.5
6	11:25	11:55	30.0	7.60	7.93	0.33	0.5
7	11:56	12:26	30.0	7.64	7.95	0.31	0.5
8	12:27	12:57	30.0	7.65	7.94	0.29	0.5
9	12:58	13:28	30.0	7.61	7.96	0.35	0.6
10	13:29	13:59	30.0	7.58	7.89	0.31	0.5
11	14:00	14:30	30.0	7.58	7.91	0.33	0.5
12	14:31	15:01	30.0	7.62	7.95	0.33	0.6

Observed Infiltration Rate (Does Not Include Any Factor of Safety) **0.6**

Sketch:

Notes:

LGC Geotechnical, Inc.

Appendix E
General Earthwork and Grading Specifications for Rough Grading

General Earthwork and Grading Specifications for Rough Grading

1.0 General

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ a qualified Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to confirm that the attained level of compaction is being accomplished as specified. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the project plans and specifications. The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of “equipment” of work and the estimated quantities of daily earthwork

contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the
Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate personnel will be available for observation and testing. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified. It is the contractor's sole responsibility to provide proper fill compaction.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed. The contractor is responsible for all hazardous waste relating to his work. The Geotechnical Consultant does not have expertise in this area. If hazardous waste is a concern, then the Client should acquire the services of a qualified environmental assessor.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be over-excavated as specified in the following section. Scarification shall continue until soils are broken down and free of oversize material and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Over-excavation

In addition to removals and over-excavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be over-excavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise over-excavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of the geotechnical consultant. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than
5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 The Contractor shall follow all OHSA and Cal/OSHA requirements for safety of trench excavations.

7.2 All bedding and backfill of utility trenches shall be done in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over

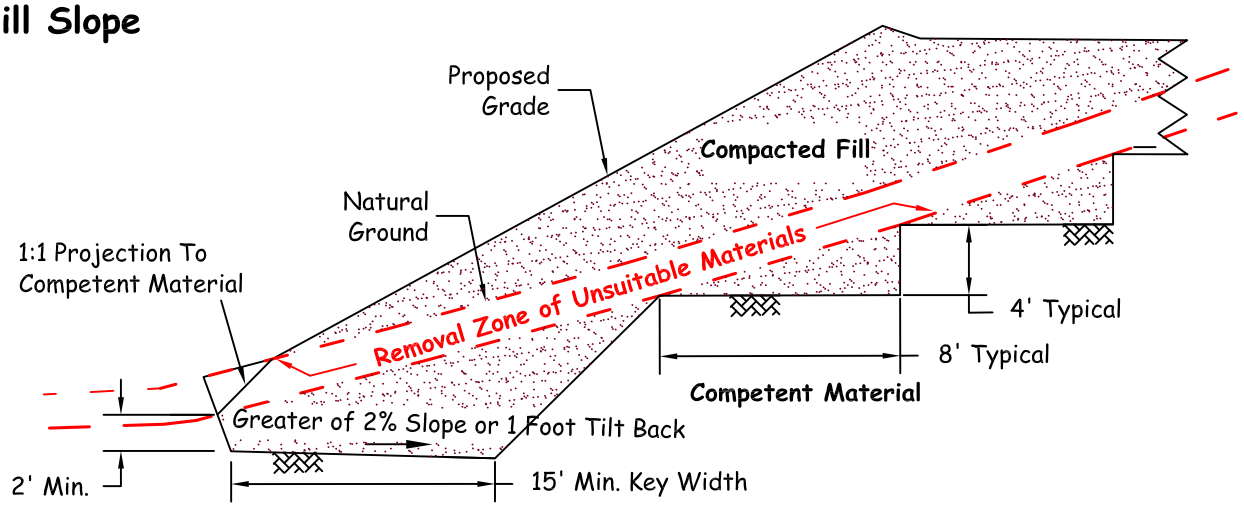
the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of maximum from 1 foot above the top of the conduit to the surface.

7.3 The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

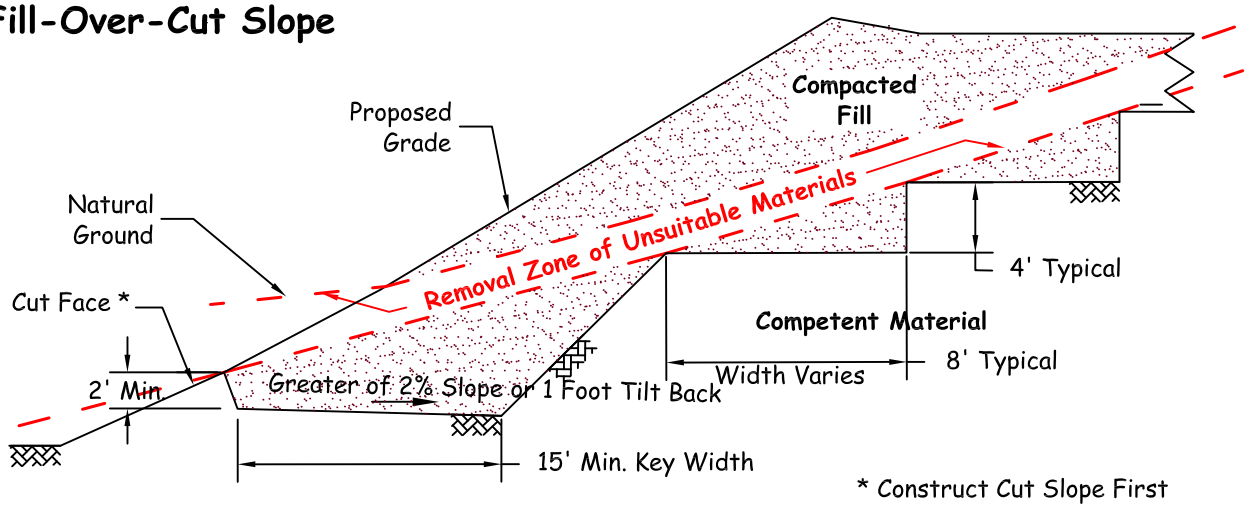
7.4 The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

7.5 Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

Fill Slope

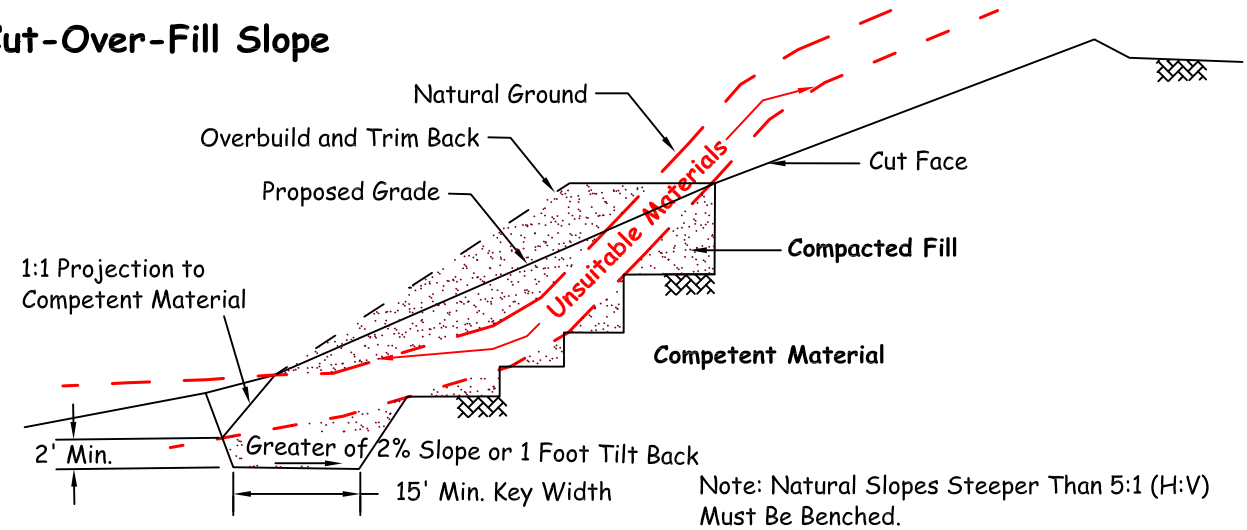


Fill-Over-Cut Slope



* Construct Cut Slope First

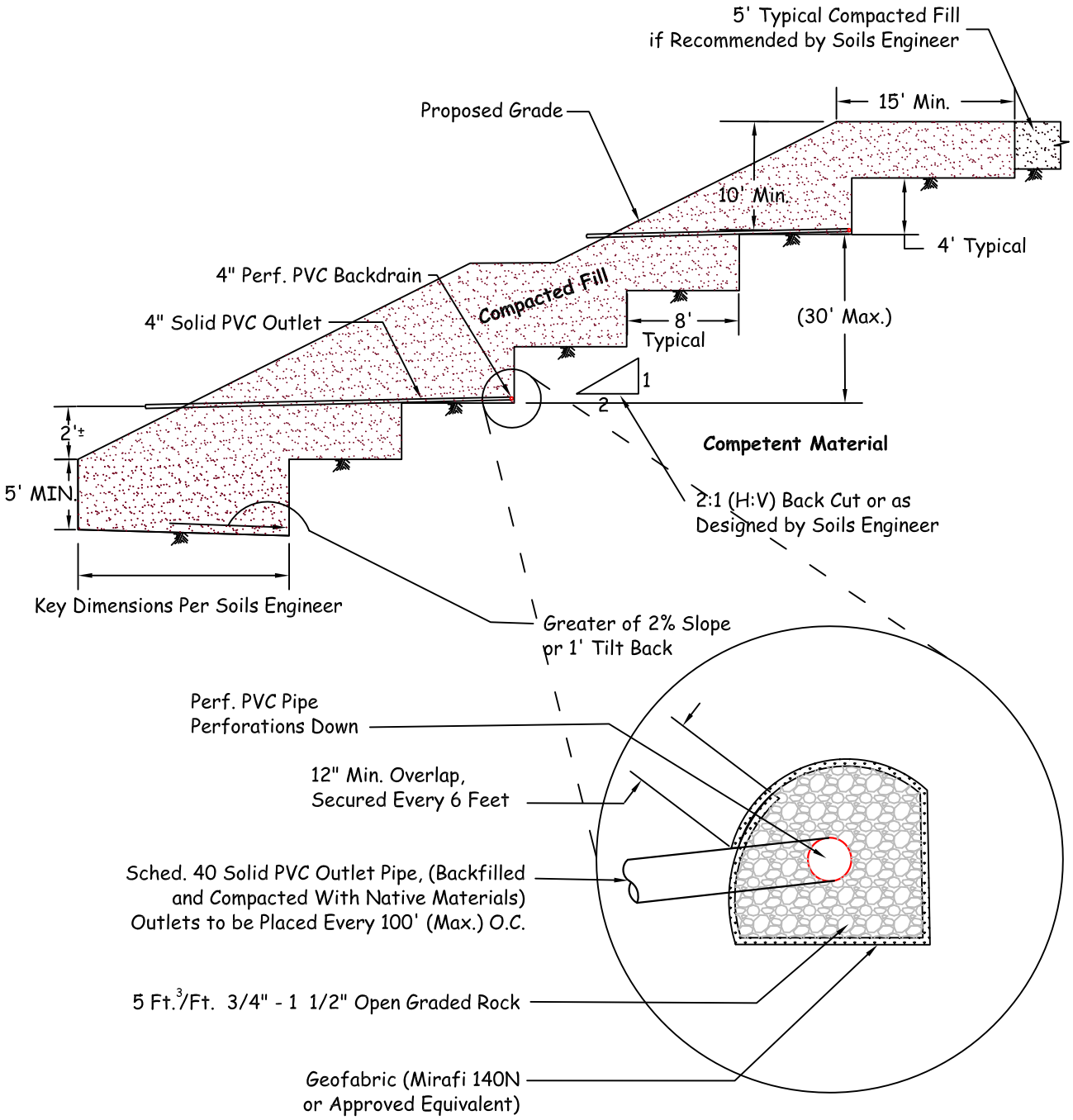
Cut-Over-Fill Slope



Note: Natural Slopes Steeper Than 5:1 (H:V) Must Be Benched.

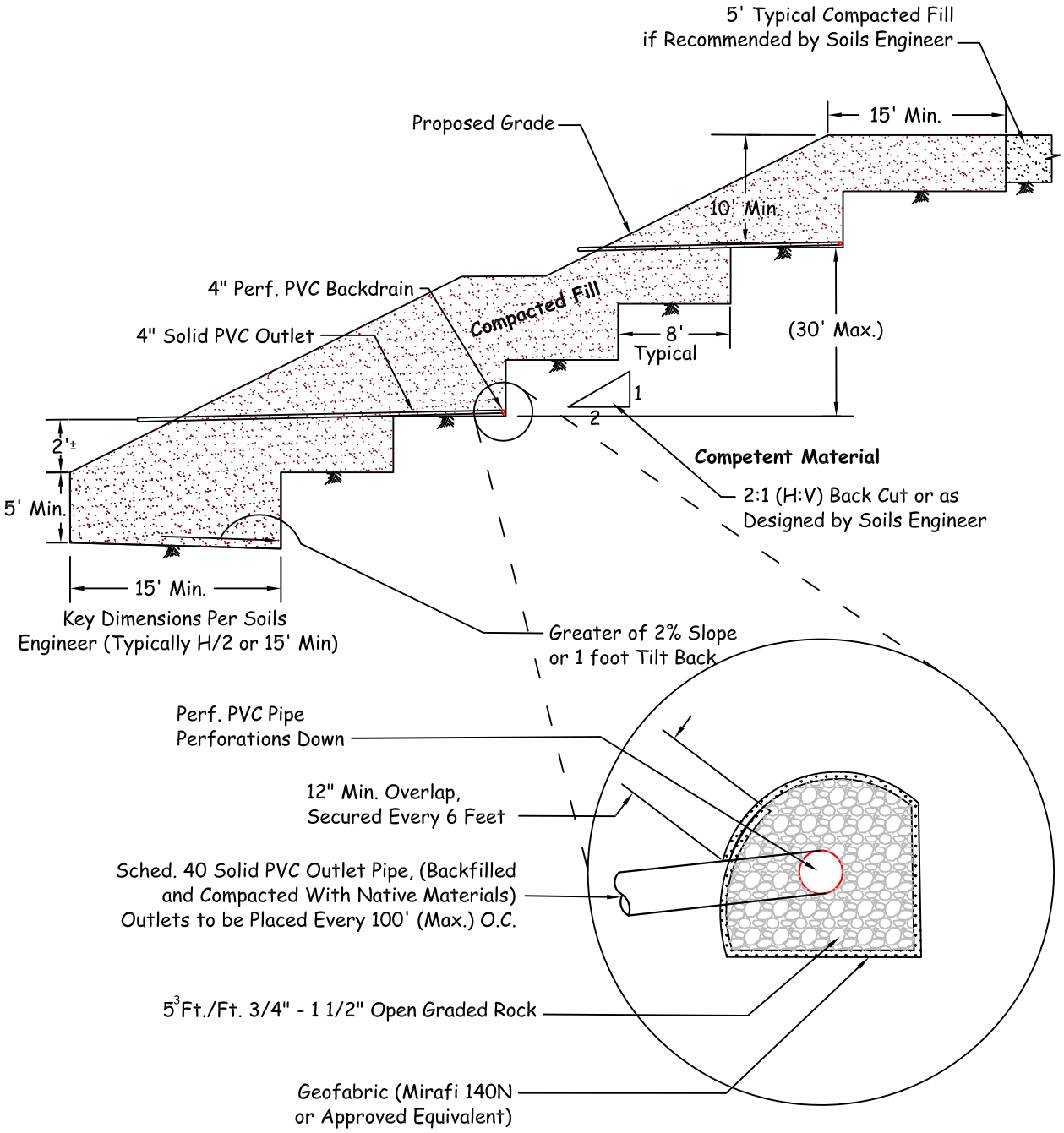
LGC Geotechnical, Inc.

KEYING AND BENCHING



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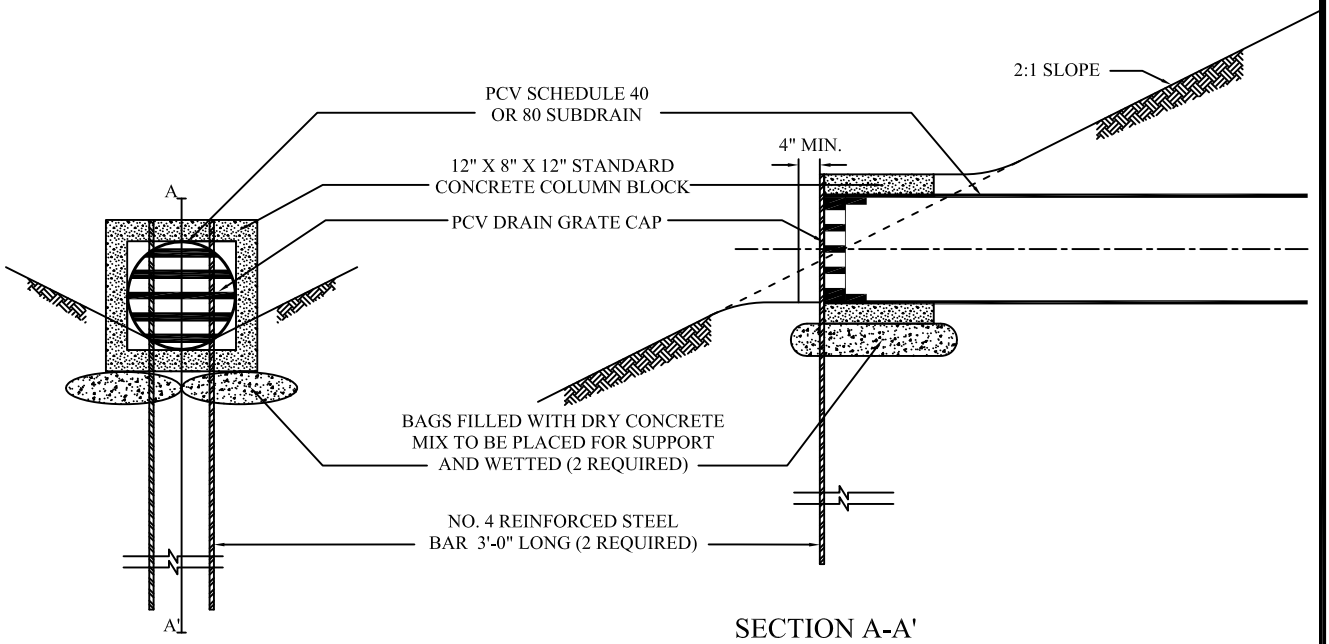
TYPICAL BUTTRESS DETAIL



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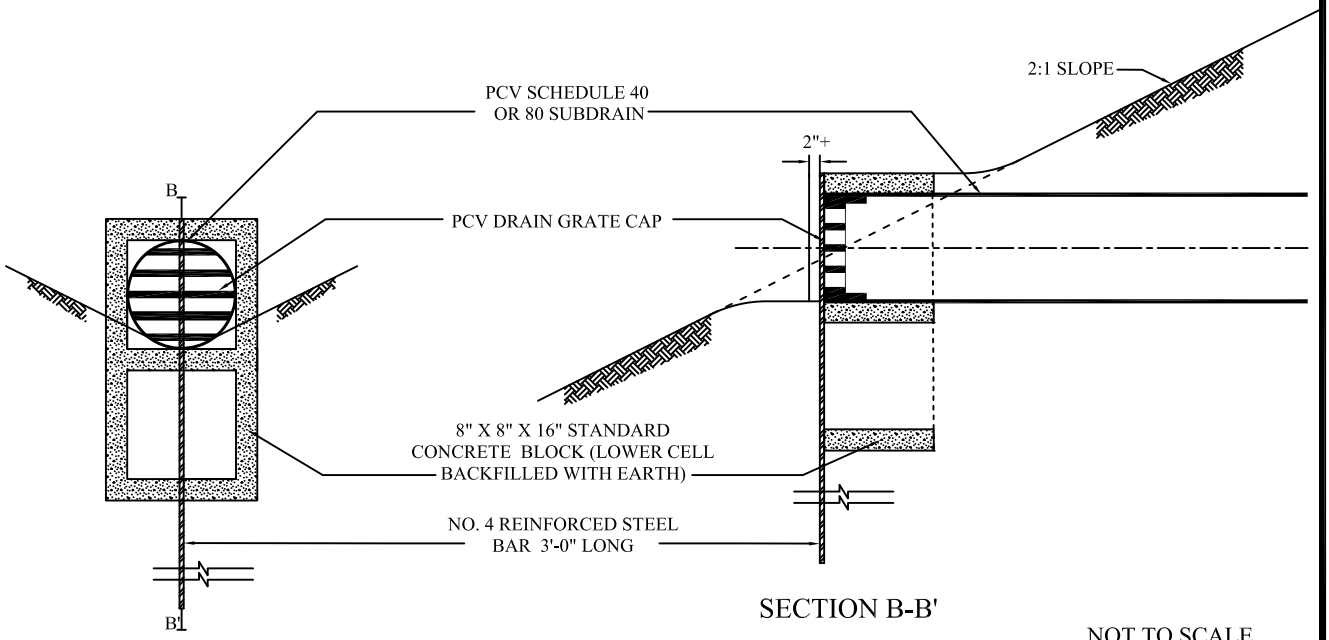
TYPICAL STABILIZATION FILL DETAIL

SUBDRAIN OUTLET MARKER -6" & 8" PIPE



SECTION A-A'

SUBDRAIN OUTLET MARKER -4" PIPE



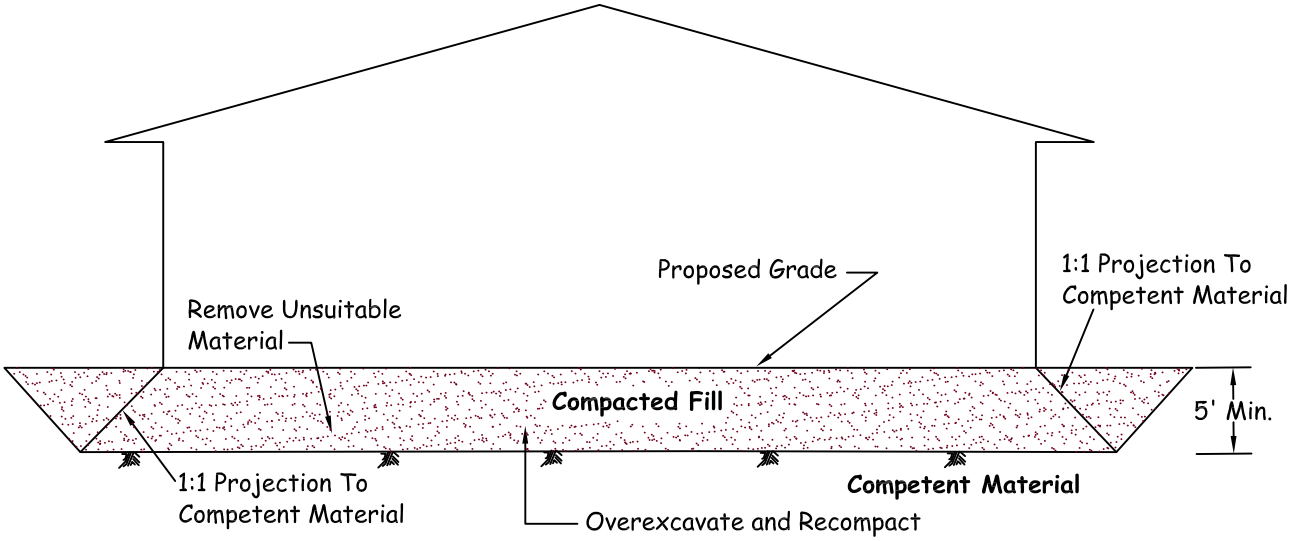
SECTION B-B'

NOT TO SCALE

LGC Geotechnical, Inc.

SUBDRAIN OUTLET MARKER DETAIL

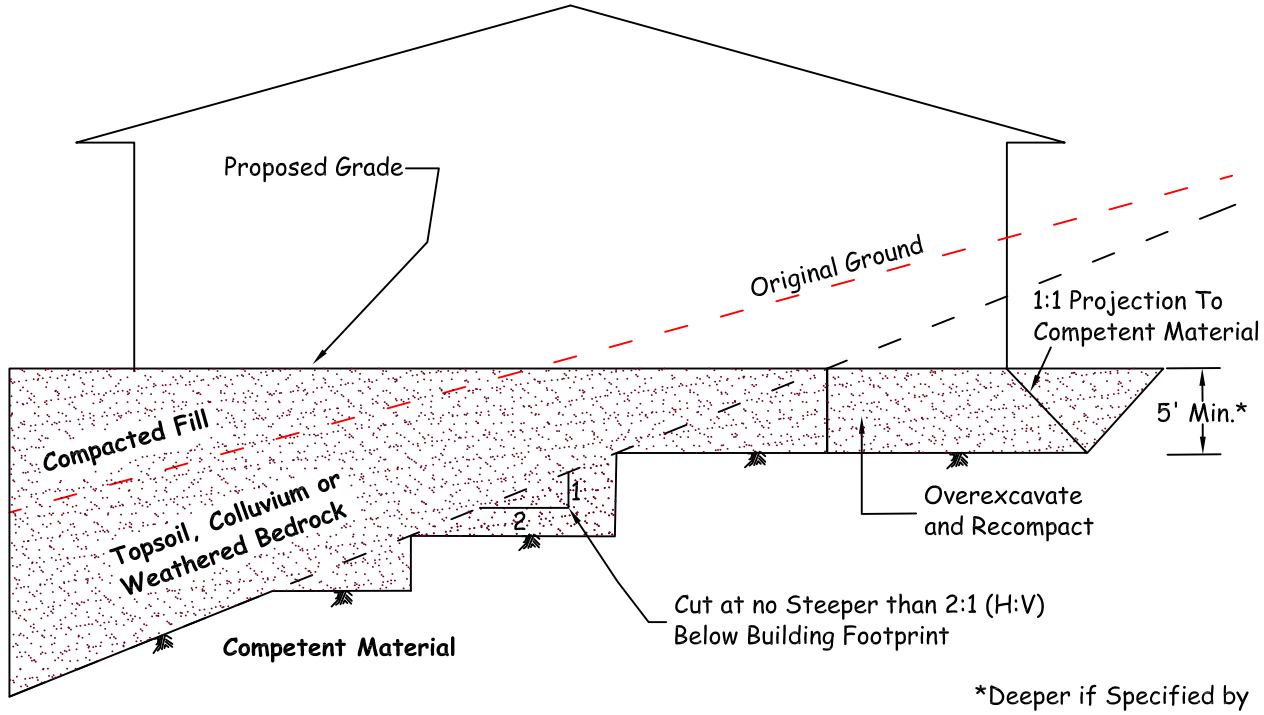
Cut Lot
(Exposing Unsuitable Soils at Design Grade)



Note 1: Removal Bottom Should be Graded With Minimum 2% Fall Towards Street or Other Suitable Area (as Determined by Soils Engineer) to Avoid Ponding Below Building

Note 2: Where Design Cut Lots are Excavated Entirely Into Competent Material, Overexcavation May Still be Required for Hard-Rock Conditions or for Materials With Variable Expansion Characteristics.

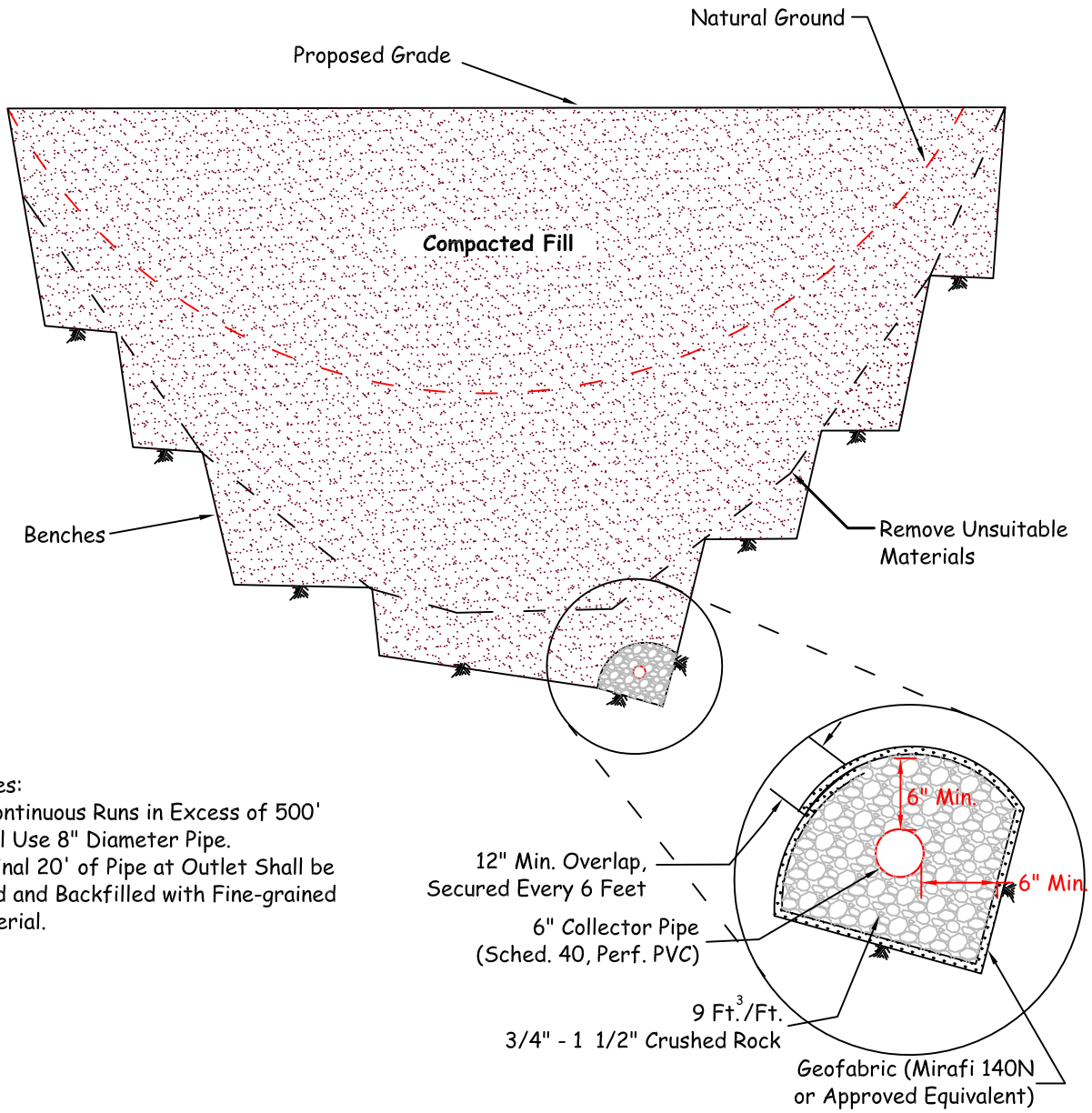
Cut/Fill Transition Lot



*Deeper if Specified by Soils Engineer

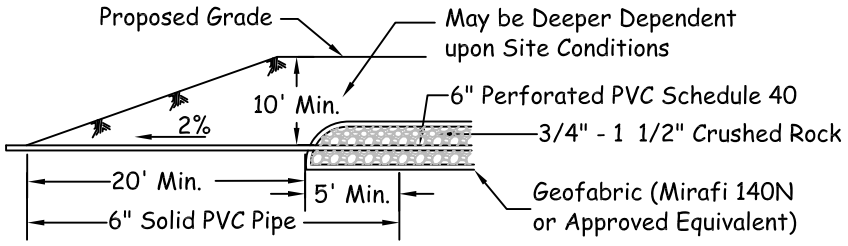
LGC Geotechnical, Inc.

CUT AND TRANSITION LOT OVEREXCAVATION DETAIL



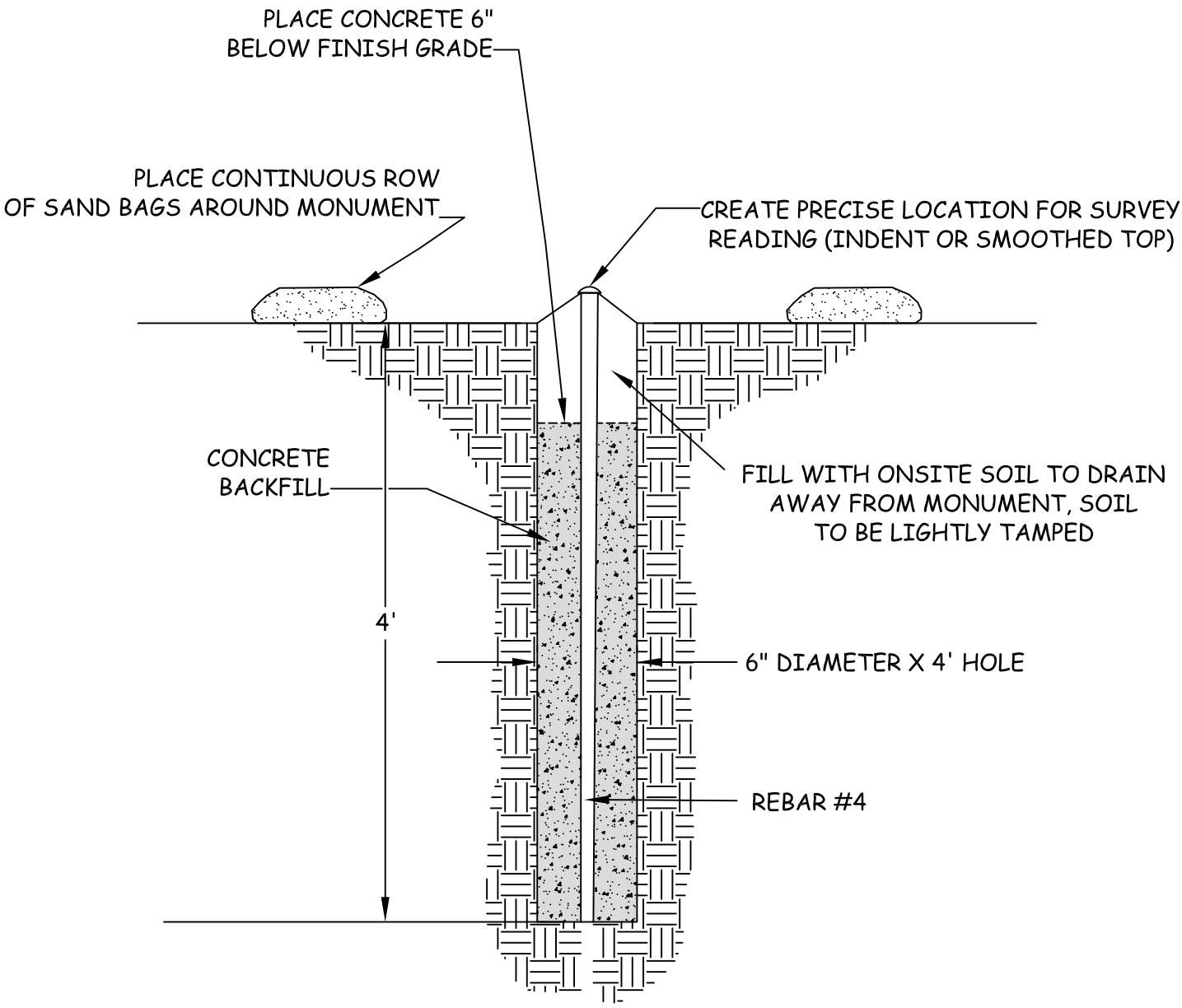
Notes:
1) Continuous Runs in Excess of 500' Shall Use 8" Diameter Pipe.
2) Final 20' of Pipe at Outlet Shall be Solid and Backfilled with Fine-grained Material.

Proposed Outlet Detail



LGC Geotechnical, Inc.

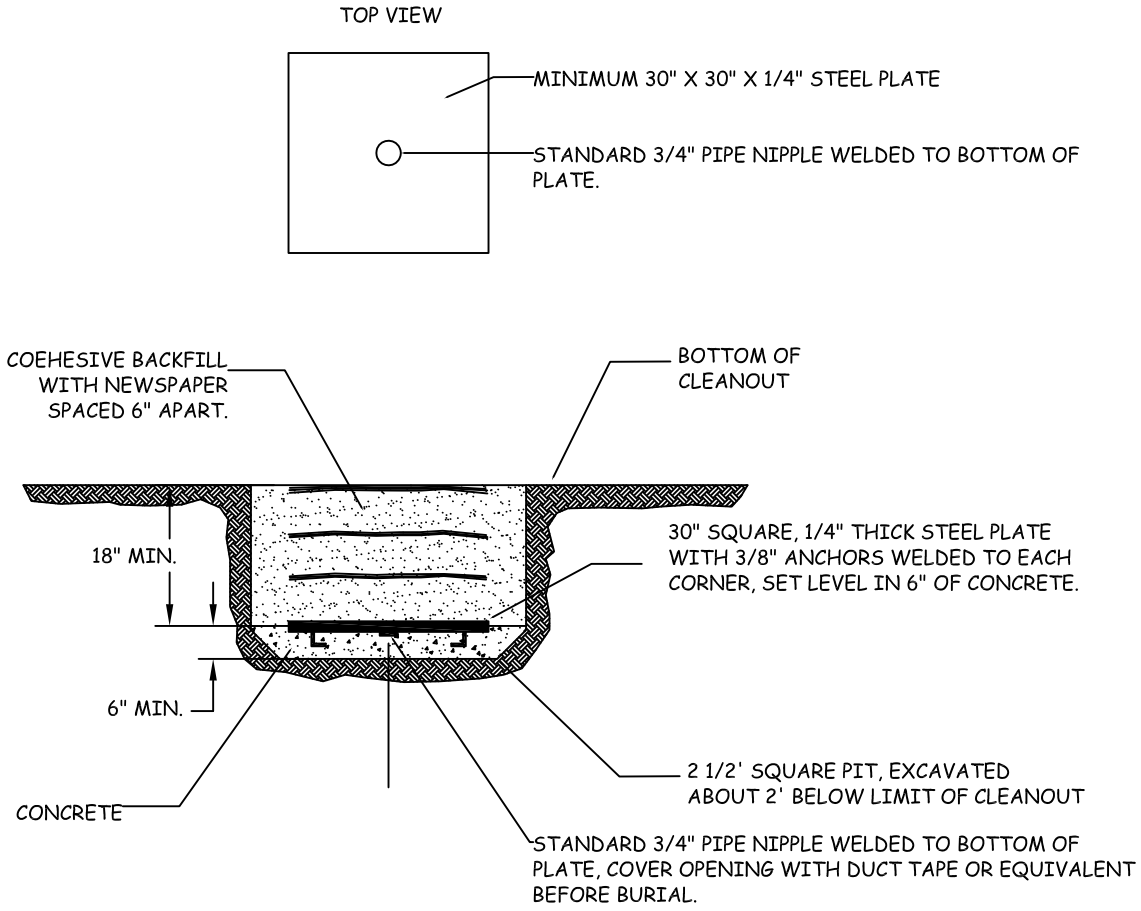
CANYON SUBDRAINS



NO CONSTRUCTION EQUIPMENT WITHIN 25 FEET
OF ANY INSTALLED SETTLEMENT MONUMENTS

LGC Geotechnical, Inc.

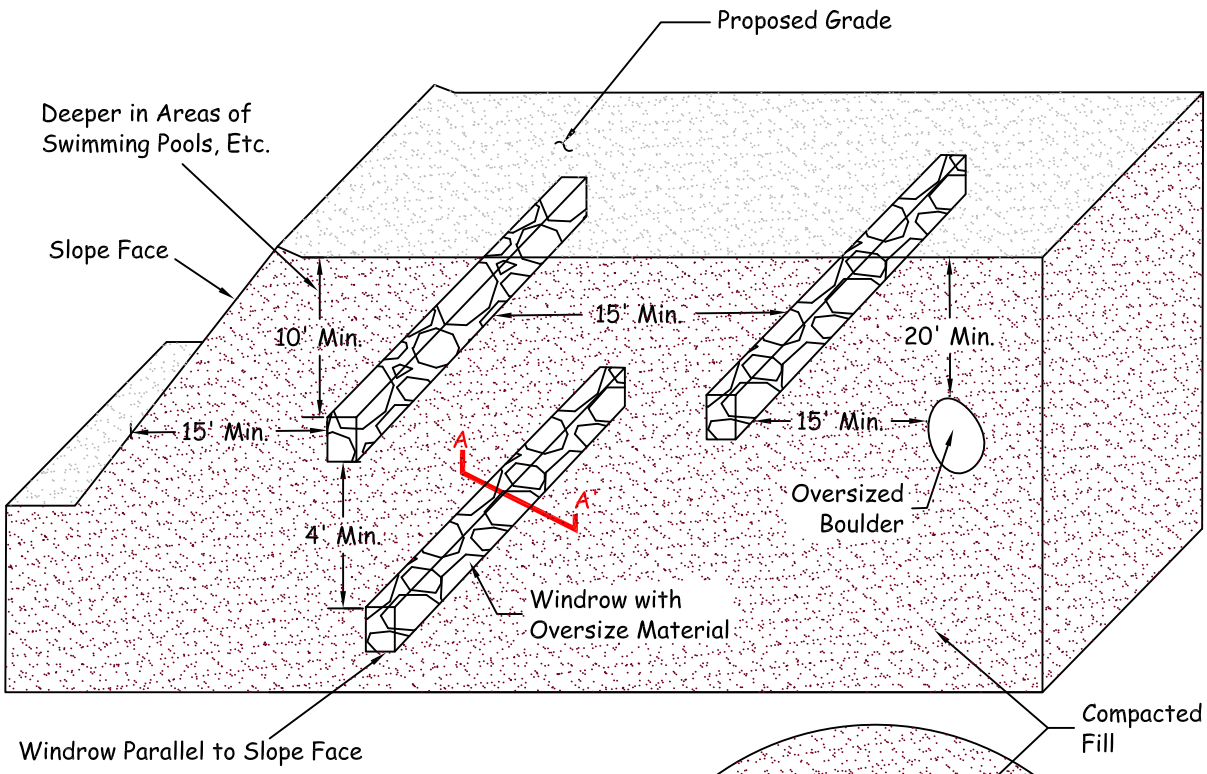
TYPICAL SURFACE SETTLEMENT MONUMENT

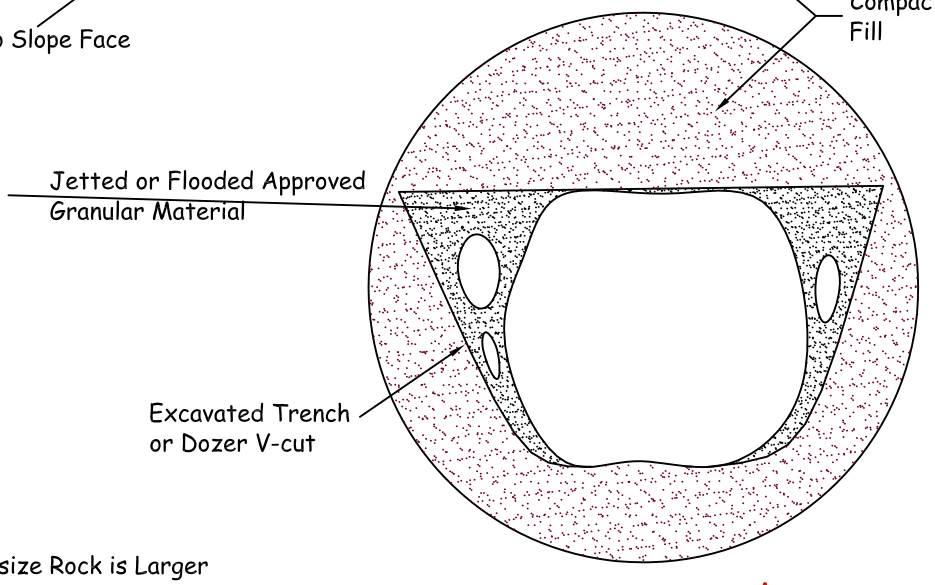


1. SURVEY FOR HORIZONTAL AND VERTICAL LOCATION TO NEAREST .01 INCH PRIOR TO BACKFILL USING KNOW LOCATIONS THAT WILL REMAIN INTACT DURING THE DURATION OF THE MONITORING PROGRAM. KNOW POINTS EXPLICITELY NOT ALLOWED ARE THOSE LOCATED ON FILL OR THAT WILL BE DESTROYED DURING GRADING.
2. IN THE EVENT OF DAMAGE TO SETTLEMENT PLATE DURING GRADING, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE GEOTECHNICAL ENGINEER AND SHALL BE RESPONSIBLE FOR RESTORING THE SETTLEMENT PLATES TO WORKING ORDER.
3. DRILL TO RECOVER AND ATTACH RISER PIPE.

LGC Geotechnical, Inc.

TYPICAL SETTLEMENT PLATE AND RISER





Note: Oversize Rock is Larger
than 8" in Maximum Dimension.

Section A-A'

LGC Geotechnical, Inc.

OVERSIZE ROCK DISPOSAL DETAIL

April 5, 2022 Project No. 21116-01

Mr. A.J. Jarvis
The New Home Company
85 Enterprise, Suite 450
Aliso Viejo, CA 92656

Subject: ***Geotechnical Responses to City Reviewer Geotechnical Review Comments dated February 16, 2022 for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California***

Introduction

In accordance with your request, LGC Geotechnical, Inc. has prepared this geotechnical response-report to the Eastvale City Reviewer's (Michael Baker International) geotechnical review comments dated February 16, 2022 (Michael Baker, 2022) regarding the proposed approximately 160-acre residential development located known as "Leal" in the City of Eastvale, California. It is our understanding the review comments are based on the review of the referenced geotechnical evaluation (LGC Geotechnical, 2021).

This response report should be considered as part of the project design documents in conjunction with our referenced geotechnical report (LGC Geotechnical, 2021). In the case of conflict, the recommendations contained herein should supersede those provided in our previous reports. The remaining recommendations provided in our reference geotechnical reports (LGC Geotechnical, 2021) remain valid and applicable.

GEOTECHNICAL REVIEW COMMENT DATED February 16, 2022

For your convenience, the geotechnical review comments have been repeated below along with our response.

First Comment

"Suggest including a brief description of potential erosion impacts.in response to CEQA Appendix G Checklist question for Geology and Soils b) "Would the project result in substantial soil erosion of the loss of topsoil?"

Response to First Comment

The proposed grading activities that will be part of the development of the subject site will include removal of the topsoil across the site and replacement with engineered fill material. The proposed grading plan does not have any natural or steep slopes that would be subject to excessive erosion. The ground surface at the completion of grading will be engineered fill with typical site drainage and typical slope inclinations.

Second Comment

"Please indicate whether the project site has a low or high potential for expansive soil."

Response to Second Comment

As mentioned within sections 1.4, 3.0 and 4.2, along with the lab test result presented in Appendix C, of the provided geotechnical report (LGC, 2021) the site soils expansion potential is classified as "Very Low".

Should you have any questions regarding this report, please do not hesitate to contact this office.

Sincerely,

LGC Geotechnical, Inc.



Blake J. Elliott, RCE 70705
Project Engineer

BJE

Attachments: References
Review Comments

Distribution: (1) Addressee (electronic copy)
(1) Carlson Strategic Land Solutions
Attn: Mr. Peter Carlson

References

LGC Geotechnical, Inc., 2021, Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California, Project No. 21116-01, dated June 21, 2021

Michael Baker International, 2022, Leal Master Plan EIR Addendum Peer Review, dated February 16, 2022

Appendix F

HILLMANN
CONSULTING

PHASE I ENVIRONMENTAL SITE ASSESSMENT



Leal Ranch
12741 and 12745 Limonite Avenue and 12740 58th Street
Eastvale, California 92880

Prepared For:

The New Home Company
15231 Laguna Canyon Road, Suite 250
Irvine, California 92618

September 20, 2021
Revised March 23, 2022

Hillmann Project Number C3-8458

HILLMANN
CONSULTING

September 20, 2021

Mr. Matt Gibson
The New Home Company
15231 Laguna Canyon Road, Suite 250
Irvine, California 92618

RE: Phase I Environmental Site Assessment
Leal Ranch
12741 and 12745 Limonite Avenue and 12740 58th Street
Eastvale, California 92880
Hillmann Project No: C3-8458

Dear Mr. Gibson:

Hillmann Consulting LLC is pleased to provide the results of our Phase I Environmental Site Assessment of the above referenced property. This assessment was performed in general accordance with the scope and limitations of ASTM Practice E1527-13, which is the latest version of the E1527 standard published by the ASTM.

We appreciate the opportunity to provide environmental due diligence services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact our office at 714-634-9500.

Sincerely,

Hillmann Consulting, LLC

Gabriela Cyrulik
Environmental Technician

Ryan Terwilliger
Western Operations Manager

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List of Abbreviations/Acronyms

Hillmann may use the following abbreviations and acronyms for common terminology described in our report. Not all abbreviations or acronyms may be applicable to this report:

ACM	– Asbestos Containing Material
AOC	– Area of Concern
AST	– Aboveground Storage Tank
ASTM	– American Society for Testing Materials
BER	– Business Environmental Risk
CEA	– Classification Exception Area
CERCLA	– Comprehensive Environmental Response Compensation and Liability Act
CERCLIS	– Comprehensive Environmental Response Compensation and Liability Information System
CESQG	– Conditionally Exempt Small Quantity Generator
COC	– Chemicals of Concern
CORRACTS	– Corrective Action Sites
CREC	– Controlled Recognized Environmental Condition
DNPL	– Delisted National Priority List
DTSC	– Department of Toxic Substances Control
ENG	– Engineering
ERNS	– Emergency Response Notification System
FDEP	– Florida Department of Environmental Protection
FDNY	– Fire Department, City of New York
FDOT	– Florida Department of Transportation
FOI/FOIA/FOIL	– Freedom of Information / Freedom of Information Act / Freedom of Information Letter
HVAC	– Heating Ventilation & Air Conditioning
HREC	– Historic Recognized Environmental Condition
IAQ	– Indoor Air Quality
ISRA	– Industrial Site Recovery Act
LBP	– Lead-Based Paint
LQG	– Large Quantity Generator
LTANK	– Leaking Storage Tank
LUST	– Leaking Underground Storage Tank
MassDEP	– Massachusetts Department of Environmental Protection
SDS/MSDS	– Safety Data Sheet / Material Safety Data Sheet
NA	– Not Applicable
NCDOH	– Nassau County Department of Health
NFA	– No Further Action
NFRAP	– No Further Remedial Actions Planned
NJDEP	– New Jersey Department of Environmental Protection
NPDES	– National Pollutant Discharge Elimination System
NPL	– National Priority List
NYCDEP	– New York City Department of Environmental Protection
NYCDOB	– New York City Department of Buildings
NYCOER	– New York City Office of Environmental Remediation
NYSDEC	– New York State Department of Environmental Conservation
OPRA	– Open Public Records Act
PADEP	– Pennsylvania Department of Environmental Protection
PAH	– Polycyclic Aromatic Hydrocarbon
PCE	– Perchloroethylene
RAO	– Response Action Outcome
RCRA	– Resource Conservation and Recovery Act
RCRIS	– Resource Conservation and Recovery Information System
REC	– Recognized Environmental Condition
RWQCB	– Regional Water Quality Control Board
SCAQMD	– South Coast Air Quality Management District
SCDHS	– Suffolk County Department of Health Services
SDG	– Significant Data Gap
SEMS	– Superfund Enterprise Management System
SRP	– Site Remediation Program
SQG	– Small Quantity Generator
SVOC	– Semi-Volatile Organic Compound
TCE	– Trichloroethylene
TSDF	– Treatment Storage and/or Disposal Facility
USEPA	– United States Environmental Protection Agency
UST	– Underground Storage Tank
VEC	– Vapor Encroachment Condition
VOC	– Volatile Organic Compound

1.0 FINDINGS, OPINIONS, AND CONCLUSIONS

Hillmann Consulting, LLC (Hillmann) performed a Phase I Environmental Site Assessment (ESA) of 12741 and 12745 Limonite Avenue and 12740 58th Street, Eastvale, California (the "Property"). The assessment has been conducted in accordance with our contracted scope of work and the ASTM Standard Practice E 1527-13 for Phase I Environmental Site Assessments and All Appropriate Inquiries (AAI) Final Rule 40 CFR Part 312. This section contains a summary of findings, opinions and conclusions made by this assessment. However, this section, alone, does not constitute the complete assessment. The report must be read in its entirety.

1.1 Summary of Project Details

Primary Street Address:		12741 and 12745 Limonite Avenue and 12740 58th Street			
City:	Eastvale	**County:**	Riverside	**State:**	California
Tax ID/Parcel Number:		164030010, 164030012, 164030013, 164030014, 164030024, 162030025			
Property Owner:		James Borba			
Zoning Designation:		Leal Master Plan			
Approx. Property Area:		153.3 acres			
Buildings/# of Floors		Five (5), residential structures/single-story Dairy Barn Horse Barn Maintenance/Repair Structure			
Approx. Building Area:		N/A			
Approx. Year Built:		1931			
Commercial Occupants:		None			
Current Use:		Dairy farm with five (5) residential structures			
Prior Uses:		Dairy farm, horse ranch, orchard			
Inspected By:		Ms. Gabriela Cyrulik			
Site Contact/Company:		Mr. Matt Gibbson/New Home Company			
Site Escort/Company:		Mr. Craig Leal/Property Owner			
Inspection Date:		June 21, 2021			
Weather Conditions:		Sunny, 81 degrees F			

1.2 Findings Summary Table

Assessment Subject	No REC	REC	CREC	HREC	Rpt. Ref.
Property Regulatory Records Review:	X				4.3
Property Historical Records Review:	X				4.2
Bulk Petroleum Storage:	X				5.3
On-Site Operations:	X				5.3
On-Site Haz-Mat Storage/Use/Spills:	X				5.3
Transformers/Hydraulic Systems:	X				5.3
Waste Discharges:	X				5.3
Interviews:	X				6.0
Adjoining & Nearby Properties:	X				4.3 5.2
Prior Env. Reports/User Provided Info:	X				3.0
Data Gaps:	X				2.3

1.3 Findings, Opinions and Conclusions

1.3.1 Recognized Environmental Conditions

Hillmann has performed a Phase I Environmental Site Assessment in accordance with the scope and limitations of ASTM Practice E1527-13 of the Property as described in Section 2 of this report. Any additions to, exceptions to, or deletions from this practice are also described in Section 2 of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the Property, except for the following:

RECOGNIZED ENVIRONMENTAL CONDITIONS	
	No RECs were identified.
HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS	
	No HRECs were identified.
CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS	
	No CRECs were identified.
SIGNIFICANT DATA GAPS	
	No SDGs were identified.

1.3.2 REC Response Action Recommendations

The following table presents recommended response actions to the issues noted for further investigation and/or corrective action:

REC RESPONSE ACTION SUMMARY TABLE	
REC	**Response Action**
	None identified

1.3.3 Notable Environmental Conditions / *De Minimis* Conditions

The following environmental conditions were identified, but are not considered to be a REC in connection with the Property:

NOTABLE ENVIRONMENTAL CONDITIONS / DE MINIMIS CONDITIONS	
1.	Leal Ranches at 12740 58th Street (Property) is listed on the FINDS, ECHO, ENF, CIWQS, CERS database. The FINDS listing is associated with the facility being registered as a NPDES point source. Available records identified no violations. The ECHO listing is related to the Clean Water Act compliance as administered by the state of California. No violations were noted for the past five years. The ENF listing is associated with an apparent violation observed and corrected during a 2008 inspection. The CIWQS listing identified no violations observed in the past five years. The CERS listing is associated with an inspection of the facility in accordance with the California Water Code. Violations were noted in 2007, 2008, and 2010 associated with animal waste disposal documentation and associated with implementing the BMP (Best Management Practices) for the facility. No additional violations were noted in the record. Because these listings do not indicate a material threat of a release, Hillmann concludes they are unlikely to represent an environmental concern to the Property and recommends no further investigation regarding this issue.
2.	Portions of the Property were utilized for dairy operations from approximately the 1970s to 2019. Hillmann observed areas of residual livestock waste accumulations on the east and west portions of the Property. Elevated concentrations of methane gas are sometimes associated with areas where livestock wastes accumulate, and can sometimes give rise to the need for mitigation prior to development. A methane survey was conducted in July of 2021, which indicated that most samples had insignificant concentrations of subsurface methane gas, and field screening indicated just three (3) samples (of 15) had detectable concentrations of methane. However, it is important to note that the methane distribution is not widespread and that the areas investigated are still covered with animal waste. This material should be removed in connection with site development activities. Ultimately, Hillmann concludes that the residual livestock does not indicate a REC with connection to the Property.
3.	The Property is registered as having a 550-gallon historical fuel UST present on the Property in 1988. The Property owner indicated that the UST was removed from the ground in the late 1980s and subsequently utilized as an AST. The former UST was reported to have been located on the northern portion of the Property. No tank closure records for the former were available. However, a Limited Phase II Investigation and GPR Investigation was conducted in July 2021 within the vicinity of the former UST. Soil and soil gas samples were collected within the historical UST, which indicated no detectable concentrations of petroleum hydrocarbons or VOC (*i.e.*, the results were "non-detect"), and no heavy metal concentrations exceeding residential screening levels. The results from soil gas sampling in these areas indicated no VOC concentrations exceeding current residential screening levels and these very low concentrations likely do not pose a significant environmental or human health concern for the proposed residential use. Additionally, the GPR Investigation identified no evidence of the presence of the former UST. Therefore, the historical 550-gallon UST on the Property does not indicate a REC with connection to the Property and Hillmann recommends no further investigation regarding this issue.
4.	Maintenance and repair of farm equipment and vehicles appear to have been conducted for an extended period of time in an area of the northern portion of the Property. Hillmann observed a significant amount of equipment, vehicles, trash, drums, and other materials in this area. Soil staining was observed within the vicinity of the maintenance repair area, and by the entrance of the dairy barn at 12741 Limonite Avenue. However, a Limited Phase II Investigation was conducted in July 2021 within the vicinity of the former maintenance repair area. Soil and soil gas samples were collected within the targeted areas of the Property. Results from soil sampling in the maintenance areas were "non-detect" for petroleum hydrocarbons and VOCs, and no heavy metal concentrations were detected at levels exceeding residential screening levels. The results from soil gas sampling in these areas indicated no VOC concentrations exceeding current residential screening levels, and the very low

	concentrations of detected chemicals are unlikely to represent an environmental or human health concern for the proposed residential use. Therefore, the historical maintenance operations do not indicate a REC with connection to the Property and Hillmann recommends no further investigation regarding this issue.
5.	The Property was utilized as orchards since approximately 1931 to the 1950s. Concentrations of pesticides are commonly associated with shallow soils at sites with historical agricultural use. In addition, there is a potential for pesticide impacts to soil in the vicinity of the older farm structures along the northern perimeter of the Property where pesticide storage and mixing may have occurred. Accordingly, ninety-six (96) individual samples were collected, and analyzed for OCPs and Title 22 Metals, which are sometimes associated with the application of heavy-metal containing herbicides. Results of the OCP analysis indicated low levels of 4,4'-DDE and 4,4'-DDT which were below the applicable RSLs for residential applications. The results from heavy metal analysis indicate the samples had low, naturally-occurring background levels of metals, which did not exceed the applicable RSLs for residential applications. Therefore, the historical orchard operations on the Property do not indicate a REC with connection to the Property and Hillmann recommends no further investigation regarding this issue.
6.	Hillmann observed the presence of discarded drums located in the maintenance repair area. The drums indicated a concern due to the unknown content and possibility of undocumented chemical spills/releases to have occurred in the past and/or occur when the site is cleared for development. However, a Limited Phase II Investigation was conducted in July 2021 within the vicinity of the discarded industrial drums. Soil samples that were collected within the area indicated no detectable concentrations of petroleum hydrocarbons or VOCs, and no heavy metal concentrations exceeding residential screening levels. The results from soil gas sampling in these areas indicated no VOC concentrations exceeding current residential screening levels. These very low concentrations likely do not pose a significant environmental or human health concern for the proposed residential use. Therefore, the historical discarded industrial drums on the Property did not indicate a REC with connection to the Property. Hillmann recommends no further investigation regarding this issue.
7.	Hillmann observed piles of concrete, abandoned drums, heavy machinery, equipment, cars, tires, furniture, and other miscellaneous trash and debris present throughout the northern boundary of the Property. These features do not appear to represent an environmental concern to the Property. It is recommended all trash and debris be properly disposed off-site during Property redevelopment. Otherwise, Hillmann recommends no further action or investigation regarding this issue.
8.	Septic systems are present on the north side of the Property by the former residential homes. The Property owner indicated that there are two (2) 1,500-gallon, and one (1) 500-gallon septic tanks on the northern area of the Property, and that the tanks are utilized for the residential structures on the Property. Based on their use, these features appear unlikely to represent an environmental concern and Hillmann recommends no further investigation regarding this issue.
9.	Harada Elementary School - Echeverria Dairy/Cleveland Ave is listed on the Envirostor, LUST, SCH database. The site is adjacent to the southwest and is down gradient relative to the Property. The facility is incorrectly reported as being adjacent to the Property. The school is located approximately 1,200 feet south, and the facility has been investigated for potential contaminants of concern including arsenic, DDD, DDE, DDT and methane with a no further action status received. The LUST record is associated with a historic gasoline UST located approximately 1 mile south of the Property at the Eastvale Elementary School property. These issues do not represent an environmental concern and Hillmann recommends no further investigation regarding this issue.
10.	Ralphs Grocery #45 Fuel Center-12618 Limonite Avenue, is listed on the UST, CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS, RCRA-LQG, CHMIRS databases. The site is adjacent to the south and is down-gradient relative to the Property. The facility is registered and currently operates as an automotive filling station utilizing USTs for petroleum storage. Minor violations associated with the fuel dispensing systems were historically noted and returned to compliance. A release of seven gallons of gasoline was reported to the concrete and asphalt and was cleaned up by a contractor. The waste disposal records did not identify any violations or releases to the Property. Based on the down-gradient location and lack of leaking UST database listings, the adjoining filling station is not considered to be a REC in connection to the Property. Hillmann recommends no further investigation regarding this issue.
11.	Vons Fuel Center #2688 at 6110 Hamner Ave is listed on the UST, CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS, RCRA NonGen/NLR databases. The site is adjacent to the east, and is down-gradient relative to the Property. The facility operates a vehicular fuel dispensary utilizing USTs for petroleum distillate storage. The records indicate the facility is in compliance. A surficial, *de minimis* release of two (2) gallons of gasoline was reported in 2012. A surficial, *de minimis* release of four (4) gallons of diesel was reported in 2006.

	Minor violations associated with the fuel dispensing systems were historically noted and returned to compliance. No releases to soil or groundwater were identified. The waste disposal records did not identify any violations or releases to the Property. Based on the down-gradient location and lack of leaking UST database listings, the adjoining filling station is not considered to be a REC in connection to the Property.

1.3.4 Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history and setting of the subject *property*. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



_____
Ryan Terwilliger
Environmental Professional

1.4 Business Environmental Risks / Non-ASTM Scope

Hillmann has performed a limited review of the following potential Business Environmental Risks (BER), also known as "Non-ASTM Scope concerns", in accordance with the contracted scope of work scope for this assessment. The following is a summary of findings for applicable BERs. For a more detailed discussion of the findings and contracted scope of work, please see the referenced report section.

BUSINESS ENVIRONMENTAL RISKS / NON-ASTM SCOPE			
Subject	**Findings**	**Not Appl.**	**Rpt. Ref.**
Asbestos	Existing dwelling and farm structures may contain ACM and should undergo asbestos surveys and abatement prior to demolition. Suspected ACM noted during a cursory visual screening included sheetrock wall systems, brick and mastic, floor tile with associated mastics, and roofing materials.		7.1
Lead Paint	Existing dwelling and farm structures may have components coated with lead containing paint, and undergo testing to determine appropriate worker safety and waste handling/disposal practices.		7.2
Radon	Property is located in the USEPA radon designation Zone 2 or 'moderate risk' area for radon. According to the CA Radon database, fifteen (15) recorded tests in zip code 92880 recorded 1 pCi/L indoor concentrations. Radon appears unlikely to represent an environmental concern.		7.3
Mold / Microbial Damage	Hillmann did not observe any evidence of significant problems with moisture intrusion or mold/microbial growth at the Property.		7.4
NWI Wetlands	No mapped wetland areas were depicted at the Property by NWI wetland maps.		7.5

Lead in Drinking Water	Potable water at the Property is provided via an on-site well installed in 2010. No water quality testing of the well water was available.		7.6

2.0 INTRODUCTION

2.1 Purpose and Scope

This assessment was conducted utilizing generally accepted Phase I ESA industry standards in accordance with the ASTM Standard Practice E1527-13. The ASTM describes these methodologies as representing good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products. As such, this practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner or bona fide prospective purchaser limitations on CERCLA liability (hereinafter, the "landowner liability protections," or "LLPs"): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses the property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35) (B). The primary goal of the processes established by ASTM E1527-13 is to identify *recognized environmental conditions* in connection with the Property.

The term *recognized environmental condition (REC)* is defined by the ASTM as the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

The ASTM has also defined the terms *historical recognized environmental conditions* and *controlled recognized environmental conditions* as two additional types of RECs. The term *historical recognized environmental condition (HREC)* is defined as a past release of any hazardous substances or petroleum products that has occurred in connection with the Property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the Property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls or engineering controls).

The term *controlled recognized environmental condition (CREC)* is defined as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Conditions determined to be *"de minimis conditions"* are not considered to be RECs, HRECs or CRECs. *De minimis condition* is defined by the ASTM, "…as a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

The chief components of this assessment are generally described as follows:

- A non-invasive visual reconnaissance of the Property and adjoining properties in accordance with ASTM guidelines for evidence of RECs.
- Interviews of past and present owners and occupants and state and local government officials, seeking information related to the potential presence of RECs at the Property.

- A review of standard physical record sources for available topographic, geologic and groundwater data.

- A review of standard historic record sources, such as fire insurance maps, city directories, aerial photographs, prior reports and interviews, etc., to determine prior uses of the Property from the present, back to the Property's first developed use, or back to 1940, whichever is earlier.

- A review of standard environmental record sources including federal and state environmental databases, and additional environmental record sources, to identify potential regulatory concerns with the Property, adjoining properties and properties located within the surrounding area.

An evaluation of environmental or other regulatory compliance matters is excluded from the scope of this assessment.

These methodologies are described as representing good commercial and customary practice for conducting an Environmental Site Assessment of a property for the purpose of identifying recognized environmental conditions.

2.1.1 Business Environmental Risks/Non-ASTM Scope Considerations

In accordance with our contract agreement, Hillmann may have addressed the following potential environmental subject matters that are outside of the requirements of the ASTM E1527-13 standard:

Asbestos-Containing Materials (ACM): A non-intrusive visual screening for the presence of suspect ACM within the accessed areas of buildings built prior to 1990 on the Property. It is emphasized that this non-intrusive visual screening does not constitute an asbestos survey/inspection of the premises. An asbestos survey/inspection should be sought by the report User(s) if more certainty is desired regarding ACM and potential asbestos hazards at the Property. Furthermore, a review of regulatory compliance matters pertaining to asbestos is excluded from the scope of work.

Lead-Based Paint (LBP): A non-intrusive visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1980 on the Property. It is emphasized that this non-intrusive visual screening does not constitute a comprehensive survey for LBP or potential lead hazards. A comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding LBP at the Property. Furthermore, a review of regulatory compliance matters pertaining to lead-based paint is excluded from the scope of work.

USEPA Designated Radon Potential: Review of general non-site specific data published by the USEPA regarding the Radon Zone classification for the area of the Property.

Mold/Microbial Damage: A non-intrusive visual screening within the accessed areas of buildings on the Property for evidence of systemic microbial problems, including visible mold growth, water damaged building materials or musty odors. It is emphasized that this non-intrusive visual screening does not constitute a comprehensive survey for moisture/mold/microbial damage. A more comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding the potential for moisture/mold/microbial damages at the Property.

NWI Wetlands: Review of US Fish and Wildlife Service National Wetland Inventory digitized data of mapped wetlands as presented in the attached EDR Radius Map plus Geocheck Report.

It is emphasized that, regardless of the wetlands data obtained via the EDR Geocheck-Physical Setting Source Addendum, a delineation of regulated wetlands by a qualified professional would be warranted to determine the presence or absence of regulated wetlands at the Property.

Lead in Drinking Water: Review of the potential for elevated levels of lead in the drinking water by determining the source of the drinking water supply and a review of available testing or compliance data reports.

2.2 Property Location/Legal Description

Property location and legal description details are described as follows:

Primary Street Address:	12741 and 12745 Limonite Avenue and 12740 58th Street				
City:	Eastvale	**County:**	Riverside	**State:**	California
Tax ID/Parcel Number:	164030010, 164030012, 164030013, 164030014, 164030024, 162030025				
Approx. Land Area:	153.3 acres				
Apprx. Latitude/Longitude:	North 33.9791850 degrees/West 117.5629320 degrees				
Additional Details (if appl.):	N/A				
Property Owner:	James Borba				
Zoning Designation:	Leal Master Plan				

2.3 Data Gaps

A *data gap* is defined by the ASTM as a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. A data gap is only significant if other information and/or professional experience raises reasonable concerns involving the data gap and the ability to determine the presence or absence of recognized

environmental conditions. The following table summarizes data gaps encountered during the assessment as well as a discussion of their significance.

Data Gap:	Significant (Yes/No)?	Discussion
Historical records data failure	No	The date and/or type of the first developed use of the Property was not documented. Record gaps exceeding five years were encountered; however, no significant site use changes are suspected during these intervals. The lack of this information does not represent a significant data gap.
Response to agency records requests not received as of date of report.	No	Any additional information indicative of a REC will be forwarded upon receipt. Based on its review of information from other sources, however, Hillmann believes the lack of this information is unlikely to affect the conclusions or recommendations of this report. The lack of this information does not represent a significant data gap.

2.4 User Reliance

This report is for the exclusive use of the User(s) named on the front cover. No other party(ies) shall have any right to rely on the content of this report without first obtaining the consent of the original report User; and without obtaining written consent from Hillmann in the form of a letter of reliance or report recertification.

2.5 Significant Assumptions

The following significant assumptions are made:

- The site operations at the time of the site visit are assumed to reflect typical site conditions relative to potential environmental conditions and that no concealment of environmental conditions or releases by site owners or occupants has occurred. Likewise, it is assumed that no areas of the Property with potential environmental concerns or RECs were concealed or otherwise not reported, intentionally or unknowingly, by the Property owners/occupants and/or site escort at the time of the site visit.

- For the purpose of estimating the approximate direction of groundwater flow in the absence of site specific groundwater data, unless indicated otherwise, an assumption has been made that the gradient of groundwater flow follows the surface topography of the Property and immediate surrounding area.

2.6 General Limitations and Exceptions

2.6.1 Limitations

The report turnaround time specified by the contract agreement for this assessment may present a limitation to the availability of pertinent regulatory agency records. Such limitations, if encountered, are further specified in Section 4.4.

Significant limitations related to the condition or accessibility of the Property at the time of the site reconnaissance, if encountered, are reported in Section 5.1.

2.6.2 Other Exceptions or Deletions

No other exceptions or deletions from the ASTM Standard E1527-13 are reported.

2.6.3 Special Terms and Conditions

This Phase I Environmental Site Assessment has been prepared using reasonable efforts in each phase of its work to identify recognized environmental conditions associated with hazardous substances, wastes and petroleum products at the Property. Findings within this report are based on information collected from observations made on the day of the site reconnaissance and from reasonably ascertainable information obtained from governing public agencies and private sources.

This report is not definitive and should not be assumed to be a complete or specific definition of the conditions above or below grade. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, site development, redevelopment, or other construction purposes. No representation or warranty is made that the past or current operations at the Property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes.

Findings, conclusions and recommendations presented in this report are based on visual observations of the Property, interviews conducted, the records reviewed, information provided by the Client, and/or a review of readily available and supplied drawings and documents. The accuracy and completeness of information obtained during the assessment, whether written, graphic or verbal, provided by the Property contact(s) or as shown on any documents reviewed or received from the Property contact, owner or agent, or government agency source can neither be warranted nor guaranteed. Independent verification of the accuracy or completeness of all information reviewed or received during the course of this assessment is not made and excluded from the scope of work for this assessment. No warranty or guarantee is made of the accuracy or completeness of information that was obtained from ostensibly knowledgeable individuals, regulatory agency representatives or other secondary sources.

Regardless of the findings stated in this report, Hillmann is not responsible for consequences or conditions arising from facts that were concealed, withheld or not fully disclosed at the time the assessment was conducted.

This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

The regulatory database report provided is based on an evaluation of the data collected and compiled by a contracted data research company. The regulatory research is designed to meet the requirements of ASTM Standard E1527-13. Hillmann can neither warrant nor guarantee the accuracy or completeness of the information obtained from the regulatory database report provider during the course of this assessment.

Subsurface conditions may differ from the conditions implied by the surface observations and can only be reliably evaluated through intrusive techniques.

Reasonable efforts have been made during this assessment to identify aboveground and underground storage tanks and ancillary equipment. Reasonable efforts are limited to information gained from visual observation of largely unobstructed areas, recorded database information held in public record and available information gathered from interviews. Such methods may not identify surficial and subsurface features that may have been hidden from view due to parked automobiles and other vehicles, snow cover, vegetative growth, pavement, construction or debris pile storage or incorrect information from sources.

No guarantee, explicit or implied, is made that the records pertaining to historical ownership or occupancy which were reviewed represent a comprehensive or precise delineation of past Property ownership or tenancy for legal purposes.

The ASTM E1527-13 standard states that recommendations are not required to be included in a Phase I ESA report; however, further that recommendations are an additional service that may be useful in the User's analysis of landowner liability protections or business environmental risks; and that the User should consider whether recommendations for additional inquiries or other services are desired.

The recommended response actions to the identified RECs presented in Section 1.3, if any, are not intended to represent the only course(s) of action to take; nor does it imply any opinion as to the timing of the action. Furthermore, it is emphasized that additional response actions may become warranted depending on the outcome of the initial action(s) taken. Hillmann advises that consultation with legal counsel familiar with environmental and real estate law may be beneficial to the decision making process for the type and timing of a response action to identified RECs, if any.

Due to the limited nature of our review of potential Business Environmental Risks, the User of the report should consider whether to take additional action(s) to further define, properly manage and/or mitigate potential BERs.

In the event of any conflict between the terms and conditions of this report and the terms and conditions of the consulting services agreement for this project, the consulting services agreement shall control.

3.0 USER PROVIDED INFORMATION

The term "User" is defined by ASTM as the party seeking to use Practice E1527 to complete an environmental site assessment of the Property; specifically, the entities named on the front cover to which the report has been addressed.

3.1 Prior Environmental Reports/Documentation

No prior environmental reports/documentation were provided.

3.2 User Questionnaire

Section 6 of the ASTM E1527-13 standard describes certain tasks required to be performed by the report User in order to qualify for landowner liability protections to CERCLA liability. To assist the report User to meet these requirements, the ASTM E1527-13 standard recommends a questionnaire of inquiries (User Questionnaire) specified in 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31 be provided to the original report User. The following is a summary of the User's response:

Question:	Yes/No:	Detail:
Environmental liens that are filed or recorded against the property: Did a search of recorded land title records identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?	No	
Activity and use limitations that are in place on the property or that have been filed or recorded against the property: Did a search of recorded land title records (or judicial records where appropriate, identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?	No	
Specialized knowledge or experience of the person seeking to qualify for the LLP: Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	No	
Relationship of the purchase price to the fair market value of the property if it were not contaminated: Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	Yes	

Commonly Known or Reasonably Ascertainable Information: Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,		
-Do you know the past uses of the property?	Yes	Dairy Farm
-Do you know of specific chemicals that are present or were once present at the property?	No	
-Do you know of spills or other chemical releases that have taken place at the property?	No	
-Do you know of any environmental cleanups that have taken place at the property?	No	
The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation: Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?	No	
Litigation/Administrative Proceedings/Government Notices As the User of this ESA, do you have knowledge of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.	No	

NR-no response

3.3 Reason for Performing Phase I ESA

The User did not indicate the purpose of the assessment. In accordance with ASTM E1527-13, it is assumed that the Phase I ESA was being performed in order to qualify for landowner liability protection to CERCLA liability.

4.0 RECORDS REVIEW

4.1 Physical Setting Sources

The following physical setting sources were reviewed:

Source	Discussion
USGS 7.5 minute Topographic Map Data: (EDR Geocheck-Physical Setting Source Addendum)	The Property lies at an elevation of approximately 669 feet above mean sea level. An interpretation of topographic contour lines as well as a review of the EDR Geocheck-General Topographic Gradient suggested terrain sloping downward towards the south-southwest. The closest down-gradient waterbody is the Santa Ana River, located approximately 1.8 miles to the southeast.
USDA SCS Soil Data: (EDR Geocheck-Physical Setting Source Addendum)	The primary soil type at the Property is classified as "Hilmar". This soil type is described as soils with moderate infiltration rates, with deep and moderately deep, moderately well drained soils, loamy fine sand with a moderately coarse grain texture.
Geologic Data: (EDR Geocheck-Physical Setting Source Addendum)	The geologic formation in the vicinity of the Property is described as a stratified sequence of the Cenozoic Era, Quaternary System, and Quaternary Series.
Prior Env. Reports: (Section 3.1)	No additional relevant site specific geologic data was noted from a review of the prior environmental reports listed in Section 3.1.
Additional Sources/ Data:	No additional physical setting sources or data was obtained.
Groundwater Flow Discussion:	Based on a review of the above information as well as observation of the site, the direction of shallow groundwater flow at the site is inferred to be towards the south-southwest.
NWI Wetlands Data: (EDR Geocheck-Physical Setting Source Addendum)	No NWI mapped wetlands areas were depicted at the Property.

4.2 Historical Use – Property and Adjoining Properties

Research has been conducted in an attempt to develop a history of the previous uses of the property and surrounding area, in order to help identify the likelihood of past uses having led to RECs in connection with the property. Standard historical sources have been sought in an attempt to document the past uses of the Property as far back as it can be shown that the Property contained structures; or from the time the Property was first used for residential, agricultural, commercial, industrial or governmental purposes.

4.2.1 Fire Insurance Maps

A Certified Sanborn Map Report was obtained from EDR for a review of published historic fire insurance maps for the Property and surrounding area. The following is a summary of site uses and notable details depicted by the available maps:

Year(s)	Prop/Adj	Depicted Use(s)	Notable Details
	Property:	(No coverage)	
	Adjoining:		

A copy of the Certified Sanborn Map Report is attached in Appendix D.

4.2.2 City Directories

An EDR City Directory Abstract report was reviewed for data of former occupants of the Property's street address. The following is a generalized summary of the findings of city directory research for past occupants of the Property.

Property	
Use(s) / Occupant(s):	**Years**
12740 58th Street – John Leal	2017
Jese Zunig	2014
Leal Ranches	2009
Leight Medbury	1999 - 2009
Sterling Silver Trucking	2009

The EDR City Directory Abstract report was also reviewed for listings of historical occupants of the adjoining properties. The following is a general summary of listings of historic adjoining property occupants:

Adjoining Properties	
Use and/or Occupant(s)	**Years**
12569 Limonite Avenue - Multi-tenant Commercial Shopping Plaza such as; restaurants, supermarket, banks, and retail stores	2009 – 2017
12762 Limonite Avenue - Cloverdale Marketplace, Soccer Warehouse, and Waba Grill	2014 - 2017
Residential	1999 – 2017

A copy of the EDR City Directory report is attached in Appendix D.

4.2.3 Historical Topographic Maps

Historical topographic maps of the Property and vicinity obtained from an EDR Historical Topographic Map report (as attached in Appendix D) have been reviewed. The following interpretation of land usage was made by review of the maps:

Year(s)	Summary of Interpretation	
1902	**Property:**	A roadway is depicted running from north to south in the eastern portion. A roadway is depicted in the southeast corner.
	Adjoining:	No improvements and/or special depictions are shown.
1942	**Property:**	A structure is depicted in the north central portion. An unimproved road is depicted running through the western portion then east along the north boundary.
	Adjoining:	An improved roadway is depicted to the east and south. Several structures are present to the south. An unimproved road is depicted to the east with a structure to the northeast.
1947	**Property:**	Four (4) structures are depicted on the north central portion. An orchard is depicted on the Property. The previous access road is depicted.
	Adjoining:	As previously described, orchards are depicted to the south and west. An unimproved roadway is present along the northern boundary connecting to the eastern roadway. A well is depicted in the southeast corner.

1954	**Property:**	Four (4) structures are depicted in the north central portion.
	Adjoining:	Shading indicative of orchards is present to the north and east. Several structures are depicted south of the improved roadway (Cloverdale Road). An unimproved road is present to the east with a structure depicted to the northwest.
1967	**Property:**	Five (5) structures are depicted in the north central portion. An access road is depicted on the western half terminating at the northern unimproved road. An unimproved road, indicative of a horse track, is depicted on the southeastern portion, looping around a previously identified well.
	Adjoining:	As previously described, Swan Lake Trailer Park is depicted to the east.
1973	**Property:**	As previously described, six (6) new structures are present in the northeast portion, consistent with the current dairy barn present today. A small pond is depicted in the east center portion.
	Adjoining:	As previously described, additional buildings are depicted to the southeast and south. An orchard is depicted to the northeast.
1981	**Property:**	As previously described, unimproved roadways are now depicted on the eastern portion around the presumed dairy barn. A structure is depicted in the east central portion at the apex of the presumed horse track on the southeast.
	Adjoining:	As previously described.
2012	**Property:**	Roadways are illustrated in the north portion.
	Adjoining:	Roadways are depicted on adjacent properties to the east and north.

4.2.4 Historical Aerial Photographs

Historical aerial photographs of the Property and vicinity obtained from an EDR Aerial Photo Decade Package report, as attached in Appendix D, were reviewed. The following interpretation of land usage was made by review of the aerial photographs:

Additional aerial photographs were reviewed online at the Riverside County Map My County website (Map My County v10 (countyofriverside.us))

Year(s)	Summary of Interpretation	
1931, 1938, 1948	**Property:**	Appears to be an active orchard, farm structures, and dwellings appear in north central portion. Apparent barns are present in north central portion. Parcel 064030013 appears densely vegetated and structures are present.
	Adjoining:	Orchards, residences, barns, row crops.
1953	**Property:**	As previously described, the eastern 2/3 of the orchard has been cleared and appears planted with row crops.
	Adjoining:	As previously described.
1967	**Property:**	Orchards no longer present; horse track is in southeast portion. Parcel 064030013 now cleared and part of the presumed horse track.
	Adjoining:	As previously described, adjacent eastern property now developed with trailer homes.
1975, 1985, 1989, 1990, 1994, 1996	**Property:**	As previously described, northeast portion now developed with a barn and apparent feeding shelters. Borrow area appears in central portion of west side.
	Adjoining:	As previously described.
2002	**Property:**	As previously described, portions of the northwest appear to be used as an equipment lay down area.
	Adjoining:	As previously described, northern properties are being or have been developed with residential structures.

2004, 2006, 2007, 2012	**Property:**	As previously described.
	Adjoining:	Residential to the north, northeast, and southwest. Shopping centers and out parcels to the south and south east, agriculture to the west. Commercial operation to the south, west portion. Apparent gasoline dispensary present to the east in 2007, and one (1) under construction to the south clearly visible in 2012.
2016	**Property:**	As previously described.
	Adjoining:	As previously described, residential structures and residential development to the west.
2019	**Property:**	As previously described.
	Adjoining:	As previously described.

4.2.5 EDR High-Risk Historical Records

The EDR Radius Map™ report, which is discussed in greater detail in Section 4.3, provided a search of proprietary databases of potential historical high-risk uses at or in the vicinity of the Property. These databases include EDR Historic Cleaners – a database of property addresses with records of historical occupancy by suspected cleaners businesses; EDR Historic Auto – a database of property addresses with records of historical occupancy by potential automotive gas/filling stations and repair facilities; and EDR MGP- a database of sites historically occupied by manufactured gas plants and related facilities.

EDR Database	On-site Listings:	Adjoining/Off-Site Listings
Historic Cleaners: (on-site/adjoining only)	None	None
Historic Auto: (on-site/adjoining only)	None	Tierra Fina, 12672 Limonite Ave; which adjoins the Property to southeast was listed as a gasoline service station for the year 2014.
MGP: (1-mile distance)	None	None

4.2.6 Petroleum/Natural Gas Well Review

The historical record sources and the California Geologic Energy Management Division (CalGEM) online mapping application were reviewed for records of historic petroleum and/or natural gas wells at the Property. No record of any historical petroleum/natural gas wells at or adjoining the Property was identified.

4.2.7 Additional Historical Data

Where applicable, the following additional pertinent historical data was obtained:

Interviews/Anecdotal:	The following additional pertinent historical data was obtained: Mr. Craig Leal, Property owner, indicated that a UST containing oil was excavated from the northern boundary of the Property in 1980. He indicated the UST was then utilized as an AST; however, there is no records associated with the closure documents for the historical UST. (Note: a Phase II subsurface investigation was subsequently performed in the specified area, the results of which are discussed herein.)

	Additionally, Mr. Leal indicated that the Property currently has two (2) 1,500-gallon septic tanks, and one (1) 500-gallon septic tank location within the vicinity of residential homes on the northern boundary of the Property.
Local Gov't Records:	No additional pertinent historical data was obtained.
Prior Env. Reports: (Section 3.1)	Not applicable; no prior reports were provided.
Site Observations:	Indications of historic uses of the Property or adjoining properties were not observed during the site reconnaissance.
Other Sources:	No additional pertinent historical data was obtained.

4.2.8 Summary of Identified Historic Uses

The following table presents a summary of the types and approximate date ranges of identified prior uses of the Property:

Property	
Date Range	**Use**
1931 to 1953	Orchard
1967 – 1975	Horse farm
2009	Trucking company; however, Property owner indicated that no trucking activities were done on the Property
1975 – Present	Dairy farm

The following table presents a summary of the types of identified prior uses of the adjoining properties:

Adjoining Properties	
Date Range	**Use**
1931 – 1953	Agriculture
1957 - 1996	Agriculture/residential
2002 – Present	Residential/commercial (shopping center, outparcels, gasoline station)

4.2.9 Historical Records Data Failure

The ASTM E1527-13 standard defines data failure as a failure to achieve the ASTM specified historical research objectives after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. The objective is to identify all obvious uses of the property from the present, back to the property's first developed use, or back to 1940, whichever is earlier. Furthermore, records of historic use/conditions should be sought in intervals no less than approximately five years, unless the property conditions appear unchanged over a longer interval.

Objective	Met?	Detail	Significant?
First developed use/date determined?	No	The earliest documented use of the Property was as orchards circa 1930s, the lack of further information does not represent a significant data gap.	No
Record sources at 5-year intervals back to 1940 or first developed use?	No	Historical record gaps exceeding five years were encountered. However, significant site-use changes or undiscovered site uses appear unlikely to have occurred	No

		during the record gaps. The lack of further information does not represent a significant data gap.	
All obvious prior uses identified?	Yes	See Section 4.2.8.	NA

Please refer to Section 2.3 for additional discussion of data gaps and their significance to the findings of the assessment.

4.2.10 Potential Environmental Issues Evaluated by Subsurface Investigation

- The Property was utilized as orchards since approximately 1931 to the 1950s. Concentrations of pesticides are commonly associated with shallow soils at sites with historical agricultural use. In addition, there is a potential for pesticide impacts to soil in the vicinity of the older farm structures along the northern perimeter of the Property where pesticide storage and mixing may have occurred. Accordingly, ninety-six (96) individual samples were collected, and analyzed for OCPs and Title 22 Metals, which are sometimes associated with the application of heavy-metal containing herbicides. Results of the OCP analysis indicated low levels of 4,4'-DDE and 4,4'-DDT which were below the applicable RSLs for residential applications. The results from heavy metal analysis indicate the samples had low, naturally-occurring background levels of metals, which did not exceed the applicable RSLs for residential applications. Therefore, the historical orchard operations on the Property do not indicate a REC with connection to the Property and Hillmann recommends no further investigation regarding this issue.

- Maintenance and repair of farm equipment and vehicles appear to have been conducted for an extended period of time in an area of the northern portion of the Property. Hillmann observed a significant amount of equipment, vehicles, trash, drums, and other materials in this area. Soil staining was observed within the vicinity of the maintenance repair area, and by the entrance of the dairy barn at 12741 Limonite Avenue. However, a Limited Phase II Investigation was conducted in July 2021 within the vicinity of the former maintenance repair area. Soil and soil gas samples were collected within the targeted areas of the Property. Results from soil sampling in the maintenance areas were "non-detect" for petroleum hydrocarbons and VOCs, and no heavy metal concentrations were detected at levels exceeding residential screening levels. The results from soil gas sampling in these areas indicated no VOC concentrations exceeding current residential screening levels, and the very low concentrations of detected chemicals are unlikely to represent an environmental or human health concern for the proposed residential use. Therefore, the historical maintenance operations do not indicate a REC with connection to the Property and Hillmann recommends no further investigation regarding this issue.

- The Property is registered as having a 550-gallon historical fuel UST present on the Property in 1988. The Property owner indicated that the UST was removed from the ground in the late 1980s and subsequently utilized as an AST. The former UST was reported to have been located on the northern portion of the Property. No tank closure records for the former were available. However, a Limited Phase II Investigation and GPR Investigation was conducted in July 2021 within the vicinity of the former UST. Soil and soil gas samples were collected

within the historical UST, which indicated no detectable concentrations of petroleum hydrocarbons or VOC (*i.e.*, the results were "non-detect"), and no heavy metal concentrations exceeding residential screening levels. The results from soil gas sampling in these areas indicated no VOC concentrations exceeding current residential screening levels and these very low concentrations likely do not pose a significant environmental or human health concern for the proposed residential use. Additionally, the GPR Investigation identified no evidence of the presence of the former UST. Therefore, the historical 550-gallon UST on the Property does not indicate a REC with connection to the Property and Hillmann recommends no further investigation regarding this issue.

- Portions of the Property were utilized for dairy operations from approximately the 1970s to 2019. Hillmann observed areas of residual livestock waste accumulations on the east and west portions of the Property. Elevated concentrations of methane gas are sometimes associated with areas where livestock wastes accumulate, and can sometimes give rise to the need for mitigation prior to development. A methane survey was conducted in July of 2021, which indicated that most samples had insignificant concentrations of subsurface methane gas, and field screening indicated just three (3) samples (of 15) had detectable concentrations of methane. However, it is important to note that the methane distribution is not widespread and that the areas investigated are still covered with animal waste. This material should be removed in connection with site development activities. Ultimately, Hillmann concludes that the residual livestock does not indicate a REC with connection to the Property.

- Hillmann observed the presence of discarded drums located in the maintenance repair area. The drums indicated a concern due to the unknown content and possibility of undocumented chemical spills/releases to have occurred in the past and/or occur when the site is cleared for development. However, a Limited Phase II Investigation was conducted in July 2021 within the vicinity of the discarded industrial drums. Soil samples that were collected within the area indicated no detectable concentrations of petroleum hydrocarbons or VOCs, and no heavy metal concentrations exceeding residential screening levels. The results from soil gas sampling in these areas indicated no VOC concentrations exceeding current residential screening levels. These very low concentrations likely do not pose a significant environmental or human health concern for the proposed residential use. Therefore, the historical discarded industrial drums on the Property did not indicate a REC with connection to the Property. Hillmann recommends no further investigation regarding this issue.

The Property was utilized as a dairy farm since approximately the 1970s. During the site visit, Mr. Leal, Property owner, indicated the dairy farm operational ceased in October 2019.

The review of historical records did not indicate evidence of a REC in connection with the Property.

4.3 Standard Environmental Record Sources

A regulatory database report, titled EDR Radius Map™ Report, prepared by Environmental Data Resources of Shelton, CT was obtained and reviewed. The report provided a search of standard

environmental record sources for listings of the Property, adjoining properties and sites within the surrounding area; and has been reviewed for the purpose of identifying listings suggesting a potential impact to the Property due to presence or migration of hazardous substances and/or petroleum products. Additional descriptions of the meaning and significance of the regulatory databases can be found in the regulatory database report in Appendix E. The EDR Radius Map™ Report provided a search of the following database categories in accordance with the requirements of the ASTM Standard E1527-13:

Regulatory Database	Search Distance
Fed. National Priorities List (NPL/a.k.a. "Superfund" sites) & Proposed NPL	1-mile
Fed. Delisted NPL	½-mile
Fed. Superfund Enterprise Management System (SEMS; formerly CERCLIS)	½-mile
Fed. SEMS-ARCHIVE (formerly known as CERCLIS NFRAP)	½-mile
Fed. RCRA Corrective Action Sites (CORRACTS)	1-mile
Fed. RCRA Transport/Storage/Disposal (TSD) sites	½-mile
Fed. RCRA Generators (LQG, SGQ & CESQG)	Site & Adjoining
Fed. Institutional Control/Engineering Control (IC/EC) Registries	Site only
Fed. Emergency Response Notification System (ERNS)	Site only
State/Tribal Hazardous Waste Sites (SHWS)	1-mile
State/Tribal Landfill and/or Solid Waste Disposal (LF/SWF)	½-mile
State/Tribal Leaking Storage Tanks	½-mile
State/Tribal Registered Storage Tanks	Site & Adjoining
State/Tribal IC/EC Registries	Site
State/Tribal Voluntary Cleanup Sites	½-mile
State/Tribal Brownfields	½-mile
Additional Federal, State, Tribal and Local Environmental Databases	Variable

Reported distances for adjoining listings discussed in Section 4.3.4, if applicable, are approximate and indicative of the presence of a public roadway or right-of-way between the adjoining site and Property.

The reported gradients indicated where applicable in Sections 4.3.4 and 4.3.5 have been estimated based on a number of factors including but not necessarily limited to field observation, review of topographic maps, database listing details and/or site specific geo-technical data.

4.3.1 Supplemental Database Listings

The regulatory database report was also reviewed for listings on supplemental databases, in addition to the Standard Environmental Record Sources. Any property or adjoining property listings on such databases of significant concern, if identified, is discussed in Sections 4.3.3 and 4.3.4. Otherwise, none of the other supplemental database listings identified by the regulatory database report are considered to be a REC in connection with the Property.

4.3.2 Limited Tier I Vapor Encroachment Screening

Limited analysis of the details of on-site, adjoining and vicinity database sites was conducted to identify potential sources of sub-surface vapor encroachment. This review was based on elements of the ASTM "Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions" (ASTM E 2600-15); and also on elements of "Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources" (Buonicore, 2011-S-103-AWMA). Vicinity database sites pertaining to non-petroleum product releases within 1,760 feet of the Property in the up-gradient direction, 365 feet of the Property in the cross gradient direction and 100 feet of the Property in the down gradient direction; and vicinity database sites pertaining to petroleum product releases within 528 feet of the Property in the up-gradient direction, 165 feet of the Property in the cross gradient direction and 100 feet of the Property in the down gradient direction were reviewed to identify active contamination sites with the potential to affect subsurface vapor conditions at the subject property. The potential for vapor encroachment was considered in assessing whether or not a REC exists in connection with the Property when reviewing applicable sites within those distances.

Regulatory database sites with active petroleum or non-petroleum releases that have the potential to constitute a vapor encroachment condition (VEC) to the Property, if any, are evaluated in Sections 4.3.3, 4.3.4 and 4.3.5, below. Ultimately, Hillmann concludes that there are no VECs in relation to the Property.

4.3.3 Property Listings

The following listings of the Property were identified:

Name/Address:	Leal Ranches/12740 58th Street
Database(s):	FINDS, ECHO, ENF, CIWQS, CERS
Data Discussion:	The FINDS listing is associated with the facility being registered as a NPDES point source. Available records did not identify any violations. The ECHO listing is related to the Clean Water Act compliance as administered by the state of California. No violations were noted for the past five years. The ENF listing is associated with an apparent violation observed and corrected during a 2008 inspection. The CIWQS listing did not identify any violations observed in the past five years. The CERS listing is associated with an inspection of the facility in accordance with the California Water Code. Violations were noted in 2007, 2008, 2010 associated with animal waste disposal documentation and associated with implementing the BMP for the facility. No additional violations were noted in the record.
REC Discussion:	Based on the details provided above, this issue does not represent a REC.
VEC Discussion:	Based on the available data, this issue does not represent a VEC.

Name/Address:	Leal Ranches/12714 Cloverdale Ave.
Database(s):	HIST UST
Data Discussion:	The facility is registered as operating a 550-gallon gasoline UST in 1988. No records of spills, cleanup, or removal were identified.
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Property.
VEC Discussion:	Based on the available data, a VEC is not suspected.

4.3.4 Adjoining Property Listings

The following adjoining property listings were identified. Reported distances, where applicable, are approximate and indicative of the presence of a public roadway or right-of-way between the adjoining site and Property. The reported gradient has been estimated based on a number of factors including but not necessarily limited to field observation, review of topographic maps, database listing details and/or site specific geo-technical data.

Name/Address:	Harada Elementary School - Echeverria Dairy/Cleveland Ave				
Database(s):	Envirostor, LUST, SCH				
Distance in feet:	1200	**Direction:**	SW	**Gradient:**	Down
Data Discussion:	The facility is incorrectly reported as adjacent to the Property, the school is actually located 1,200 feet to the south. The facility has been investigated for potential contaminants of concern including arsenic, DDD, DDE, DDT, and methane with a no further action status. The LUST record is associated with a historical gasoline UST located approximately 1 mile south of the Property at the Eastvale Elementary School property.				
REC Discussion:	Based on the details provided above, this issue does not represent a REC.				
VEC Discussion:	Based on the available data, this site does not represent a VEC.				

Name/Address:	Western Sky Dairy/6500 Hamner				
Database(s):	ENF, HIST CORTESE, NPDES, WDS, CIQS				
Distance in feet:	118	**Direction:**	SE	**Gradient:**	Down
Data Discussion:	The facility historically operated to the southeast. The facility is closed and has been redeveloped into residential subdivisions.				
REC Discussion:	Based on the details provided above, the facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Mountain View Tire & Service/6080 Hamner Ave. #105				
Database(s):	CERS HAZ WASTE, CERS, RCRA NonGen/NLR,				
Distance in feet:	122	**Direction:**	E	**Gradient:**	Up
Data Discussion:	The facility is registered as a CERS hazardous waste generator. An inspection in 2020 identified a violation, which was that a bung cap was not present on an anti-freeze. Additionally, a violation for not inspecting hazardous waste storage weekly was noted. The records indicated the facility was in compliance eight days after the violations were noted. The RCRA NonGen/NLR listing is associated with the facility being a universal waste generator. No violations were reported.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Ralphs Grocery #45 Fuel Center/12618 Limonite Ave				
Database(s):	UST, CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS, RCRA-LQG CHMIRS				
Distance in feet:	126	**Direction:**	S	**Gradient:**	Down
Data Discussion:	The facility is registered and currently operates as a vehicular fuel dispensary utilizing USTs for petroleum distillate storage. The records indicate the facility is in compliance. Minor violations associated with the fuel dispensing systems were historically noted and returned to compliance. A release of seven (7) gallons of gasoline was reported to the concrete and asphalt and was cleaned up by a contractor. The waste disposal records did not identify any violations or releases to the Property.				

REC Discussion:	Based on the details provided above, this facility does not represent a REC.
VEC Discussion:	Based on the available data, this facility does not represent a VEC.

Name/Address:	Ralphs Grocery #45/12618 Limonite Ave				
Database(s):	RCRA NonGen/NLR, CERS HAZ WASTE, CERS, HAZNET, HWTS				
Distance in feet:	463	**Direction:**	S	**Gradient:**	Down
Data Discussion:	The facility is identified as a USEPA non generator of hazardous waste. No violations were identified. The records identified that the facility disposes of pharmaceutical waste, off spec, aged or surplus organics, liquids with a pH <=2, other organic solids, aqueous solution containing reactive anions, alkaline solution without metals. No violations were noted.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Vons Fuel Center #2688/6110 Hamner Ave.				
Database(s):	UST, CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS, RCRA NonGen/NLR				
Distance in feet:	122	**Direction:**	E	**Gradient:**	Up
Data Discussion:	The facility operates a vehicular fuel dispensary utilizing USTs for petroleum distillate storage. The records indicate the facility is in compliance. A surficial release of two (2) gallons of gasoline was reported in 2012. A surficial release of four (4) gallons of diesel was reported in 2006. Minor violations associated with the fuel dispensing systems were historically noted and returned to compliance. No releases to soil or groundwater were identified. The waste disposal records did not identify any violations or releases to the Property.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Vons A Safeway Company #2688/6110 Hamner Ave.				
Database(s):	CERS HAZ WASTE, CERS RCRA LQG, FINDS				
Distance in feet:	122	**Direction:**	E	**Gradient:**	Up
Data Discussion:	The records identify that the facility is designated as a state hazardous waste generator, chemical storage facility. Paperwork and filing violations were historically identified and promptly rectified. The RCRA LQG and FINDS listings did not identify any violations.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Pulte Homes Company, LLC/12774 Limonite Ave				
Database(s):	RCRA NonGen/NLR				
Distance in feet:	142	**Direction:**	S	**Gradient:**	Down
Data Discussion:	This listing is for a historic facility associated with the development of the residential community to the south. No violations were noted.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Walgreens #13657/12574 Limonite Ave				
Database(s):	RCRA NonGen/NLR, CERS HAZ WASTE, HAZNET, HWTS				
Distance in feet:	142	**Direction:**	S	**Gradient:**	Down
Data Discussion:	This listing is associated with an operating drug store. The data indicated the facility was listed as a Small Quantity Generator. and a Conditionally Exempt Small Quantity Generator. The records identified that the facility disposes of pharmaceutical waste, off spec, aged or surplus organics, liquids with a pH <=2, other organic solids, aqueous solution containing reactive anions, alkaline solution without metals. No violations were noted.				

REC Discussion:	Based on the details provided above, this facility does not represent a REC.
VEC Discussion:	Based on the available data, this facility does not represent a VEC.

Name/Address:	Riverside Medical Clinic/12742 Limonite Ave				
Database(s):	RCRA NonGen/NLR				
Distance in feet:	144	**Direction:**	S	**Gradient:**	Down
Data Discussion:	This listing is described as an office of all other miscellaneous health practitioners. The data indicated the facility not a generator of hazardous waste. No violations were noted.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Bright Now Dental A Dental Office of Sahawneh Dent/12636 Limonite Ave				
Database(s):	RCRA NonGen/NLR				
Distance in feet:	556	**Direction:**	S	**Gradient:**	Down
Data Discussion:	This listing is described as an offices of dentists. The data indicated the facility as not a generator of hazardous waste. No violations were noted.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

Name/Address:	Home Depot USA Inc HD1084/6140 Hamner Avenue				
Database(s):	RCRA SQG, CERS HAZ WASTE, CERS, HAZNET, HWTS				
Distance in feet:	463	**Direction:**	S	**Gradient:**	Down
Data Discussion:	The facility is identified as a USEPA small quantity generator of hazardous waste. No violations were identified. Further, the state records identified that the facility disposes of waste oil, unspecified solvent mixtures, other inorganic solid waste, unspecified organic liquid mixtures, off spec, aged or surplus organics, alkaline solution without metals, paperwork and filing violations were historically identified and promptly rectified. No violations associated with on-site releases were noted.				
REC Discussion:	Based on the details provided above, this facility does not represent a REC.				
VEC Discussion:	Based on the available data, this facility does not represent a VEC.				

4.3.5 ASTM Search Distance Findings

The following is a discussion of non-adjoining sites identified as located within the ASTM specified search distance surrounding the Property. In order to keep this discussion informative and concise, discussion(s) is/are provided of the listed site(s) for each database category that appears most likely to impact the Property based on distance, area topography and/or regulatory status. Listings of sites within the applicable search distances not specifically discussed below were reviewed and concluded not to be RECs in connection with the Property or VECs based on various factors including distance, area topography, known or inferred groundwater flow direction and/or regulatory status. Listings for the following databases, if identified, have been discussed above in Sections 4.3.3 and 4.3.4: Registered Storage Tanks, Federal RCRA Generators, Federal and State EC/IC, ERNS. A copy of the full regulatory database report, including available details of all listed sites, is included in Appendix E.

Federal NPL				**# of sites:**	0	**Search Distance:**	1-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal Delisted NPL				**# of sites:**	0	**Search Distance:**	1-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal SEMS				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal SEMS-ARCHIVE				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal CORRACTS				**# of sites:**	0	**Search Distance:**	1-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal RCRA-TSD				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

State HAZARDOUS WASTE SITE				**# of sites:**	0	**Search Distance:**	1-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							

VEC Discussion:	

State SOLID WASTE FACILITY/LANDFILL				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

State LEAKING STORAGE TANKS				**# of sites:**	3	**Search Distance:**	½-mile
Notable Listing:	Texaco Swan Lake/5800 Hamner Avenue						
Distance in feet:	1417	**Direction:**	ENE	**Gradient:**	Up		
Data Discussion:	The closest LUST listing is described in Section 4.3.4. The second closest LUST listing indicated that soil was contaminated at the site with gasoline from a leaking UST, with a leak first being detected on August 1988; however, the contaminated soil was excavated and disposed off-site, and the Property was granted a no further action letter as of 12/12/1991.						
REC Discussion:	Based on the details provided above, this facility does not represent a REC.						
VEC Discussion:	Based on the available data, this facility does not represent a VEC.						

State VOLUNTARY CLEANUP SITES				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

State BROWNFIELD SITES				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

UNMAPPED/ORPHAN LIST SITES	
	Hillmann has also reviewed a list of unmapped sites (a.k.a. "Orphan List" sites) indicated by the database report. Unmapped sites that were identified as falling within an applicable specific search distance or warranting discussion have either been discussed in the preceding tables or are detailed below:
Notable Listings:	None

4.4 Additional Environmental Record Sources

Requests have been submitted to local, municipal and state agencies for pertinent records pertaining to the Property, particularly with regard to potential environmental concerns such as petroleum storage tanks, storage and usage of hazardous substances and petroleum products, and/or known or suspected environmental contamination. Where applicable, internet research of government

environmental regulatory databases was also conducted, as well as a general cursory internet search of the Property address, for information indicative of a REC. The following table summarizes the findings of the research:

Source	Type of Request	Outcome
EPA MyProperty	Online search	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.
EPA Envirofacts	Online search	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.
CA SWRCB (GeoTracker)	FOI request	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.
CA DTSC (Envirostor)	FOI request	A response was recieved stating that no records were found.
Regional Water Quality Control Board (RWQCB)	FOI request	A response was recieved stating that no records were found.
South Coast Air Quality Management District (SCAQMD)	FOI request	A response was recieved stating that no records were found.
Fire Prevention/Marshall and Hazardous Material	FOI request	No response was received prior to report issuance.
Riverside Agricultural Commission	FOI request	A response was recieved stating that no records were found.
Health Department	FOI request	No response was received prior to report issuance.
Internet Search Engine	Online search	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

The site reconnaissance consisted of visual and/or physical observations of the Property and improvements, adjoining properties as viewed from the Property boundaries and the surrounding area based on visual observations from adjoining public thoroughfares. Building exteriors were observed at ground level, unless otherwise indicated. Where applicable, representative areas of building interiors were accessed and observed to the extent they were made safely accessible with the cooperation of the site escort.

Site Inspection Personnel:	Ms. Gabriela Cyrulik
Property Escort/Company:	Mr. Craig Leal/Property Owner
Inspection Date:	June 21, 2021
Weather Conditions:	Sunny, 81 degrees F

5.1.1 Significant Inaccessible Areas

The following significant areas of the Property were not accessed at the time of the site visit:

Hillmann did not gain access into the five (5) occupied residential structures on the Property.

5.1.2 Significant Limiting Site Conditions

No significant limiting site conditions were noted at the time of the site reconnaissance.

5.2 General Site Setting

5.2.1 Site and Vicinity Characteristics

Abutting Roadways:	58th Street to the north; Hamner Avenue to the east; Limonite Avenue to the south; Scholar Way to the west
Current Property Use:	Dairy farm with five (5) residential structures
Evidence of Past Property Uses:	Remnants of cattle maneuver were observed on the northeast and northwest corner of the Property
Evidence of Past Adjoining Property Uses:	None observed
Surrounding Area Uses:	Residential, commercial shopping plazas and institutional uses (i.e., Harada Elementary School)

5.2.2 Current Adjoining Property Uses

Dir	Street Address	Description
N	Rancho Vista Road	Residential
E	Swan Lake Apartments	Residential
S/SE	Limonite & Hamner Ave	Multi-tenant commercial shopping plaza with restaurants, retail stores, gas stations, banks
W	Scholar Way	Residential

No visual observations indicative of a potential environmental concern were noted on the adjoining properties.

5.2.3 Topographic Characteristics

Terrain:	Flat to gently sloping
Direction of Downward Slope:	Towards the south
On-site Water Bodies:	None observed
Other Significant Features:	None observed

5.2.4 General Description of Structures

Buildings/# of Floors	Five (5) residential structures/single-story
Approx. Building Area:	N/A
Approx. Year Built:	1931
Ancillary Structures:	None observed
Sources of Heating & Cooling:	Natural gas fired heating systems/no central cooling systems noted
Potable Water/Sewage Disposal:	Potable well and septic system. See Sections 5.3.15 and 5.3.16 for additional details.

5.3 Interior & Exterior Observations

5.3.1 Storage/Usage of Hazardous Substances and Petroleum Products

The following hazardous substances and petroleum products were observed to be stored and used by property occupants:

Occupant	Substance	Qty/Container Type	Storage Conditions
Leal Ranch	Hydraulic fluid	1-gallon/one	Good
Leal Ranch	Machine lubricant	5-gallon/one	Good

5.3.2 Drums

The following hazardous substance or petroleum product drums were noted on the Property:

Hillmann observed seven (7) unidentified drums stored in the same location, and in one area outside the maintenance repair station, along the northern perimeter of the Property. Seven (7) of the unidentified containers were located without secondary containment, and were placed on the pavement. Hillmann observed that one (1) of the unidentified substance containers was leaking and had stained the pavement along the maintenance repair area on the northeastern corner of the repair shop on the Property. This area was evaluated by a Phase II subsurface investigation and determined to not represent a Recognized Environmental Condition.

5.3.3 Unidentified Substance Containers

The following unidentified substance containers suspected of containing hazardous substance or petroleum product were noted on the Property:

Hillmann observed that drums described in Section 5.3.2 were unlabeled and unidentified, and could contain hazardous substance and/or petroleum products. In addition, Hillmann noted several unlabeled one-gallon and five-gallon containers in the maintenance repair area, within the northern perimeter of the Property. As discussed in this report, these features were determined to not represent a concern.

5.3.4 Other Hazardous Substances/Petroleum Products

No other containers of hazardous substances or petroleum products were noted on the Property.

5.3.5 Bulk Petroleum/Hazardous Material Storage Tanks

The following storage tanks for bulk petroleum or hazardous material storage were identified or reported to be present; or are suspected to be present based on visual observations:

AST/ UST	Product	Capacity	Construction	Year Installed	Status	Location/Notes
UST	Gasoline	550-gallon	Double-walled steel	1970s	Excavated	Mr. Leal indicated the UST was excavated in the late 1980s. Hillmann observed an unlabeled and unidentified UST along the Horse Barn on the north perimeter of the Property
AST	Petroleum	600-gallon	Metal	N/A	N/A	Located in the maintenance repair area

5.3.6 PCBs in Oil Filled Electrical/Hydraulic Equipment

No oil-filled electrical or hydraulic equipment was identified at the Property.

5.3.7 Odors

No strong, pungent or noxious odors were noted at the Property.

5.3.8 Pools of Liquid

No standing water or pools of liquid likely to contain hazardous substances or petroleum products were noted at the Property.

5.3.9 Interior Stains or Corrosion

The following interior stains and/or corrosion due to hazardous substance/petroleum products spills/releases were noted at the Property:

Hillmann observed spills/releases from one (1) out of seven (7) unidentified hazardous drums stored outside the northwest corner of the maintenance repair shop, along the northern perimeter of the Property. Additionally, another spill/release was observed within the vicinity of the Dairy Barn (12741 Limonite Ave), located on the gravel at the northeastern corner of the Property by the entrance of the building. The staining is considered to be *de minimis.*

5.3.10 Interior Drains/Sumps

No floor drains or sump pits were noted at the Property other than for storm water or sewage management.

5.3.11 Exterior Pits/Ponds/Lagoons

No exterior pits, ponds or lagoons was identified on the Property in connection with waste treatment or disposal.

5.3.12 Stained Soil, Pavement/Stressed Vegetation

The following stained soil, pavement and/or stressed vegetation was observed at the Property:

Hillmann observed tall grass and vegetation present throughout the southern perimeter of the Property.

5.3.13 On-Site Solid Waste Disposal/Fill Material

The following evidence of on-site solid waste dumping/disposal was observed:

Hillmann observed piles of concrete, abandoned drums, farm machinery/equipment, cars, tires, furniture, piping, wood, and other miscellaneous trash and debris present along two isolated on the northeastern and northwestern perimeter of the Property. As discussed in this report, these features are unlikely to represent an environmental concern.

5.3.14 Waste Water

Sanitary sewage generated at the Property is discharged via an on-site septic system. See Section 5.3.15 for additional details regarding the septic system.

5.3.15 Septic Systems

A septic system is present and utilized for on-site disposal of sanitary sewage. The system is located to the north side of the Property by the former residential homes. Mr. Leal, Property Owner, indicated that there is two (2) 1,500-gallon, and one (1) 500-gallon septic tanks located on the northern area of the Property, and utilized for the residential structures on the Property.

5.3.16 Wells

The following groundwater wells were identified at the Property:

Hillmann observed a water well on the east-southeast perimeter of the Property. Additionally, another groundwater production well, and storage cistern were observed on the northern perimeter of the Property.

5.3.17 Railroad Spurs

No railroad spurs were identified on the Property.

6.0 INTERVIEWS

6.1 Interviews with Past and Present Owners and Occupants

Subject	Name/Affiliation	Summary
Property Owner / Representative	Mr. Craig Leal/Property Owner	Mr. Leal was provided with an environmental questionnaire, and was interviewed during the site inspection. However, a completed environmental questionnaire has not been returned prior to report issuance.
Property Occupants	Not applicable	Property was occupied by Leal Ranch.
Past Owners, Occupants, Operators	Not applicable	Past owners/occupants of the Property were not available for interview at the time of the assessment.
Owners/Occupants of Adjoining or Nearby Properties	Not applicable	The Property was not an abandoned property with evidence of unauthorized uses or uncontrolled access; therefore, interviews with adjoining or nearby property owners or occupants were not conducted.

6.2 Interviews with State and/or Local Government Officials

Written and on-line requests for environmental records of the Property from State and Local governmental agencies are detailed in Section 4.4.

7.0 BUSINESS ENVIRONMENTAL RISKS

In accordance with the contract agreement for this assessment, Hillmann has performed cursory reviews of several potential Business Environmental Risks (also known as "Non-Scope Considerations"). The ASTM E1527-13 standard defines the term business environmental risk (BER) as, *"a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice."*

7.1 Asbestos-Containing Material (ACM)

The contracted scope of work included a cursory visual screening of the accessed portions of buildings at the Property built prior to 1990 for suspect asbestos containing materials (ACM). The information provided in this section, where applicable, is limited to identification of potential suspect materials in the readily accessible and observed areas of the building, and their general condition. This is not intended to be a comprehensive survey for the presence of ACM, and no testing has been conducted.

Suspected ACM noted during a cursory visual screening included sheetrock wall systems, brick and mastic, and floor tile with associated mastics. Although not observed, the roofing materials may contain asbestos. Additional types of suspect ACM may exist in enclosed areas or areas not accessed during the assessment. It is emphasized that this limited screening does not constitute a comprehensive asbestos survey of the premises and is meant only to provide a cursory evaluation regarding the potential presence of ACM at the Property.

7.2 Lead-Based Paint

The contracted scope of work included a cursory visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1980. This is not intended to constitute a comprehensive survey for LBP or potential lead hazards, and no testing has been conducted.

No access was available into the on-site dwelling structures. Dwelling and farm structures at the Property have the potential to have components coated with lead containing paint.

7.3 Radon

Data compiled by the USEPA, as summarized by the regulatory database report, indicated that the Property is located in an area classified as Zone 2 or 'moderate risk' area for radon. Radon testing was not included in the scope of this assessment. According to the CA Radon database, fifteen recorded tests in zip code 92880 recorded 1 pCi/L indoor concentrations. Radon appears unlikely to represent an environmental concern.

7.4 Mold/Microbial Damage

As per the contracted scope of work, Hillmann conducted a cursory visual screening of the accessed areas of the building for evidence of significant damage to building materials and finishes as result of moisture intrusion and/or mold/microbial growth. Hillmann did not observe evidence of significant problems with moisture intrusion or mold/microbial growth at the Property.

7.5 NWI Mapped Wetlands

As indicated in the Physical Setting Source table of Section 4.1, no NWI mapped wetlands areas were depicted at the Property by the EDR Geocheck-Physical Setting Source Addendum (attached in Appendic E).

The scope of work for this assessment excludes a visual determination of regulated wetlands at the Property. It is emphasized that, regardless of the wetlands data obtained via the EDR Geocheck-Physical Setting Source Addendum, a delineation of regulated wetlands by a qualified professional would be warranted to determine the presence or absence of regulated wetlands at the Property.

7.6 Lead in Drinking Water

The scope of work for this assessment included a review of the potential for elevated levels of lead in drinking water by determining the source of the drinking water supply and a review of available compliance or testing data.

Potable water service at the Property is provided by a utility connection with the Western Municipal Water District. A recently published water quality report from the utility indicated compliance with USEPA water quality standards for lead in drinking water. A copy of the report has been attached in Appendix F.

8.0 REFERENCES

ASTM E1527-13-Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process; ASTM International, 2013

ASTM E12600-15-Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transaction, ASTM International, 2015

EDR Radius Map Report with GeoCheck™, Environmental Data Resources, 2020

EDR City Directory Abstract Report, Environmental Data Resources, 2020

EDR Sanborn Map Report, Environmental Data Resources, 2020

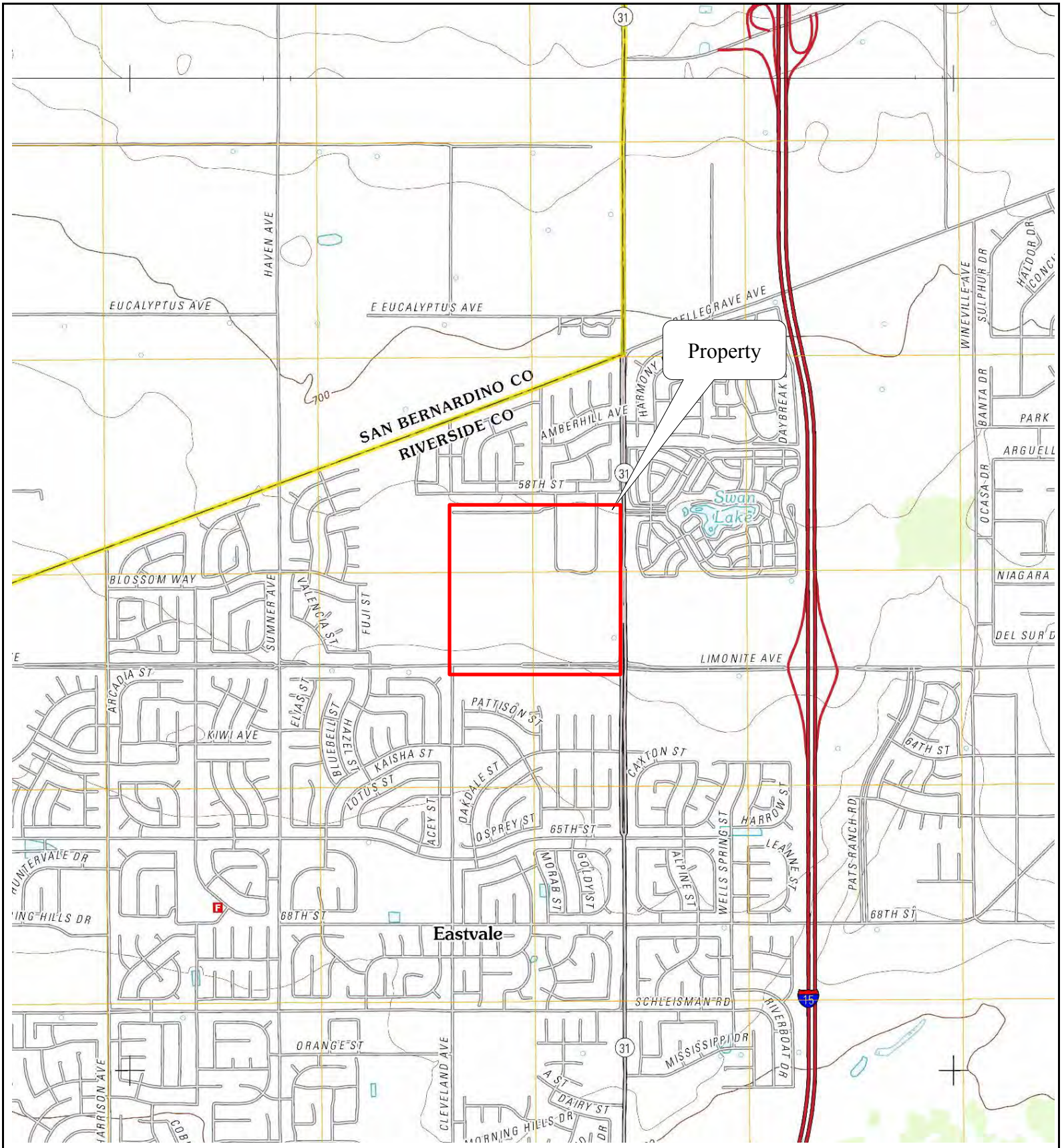
Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources; A. Buonicore, 2011

9.0 APPENDICES

Appendix A	Site Diagram / Vicinity Map
Appendix B	Site Photographs
Appendix C	Questionnaires / User Provided Information
Appendix D	Historical Records Documentation
Appendix E	Regulatory Records Documentation
Appendix F	Other Documents / Lab Results
Appendix G	Project Personnel Qualifications

APPENDIX A

MAPS / DIAGRAMS



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Figure 1: Site Vicinity Map

12741 and 12745 Limonite Avenue and 12740 58th Street
Eastvale, California

N

SCALE: (NOT TO SCALE)

PROJECT No.: C3-8458



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Figure 2: Site Diagram

12741 and 12745 Limonite Avenue and 12740 58th Street
Eastvale, California

N

SCALE: (NOT TO SCALE)

PROJECT No.: C3-8458

APPENDIX B

SITE PHOTOGRAPHS

SITE PHOTOGRAPHS



Milking barn located at the northeast corner of the Property



Water tank located by the milking barn



Eastern perimeter of the Property, facing west



View of fried cattle manure located on the eastern boundary of the Property



Dark staining on gravel located by the milking barn on the northeast area of the Property



Vehicles and equipment at the east-northeastern perimeter of the Property

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

Project No.:	C3-8458

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SITE PHOTOGRAPHS



Concrete remnants of farm structures on the northeastern portion of Property



Concrete remnants of farm structures on the northeastern portion of Property



Residential structures located on the mid-eastern portion of the Property



Residential structure located on the mid-eastern portion of the Property



View of the Property facing southeast



View of concrete slabs, tires, wood, drums, trash and debris located at the northwest boundary of the Property

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

Project No.:	C3-8458

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SITE PHOTOGRAPHS



Northwestern area; farm remnants



View of the HIST UST located along the horse barn



Northwest adjoining properties



View of the Property facing southwest



Unoccupied residential structure #1 located on the northwest area of the Property



Barn/storage structure at northwestern Property area

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

Project No.:	C3-8458

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SITE PHOTOGRAPHS



Interior view of the barn/storage structure



Occupied residential structure #2 located on the northern boundary of the Property



Interior of horse stable located at northern area of the Property



Former livestock pen at the northern area of the Property



Farm structure located at northern area of the Property



Occupied residential structure #3 located on the northern area of the Property

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

Project No.:	C3-8458

HILLMANN CONSULTING

SITE PHOTOGRAPHS



Farm equipment/cistern at the northern area of the Property



Unoccupied residential structure #4 located at the northwest area of the Property



View of a well located by the maintenance repair area



Maintenance area on the northern portion of the Property



View of abandon drums located in the mechanical repair area with oil staining on the asphalt



Closer view of oil staining by the drums

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

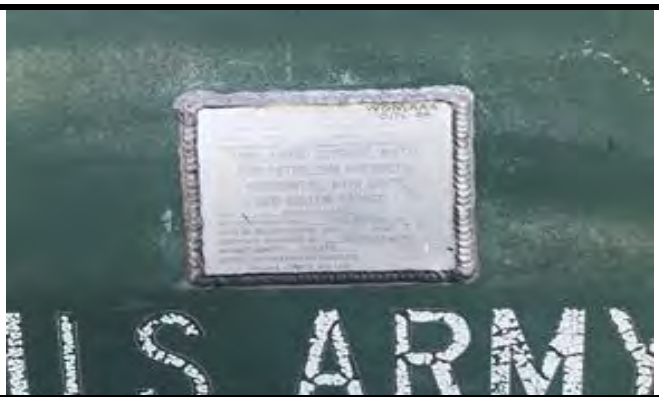
Project No.:	C3-8458

HILLMANN
CONSULTING

SITE PHOTOGRAPHS



600-g AST located in the maintenance area



600-g AST placard



Interior view of the maintenance auto repair shed



Maintenance area, misc. equipment, trash and storage



Equipment in maintenance shop



Equipment and machinery located in the maintenance area

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

Project No.:	C3-8458

HILLMANN CONSULTING

SITE PHOTOGRAPHS



View of an abandon drum located by maintenance shop



View of concrete trash and debris present throughout the Property



View of the Property facing south



View of the Property facing northeast



View of the milking barn structure facing south



View of a historical well located on the east-southeast boundary of the Property

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

Project No.:	C3-8458

HILLMANN CONSULTING

SITE PHOTOGRAPHS



View of the Property facing southwest



View of the southern boundary of the Property facing northeast



View of the southern boundary of the Property facing north



View of the southern boundary of the Property facing northwest



View of the southeast adjoining gas station



View of the southeast adjoining gas station

PHASE I ESA - SITE PHOTOGRAPHS

12741 and 12745 Limonite Avenue and 12740 58th Street,
Eastvale, California

Project No.:	C3-8458

HILLMANN CONSULTING

APPENDIX C

QUESTIONNAIRES/USER PROVIDED DOCUMENTATION

HILLMANN
CONSULTING

ASTM E 1527-13/AAI - USER QUESTIONNAIRE

Instructions: This form should be completed by a representative of the USER of the Phase I ESA report and returned to Hillmann via email or in-person. **The report USER is the entity on whose behalf the assessment is being prepared and that will be relying on the report for liability protections.**

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"),188 the USER must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The user should provide the following information to the environmental professional. Failure to conduct these inquiries could result in a determination that "all appropriate inquiries" is not complete. Please complete the following questionnaire and provide any of the referenced information (if available) to Hillmann.

USER Company Name:	The New Home Company Southern California LLC	**USER Mailing Address:**	15231 Laguna Canyon Rd, suite 250 Irvine CA 92618
Respondent Name & Email Address:	Matt Blain mblain@nwhm.com	**Date of Completion:**	09/14/2021

Property Address:	12745 Limonite Avenue, Eastvale CA	**YES**	**NO**	**DETAIL (optional):**
Environmental liens that are filed or recorded against the property: Did a search of recorded land title records identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?		☐	☑	
Activity and use limitations that are in place on the property or that have been filed or recorded against the property: Did a search of recorded land title records (or judicial records where appropriate, identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?		☐	☑	
Specialized knowledge or experience of the person seeking to qualify for the LLP: Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?		☐	☑	
Relationship of the purchase price to the fair market value of the property if it were not contaminated: Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?		☑	☐	

HILLMANN CONSULTING

Property Address:	12745 Limonite Avenue, Eastvale CA	YES	NO	DETAIL (optional):
Commonly Known or Reasonably Ascertainable Information: Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? **ANSWER BELOW**				
- Do you know the past uses of the property?		☑	☐	Dairy Farm
- Do you know of specific chemicals that are present or were once present at the property?		☐	☑	
- Do you know of spills or other chemical releases that have taken place at the property?		☐	☑	
- Do you know of any environmental cleanups that have taken place at the property?		☐	☑	
The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation: Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?		☐	☑	
Litigation/Administrative Proceedings/Government Notices As the User of this ESA, do you have knowledge of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.		☐	☑	

Additional Details, if applicable:

APPENDIX D

HISTORICAL RECORDS DOCUMENTATION

Hamer Ave and 58th Street

Hamer Ave and 58th Street

Corona, CA 92880

Inquiry Number: 6529777.8

June 09, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

06/09/21

Site Name:

Hamer Ave and 58th Street
Hamer Ave and 58th Street
Corona, CA 92880
EDR Inquiry # 6529777.8

Client Name:

Hillmann Environmental Co.
1745 W Orangewood Avenue
Orange, CA 92868-0000
Contact: Gabby Cyrulik

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1994	1"=500'	Acquisition Date: June 01, 1994	USGS/DOQQ
1990	1"=500'	Flight Date: August 29, 1990	USDA
1989	1"=500'	Flight Date: August 03, 1989	USDA
1985	1"=500'	Flight Date: July 28, 1985	USDA
1975	1"=500'	Flight Date: August 01, 1975	USGS
1967	1"=500'	Flight Date: May 15, 1967	USDA
1953	1"=500'	Flight Date: February 02, 1953	USDA
1948	1"=500'	Flight Date: July 10, 1948	USGS
1938	1"=500'	Flight Date: May 30, 1938	USDA
1931	1"=500'	Flight Date: September 18, 1931	FAIR

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INQUIRY #: 6529777.8
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 2002
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 1994
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 1990
= 500'
N
EDR


Borrow Area
INQUIRY #: 6529777.8
YEAR: 1989
= 500'
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EDR



INQUIRY #: 6529777.8

YEAR: 1985

= 500'

N

EDR

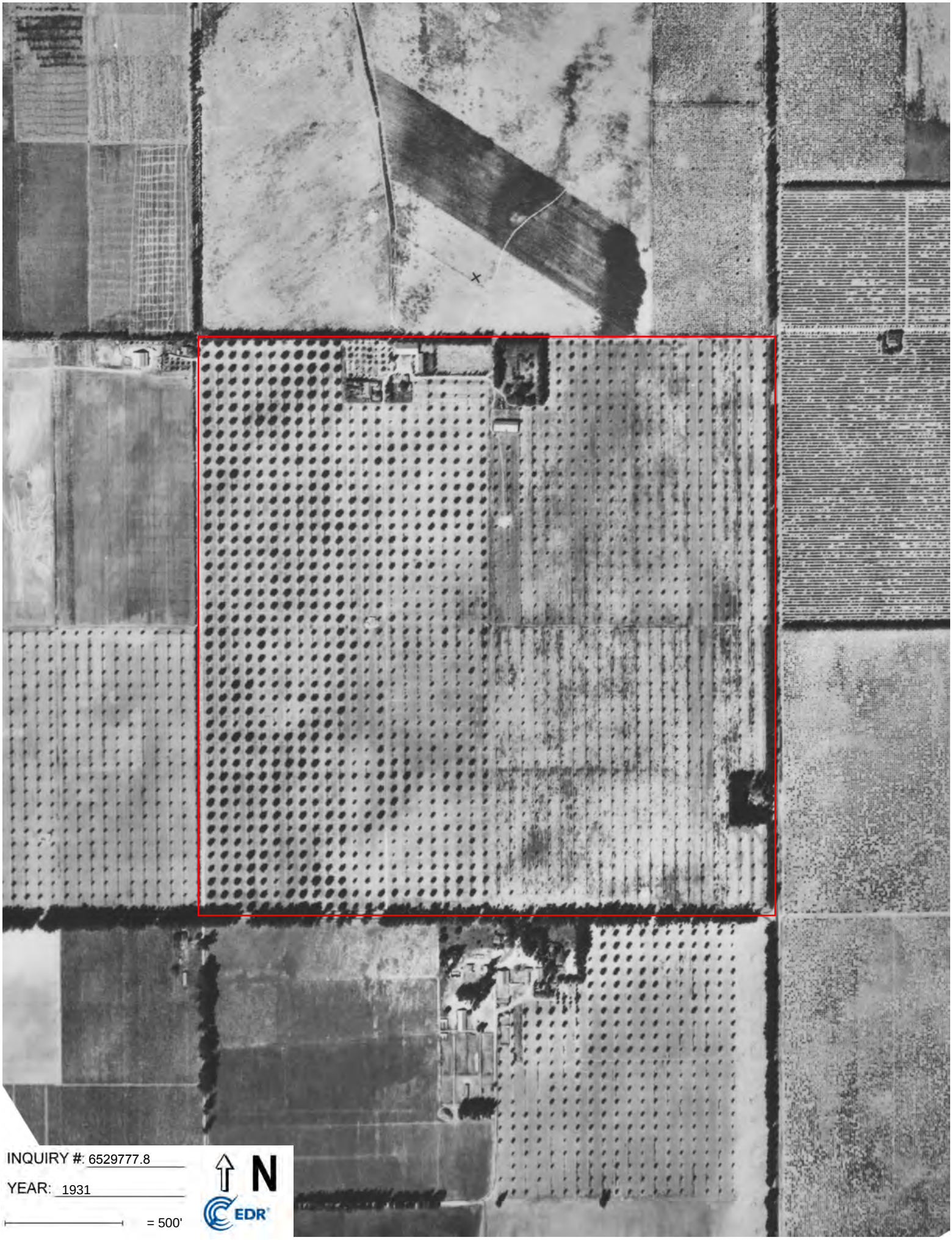

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YEAR: 1975
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EDR


INQUIRY #: 6529777.8
YEAR: 1967
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 1953
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 1948
= 500'
N
EDR


INQUIRY #: 6529777.8
YEAR: 1938
= 500'
N
EDR



INQUIRY #: 6529777.8

YEAR: 1931

= 500'

N

EDR

Hamer Ave and 58th Street

Hamer Ave and 58th Street

Corona, CA 92880

Inquiry Number: 6529777.4

June 09, 2021

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

06/09/21

Site Name:

Hamer Ave and 58th Street
Hamer Ave and 58th Street
Corona, CA 92880
EDR Inquiry # 6529777.4

Client Name:

Hillmann Environmental Co.
1745 W Orangewood Avenue
Orange, CA 92868-0000
Contact: Gabby Cyrulik

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Hillmann Environmental Co. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# Schoiar Way, 58th Ave, Hamne
Project: C3-8458

Coordinates:

Latitude:	33.979185 33° 58' 45" North
Longitude:	-117.562932 -117° 33' 47" West
UTM Zone:	Zone 11 North
UTM X Meters:	448001.46
UTM Y Meters:	3759990.82
Elevation:	669.00' above sea level

Maps Provided:

2012
1981
1973
1967
1953, 1954
1947
1942
1902

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Corona North
2012
7.5-minute, 24000



Guasti
2012
7.5-minute, 24000

1981 Source Sheets



Guasti
1981
7.5-minute, 24000
Aerial Photo Revised 1978



Corona North
1981
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Guasti
1973
7.5-minute, 24000
Aerial Photo Revised 1973



Corona North
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1967 Source Sheets



Corona North
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1953, 1954 Source Sheets



Guasti
1953
7.5-minute, 24000
Aerial Photo Revised 1952



Corona North
1954
7.5-minute, 24000
Aerial Photo Revised 1952

1947 Source Sheets



CORONA
1947
15-minute, 50000

1942 Source Sheets



Corona and Vicinity
1942
7.5-minute, 31680

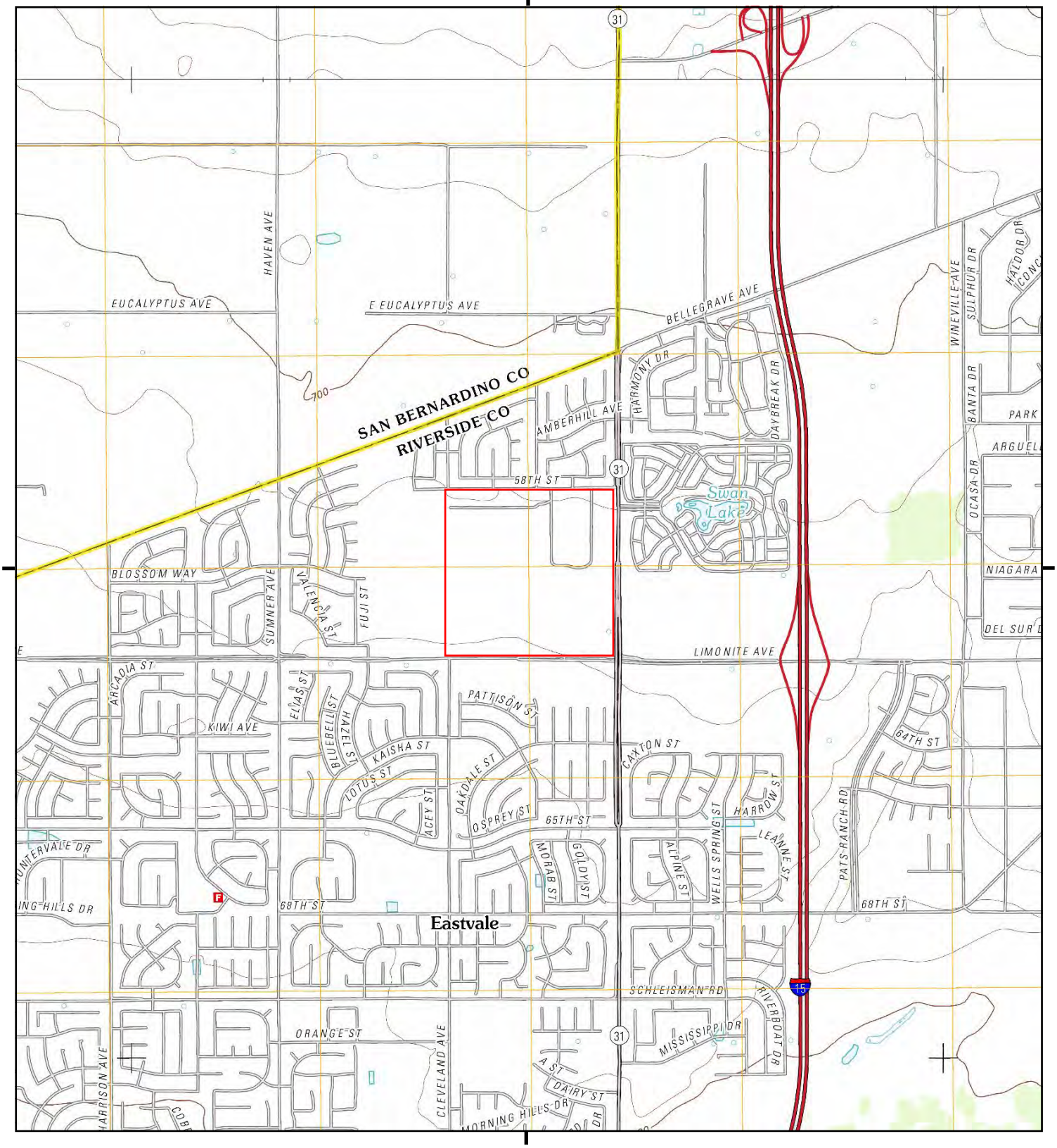
1902 Source Sheets



Corona
1902
30-minute, 125000

Historical Topo Map

2012



This report includes information from the following map sheet(s).

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NW N NE
W E
SW S SE

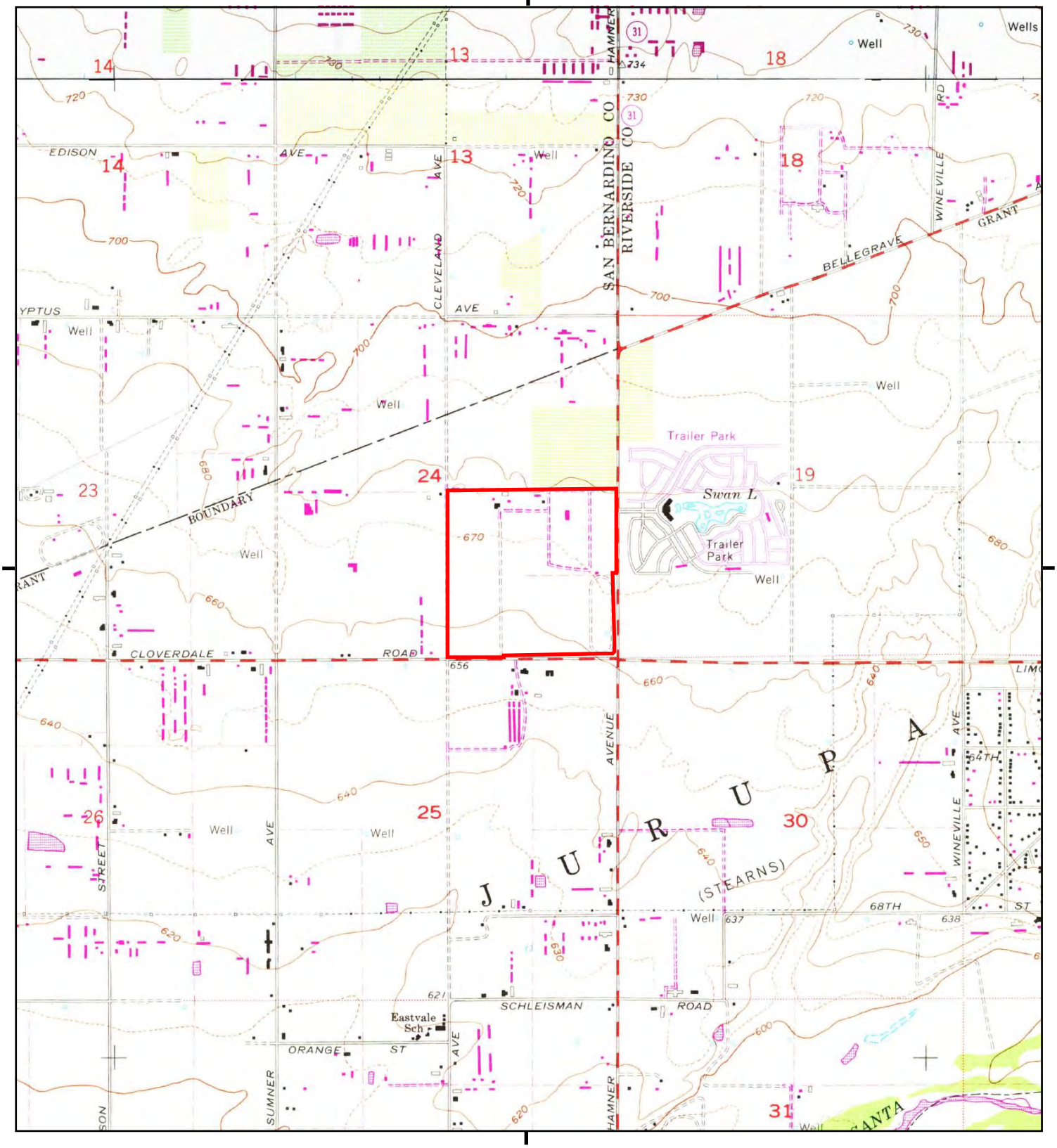
TP, Corona North, 2012, 7.5-minute
N, Guasti, 2012, 7.5-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Historical Topo Map

1981



This report includes information from the following map sheet(s).

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W E
SW S SE

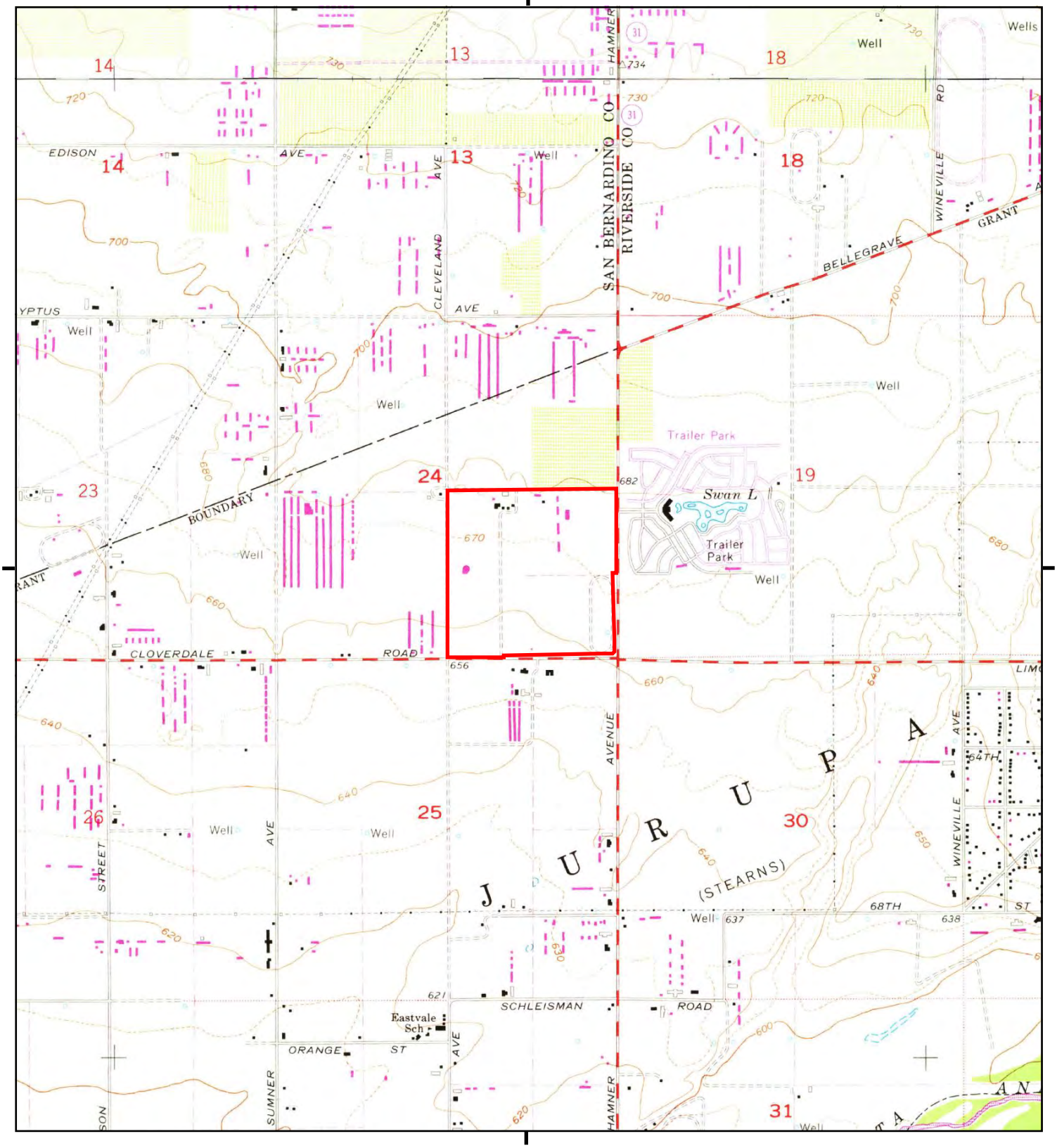
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N, Guasti, 1981, 7.5-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Historical Topo Map

1973



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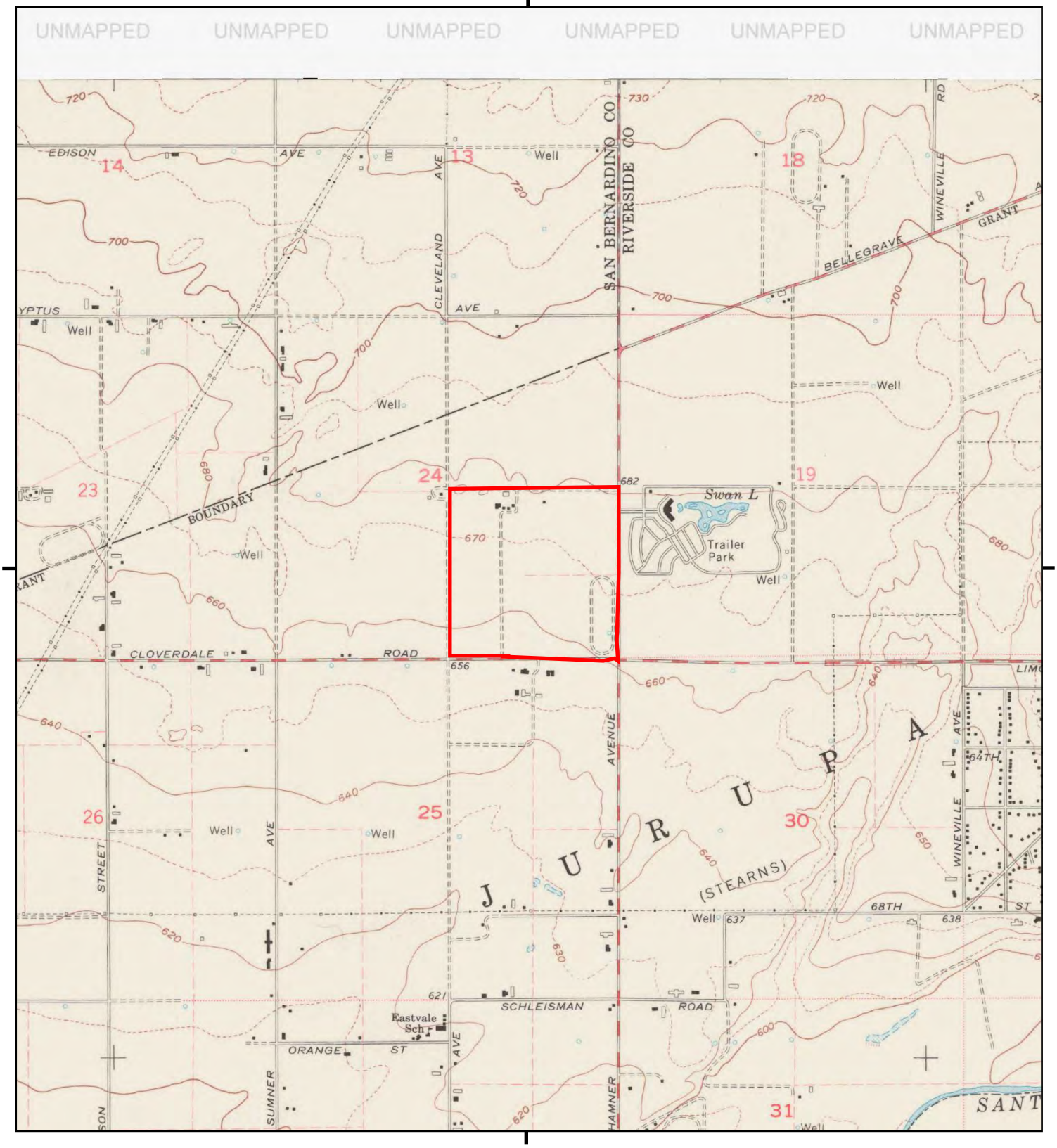
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona North, 1973, 7.5-minute
N, Guasti, 1973, 7.5-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N



This report includes information from the following map sheet(s).

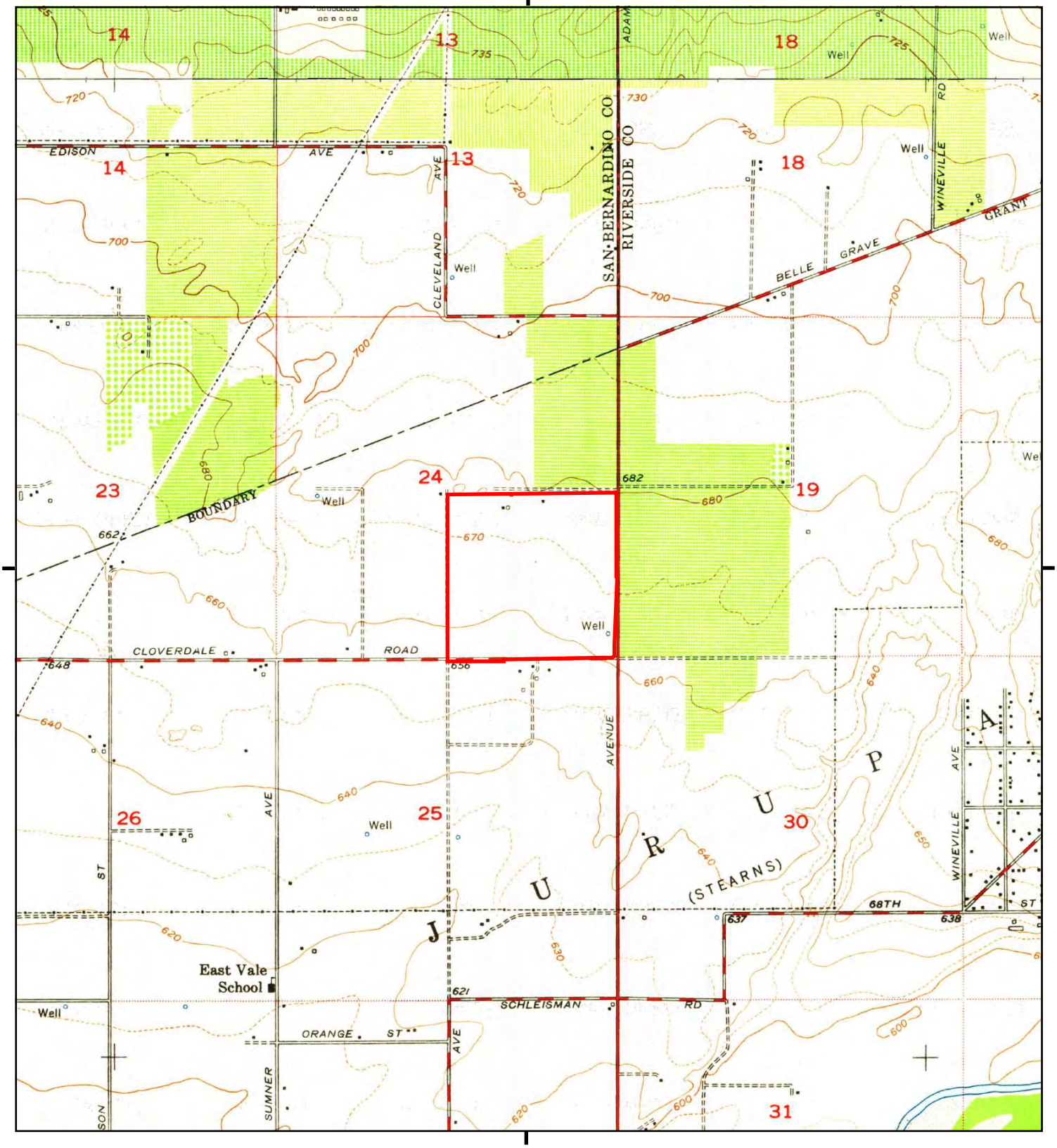
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona North, 1967, 7.5-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona North, 1954, 7.5-minute
N, Guasti, 1953, 7.5-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

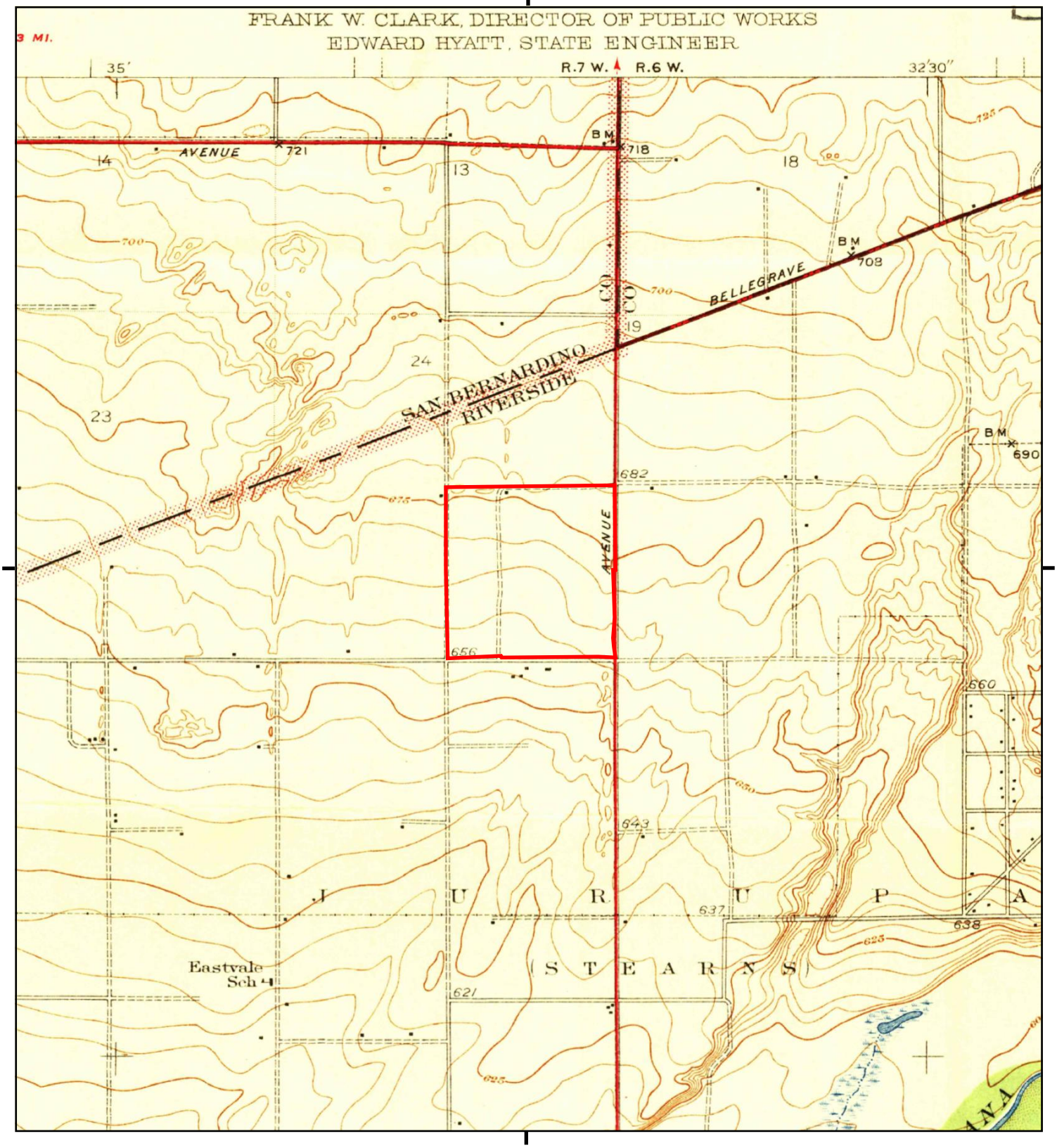
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NW N NE
W E
SW S SE

TP, CORONA, 1947, 15-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N



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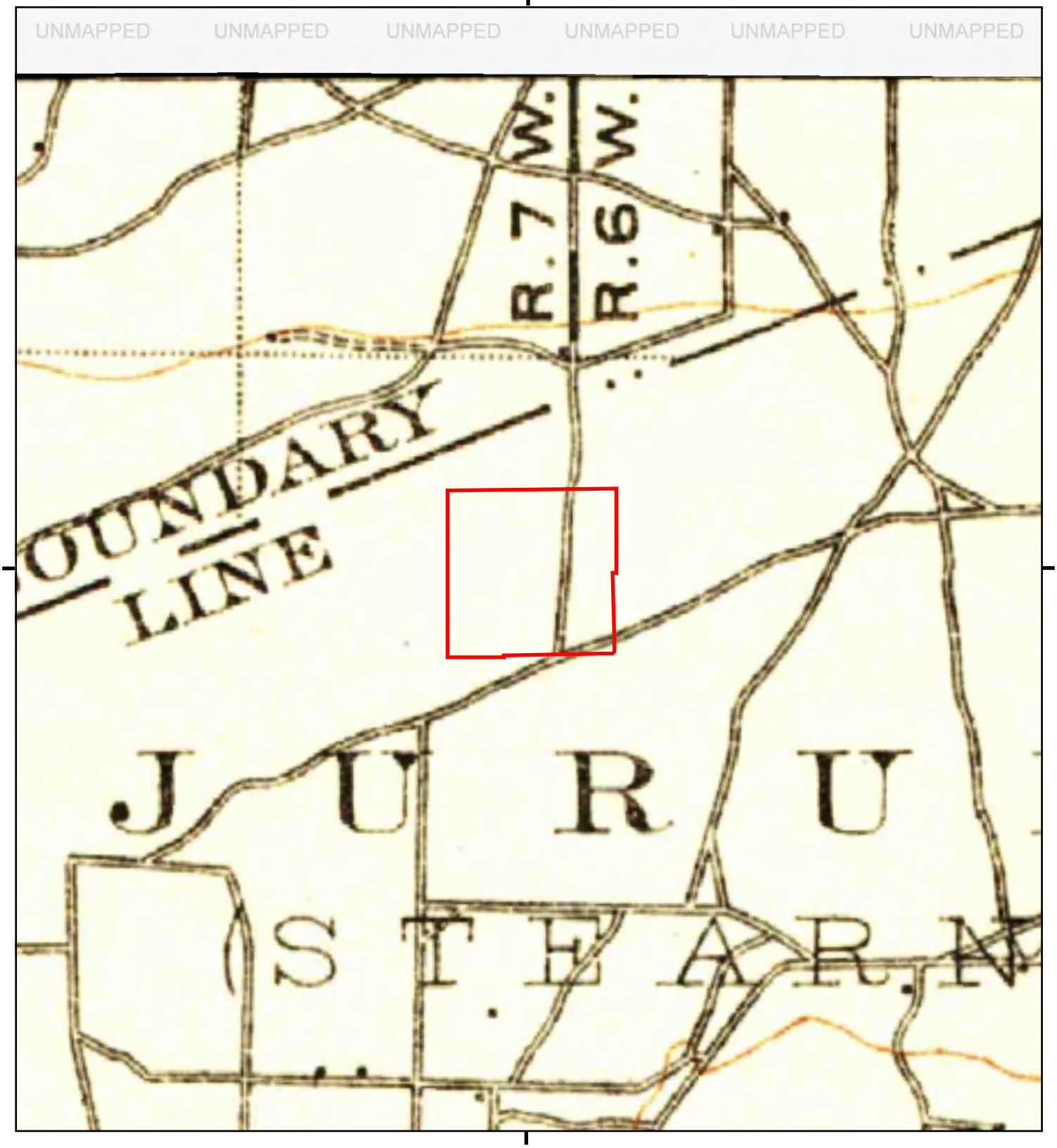
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona and Vicinity, 1942, 7.5-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona, 1902, 30-minute

SITE NAME: Hamer Ave and 58th Street
ADDRESS: Hamer Ave and 58th Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Hamer Ave and 58th Street

Hamer Ave and 58th Street

Corona, CA 92880

Inquiry Number: 6529777.3

June 09, 2021

Certified Sanborn® Map Report

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Shelton, CT 06484
Toll Free: 800.352.0050
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Certified Sanborn® Map Report

06/09/21

Site Name:

Hamer Ave and 58th Street
Hamer Ave and 58th Street
Corona, CA 92880
EDR Inquiry # 6529777.3

Client Name:

Hillmann Environmental Co.
1745 W Orangewood Avenue
Orange, CA 92868-0000
Contact: Gabby Cyrulik

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 46C5-4AEA-9674

PO # Schoiar Way, 58th Ave, Hamner

Project C3-8458

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 46C5-4AEA-9674

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Hamer Ave and 58th Street
Hamer Ave and 58th Street
Corona, CA 92880

Inquiry Number: 6529777.5
June 21, 2021

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

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with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

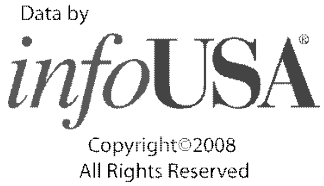
Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1921 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 2640 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2017	Cole Information Services	-	X	X	-
2014	Cole Information Services	-	X	X	-
2009	Cole Information Services	-	X	X	-
2004	Cole Information Services	-	X	X	-
2002	SBC PACIFIC BELL	-	X	X	-
2001	Haines & Company, Inc.	-	X	X	-
1999	Cole Information Services	-	X	X	-
1996	Pacific Bell	-	X	X	-
1994	Cole Information Services	-	X	X	-
1993	Pacific Bell	-	X	X	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell Yellow Pages	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1981	Pacific Telephone	-	X	X	-
1977	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	-	X	X	-
1967	Luskey Brothers & Co.	-	-	-	-
1966	Luskey Brothers & Company Inc.	-	X	X	-
1961	Luskey Brothers & Co.	-	-	-	-
1960	Luskeys Brothers & Co., Publishers	-	-	-	-
1956	Luskey Brothers & Co.	-	X	X	-
1955	Luskeys Brothers Co., Publishers	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1946	Southern California Telephone Company	-	-	-	-
1945	Los Angeles Directory Co.	-	-	-	-
1941	Pacific Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1931	Southern California Telephone Co.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Kaasen Directory Co.	-	-	-	-
1921	Riverside Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

Hamer Ave and 58th Street
Corona, CA 92880

FINDINGS DETAIL

Target Property research detail.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

58TH ST

12740 58TH ST

Year	Uses	Source
2017	JOHN LEAL	Cole Information Services
2014	JESE ZUNIGA	Cole Information Services
2009	LEAL RANCHES	Cole Information Services
	LEIGH MEDBURY	Cole Information Services
	STERLING SILVER TRUCKING	Cole Information Services
1999	LEIGH MEDBURY	Cole Information Services

ALEXANDRIA AVE

5509 ALEXANDRIA AVE

Year	Uses	Source
2017	MICHELE CINQUE	Cole Information Services
2014	WILLIAM BAIRD	Cole Information Services
2009	WILLIAM BAIRD	Cole Information Services
2004	JUDY NEGRI	Cole Information Services
1999	WILLIAM BAIRD	Cole Information Services

5514 ALEXANDRIA AVE

Year	Uses	Source
2017	BRADLEY MORTON	Cole Information Services
2014	BRADLEY MORTON	Cole Information Services
2009	BRADLEY MORTON	Cole Information Services
2004	BRADLEY MORTON	Cole Information Services
1999	BRADLEY MORTON	Cole Information Services

5519 ALEXANDRIA AVE

Year	Uses	Source
2017	SAMMIE CAYTON	Cole Information Services
2014	SAMMIE CAYTON	Cole Information Services
2009	QUICK TIME TRUCKING	Cole Information Services
2004	SAMMIE CAYTON	Cole Information Services
	QUICK TIME TRUCKING	Cole Information Services

FINDINGS

5524 ALEXANDRIA AVE

Year	*Uses*	*Source*
2017	DEBRA SOLIZ	Cole Information Services
2014	LORETO CARMONA	Cole Information Services
2009	VICTOR CARMONA	Cole Information Services
2004	RAMON CASTRO	Cole Information Services

5529 ALEXANDRIA AVE

Year	*Uses*	*Source*
2017	KEITH GREEN	Cole Information Services
2014	KEITH GREEN	Cole Information Services
2009	KEITH GREEN	Cole Information Services
2004	KEITH GREEN	Cole Information Services
1999	KEITH GREEN	Cole Information Services

5534 ALEXANDRIA AVE

Year	*Uses*	*Source*
2017	BARRY CHAPPELL	Cole Information Services
2014	BARRY CHAPPELL	Cole Information Services
2009	BARRY CHAPPELL	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	BARRY CHAPPELL	Cole Information Services

5539 ALEXANDRIA AVE

Year	*Uses*	*Source*
2017	JOSHUA BATES	Cole Information Services
2014	JOSHUA BATES	Cole Information Services
2009	JOSHUA BATES	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	JOSHUA BATES	Cole Information Services

5544 ALEXANDRIA AVE

Year	*Uses*	*Source*
2017	HEIDI BRUGGEMAN	Cole Information Services
2014	HEIDI BRUGGEMAN	Cole Information Services
2009	HEIDI BRUGGEMAN	Cole Information Services
2004	HEIDI BRUGGEMAN	Cole Information Services
1999	HEIDI BRUGGEMAN	Cole Information Services

FINDINGS

5549 ALEXANDRIA AVE

Year	Uses	Source
2014	KELLY DOMINICE	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	RAYMOND DOMINICE	Cole Information Services

5554 ALEXANDRIA AVE

Year	Uses	Source
2017	RAMON PENA	Cole Information Services
2014	RAMON PENA	Cole Information Services
2009	JOSE ARELLANO	Cole Information Services
2004	JOSE ARELLANO	Cole Information Services
1999	JOSE ARELLANO	Cole Information Services

5559 ALEXANDRIA AVE

Year	Uses	Source
2017	OLUBUKOLA OGUNPOLA	Cole Information Services
2014	JAMES DOUGLAS	Cole Information Services
2009	OLUBUKOLA OGUNPOLA	Cole Information Services
2004	OLUBUKOLA OGUNPOLA	Cole Information Services
1999	OLUBUKOLA OGUNPOLA	Cole Information Services

5564 ALEXANDRIA AVE

Year	Uses	Source
2017	RAUL FONSECA	Cole Information Services
2014	RAUL FONSECA	Cole Information Services
2009	EDWARD BLAZER	Cole Information Services
2004	EDWARD BLAZER	Cole Information Services
1999	EDWARD BLAZER	Cole Information Services

5569 ALEXANDRIA AVE

Year	Uses	Source
2017	QIWEN WU	Cole Information Services
2014	OWEN LAYUGAN	Cole Information Services
2009	JAMES LAYUGAN	Cole Information Services
2004	ROBERT NEGRI	Cole Information Services
1999	JAMES LAYUGAN	Cole Information Services

5574 ALEXANDRIA AVE

Year	Uses	Source
2017	BETTY KNIGHT	Cole Information Services

FINDINGS

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	CYNTHIA HARMON	Cole Information Services

5579 ALEXANDRIA AVE

Year	Uses	Source
2017	NICHOLAS MARTINEZ	Cole Information Services
2014	LUIS MARTINEZ	Cole Information Services
2009	LUIS MARTINEZ	Cole Information Services
2004	LUIS MARTINEZ	Cole Information Services

5584 ALEXANDRIA AVE

Year	Uses	Source
2017	EDWARD BRUGGEMAN	Cole Information Services
2014	EDWARD BRUGGEMAN	Cole Information Services
2009	EDWARD BRUGGEMAN	Cole Information Services
2004	EDWARD BRUGGEMAN	Cole Information Services
1999	EDWARD BRUGGEMAN	Cole Information Services

5589 ALEXANDRIA AVE

Year	Uses	Source
2017	FELICIA MA	Cole Information Services
2014	QIN LUO	Cole Information Services
2009	RANDOLPH LASCURAIN	Cole Information Services
2004	RANDOLPH LASCURAIN	Cole Information Services
1999	RANDOLPH LASCURAIN	Cole Information Services

5594 ALEXANDRIA AVE

Year	Uses	Source
2017	JULIE TRAXLER	Cole Information Services
2014	JOSH SOKOLOFF	Cole Information Services
2009	HELEN MALSTER	Cole Information Services
2004	ERIC ROSENTHAL	Cole Information Services

5599 ALEXANDRIA AVE

Year	Uses	Source
2017	DIANA BEACH	Cole Information Services
2014	ANTONIO BAEZ	Cole Information Services
2004	GLEN CONRAD	Cole Information Services

FINDINGS

5604 ALEXANDRIA AVE

Year	Uses	Source
2017	JACQUELINE MCGILL	Cole Information Services
2014	JOHN GARCIA	Cole Information Services
2009	JOHN GARCIA	Cole Information Services
2004	EDDIE SHANNON	Cole Information Services
1999	JOHN GARCIA	Cole Information Services

5609 ALEXANDRIA AVE

Year	Uses	Source
2017	RICHARD VILLASENOR	Cole Information Services
2014	RICHARD VILLASENOR	Cole Information Services
2009	RICHARD VILLASENOR	Cole Information Services
2004	RICHARD VILLASENOR	Cole Information Services
1999	RICHARD VILLASENOR	Cole Information Services

5614 ALEXANDRIA AVE

Year	Uses	Source
2017	BOK CHOE	Cole Information Services
2014	HYON CHOE	Cole Information Services
2009	HYON CHOE	Cole Information Services
2004	HYON CHOE	Cole Information Services
1999	HYON CHOE	Cole Information Services

5619 ALEXANDRIA AVE

Year	Uses	Source
2017	ARWIN PABLO	Cole Information Services
2014	ARWIN PABLO	Cole Information Services
2009	ARWIN PABLO	Cole Information Services
1999	ARWIN PABLO	Cole Information Services

5629 ALEXANDRIA AVE

Year	Uses	Source
2017	HAROLD GARCEZ	Cole Information Services
2014	HAROLD GARCEZ	Cole Information Services
2009	STEPHEN BROOKS	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	STEPHEN BROOKS	Cole Information Services

FINDINGS

5639 ALEXANDRIA AVE

Year	Uses	Source
2017	HELMUTH ARAYA	Cole Information Services
2014	HELMUTH ARAYA	Cole Information Services
2009	LEOBARDO MARTINEZ	Cole Information Services
2004	JASON UNDERHILL	Cole Information Services

5644 ALEXANDRIA AVE

Year	Uses	Source
2017	ARMANDO GARCIA	Cole Information Services
2014	ARMANDO GARCIA	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

5649 ALEXANDRIA AVE

Year	Uses	Source
2017	SCOTT JOINES	Cole Information Services
2014	SCOTT JOINES	Cole Information Services
2009	SCOTT JOINES	Cole Information Services
2004	TROY DAVIS	Cole Information Services
1999	SCOTT JOINES	Cole Information Services

5654 ALEXANDRIA AVE

Year	Uses	Source
2017	ZEHRA HANIF	Cole Information Services
2014	DAVID MCCULLY	Cole Information Services
2009	JORGE RAMIREZ	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	JORGE RAMIREZ	Cole Information Services

5659 ALEXANDRIA AVE

Year	Uses	Source
2017	WILLIAM DOUTHIT	Cole Information Services
2014	WILLIAM DOUTHIT	Cole Information Services
2009	JOHN DOUTHIT	Cole Information Services
2004	HOWARD DOUTHIT	Cole Information Services
1999	JOHN DOUTHIT	Cole Information Services

5664 ALEXANDRIA AVE

Year	Uses	Source
2017	TREVOR PAINTON	Cole Information Services
2014	TREVOR PAINTON	Cole Information Services

FINDINGS

Year	Uses	Source
2004	TREVOR PAINTON	Cole Information Services

5669 ALEXANDRIA AVE

Year	Uses	Source
2017	ISMAEL MARTIN	Cole Information Services
2014	ISMAEL MARTIN	Cole Information Services
2009	ISMAEL MARTIN	Cole Information Services
2004	ISMAEL MARTIN	Cole Information Services

5674 ALEXANDRIA AVE

Year	Uses	Source
2014	LELAND SPARKS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	LELAND SPARKS	Cole Information Services

5684 ALEXANDRIA AVE

Year	Uses	Source
2017	MELISSA HORTON	Cole Information Services
2014	EVERETT SMIT	Cole Information Services
2009	JOSEPH HORTON	Cole Information Services
2004	EVERETT SMIT	Cole Information Services
1999	JOSEPH HORTON	Cole Information Services

5694 ALEXANDRIA AVE

Year	Uses	Source
2017	MARK ESTEP	Cole Information Services
2014	MARK ESTEP	Cole Information Services
2009	MARK ESTEP	Cole Information Services
2004	JOSE DELATORRE	Cole Information Services
1999	MARK ESTEP	Cole Information Services

5704 ALEXANDRIA AVE

Year	Uses	Source
2017	JOSHUA MORGAN	Cole Information Services
2014	JOSHUA MORGAN	Cole Information Services
2009	JOSHUA MORGAN	Cole Information Services
2004	JOSHUA MORGAN	Cole Information Services
1999	JOSHUA MORGAN	Cole Information Services

FINDINGS

5709 ALEXANDRIA AVE

Year	Uses	Source
2017	MICHAEL MCGROARTY	Cole Information Services
2009	JOHN MCGROARTY	Cole Information Services
1999	JOHN MCGROARTY	Cole Information Services

5714 ALEXANDRIA AVE

Year	Uses	Source
2017	MARK HERNANDEZ	Cole Information Services
2014	SANDER LAVAU	Cole Information Services
2009	SANDER LAVAU	Cole Information Services
2004	SANDER LAVAU	Cole Information Services
1999	SANDER LAVAU	Cole Information Services

5719 ALEXANDRIA AVE

Year	Uses	Source
2017	KIET NGUYEN	Cole Information Services
2014	KIET NGUYEN	Cole Information Services
2009	ERIN BRILEY	Cole Information Services
1999	ERIN BRILEY	Cole Information Services

5724 ALEXANDRIA AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	JASON MCCARRON	Cole Information Services
2004	MICHAEL MCCARRON	Cole Information Services
1999	JASON MCCARRON	Cole Information Services

5729 ALEXANDRIA AVE

Year	Uses	Source
2017	HENRY CAMPBELL	Cole Information Services
2014	JACQUELYN JONES	Cole Information Services
2009	JACQUELYN JONES	Cole Information Services
1999	JACQUELYN JONES	Cole Information Services

5734 ALEXANDRIA AVE

Year	Uses	Source
2017	BONNIE MOORE	Cole Information Services
2014	BONNIE MOORE	Cole Information Services
2009	BONNIE MOORE	Cole Information Services
2004	BONNIE MOORE	Cole Information Services

FINDINGS

Year	Uses	Source
1999	BONNIE MOORE	Cole Information Services

5744 ALEXANDRIA AVE

Year	Uses	Source
2017	PAMELA BRADFORD	Cole Information Services
2014	REGINA STONE	Cole Information Services
2009	PAMELA BRADFORD	Cole Information Services
2004	PAMELA BRADFORD	Cole Information Services
1999	PAMELA BRADFORD	Cole Information Services

5749 ALEXANDRIA AVE

Year	Uses	Source
2017	ROBERTO SANCHEZ	Cole Information Services
2014	ROBERTO SANCHEZ	Cole Information Services
2009	ROBERTO SANCHEZ	Cole Information Services
1999	ROBERTO SANCHEZ	Cole Information Services

5754 ALEXANDRIA AVE

Year	Uses	Source
2017	CHARLES MCDOUGALL	Cole Information Services
2014	CHARLES MCDOUGALL	Cole Information Services
2009	ERIN CARROLL	Cole Information Services
	CHARLES MCDOUGALL	Cole Information Services
2004	DERRIC WAGNER	Cole Information Services
1999	CHARLES MCDOUGALL	Cole Information Services

5759 ALEXANDRIA AVE

Year	Uses	Source
2017	ADAM FORT	Cole Information Services
2014	ADAM FORT	Cole Information Services
2009	AARON HALLENBECK	Cole Information Services
1999	AARON HALLENBECK	Cole Information Services

5764 ALEXANDRIA AVE

Year	Uses	Source
2017	STACY FULLER	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	SPRING MCWATERS	Cole Information Services
2004	JOEL MCWATERS	Cole Information Services
1999	SPRING MCWATERS	Cole Information Services

FINDINGS

5769 ALEXANDRIA AVE

Year	Uses	Source
2017	THEODORE TIPTON	Cole Information Services
2014	CESAR TLILAYATZI	Cole Information Services
2009	LILIA TLILAYATZI	Cole Information Services
1999	LILIA TLILAYATZI	Cole Information Services

5774 ALEXANDRIA AVE

Year	Uses	Source
2017	JOHN SCRANTON	Cole Information Services
2014	JOHN SCRANTON	Cole Information Services
2009	JEFFREY SCRANTON	Cole Information Services
2004	JEFFREY SCRANTON	Cole Information Services
1999	JEFFREY SCRANTON	Cole Information Services

5779 ALEXANDRIA AVE

Year	Uses	Source
2017	TITO STOKES	Cole Information Services
2014	ROBERT YOUNG	Cole Information Services
2009	RUBY SMOAK	Cole Information Services
1999	RUBY SMOAK	Cole Information Services

5784 ALEXANDRIA AVE

Year	Uses	Source
2017	ARMANDO FREGOSO	Cole Information Services
2014	ARMANDO ALVAREZ	Cole Information Services
2009	ALEJANDRO JIMENEZ	Cole Information Services
2004	ALEJANDRO JIMENEZ	Cole Information Services
1999	ALEJANDRO JIMENEZ	Cole Information Services

5789 ALEXANDRIA AVE

Year	Uses	Source
2017	ENRIQUETA BUSTAMANTE	Cole Information Services
2014	ELI PRITCHARD	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5799 ALEXANDRIA AVE

Year	Uses	Source
2017	CLAIRA VILLARCE	Cole Information Services
2014	CLAIRA VILLARCE	Cole Information Services
2009	STEVEN WALLER	Cole Information Services

Year	Uses	Source
1999	STEVEN WALLER	Cole Information Services

AMBER DR

688 AMBER DR

Year	Uses	Source
2001	ADSPCLTYMDSGCO	Haines & Company, Inc.

689 AMBER DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

690 AMBER DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	SMITH, WILLIAM P	Cole Information Services
1986	Smith William P	Pacific Bell Yellow Pages

691 AMBER DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Ball Goldie	Pacific Bell Yellow Pages

692 AMBER DR

Year	Uses	Source
2004	JOSE BARBOA	Cole Information Services
2001	OLDHAMDaryl M	Haines & Company, Inc.

693 AMBER DR

Year	Uses	Source
2001	ZEPEDAFedenco	Haines & Company, Inc.
1986	Kennedy Paul & Donna	Pacific Bell Yellow Pages

694 AMBER DR

Year	Uses	Source
2004	LAURA LOZANO	Cole Information Services
2001	LOZANO Laura E	Haines & Company, Inc.

FINDINGS

695 AMBER DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Cooper Geo E	Pacific Bell Yellow Pages

696 AMBER DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Plitt Paul K	Pacific Bell Yellow Pages

697 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Peel Rex A	Pacific Bell Yellow Pages
	Peel Richard J	Pacific Bell Yellow Pages

698 AMBER DR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services

699 AMBER DR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services

700 AMBER DR

Year	Uses	Source
2004	ANTHONY RICE	Cole Information Services

701 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

702 AMBER DR

Year	Uses	Source
2004	NICOLE HANKINSON	Cole Information Services
1994	MAREAN, JULIA	Cole Information Services

703 AMBER DR

Year	Uses	Source
2004	NICOLE SOLDAN	Cole Information Services

FINDINGS

704 AMBER DR

Year	Uses	Source
2004	ROSE ROSAS	Cole Information Services
	BRENT TEGTMEYER	Cole Information Services
2001	TEGTMEYERBren IS	Haines & Company, Inc.

705 AMBER DR

Year	Uses	Source
2004	MAXIMO OLLADO	Cole Information Services

706 AMBER DR

Year	Uses	Source
2004	ALFONSO ARREOLA	Cole Information Services
2001	ARREOLAAIlonso	Haines & Company, Inc.

707 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Frazier Wm A	Pacific Bell Yellow Pages
	Frazier Wm	Pacific Bell Yellow Pages

708 AMBER DR

Year	Uses	Source
2004	ANTONIA DELL	Cole Information Services
1986	Bentley Toni	Pacific Bell Yellow Pages
	Williams Mark	Pacific Bell Yellow Pages

709 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

710 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Beuthlen Howard	Pacific Bell Yellow Pages

711 AMBER DR

Year	Uses	Source
2004	DEREK KING	Cole Information Services
2001	GOULDBruce	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1994	GOULD, BRUCE	Cole Information Services
1986	Gould Bruce	Pacific Bell Yellow Pages

712 AMBER DR

Year	Uses	Source
2004	TOD HASLAM	Cole Information Services
1986	Peterson T	Pacific Bell Yellow Pages

713 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	RIVERABIanca 90 B	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services

714 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2002	Birenbaum Dawn	SBC PACIFIC BELL
2001	XXXX	Haines & Company, Inc.

715 AMBER DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Klelty Frank M	Pacific Bell Yellow Pages

716 AMBER DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Wertens Douglas & Conchita	Pacific Bell Yellow Pages
1981	Country Style Mobile Homes Inc	Pacific Telephone

782 AMBER DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

AMBERHILL AVE

12602 AMBERHILL AVE

Year	Uses	Source
2017	WALTER RIOS	Cole Information Services

FINDINGS

Year	Uses	Source
2014	BO CHEN	Cole Information Services
2009	ALEX ATILANO	Cole Information Services
2004	ALEX ATILANO	Cole Information Services
1999	ALEX ATILANO	Cole Information Services

12614 AMBERHILL AVE

Year	Uses	Source
2017	JAMES HARRIS	Cole Information Services
2014	JAMES HARRIS	Cole Information Services
2009	JAMES HARRIS	Cole Information Services
2004	JAMES HARRIS	Cole Information Services
1999	JAMES HARRIS	Cole Information Services

12626 AMBERHILL AVE

Year	Uses	Source
2017	LORENZO MARTINEZ	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	LUIS MARTINEZ	Cole Information Services
2004	LORENZO MARTINEZ	Cole Information Services

12633 AMBERHILL AVE

Year	Uses	Source
2017	CHRISTINE CARLOS	Cole Information Services
2014	STEPHEN VALDEZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JOSE CHAVEZ	Cole Information Services

12638 AMBERHILL AVE

Year	Uses	Source
2017	ELVIA TAMAYO	Cole Information Services
2014	ELVIA TAMAYO	Cole Information Services
2009	ANTONINO TAMAYO	Cole Information Services
2004	GRACIELA TAMAYO	Cole Information Services
1999	ANTONINO TAMAYO	Cole Information Services

12645 AMBERHILL AVE

Year	Uses	Source
2017	AARON PAN	Cole Information Services
2014	AARON PAN	Cole Information Services
2009	MATTHEW TURNER	Cole Information Services

FINDINGS

Year	Uses	Source
1999	MATTHEW TURNER	Cole Information Services

12657 AMBERHILL AVE

Year	Uses	Source
2017	OSCAR MANALO	Cole Information Services
2014	OSCAR MANALO	Cole Information Services
2009	OSCAR MANALO	Cole Information Services
2004	OSCAR MANALO	Cole Information Services

12662 AMBERHILL AVE

Year	Uses	Source
2017	MATT RAMIREZ	Cole Information Services
2014	COURTNEY LUONG	Cole Information Services
2004	COURTNEY LUONG	Cole Information Services

12669 AMBERHILL AVE

Year	Uses	Source
2017	MICHELLE LOCKETT	Cole Information Services
2014	FRANK LOCKETT	Cole Information Services
2009	FRANK LOCKETT	Cole Information Services
2004	FRANK LOCKETT	Cole Information Services
1999	FRANK LOCKETT	Cole Information Services

12674 AMBERHILL AVE

Year	Uses	Source
2017	HUNG LE	Cole Information Services
2014	HUNG LE	Cole Information Services
2009	KOHNSON CHAN	Cole Information Services
2004	CHRIS CHAN	Cole Information Services
1999	KOHNSON CHAN	Cole Information Services

12681 AMBERHILL AVE

Year	Uses	Source
2017	JASPER LIM	Cole Information Services
2014	JASPER LIM	Cole Information Services
2009	JASPER LIM	Cole Information Services
2004	JASPER LIM	Cole Information Services
1999	JASPER LIM	Cole Information Services

FINDINGS

12686 AMBERHILL AVE

Year	Uses	Source
2017	RONALD WELCH	Cole Information Services
2014	RONALD WELCH	Cole Information Services
2009	RONALD WELCH	Cole Information Services
2004	RONALD WELCH	Cole Information Services
1999	RONALD WELCH	Cole Information Services

12693 AMBERHILL AVE

Year	Uses	Source
2017	JUAN HARO	Cole Information Services
2014	JUAN HARO	Cole Information Services
2009	GLORIA HARO	Cole Information Services
2004	JUAN HARO	Cole Information Services
1999	GLORIA HARO	Cole Information Services

12698 AMBERHILL AVE

Year	Uses	Source
2014	SHENG LIU	Cole Information Services
2009	SHENG LIU	Cole Information Services
2004	SHENG LIU	Cole Information Services
1999	SHENG LIU	Cole Information Services

12705 AMBERHILL AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	YOUNG KIM	Cole Information Services
2004	FRANK LIN	Cole Information Services
1999	YOUNG KIM	Cole Information Services

12717 AMBERHILL AVE

Year	Uses	Source
2014	BIANCA AVALOS	Cole Information Services
2009	HONG DU	Cole Information Services
2004	DUNG QUACH	Cole Information Services
1999	HONG DU	Cole Information Services

12722 AMBERHILL AVE

Year	Uses	Source
2017	BALVANT GORAJIA	Cole Information Services
2014	BALVANT GORAJIA	Cole Information Services

FINDINGS

Year	Uses	Source
2009	BALVANT GORAJIA	Cole Information Services
2004	BALVANT GORAJIA	Cole Information Services
1999	BALVANT GORAJIA	Cole Information Services

12729 AMBERHILL AVE

Year	Uses	Source
2017	BARBARA WOOD	Cole Information Services
2014	JANET GOTOC	Cole Information Services
2009	RODOLFO VICTORIO	Cole Information Services
2004	JEFFREY MURILLO	Cole Information Services
1999	RODOLFO VICTORIO	Cole Information Services

12734 AMBERHILL AVE

Year	Uses	Source
2017	GARY PRATT	Cole Information Services
2014	CHAD DECKER	Cole Information Services
2009	ACCURATE COMPUTER SOLUTIONS IN	Cole Information Services
	CHAD DECKER	Cole Information Services
2004	E FLEMMING	Cole Information Services
1999	CHAD DECKER	Cole Information Services

12753 AMBERHILL AVE

Year	Uses	Source
2017	LANREI CHUARN	Cole Information Services
2014	JAMES GIBSON	Cole Information Services
2009	TUAN QUACH	Cole Information Services
2004	TUAN QUACH	Cole Information Services
1999	TUAN QUACH	Cole Information Services

12758 AMBERHILL AVE

Year	Uses	Source
2017	KURT KNIEPKAMP	Cole Information Services
2009	KURT KNIEPKAMP	Cole Information Services
2004	KURT KNIEPKAMP	Cole Information Services
1999	KURT KNIEPKAMP	Cole Information Services

12765 AMBERHILL AVE

Year	Uses	Source
2017	LOI TRAN	Cole Information Services
2009	LOI TRAN	Cole Information Services

Year	Uses	Source
1999	LOI TRAN	Cole Information Services

12776 AMBERHILL AVE

Year	Uses	Source
2017	NATALIE WRAY	Cole Information Services
2014	NATALIE WRAY	Cole Information Services
2004	RAYMOND DOMINICE	Cole Information Services

12777 AMBERHILL AVE

Year	Uses	Source
2017	ESTELA BRITO	Cole Information Services
2014	FRANCISCO CAMARENA	Cole Information Services
2009	ESTELA BRITO	Cole Information Services
2004	MY LO	Cole Information Services
1999	ESTELA BRITO	Cole Information Services

12789 AMBERHILL AVE

Year	Uses	Source
2017	CAROL BROADWELL	Cole Information Services
2014	NORBERT BREITKOPF	Cole Information Services
2009	NORBERT BREITKOPF	Cole Information Services
2004	NORBERT BREITKOPF	Cole Information Services
1999	NORBERT BREITKOPF	Cole Information Services

ANNANDALE PL

5537 ANNANDALE PL

Year	Uses	Source
2017	TRENT SPAULDING	Cole Information Services
2014	TRENT SPAULDING	Cole Information Services
2009	TRAVIS WOOLDRIDGE	Cole Information Services
2004	TRAVIS WOOLDRIDGE	Cole Information Services
1999	TRAVIS WOOLDRIDGE	Cole Information Services

5542 ANNANDALE PL

Year	Uses	Source
2017	JOSE HUERTA	Cole Information Services
2014	JOSE HUERTA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JOSE HUERTA	Cole Information Services

FINDINGS

5547 ANNANDALE PL

Year	Uses	Source
2017	PAULO BETTENCOURT	Cole Information Services
2014	PAULO BETTENCOURT	Cole Information Services
2009	PAULO BETTENCOURT	Cole Information Services
2004	PAULO BETTENCOURT	Cole Information Services
1999	PAULO BETTENCOURT	Cole Information Services

5552 ANNANDALE PL

Year	Uses	Source
2017	REGINALD STALLWORTH	Cole Information Services
2014	DERRICK STALLWORTH	Cole Information Services
2009	SHAREN STALLWORTH	Cole Information Services
2004	SHAREN STALLWORTH	Cole Information Services
1999	SHAREN STALLWORTH	Cole Information Services

5557 ANNANDALE PL

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	TRUNITA KNIGHTON	Cole Information Services
2004	CHRIS KNIGHTON	Cole Information Services
1999	TRUNITA KNIGHTON	Cole Information Services

5567 ANNANDALE PL

Year	Uses	Source
2017	RICHARD SORIANO	Cole Information Services
2014	JESUS SORIANO	Cole Information Services
2009	MARIA GONZALEZ	Cole Information Services
1999	MARIA GONZALEZ	Cole Information Services

5572 ANNANDALE PL

Year	Uses	Source
2017	ELISSA HEATH	Cole Information Services
2014	ELISSA HEATH	Cole Information Services
2009	FRED VARGAS	Cole Information Services
2004	MARC LAUREN	Cole Information Services
1999	FRED VARGAS	Cole Information Services

5577 ANNANDALE PL

Year	Uses	Source
2017	CHRIS WEBB	Cole Information Services

FINDINGS

Year	Uses	Source
2014	CHRISTOPHER HADNOT	Cole Information Services
2009	CHRISTOPHER HADNOT	Cole Information Services
2004	CHRISTOPHER HADNOT	Cole Information Services
1999	CHRISTOPHER HADNOT	Cole Information Services

5582 ANNANDALE PL

Year	Uses	Source
2017	RAMIRO DIAZ	Cole Information Services
2014	RAMIRO DIAZ	Cole Information Services
2009	RAMIRO DIAZ	Cole Information Services
1999	RAMIRO DIAZ	Cole Information Services

5587 ANNANDALE PL

Year	Uses	Source
2017	JOHN PITT	Cole Information Services
2014	JOHN PITT	Cole Information Services
2009	JOHN PITT	Cole Information Services
1999	JOHN PITT	Cole Information Services

5597 ANNANDALE PL

Year	Uses	Source
2017	ROBERTO TORRES	Cole Information Services
2014	JEFFREY QUAM	Cole Information Services
2009	JEFFREY QUAM	Cole Information Services
2004	JEFFREY QUAM	Cole Information Services
	LEGACY GIFTS	Cole Information Services
1999	JEFFREY QUAM	Cole Information Services

5602 ANNANDALE PL

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	HUGO VIRUETE	Cole Information Services
2004	VIRUETE ELVIRA	Cole Information Services
1999	HUGO VIRUETE	Cole Information Services

5607 ANNANDALE PL

Year	Uses	Source
2017	JERYKA EMMONS	Cole Information Services
2014	MOISES MARTIN	Cole Information Services
2009	MOISES MARTIN	Cole Information Services

Year	Uses	Source
2004	ESEQUIEL OCHOA	Cole Information Services

5612 ANNANDALE PL

Year	Uses	Source
2017	ANTHONY RODRIGUEZ	Cole Information Services
2014	ANTONIO RAMIREZ	Cole Information Services
2009	ADAM RAMIREZ	Cole Information Services
2004	TONY RAMIREZ	Cole Information Services
1999	ADAM RAMIREZ	Cole Information Services

5617 ANNANDALE PL

Year	Uses	Source
2017	JACOB COPELAND	Cole Information Services
2014	JACOB COPELAND	Cole Information Services
2009	SUSAN HAZBUON	Cole Information Services
2004	SUSAN HAZBUON	Cole Information Services
1999	SUSAN HAZBUON	Cole Information Services

5622 ANNANDALE PL

Year	Uses	Source
2017	AMIT ANGRISH	Cole Information Services
2014	MARLEN RUELAS	Cole Information Services
2009	DANIEL SEYMOUR	Cole Information Services
2004	DANIEL SEYMOUR	Cole Information Services
1999	DANIEL SEYMOUR	Cole Information Services

5642 ANNANDALE PL

Year	Uses	Source
2017	ALEX VAZQUEZ	Cole Information Services
2014	ALEX VAZQUEZ	Cole Information Services
2009	ALEX VAZQUEZ	Cole Information Services
2004	ALEX VAZQUEZ	Cole Information Services
	DENNIS FOLLIOTT	Cole Information Services
1999	ALEX VAZQUEZ	Cole Information Services

5647 ANNANDALE PL

Year	Uses	Source
2017	THOMAS MUMMERT	Cole Information Services
2014	MICHAEL WHITTEN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

Year	Uses	Source
2009	TOMS AMERICAN FIRE SAFETY	Cole Information Services

5667 ANNANDALE PL

Year	Uses	Source
2017	RICK MORTON	Cole Information Services
2014	M FONNET	Cole Information Services
2009	JUDITH FLEISCHHACKER	Cole Information Services
2004	JESUS SORIANO	Cole Information Services
1999	JUDITH FLEISCHHACKER	Cole Information Services

5672 ANNANDALE PL

Year	Uses	Source
2017	ERICK ESTRADA	Cole Information Services
2014	ERICK ESTRADA	Cole Information Services
2009	LATRINA WADDIS	Cole Information Services
2004	KELVIN YOUNG	Cole Information Services
1999	LATRINA WADDIS	Cole Information Services

5677 ANNANDALE PL

Year	Uses	Source
2017	MICHAEL BAILEY	Cole Information Services
2014	DANIEL FLORES	Cole Information Services
2009	GUADALUPE ZAZUETA	Cole Information Services
2004	MICHAEL BAILEY	Cole Information Services
1999	GUADALUPE ZAZUETA	Cole Information Services

5687 ANNANDALE PL

Year	Uses	Source
2017	LYDIA DELTORO	Cole Information Services
2014	MARKE MEDINA	Cole Information Services
2009	JULIAN MEDINA	Cole Information Services
2004	JULIAN MEDINA	Cole Information Services
1999	JULIAN MEDINA	Cole Information Services

5692 ANNANDALE PL

Year	Uses	Source
2017	TONY GARCIA	Cole Information Services
2014	ROBERT SANDOVAL	Cole Information Services
2009	JOSE CASTILLO	Cole Information Services
2004	MILTON DONERSON	Cole Information Services

FINDINGS

5707 ANNANDALE PL

Year	Uses	Source
2017	ROBERT GONZALEZ	Cole Information Services
2014	CELERINO CASTRO	Cole Information Services
2009	CELERINO CASTRO	Cole Information Services
2004	JUAN CASTRO	Cole Information Services

5712 ANNANDALE PL

Year	Uses	Source
2017	JENNIFER MAYVILLE	Cole Information Services
2014	EDMUND ZENDEJAS	Cole Information Services
2009	ZOILA LOZANO	Cole Information Services
2004	JAMES BUTLER	Cole Information Services
1999	ZOILA LOZANO	Cole Information Services

5727 ANNANDALE PL

Year	Uses	Source
2014	RANDOLPH CARDONA	Cole Information Services
2009	EMILLIANO CASTILLO	Cole Information Services
2004	MISAEL RIVERA	Cole Information Services

5732 ANNANDALE PL

Year	Uses	Source
2014	PABLO MENDOZA	Cole Information Services
2009	PABLO MENDOZA	Cole Information Services
2004	ULYSSES SANTANA	Cole Information Services
1999	PABLO MENDOZA	Cole Information Services

5737 ANNANDALE PL

Year	Uses	Source
2017	WILL SLATER	Cole Information Services
2014	MACY CHUNG	Cole Information Services
2009	MINDY CHAI	Cole Information Services
2004	STEVEN LONG	Cole Information Services
1999	MINDY CHAI	Cole Information Services

5742 ANNANDALE PL

Year	Uses	Source
2017	JOSEPH SANTOS	Cole Information Services
2014	JOSEPH SANTOS	Cole Information Services
2009	JOSEPH SANTOS	Cole Information Services

FINDINGS

Year	Uses	Source
2004	JOSEPH SANTOS	Cole Information Services
	JLB PRODUCTIONS	Cole Information Services
1999	JOSEPH SANTOS	Cole Information Services

5747 ANNANDALE PL

Year	Uses	Source
2014	VICTOR LAINEZ	Cole Information Services
2004	VICTOR LAINEZ	Cole Information Services

5752 ANNANDALE PL

Year	Uses	Source
2017	DONALD MALLOY	Cole Information Services
2014	EMAD BENJAMIN	Cole Information Services
2009	MOODA MANTARA	Cole Information Services
2004	MOODA MANTARA	Cole Information Services

5757 ANNANDALE PL

Year	Uses	Source
2017	ENRIQUE OCHOA	Cole Information Services
2014	AUGUSTIN MAGANA	Cole Information Services
2009	AGUSTINE RAYA	Cole Information Services
2004	BEDELIA BARRAGAN	Cole Information Services
1999	AGUSTINE RAYA	Cole Information Services

5762 ANNANDALE PL

Year	Uses	Source
2017	RUBEN FERNANDEZ	Cole Information Services
2014	RUBEN FERNANDEZ	Cole Information Services
2009	RUBEN FERNANDEZ	Cole Information Services
2004	RUBEN FERNANDEZ	Cole Information Services
1999	RUBEN FERNANDEZ	Cole Information Services

5767 ANNANDALE PL

Year	Uses	Source
2017	RUSS BROWN	Cole Information Services
2014	RUSS BROWN	Cole Information Services
2009	SWIM CLEAN POOL & SPA SERVICE	Cole Information Services
	RUSS BROWN	Cole Information Services
2004	RUSS BROWN	Cole Information Services
1999	RUSS BROWN	Cole Information Services

FINDINGS

5772 ANNANDALE PL

Year	Uses	Source
2017	MAXINE HALL	Cole Information Services
2014	PATRICE STREET	Cole Information Services
2009	RICHARD STREET	Cole Information Services
2004	RICHARD STREET	Cole Information Services
1999	RICHARD STREET	Cole Information Services

5777 ANNANDALE PL

Year	Uses	Source
2017	JOHN METTER	Cole Information Services
2014	JOHN METTERS	Cole Information Services
2009	SAMS COMPUTER SERVICE	Cole Information Services
	SAMUEL MATTERS	Cole Information Services
2004	RAMIRO CASTRO	Cole Information Services
	SWIM CLEAN POOL & SPA SERV	Cole Information Services

5782 ANNANDALE PL

Year	Uses	Source
2017	CHARLES OFORAH	Cole Information Services
2014	CHARLES OFORAH	Cole Information Services
2009	CHARLES OFORAH	Cole Information Services
2004	CHARLES OFORAH	Cole Information Services
1999	CHARLES OFORAH	Cole Information Services

5787 ANNANDALE PL

Year	Uses	Source
2014	RANDY BOEHMER	Cole Information Services
2009	MATTHEW HERNANDEZ	Cole Information Services
2004	ANTONIO MORALES	Cole Information Services
1999	MATTHEW HERNANDEZ	Cole Information Services

5797 ANNANDALE PL

Year	Uses	Source
2014	AGUSTIN RAYA	Cole Information Services

ASHWELL CT

5605 ASHWELL CT

Year	Uses	Source
2014	SEAN BRADY	Cole Information Services

Year	Uses	Source
2009	SEAN BRADY	Cole Information Services
1999	SEAN BRADY	Cole Information Services

5617 ASHWELL CT

Year	Uses	Source
2017	JOSEPH MALTESE	Cole Information Services
2014	JOSEPH MALTESE	Cole Information Services
2009	JOSEPH MALTESE	Cole Information Services

5620 ASHWELL CT

Year	Uses	Source
2017	ANTHONY ARCHER	Cole Information Services
2014	ANTHONY ARCHER	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5629 ASHWELL CT

Year	Uses	Source
2017	RICHARD VALENZUELA	Cole Information Services
2014	RICHARD VALENZUELA	Cole Information Services
2009	RICHARD VALENZUELA	Cole Information Services
1999	RICHARD VALENZUELA	Cole Information Services

5632 ASHWELL CT

Year	Uses	Source
2014	DONEL COULSON	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5641 ASHWELL CT

Year	Uses	Source
2017	SONG JIN	Cole Information Services
2014	SONG JIN	Cole Information Services
2009	LISA TAING	Cole Information Services
1999	LISA TAING	Cole Information Services

5644 ASHWELL CT

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	KARLENE DAVIS	Cole Information Services
1999	KARLENE DAVIS	Cole Information Services

FINDINGS

5653 ASHWELL CT

Year	Uses	Source
2017	MARIE GOFF	Cole Information Services
2014	NGUI QUAN	Cole Information Services
2009	MARYELIZA QUAN	Cole Information Services
1999	MARYELIZA QUAN	Cole Information Services

5656 ASHWELL CT

Year	Uses	Source
2017	ROBERT MCCULLOUGH	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	ALEJANDRO DELCAMPO	Cole Information Services
1999	ALEJANDRO DELCAMPO	Cole Information Services

5677 ASHWELL CT

Year	Uses	Source
2017	VINEET VYAS	Cole Information Services
2014	VINEET VYAS	Cole Information Services
2009	VINEET VYAS	Cole Information Services
1999	VINEET VYAS	Cole Information Services

5680 ASHWELL CT

Year	Uses	Source
2014	JONATHAN DUAG	Cole Information Services
2009	JONATHAN DUAG	Cole Information Services
1999	JONATHAN DUAG	Cole Information Services

5689 ASHWELL CT

Year	Uses	Source
2017	RYDELL PRESCOTT	Cole Information Services
2014	ROBERTO ROMAN	Cole Information Services
2009	JON LEE	Cole Information Services
1999	JON LEE	Cole Information Services

5692 ASHWELL CT

Year	Uses	Source
2017	ADOLFO LLAMAS	Cole Information Services
2014	ADOLFO LLAMAS	Cole Information Services
2009	ADOLFO LLAMAS	Cole Information Services
1999	ADOLFO LLAMAS	Cole Information Services

FINDINGS

5701 ASHWELL CT

Year	Uses	Source
2017	QUINCY LEJAY	Cole Information Services
2014	QUINCY LEJAY	Cole Information Services
2009	JIMMY LEJAY	Cole Information Services
1999	JIMMY LEJAY	Cole Information Services

5704 ASHWELL CT

Year	Uses	Source
2017	MONFREEDD GUATEMALA	Cole Information Services
2014	MONFREEDD GUATEMALA	Cole Information Services
2009	MONFREEDD GUATEMALA	Cole Information Services
1999	MONFREEDD GUATEMALA	Cole Information Services

5713 ASHWELL CT

Year	Uses	Source
2017	GLENN CLEMENTE	Cole Information Services
2014	GLENN CLEMENTE	Cole Information Services
2009	GLENN CLEMENTE	Cole Information Services
1999	GLENN CLEMENTE	Cole Information Services

5716 ASHWELL CT

Year	Uses	Source
2017	HONG WANG	Cole Information Services
2014	HONG WANG	Cole Information Services
2009	BAIYANG LIU	Cole Information Services
	JIANG DAI	Cole Information Services
	HONG WANG	Cole Information Services
1999	HONG WANG	Cole Information Services
	BAIYANG LIU	Cole Information Services
	JIANG DAI	Cole Information Services

5725 ASHWELL CT

Year	Uses	Source
2017	JOSHUA TAYLOR	Cole Information Services
2014	JOSHUA TAYLOR	Cole Information Services
2009	MARCOS RIOS	Cole Information Services
1999	MARCOS RIOS	Cole Information Services

FINDINGS

5728 ASHWELL CT

Year	Uses	Source
2017	RICARDO VELASCO	Cole Information Services
2014	VERONICA MARTIN	Cole Information Services
2009	LUHUI PENG	Cole Information Services
1999	LUHUI PENG	Cole Information Services

5740 ASHWELL CT

Year	Uses	Source
2017	JOSE LOPEZ	Cole Information Services
2014	JOSE LOPEZ	Cole Information Services
2009	JOSE LOPEZ	Cole Information Services
1999	JOSE LOPEZ	Cole Information Services

5752 ASHWELL CT

Year	Uses	Source
2017	MICHAEL PINGOL	Cole Information Services
2014	MICHAEL PINGOL	Cole Information Services
2009	MICHAEL PINGOL	Cole Information Services
1999	MICHAEL PINGOL	Cole Information Services

5764 ASHWELL CT

Year	Uses	Source
2014	ISHAK IHMUD	Cole Information Services
2009	ISHAK IHMUD	Cole Information Services
1999	ISHAK IHMUD	Cole Information Services

5776 ASHWELL CT

Year	Uses	Source
2017	ERNESTO CASAS	Cole Information Services
2014	ERNESTO CASAS	Cole Information Services
2009	ERNESTO CASAS	Cole Information Services

5788 ASHWELL CT

Year	Uses	Source
2017	JOSHUA LEMIEUX	Cole Information Services
2014	JOSHUA LEMIEUX	Cole Information Services
2009	MANDY LEMIEUX	Cole Information Services
1999	MANDY LEMIEUX	Cole Information Services

FINDINGS

5800 ASHWELL CT

Year	Uses	Source
2014	ROBERT FIRMAN	Cole Information Services
2009	ROBERT SANDOVAL	Cole Information Services
1999	ROBERT SANDOVAL	Cole Information Services

BAY ST

6219 BAY ST

Year	Uses	Source
2017	MARIO LOPEZ	Cole Information Services
2014	JOSEPH LOPEZ	Cole Information Services
2009	ANGEL LOPEZ	Cole Information Services
1999	ANGEL LOPEZ	Cole Information Services

6229 BAY ST

Year	Uses	Source
2017	JORGE OLVERA	Cole Information Services
2014	JORGE OLVERA	Cole Information Services
2009	FELIPE MARTINEZ	Cole Information Services

6239 BAY ST

Year	Uses	Source
2017	ANASTASIA GLASHEEN	Cole Information Services
2014	ANASTASIA GLASHEEN	Cole Information Services
2009	GREGORY PRAVEDNIKOV	Cole Information Services
1999	GREGORY PRAVEDNIKOV	Cole Information Services

6249 BAY ST

Year	Uses	Source
2014	TRACEY PONDILLO	Cole Information Services

6259 BAY ST

Year	Uses	Source
2017	CECILIA RIVERA	Cole Information Services
2014	JOSE SAUCEDO	Cole Information Services
2009	JOSE GONZALES	Cole Information Services
1999	JOSE GONZALES	Cole Information Services

FINDINGS

BEACHWOOD DR

665 BEACHWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

674 BEACHWOOD DR

Year	Uses	Source
2004	DAN KENNEDY	Cole Information Services
2001	KENNEDYDan	Haines & Company, Inc.
1977	Singdale Stewart W	Pacific Telephone

675 BEACHWOOD DR

Year	Uses	Source
2001	BELMONT	Haines & Company, Inc.
1994	BELMONTE, MARY	Cole Information Services
1986	Belmonte Mary	Pacific Bell Yellow Pages
1981	Belmonte Mary	Pacific Telephone

676 BEACHWOOD DR

Year	Uses	Source
2001	NORVELLWayne A	Haines & Company, Inc.

677 BEACHWOOD DR

Year	Uses	Source
2004	MANEZHA MOQIMI	Cole Information Services
1981	Burreo AG	Pacific Telephone

678 BEACHWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Thomas John P & Vera C	Pacific Bell Yellow Pages
	Thomas Johnnie	Pacific Bell Yellow Pages
1981	Thomas John P & Vera C	Pacific Telephone

679 BEACHWOOD DR

Year	Uses	Source
2001	FOREMAN JR	Haines & Company, Inc.
	FOREMAN JR	Haines & Company, Inc.
1986	Marfleet Donald	Pacific Bell Yellow Pages
1981	Marfleet Donald	Pacific Telephone

FINDINGS

680 BEACHWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Hanrahan Frank S	Pacific Bell Yellow Pages
1981	Henrehan Frank S	Pacific Telephone

681 BEACHWOOD DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

682 BEACHWOOD DR

Year	Uses	Source
2004	MIKE LIPKE	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Boucek Kenneth	Pacific Bell Yellow Pages
	Boucher Fernand	Pacific Bell Yellow Pages
	Bouchard P	Pacific Bell Yellow Pages
	Boucher Craig	Pacific Bell Yellow Pages

683 BEACHWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

684 BEACHWOOD DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1981	Carstensen Gerald W	Pacific Telephone

685 BEACHWOOD DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

686 BEACHWOOD DR

Year	Uses	Source
2004	RAMZY HENEIN	Cole Information Services
1994	RYAN, HAROLD C	Cole Information Services
1986	Ryan Harold C	Pacific Bell Yellow Pages
1981	Ryan Harold C	Pacific Telephone

687 BEACHWOOD DR

Year	Uses	Source
2004	JANICE MASON	Cole Information Services

Year	Uses	Source
1986	Berthelot Joseph & Maudryn	Pacific Bell Yellow Pages

BOXWOOD DR

556 BOXWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

638 BOXWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

646 BOXWOOD DR

Year	Uses	Source
2001	SHOOKW	Haines & Company, Inc.
1994	SHOOK, W A	Cole Information Services
1977	Shook W A	Pacific Telephone

647 BOXWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Igo T P	Pacific Bell Yellow Pages
1981	Piper K F	Pacific Telephone

648 BOXWOOD DR

Year	Uses	Source
2004	DANIEL FERNANDEZ	Cole Information Services
2001	DEMASE	Haines & Company, Inc.
1994	DEMASE, JOE	Cole Information Services
1986	De Mase Joe & Ann	Pacific Bell Yellow Pages
1981	De Mase Joe & Ann	Pacific Telephone

649 BOXWOOD DR

Year	Uses	Source
2004	FRANCES FOSTER	Cole Information Services
1986	Shindelus D	Pacific Bell Yellow Pages
	Shine Gary & Brian	Pacific Bell Yellow Pages
1981	Seitz H Gregg	Pacific Telephone

FINDINGS

650 BOXWOOD DR

Year	Uses	Source
2004	BLANCA RIVERA	Cole Information Services
2001	BATTEN Essoe M	Haines & Company, Inc.

651 BOXWOOD DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Leighty Neal	Pacific Telephone

652 BOXWOOD DR

Year	Uses	Source
2001	MEADDR	Haines & Company, Inc.
	MEADKJ	Haines & Company, Inc.
1986	Ritzman Vernon G	Pacific Bell Yellow Pages
1981	Ritzman Vernon G	Pacific Telephone

653 BOXWOOD DR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Taylor Riter C	Pacific Telephone

654 BOXWOOD DR

Year	Uses	Source
2004	FEDORA E HARRIS	Cole Information Services
	FEDORA HARRIS	Cole Information Services
2001	EVELYN	Haines & Company, Inc.
	HARRIS FEDORA	Haines & Company, Inc.
1999	HARRIS FEDORA EVELYN	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1994	CRAVENS, MARY	Cole Information Services
1986	Hoeft Merlin E	Pacific Bell Yellow Pages

656 BOXWOOD DR

Year	Uses	Source
2004	BASILIO URENA	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Gibbs Derren	Pacific Bell Yellow Pages
1977	Moody Florence M	Pacific Telephone

657 BOXWOOD DR

Year	Uses	Source
2004	ALFRED MCCARTHY	Cole Information Services
1986	Easton R	Pacific Bell Yellow Pages
	Easton Paul	Pacific Bell Yellow Pages
1981	Easton Paul & Geneva	Pacific Telephone
1977	Rock Martin G	Pacific Telephone

659 BOXWOOD DR

Year	Uses	Source
2004	CHARLES SMITH	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1994	LITTLE, JOHN G	Cole Information Services

BRIAR ST

13112 BRIAR ST

Year	Uses	Source
2017	RICHARD GABRIEL	Cole Information Services
2014	RICHARD GABRIEL	Cole Information Services
2009	RICHARD GABRIEL	Cole Information Services
1999	RICHARD GABRIEL	Cole Information Services

13115 BRIAR ST

Year	Uses	Source
2017	PAUL FLITCRAFT	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	ALEJANDRO GARCIA	Cole Information Services
1999	ALEJANDRO GARCIA	Cole Information Services

13122 BRIAR ST

Year	Uses	Source
2017	STEPHEN GRAVES	Cole Information Services
2014	STEPHEN GRAVES	Cole Information Services
2009	STEPHEN GRAVES	Cole Information Services
1999	STEPHEN GRAVES	Cole Information Services

13125 BRIAR ST

Year	Uses	Source
2017	JESUS GARIBAY	Cole Information Services
2014	JESSICA MORAN	Cole Information Services

Year	Uses	Source
2009	JESUS GARIBAY	Cole Information Services
1999	JESUS GARIBAY	Cole Information Services

13132 BRIAR ST

Year	Uses	Source
2017	ROLLAND KORNBLAU	Cole Information Services
2014	ANTONIO CASTRO	Cole Information Services
2009	RICHARD HAWKINS	Cole Information Services
1999	RICHARD HAWKINS	Cole Information Services

13135 BRIAR ST

Year	Uses	Source
2017	NATHAN ISAAC	Cole Information Services
2014	JIM RICKER	Cole Information Services
2009	FRANCISCO ZUBIATE	Cole Information Services
1999	FRANCISCO ZUBIATE	Cole Information Services

BRIDGEWATER DR

12605 BRIDGEWATER DR

Year	Uses	Source
2017	ANTONIO TORRES	Cole Information Services
2014	ANTONIO TORRES	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

12611 BRIDGEWATER DR

Year	Uses	Source
2017	SERGIO TOPETE	Cole Information Services
2014	SERGIO TOPETE	Cole Information Services
2009	JOAN DAWSON	Cole Information Services
2004	ANTHONY DAWSON	Cole Information Services
1999	JOAN DAWSON	Cole Information Services

12617 BRIDGEWATER DR

Year	Uses	Source
2017	ROBERT BUSTOS	Cole Information Services
2014	ROBERT BUSTOS	Cole Information Services
2009	WARREN WEAVER	Cole Information Services
2004	WARREN WEAVER	Cole Information Services
1999	WARREN WEAVER	Cole Information Services

FINDINGS

12629 BRIDGEWATER DR

Year	Uses	Source
2017	ARTURO RUBIO	Cole Information Services
2014	ARTURO RUBIO	Cole Information Services
2009	ARTURO RUBIO	Cole Information Services
2004	ARTURO RUBIO	Cole Information Services
1999	ARTURO RUBIO	Cole Information Services

12641 BRIDGEWATER DR

Year	Uses	Source
2017	PATRICK BIRKETT	Cole Information Services
2014	A ALVARADO	Cole Information Services
2009	ALEX ALVARADO	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	ALEX ALVARADO	Cole Information Services

12653 BRIDGEWATER DR

Year	Uses	Source
2017	RONALD TZALL	Cole Information Services
2014	RONALD TZALL	Cole Information Services
2009	RONALD TZALL	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	RONALD TZALL	Cole Information Services

12665 BRIDGEWATER DR

Year	Uses	Source
2017	MARKUS MALDONADO	Cole Information Services
2014	FRANCISCO BENTO	Cole Information Services
2009	FRANCISCO BENTO	Cole Information Services
1999	FRANCISCO BENTO	Cole Information Services

12677 BRIDGEWATER DR

Year	Uses	Source
2017	JOHN MIELE	Cole Information Services
2014	SUSAN CRAFA	Cole Information Services
2009	SUSAN CRAFA	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	SUSAN CRAFA	Cole Information Services

FINDINGS

12682 BRIDGEWATER DR

Year	Uses	Source
2017	JAMES BENTSON	Cole Information Services
2014	PATTI SUBIA	Cole Information Services
2009	EMILY PERDREAUVILLE	Cole Information Services
1999	EMILY PERDREAUVILLE	Cole Information Services

12694 BRIDGEWATER DR

Year	Uses	Source
2017	PARKER BERRY	Cole Information Services
2014	SHIRLEY KENT	Cole Information Services
2004	CAREN SERGUIFF	Cole Information Services

12701 BRIDGEWATER DR

Year	Uses	Source
2017	GARY HUMMEL	Cole Information Services
2014	GARY HUMMEL	Cole Information Services
2009	GARY HUMMEL	Cole Information Services
2004	GARY HUMMEL	Cole Information Services
1999	GARY HUMMEL	Cole Information Services

12706 BRIDGEWATER DR

Year	Uses	Source
2017	ROBERTO SANCHEZ	Cole Information Services
2014	ROBERTO SANCHEZ	Cole Information Services
2004	ROBERTO SANCHEZ	Cole Information Services

12713 BRIDGEWATER DR

Year	Uses	Source
2017	SUSIE SUN	Cole Information Services
2014	SUSIE SUN	Cole Information Services
2009	SUSIE SUN	Cole Information Services
2004	TINA SUN	Cole Information Services
1999	SUSIE SUN	Cole Information Services

12718 BRIDGEWATER DR

Year	Uses	Source
2017	CHRISTOPHER GRAJEDA	Cole Information Services
2014	GABRIEL DUENAS	Cole Information Services
2009	GABRIEL DUENAS	Cole Information Services
2004	JAMIE LOPEZ	Cole Information Services

Year	Uses	Source
1999	GABRIEL DUENAS	Cole Information Services

12725 BRIDGEWATER DR

Year	Uses	Source
2017	ROBERT AGDEPPA	Cole Information Services
2014	SHERILL AGDEPPA	Cole Information Services
2009	SHERILL AGDEPPA	Cole Information Services
2004	SHERILL AGDEPPA	Cole Information Services
1999	SHERILL AGDEPPA	Cole Information Services

12730 BRIDGEWATER DR

Year	Uses	Source
2017	RYAN JUNSAY	Cole Information Services
2014	WENDELYN DELGADO	Cole Information Services
2009	ALFRED ALBARRAN	Cole Information Services
2004	ALFRED SIXTOS	Cole Information Services
1999	ALFRED ALBARRAN	Cole Information Services

12737 BRIDGEWATER DR

Year	Uses	Source
2017	LINDA FLORES	Cole Information Services
2014	LINDA MAZUR	Cole Information Services
2009	LINDA FLORES	Cole Information Services
2004	LINDA MAZUR	Cole Information Services
1999	LINDA FLORES	Cole Information Services

12742 BRIDGEWATER DR

Year	Uses	Source
2017	DOUGLAS KIM	Cole Information Services
2014	YING BAI	Cole Information Services
2009	P LEE	Cole Information Services
2004	P LEE	Cole Information Services
1999	P LEE	Cole Information Services

12749 BRIDGEWATER DR

Year	Uses	Source
2017	GEORGE KAN	Cole Information Services
2014	ERNIE PADEREZ	Cole Information Services
2009	ERNIE PADEREZ	Cole Information Services
2004	JUI TSENG	Cole Information Services

FINDINGS

Year	Uses	Source
1999	ERNIE PADEREZ	Cole Information Services

12755 BRIDGEWATER DR

Year	Uses	Source
2017	ELISEO RENTERIA	Cole Information Services
2014	ELISEO RENTERIA	Cole Information Services
2009	ELISEO RENTERIA	Cole Information Services
2004	ELISEO RENTERIA	Cole Information Services
1999	ELISEO RENTERIA	Cole Information Services

12761 BRIDGEWATER DR

Year	Uses	Source
2017	MARIO MARQUEZ	Cole Information Services
2014	MARIO MARQUEZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	RUVEN MARQUEZ	Cole Information Services

12767 BRIDGEWATER DR

Year	Uses	Source
2017	ALBERTO GARNICA	Cole Information Services
2014	ALBERTO GARNICA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JESUS ROMERO	Cole Information Services

12779 BRIDGEWATER DR

Year	Uses	Source
2017	GEORGE GIORGETTI	Cole Information Services
2014	GEORGE GIORGETTI	Cole Information Services
2009	G & A INVESTMENTS	Cole Information Services
	GEORGE GIORGETTI	Cole Information Services
2004	GEORGE GIORGETTI	Cole Information Services
1999	GEORGE GIORGETTI	Cole Information Services

12791 BRIDGEWATER DR

Year	Uses	Source
2017	MICHAEL WHITTEN	Cole Information Services
2014	ANGELA KATSILIANOS	Cole Information Services
2009	MICHAEL WHITTEN	Cole Information Services
2004	MICHAEL WHITTEN	Cole Information Services
1999	MICHAEL WHITTEN	Cole Information Services

FINDINGS

12797 BRIDGEWATER DR

Year	Uses	Source
2017	MICHAEL MANERI	Cole Information Services
2014	MICHAEL MANERI	Cole Information Services
2009	MICHAEL MANERI	Cole Information Services
2004	MICHAEL MANERI	Cole Information Services

CAIRO CT

5758 CAIRO CT

Year	Uses	Source
2014	CARL BOOKER	Cole Information Services
2009	CARL BOOKER	Cole Information Services
2004	CARL BOOKER	Cole Information Services
1999	CARL BOOKER	Cole Information Services

5763 CAIRO CT

Year	Uses	Source
2017	JINSONG WU	Cole Information Services
2009	ESTEBAN MARTINEZ	Cole Information Services
2004	FRANK RIVERA	Cole Information Services

5766 CAIRO CT

Year	Uses	Source
2017	TAM NGUYEN	Cole Information Services
2014	TAM NGUYEN	Cole Information Services
2009	KURT ZIOLA	Cole Information Services
2004	KURT ZIOLA	Cole Information Services
1999	KURT ZIOLA	Cole Information Services

5771 CAIRO CT

Year	Uses	Source
2017	CORONA CORY	Cole Information Services
2014	LING ZHOU	Cole Information Services
2009	MICHAEL GRAYCHIK	Cole Information Services
2004	RAY GUO	Cole Information Services
1999	MICHAEL GRAYCHIK	Cole Information Services

5774 CAIRO CT

Year	Uses	Source
2017	JOHN MARTINEZ	Cole Information Services

Year	Uses	Source
2014	JOHN MARTINEZ	Cole Information Services
2009	JOHN MARTINEZ	Cole Information Services
2004	NORCO REGENT	Cole Information Services

5779 CAIRO CT

Year	Uses	Source
2017	CASPER FREEMAN	Cole Information Services
2014	ALEXIS LUNNEY	Cole Information Services
2009	ADRIAN KOVAL	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	ADRIAN KOVAL	Cole Information Services

5782 CAIRO CT

Year	Uses	Source
2017	JOHN VU	Cole Information Services
2014	JOHN VU	Cole Information Services
2009	JOHN VU	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	JOHN VU	Cole Information Services

5787 CAIRO CT

Year	Uses	Source
2017	RUSSELL BECKER	Cole Information Services
2014	RUSSELL BECKER	Cole Information Services
2009	RUSSELL BECKER	Cole Information Services
2004	RUSSELL BECKER	Cole Information Services
1999	RUSSELL BECKER	Cole Information Services

5790 CAIRO CT

Year	Uses	Source
2014	RUDA SIREGAR	Cole Information Services
2009	RUDA SIREGAR	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	RUDA SIREGAR	Cole Information Services

5795 CAIRO CT

Year	Uses	Source
2017	NOEL LOPEZ	Cole Information Services
2014	DARIUS JAMISON	Cole Information Services
2009	UNIQUE TRENDZ	Cole Information Services

Year	Uses	Source
2009	MARK FITZPATRICK	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	MARK FITZPATRICK	Cole Information Services

5798 CAIRO CT

Year	Uses	Source
2017	RAMA KUMAR	Cole Information Services
2014	REGINALD KUMAR	Cole Information Services
2009	REGINALD KUMAR	Cole Information Services
2004	REGINALD KUMAR	Cole Information Services
1999	REGINALD KUMAR	Cole Information Services

CALITERRA CT

5650 CALITERRA CT

Year	Uses	Source
2017	RUBEN MAGANA	Cole Information Services
2014	RUBEN MAGANA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5662 CALITERRA CT

Year	Uses	Source
2017	CELY COBIAN	Cole Information Services
2014	CELY COBIAN	Cole Information Services
2009	LEONARD COBIAN	Cole Information Services
1999	LEONARD COBIAN	Cole Information Services

5671 CALITERRA CT

Year	Uses	Source
2017	BRYAN PEASE	Cole Information Services
2014	BRYAN PEASE	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5674 CALITERRA CT

Year	Uses	Source
2017	ROBERT FREIRE	Cole Information Services
2014	JIM HANSON	Cole Information Services
2009	JIM HANSON	Cole Information Services
1999	JIM HANSON	Cole Information Services

FINDINGS

5683 CALITERRA CT

Year	Uses	Source
2017	JASON OLVERA	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	MARY CODILLA	Cole Information Services
1999	MARY CODILLA	Cole Information Services

5686 CALITERRA CT

Year	Uses	Source
2017	BRIAN KALLAHER	Cole Information Services
2014	BRIAN KALLAHER	Cole Information Services
2009	BRIAN KALLAHER	Cole Information Services
1999	BRIAN KALLAHER	Cole Information Services

5695 CALITERRA CT

Year	Uses	Source
2017	EDDIE ROCHA	Cole Information Services
2014	KAREN MALDONADO	Cole Information Services
2009	KELLY ROCHA	Cole Information Services
1999	KELLY ROCHA	Cole Information Services

5698 CALITERRA CT

Year	Uses	Source
2014	ALDO SANTOS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5707 CALITERRA CT

Year	Uses	Source
2017	DANILO DUELAS	Cole Information Services
2014	DAN DUELAS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5710 CALITERRA CT

Year	Uses	Source
2017	JOAQUIN FRANCO	Cole Information Services
2014	JOAQUIN FRANCO	Cole Information Services
2009	JOAQUIN FRANCO	Cole Information Services
1999	JOAQUIN FRANCO	Cole Information Services

FINDINGS

5719 CALITERRA CT

Year	Uses	Source
2017	ALFREDO CASTILLO	Cole Information Services
2014	ALFREDO CASTILLO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5722 CALITERRA CT

Year	Uses	Source
2014	BARBARA SALAS	Cole Information Services
2009	ELIZABETH SANTILAN	Cole Information Services
1999	ELIZABETH SANTILAN	Cole Information Services

5731 CALITERRA CT

Year	Uses	Source
2017	JOHN MOUSAW	Cole Information Services
2014	JOHN MOUSAW	Cole Information Services
2009	JOHN MOUSAW	Cole Information Services
1999	JOHN MOUSAW	Cole Information Services

5734 CALITERRA CT

Year	Uses	Source
2017	CHENGHAO ZHANG	Cole Information Services
2014	ALAN PESCHANSKY	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5743 CALITERRA CT

Year	Uses	Source
2017	ALEJANDRO CORIA	Cole Information Services
2014	ALEJANDRO CORIA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5746 CALITERRA CT

Year	Uses	Source
2017	JOHN LOPEZ	Cole Information Services
2014	CYNTHIA LOPEZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

5755 CALITERRA CT

Year	Uses	Source
2017	LAWRENCE GAN	Cole Information Services
2014	AMBER SCHAAF	Cole Information Services

Year	Uses	Source
2009	OCCUPANT UNKNOWN	Cole Information Services

5758 CALITERRA CT

Year	Uses	Source
2017	LEO RAMOS	Cole Information Services
2014	MARTIN PALOS	Cole Information Services
2009	MARTIN R PALOS	Cole Information Services
	PALSOFT INC	Cole Information Services
	MARTIN PALOS	Cole Information Services
1999	MARTIN PALOS	Cole Information Services

5767 CALITERRA CT

Year	Uses	Source
2014	IGNACIO CASTRO	Cole Information Services
2009	IGNACIO CASTRO	Cole Information Services

5779 CALITERRA CT

Year	Uses	Source
2017	LOWIGIE BATHAN	Cole Information Services
2014	MARIA DINGLE	Cole Information Services
2009	JENNY RAMIREZ	Cole Information Services
1999	JENNY RAMIREZ	Cole Information Services

5791 CALITERRA CT

Year	Uses	Source
2017	SOURIDETH SIHANANTHARA	Cole Information Services
2014	CLIFFORD CULLEN	Cole Information Services
2009	KIM THACH	Cole Information Services
1999	KIM THACH	Cole Information Services

CAMBRIA DR

5621 CAMBRIA DR

Year	Uses	Source
2017	JEFF CLARKE	Cole Information Services
2014	MELISSA BIAZO	Cole Information Services
2009	PATRICK CAMPBELL	Cole Information Services
1999	PATRICK CAMPBELL	Cole Information Services

FINDINGS

5626 CAMBRIA DR

Year	Uses	Source
2017	CARLA DAVIS	Cole Information Services
2014	CARLA DAVIS	Cole Information Services
	MARION EARLS	Cole Information Services
	MARY FINNIE	Cole Information Services
2009	MARION EARLS	Cole Information Services
1999	MARION EARLS	Cole Information Services

5629 CAMBRIA DR

Year	Uses	Source
2017	MARVIS ALEXANDER	Cole Information Services
2014	MIGUEL GONZALEZ	Cole Information Services
2009	MIGUEL GONZALEZ	Cole Information Services
1999	MIGUEL GONZALEZ	Cole Information Services

5634 CAMBRIA DR

Year	Uses	Source
2017	HAI SU	Cole Information Services
2014	HAI SU	Cole Information Services
2009	RICHARD FANN	Cole Information Services
1999	RICHARD FANN	Cole Information Services

5637 CAMBRIA DR

Year	Uses	Source
2014	JAMES LEE	Cole Information Services
2009	JEREMY LYE	Cole Information Services
1999	JEREMY LYE	Cole Information Services

5642 CAMBRIA DR

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	SHAWN CALDARELLA	Cole Information Services
1999	SHAWN CALDARELLA	Cole Information Services

5645 CAMBRIA DR

Year	Uses	Source
2017	FRANK SILVEIRA	Cole Information Services
2014	FRANK SILVEIRA	Cole Information Services
2009	FRANK SILVEIRA	Cole Information Services
1999	FRANK SILVEIRA	Cole Information Services

FINDINGS

5650 CAMBRIA DR

Year	Uses	Source
2017	CHRISTINA GARCIA	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	T VO	Cole Information Services
1999	T VO	Cole Information Services

5653 CAMBRIA DR

Year	Uses	Source
2017	VOLTAIRE PEREZ	Cole Information Services
2014	MARCELINO PEREZ	Cole Information Services
2009	CARLOS FUENTES	Cole Information Services
1999	CARLOS FUENTES	Cole Information Services

5658 CAMBRIA DR

Year	Uses	Source
2014	FRANK TORRES	Cole Information Services
2009	JENNIFER WIENS	Cole Information Services
1999	JENNIFER WIENS	Cole Information Services

5674 CAMBRIA DR

Year	Uses	Source
2017	CARLOS RIOS	Cole Information Services
2014	CARLOS RIOS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5677 CAMBRIA DR

Year	Uses	Source
2017	CARLOS MUNOZ	Cole Information Services
2014	CARLOS MUNOZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5682 CAMBRIA DR

Year	Uses	Source
2017	MOMO KIMURA	Cole Information Services
2014	CHAD BLOTZER	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

5685 CAMBRIA DR

Year	Uses	Source
2014	DAVID SCOW	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5686 CAMBRIA DR

Year	Uses	Source
2017	LINO ARTEAGA	Cole Information Services
2014	CELESTE JIMENEZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5689 CAMBRIA DR

Year	Uses	Source
2017	JULIO KUNHARDT	Cole Information Services
2014	JULIO KUNHARDT	Cole Information Services

5690 CAMBRIA DR

Year	Uses	Source
2017	DANNY CHOW	Cole Information Services
2014	DANNY CHOW	Cole Information Services

5693 CAMBRIA DR

Year	Uses	Source
2017	VICTOR SALAS	Cole Information Services
2014	VICTOR SALAS	Cole Information Services

5698 CAMBRIA DR

Year	Uses	Source
2017	HESHAM HASSAN	Cole Information Services
2014	HESHAM HASSAN	Cole Information Services

CAROLINAS LN

5703 CAROLINAS LN

Year	Uses	Source
2017	FRANCISCO ZARABIA	Cole Information Services
2014	BOBBY ALVARADO	Cole Information Services
2009	BOBBY ALVARADO	Cole Information Services
2004	BOBBY ALVARADO	Cole Information Services

Year	Uses	Source
1999	BOBBY ALVARADO	Cole Information Services

5713 CAROLINAS LN

Year	Uses	Source
2017	ENRIQUE LOPEZ	Cole Information Services
2014	FRANCES HIDALGO	Cole Information Services
2009	MARIA RODRIGUEZ	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	MARIA RODRIGUEZ	Cole Information Services

5723 CAROLINAS LN

Year	Uses	Source
2017	DAVID CAMARGO	Cole Information Services
2014	DAVID CAMARGO	Cole Information Services
2009	DAVID CAMARGO	Cole Information Services
2004	DAVID CAMARGO	Cole Information Services

5733 CAROLINAS LN

Year	Uses	Source
2014	MAI YANG	Cole Information Services
2009	LUIS CHAVEZ	Cole Information Services
2004	LUIS CHAVEZ	Cole Information Services
	LRC & ASSOCS	Cole Information Services
1999	LUIS CHAVEZ	Cole Information Services

5743 CAROLINAS LN

Year	Uses	Source
2017	RAYMOND ROSAS	Cole Information Services
2014	CHITO DIMACULANGAN	Cole Information Services
2009	CHITO DIMACULANGAN	Cole Information Services
2004	CHITO DIMACULANGAN	Cole Information Services
1999	CHITO DIMACULANGAN	Cole Information Services

5753 CAROLINAS LN

Year	Uses	Source
2017	CHARLIE CHENG	Cole Information Services
2014	CHARLIE CHENG	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	LOUIS MANGENE	Cole Information Services

5763 CAROLINAS LN

Year	Uses	Source
2017	SANDRA GOOD	Cole Information Services
2014	SANDRA MARTINEZ-GOOD	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JOHN GOOD	Cole Information Services

5773 CAROLINAS LN

Year	Uses	Source
2017	BRIAN FRILOUX	Cole Information Services
2014	STEPHANIE HASLERIG	Cole Information Services
2009	TINA GALLAWAY	Cole Information Services
2004	CARLOS VASQUEZ	Cole Information Services
1999	TINA GALLAWAY	Cole Information Services

5783 CAROLINAS LN

Year	Uses	Source
2014	HARRY GREEN	Cole Information Services
2009	HARRY GREEN	Cole Information Services
2004	HARRY GREEN	Cole Information Services
1999	HARRY GREEN	Cole Information Services

CASTLE CREST DR

612 CASTLE CREST DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	CHAVEZJuan J	Haines & Company, Inc.
1986	Norman Geneva M	Pacific Bell Yellow Pages
1981	Norman Geneva M	Pacific Telephone
	Norman Geneva M	Pacific Telephone

613 CASTLE CREST DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Navarro Mitzie B	Pacific Bell Yellow Pages
1981	Navarro Mitzie B	Pacific Telephone

614 CASTLE CREST DR

Year	Uses	Source
2004	FRANCES BRODA	Cole Information Services

FINDINGS

Year	Uses	Source
2001	BRODAFA	Haines & Company, Inc.
1986	Stephens R	Pacific Bell Yellow Pages
1981	Stephens R	Pacific Telephone

615 CASTLE CREST DR

Year	Uses	Source
2004	SHIRLEY MCINTOSH	Cole Information Services
2001	JAGOStacy A	Haines & Company, Inc.
1994	GRAVITT, LLOYD M	Cole Information Services
1986	Gravitt Lloyd M	Pacific Bell Yellow Pages
1981	Williams Jack Mrs	Pacific Telephone

616 CASTLE CREST DR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services

617 CASTLE CREST DR

Year	Uses	Source
2004	GERARD KELLY	Cole Information Services
2001	XXXX	Haines & Company, Inc.

618 CASTLE CREST DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

619 CASTLE CREST DR

Year	Uses	Source
2004	CHARLES KEEL	Cole Information Services
1986	Keel Chas H	Pacific Bell Yellow Pages
1981	Keel Chas H	Pacific Telephone

620 CASTLE CREST DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Hammer R A	Pacific Bell Yellow Pages
1981	Hammer R A	Pacific Telephone

621 CASTLE CREST DR

Year	Uses	Source
1986	Newby Dale & Doris	Pacific Bell Yellow Pages

FINDINGS

622 CASTLE CREST DR

Year	Uses	Source
2004	JOSE RIVERA	Cole Information Services
1994	HANCOCK, JOHN	Cole Information Services
1986	ancock John	Pacific Bell Yellow Pages
1981	Hancock John	Pacific Telephone

623 CASTLE CREST DR

Year	Uses	Source
2004	MICHAEL HASKINS	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Palm Arthur A	Pacific Telephone

624 CASTLE CREST DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

625 CASTLE CREST DR

Year	Uses	Source
2004	LILLYAM MORAN	Cole Information Services

660 CASTLE CREST DR

Year	Uses	Source
1999	EUNICE MALONE	Cole Information Services
1986	Martin Bernard	Pacific Bell Yellow Pages

661 CASTLE CREST DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	GRAY, L N	Cole Information Services
1986	Gray L N	Pacific Bell Yellow Pages
1981	Gray L N	Pacific Telephone

662 CASTLE CREST DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Thomas W C	Pacific Telephone

663 CASTLE CREST DR

Year	Uses	Source
2004	EVELYN COOK	Cole Information Services

Year	Uses	Source
1986	Horten Lawrence E	Pacific Bell Yellow Pages

664 CASTLE CREST DR

Year	Uses	Source
2004	SCOTT EAST	Cole Information Services
1986	Mason Jack M & Sarah M	Pacific Bell Yellow Pages
1981	Skinner J M	Pacific Telephone

CASTLE VREST DR

612 CASTLE VREST DR

Year	Uses	Source
1994	PRADO, R	Cole Information Services

CATTLEMAN DR

6245 CATTLEMAN DR

Year	Uses	Source
2014	KRISH WHITE	Cole Information Services

6274 CATTLEMAN DR

Year	Uses	Source
2014	PRESCIOUS VALDES	Cole Information Services
2009	TAM TRINH	Cole Information Services
1999	TAM TRINH	Cole Information Services

6277 CATTLEMAN DR

Year	Uses	Source
2017	MICHELLE SNOWBALL	Cole Information Services
2014	ATHENIA CHIN	Cole Information Services
2009	HATHENIA CHIN	Cole Information Services
1999	HATHENIA CHIN	Cole Information Services

6282 CATTLEMAN DR

Year	Uses	Source
2017	NATHAN MUSTAFA	Cole Information Services
2014	NATHAN MUSTAFA	Cole Information Services

6285 CATTLEMAN DR

Year	Uses	Source
2017	LAZARO ECHEVERRIA	Cole Information Services

Year	Uses	Source
2014	DAVID GARCIA	Cole Information Services
2009	TRACY ENRIQUEZ	Cole Information Services
1999	TRACY ENRIQUEZ	Cole Information Services

6290 CATTLEMAN DR

Year	Uses	Source
2017	JACKSON LAI	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	LAI JACKSON	Cole Information Services
1999	LAI JACKSON	Cole Information Services

6293 CATTLEMAN DR

Year	Uses	Source
2017	LAYNE HOANG	Cole Information Services
2014	LAYNE HOANG	Cole Information Services
2009	LAYNE HOANG	Cole Information Services
1999	LAYNE HOANG	Cole Information Services

CHAPARRAL DR

586 CHAPARRAL DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Wright Robt P & Edna	Pacific Bell Yellow Pages
1981	Wright Robt	Pacific Telephone
	Wright Robt	Pacific Telephone
1977	Mackenzie John B	Pacific Telephone

587 CHAPARRAL DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1994	KOSSOUDJI, CRAIG	Cole Information Services
1986	Maupln Fred E	Pacific Bell Yellow Pages
1981	Maupin Fred E	Pacific Telephone
1977	Perysian Lawrence	Pacific Telephone

588 CHAPARRAL DR

Year	Uses	Source
2004	MANUEL PEREZ	Cole Information Services
2001	PEREZManuee	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1986	Darrah Wallace & Katherine	Pacific Bell Yellow Pages

589 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1994	ANDREWS, C E	Cole Information Services
1986	Andrews C E	Pacific Bell Yellow Pages

590 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Briggs E M	Pacific Bell Yellow Pages
1981	Briggs E M	Pacific Telephone

626 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	SWARTOUTDarhane	Haines & Company, Inc.
1986	Seps David L	Pacific Bell Yellow Pages
1981	Seps David L	Pacific Telephone

627 CHAPARRAL DR

Year	Uses	Source
2004	VERNETTA GREEN	Cole Information Services
2001	MAYO Frank M	Haines & Company, Inc.
1999	FRANK MAYO	Cole Information Services
1994	MAYO, FRANK M	Cole Information Services
1986	Mayo Frank M	Pacific Bell Yellow Pages
1977	Mayo Frank M	Pacific Telephone

628 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	WHITE, GLENDA J	Cole Information Services
1977	Beukelman Ned	Pacific Telephone

FINDINGS

629 CHAPARRAL DR

Year	Uses	Source
2004	DONALD CHRISTY	Cole Information Services
2002	Roundtree Mark	SBC PACIFIC BELL

630 CHAPARRAL DR

Year	Uses	Source
2004	MATTHEW CASTROREALE	Cole Information Services
2001	XXXX	Haines & Company, Inc.

631 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

632 CHAPARRAL DR

Year	Uses	Source
2004	ROBBIE BROWN	Cole Information Services
	LARRY BROOKS	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1994	PHILLIPS, DANIEL L	Cole Information Services
1986	Reed Claire C	Pacific Bell Yellow Pages
1981	Reed Claire C	Pacific Telephone
1977	Reed Claire C	Pacific Telephone

633 CHAPARRAL DR

Year	Uses	Source
2004	JOHN JACKSON	Cole Information Services
1986	Root Julia	Pacific Bell Yellow Pages
1981	Root Julia	Pacific Telephone

634 CHAPARRAL DR

Year	Uses	Source
2004	CORA JACKSON	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Tomkins Gertrude	Pacific Bell Yellow Pages
1981	Tomkins Gertrude	Pacific Telephone

635 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

636 CHAPARRAL DR

Year	Uses	Source
2004	TIMOTHY ORMONDE	Cole Information Services
1994	JAIME, GERARDO	Cole Information Services
1981	Rockwell M	Pacific Telephone

637 CHAPARRAL DR

Year	Uses	Source
2004	RICHARD ARIAS	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Christie Isabel L	Pacific Telephone
1977	Christie Isabel L L	Pacific Telephone

639 CHAPARRAL DR

Year	Uses	Source
2004	BILLY ROLES	Cole Information Services
1986	Taylor Riter C	Pacific Bell Yellow Pages

640 CHAPARRAL DR

Year	Uses	Source
2004	CHRIS MCCLOUD	Cole Information Services
2001	ROMEROCeba L	Haines & Company, Inc.

641 CHAPARRAL DR

Year	Uses	Source
2004	BRANDY LEE	Cole Information Services
1986	Rogahn Harry A	Pacific Bell Yellow Pages
1981	Rogahn Harry A	Pacific Telephone

642 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	PONCEKelly	Haines & Company, Inc.
	PONCE Ben 909 6 B	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	IHaskvitz Harry & Rose	Pacific Bell Yellow Pages
1981	Haskvitz Harry & Rose	Pacific Telephone

643 CHAPARRAL DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

644 CHAPARRAL DR

Year	Uses	Source
2004	GENE WHITTINGTON	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

645 CHAPARRAL DR

Year	Uses	Source
2004	LETICIA GUERRERO	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Rehm Robt H	Pacific Bell Yellow Pages
1981	Rehm Robt H	Pacific Telephone
1977	Rehm Robt H	Pacific Telephone

CLOVERDALE RD

12741 CLOVERDALE RD

Year	Uses	Source
1956	Hamson A L	Luskey Brothers & Co.
	Hamsons Clocerdale Rnch	Luskey Brothers & Co.
	Lamb J H	Luskey Brothers & Co.

12745 CLOVERDALE RD

Year	Uses	Source
1956	Barcus N W	Luskey Brothers & Co.

12774 CLOVERDALE RD

Year	Uses	Source
2002	HARADA FARMS	SBC PACIFIC BELL
1996	Harada Gary	Pacific Bell
	HARADA FARMS	Pacific Bell
1993	Harada Farms	Pacific Bell
	Harada Gary	Pacific Bell
	Harada Hisako	Pacific Bell
1990	HARADA FARMS	Pacific Bell
	Harada Gary	Pacific Bell
1981	Harada Brothers	Pacific Telephone
	Harado Speed Adams Av & Cloverdale Rd @Corona@	Pacific Telephone
1977	Harada Brothers	Pacific Telephone
	Harada Roy Y	Pacific Telephone

Year	Uses	Source
1977	Harado Speed Adams Av&Cloverdale Rd @Corona@	Pacific Telephone
1970	Harada Brothers	Pacific Telephone
	Harada Jas	Pacific Telephone
	Bosma Cattle Co	Pacific Telephone
1956	Bockemann C O	Luskey Brothers & Co.
	Poulson D A	Luskey Brothers & Co.
	Eldridge F L	Luskey Brothers & Co.
	Premier Rnch	Luskey Brothers & Co.

CLOVERDALE ST

12745 CLOVERDALE ST

Year	Uses	Source
2001	LEALJohn 00 C	Haines & Company, Inc.

12774 CLOVERDALE ST

Year	Uses	Source
2001	RAYGOZARober 00 C	Haines & Company, Inc.
	HARADA FARMS	Haines & Company, Inc.
1977	Crown Feed Products Inc	Pacific Telephone

CYPRESS DR

665 CYPRESS DR

Year	Uses	Source
1981	Jenkins Geo D Jr	Pacific Telephone
1977	Clay M H	Pacific Telephone

666 CYPRESS DR

Year	Uses	Source
2004	JOHN COLEMAN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Hasten A	Pacific Bell Yellow Pages
	Hasten B J	Pacific Bell Yellow Pages
	Hasten Mike	Pacific Bell Yellow Pages
1981	Hasten Norman & Anita	Pacific Telephone

667 CYPRESS DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Bagaeff John	Pacific Bell Yellow Pages
	Bagby Ken H	Pacific Bell Yellow Pages
1981	Begaeff John	Pacific Telephone

668 CYPRESS DR

Year	Uses	Source
1986	Murrell Vivien L	Pacific Bell Yellow Pages
1981	Faith Norman	Pacific Telephone

669 CYPRESS DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

670 CYPRESS DR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	St Hill Kenneth I	Pacific Telephone

671 CYPRESS DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

673 CYPRESS DR

Year	Uses	Source
1986	Maynard Dan & Cindi	Pacific Bell Yellow Pages
	Maynard A	Pacific Bell Yellow Pages
	Maynarl D L	Pacific Bell Yellow Pages
	Maymon Robt	Pacific Bell Yellow Pages
1977	Maymon Robt	Pacific Telephone

CYPRESS DR MIRA LMNIA

670 CYPRESS DR MIRA LMNIA

Year	Uses	Source
1986	Rueter Vern E	Pacific Bell Yellow Pages

FINDINGS

DANCY ST

13228 DANCY ST

Year	Uses	Source
2017	ROBERT BORNEMANN	Cole Information Services
2014	ROBERT BORNEMANN	Cole Information Services

DAPHNE ST

6308 DAPHNE ST

Year	Uses	Source
2017	PIPPO SALVIA	Cole Information Services
2014	PIPPO SALVIA	Cole Information Services
2009	PIPPO SALVIA	Cole Information Services
1999	PIPPO SALVIA	Cole Information Services

6318 DAPHNE ST

Year	Uses	Source
2017	CLINT CAVANESS	Cole Information Services
2014	CLINT CAVANESS	Cole Information Services
2009	CLINT CAVANESS	Cole Information Services

DEL MAR CIR

113 DEL MAR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Mone Frank	Pacific Bell Yellow Pages
1981	Hoover Roscoe	Pacific Telephone
1977	Schnur eldon T	Pacific Telephone

114 DEL MAR CIR

Year	Uses	Source
2004	ZULMA PEREZ	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Blessin Chas W	Pacific Telephone

FINDINGS

115 DEL MAR CIR

Year	Uses	Source
2001	TURCZENE	Haines & Company, Inc.
1986	Turczen E	Pacific Bell Yellow Pages
1981	Turczen E	Pacific Telephone

116 DEL MAR CIR

Year	Uses	Source
2001	CLENNYAM	Haines & Company, Inc.
1986	Clenny A M	Pacific Bell Yellow Pages
	Cteo	Pacific Bell Yellow Pages
1981	Cenny A M	Pacific Telephone
1977	Liliibridge M E	Pacific Telephone

117 DEL MAR CIR

Year	Uses	Source
2001	SANCHEZDebra K	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services

118 DEL MAR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Shelford Wm T	Pacific Bell Yellow Pages
1981	Shelford Wm T	Pacific Telephone

119 DEL MAR CIR

Year	Uses	Source
2004	DANIEL PEREZ	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Ray Roland	Pacific Bell Yellow Pages
1977	Pettibone Donald S	Pacific Telephone

120 DEL MAR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Stembridge N	Pacific Bell Yellow Pages
	Stelzner Sam I	Pacific Bell Yellow Pages
1981	Stelzner Sam I	Pacific Telephone
1977	Stelzner Sam I	Pacific Telephone

FINDINGS

121 DEL MAR CIR

Year	Uses	Source
1977	Hunter W	Pacific Telephone
1970	Newcombe Le Roy	Pacific Telephone

122 DEL MAR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	SEEDORF, RUDY	Cole Information Services
1986	Pool M	Pacific Bell Yellow Pages
1981	Pool Myrtle	Pacific Telephone
	Pool aark L	Pacific Telephone
1977	Pool Clark L	Pacific Telephone
	Pool Myrtle	Pacific Telephone

123 DEL MAR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1977	Majewski Ann	Pacific Telephone

124 DEL MAR CIR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Hendrickson Don	Pacific Bell Yellow Pages
1981	Hendrickson C F	Pacific Telephone
1977	Hendrickson C F	Pacific Telephone

125 DEL MAR CIR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Roche Leo	Pacific Bell Yellow Pages
	Roche Robt P Jr	Pacific Bell Yellow Pages
1977	Company	Pacific Telephone

126 DEL MAR CIR

Year	Uses	Source
2004	WILLIE ABARCA	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

127 DEL MAR CIR

Year	Uses	Source
2004	VALERIE DELTORO	Cole Information Services
1981	Rolen Raymond F	Pacific Telephone

128 DEL MAR CIR

Year	Uses	Source
2004	HERIBERTA VARGAS	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	CLAYTON, T	Cole Information Services
1986	Turner International Exports P O Box	Pacific Bell Yellow Pages
	Turner Geo A	Pacific Bell Yellow Pages
1981	Turner Geo A	Pacific Telephone
1977	Turner Geo A	Pacific Telephone

129 DEL MAR CIR

Year	Uses	Source
2004	CHARLES FREEMAN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1977	Benbow Dora	Pacific Telephone

130 DEL MAR CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Long Wm S	Pacific Bell Yellow Pages
	Long Willard E	Pacific Bell Yellow Pages
1981	Long Willard E	Pacific Telephone
1977	Long Willard E	Pacific Telephone

131 DEL MAR CIR

Year	Uses	Source
2004	MANUEL RODRIGUEZ	Cole Information Services
2001	ORTIZJIoe	Haines & Company, Inc.
1981	Fox Ira	Pacific Telephone
1977	Santarini Elmo	Pacific Telephone

132 DEL MAR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Scott Geo K	Pacific Bell Yellow Pages
1981	Scott Geo K	Pacific Telephone
1977	Scott Geo K	Pacific Telephone

133 DEL MAR CIR

Year	Uses	Source
2004	JIMMY CHRISTIAN	Cole Information Services
2001	CHRISTIANC	Haines & Company, Inc.
1986	Reed Carl M	Pacific Bell Yellow Pages
	Reed Chas & Lynda @Grand Terrace@	Pacific Bell Yellow Pages
1981	Reed Carl M	Pacific Telephone
1977	Ratchford Howard	Pacific Telephone
	Ratchford Howard	Pacific Telephone

DEL MAR WAY

107 DEL MAR WAY

Year	Uses	Source
2001	BOOREPeggy	Haines & Company, Inc.
	GANCARCZYKKen	Haines & Company, Inc.
	BOOREGregory	Haines & Company, Inc.

113 DEL MAR WAY

Year	Uses	Source
1970	Schnur Seldon T	Pacific Telephone

114 DEL MAR WAY

Year	Uses	Source
1970	Downing Kenneth P	Pacific Telephone

116 DEL MAR WAY

Year	Uses	Source
1970	Fischer Paul	Pacific Telephone

118 DEL MAR WAY

Year	Uses	Source
1970	Shelford Wm T	Pacific Telephone

FINDINGS

119 DEL MAR WAY

Year	Uses	Source
1970	Oehmcke Richard R	Pacific Telephone

120 DEL MAR WAY

Year	Uses	Source
1970	Stelzner Saml	Pacific Telephone

121 DEL MAR WAY

Year	Uses	Source
1970	Hunter W J	Pacific Telephone
	Newcombe Le Roy	Pacific Telephone

124 DEL MAR WAY

Year	Uses	Source
1970	Haueter Otto	Pacific Telephone

125 DEL MAR WAY

Year	Uses	Source
1970	Truscott Arthur R	Pacific Telephone

126 DEL MAR WAY

Year	Uses	Source
1970	Reynolds Ralph	Pacific Telephone

127 DEL MAR WAY

Year	Uses	Source
1970	Turner Geo A	Pacific Telephone

129 DEL MAR WAY

Year	Uses	Source
1970	Snavely Listle L	Pacific Telephone
	Dawson Jack L	Pacific Telephone

131 DEL MAR WAY

Year	Uses	Source
1970	Santarini Elmo	Pacific Telephone

132 DEL MAR WAY

Year	Uses	Source
1970	Scott Geo K	Pacific Telephone

FINDINGS

DORSETT GOLDEN ST

13204 DORSETT GOLDEN ST

Year	Uses	Source
2017	TENGJIANG YANG	Cole Information Services
2014	HERBERT SMITH	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

13207 DORSETT GOLDEN ST

Year	Uses	Source
2017	SHAUN GLENN	Cole Information Services
2014	JIMMY HWANG	Cole Information Services
2009	OLADELE AINA	Cole Information Services
1999	OLADELE AINA	Cole Information Services

DRAKE DR

566 DRAKE DR

Year	Uses	Source
2004	ROGER MANIS	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	HOEFS, K C	Cole Information Services
1993	Hoefs K C	Pacific Bell
1986	Hoefs K C	Pacific Bell Yellow Pages
1981	Hoets K C	Pacific Telephone
	Hoefs K C	Pacific Telephone
1977	Hoefs Louis N	Pacific Telephone
	Hoefs Kathleen	Pacific Telephone

567 DRAKE DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Busby L F	Pacific Bell Yellow Pages
1977	Bundy Mildred	Pacific Telephone

568 DRAKE DR

Year	Uses	Source
2004	RANDALL SMITH	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1977	Pecher Dorothy	Pacific Telephone

FINDINGS

569 DRAKE DR

Year	Uses	Source
2004	MARY BARNES	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Barnes Mary C	Pacific Bell Yellow Pages
1981	Barnes Mary C	Pacific Telephone
1977	Ehrnman Austin W	Pacific Telephone

570 DRAKE DR

Year	Uses	Source
2004	EVELYN MAKI	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Feldmann Merrick R	Pacific Bell Yellow Pages
1981	Feldmann Merrick R	Pacific Telephone

571 DRAKE DR

Year	Uses	Source
2004	MARCY RICHARDSON	Cole Information Services
1994	GRIFFITHS, LLOYD	Cole Information Services
1986	Griffiths Lloyd	Pacific Bell Yellow Pages
1981	Griffiths Lloyd	Pacific Telephone

572 DRAKE DR

Year	Uses	Source
1986	Miller Harold	Pacific Bell Yellow Pages
1981	Miller Harold	Pacific Telephone
1977	Miller Harold	Pacific Telephone

573 DRAKE DR

Year	Uses	Source
1986	Hughes Geo	Pacific Bell Yellow Pages
1981	Hughes Geo	Pacific Telephone
1977	Hughes Geo	Pacific Telephone

574 DRAKE DR

Year	Uses	Source
2001	BAKER Kenneth W	Haines & Company, Inc.
1986	Baker Kenneth W	Pacific Bell Yellow Pages
1981	Baker Kenneth W	Pacific Telephone
1977	Baker Kenneth W	Pacific Telephone

FINDINGS

575 DRAKE DR

Year	Uses	Source
2004	ALICIA RAMOS	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	WALTER, RALPH H	Cole Information Services
1986	Walter Ralph H	Pacific Bell Yellow Pages
1981	Snider Geoffrey H	Pacific Telephone
1977	Snider Geoffrey H	Pacific Telephone

576 DRAKE DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	BERG, L R	Cole Information Services
1986	Berg L R	Pacific Bell Yellow Pages
1977	Berg Ken	Pacific Telephone

577 DRAKE DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

578 DRAKE DR

Year	Uses	Source
2004	PAULA MORROW	Cole Information Services
1994	GARDNER, EUGENE F	Cole Information Services
1981	Gardner Eugene F	Pacific Telephone
1977	Gardner Eugene F	Pacific Telephone

579 DRAKE DR

Year	Uses	Source
2001	MOCZULSKIJohn	Haines & Company, Inc.
	MOCZULSKI Elwand	Haines & Company, Inc.
1993	I Moczulski John & Elwanda	Pacific Bell
1986	From Corona Telephones Call	Pacific Bell Yellow Pages

580 DRAKE DR

Year	Uses	Source
2004	GABRIELA HERRERA	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

581 DRAKE DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	PEREZRaudel	Haines & Company, Inc.
1994	CASSELBERRY, GILBERT II	Cole Information Services
1986	Casselberry Gilbert II	Pacific Bell Yellow Pages
1981	Casselberry Gilbert II	Pacific Telephone

582 DRAKE DR

Year	Uses	Source
2004	PHILIP DENNY	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1981	Wylie Wm	Pacific Telephone
1977	Wylie Wm	Pacific Telephone

583 DRAKE DR

Year	Uses	Source
2004	ROSA CALDERON	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Mc Cluskey B E	Pacific Bell Yellow Pages
	Mc Cluskey Casey J	Pacific Bell Yellow Pages
1981	Mc Cluskey B E	Pacific Telephone
1977	Mc Cluskey B E	Pacific Telephone

584 DRAKE DR

Year	Uses	Source
2004	ELISA PALOMARES	Cole Information Services
2002	Palomares Elisa	SBC PACIFIC BELL
1986	Hellwagen Everett	Pacific Bell Yellow Pages
1981	Hellwegen Everett	Pacific Telephone

585 DRAKE DR

Year	Uses	Source
2004	JEFFERY VICK	Cole Information Services
2002	Vick Jeffery	SBC PACIFIC BELL
1994	HAILE, WILLIAM	Cole Information Services
1986	Haile J	Pacific Bell Yellow Pages
	Hailey Chas D Jr	Pacific Bell Yellow Pages
1981	Halle J	Pacific Telephone
1977	Haile J	Pacific Telephone
	Haile J	Pacific Telephone

FINDINGS

DRAKE DR MIRALMA

578 DRAKE DR MIRALMA

Year	*Uses*	*Source*
1986	Gardner Eugene F	Pacific Bell Yellow Pages

DRIFTW QOD CIR

182 DRIFTW QOD CIR

Year	*Uses*	*Source*
1977	Denison Ethel 3347 A Bernard	Pacific Telephone

DRIFTWOOD CIR

163 DRIFTWOOD CIR

Year	*Uses*	*Source*
2001	BARNSTerry	Haines & Company, Inc.
1986	Sayre Edwin D	Pacific Bell Yellow Pages
1981	Sayre Edwni D	Pacific Telephone

164 DRIFTWOOD CIR

Year	*Uses*	*Source*
2004	OCCUPANT UNKNOWN	Cole Information Services

165 DRIFTWOOD CIR

Year	*Uses*	*Source*
2004	SHANE DUBYAK	Cole Information Services
2001	ROORIGUEZCecrtla	Haines & Company, Inc.
1986	Tenney Leeland R	Pacific Bell Yellow Pages
	Tennies M C	Pacific Bell Yellow Pages
1981	Tenney Leeland R	Pacific Telephone
1977	Tenney Leeland R	Pacific Telephone

167 DRIFTWOOD CIR

Year	*Uses*	*Source*
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Stroberg Christine L DVM	Pacific Bell Yellow Pages
	Strobehn Floyd T	Pacific Bell Yellow Pages
1977	Matchett Robt S	Pacific Telephone

FINDINGS

168 DRIFTWOOD CIR

Year	Uses	Source
1977	Leamon Katherine L b	Pacific Telephone
	Nelson Jean B	Pacific Telephone

169 DRIFTWOOD CIR

Year	Uses	Source
2004	PATRICIA HIDALGO	Cole Information Services
1986	Smith Louise B Mrs	Pacific Bell Yellow Pages
1981	Smith Louise B Mrs	Pacific Telephone
1977	Smith Louise B Mrs	Pacific Telephone

170 DRIFTWOOD CIR

Year	Uses	Source
1981	Rorick Jay T	Pacific Telephone
1977	Rorick Jay T	Pacific Telephone

174 DRIFTWOOD CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	BARNARD, KENNETH	Cole Information Services
1981	Wirtz Richard J	Pacific Telephone

175 DRIFTWOOD CIR

Year	Uses	Source
1986	Leochner Orval G	Pacific Bell Yellow Pages
1981	Leochner Orval G	Pacific Telephone
1977	Leochner Orval G	Pacific Telephone

176 DRIFTWOOD CIR

Year	Uses	Source
2004	DENNIS BUSSARD	Cole Information Services

177 DRIFTWOOD CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	KOCH, LONA M	Cole Information Services
1986	Koch L	Pacific Bell Yellow Pages
1981	Koch L	Pacific Telephone
1977	Koch Rudolf John	Pacific Telephone

FINDINGS

178 DRIFTWOOD CIR

Year	Uses	Source
2001	HERNANDEZJohnny	Haines & Company, Inc.
1986	Foster Vera A	Pacific Bell Yellow Pages
1981	Foster Vera A	Pacific Telephone
1977	Foster Vera A	Pacific Telephone

179 DRIFTWOOD CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1977	Nanfito Sam N	Pacific Telephone

180 DRIFTWOOD CIR

Year	Uses	Source
1986	La Sarge E	Pacific Bell Yellow Pages
1981	La Sarge W	Pacific Telephone
	Johnston C E	Pacific Telephone
1977	La Sarge W	Pacific Telephone

181 DRIFTWOOD CIR

Year	Uses	Source
2004	JOSHUA BOWERS	Cole Information Services

182 DRIFTWOOD CIR

Year	Uses	Source
1986	Denison Guy L	Pacific Bell Yellow Pages
1981	Denison Guy L	Pacific Telephone

183 DRIFTWOOD CIR

Year	Uses	Source
2004	ALVARO CASTELLANOS	Cole Information Services
1981	Steel Homer J	Pacific Telephone
1977	Steel Homer J	Pacific Telephone

184 DRIFTWOOD CIR

Year	Uses	Source
2001	AYERSP	Haines & Company, Inc.
1986	Guilfoyle Thos F	Pacific Bell Yellow Pages
1981	Guilfoyle Thos F	Pacific Telephone
1977	Meehan Robt E	Pacific Telephone

185 DRIFTWOOD CIR

Year	Uses	Source
2004	GLORIA VILLALPA	Cole Information Services
	MAGDALENA CABALLERO	Cole Information Services
1977	Johnston C E	Pacific Telephone

186 DRIFTWOOD CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Mahoney D	Pacific Bell Yellow Pages
	Mahnkey C	Pacific Bell Yellow Pages
	Mahnken R M	Pacific Bell Yellow Pages
1981	Mahnken R M	Pacific Telephone
1977	Mahnken R M	Pacific Telephone

187 DRIFTWOOD CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

DRIFTWOOD ST

117 DRIFTWOOD ST

Year	Uses	Source
1977	Coombes Lester J Jr O	Pacific Telephone

163 DRIFTWOOD ST

Year	Uses	Source
1970	Gambell Lester O	Pacific Telephone
	Sayre Edwin D	Pacific Telephone

165 DRIFTWOOD ST

Year	Uses	Source
1970	Tenney Leeland R	Pacific Telephone

167 DRIFTWOOD ST

Year	Uses	Source
1970	Matejovsky Wm J	Pacific Telephone

168 DRIFTWOOD ST

Year	Uses	Source
1970	Leamon Katherine L	Pacific Telephone
	Nelson Jean B	Pacific Telephone

FINDINGS

169 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Cummings N Geo	Pacific Telephone

173 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Tegethoff August	Pacific Telephone

175 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Hoeveke S Jean	Pacific Telephone

176 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Phillips Grace D	Pacific Telephone

177 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Koch Rudolf John	Pacific Telephone

178 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Schuster John E	Pacific Telephone

179 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Nanfito Sam N	Pacific Telephone

180 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	La Sarge W	Pacific Telephone

181 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Moody Ralph C	Pacific Telephone

182 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Denison Guy L	Pacific Telephone

183 DRIFTWOOD ST

Year	*Uses*	*Source*
1970	Argus Oliver J	Pacific Telephone

184 DRIFTWOOD ST

Year	Uses	Source
1970	Meehan Robt E	Pacific Telephone

185 DRIFTWOOD ST

Year	Uses	Source
1970	Seares Robert	Pacific Telephone

186 DRIFTWOOD ST

Year	Uses	Source
1970	Hohn W C	Pacific Telephone

EARLY CRIMSON ST

13208 EARLY CRIMSON ST

Year	Uses	Source
2017	JAIME ONEAL	Cole Information Services
2014	T HARGROVE	Cole Information Services

13215 EARLY CRIMSON ST

Year	Uses	Source
2017	RALPH AMARATUNGA	Cole Information Services
2014	RALPH AMARATUNGA	Cole Information Services
2009	HECTOR CARDENAS	Cole Information Services

13225 EARLY CRIMSON ST

Year	Uses	Source
2017	RUBEN ZUNIGA	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	MARIA FLORES	Cole Information Services
1999	MARIA FLORES	Cole Information Services

EDGEMONT DR

557 EDGEMONT DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.

558 EDGEMONT DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

Year	Uses	Source
1986	Spinelli M	Pacific Bell Yellow Pages
1981	Spinelli M	Pacific Telephone
1977	Spinelli M	Pacific Telephone

559 EDGEMONT DR

Year	Uses	Source
2001	HORTEMILLERGM	Haines & Company, Inc.
1986	Hughes L J	Pacific Bell Yellow Pages
1981	Hughes L J	Pacific Telephone

560 EDGEMONT DR

Year	Uses	Source
2004	JACK WYTTENBACH	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Conrad Frank J	Pacific Bell Yellow Pages
1981	Conrad Frank J	Pacific Telephone

561 EDGEMONT DR

Year	Uses	Source
2004	DANTE MEDINA	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Appel A	Pacific Bell Yellow Pages
1981	Appel A	Pacific Telephone

562 EDGEMONT DR

Year	Uses	Source
2004	SHALONDA DOMASIN	Cole Information Services
2002	Domasin Shalonda	SBC PACIFIC BELL
	Domasini Shalonda	SBC PACIFIC BELL
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	COUCH, TOMMY	Cole Information Services
1981	Hiayashlbara Wayne & S	Pacific Telephone
1977	Gorsuch Donald	Pacific Telephone

563 EDGEMONT DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1981	Redman David F	Pacific Telephone

564 EDGEMONT DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Jura Michael E	Pacific Bell Yellow Pages
1981	Jura Michael E	Pacific Telephone
1977	Jura Michael E	Pacific Telephone

565 EDGEMONT DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

FAIRLANE CIR

134 FAIRLANE CIR

Year	Uses	Source
2004	TIMOTHY LINEHAN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	MADALLANES, MARIA	Cole Information Services
1986	Miller Frank L & June F	Pacific Bell Yellow Pages
	Miller G	Pacific Bell Yellow Pages
	Miller G	Pacific Bell Yellow Pages
	Miller Fred L	Pacific Bell Yellow Pages

135 FAIRLANE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Wolfe M K	Pacific Telephone
1977	Wolfe M K	Pacific Telephone

136 FAIRLANE CIR

Year	Uses	Source
2004	PATSY TAYLOR	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services

137 FAIRLANE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Gilligan C	Pacific Telephone

138 FAIRLANE CIR

Year	Uses	Source
2004	JUAN MARTINEZ	Cole Information Services
1981	Lapins Marion A	Pacific Telephone
1977	Lapins Marion A	Pacific Telephone

139 FAIRLANE CIR

Year	Uses	Source
2004	HANNA URIBES	Cole Information Services
2002	Uribes Casey	SBC PACIFIC BELL
1981	Casey Margaret I	Pacific Telephone
	Casey Jas S	Pacific Telephone
1977	Casey Margaret I	Pacific Telephone
	Casey Jas S	Pacific Telephone

140 FAIRLANE CIR

Year	Uses	Source
2004	PATRICK HOY	Cole Information Services
2001	NUNEZSnora	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	SORENSEN, LARRY	Cole Information Services
1986	Sorensen Larry	Pacific Bell Yellow Pages
1981	Mayer Alfred & Irene	Pacific Telephone
1977	Stern Sidney	Pacific Telephone

141 FAIRLANE CIR

Year	Uses	Source
2002	Kincaid Sarah	SBC PACIFIC BELL
2001	ROGERSJennifer E	Haines & Company, Inc.
1986	Pulliam Harold H	Pacific Bell Yellow Pages
1981	Pulliam Harold H	Pacific Telephone
1977	Pulliam Harold H	Pacific Telephone

142 FAIRLANE CIR

Year	Uses	Source
2004	MATTHEW HASKINS	Cole Information Services

FINDINGS

143 FAIRLANE CIR

Year	Uses	Source
1986	Sheldon Lyle M	Pacific Bell Yellow Pages
1981	Sheldon Lyle MI	Pacific Telephone
1977	Sheldon Lyle M	Pacific Telephone

144 FAIRLANE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Schnur Frances	Pacific Bell Yellow Pages
1981	Schnur Frances	Pacific Telephone

145 FAIRLANE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1981	Risolo Marie	Pacific Telephone
1977	Risner Henry C	Pacific Telephone

146 FAIRLANE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Landis Harold R	Pacific Bell Yellow Pages
	Landis Kenneth E	Pacific Bell Yellow Pages
1981	Landis Harold R	Pacific Telephone
1977	Landis Harold R	Pacific Telephone

147 FAIRLANE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Nelson G K	Pacific Telephone
1977	Whitneck Ralph	Pacific Telephone

148 FAIRLANE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1994	HEGGEM, C	Cole Information Services
1986	Mc Whorter Chas H	Pacific Bell Yellow Pages
1981	Mc Whorter Chas H	Pacific Telephone
1977	Mc Waters David	Pacific Telephone
	Mc Whorter Margaret I	Pacific Telephone

FAIRLANE CT

134 FAIRLANE CT

Year	Uses	Source
1970	Crabtree R L	Pacific Telephone

136 FAIRLANE CT

Year	Uses	Source
1970	Huber W F	Pacific Telephone

139 FAIRLANE CT

Year	Uses	Source
1970	Hay W W Jr	Pacific Telephone

140 FAIRLANE CT

Year	Uses	Source
1970	Thomas F A	Pacific Telephone

141 FAIRLANE CT

Year	Uses	Source
1970	Pulliam Harold H	Pacific Telephone

142 FAIRLANE CT

Year	Uses	Source
1970	Alleman F J	Pacific Telephone

143 FAIRLANE CT

Year	Uses	Source
1970	Palmer Howard C	Pacific Telephone

145 FAIRLANE CT

Year	Uses	Source
1970	Haueter Paul	Pacific Telephone

146 FAIRLANE CT

Year	Uses	Source
1970	Landis Harold R	Pacific Telephone

147 FAIRLANE CT

Year	Uses	Source
1970	Morris Orvil N	Pacific Telephone

FINDINGS

148 FAIRLANE CT

Year	Uses	Source
1970	Mc Whorter Chas H	Pacific Telephone
	Mc Whorter Margaret	Pacific Telephone

FUJI ST

6031 FUJI ST

Year	Uses	Source
2014	ADOLFO GAMINO	Cole Information Services
2009	YOLANDA VERNON	Cole Information Services
1999	YOLANDA VERNON	Cole Information Services

6038 FUJI ST

Year	Uses	Source
2017	SUONG LEE	Cole Information Services
2014	SUONG LEE	Cole Information Services
2009	ALEJANDRO CARMONA	Cole Information Services

6041 FUJI ST

Year	Uses	Source
2017	RICARDO DEGUZMAN	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	FRANCISCO BENITEZ	Cole Information Services
1999	FRANCISCO BENITEZ	Cole Information Services

6048 FUJI ST

Year	Uses	Source
2017	KATHLEEN LACKSON	Cole Information Services
2014	STACI MIXON	Cole Information Services
2009	KEN BORG	Cole Information Services
1999	KEN BORG	Cole Information Services

6051 FUJI ST

Year	Uses	Source
2017	SANDRA BLANTON	Cole Information Services
2014	CHIN CHIANG	Cole Information Services
2009	STEPHANIE BRADLEY	Cole Information Services
1999	STEPHANIE BRADLEY	Cole Information Services

FINDINGS

6058 FUJI ST

Year	Uses	Source
2017	SCOTT JUE	Cole Information Services
2014	SCOTT JUE	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

6068 FUJI ST

Year	Uses	Source
2017	SILVIA LOPEZ	Cole Information Services
2014	SILVIA LOPEZ	Cole Information Services
2009	URBANO CRUZ	Cole Information Services
1999	URBANO CRUZ	Cole Information Services

6071 FUJI ST

Year	Uses	Source
2017	BRENDA KELLY	Cole Information Services
2014	BRENDA KELLY	Cole Information Services
2009	NATHAN HERNANDEZ	Cole Information Services
1999	NATHAN HERNANDEZ	Cole Information Services

6078 FUJI ST

Year	Uses	Source
2017	ADRIANA MIRANDA	Cole Information Services
2014	ALEJANDRO VILLEGAS	Cole Information Services
2009	ALEJANDRO VILLEGAS	Cole Information Services
1999	ALEJANDRO VILLEGAS	Cole Information Services

6081 FUJI ST

Year	Uses	Source
2014	PHILIP LE	Cole Information Services
2009	STEVE MILLER	Cole Information Services
1999	STEVE MILLER	Cole Information Services

6088 FUJI ST

Year	Uses	Source
2017	SAM KHUMOORO	Cole Information Services
2014	SAM KHUMOORO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

6091 FUJI ST

Year	Uses	Source
2017	BARRETT KUETHEN	Cole Information Services
2014	BARRETT KUETHEN	Cole Information Services
2009	LEMUEL BRADFORD	Cole Information Services
1999	LEMUEL BRADFORD	Cole Information Services

6098 FUJI ST

Year	Uses	Source
2017	BRIAN AXUP	Cole Information Services
2014	JAMES WALTON	Cole Information Services
2009	JAMES WALTON	Cole Information Services
1999	JAMES WALTON	Cole Information Services

6101 FUJI ST

Year	Uses	Source
2017	SANDRA SAPIEN	Cole Information Services
2014	RUDOLFO SAPIEN	Cole Information Services
2009	RUDOLFO SAPIEN	Cole Information Services
1999	RUDOLFO SAPIEN	Cole Information Services

6108 FUJI ST

Year	Uses	Source
2017	JOSE MARCONI	Cole Information Services
2014	JOSE MARCONI	Cole Information Services
2009	ALVARO HUERTA	Cole Information Services
1999	ALVARO HUERTA	Cole Information Services

6111 FUJI ST

Year	Uses	Source
2017	STEPHANIE NAVARRO	Cole Information Services
2014	STEPHANIE NAVARRO	Cole Information Services
2009	MIGUEL NAVARRO	Cole Information Services
1999	MIGUEL NAVARRO	Cole Information Services

6118 FUJI ST

Year	Uses	Source
2017	ROBERT CARBAJAL	Cole Information Services
2014	ROBERT CARBAJAL	Cole Information Services
2009	MARIDZA SANCHEZ	Cole Information Services
1999	MARIDZA SANCHEZ	Cole Information Services

FINDINGS

6121 FUJI ST

Year	Uses	Source
2017	EDIH LOPEZ	Cole Information Services
2014	EMILY JUNG	Cole Information Services
2009	CHRISTOPHER RUNYAN	Cole Information Services
1999	CHRISTOPHER RUNYAN	Cole Information Services

6128 FUJI ST

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

6131 FUJI ST

Year	Uses	Source
2017	GRADY RISNER	Cole Information Services
2014	GRADY RISNER	Cole Information Services
2009	GRADY RISNER	Cole Information Services
1999	GRADY RISNER	Cole Information Services

6138 FUJI ST

Year	Uses	Source
2017	C HERNANDEZ	Cole Information Services
2014	MARK CARTER	Cole Information Services
2009	JOSE RAMIREZ	Cole Information Services
1999	JOSE RAMIREZ	Cole Information Services

6141 FUJI ST

Year	Uses	Source
2017	RUDOLFO ANACOSTA	Cole Information Services
2014	ELIZABETH MIRANDA	Cole Information Services
2009	RODOLFO AMACOSTA	Cole Information Services
1999	RODOLFO AMACOSTA	Cole Information Services

6148 FUJI ST

Year	Uses	Source
2017	LUKE ISBELL	Cole Information Services
2014	BRIAN ISBELL	Cole Information Services
2009	B ISBELL	Cole Information Services
1999	B ISBELL	Cole Information Services

FINDINGS

6151 FUJI ST

Year	Uses	Source
2017	ANTHONY VEGA	Cole Information Services
2014	ANTON FLECKLIN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

6158 FUJI ST

Year	Uses	Source
2017	CORIE HARDIN	Cole Information Services
2014	ERIC RUBIO	Cole Information Services

6168 FUJI ST

Year	Uses	Source
2017	JUAN CERVANTES	Cole Information Services
2014	MANUEL FERNANDEZ	Cole Information Services
2009	MANUEL FERNANDEZ	Cole Information Services
1999	MANUEL FERNANDEZ	Cole Information Services

HAMNER AVE

5240 HAMNER AVE

Year	Uses	Source
1986	Hettinga Wilbur	Pacific Bell Yellow Pages
1977	Hettiriga Wilbur	Pacific Telephone

5780 HAMNER AVE

Year	Uses	Source
1981	Evans Martin J	Pacific Telephone

5800 HAMNER AVE

Year	Uses	Source
2017	EVA FLORES	Cole Information Services
	BOUNMY VONGAMATH	Cole Information Services
	STEVEN AGUILAR	Cole Information Services
	NANCY ALMAZAN	Cole Information Services
	ALVARO ALTAMIRANO	Cole Information Services
	RAMONA ANGULO	Cole Information Services
	OSCAR ARREOLA	Cole Information Services
	EDNA OBANDO	Cole Information Services
	PATRICIA OSORIO	Cole Information Services
	ROBERT PEARSON	Cole Information Services

FINDINGS

Year	Uses	Source
2017	SUZANNE PEBLEY	Cole Information Services
	JACKELINE HERNANDEZ	Cole Information Services
	NICASIO HERNANDEZ	Cole Information Services
	BENITA HOLLOWAY	Cole Information Services
	ANDRE HUNT	Cole Information Services
	CARL JAMES	Cole Information Services
	SANDOVAL LIDIA	Cole Information Services
	SHIRLEY MCINTOSH	Cole Information Services
	MARTIN MORENO	Cole Information Services
	FRANK GOYTIA	Cole Information Services
	BRIAN GREEN	Cole Information Services
	SWAN LAKE MOBILE COUNTRY ESTATES	Cole Information Services
	LAKE MARK	Cole Information Services
	COMMUNITY MOBILE HOME SALES	Cole Information Services
	THOMAS FERGUSON	Cole Information Services
	ERICKA FLORES	Cole Information Services
	ZEPEDA XICOTENCATL	Cole Information Services
	MARGARITA AHUMADA	Cole Information Services
	ERNEST ASCENCIO	Cole Information Services
	ARMANDO ASCENCIO	Cole Information Services
	I AYAU	Cole Information Services
	MARGARITA MUNOZ	Cole Information Services
	CARLOS NISTHAL	Cole Information Services
	MICHELLE NUNEZ	Cole Information Services
	DENNIS OMBAO	Cole Information Services
	LOUISE ORTIZ	Cole Information Services
	VERONICA PICAZO	Cole Information Services
	KIRBY LOFTON	Cole Information Services
	ROBERT SETTLES	Cole Information Services
	MICHELLE SIMMONS	Cole Information Services
	SALDANA LUIS	Cole Information Services
	MARIA MCHUGH	Cole Information Services
	JORGE FUNES	Cole Information Services
	JOSE GARCIA	Cole Information Services
	JEANNINE GOMEZ	Cole Information Services
	SANTIAGO GUERRERO	Cole Information Services
	WILLIAM HENRIQUEZ-JR	Cole Information Services
	ADRIAN SANDOVAL	Cole Information Services

FINDINGS

Year	Uses	Source
2017	JOHN BARRAZA	Cole Information Services
	JOSE BELTRAN	Cole Information Services
	EVELYN CALDERAS	Cole Information Services
	SHAWN CHAVEZ	Cole Information Services
	NOEMI CISNEROS	Cole Information Services
	RAMON CORNEJO	Cole Information Services
	AILEEN STEVENS	Cole Information Services
	JUNKOZ SZALAI	Cole Information Services
	TONY THEUS	Cole Information Services
	JOSEPH VALDEZ	Cole Information Services
	MARIA VALENCIA	Cole Information Services
	VICTORIA VASQUEZ	Cole Information Services
	GUSTAVO VAZQUEZ	Cole Information Services
	MARCO DAVILA	Cole Information Services
	LETICIA DELATORRE	Cole Information Services
	DANIEL DIAZ	Cole Information Services
	ROBERT SETSER	Cole Information Services
	MARIA MARTINEZ	Cole Information Services
	JOSE MARTINEZ	Cole Information Services
	JESUS MINCE	Cole Information Services
	ROSALBA GONZALEZ	Cole Information Services
	DINA HARTLEY	Cole Information Services
	MARGARITA HERNANDEZ	Cole Information Services
	JOSE RITO	Cole Information Services
	JUVENAL SAABEDRA	Cole Information Services
	JESUS SANTIAGO	Cole Information Services
	CRAIG BENNETT	Cole Information Services
	FRANCISCO CAMPOS	Cole Information Services
	JENKYNS CANDIA	Cole Information Services
	BRIANDA CELIS	Cole Information Services
	PATSY TAYLOR	Cole Information Services
	DOROTHY THATJE	Cole Information Services
	EVA VARGAS	Cole Information Services
	EDGAR VELASCO	Cole Information Services
	DEMETRIO VENEGAS	Cole Information Services
	MARIA CORTEZ	Cole Information Services
	ALEJANDRO CUENCA	Cole Information Services
	RUBEN DELATORRE	Cole Information Services

FINDINGS

Year	Uses	Source
2017	JOSEPH DELEON	Cole Information Services
	JUAN DESANTIAGO	Cole Information Services
	ANDREW KISTER	Cole Information Services
	TERESA LAVAU	Cole Information Services
	CAROLINE LEVICK	Cole Information Services
	LUIS LISAMA	Cole Information Services
	AGUILAR LUIS	Cole Information Services
	ELLEN MCCRAW	Cole Information Services
	TRACY MEDINA	Cole Information Services
	SABINO GONZALEZ	Cole Information Services
	FERNANDO GUTIERREZ	Cole Information Services
	NORMA REYES	Cole Information Services
	PHILIP RICHEY	Cole Information Services
	JACOB ROBERTSON	Cole Information Services
	JERROLD RODMAN	Cole Information Services
	TEODORO SALDANA	Cole Information Services
	MATTHEW SANCHEZ	Cole Information Services
	JOSE SANCHEZ	Cole Information Services
	SAMUEL SANTIAGO	Cole Information Services
	RAYMUNDO BONILLA	Cole Information Services
	PABLO CHINCHILLA	Cole Information Services
	ROSE SMITH	Cole Information Services
	CHRISTOPHER SOLOMON	Cole Information Services
	EFRAIN SORIANO	Cole Information Services
	ROBERT STEIGLEMAN	Cole Information Services
	MICHELLE STEPHENS	Cole Information Services
	GIMMI TREJO	Cole Information Services
	PENNY DEBRECENI	Cole Information Services
	RAFAEL DIAZ	Cole Information Services
	SHANNON ESTRADA	Cole Information Services
	TAMARA ANDERSON	Cole Information Services
	THOMAS ANGLIN	Cole Information Services
	EULALIO APARICIO	Cole Information Services
	ARTHUR AYERS	Cole Information Services
	BOBADILLA MUNOZ	Cole Information Services
	CARMEN ORTIZ	Cole Information Services
	KAREN IBARRA	Cole Information Services
	AMMAR LEBEN	Cole Information Services

FINDINGS

Year	Uses	Source
2017	ENEDINA LOPEZ	Cole Information Services
	RAMON MADRIGAL	Cole Information Services
	DELFINO MANJARREZ	Cole Information Services
	WILLIAM MARRISON	Cole Information Services
	FUENTE GUARDADO	Cole Information Services
	JOSE GUTIERREZ	Cole Information Services
	DAWNEEN HANES	Cole Information Services
	MONTY HENDERSON	Cole Information Services
	LINDA REAVES	Cole Information Services
	ANACLETO REYES	Cole Information Services
	ANGEL RIVAS	Cole Information Services
	ORLANDO ROBLEDO	Cole Information Services
	MARIO RODRIGUEZ	Cole Information Services
	JOSUE SALAZAR	Cole Information Services
	ROSA SALDANA	Cole Information Services
	LOURDES BRIONES	Cole Information Services
	SAMUEL BULLARD	Cole Information Services
	GORDON CARLSON	Cole Information Services
	JESUS CASTRO	Cole Information Services
	LINDA CLARK	Cole Information Services
	MICHELLE COLIN	Cole Information Services
	STYLIANO SMITH	Cole Information Services
	MARIBEL SOLIS	Cole Information Services
	SAMANTHA SPENCER	Cole Information Services
	RONALD STRIETZEL	Cole Information Services
	SUSAN TERRELL	Cole Information Services
	SOFIA VARGAS	Cole Information Services
	RONNIE CUNNIFF	Cole Information Services
	GILBERT FLORES	Cole Information Services
	ROBERT WAINWRIGHT	Cole Information Services
	GAIL WALLACE	Cole Information Services
	CARLOS ARREOLA	Cole Information Services
	TOM ASCENSIO	Cole Information Services
	NOE MOTTA	Cole Information Services
	PAMELA NORTON	Cole Information Services
	BASILIO PADILLA	Cole Information Services
	JUAN PEREZ	Cole Information Services
	ERICA QUINTANA	Cole Information Services

FINDINGS

Year	Uses	Source
2017	TEROY HILL	Cole Information Services
	GOLDIE HORTEMILLER	Cole Information Services
	OLYMPIA IBARRA	Cole Information Services
	MORGAN ISAACS	Cole Information Services
	MARNIE KING	Cole Information Services
	BEN LAMAS	Cole Information Services
	MARIA LOERA	Cole Information Services
	ARLENE MARTINEZ	Cole Information Services
	STEVEN MCGEORGE	Cole Information Services
	ELVIA MENDOZA	Cole Information Services
	HENRY MONCAYO	Cole Information Services
	GILBERT MORALES	Cole Information Services
	JOAQUIN MORALES	Cole Information Services
	EDWIN GARCIA	Cole Information Services
	MARIA GOMEZ	Cole Information Services
	MIGUEL GUTIERREZ	Cole Information Services
	NANCY HARRIS	Cole Information Services
	ERNESTO ROBLES	Cole Information Services
	FRANCISCO RUIZ	Cole Information Services
	ANTONIO SANCHEZ	Cole Information Services
	MARGRET BRIGGER	Cole Information Services
	JESSE CALDERON	Cole Information Services
	ANN CAMPBELL	Cole Information Services
	STEPHANIE CEJA	Cole Information Services
	JEFF CLEPPE	Cole Information Services
	JOHN COLEMAN	Cole Information Services
	JOSE TAPIA	Cole Information Services
	PABLO VAZQUEZ	Cole Information Services
	MELISSA VELAZQUEZ	Cole Information Services
	FRANCISCA VILLALPANDO	Cole Information Services
	RAUL ESTRELLA	Cole Information Services
	JACQUE FOREMAN	Cole Information Services
	VAO FUIMAONO	Cole Information Services
	WILLI VO	Cole Information Services
	LINDSAY WILSON	Cole Information Services
	JONATHAN ANAYA	Cole Information Services
	PAOLA ARAYALES	Cole Information Services
	JOSE BARBOA	Cole Information Services

FINDINGS

Year	Uses	Source
2017	BONIFACIO BARDALES	Cole Information Services
	LETICIA BARRAGAN	Cole Information Services
	DAVID NEZ	Cole Information Services
	JOHN OBRITZ	Cole Information Services
	GEORGE PADILLA	Cole Information Services
	GASTON PALMA	Cole Information Services
	WILLIAM PEARSON	Cole Information Services
	OLA PHILLIPS	Cole Information Services
	MIGUEL RAMIREZ	Cole Information Services
	FEDERICO RAMIREZ	Cole Information Services
	RAFAEL HERNANDEZ	Cole Information Services
	MARIA HERNANDEZ	Cole Information Services
	MELISSA HERNANDEZ	Cole Information Services
	SONIA JIMENEZ	Cole Information Services
	SERGIO JIMENEZ	Cole Information Services
	MARK JIMENEZ	Cole Information Services
	PAULA MORROW	Cole Information Services
	NAOMI GALLEGOS	Cole Information Services
	YADIRA GALVAN	Cole Information Services
	GABRIELA GALVEZ	Cole Information Services
	TERESA GARCIA	Cole Information Services
	KRYSTELYN GONZALES	Cole Information Services
	RAYMUNDO GONZALEZ	Cole Information Services
	JOSE RIVERA	Cole Information Services
	ROGER SCHMIDT	Cole Information Services
	RAMOS BAZAVILVAZO	Cole Information Services
	ISMAEL BECERRA	Cole Information Services
	STEPHEN BUNHAM	Cole Information Services
	THOMAS STEENBOCK	Cole Information Services
	DAVID TRAMELL	Cole Information Services
	HERNANDEZ VASQUEZ	Cole Information Services
	ANITA DAWSON	Cole Information Services
	GRISELDA DELAROSA	Cole Information Services
	NHU DO	Cole Information Services
	RICHARD ESSLINGER	Cole Information Services
	YVONNE EVANS	Cole Information Services
	KEVIN FALOON	Cole Information Services
	CASTRO FLORES	Cole Information Services

FINDINGS

Year	Uses	Source
2017	LILIANA FLORES	Cole Information Services
	JOSEPH FULCINITI	Cole Information Services
	DAMIAN AGUILAR	Cole Information Services
	CHARLES ARTRY	Cole Information Services
	FRANCES NADEAU	Cole Information Services
	PEDRO OMANA	Cole Information Services
	SARAI PALOMAREZ	Cole Information Services
	DEBBIE PYYKKO	Cole Information Services
	RAMIRO RAMIREZ	Cole Information Services
	MARIA IBARRA	Cole Information Services
	TANISHA JARMON-FLORES	Cole Information Services
	ELIZABETH SERRATO	Cole Information Services
	DANTE LONGINOS	Cole Information Services
	DAVID LYLE	Cole Information Services
	GRAGEOLA MADEL	Cole Information Services
	JOSE MARAVILLA	Cole Information Services
	GUADALUPE MARIN	Cole Information Services
	CHRISTOPHER MARTINEZ	Cole Information Services
	CLARA MCDONALD	Cole Information Services
	LEONARD MODEN	Cole Information Services
	OLLIE MOORE	Cole Information Services
	EDITH MORALES	Cole Information Services
	IVA MORGAN	Cole Information Services
	JOSE GOMEZ	Cole Information Services
	GOETHE GONZALEZ	Cole Information Services
	DEBBIE GUERRERO	Cole Information Services
	GUADALUPE HERNANDEZ	Cole Information Services
	MACEDONIOJUAN HERNANDEZ	Cole Information Services
	JOSE RAZO	Cole Information Services
	VIRGINIA RAZO	Cole Information Services
	FREDDY REYES	Cole Information Services
	FELIX RODRIGUEZ	Cole Information Services
	ANA SANCHEZ	Cole Information Services
	JENNIFER BENNET	Cole Information Services
	JULIAN BUTRON	Cole Information Services
	JANICE CAMERON	Cole Information Services
	JOSE CASTRO	Cole Information Services
	IRENE CONTRERAS	Cole Information Services

FINDINGS

Year	Uses	Source
2017	JAMES THOMPSON	Cole Information Services
	JOSE TORNERO	Cole Information Services
	REGINA TRUJILLO	Cole Information Services
	FRANCISCO DELARACORTES	Cole Information Services
	LEANDRO GARCIA	Cole Information Services
	HERNANDEZ GARRIDO	Cole Information Services
	EDMUNDO GOMEZ	Cole Information Services
	MARIO GONZALES	Cole Information Services
	PAULA GONZALEZ	Cole Information Services
	BILL HAMILTON	Cole Information Services
	ZULVI REYES	Cole Information Services
	WILLIAM ROBERTSON	Cole Information Services
	MANUEL ROBLES	Cole Information Services
	IBETH RUVALCABA	Cole Information Services
	ADELA SAAD	Cole Information Services
	SARA BRAY	Cole Information Services
	ANGEL CAZARES	Cole Information Services
	JOSE CHAVEZ	Cole Information Services
	REN CHAY	Cole Information Services
	SONJA COLACION	Cole Information Services
	NUBIA VAZQUEZ	Cole Information Services
	FLOR VEGA	Cole Information Services
	JESSICA DAVIDSOM	Cole Information Services
	DEBRA DICKEY	Cole Information Services
	PAUL EKLUND	Cole Information Services
	CARLOS FLORES	Cole Information Services
	AARON WALL	Cole Information Services
	JAIME YANEZ	Cole Information Services
	RANGEL ZARATE	Cole Information Services
	ERNESTO ZARATE	Cole Information Services
	WILLIAMS ABARCA	Cole Information Services
	MANUEL ALEJANDRE	Cole Information Services
	ROSENDO ALVAREZ	Cole Information Services
	PACHITA ALVAREZ	Cole Information Services
	ELIZABETH AUSTIN	Cole Information Services
	CHRISTIAN PALACIOS	Cole Information Services
	TERRY PERRY	Cole Information Services
	YANCY RAMIREZ	Cole Information Services

FINDINGS

Year	Uses	Source
2017	PATRICK HOY	Cole Information Services
	IVANA HUDSON	Cole Information Services
	KASHEED JOHNSON	Cole Information Services
	JOANIE KELL	Cole Information Services
	EDWARD KENNEDY	Cole Information Services
	SAM KIM	Cole Information Services
	MARISOL VILLEDA	Cole Information Services
	WILLIAM DALTON	Cole Information Services
	EMILIA ESCOBEDO	Cole Information Services
	STEVEN FELTS	Cole Information Services
	ELOISA FERNANDEZ	Cole Information Services
	ALICE FRIETZE	Cole Information Services
	FIDEL VIRAMONTES	Cole Information Services
	RAUL ALCARRAZ	Cole Information Services
	IGNACIO ALVAREZ	Cole Information Services
	HECTOR ANAYA	Cole Information Services
	YOLANDA ARCEO	Cole Information Services
	RAUL NAVARRETE	Cole Information Services
	ESTHER OCHOA	Cole Information Services
	DAISY OLIVAS	Cole Information Services
	JERRON PACK	Cole Information Services
	DARRYL PINK	Cole Information Services
	LYSA HUNT	Cole Information Services
	CORAZON LAGAT	Cole Information Services
	ALEJANDRA LEYVA	Cole Information Services
	RAUL LOPEZ	Cole Information Services
	LAZORO MARIN	Cole Information Services
	ELODIA MARTINEZ	Cole Information Services
	BERTHA MEREZKO	Cole Information Services
	EZEQUIEL MONTES	Cole Information Services
2014	JOSE RIVERA	Cole Information Services
	ANITA ROMERO-DAWSON	Cole Information Services
	ROGER SCHMIDT	Cole Information Services
	ROBERT SPEAKES	Cole Information Services
	RICHARD SUPPES	Cole Information Services
	AMALIA ALDAMA	Cole Information Services
	ROSENDO ALVAREZ	Cole Information Services
	ELIZABETH AUSTIN	Cole Information Services

FINDINGS

Year	Uses	Source
2014	SUSAN BOWERS	Cole Information Services
	JOSE CHAVEZ	Cole Information Services
	REN CHAY	Cole Information Services
	SONJA COLACION	Cole Information Services
	PAUL EKLUND	Cole Information Services
	STEVE FELTS	Cole Information Services
	CARLOS FLORES	Cole Information Services
	LORA FRIETZE	Cole Information Services
	TERRY GARKOW	Cole Information Services
	CHANCE HANES	Cole Information Services
	PATRICK HOY	Cole Information Services
	JOANIE KELL	Cole Information Services
	EDWARD KENNEDY	Cole Information Services
	SAM KIM	Cole Information Services
	JOSIE LEAL	Cole Information Services
	JOHN LEITLEIN	Cole Information Services
	ROBERT LEMMONS	Cole Information Services
	DAVID LYLE	Cole Information Services
	JOSE MARAVILLA	Cole Information Services
	EDUARDO MARTINEZ	Cole Information Services
	DANNY MORENO	Cole Information Services
	R NORTHCUTT	Cole Information Services
	CHRISTIAN PALACIOS	Cole Information Services
	ISAIAS PEREZ	Cole Information Services
	TERRY PERRY	Cole Information Services
	MICHAEL PRYCE	Cole Information Services
	JOSE RAMIREZGARCIA	Cole Information Services
	WILLIAM ROBERTSON	Cole Information Services
	TANIA SEYMOUR	Cole Information Services
	JACK THOMPSON	Cole Information Services
	AARON WALL	Cole Information Services
	ERNESTO ZARATE	Cole Information Services
	T SIMON	Cole Information Services
	JAMES THOMPSON	Cole Information Services
	REGINA TRUJILLO	Cole Information Services
	VIRGINIA VALENZUELA	Cole Information Services
	ROBERT WAINWRIGHT	Cole Information Services
	GAIL WALLACE	Cole Information Services

FINDINGS

Year	Uses	Source
2014	IGNACIO ALVAREZ	Cole Information Services
	MICHAEL AMACHER	Cole Information Services
	MARGRET BRIGGER	Cole Information Services
	JEFF CLEPPE	Cole Information Services
	JOHN COLEMAN	Cole Information Services
	CHARLES CRAWHORN	Cole Information Services
	WILLIAM DALTON	Cole Information Services
	SUSAN DRAKE	Cole Information Services
	BRENDA FARLEY	Cole Information Services
	ELOISA FERNANDEZ	Cole Information Services
	NOEMI GALLEGO	Cole Information Services
	MANUEL GARCIA	Cole Information Services
	MARIA GOMEZ	Cole Information Services
	DENNISE HERNANDEZ	Cole Information Services
	MARICELA HUERTA	Cole Information Services
	ARLENE MARTINEZ	Cole Information Services
	EDIS MARTINEZ	Cole Information Services
	STEVEN MCGEORGE	Cole Information Services
	KARA MCQUISTON	Cole Information Services
	KARI MEAD	Cole Information Services
	ELVIA MENDOZA	Cole Information Services
	HENRY MONCAYO	Cole Information Services
	GILBERT MORALES	Cole Information Services
	JOHN PECK	Cole Information Services
	DUNG PHAN	Cole Information Services
	JUAN RODRIGUEZ	Cole Information Services
	ALEJANDRO ROMERO	Cole Information Services
	FRANCISCO RUIZ	Cole Information Services
	RUBEN SAAVEDRA	Cole Information Services
	DAWNDI TRAMELL	Cole Information Services
	MANUELA VALENCIANA	Cole Information Services
	REBECCA VARGAS	Cole Information Services
	PABLO VAZQUEZ	Cole Information Services
	FRANCISCA VILLALPANDO	Cole Information Services
	FIDEL VIRAMONTES	Cole Information Services
	BEVERLY BARTILET	Cole Information Services
	ISMAEL BECERRA	Cole Information Services
	PEGGY BUSHMAN	Cole Information Services

FINDINGS

Year	Uses	Source
2014	HERMAN COLLINS	Cole Information Services
	GRISELDA DELAROSA	Cole Information Services
	RICHARD ESSLINGER	Cole Information Services
	KEVIN FALOON	Cole Information Services
	TISHA GAYTON	Cole Information Services
	LAWANDA GILMOUR	Cole Information Services
	KAYLA GINTHER	Cole Information Services
	SEGOVIA GONZALEZ	Cole Information Services
	ANGELA HILDERBRAND	Cole Information Services
	MARIA IBARRA	Cole Information Services
	FRANK LIGHT	Cole Information Services
	RAUL LOPEZ	Cole Information Services
	SABAS MARISCAL	Cole Information Services
	SANDRA MERCADO	Cole Information Services
	EZEQUIEL MONTES	Cole Information Services
	PAULA MORROW	Cole Information Services
	PEDRO OMANA	Cole Information Services
	RAUL PADILLA	Cole Information Services
	RAMIRO RAMIREZ	Cole Information Services
	RUVIE RIOS	Cole Information Services
	CARL STANLEY	Cole Information Services
	TONY THEUS	Cole Information Services
	MARIA TORNERO	Cole Information Services
	JOSEPH VALDEZ	Cole Information Services
	CARLOS VERDIN	Cole Information Services
	JOSE AMADOR	Cole Information Services
	ARTHUR AYERS	Cole Information Services
	JOHANA CORTEZ	Cole Information Services
	MARCO CORTEZ	Cole Information Services
	ROBERT CRAIG	Cole Information Services
	PENNY DEBRECENI	Cole Information Services
	ENRIQUE DIAZ	Cole Information Services
	RAFAEL DIAZ	Cole Information Services
	GRACE ESCOBEDO	Cole Information Services
	SHANNON ESTRADA	Cole Information Services
	MIKE FINN	Cole Information Services
	FERNANDO GUTIERREZ	Cole Information Services
	WILLIAM HENRIQUEZ	Cole Information Services

FINDINGS

Year	Uses	Source
2014	LINDA KHACHATOORIAN	Cole Information Services
	CLAUDE LOFTON	Cole Information Services
	AGUILAR LUIS	Cole Information Services
	ELLEN MCCRAW	Cole Information Services
	TERRENCE MCHATTEN	Cole Information Services
	JORGE MILLAN	Cole Information Services
	MANUEL PENAFLOR	Cole Information Services
	LUIS RODRIGUEZ	Cole Information Services
	CHRISTOPHER SOLOMON	Cole Information Services
	EFRAIN SORIANO	Cole Information Services
	ROBERT STEIGLEMAN	Cole Information Services
	CURTIS TAYLOR	Cole Information Services
	BARRY WEISENBERG	Cole Information Services
	D WINKELMAN	Cole Information Services
	CARLOS ARREOLA	Cole Information Services
	TOM ASCENSIO	Cole Information Services
	MARIA AVALOS	Cole Information Services
	JAIME BARBOSA	Cole Information Services
	SANDRA BAUTISTA	Cole Information Services
	DANIEL BOUGHNER	Cole Information Services
	FRANCES BRODA	Cole Information Services
	SUE BROWN	Cole Information Services
	EDUARDO CALLEROS	Cole Information Services
	M CAROLYN	Cole Information Services
	JOSE CASTRO	Cole Information Services
	ISRAEL CUEVA	Cole Information Services
	FRANCISCO DELARACORTES	Cole Information Services
	KURT DOWNEY	Cole Information Services
	VICTOR ESPINOZA	Cole Information Services
	JOSE GOMEZ	Cole Information Services
	MARIA HERMOSILLO	Cole Information Services
	TEROY HILL	Cole Information Services
	TIMOTHY JASPER	Cole Information Services
	MAGDALENA JIMENEZ	Cole Information Services
	MARIA JIMENEZ	Cole Information Services
	CHARLES KEEL	Cole Information Services
	BEN LAMAS	Cole Information Services
	DAVID LONGCOR	Cole Information Services

FINDINGS

Year	Uses	Source
2014	DELFINO MANJARREZ	Cole Information Services
	WILLIAM MARRISON	Cole Information Services
	LEONARD MODEN	Cole Information Services
	AMATO MULITALO	Cole Information Services
	JULIE NUGENT	Cole Information Services
	OSCAR PADILLA	Cole Information Services
	AMANDA PENA	Cole Information Services
	RALPH RODARTE	Cole Information Services
	GORDON CARLSON	Cole Information Services
	JOSE CASTANEDA	Cole Information Services
	MICHELLE COLIN	Cole Information Services
	KIMBERLY EDWARDS	Cole Information Services
	CASHION ELENA	Cole Information Services
	FRED FUCHS	Cole Information Services
	ROSA GONZALES	Cole Information Services
	FRANK GOYTIA	Cole Information Services
	BRIAN GREEN	Cole Information Services
	HENRY HARRIS	Cole Information Services
	BRANDY JACKSON	Cole Information Services
	ARMANDO JUAREZ	Cole Information Services
	SHEILA LATHAM	Cole Information Services
	SHIRLEY MCINTOSH	Cole Information Services
	CHARLES MAKI	Cole Information Services
	SHELBY MCMASTER	Cole Information Services
	MARGARITA MUNOZ	Cole Information Services
	CARLOS NISTHAL	Cole Information Services
	LOUISE ORTIZ	Cole Information Services
	VERONICA PICAZO	Cole Information Services
	DAVID POLUS	Cole Information Services
	CARLOS RAMIREZ	Cole Information Services
	ANACLETO REYES	Cole Information Services
	MARCY RICHARDSON	Cole Information Services
	ORLANDO ROBLEDO	Cole Information Services
	MARIO RODRIGUEZ	Cole Information Services
	ROSA SALDANA	Cole Information Services
	TOM SELBY	Cole Information Services
	HELEN STONE	Cole Information Services
	TAMI ANDERSON	Cole Information Services

FINDINGS

Year	Uses	Source
2014	JOSE BARBOA	Cole Information Services
	JOHN BARRAZA	Cole Information Services
	JOSE BELTRAN	Cole Information Services
	EVELYN CALDERAS	Cole Information Services
	DANIEL CAMPANA	Cole Information Services
	NOEMI CISNEROS	Cole Information Services
	RAMON CORNEJO	Cole Information Services
	STEPHANIE DARLEY	Cole Information Services
	ELIZABETH DURAN	Cole Information Services
	GOMEZ EDMUNDO	Cole Information Services
	RAUL ESTRELLA	Cole Information Services
	ABRAHAM FUENTES	Cole Information Services
	JORGE FUNES	Cole Information Services
	GUADALUPE GOMEZ	Cole Information Services
	DOLORES HERNANDEZ	Cole Information Services
	MELISSA HERNANDEZ	Cole Information Services
	FLOYD KAMMERER	Cole Information Services
	ANDREW KISTER	Cole Information Services
	ANGEL LEMUS	Cole Information Services
	CLAUDIA LOPEZ	Cole Information Services
	EVERETT MALONE	Cole Information Services
	TONY MARTINEZ	Cole Information Services
	RANDY MICHAEL	Cole Information Services
	JESSICA OCANA	Cole Information Services
	GASTON PALMA	Cole Information Services
	MIGUEL RAMIREZ	Cole Information Services
	FEDERICO RAMIREZ	Cole Information Services
	PHILLIP REAMS	Cole Information Services
	CESAR REGALADO	Cole Information Services
	MARIA RICO	Cole Information Services
	ROSALIO ROBLES	Cole Information Services
	SALVADOR ROSEL	Cole Information Services
	JOSE SALAZAR	Cole Information Services
	ROBERT SETTLES	Cole Information Services
	MONA AGUILAR	Cole Information Services
	NANCY ALMAZAN	Cole Information Services
	YURI BALDERRAMA	Cole Information Services
	JOSEPH BENNETT	Cole Information Services

FINDINGS

Year	Uses	Source
2014	JENKYNS CANDIA	Cole Information Services
	MARYBELL CANTORAL	Cole Information Services
	ISRAEL CHAVEZ	Cole Information Services
	FAUSTINO CONTRERAS	Cole Information Services
	JUAN DESANTIAGO	Cole Information Services
	SCOTT DEWBERRY	Cole Information Services
	JOSEPH DELEON	Cole Information Services
	CATALINA DOW	Cole Information Services
	JOSE ESCOBAR	Cole Information Services
	RAUL FLORES	Cole Information Services
	JASON FOREMAN	Cole Information Services
	DINA HARTLEY	Cole Information Services
	NICASIO HERNANDEZ	Cole Information Services
	BENITA HOLLOWAY	Cole Information Services
	TYANA JACKSON	Cole Information Services
	CARL JAMES	Cole Information Services
	KEITH JOHNSON	Cole Information Services
	KATHRYN LEWIS	Cole Information Services
	JOSE MARTINEZ	Cole Information Services
	ERNEST MARTINEZ	Cole Information Services
	CARLOS ORTEGA	Cole Information Services
	SUZANNE PEBLEY	Cole Information Services
	JUANA PEREZ	Cole Information Services
	ALICIA RIOS	Cole Information Services
	MOEVASA SAGAPOLUTELE	Cole Information Services
	MICHAEL SANTARO	Cole Information Services
	JESUS SANTIAGO	Cole Information Services
	ROBERT SETSER	Cole Information Services
	DOROTHY THATJE	Cole Information Services
	BOUNMY VONGAMATH	Cole Information Services
	JUDY WULFF	Cole Information Services
	MARGARITA AHUMADA	Cole Information Services
	MICHAEL ANASTASI	Cole Information Services
	I AYAU	Cole Information Services
	AARON BLANCA	Cole Information Services
	LOURDES BRIONES	Cole Information Services
	SAMUEL BULLARD	Cole Information Services
	DANELLE CARLSEN	Cole Information Services

FINDINGS

Year	Uses	Source
2014	SWAN LAKE MOBILE COUNTRY ESTATES	Cole Information Services
	LAKE MART	Cole Information Services
	COMMUNITY MOBILE HOME SALES	Cole Information Services
2009	KARLA FRAZIER	Cole Information Services
	DARWIN FRINT	Cole Information Services
	FRANK LIGHT	Cole Information Services
	RAUL LOPEZ	Cole Information Services
	KEITH WALSH	Cole Information Services
	JAMES WRAY	Cole Information Services
	ABEL CALDERAS	Cole Information Services
	MARIA CAMBERO	Cole Information Services
	PRISCILA CASTLE	Cole Information Services
	ARABELIA CAZARES	Cole Information Services
	JUAN CONTRERAS	Cole Information Services
	RAUL PADILLA	Cole Information Services
	GUSTAVO PANTOJA	Cole Information Services
	DIEGO NEGRETE	Cole Information Services
	DOLORES JENKYNS	Cole Information Services
	THELMA BELTRAN	Cole Information Services
	TINOCO ZOLORZANO	Cole Information Services
	TIM ANHAISER	Cole Information Services
	ROSENDO ALVAREZ	Cole Information Services
	JOSE MARAVILLA	Cole Information Services
	FRANK MAYO	Cole Information Services
	ERNESTO MORENO	Cole Information Services
	ORLANDO SANTIAGO	Cole Information Services
	TANIA SEYMOUR	Cole Information Services
	SAM KIM	Cole Information Services
	JOSE RAMIREZGARCIA	Cole Information Services
	ANTONIO RAZOS	Cole Information Services
	GLORIA ROBLEDO	Cole Information Services
	ALVARO ROBLEDO	Cole Information Services
	MARCO RODAS	Cole Information Services
	MANUEL RODRIGUEZ	Cole Information Services
	STEVEN ROMO	Cole Information Services
	JOSE RICO	Cole Information Services
	WANDA HARRIS	Cole Information Services
	BLANCA HERNANDEZ	Cole Information Services

FINDINGS

Year	Uses	Source
2009	JOSE HERNANDEZ	Cole Information Services
	PATRICK HOY	Cole Information Services
	RUTH TRUJILLO	Cole Information Services
	POZO DEL	Cole Information Services
	CRAIG DAYTON	Cole Information Services
	C DURAN	Cole Information Services
	DEBRA DICKEY	Cole Information Services
	MARINA GARCIA	Cole Information Services
	GERALD GARCIA	Cole Information Services
	EDUARDO GARCIA	Cole Information Services
	PAUL EKLUND	Cole Information Services
	LORNE GOODWON	Cole Information Services
	ADOLFO GELLI	Cole Information Services
	LESTER GREEN	Cole Information Services
	JOHN LEITLEIN	Cole Information Services
	ROBERT LEMMONS	Cole Information Services
	KATHERYN LEWIS	Cole Information Services
	MATTHEW LANE	Cole Information Services
	DAVID LYLE	Cole Information Services
	AARON WALL	Cole Information Services
	JENNIFER WONDERS	Cole Information Services
	KENNETH WULFF	Cole Information Services
	BRIAN CANNON	Cole Information Services
	ANDRES CASTILLO	Cole Information Services
	REN CHAY	Cole Information Services
	SONJA COLACION	Cole Information Services
	JOSE CUEVA	Cole Information Services
	TERRY PERRY	Cole Information Services
	MICHAEL PRYCE	Cole Information Services
	SUSAN BOWERS	Cole Information Services
	CHRISTINA ZUNIGA	Cole Information Services
	FRANCES BRODA	Cole Information Services
	MICHELLE BRUNSLOMA	Cole Information Services
	DANIEL BOUGHNER	Cole Information Services
	MICHAEL AMACHER	Cole Information Services
	MICKI MACINTOSH	Cole Information Services
	KARI MEAD	Cole Information Services
	ROBBIE MENDES	Cole Information Services

FINDINGS

Year	Uses	Source
2009	STEVEN MCGEORGE	Cole Information Services
	KARA MCQUISTON	Cole Information Services
	HENRY MONCAYO	Cole Information Services
	MARIA MORALES	Cole Information Services
	ANA MORENO	Cole Information Services
	RICHARD MIRAMONTES	Cole Information Services
	SUSAN STRAWBRIDGE	Cole Information Services
	LILIANA VILLA	Cole Information Services
	ISAAC VIRAMONTES	Cole Information Services
	MANUELA VALENCIANA	Cole Information Services
	GILBERTO VELASCO	Cole Information Services
	NICK KING	Cole Information Services
	GILBERT RAMIREZ	Cole Information Services
	DENNISE HERNANDEZ	Cole Information Services
	LAURA HOLST	Cole Information Services
	HOUSTON THOMPSON	Cole Information Services
	MARIA ORNELAS	Cole Information Services
	WILLIAM DALTON	Cole Information Services
	SUSAN DRAKE	Cole Information Services
	MARLENE DYE	Cole Information Services
	NOEMI GALLEGO	Cole Information Services
	SANDRA GOMEZ	Cole Information Services
	SANDRA GERLACH	Cole Information Services
	JILLIAN CARDIEL	Cole Information Services
	JEFF CLEPPE	Cole Information Services
	JOHN COLEMAN	Cole Information Services
	JOANNE CORLISS	Cole Information Services
	BRANDY CORONA	Cole Information Services
	DUNG PHAN	Cole Information Services
	LEON PIERCE	Cole Information Services
	CANDIA JENKYNS	Cole Information Services
	BECKY BABCOCK	Cole Information Services
	MARGRET BRIGGER	Cole Information Services
	MARCIE FONSECA	Cole Information Services
	ALICE FRIETZE	Cole Information Services
	D FUNES	Cole Information Services
	GINNA AGULARA	Cole Information Services
	MARGARET MATINIAN	Cole Information Services

FINDINGS

Year	Uses	Source
2009	PREDENCIO MENDOZA	Cole Information Services
	EZEQUIEL MONTES	Cole Information Services
	LOURDES MOTA	Cole Information Services
	COVARRUBIAS SAL	Cole Information Services
	JUNE SETSER	Cole Information Services
	ROBERT SPEAKES	Cole Information Services
	EDUARDA VINALAY	Cole Information Services
	PEDRO RODRIGUEZ	Cole Information Services
	JOHN ROHRER	Cole Information Services
	JUANA REYES	Cole Information Services
	WILLIAM HARRIS	Cole Information Services
	SERAFIN HERNANDEZ	Cole Information Services
	ANGELA HILDERBRAND	Cole Information Services
	J THIELEN	Cole Information Services
	RICHARD DELPOZO	Cole Information Services
	JUAN GARCIA	Cole Information Services
	DAVID GARDNER	Cole Information Services
	RICHARD ESSLINGER	Cole Information Services
	LAWANDA GILMOUR	Cole Information Services
	OMAR LOPEZ	Cole Information Services
	ALFREDO CALDERON	Cole Information Services
	ELENA CASHION	Cole Information Services
	LILI CAZARES	Cole Information Services
	GARY WILSON	Cole Information Services
	THOMAS YOUNG	Cole Information Services
	ROBERT CRAIG	Cole Information Services
	JUNE CROSS	Cole Information Services
	JONATHAN PORTER	Cole Information Services
	NANCY BRISTTON	Cole Information Services
	BRAD FLETCHER	Cole Information Services
	MIKE FINN	Cole Information Services
	CHRIS BUSH	Cole Information Services
	RANDI FOLEY	Cole Information Services
	ROSE FUQUA	Cole Information Services
	MIGUEL ALFARO	Cole Information Services
	JOSE ARGUETA	Cole Information Services
	P AYERS	Cole Information Services
	RAMON MADRIGAL	Cole Information Services

FINDINGS

Year	Uses	Source
2009	WILLIAM MARRISON	Cole Information Services
	TOM ASCENSIO	Cole Information Services
	MARIA AVALOS	Cole Information Services
	AIDA AVILA	Cole Information Services
	MABEL MCGILL	Cole Information Services
	OLLIE MOORE	Cole Information Services
	BEATRIZ MOSQUEDA	Cole Information Services
	PATRICK SATTERFIELD	Cole Information Services
	OLYMPIA IBARRA	Cole Information Services
	JOSE VALDERRAMA	Cole Information Services
	VIRGINIA VALENZUELA	Cole Information Services
	VERN VANDERVEEN	Cole Information Services
	MORGAN ISAACS	Cole Information Services
	CHARLES KEEL	Cole Information Services
	DAN KENNEDY	Cole Information Services
	GORDON RAY	Cole Information Services
	ROSA ROSAS	Cole Information Services
	MARIA HERMOSILLO	Cole Information Services
	MANUELA HERRERA	Cole Information Services
	DAVID HIXON	Cole Information Services
	JOSE TORNERO	Cole Information Services
	DANIEL TOSSOUNIAN	Cole Information Services
	JAMES THOMPSON	Cole Information Services
	KURT DOWNEY	Cole Information Services
	JOHN GARCIA	Cole Information Services
	VICTOR ESPINOZA	Cole Information Services
	SERGIO LEYVA	Cole Information Services
	DEBBIE GUERRERO	Cole Information Services
	CESAR GUERRERO	Cole Information Services
	MIDA LONGCOR	Cole Information Services
	T LOPEZ	Cole Information Services
	ROBERT WAINWRIGHT	Cole Information Services
	EDUARDO CALLEROS	Cole Information Services
	LARRY WIDENER	Cole Information Services
	C CHRISTIAN	Cole Information Services
	L YOUNG	Cole Information Services
	IRENE CONTRERAS	Cole Information Services
	JUAN CORTEZ	Cole Information Services

FINDINGS

Year	Uses	Source
2009	ASAIS NOBERTO	Cole Information Services
	CORA JACKSON	Cole Information Services
	TIMOTHY JASPER	Cole Information Services
	DAVE BACKHAUS	Cole Information Services
	RUPERTO BARRERA	Cole Information Services
	SANDRA BAUTISTA	Cole Information Services
	JENNIFER BENNET	Cole Information Services
	SONIA MORALES	Cole Information Services
	RANDY MICHAEL	Cole Information Services
	STEVEN STAHL	Cole Information Services
	MARCIA VICK	Cole Information Services
	CARLOS VERDIN	Cole Information Services
	ANDREW KISTER	Cole Information Services
	JOSE RAMIREZ	Cole Information Services
	FEDERICO RAMIREZ	Cole Information Services
	MICHAEL ROBERTS	Cole Information Services
	JACQUELINE HAGEMAN	Cole Information Services
	MICHAEL HANER	Cole Information Services
	MODESTO HERNANDEZ	Cole Information Services
	GABRIELA HERRERA	Cole Information Services
	BEVERLY THIBODEAU	Cole Information Services
	KIDA THOMPSON	Cole Information Services
	ESTHER THOMPSON	Cole Information Services
	RAUL ESTRELLA	Cole Information Services
	GUADALUPE GOMEZ	Cole Information Services
	PATRICK LEE	Cole Information Services
	EUGENE WHITTINGTON	Cole Information Services
	ESPERANZA WONG	Cole Information Services
	ALEJANDRO CAISEDO	Cole Information Services
	EVELYN CALDERAS	Cole Information Services
	HEATHER WILLIAMS	Cole Information Services
	GUERRERO CESAR	Cole Information Services
	RAMON CORNEJO	Cole Information Services
	MARIA CRUZ	Cole Information Services
	GEORGE PADILLA	Cole Information Services
	CLARENCE PILARCZYK	Cole Information Services
	CRUZ BARBOA	Cole Information Services
	BONIFACIO BARDALES	Cole Information Services

FINDINGS

Year	Uses	Source
2009	MARY BARNES	Cole Information Services
	JOHN BARRAZA	Cole Information Services
	DOMINGA BONILLA	Cole Information Services
	VALINDA BURNFIN	Cole Information Services
	ABRAHAM FUENTES	Cole Information Services
	KIMBERLY MEANS	Cole Information Services
	JOSEFINA MELENDEZ	Cole Information Services
	JAMES MODEN	Cole Information Services
	JORGE MILLAN	Cole Information Services
	APOLINAR SANCHEZ	Cole Information Services
	CHRISTOPHER SOLOMON	Cole Information Services
	EFRAIN SORIANO	Cole Information Services
	ROBERT STEIGLEMAN	Cole Information Services
	IRENE SUMMONS	Cole Information Services
	ROSA VILLASANA	Cole Information Services
	LUIS QUIROZ	Cole Information Services
	GRACIELA INIGUEZ	Cole Information Services
	LINDA KHACHATOORIAN	Cole Information Services
	SHARON ROBERTSON	Cole Information Services
	LISA REED	Cole Information Services
	G HORTEMILLER	Cole Information Services
	CURTIS TAYLOR	Cole Information Services
	SANDOR DEBRECENI	Cole Information Services
	SHANE DUBYAK	Cole Information Services
	ENRIQUE DIAZ	Cole Information Services
	HECTOR DIOSDADO	Cole Information Services
	JANICE DIXON	Cole Information Services
	GRACE ESCOBEDO	Cole Information Services
	OLIVIA GOMEZ	Cole Information Services
	FERNANDO GUTIERREZ	Cole Information Services
	GUADALUPE GUTIERREZ	Cole Information Services
	CLAUDE LOFTON	Cole Information Services
	GERARDO LOPEZ	Cole Information Services
	VELIZA AMAYA	Cole Information Services
	I AYAU	Cole Information Services
	CHARLES MAKI	Cole Information Services
	GERARDO MANZON	Cole Information Services
	ANITA MERRYMAN	Cole Information Services

FINDINGS

Year	Uses	Source
2009	TERRANCE MCHATTEN	Cole Information Services
	SHIRLEY MCINTOSH	Cole Information Services
	GUADALUPE SAENZ	Cole Information Services
	ROSA SALDANA	Cole Information Services
	FRANCISCO SILVA	Cole Information Services
	ENRIQUE SOLIS	Cole Information Services
	BOB SWEARINGEN	Cole Information Services
	ESTEBAN VILLAR	Cole Information Services
	CATHY KAMMERER	Cole Information Services
	MARIA KARR	Cole Information Services
	DANETTE VERA	Cole Information Services
	KENNETH KINNEY	Cole Information Services
	PRISCILLA RAMOS	Cole Information Services
	TINA ROBICHAU	Cole Information Services
	ROBERT ROSS	Cole Information Services
	MARCY RICHARDSON	Cole Information Services
	ANTHONY HODGE	Cole Information Services
	BILLIE HOLGUIN	Cole Information Services
	DOLORES HOUSTON	Cole Information Services
	PANADDA THINASOOK	Cole Information Services
	MARIA OROZCO	Cole Information Services
	MARIA ORTIZ	Cole Information Services
	JOSE DEJESUS	Cole Information Services
	PAMELLA DUNCANTELL	Cole Information Services
	HELEN GOMEZ	Cole Information Services
	JESSIE GOODNIGHT	Cole Information Services
	FRANK GOYTIA	Cole Information Services
	ALBERTA ECHEVARRIA	Cole Information Services
	JOSE LARA	Cole Information Services
	SARAH LARIOS	Cole Information Services
	JOHN WELLER	Cole Information Services
	RICHARD WELLS	Cole Information Services
	MICHELLE LOMELI	Cole Information Services
	RICHARD WORLEY	Cole Information Services
	GORDON CARLSON	Cole Information Services
	KIRK WINTER	Cole Information Services
	LONNITA WIRT	Cole Information Services
	SALVADOR COVARRUBIAN	Cole Information Services

FINDINGS

Year	Uses	Source
2009	REBECA COVARRUBIAS	Cole Information Services
	JESUS CURIEL	Cole Information Services
	DAVID POLUS	Cole Information Services
	CARLOS NISTHAL	Cole Information Services
	VICKY NORTON	Cole Information Services
	BRANDY JACKSON	Cole Information Services
	MAGDELENA JIMENEZ	Cole Information Services
	JAMES BEAL	Cole Information Services
	ISMAEL BELLO	Cole Information Services
	HEIDI BLUFF	Cole Information Services
	CHRISTINE BRAUN	Cole Information Services
	LOURDES BRIONES	Cole Information Services
	MICHELLE FLICK	Cole Information Services
	TYRONNE FERNANDO	Cole Information Services
	KIMBERLY FALOON	Cole Information Services
	SAMUEL BULLARD	Cole Information Services
	ALFONSO ARREOLA	Cole Information Services
	TONY MARTINEZ	Cole Information Services
	MARIA MCHUGH	Cole Information Services
	ARAGON MONICA	Cole Information Services
	JENNIFER MONTEON	Cole Information Services
	OPEN SESAME OVERHEAD DOOR CO	Cole Information Services
	RAEL TRANSPORTS	Cole Information Services
	MOBILE COMMUNITY MANAGEMENT CO	Cole Information Services
	TAHQUITZ COMPUTER SERVICES	Cole Information Services
	CLASSIC HOMES	Cole Information Services
	ADT	Cole Information Services
	LAKE MART	Cole Information Services
	COMMUNITY MOBILE HOME SALES	Cole Information Services
	HARRIS FEDORA EVELYN	Cole Information Services
	HECTOR AGUIRRE	Cole Information Services
	JOSE MARTINEZ	Cole Information Services
	JUDY MARVAL	Cole Information Services
	LARRY MEREGILLANO	Cole Information Services
	JOSE MEZA	Cole Information Services
	RENE MONROY	Cole Information Services
	MICHAEL SANTARO	Cole Information Services
	JESUS SANTIAGO	Cole Information Services

FINDINGS

Year	Uses	Source
2009	PAUL SCHIPPNICK	Cole Information Services
	MARIA SOLIS	Cole Information Services
	CAROLYN SMITH	Cole Information Services
	GUADALUPE VALENCIANA	Cole Information Services
	LUZ ITURBIDE	Cole Information Services
	BOUNMY VONGAMATH	Cole Information Services
	LUIS RAMOS	Cole Information Services
	DONNA RICHEY	Cole Information Services
	WENDY RINCON	Cole Information Services
	ALICIA RIOS	Cole Information Services
	JOSE RITO	Cole Information Services
	GEORGE REYNOLDS	Cole Information Services
	DINA HARTLEY	Cole Information Services
	BENITA HOLLOWAY	Cole Information Services
	C THOMPSON	Cole Information Services
	RAFAEL DELATORRE	Cole Information Services
	JOSEPH DELEON	Cole Information Services
	HELEN DAVIS	Cole Information Services
	CATALINA DOW	Cole Information Services
	CHUCK EVANS	Cole Information Services
	ALIDA EBENOW	Cole Information Services
	JACKIE GONZALEZ	Cole Information Services
	JESUS LUPERCIO	Cole Information Services
	FRANK GUERRERO	Cole Information Services
	ROBERTO GUERRERO	Cole Information Services
	RON WELDEN	Cole Information Services
	PATRICK LOADER	Cole Information Services
	STACY LOPEZ	Cole Information Services
	CECILIA LOPEZ	Cole Information Services
	ISRAEL CHAVEZ	Cole Information Services
	FAUSTINO CONTRERAS	Cole Information Services
	IGNACIO PANGELINAN	Cole Information Services
	VICTOR PAREDES	Cole Information Services
	ROBERT PEARSON	Cole Information Services
	SUZANNE PEBLEY	Cole Information Services
	EDGAR PENA	Cole Information Services
	KAREN PENCE	Cole Information Services
	JUANA PEREZ	Cole Information Services

FINDINGS

Year	Uses	Source
2009	CECILIA NAVA	Cole Information Services
	CARL JAMES	Cole Information Services
	JANET BEARDEN	Cole Information Services
	RICHARD JOHNS	Cole Information Services
	EVA FLORES	Cole Information Services
	JEAN FARRA	Cole Information Services
	LIVIA BURGUENO	Cole Information Services
	JASON FOREMAN	Cole Information Services
	MICHAEL ANASTASI	Cole Information Services
2004	CHRISTOPHER STEPHENS	Cole Information Services
	GILBERT STUEVE	Cole Information Services
	RONALD SMITH	Cole Information Services
	MARY VICUNA	Cole Information Services
	JEFF KLEPPE	Cole Information Services
	ENRIQUE RAMIREZ	Cole Information Services
	PRISCILLA RAMOS	Cole Information Services
	BOB SWEARINGEN	Cole Information Services
	DIANE VANTREASE	Cole Information Services
	ISRAEL RODRIGUEZ	Cole Information Services
	BILLIE HOLGUIN	Cole Information Services
	PANADDA THINASOOK	Cole Information Services
	DAVID HEAPS	Cole Information Services
	JILL HERNANDEZ	Cole Information Services
	JOHN HERNANDEZ	Cole Information Services
	HECTOR HERNANDEZ	Cole Information Services
	DEAN DALESIO	Cole Information Services
	DORETHA DAVIS	Cole Information Services
	HECTOR ESTRADA	Cole Information Services
	PAMELLA DUNCANTELL	Cole Information Services
	EDUARADO GOMEZ	Cole Information Services
	GORDON CARLSON	Cole Information Services
	INLAND EMPIRE CMNCTN SRVC	Cole Information Services
	JL CO	Cole Information Services
	LAKE MART	Cole Information Services
	SWAN LAKE MOBILE COUNTRY ESTT	Cole Information Services
	SHILO COX	Cole Information Services
	BEN NORVELL	Cole Information Services
	GARY BRONSART	Cole Information Services

FINDINGS

Year	Uses	Source
2004	JEFFREY ZUPAN	Cole Information Services
	LEONA BUSKER	Cole Information Services
	ALICIA SANCHEZ	Cole Information Services
	PHILLIP VARGAS	Cole Information Services
	LUIS RODRIGUEZ	Cole Information Services
	HAROLD THOMAS	Cole Information Services
	TIM ORMONDE	Cole Information Services
	ENRIQUE DIAZ	Cole Information Services
	ALBERTO DELAHUERTA	Cole Information Services
	ANGELO DENOFRIO	Cole Information Services
	VICTORIA ESPINOZA	Cole Information Services
	JERRY DUNN	Cole Information Services
	CLAUDE LOFTON	Cole Information Services
	JOHN LOFTON	Cole Information Services
	JOSE GONZALES	Cole Information Services
	SUSAN WELLS	Cole Information Services
	THOMAS YOUNG	Cole Information Services
	KELLY PONCE	Cole Information Services
	KENNETH JACK	Cole Information Services
	MIKE FINN	Cole Information Services
	CARRIE BURGESS	Cole Information Services
	ORLANDO AGUILAR	Cole Information Services
	CARLOS ARREOLA	Cole Information Services
	RAMON MADRIGAL	Cole Information Services
	WILLIAM MAGALLON	Cole Information Services
	LEONARD MODEN	Cole Information Services
	BILL SCOTT	Cole Information Services
	PATRICK SATTERFIELD	Cole Information Services
	MICHELE SUDDERTH	Cole Information Services
	HECTOR AGUIRRE	Cole Information Services
	RAUL MARISCAL	Cole Information Services
	DONNA MONTRIE	Cole Information Services
	XIOMARA MORALES	Cole Information Services
	JUAN MORAN	Cole Information Services
	HECTOR MORENO	Cole Information Services
	MICHAEL SANTARO	Cole Information Services
	CHAUNTEL KELLEY	Cole Information Services
	GEORGE REYNOLDS	Cole Information Services

FINDINGS

Year	Uses	Source
2004	WILLIAM ROMERO	Cole Information Services
	SERGIO HURTADO	Cole Information Services
	EMMA HERNANDEZ	Cole Information Services
	HELEN DAVIS	Cole Information Services
	ANSELMO GARCIA	Cole Information Services
	RONALD EPPERSON	Cole Information Services
	JOSE ESCOBAR	Cole Information Services
	JILL ECKER	Cole Information Services
	ANGELICA GOMEZ	Cole Information Services
	RICHARD LIPSEY	Cole Information Services
	ARTHUR LAWRENCE	Cole Information Services
	ISRAEL CHAVEZ	Cole Information Services
	ALEJANDRO CUENCA	Cole Information Services
	DAWN PRATT	Cole Information Services
	EDGAR PENA	Cole Information Services
	SUSAN PENNINGTON	Cole Information Services
	CLIFFORD JOHNSON	Cole Information Services
	THERESA BLONDI	Cole Information Services
	RAUL FLORES	Cole Information Services
	JEAN FARRA	Cole Information Services
	CHARLES MAKI	Cole Information Services
	VALERIE SHEARER	Cole Information Services
	MARTHA SRISAMAI	Cole Information Services
	HENRY MONCAYO	Cole Information Services
	GILBERT MORALES	Cole Information Services
	ELDA SUAREZ	Cole Information Services
	DONNA SMITH	Cole Information Services
	ISAAC VIRAMONTES	Cole Information Services
	JOHNNIE RAMIREZ	Cole Information Services
	EFRAIN RAMIREZ	Cole Information Services
	MARICELA HUERTA	Cole Information Services
	LORI EVANS	Cole Information Services
	JOHN ELLISON	Cole Information Services
	GERARDO GUERRERO	Cole Information Services
	GLORIA GUTIERREZ	Cole Information Services
	JOSE LOPEZ	Cole Information Services
	DIANA WILLIAMS	Cole Information Services
	BRYAN PARKER	Cole Information Services

FINDINGS

Year	Uses	Source
2004	IRENE NELSON	Cole Information Services
	DONALD POULTER	Cole Information Services
	MARCIE FONSECA	Cole Information Services
	RALPH MARTINEZ	Cole Information Services
	EZEQUIEL MONTES	Cole Information Services
	MARTA REYES	Cole Information Services
	TIM VANOUS	Cole Information Services
	JUAN VAREZ	Cole Information Services
	BRENDA ROBINSON	Cole Information Services
	LYN ROWLEY	Cole Information Services
	PENELOPE HODGE	Cole Information Services
	DAVID TRAMELL	Cole Information Services
	BRYAN GUERRERO	Cole Information Services
	JAMES LAWSON	Cole Information Services
	BLANCA CALDERON	Cole Information Services
	ANTONIO CASTILLO	Cole Information Services
	PRISCILA CASTLE	Cole Information Services
	MARIA NAVARRO	Cole Information Services
	HUGHY PHILLIPS	Cole Information Services
	DANIEL PEREZ	Cole Information Services
	CHRISTINE BRAUN	Cole Information Services
	MICHELLE FLICK	Cole Information Services
	ROBERT BINGER	Cole Information Services
	FRED FUCHS	Cole Information Services
	SAMUEL BULLARD	Cole Information Services
	BENJAMIN ABADINES	Cole Information Services
	JOAN MCCABE	Cole Information Services
	SCOTT MARTINEZ	Cole Information Services
	RANDALL MICHAEL	Cole Information Services
	MARTIN SETTLES	Cole Information Services
	ANA SMITH	Cole Information Services
	SHEILA VEGA	Cole Information Services
	BEVERLY RANDALL	Cole Information Services
	ANDREW KISTER	Cole Information Services
	DOLORES HERNANDEZ	Cole Information Services
	ROSIE HERNANDEZ	Cole Information Services
	BERTHA TELEVARA	Cole Information Services
	RICHARD OGLE	Cole Information Services

FINDINGS

Year	Uses	Source
2004	NASH TURNER	Cole Information Services
	RICHARD TURNER	Cole Information Services
	JOSE GARCIA	Cole Information Services
	RAUL ESTRELLA	Cole Information Services
	JOHN DUNN	Cole Information Services
	ELEANOR LOPEZ	Cole Information Services
	JEFFREY CARLSEN	Cole Information Services
	ROGELIO CASTRO	Cole Information Services
	GLENN PALENSKY	Cole Information Services
	WANDA CROWSON	Cole Information Services
	GEORGE PADILLA	Cole Information Services
	BERTHA PADILLA	Cole Information Services
	STANLEY NEWMAN	Cole Information Services
	MABEL BARBER	Cole Information Services
	WILLIAM BIGGERS	Cole Information Services
	PEGGY BUSHMAN	Cole Information Services
	ELIZABETH AUSTIN	Cole Information Services
	EFREN MONROY	Cole Information Services
	EDWARD KENNEDY	Cole Information Services
	FANNIE RAMOS	Cole Information Services
	MANUEL ROBLES	Cole Information Services
	MANUEL RODRIGUEZ	Cole Information Services
	JOSE RICO	Cole Information Services
	PATRICK HOY	Cole Information Services
	ELBY HUFF	Cole Information Services
	JOSE HERNANDEZ	Cole Information Services
	RONALD DALTON	Cole Information Services
	JERRY GARCIA	Cole Information Services
	FRANCISCO GARCIA	Cole Information Services
	MOISES GOMEZ	Cole Information Services
	AARON WALL	Cole Information Services
	RICHARD WILDE	Cole Information Services
	MICHAEL WILLIAMS	Cole Information Services
	DAVID LYLE	Cole Information Services
	TINA WOODS	Cole Information Services
	FRANK WOOLEY	Cole Information Services
	KISHA WRIGHT	Cole Information Services
	KATHLEEN COLE	Cole Information Services

FINDINGS

Year	Uses	Source
2004	JESUS CORONA	Cole Information Services
	DOUGLAS PROULX	Cole Information Services
	JUAN PULIDO	Cole Information Services
	TERRY PERRY	Cole Information Services
	STEVE FELTS	Cole Information Services
	CHARLES SMITH	Cole Information Services
	ELWYN ROBINSON	Cole Information Services
	JOSE ROMERO	Cole Information Services
	BASILIO ROSALES	Cole Information Services
	FRANCISCO ROSAS	Cole Information Services
	JULIO DOMINGUEZ	Cole Information Services
	JUDITH DOOKIE	Cole Information Services
	KURT DOWNEY	Cole Information Services
	HAL DEMPSEY	Cole Information Services
	REGINA TRUJILLO	Cole Information Services
	LUPE GARCIA	Cole Information Services
	ELIZABETH DUBYAK	Cole Information Services
	DEBRA GRAHM	Cole Information Services
	MONIQUE GUTIERREZ	Cole Information Services
	ELDORA LOPEZ	Cole Information Services
	JAMES LEFFLER	Cole Information Services
	HENRY WATERS	Cole Information Services
	CECILIA LUNA	Cole Information Services
	KITTRELL WIRT	Cole Information Services
	BASILIO PADILLA	Cole Information Services
	HECTOR PEREZ	Cole Information Services
	JUAN PEREZ	Cole Information Services
	DANIEL BOUGHNER	Cole Information Services
	FRANCES BRODA	Cole Information Services
	JAMES BROWN	Cole Information Services
	MICHELLE BRUNSLOMA	Cole Information Services
	JOSE FIGUEROA	Cole Information Services
	MICHAEL AMACHER	Cole Information Services
	ERNEST AGUILAR	Cole Information Services
	ANASTASIA ANDERSON	Cole Information Services
	CHARLES MAGANA	Cole Information Services
	MARTIN MARIN	Cole Information Services
2002	COMMUNITY MOBILE HOME	SBC PACIFIC BELL

FINDINGS

Year	Uses	Source
2002	SALES	SBC PACIFIC BELL
	Bautista Sandra	SBC PACIFIC BELL
	Clenny A M	SBC PACIFIC BELL
	LAKEMART	SBC PACIFIC BELL
	Whittington Eugene	SBC PACIFIC BELL
	Bright David	SBC PACIFIC BELL
	Aguilar Mona	SBC PACIFIC BELL
	APARTMENTS	SBC PACIFIC BELL
	Joyce Bob	SBC PACIFIC BELL
	Cadena M	SBC PACIFIC BELL
	Brown Willie	SBC PACIFIC BELL
	Loader Patrick J	SBC PACIFIC BELL
	Acosta Anthony	SBC PACIFIC BELL
	Gama Yesenia	SBC PACIFIC BELL
	Davis Helen J	SBC PACIFIC BELL
	Rosales Jose G	SBC PACIFIC BELL
	Hernandez Rosie R	SBC PACIFIC BELL
	Navarro Jose	SBC PACIFIC BELL
	Houston Dolores A	SBC PACIFIC BELL
	Mercado Maria	SBC PACIFIC BELL
	Gardella David	SBC PACIFIC BELL
	Berlin Christina A	SBC PACIFIC BELL
	Perez Hector	SBC PACIFIC BELL
	Lauder Michelle E E	SBC PACIFIC BELL
	Hernandez Jose	SBC PACIFIC BELL
	Lopresto Joanna	SBC PACIFIC BELL
	Mc Mahan C & S	SBC PACIFIC BELL
	FC SWAN LAKE MOBILE COUNTRY	SBC PACIFIC BELL
	ESTATES	SBC PACIFIC BELL
	Covarrubias Maria M	SBC PACIFIC BELL
	Estrada Humberto	SBC PACIFIC BELL
	Edwardson Valerie J	SBC PACIFIC BELL
	Andrus Lorityn	SBC PACIFIC BELL
	Walker Robert J	SBC PACIFIC BELL
	Deltoro Valerie	SBC PACIFIC BELL
	Christian C	SBC PACIFIC BELL
	Haskins Matthew V Mrs	SBC PACIFIC BELL
	Garcia Jose	SBC PACIFIC BELL

FINDINGS

Year	Uses	Source
2002	Richey Raymond L	SBC PACIFIC BELL
	Hidalgo Patricia	SBC PACIFIC BELL
	Bussard Dennis R	SBC PACIFIC BELL
	Fletcher Walter E	SBC PACIFIC BELL
	Hines Willa	SBC PACIFIC BELL
	Ayala Lailani	SBC PACIFIC BELL
	Hodge Penelope F	SBC PACIFIC BELL
	Frietze Alice G	SBC PACIFIC BELL
	Thompson Jack & Anna May	SBC PACIFIC BELL
	Pence Karen	SBC PACIFIC BELL
	Pence Karen	SBC PACIFIC BELL
	Barrionuevo Martin	SBC PACIFIC BELL
	Leon Anna L	SBC PACIFIC BELL
	Bright David	SBC PACIFIC BELL
	Palensky Glenn L	SBC PACIFIC BELL
	Palensky Glenn L	SBC PACIFIC BELL
	Walsh Keith	SBC PACIFIC BELL
	Dodson Timothy J	SBC PACIFIC BELL
	Taylor Graham & Laurene	SBC PACIFIC BELL
	Zarate Marisela	SBC PACIFIC BELL
	Devore Robert	SBC PACIFIC BELL
	Lawson James	SBC PACIFIC BELL
	Lancaster David W	SBC PACIFIC BELL
	Barker Jack	SBC PACIFIC BELL
	Veyna Apolonio	SBC PACIFIC BELL
	Summons T I	SBC PACIFIC BELL
	Nixon Nicole	SBC PACIFIC BELL
	Gomez Moises & Christine	SBC PACIFIC BELL
	Cass M	SBC PACIFIC BELL
	Jones Ethel L	SBC PACIFIC BELL
	Medina Oscar	SBC PACIFIC BELL
	HAMMER AV CONT D	SBC PACIFIC BELL
	Cont d	SBC PACIFIC BELL
	Aguayo Guadalupe	SBC PACIFIC BELL
	St Amant Louis	SBC PACIFIC BELL
	Robinson Brenda	SBC PACIFIC BELL
	Thompson Greg	SBC PACIFIC BELL
	Vickers Howard Jr	SBC PACIFIC BELL

FINDINGS

Year	*Uses*	*Source*
2002	Smith Mark R	SBC PACIFIC BELL
	Hickman David M	SBC PACIFIC BELL
	Hernandez Salvador	SBC PACIFIC BELL
	Frazier Karla	SBC PACIFIC BELL
	Stewart Thomas R	SBC PACIFIC BELL
	Martinez Martin Marin	SBC PACIFIC BELL
	Strange Edward	SBC PACIFIC BELL
	Holmes David S	SBC PACIFIC BELL
	Medina Rodriguez Ismael	SBC PACIFIC BELL
	TAHQUITZ COMPUTER	SBC PACIFIC BELL
	SERVICES	SBC PACIFIC BELL
	Longcor David W & Mida R	SBC PACIFIC BELL
	Guterrez Arturo	SBC PACIFIC BELL
	Gutierrez Arturo	SBC PACIFIC BELL
	Cleppe Jeff W	SBC PACIFIC BELL
	Blanco Rocio	SBC PACIFIC BELL
	Little Jeri	SBC PACIFIC BELL
	Jozwiak David	SBC PACIFIC BELL
	De Baene Albert A	SBC PACIFIC BELL
	Wall Aaron S	SBC PACIFIC BELL
	Garcia Jose	SBC PACIFIC BELL
	Kister Andrew	SBC PACIFIC BELL
	Chavez Israel	SBC PACIFIC BELL
	Hernandez Raul A	SBC PACIFIC BELL
	Quinn Joyce M	SBC PACIFIC BELL
	Sak Dolores D	SBC PACIFIC BELL
	Ward Lanett & Jay	SBC PACIFIC BELL
	Thibodeau Beverly	SBC PACIFIC BELL
	Swearingen Theresa M	SBC PACIFIC BELL
	Gallegos Naomi	SBC PACIFIC BELL
	Lofton Claude	SBC PACIFIC BELL
	Cheros Debbie	SBC PACIFIC BELL
	Boughner Daniel R	SBC PACIFIC BELL
	Setser June	SBC PACIFIC BELL
	Bayles John E II	SBC PACIFIC BELL
	Ray Winona	SBC PACIFIC BELL
	Thompson James	SBC PACIFIC BELL
	Thompson James	SBC PACIFIC BELL

FINDINGS

Year	Uses	Source
2002	Salvatierra Constantino	SBC PACIFIC BELL
	Domelina	SBC PACIFIC BELL
	Faloon Kimberly J	SBC PACIFIC BELL
	Duncatell Paulette	SBC PACIFIC BELL
	Catalan Elizabeth	SBC PACIFIC BELL
	Mulkey Keith A	SBC PACIFIC BELL
	Martin C	SBC PACIFIC BELL
	Roman Lee B	SBC PACIFIC BELL
	Campbell Norma	SBC PACIFIC BELL
	Snyder Michael W Bill	SBC PACIFIC BELL
	Taylor Curtis	SBC PACIFIC BELL
	Torres Eugene M	SBC PACIFIC BELL
	Hernandez Edguardo	SBC PACIFIC BELL
	Guteiurez Ramona	SBC PACIFIC BELL
	Welden Ron	SBC PACIFIC BELL
	Marrison Wm R	SBC PACIFIC BELL
	Aguirre Hector N	SBC PACIFIC BELL
	Aguirre Daisy	SBC PACIFIC BELL
	Wright Keisha	SBC PACIFIC BELL
	Munar David	SBC PACIFIC BELL
	Falace Endora	SBC PACIFIC BELL
	Debreceni Penny	SBC PACIFIC BELL
	Hernandez Emma	SBC PACIFIC BELL
	Burnfin Valinda	SBC PACIFIC BELL
	Beal Carolyn & James	SBC PACIFIC BELL
	Williams Jeffery	SBC PACIFIC BELL
	Joya Yolanda	SBC PACIFIC BELL
	Dovel Opal R	SBC PACIFIC BELL
	Dominguez Eric	SBC PACIFIC BELL
	Brown Mary A	SBC PACIFIC BELL
	Hortemiller G M	SBC PACIFIC BELL
	Medina Dante E	SBC PACIFIC BELL
	Manis Roger	SBC PACIFIC BELL
	Smjth Randy	SBC PACIFIC BELL
	Baker Kenneth W	SBC PACIFIC BELL
	Moczulski John & Elwanda	SBC PACIFIC BELL
	Herrera Gabriela	SBC PACIFIC BELL
	Proulx Douglas E	SBC PACIFIC BELL

FINDINGS

Year	*Uses*	*Source*
2002	Beier Melissa L	SBC PACIFIC BELL
	Anderson Apollo	SBC PACIFIC BELL
	Garibay Pedro	SBC PACIFIC BELL
	Burda B	SBC PACIFIC BELL
	Chavez Juan J	SBC PACIFIC BELL
	Broda FA	SBC PACIFIC BELL
	Stephens Chris	SBC PACIFIC BELL
	Swartout Darlene	SBC PACIFIC BELL
	Ormonde Timothy	SBC PACIFIC BELL
	Ponce Ben & Kelly	SBC PACIFIC BELL
	Shook W A	SBC PACIFIC BELL
	Mead KJ & DR	SBC PACIFIC BELL
	HAMNER AV	SBC PACIFIC BELL
	Cont d	SBC PACIFIC BELL
	HARRIS FEDORA EVELYN	SBC PACIFIC BELL
	Briones Incoencio	SBC PACIFIC BELL
	Patel Mukeshbhai L	SBC PACIFIC BELL
	Kennedy Dan	SBC PACIFIC BELL
	Belmonte Mary	SBC PACIFIC BELL
	Foreman JR	SBC PACIFIC BELL
	Foreman JR	SBC PACIFIC BELL
	Oldham Daryl M	SBC PACIFIC BELL
	Lozano Laura E	SBC PACIFIC BELL
	Hankinson Nicole	SBC PACIFIC BELL
	Soldan Nicole	SBC PACIFIC BELL
	Tegtmeyer Brent S	SBC PACIFIC BELL
	Arreola Alfonso	SBC PACIFIC BELL
	Dell Antonia	SBC PACIFIC BELL
	Neeiey Victoria	SBC PACIFIC BELL
	Franco Sergio	SBC PACIFIC BELL
	CLUB MAPLE RIDGE MOBILE	SBC PACIFIC BELL
	HOMES INC	SBC PACIFIC BELL
2001	COMNTYMOBILHM	Haines & Company, Inc.
	SLS EV 1 AS CANDLELIGHT	Haines & Company, Inc.
	TREASURES HASKINS Matthew Mrs	Haines & Company, Inc.
	JOHNSONE	Haines & Company, Inc.
	LAKEMART	Haines & Company, Inc.
	MAPLERIDGE MOBILE	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
2001	HOMES INC SWANLKMBL	Haines & Company, Inc.
	ESTATES WHITTINGTON Eugene	Haines & Company, Inc.
1999	ROBERT LEMMONS	Cole Information Services
	KATHERYN LEWIS	Cole Information Services
	MATTHEW LANE	Cole Information Services
	DAVID LYLE	Cole Information Services
	LESTER GREEN	Cole Information Services
	AARON WALL	Cole Information Services
	JENNIFER WONDERS	Cole Information Services
	KENNETH WULFF	Cole Information Services
	BRIAN CANNON	Cole Information Services
	ANDRES CASTILLO	Cole Information Services
	SONJA COLACION	Cole Information Services
	REN CHAY	Cole Information Services
	TERRY PERRY	Cole Information Services
	JOSE CUEVA	Cole Information Services
	MICHAEL PRYCE	Cole Information Services
	SUSAN BOWERS	Cole Information Services
	KARLA FRAZIER	Cole Information Services
	DARWIN FRINT	Cole Information Services
	CHRISTINA ZUNIGA	Cole Information Services
	PREDENCIO MENDOZA	Cole Information Services
	ROBERT SPEAKES	Cole Information Services
	JUNE SETSER	Cole Information Services
	COVARRUBIAS SAL	Cole Information Services
	EDUARDA VINALAY	Cole Information Services
	PEDRO RODRIGUEZ	Cole Information Services
	JOHN ROHRER	Cole Information Services
	JUANA REYES	Cole Information Services
	ANGELA HILDERBRAND	Cole Information Services
	WILLIAM HARRIS	Cole Information Services
	SERAFIN HERNANDEZ	Cole Information Services
	J THIELEN	Cole Information Services
	RICHARD DELPOZO	Cole Information Services
	LAWANDA GILMOUR	Cole Information Services
	RICHARD ESSLINGER	Cole Information Services
	JUAN GARCIA	Cole Information Services
	DAVID GARDNER	Cole Information Services

FINDINGS

Year	Uses	Source
1999	FRANK LIGHT	Cole Information Services
	RAUL LOPEZ	Cole Information Services
	KEITH WALSH	Cole Information Services
	JAMES WRAY	Cole Information Services
	PRISCILA CASTLE	Cole Information Services
	ARABELIA CAZARES	Cole Information Services
	ABEL CALDERAS	Cole Information Services
	MARIA CAMBERO	Cole Information Services
	JUAN CONTRERAS	Cole Information Services
	RAUL PADILLA	Cole Information Services
	GUSTAVO PANTOJA	Cole Information Services
	DIEGO NEGRETE	Cole Information Services
	THELMA BELTRAN	Cole Information Services
	DOLORES JENKYNS	Cole Information Services
	TINOCO ZOLORZANO	Cole Information Services
	ROSENDO ALVAREZ	Cole Information Services
	JOSE MARAVILLA	Cole Information Services
	FRANK MAYO	Cole Information Services
	TIM ANHAISER	Cole Information Services
	ERNESTO MORENO	Cole Information Services
	TANIA SEYMOUR	Cole Information Services
	ORLANDO SANTIAGO	Cole Information Services
	JOSE RAMIREZGARCIA	Cole Information Services
	ANTONIO RAZOS	Cole Information Services
	SAM KIM	Cole Information Services
	GLORIA ROBLEDO	Cole Information Services
	ALVARO ROBLEDO	Cole Information Services
	MARCO RODAS	Cole Information Services
	MANUEL RODRIGUEZ	Cole Information Services
	STEVEN ROMO	Cole Information Services
	JOSE RICO	Cole Information Services
	PATRICK HOY	Cole Information Services
	WANDA HARRIS	Cole Information Services
	BLANCA HERNANDEZ	Cole Information Services
	JOSE HERNANDEZ	Cole Information Services
	RUTH TRUJILLO	Cole Information Services
	POZO DEL	Cole Information Services
	CRAIG DAYTON	Cole Information Services

FINDINGS

Year	Uses	Source
1999	C DURAN	Cole Information Services
	PAUL EKLUND	Cole Information Services
	ADOLFO GELLI	Cole Information Services
	DEBRA DICKEY	Cole Information Services
	LORNE GOODWON	Cole Information Services
	MARINA GARCIA	Cole Information Services
	GERALD GARCIA	Cole Information Services
	EDUARDO GARCIA	Cole Information Services
	JOHN LEITLEIN	Cole Information Services
	CESAR GUERRERO	Cole Information Services
	MIDA LONGCOR	Cole Information Services
	ROBERT WAINWRIGHT	Cole Information Services
	T LOPEZ	Cole Information Services
	EDUARDO CALLEROS	Cole Information Services
	L YOUNG	Cole Information Services
	IRENE CONTRERAS	Cole Information Services
	JUAN CORTEZ	Cole Information Services
	LARRY WIDENER	Cole Information Services
	C CHRISTIAN	Cole Information Services
	CORA JACKSON	Cole Information Services
	TIMOTHY JASPER	Cole Information Services
	ASAIS NOBERTO	Cole Information Services
	JENNIFER BENNET	Cole Information Services
	DAVE BACKHAUS	Cole Information Services
	RUPERTO BARRERA	Cole Information Services
	SANDRA BAUTISTA	Cole Information Services
	FRANCES BRODA	Cole Information Services
	MICHELLE BRUNSLOMA	Cole Information Services
	DANIEL BOUGHNER	Cole Information Services
	MICKI MACINTOSH	Cole Information Services
	MICHAEL AMACHER	Cole Information Services
	STEVEN MCGEORGE	Cole Information Services
	KARA MCQUISTON	Cole Information Services
	HENRY MONCAYO	Cole Information Services
	MARIA MORALES	Cole Information Services
	ANA MORENO	Cole Information Services
	RICHARD MIRAMONTES	Cole Information Services
	KARI MEAD	Cole Information Services

FINDINGS

Year	Uses	Source
1999	ROBBIE MENDES	Cole Information Services
	SUSAN STRAWBRIDGE	Cole Information Services
	MANUELA VALENCIANA	Cole Information Services
	GILBERTO VELASCO	Cole Information Services
	ISAAC VIRAMONTES	Cole Information Services
	LILIANA VILLA	Cole Information Services
	GILBERT RAMIREZ	Cole Information Services
	NICK KING	Cole Information Services
	LAURA HOLST	Cole Information Services
	DENNISE HERNANDEZ	Cole Information Services
	MARIA ORNELAS	Cole Information Services
	HOUSTON THOMPSON	Cole Information Services
	WILLIAM DALTON	Cole Information Services
	MARLENE DYE	Cole Information Services
	SUSAN DRAKE	Cole Information Services
	SANDRA GERLACH	Cole Information Services
	SANDRA GOMEZ	Cole Information Services
	NOEMI GALLEGO	Cole Information Services
	JILLIAN CARDIEL	Cole Information Services
	JOHN COLEMAN	Cole Information Services
	JOANNE CORLISS	Cole Information Services
	BRANDY CORONA	Cole Information Services
	DUNG PHAN	Cole Information Services
	JEFF CLEPPE	Cole Information Services
	LEON PIERCE	Cole Information Services
	CANDIA JENKYNS	Cole Information Services
	BECKY BABCOCK	Cole Information Services
	MARGRET BRIGGER	Cole Information Services
	ALICE FRIETZE	Cole Information Services
	MARCIE FONSECA	Cole Information Services
	D FUNES	Cole Information Services
	GINNA AGULARA	Cole Information Services
	MARGARET MATINIAN	Cole Information Services
	EZEQUIEL MONTES	Cole Information Services
	LOURDES MOTA	Cole Information Services
	LINDA KHACHATOORIAN	Cole Information Services
	SHARON ROBERTSON	Cole Information Services
	LISA REED	Cole Information Services

FINDINGS

Year	Uses	Source
1999	LUIS QUIROZ	Cole Information Services
	G HORTEMILLER	Cole Information Services
	CURTIS TAYLOR	Cole Information Services
	SANDOR DEBRECENI	Cole Information Services
	SHANE DUBYAK	Cole Information Services
	ENRIQUE DIAZ	Cole Information Services
	HECTOR DIOSDADO	Cole Information Services
	JANICE DIXON	Cole Information Services
	OLIVIA GOMEZ	Cole Information Services
	GRACE ESCOBEDO	Cole Information Services
	FERNANDO GUTIERREZ	Cole Information Services
	GUADALUPE GUTIERREZ	Cole Information Services
	GERARDO LOPEZ	Cole Information Services
	OMAR LOPEZ	Cole Information Services
	CLAUDE LOFTON	Cole Information Services
	ELENA CASHION	Cole Information Services
	LILI CAZARES	Cole Information Services
	ALFREDO CALDERON	Cole Information Services
	THOMAS YOUNG	Cole Information Services
	GARY WILSON	Cole Information Services
	ROBERT CRAIG	Cole Information Services
	JUNE CROSS	Cole Information Services
	JONATHAN PORTER	Cole Information Services
	CHRIS BUSH	Cole Information Services
	NANCY BRISTTON	Cole Information Services
	BRAD FLETCHER	Cole Information Services
	MIKE FINN	Cole Information Services
	RANDI FOLEY	Cole Information Services
	ROSE FUQUA	Cole Information Services
	P AYERS	Cole Information Services
	MIGUEL ALFARO	Cole Information Services
	JOSE ARGUETA	Cole Information Services
	MARIA AVALOS	Cole Information Services
	AIDA AVILA	Cole Information Services
	RAMON MADRIGAL	Cole Information Services
	WILLIAM MARRISON	Cole Information Services
	MABEL MCGILL	Cole Information Services
	OLLIE MOORE	Cole Information Services

FINDINGS

Year	Uses	Source
1999	BEATRIZ MOSQUEDA	Cole Information Services
	TOM ASCENSIO	Cole Information Services
	PATRICK SATTERFIELD	Cole Information Services
	OLYMPIA IBARRA	Cole Information Services
	VIRGINIA VALENZUELA	Cole Information Services
	VERN VANDERVEEN	Cole Information Services
	JOSE VALDERRAMA	Cole Information Services
	MORGAN ISAACS	Cole Information Services
	GORDON RAY	Cole Information Services
	CHARLES KEEL	Cole Information Services
	DAN KENNEDY	Cole Information Services
	ROSA ROSAS	Cole Information Services
	DAVID HIXON	Cole Information Services
	MARIA HERMOSILLO	Cole Information Services
	MANUELA HERRERA	Cole Information Services
	JAMES THOMPSON	Cole Information Services
	JOSE TORNERO	Cole Information Services
	DANIEL TOSSOUNIAN	Cole Information Services
	KURT DOWNEY	Cole Information Services
	VICTOR ESPINOZA	Cole Information Services
	JOHN GARCIA	Cole Information Services
	SERGIO LEYVA	Cole Information Services
	DEBBIE GUERRERO	Cole Information Services
	VICKY NORTON	Cole Information Services
	CARLOS NISTHAL	Cole Information Services
	JAMES BEAL	Cole Information Services
	ISMAEL BELLO	Cole Information Services
	MAGDELENA JIMENEZ	Cole Information Services
	SAMUEL BULLARD	Cole Information Services
	CHRISTINE BRAUN	Cole Information Services
	LOURDES BRIONES	Cole Information Services
	HEIDI BLUFF	Cole Information Services
	MICHELLE FLICK	Cole Information Services
	KIMBERLY FALOON	Cole Information Services
	TYRONNE FERNANDO	Cole Information Services
	ALFONSO ARREOLA	Cole Information Services
	TONY MARTINEZ	Cole Information Services
	MARIA MCHUGH	Cole Information Services

FINDINGS

Year	*Uses*	*Source*
1999	ARAGON MONICA	Cole Information Services
	JENNIFER MONTEON	Cole Information Services
	SONIA MORALES	Cole Information Services
	RANDY MICHAEL	Cole Information Services
	STEVEN STAHL	Cole Information Services
	CARLOS VERDIN	Cole Information Services
	MARCIA VICK	Cole Information Services
	JOSE RAMIREZ	Cole Information Services
	FEDERICO RAMIREZ	Cole Information Services
	ANDREW KISTER	Cole Information Services
	MICHAEL ROBERTS	Cole Information Services
	JACQUELINE HAGEMAN	Cole Information Services
	MICHAEL HANER	Cole Information Services
	MODESTO HERNANDEZ	Cole Information Services
	GABRIELA HERRERA	Cole Information Services
	KIDA THOMPSON	Cole Information Services
	ESTHER THOMPSON	Cole Information Services
	BEVERLY THIBODEAU	Cole Information Services
	GUADALUPE GOMEZ	Cole Information Services
	RAUL ESTRELLA	Cole Information Services
	PATRICK LEE	Cole Information Services
	ESPERANZA WONG	Cole Information Services
	EUGENE WHITTINGTON	Cole Information Services
	ALEJANDRO CAISEDO	Cole Information Services
	EVELYN CALDERAS	Cole Information Services
	RAMON CORNEJO	Cole Information Services
	GUERRERO CESAR	Cole Information Services
	HEATHER WILLIAMS	Cole Information Services
	MARIA CRUZ	Cole Information Services
	GEORGE PADILLA	Cole Information Services
	CLARENCE PILARCZYK	Cole Information Services
	CRUZ BARBOA	Cole Information Services
	BONIFACIO BARDALES	Cole Information Services
	MARY BARNES	Cole Information Services
	JOHN BARRAZA	Cole Information Services
	VALINDA BURNFIN	Cole Information Services
	DOMINGA BONILLA	Cole Information Services
	ABRAHAM FUENTES	Cole Information Services

FINDINGS

Year	Uses	Source
1999	JAMES MODEN	Cole Information Services
	JORGE MILLAN	Cole Information Services
	KIMBERLY MEANS	Cole Information Services
	JOSEFINA MELENDEZ	Cole Information Services
	APOLINAR SANCHEZ	Cole Information Services
	ROBERT STEIGLEMAN	Cole Information Services
	CHRISTOPHER SOLOMON	Cole Information Services
	EFRAIN SORIANO	Cole Information Services
	IRENE SUMMONS	Cole Information Services
	GRACIELA INIGUEZ	Cole Information Services
	ROSA VILLASANA	Cole Information Services
	ISRAEL CHAVEZ	Cole Information Services
	ROBERT PEARSON	Cole Information Services
	SUZANNE PEBLEY	Cole Information Services
	EDGAR PENA	Cole Information Services
	KAREN PENCE	Cole Information Services
	JUANA PEREZ	Cole Information Services
	CARL JAMES	Cole Information Services
	IGNACIO PANGELINAN	Cole Information Services
	VICTOR PAREDES	Cole Information Services
	CECILIA NAVA	Cole Information Services
	JANET BEARDEN	Cole Information Services
	RICHARD JOHNS	Cole Information Services
	LIVIA BURGUENO	Cole Information Services
	EVA FLORES	Cole Information Services
	JASON FOREMAN	Cole Information Services
	JEAN FARRA	Cole Information Services
	I AYAU	Cole Information Services
	CHARLES MAKI	Cole Information Services
	GERARDO MANZON	Cole Information Services
	VELIZA AMAYA	Cole Information Services
	MICHAEL ANASTASI	Cole Information Services
	TERRANCE MCHATTEN	Cole Information Services
	SHIRLEY MCINTOSH	Cole Information Services
	ANITA MERRYMAN	Cole Information Services
	GUADALUPE SAENZ	Cole Information Services
	ROSA SALDANA	Cole Information Services
	FRANCISCO SILVA	Cole Information Services

FINDINGS

Year	Uses	Source
1999	ENRIQUE SOLIS	Cole Information Services
	DANETTE VERA	Cole Information Services
	ESTEBAN VILLAR	Cole Information Services
	PRISCILLA RAMOS	Cole Information Services
	KENNETH KINNEY	Cole Information Services
	BOB SWEARINGEN	Cole Information Services
	TINA ROBICHAU	Cole Information Services
	ROBERT ROSS	Cole Information Services
	CATHY KAMMERER	Cole Information Services
	MARIA KARR	Cole Information Services
	ANTHONY HODGE	Cole Information Services
	BILLIE HOLGUIN	Cole Information Services
	MARCY RICHARDSON	Cole Information Services
	DOLORES HOUSTON	Cole Information Services
	MARIA OROZCO	Cole Information Services
	MARIA ORTIZ	Cole Information Services
	ALBERTA ECHEVARRIA	Cole Information Services
	PANADDA THINASOOK	Cole Information Services
	JOSE DEJESUS	Cole Information Services
	PAMELLA DUNCANTELL	Cole Information Services
	HELEN GOMEZ	Cole Information Services
	JESSIE GOODNIGHT	Cole Information Services
	FRANK GOYTIA	Cole Information Services
	SARAH LARIOS	Cole Information Services
	JOSE LARA	Cole Information Services
	RICHARD WORLEY	Cole Information Services
	MICHELLE LOMELI	Cole Information Services
	GORDON CARLSON	Cole Information Services
	JOHN WELLER	Cole Information Services
	RICHARD WELLS	Cole Information Services
	SALVADOR COVARRUBIAN	Cole Information Services
	REBECA COVARRUBIAS	Cole Information Services
	KIRK WINTER	Cole Information Services
	LONNITA WIRT	Cole Information Services
	BRANDY JACKSON	Cole Information Services
	JESUS CURIEL	Cole Information Services
	DAVID POLUS	Cole Information Services
	HECTOR AGUIRRE	Cole Information Services

FINDINGS

Year	Uses	Source
1999	JOSE MARTINEZ	Cole Information Services
	JUDY MARVAL	Cole Information Services
	RENE MONROY	Cole Information Services
	LARRY MEREGILLANO	Cole Information Services
	JOSE MEZA	Cole Information Services
	PAUL SCHIPPNICK	Cole Information Services
	MICHAEL SANTARO	Cole Information Services
	JESUS SANTIAGO	Cole Information Services
	MARIA SOLIS	Cole Information Services
	CAROLYN SMITH	Cole Information Services
	LUZ ITURBIDE	Cole Information Services
	GUADALUPE VALENCIANA	Cole Information Services
	BOUNMY VONGAMATH	Cole Information Services
	LUIS RAMOS	Cole Information Services
	GEORGE REYNOLDS	Cole Information Services
	BENITA HOLLOWAY	Cole Information Services
	DONNA RICHEY	Cole Information Services
	WENDY RINCON	Cole Information Services
	ALICIA RIOS	Cole Information Services
	JOSE RITO	Cole Information Services
	DINA HARTLEY	Cole Information Services
	C THOMPSON	Cole Information Services
	RAFAEL DELATORRE	Cole Information Services
	JOSEPH DELEON	Cole Information Services
	HELEN DAVIS	Cole Information Services
	ALIDA EBENOW	Cole Information Services
	CATALINA DOW	Cole Information Services
	JACKIE GONZALEZ	Cole Information Services
	ROBERTO GUERRERO	Cole Information Services
	FRANK GUERRERO	Cole Information Services
	CHUCK EVANS	Cole Information Services
	JESUS LUPERCIO	Cole Information Services
	STACY LOPEZ	Cole Information Services
	CECILIA LOPEZ	Cole Information Services
	PATRICK LOADER	Cole Information Services
	RON WELDEN	Cole Information Services
	FAUSTINO CONTRERAS	Cole Information Services
	SWAN LAKE MOBILE COUNTRY ESTATES	Cole Information Services

FINDINGS

Year	Uses	Source
1999	LAKE MART	Cole Information Services
	COMMUNITY MOBILE HOME SALES	Cole Information Services
	MAPLE RIDGE MOBILE HOMES INCORPORATED	Cole Information Services
1994	MIDDLETON, MARYE E	Cole Information Services
	MAPLE RIDGE MOBILE HOMES INC	Cole Information Services
	MARTIN, ARTHUR	Cole Information Services
	WHITTINGTON, EUGENE	Cole Information Services
	DRUCKER, PAUL	Cole Information Services
	HOFFMAN, ORVILLE E	Cole Information Services
	PARRIERA, WILLIE L	Cole Information Services
	POLLARD, D M	Cole Information Services
	GRACEY, HARRY	Cole Information Services
	STIFF, V	Cole Information Services
	HASKINS, MATTHEW V	Cole Information Services
	LAKE MART MARKET	Cole Information Services
	ELVIAS BEAUTY BOUTQ	Cole Information Services
	SWAN LAKE SECURITY	Cole Information Services
	SWAN LAKE MOBILE COUNTRY ESTS	Cole Information Services
	DURST, CRAIG	Cole Information Services
1986	Drucker P & G	Pacific Bell Yellow Pages
	Rohrs James	Pacific Bell Yellow Pages
	A & W Cart Service	Pacific Bell Yellow Pages
	B & J Cart Shop	Pacific Bell Yellow Pages
	Bednarske Richard	Pacific Bell Yellow Pages
	Bennett R G W & Clover	Pacific Bell Yellow Pages
	Blackburn Marie M	Pacific Bell Yellow Pages
	Blair Fred Real Estate & Construction	Pacific Bell Yellow Pages
	Blajda Joseph Marian	Pacific Bell Yellow Pages
	Brody C E	Pacific Bell Yellow Pages
	Casady Robt W	Pacific Bell Yellow Pages
	Casagranda D	Pacific Bell Yellow Pages
	Cavanaugh William B	Pacific Bell Yellow Pages
	Durst Craig & Mary	Pacific Bell Yellow Pages
	Durst Kenneth W	Pacific Bell Yellow Pages
	Easter J D	Pacific Bell Yellow Pages
	Easter PS Central Av	Pacific Bell Yellow Pages
	Elvias Beauty Boutique	Pacific Bell Yellow Pages
	Elwell A	Pacific Bell Yellow Pages

FINDINGS

Year	Uses	Source
1986	Gracey Harry	Pacific Bell Yellow Pages
	Greenawalt John	Pacific Bell Yellow Pages
	Haskins Matthew V Mrs	Pacific Bell Yellow Pages
	Haskins R A	Pacific Bell Yellow Pages
	Hellrich N M	Pacific Bell Yellow Pages
	Hoffman Orville E	Pacific Bell Yellow Pages
	Hoffman R	Pacific Bell Yellow Pages
	Lackey Doyle & Norma	Pacific Bell Yellow Pages
	Lake Mart Mkt	Pacific Bell Yellow Pages
	Layden M M	Pacific Bell Yellow Pages
	Little John G	Pacific Bell Yellow Pages
	Locken Francis	Pacific Bell Yellow Pages
	Mc Callum John D Sr	Pacific Bell Yellow Pages
	Middleton Joseph H	Pacific Bell Yellow Pages
	Middleton Marye E	Pacific Bell Yellow Pages
	Montello Carmen W	Pacific Bell Yellow Pages
	Nichols Everett D	Pacific Bell Yellow Pages
	Parriera W L	Pacific Bell Yellow Pages
	Pollard D M	Pacific Bell Yellow Pages
	Pollard G	Pacific Bell Yellow Pages
	Pullin Thos L	Pacific Bell Yellow Pages
	Rienderhoff Bert & Wilhelmina	Pacific Bell Yellow Pages
	Ring Richard L	Pacific Bell Yellow Pages
	Ruffin L P	Pacific Bell Yellow Pages
	Shook W A	Pacific Bell Yellow Pages
	Subsurface Electric	Pacific Bell Yellow Pages
	From Corona Telephones Call	Pacific Bell Yellow Pages
	Swan Lake Sales Inc	Pacific Bell Yellow Pages
	Swan Lake Security	Pacific Bell Yellow Pages
	Tru illo M	Pacific Bell Yellow Pages
	Tru illo Max	Pacific Bell Yellow Pages
	Vanderwork Owen	Pacific Bell Yellow Pages
	Vibert L C	Pacific Bell Yellow Pages
	Watkins Herbert & Beverly	Pacific Bell Yellow Pages
	Whittington Eugene	Pacific Bell Yellow Pages
	Witten Carl	Pacific Bell Yellow Pages
	Young Robt B & Opal J	Pacific Bell Yellow Pages
1981	Robertson J W	Pacific Telephone

FINDINGS

Year	Uses	Source
1981	Waters M	Pacific Telephone
	Blajda Joseph Marian	Pacific Telephone
	Brody C E	Pacific Telephone
	Easter J I	Pacific Telephone
	Elvias Beauty Boutique	Pacific Telephone
	Feldmann Alice J	Pacific Telephone
	Graaf A	Pacific Telephone
	Gracey Harry	Pacific Telephone
	Graham AL Shorty	Pacific Telephone
	Greenawalt John	Pacific Telephone
	Hoffman Orville E	Pacific Telephone
	Jenson Wilford W	Pacific Telephone
	Land Frank	Pacific Telephone
	La Plante Ernest E	Pacific Telephone
	Leprechaun Gifts	Pacific Telephone
	Lindenberg Ethel M	Pacific Telephone
	Martin Arthur	Pacific Telephone
	Martin Margaret	Pacific Telephone
	Mc Guire Harold W & Ruth E I	Pacific Telephone
	Middleton Joseph H	Pacific Telephone
	Middleton Peyton G	Pacific Telephone
	Mohnkem E	Pacific Telephone
	Mumford	Pacific Telephone
	Rienderhoff Bert & Wilheimina	Pacific Telephone
	Ring Richard L	Pacific Telephone
	Sak Leo J	Pacific Telephone
	Shook W A	Pacific Telephone
	S KYROOM THE	Pacific Telephone
	Souders Uoyd Jack	Pacific Telephone
	Swan E E Fashions	Pacific Telephone
	Swan Lake Sales Inc	Pacific Telephone
	Swan Lake Security	Pacific Telephone
	Sweeney Harold J	Pacific Telephone
	Toussaint Peggy	Pacific Telephone
	Vanderwork Owen	Pacific Telephone
	Watkins Herbert & Beverly	Pacific Telephone
	Whlttlngton Eugene	Pacific Telephone
	Witten Carl	Pacific Telephone

FINDINGS

Year	Uses	Source
1981	Witten Marie	Pacific Telephone
	Young Robt B & Opal J	Pacific Telephone
	Shook W A	Pacific Telephone
	Graham Doris L	Pacific Telephone
	Sak Leo	Pacific Telephone
	Skyroom The	Pacific Telephone
	Swan Lake	Pacific Telephone
	Swan Lake Security	Pacific Telephone
	Waters M	Pacific Telephone
	Watkns	Pacific Telephone
1977	C &S Gifts NThings	Pacific Telephone
	Elvias Beauty Boutique	Pacific Telephone
	Flint Bud	Pacific Telephone
	Jones Pearl L	Pacific Telephone
	Kurtz Clarence C	Pacific Telephone
	Lake Mart Mkt	Pacific Telephone
	Loyd Chas C	Pacific Telephone
	Martin Arthur	Pacific Telephone
	Martin Marcy	Pacific Telephone
	Middleton Peyton G I	Pacific Telephone
	Norman Lee	Pacific Telephone
	S KYROOM THE	Pacific Telephone
	Storch Gerald R	Pacific Telephone
	S W AN LAKE	Pacific Telephone
	Swan Lake Rentals	Pacific Telephone
	Swan Lake Security	Pacific Telephone
	Wiggins Virgil A	Pacific Telephone
	Flint Bud	Pacific Telephone
	Flint Shirl	Pacific Telephone
	Skyroom The	Pacific Telephone
	Swan Lake	Pacific Telephone

5888 HAMNER AVE

Year	Uses	Source
2014	JAMIE WILLIAMS	Cole Information Services
2009	JAMIE WILLIAMS	Cole Information Services
1999	JAMIE WILLIAMS	Cole Information Services

FINDINGS

5890 HAMNER AVE

Year	Uses	Source
2014	ELIZABETH ORTIZ	Cole Information Services
2009	ELIZABETH ORTIZ	Cole Information Services
2004	ELIZABETH ORTIZ	Cole Information Services
1999	ELIZABETH ORTIZ	Cole Information Services

6020 HAMNER AVE

Year	Uses	Source
2017	TUTOR TIME	Cole Information Services
2014	TUTOR TIME	Cole Information Services
2009	TUTOR TIME CHILD CARE LEARNING CENTE	Cole Information Services

6060 HAMNER AVE

Year	Uses	Source
2017	CHASE	Cole Information Services
2014	CHASE	Cole Information Services
	CHASE BANK	Cole Information Services
2009	WASHINGTON MUTUAL	Cole Information Services

6080 HAMNER AVE

Year	Uses	Source
2017	MOUNTAIN VIEW TIRES	Cole Information Services
	MOUNTAIN VIEW TIRE & AUTO SERVICE	Cole Information Services
	GM REALTY & MGMT	Cole Information Services
2014	MOUNTAIN VIEW TIRES	Cole Information Services
	DV URGENT CARE & OCCUPATIONAL HEAL	Cole Information Services

6140 HAMNER AVE

Year	Uses	Source
2017	THE HOME DEPOT	Cole Information Services
	HOME SERVICES AT THE HOME DEPOT	Cole Information Services
2014	THE HOME DEPOT	Cole Information Services
2009	HOME DEPOT U S A INC	Cole Information Services
	THE HOME DEPOT	Cole Information Services

6170 HAMNER AVE

Year	Uses	Source
2017	US BANK	Cole Information Services
	VONS	Cole Information Services
	STARBUCKS COFFEE	Cole Information Services
2014	VONS	Cole Information Services
	US BANK	Cole Information Services
2009	VONS	Cole Information Services
	VONS PHARMACY 2688	Cole Information Services
	U S BANK	Cole Information Services

6323 HAMNER AVE

Year	Uses	Source
1981	Af n	Pacific Telephone

HARMONY DR

5628 HARMONY DR

Year	Uses	Source
2017	NELSON PEREDIA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5631 HARMONY DR

Year	Uses	Source
2017	ANDY RAMIREZ	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5639 HARMONY DR

Year	Uses	Source
2017	Q LETHANH	Cole Information Services
2014	Q LETHANH	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5655 HARMONY DR

Year	Uses	Source
2017	ANTHONY DIAZ	Cole Information Services
2014	RICARDO CHACON	Cole Information Services

Year	Uses	Source
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5663 HARMONY DR

Year	Uses	Source
2017	BRANDON BRIDGEFORD	Cole Information Services
2014	BRANDON BRIDGEFORD	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

5671 HARMONY DR

Year	Uses	Source
2017	AHMED ELMLKI	Cole Information Services
2014	AHMED ELMLKI	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

IRIS CT

6310 IRIS CT

Year	Uses	Source
2017	MARK ROBLES	Cole Information Services
2014	MICHAEL HINES	Cole Information Services
2009	MICHAEL JUDD	Cole Information Services
2004	BILL BARELLA	Cole Information Services
1999	MICHAEL JUDD	Cole Information Services

6313 IRIS CT

Year	Uses	Source
2017	WEI HO	Cole Information Services
2014	WEI HO	Cole Information Services
2009	JAMES WICKHAM	Cole Information Services
2004	JAMES WICKHAM	Cole Information Services
1999	JAMES WICKHAM	Cole Information Services

6320 IRIS CT

Year	Uses	Source
2017	MARTIN SERRANO	Cole Information Services
2014	ARMANDO LEYVA	Cole Information Services
2009	JEROME RIDEAUX	Cole Information Services

FINDINGS

Year	Uses	Source
2004	JEROME RIDEAUX	Cole Information Services
1999	JEROME RIDEAUX	Cole Information Services

6323 IRIS CT

Year	Uses	Source
2017	JARED ROLLINS	Cole Information Services
2014	TIM WIDENER	Cole Information Services
2009	ROBERT THOMPSON	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	ROBERT THOMPSON	Cole Information Services

6330 IRIS CT

Year	Uses	Source
2017	HONGMIN LI	Cole Information Services
2014	NGOC TRINH	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	K KVENBO	Cole Information Services

6333 IRIS CT

Year	Uses	Source
2017	MARCO RODRIGUEZ	Cole Information Services
2014	MARCO RODRIGUEZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	DANIEL TARQUE	Cole Information Services
2002	Franco Maria T	SBC PACIFIC BELL

6340 IRIS CT

Year	Uses	Source
2014	SAPNA GANDHI	Cole Information Services
2009	ARUN GANDHI	Cole Information Services
2004	ARUN GANDHI	Cole Information Services
1999	ARUN GANDHI	Cole Information Services

6343 IRIS CT

Year	Uses	Source
2017	KENNETH AGUAYO	Cole Information Services
2014	TIMOTHY FARRELL	Cole Information Services
2004	TIMOTHY FARREL	Cole Information Services

FINDINGS

6350 IRIS CT

Year	Uses	Source
2017	SARABJIT KAUR	Cole Information Services
2014	SARABJIT KAUR	Cole Information Services
2009	JAVIER FIGUEROA	Cole Information Services
2004	JAVIER FIGUEROA	Cole Information Services
1999	JAVIER FIGUEROA	Cole Information Services

6353 IRIS CT

Year	Uses	Source
2017	TERI SHERMAN	Cole Information Services
2014	TERI SHERMAN	Cole Information Services
2009	TERI SHERMAN	Cole Information Services
2004	TERI SHERMAN	Cole Information Services
1999	TERI SHERMAN	Cole Information Services

6360 IRIS CT

Year	Uses	Source
2017	ELITE BALLOON DESIGN	Cole Information Services
2014	ELITE BALLOON DESIGN	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2009	TIMOTHY CROME	Cole Information Services
2004	VICTOR MILLER	Cole Information Services
1999	TIMOTHY CROME	Cole Information Services

6363 IRIS CT

Year	Uses	Source
2017	RYAN TUCKER	Cole Information Services
2014	RYAN TUCKER	Cole Information Services
2009	RYAN TUCKER	Cole Information Services
2004	SABRINA HYOUNG	Cole Information Services
2002	IRIS GROVE	SBC PACIFIC BELL
	CLOVERDALE FARMS	SBC PACIFIC BELL
2001	CLOVERDALE FARMS	Haines & Company, Inc.
1999	RYAN TUCKER	Cole Information Services

6370 IRIS CT

Year	Uses	Source
2017	IWAN SAFIE	Cole Information Services
2014	YU ZHANG	Cole Information Services
2009	IWAN SAFIE	Cole Information Services

Year	Uses	Source
2004	TUYET NGUYEN	Cole Information Services
1999	IWAN SAFIE	Cole Information Services

6373 IRIS CT

Year	Uses	Source
2017	JIAQUAN DING	Cole Information Services
2014	ALLEN WILSON	Cole Information Services
2009	ALLEN WILSON	Cole Information Services
2004	ALLEN WILSON	Cole Information Services
1999	ALLEN WILSON	Cole Information Services

6380 IRIS CT

Year	Uses	Source
2017	EVANGELINA JIMENEZ	Cole Information Services
2014	EVANGELINA JIMENEZ	Cole Information Services
2009	EVANGELINA JIMENEZ	Cole Information Services
2004	ARTURO BUSTOS	Cole Information Services
1999	EVANGELINA JIMENEZ	Cole Information Services

6383 IRIS CT

Year	Uses	Source
2017	ALEXANDER MENDENHALL	Cole Information Services
2014	ALEXANDER MENDENHALL	Cole Information Services
2009	ALEX MENDENHALL	Cole Information Services
2004	LAURA PESTANO	Cole Information Services
1999	ALEX MENDENHALL	Cole Information Services

6390 IRIS CT

Year	Uses	Source
2017	PETER MCGOWAN	Cole Information Services
2014	PETER MCGOWAN	Cole Information Services
2009	PETER MCGOWAN	Cole Information Services
2004	LARRY SIMPSON	Cole Information Services
1999	PETER MCGOWAN	Cole Information Services

6393 IRIS CT

Year	Uses	Source
2017	EDUARDO BRIBIESCA	Cole Information Services
2014	EDUARDO BRIBIESCA	Cole Information Services
2009	VICTOR MARTINEZ	Cole Information Services

Year	Uses	Source
2004	SATPAL TOORAY	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services

JAMESTOWN AVE

5621 JAMESTOWN AVE

Year	Uses	Source
2014	BRITTANY DITOMASSO	Cole Information Services
2009	ROBERT MCGARY	Cole Information Services
2004	ROBERT MCGRAY	Cole Information Services
1999	ROBERT MCGARY	Cole Information Services

5631 JAMESTOWN AVE

Year	Uses	Source
2014	STEVEN BEATTY	Cole Information Services
2009	MICHAEL DITOMASSO	Cole Information Services
2004	MALCOLM PAICE	Cole Information Services
1999	MICHAEL DITOMASSO	Cole Information Services

5641 JAMESTOWN AVE

Year	Uses	Source
2017	ALICIA STONE	Cole Information Services
2014	ALICIA STONE	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

5651 JAMESTOWN AVE

Year	Uses	Source
2017	WILLIAM DEMOLAY	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	MINDY FINCHER	Cole Information Services
2004	ROOSEVELT ANDERSON	Cole Information Services
1999	MINDY FINCHER	Cole Information Services

5661 JAMESTOWN AVE

Year	Uses	Source
2017	EUGENIO VARGAS	Cole Information Services
2014	EUGENIO VARGAS	Cole Information Services
2009	EDWIN VARGAS	Cole Information Services
2004	CHRISTOPHER YONTS	Cole Information Services
	CHRISTOPHER M YONTS CASH RGSTR	Cole Information Services

Year	Uses	Source
1999	EDWIN VARGAS	Cole Information Services

5671 JAMESTOWN AVE

Year	Uses	Source
2017	JOSE BERCIAN	Cole Information Services
2014	RIGOBERTO OCHOA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	MICHAEL MA	Cole Information Services

5681 JAMESTOWN AVE

Year	Uses	Source
2017	RYAN POWELL	Cole Information Services
2014	ROBERT HERNANDEZ	Cole Information Services
2009	DANIEL MERRITT	Cole Information Services
2004	ROBERT HERNANDEZ	Cole Information Services
1999	DANIEL MERRITT	Cole Information Services

5691 JAMESTOWN AVE

Year	Uses	Source
2017	ANTONIO JAUREGUI	Cole Information Services
2014	JOEL GARCIA	Cole Information Services
2009	ANTONIO JAUREGUI	Cole Information Services
1999	ANTONIO JAUREGUI	Cole Information Services

5701 JAMESTOWN AVE

Year	Uses	Source
2017	GARY BOYSE	Cole Information Services
2014	GARY BOYSE	Cole Information Services
2009	PEDRO RONCANCIO	Cole Information Services
1999	PEDRO RONCANCIO	Cole Information Services

5711 JAMESTOWN AVE

Year	Uses	Source
2017	MOHAMMED WARAICH	Cole Information Services
2004	IQBAL WARAICH	Cole Information Services

5721 JAMESTOWN AVE

Year	Uses	Source
2017	STEVEN WAGERS	Cole Information Services
2014	STEVEN WAGERS	Cole Information Services

FINDINGS

Year	Uses	Source
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	GLENN JOHNSON	Cole Information Services

5731 JAMESTOWN AVE

Year	Uses	Source
2017	HARDEEP SAMBI	Cole Information Services
2014	GLENN VELASCO	Cole Information Services
2009	OCTAVIO SILVA	Cole Information Services
2004	MIKE QUINN	Cole Information Services
1999	OCTAVIO SILVA	Cole Information Services

5741 JAMESTOWN AVE

Year	Uses	Source
2017	JEFFREY MICHAELS	Cole Information Services
2014	JEFFREY MICHAELS	Cole Information Services
2009	HUGO FRANCO	Cole Information Services
2004	HUGO FRANCO	Cole Information Services
1999	HUGO FRANCO	Cole Information Services

5751 JAMESTOWN AVE

Year	Uses	Source
2017	ROBERT QUESADA	Cole Information Services
2014	NOVELLA QUESADA	Cole Information Services
2009	MICHAEL KOZINSKI	Cole Information Services
2004	RONALD HOGAN	Cole Information Services
1999	MICHAEL KOZINSKI	Cole Information Services

5761 JAMESTOWN AVE

Year	Uses	Source
2017	FRANCISGIL CRUZ	Cole Information Services
2014	QUIN TOLBERT	Cole Information Services
2009	DENISE HALLION	Cole Information Services
2004	DENISE TOLBERT	Cole Information Services
1999	DENISE HALLION	Cole Information Services

5771 JAMESTOWN AVE

Year	Uses	Source
2017	IN CHANG	Cole Information Services
2014	IN CHANG	Cole Information Services
2009	INMO CHANG	Cole Information Services

Year	Uses	Source
2004	INMO CHANG	Cole Information Services
1999	INMO CHANG	Cole Information Services

5781 JAMESTOWN AVE

Year	Uses	Source
2017	JASON FLUM	Cole Information Services
2014	KRISTAL FLUM	Cole Information Services
2009	JASON FLUM	Cole Information Services
2004	PAUL PEREA	Cole Information Services
1999	JASON FLUM	Cole Information Services

5791 JAMESTOWN AVE

Year	Uses	Source
2017	RAUL HEREDERO	Cole Information Services
2014	FRANK HEREDERO	Cole Information Services
2009	GARY HOPPER	Cole Information Services
1999	GARY HOPPER	Cole Information Services

KARA CT

13209 KARA CT

Year	Uses	Source
2017	PEREZ GONZALEZ	Cole Information Services
2014	JOSE PEREZ	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

13216 KARA CT

Year	Uses	Source
2017	NANCY ACOSTA	Cole Information Services
2014	MOSTAFA HABBAS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

13219 KARA CT

Year	Uses	Source
2017	JOHN DRUM	Cole Information Services
2014	DALE BOYD	Cole Information Services
2009	DALE BOYD	Cole Information Services
1999	DALE BOYD	Cole Information Services

FINDINGS

13226 KARA CT

Year	Uses	Source
2017	ALBERT CEZAR	Cole Information Services
2014	ANTONIO REYES	Cole Information Services
2009	PETER SALGADO	Cole Information Services
1999	PETER SALGADO	Cole Information Services

LAKEVW CIR

263 LAKEVW CIR

Year	Uses	Source
1970	Johnston Merkle	Pacific Telephone

LARKDALE CIR

39 LARKDALE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Meyer Frank & Martha	Pacific Bell Yellow Pages
1981	Walton Rena Mrs	Pacific Telephone
1977	Walton Rena Mfs	Pacific Telephone

40 LARKDALE CIR

Year	Uses	Source
1981	Webster H H	Pacific Telephone
	Webster H H	Pacific Telephone
1977	Webster HH	Pacific Telephone

41 LARKDALE CIR

Year	Uses	Source
2001	NAVARROJose	Haines & Company, Inc.
1986	Mc Dowell E B	Pacific Bell Yellow Pages
1981	Mc Dowell E B	Pacific Telephone
1977	Mc Dowell Hugh	Pacific Telephone
	Mc Dowell Ella	Pacific Telephone

42 LARKDALE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Goreham Grace	Pacific Bell Yellow Pages
	Gorham	Pacific Bell Yellow Pages

FINDINGS

Year	Uses	Source
1981	Goreham Grace	Pacific Telephone
1977	Goreham Grace	Pacific Telephone

43 LARKDALE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Lisko John	Pacific Bell Yellow Pages
1981	Lisko John	Pacific Telephone
1977	Lisko John	Pacific Telephone

44 LARKDALE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	CARDOZA, RICHARD	Cole Information Services
1986	Warren Larry	Pacific Bell Yellow Pages
1977	Mc Namee Ben H	Pacific Telephone

45 LARKDALE CIR

Year	Uses	Source
2004	JUSTIN TISDALE	Cole Information Services
1986	Shaver Rexey	Pacific Bell Yellow Pages
1981	Shaver Rexey	Pacific Telephone
1977	Shaver Rexey	Pacific Telephone

46 LARKDALE CIR

Year	Uses	Source
2004	DAVID FARRAR	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

47 LARKDALE CIR

Year	Uses	Source
2004	JONATHAN WOODS	Cole Information Services
1981	Hester H C	Pacific Telephone
1977	Hester HC	Pacific Telephone

48 LARKDALE CIR

Year	Uses	Source
2001	BENGSON Karen	Haines & Company, Inc.

FINDINGS

49 LARKDALE CIR

Year	Uses	Source
2004	DANIEL MACIAS	Cole Information Services
2001	KERN Judy M	Haines & Company, Inc.
1986	Burns Scott	Pacific Bell Yellow Pages
1981	Haskins Paul E	Pacific Telephone

50 LARKDALE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.

51 LARKDALE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Feldmann Alice J	Pacific Bell Yellow Pages
1977	Eppard Vern	Pacific Telephone

52 LARKDALE CIR

Year	Uses	Source
2004	JOSE TINOCO	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Barbknecht Lee L	Pacific Bell Yellow Pages
1977	Barringer Sam I G	Pacific Telephone

53 LARKDALE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1981	Thoemmes Geo F	Pacific Telephone
1977	Thoemmes Geo F	Pacific Telephone

54 LARKDALE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Phillips Sarah L	Pacific Bell Yellow Pages
1981	Phillips Sarah	Pacific Telephone

FINDINGS

55 LARKDALE CIR

Year	Uses	Source
2004	DOLORES HOUSTON	Cole Information Services
1981	Lipscomb Edw	Pacific Telephone

56 LARKDALE CIR

Year	Uses	Source
1986	Richards Jess	Pacific Bell Yellow Pages
	Richards Jewelers	Pacific Bell Yellow Pages
1981	Richards Jess	Pacific Telephone

57 LARKDALE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	IWiggins Tom	Pacific Bell Yellow Pages
	Wiggins M M	Pacific Bell Yellow Pages
1981	Wiggins Virgil A	Pacific Telephone

58 LARKDALE CIR

Year	Uses	Source
2004	RAFAEL HERNANDEZ	Cole Information Services
2002	Missildine Melissa P	SBC PACIFIC BELL
1994	NICHOLS, CHUCK	Cole Information Services
1986	Nichols Chuck & Wanda	Pacific Bell Yellow Pages
	Nichols Damon	Pacific Bell Yellow Pages
	Nichols D	Pacific Bell Yellow Pages
1977	Cowing Jas A	Pacific Telephone

59 LARKDALE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	HALLCrai O	Haines & Company, Inc.
1977	Johnson Louise	Pacific Telephone

60 LARKDALE CIR

Year	Uses	Source
2004	DAVID GARDELLA	Cole Information Services
1981	Misch Chas	Pacific Telephone

61 LARKDALE CIR

Year	Uses	Source
2004	SANDRA BAUTISTA	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1994	THOMPSON, FLOYD C	Cole Information Services
1986	Thompson Floyd C	Pacific Bell Yellow Pages
1981	Thompson Floyd C	Pacific Telephone

62 LARKDALE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1981	Sterling Theodore R	Pacific Telephone

63 LARKDALE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services

LARKDLE CIR

39 LARKDLE CIR

Year	Uses	Source
1970	Walton Rena Mrs	Pacific Telephone

41 LARKDLE CIR

Year	Uses	Source
1970	Mc Dowell Ella	Pacific Telephone
	Mc Dowell Hugh	Pacific Telephone

43 LARKDLE CIR

Year	Uses	Source
1970	Jeschke Dorothy C	Pacific Telephone

44 LARKDLE CIR

Year	Uses	Source
1970	Fast Henry K	Pacific Telephone

45 LARKDLE CIR

Year	Uses	Source
1970	Shaver Rexey	Pacific Telephone

FINDINGS

46 LARKDLE CIR

Year	*Uses*	*Source*
1970	Martin Chas E	Pacific Telephone

48 LARKDLE CIR

Year	*Uses*	*Source*
1970	Mason Jessie S	Pacific Telephone
	Wood Judson H	Pacific Telephone

49 LARKDLE CIR

Year	*Uses*	*Source*
1970	Haskins Paul E	Pacific Telephone

50 LARKDLE CIR

Year	*Uses*	*Source*
1970	Milwood Thos R	Pacific Telephone

52 LARKDLE CIR

Year	*Uses*	*Source*
1970	Barringer Saml G	Pacific Telephone

53 LARKDLE CIR

Year	*Uses*	*Source*
1970	Turner N M	Pacific Telephone

56 LARKDLE CIR

Year	*Uses*	*Source*
1970	Holt Sophie K	Pacific Telephone

59 LARKDLE CIR

Year	*Uses*	*Source*
1970	Johnson Louise	Pacific Telephone

60 LARKDLE CIR

Year	*Uses*	*Source*
1970	Misch Chas	Pacific Telephone

61 LARKDLE CIR

Year	*Uses*	*Source*
1970	Thompson Floyd C	Pacific Telephone

FINDINGS

LAVENDER

6316 LAVENDER

Year	Uses	Source
2002	Harada Gary	SBC PACIFIC BELL

6346 LAVENDER

Year	Uses	Source
2002	Mock Travuth	SBC PACIFIC BELL

6349 LAVENDER

Year	Uses	Source
2002	Johnson Todd & Diane	SBC PACIFIC BELL

6356 LAVENDER

Year	Uses	Source
2002	Gilley Tina M	SBC PACIFIC BELL

6359 LAVENDER

Year	Uses	Source
2002	Navas Lillian	SBC PACIFIC BELL
	Navas Lillian	SBC PACIFIC BELL

6369 LAVENDER

Year	Uses	Source
2002	Chaprnan Terry & Pam	SBC PACIFIC BELL

6386 LAVENDER

Year	Uses	Source
2002	Rocha Joe J	SBC PACIFIC BELL

6389 LAVENDER

Year	Uses	Source
2002	Coopel MIary	SBC PACIFIC BELL

6396 LAVENDER

Year	Uses	Source
2002	Crowde Matthew	SBC PACIFIC BELL

6399 LAVENDER

Year	Uses	Source
2002	Morris Catalina R	SBC PACIFIC BELL

FINDINGS

LAVENDER ST

6316 LAVENDER ST

Year	Uses	Source
2017	GEORGE HARADA	Cole Information Services
2014	GEORGE HARADA	Cole Information Services
2009	GARY HARADA	Cole Information Services
2004	GARY HARADA	Cole Information Services
2001	HARADAGary	Haines & Company, Inc.
1999	GARY HARADA	Cole Information Services

6319 LAVENDER ST

Year	Uses	Source
2017	ROBERT WANG	Cole Information Services
2014	QINGLIANG WANG	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	DARLENE HARADA	Cole Information Services

6326 LAVENDER ST

Year	Uses	Source
2017	RICHARD ALEXANDER	Cole Information Services
2014	RICHARD ALEXANDER	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

6329 LAVENDER ST

Year	Uses	Source
2017	RICARDO NAVES	Cole Information Services
2014	RICARDO NAVES	Cole Information Services
2009	RICARDO NAVES	Cole Information Services
1999	RICARDO NAVES	Cole Information Services

6336 LAVENDER ST

Year	Uses	Source
2017	RICHARD BARRON	Cole Information Services
2014	RICHARD BARRON	Cole Information Services
2009	RICHARD BARRON	Cole Information Services
2004	RICHARD BARRON	Cole Information Services
2001	BARRONC	Haines & Company, Inc.
	BARRONChanda	Haines & Company, Inc.
	BARRON Ricardo J	Haines & Company, Inc.
	BARRONF ichard J B	Haines & Company, Inc.

Year	Uses	Source
1999	RICHARD BARRON	Cole Information Services

6339 LAVENDER ST

Year	Uses	Source
2017	ANTONIO MENDOZA	Cole Information Services
2014	HENRY LIVINGS	Cole Information Services
2009	ANTONIO MENDOZA	Cole Information Services
2004	ALBERTO RAMIREZ	Cole Information Services
1999	ANTONIO MENDOZA	Cole Information Services

6346 LAVENDER ST

Year	Uses	Source
2017	TRAVUTH MOCK	Cole Information Services
2014	TRAVUTH MOCK	Cole Information Services
2009	TRAVUTH MOCK	Cole Information Services
2004	TRAVUTH MOCK	Cole Information Services
	EMPIRE 3	Cole Information Services
2001	MOCKTravulh	Haines & Company, Inc.
1999	TRAVUTH MOCK	Cole Information Services

6349 LAVENDER ST

Year	Uses	Source
2017	SCOTT SEESE	Cole Information Services
2014	KRIS INGRAM	Cole Information Services
2009	KRIS INGRAM	Cole Information Services
2004	TODD JOHNSON	Cole Information Services
2001	JOHNSON Todd	Haines & Company, Inc.
	JOHNSON Dane	Haines & Company, Inc.
1999	KRIS INGRAM	Cole Information Services

6356 LAVENDER ST

Year	Uses	Source
2014	JEFF GILLEY	Cole Information Services
2009	JEFF GILLEY	Cole Information Services
2004	JEFF GILLEY	Cole Information Services
	USADK	Cole Information Services
2001	GILLEYTina M	Haines & Company, Inc.
1999	JEFF GILLEY	Cole Information Services

FINDINGS

6359 LAVENDER ST

Year	Uses	Source
2017	AHMAD NAVAS	Cole Information Services
2014	AHMAD NAVAS	Cole Information Services
2009	AHMAD AL-MISHARI	Cole Information Services
2004	LILLIAN NAVAS	Cole Information Services
2001	NAVAS Lillian	Haines & Company, Inc.
	NAVAS Lillan	Haines & Company, Inc.
1999	AHMAD AL-MISHARI	Cole Information Services

6366 LAVENDER ST

Year	Uses	Source
2017	YAOLIN WANG	Cole Information Services
2014	DAVID RICE	Cole Information Services
2009	RICHARD CLEMMER	Cole Information Services
2004	RICHARD CLEMMER	Cole Information Services
2001	CISNEROSBea Irice	Haines & Company, Inc.
1999	RICHARD CLEMMER	Cole Information Services

6369 LAVENDER ST

Year	Uses	Source
2017	TERRY CHAPMAN	Cole Information Services
2014	TERRY CHAPMAN	Cole Information Services
2009	TERRY CHAPMAN	Cole Information Services
2004	TERRY CHAPMAN	Cole Information Services
2001	CHAPMAN Pam	Haines & Company, Inc.
	CHAPMAN Terry	Haines & Company, Inc.
1999	TERRY CHAPMAN	Cole Information Services

6376 LAVENDER ST

Year	Uses	Source
2017	JR BANKS	Cole Information Services
2014	JR BANKS	Cole Information Services
2009	LONNIE BANKS	Cole Information Services
2004	LONNIE BANKS	Cole Information Services
1999	LONNIE BANKS	Cole Information Services

6379 LAVENDER ST

Year	Uses	Source
2017	LEITH CHACON	Cole Information Services
2014	JOSEPH HOATS	Cole Information Services

FINDINGS

Year	Uses	Source
2009	JASON LUNTZ	Cole Information Services
2004	LINDA LUNTZ	Cole Information Services
1999	JASON LUNTZ	Cole Information Services

6386 LAVENDER ST

Year	Uses	Source
2017	JOE ROCHA	Cole Information Services
2014	JOE ROCHA	Cole Information Services
2009	JOE ROCHA	Cole Information Services
2004	JOE ROCHA	Cole Information Services
2001	ROCHAJoe J	Haines & Company, Inc.
1999	JOE ROCHA	Cole Information Services

6389 LAVENDER ST

Year	Uses	Source
2017	SCOTT COOPER	Cole Information Services
2014	SCOTT COOPER	Cole Information Services
2009	SCOTT COOPER	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	SCOTT COOPER	Cole Information Services

6396 LAVENDER ST

Year	Uses	Source
2017	MATTHEW CROWDER	Cole Information Services
2014	MATTHEW CROWDER	Cole Information Services
2009	MATTHEW CROWDER	Cole Information Services
2004	MATTHEW CROWDER	Cole Information Services
2001	CROWDER Matlhew	Haines & Company, Inc.
1999	MATTHEW CROWDER	Cole Information Services

6399 LAVENDER ST

Year	Uses	Source
2014	MORRIS CHACON	Cole Information Services
2009	CATALINA CHACON	Cole Information Services
2004	JEFFREY MORRIS	Cole Information Services
2001	MORRIS Calalma R	Haines & Company, Inc.
1999	CATALINA CHACON	Cole Information Services

FINDINGS

LAVONDA ST

13100 LAVONDA ST

Year	Uses	Source
2017	CORRINE ALVAREZ	Cole Information Services
2014	CORRINE ALVAREZ	Cole Information Services
2009	AMIT MANCHANDA	Cole Information Services

13103 LAVONDA ST

Year	Uses	Source
2017	BRANT SANDOVAL	Cole Information Services
2014	MARK SANDOVAL	Cole Information Services
2009	MARK SANDOVAL	Cole Information Services
1999	MARK SANDOVAL	Cole Information Services

13110 LAVONDA ST

Year	Uses	Source
2017	MICHAEL ESCOBEDO	Cole Information Services
2014	JOSHUA ESCOBEDO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

13113 LAVONDA ST

Year	Uses	Source
2017	JOSE RUIZ	Cole Information Services
2014	JOSE RUIZ	Cole Information Services
2009	JOSE RUIZ	Cole Information Services
1999	JOSE RUIZ	Cole Information Services

13120 LAVONDA ST

Year	Uses	Source
2017	AUGUSTINE JUAREZ	Cole Information Services
2014	AARON JUAREZ	Cole Information Services
2009	AUGUSTINE JUAREZ	Cole Information Services
1999	AUGUSTINE JUAREZ	Cole Information Services

13123 LAVONDA ST

Year	Uses	Source
2017	SYLVIA STRYKOWSKA	Cole Information Services
2014	SYLVIA STRYKOWSKA	Cole Information Services
2009	SYLVIA STRYKOWSKA	Cole Information Services
1999	SYLVIA STRYKOWSKA	Cole Information Services

FINDINGS

13130 LAVONDA ST

Year	Uses	Source
2017	BRENT ROBERSON	Cole Information Services
2014	RODRIGO DURAN	Cole Information Services
2009	KUMARAN PRAKASH	Cole Information Services
1999	KUMARAN PRAKASH	Cole Information Services

13133 LAVONDA ST

Year	Uses	Source
2017	LIHUA SHEN	Cole Information Services
2014	LIHUA SHEN	Cole Information Services
2009	LIHUA SHEN	Cole Information Services
1999	LIHUA SHEN	Cole Information Services

13140 LAVONDA ST

Year	Uses	Source
2017	CLINT KROESE	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	YI LU	Cole Information Services
1999	YI LU	Cole Information Services

13143 LAVONDA ST

Year	Uses	Source
2017	LORENA ESCOBAR	Cole Information Services
2014	LORENA ESCOBAR	Cole Information Services
2009	IVIS ESCOBAR	Cole Information Services
1999	IVIS ESCOBAR	Cole Information Services

13150 LAVONDA ST

Year	Uses	Source
2017	CASEY WALLEVAND	Cole Information Services
2014	MICHELE DEAN	Cole Information Services
2009	MICHELE DEAN	Cole Information Services
1999	MICHELE DEAN	Cole Information Services

13153 LAVONDA ST

Year	Uses	Source
2017	STEVEN LEFFLER	Cole Information Services
2014	MARC ALPHIN	Cole Information Services
2009	TONI NICOTERA	Cole Information Services
1999	TONI NICOTERA	Cole Information Services

13163 LAVONDA ST

Year	Uses	Source
2017	ALAN ROJO	Cole Information Services
2014	ALAN ROJO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

13173 LAVONDA ST

Year	Uses	Source
2017	ZHEN XIA	Cole Information Services
2014	RONALD HIGHFILL	Cole Information Services
2009	RONALD HIGHFILL	Cole Information Services
1999	RONALD HIGHFILL	Cole Information Services

LIMONITE AVE

12421 LIMONITE AVE

Year	Uses	Source
2009	LYLE PARKS JR INC	Cole Information Services
2004	LYLE PARKS JR INC	Cole Information Services

12423 LIMONITE AVE

Year	Uses	Source
2017	ULTA	Cole Information Services
	GSTAGE	Cole Information Services
2014	ULTA	Cole Information Services

12435 LIMONITE AVE

Year	Uses	Source
2017	PERALTA THE LOCKSMITH	Cole Information Services
	SUNRISE OPTOMETRY	Cole Information Services
	LEWIS OPERATING CORP	Cole Information Services
	CARTERS	Cole Information Services
	KAY JEWELERS	Cole Information Services
	MASSAGE ENVY EASTVALE	Cole Information Services
	TMOBILE	Cole Information Services
	GSTAGE	Cole Information Services
2014	TMOBILE	Cole Information Services
	SUNRISE OPTOMETRY	Cole Information Services
	G STAGE	Cole Information Services
	MASSAGE ENVY EASTVALE	Cole Information Services
	LEWIS OPERATING CORP	Cole Information Services

FINDINGS

Year	Uses	Source
2014	TMOBILE MIRA LOMA	Cole Information Services
2009	SUNRISE OPTOMETRY	Cole Information Services

12447 LIMONITE AVE

Year	Uses	Source
2017	CARINOS ITALIAN GRILL	Cole Information Services
2014	CARINOS ITALIAN GRILL	Cole Information Services
2009	CARINOS ITALIAN GRILL	Cole Information Services

12459 LIMONITE AVE

Year	Uses	Source
2017	RADIOSHACK	Cole Information Services
	ORANGE THEORY FITNESS EASTVALE	Cole Information Services
	VERIZON WIRELESS	Cole Information Services
2014	VERIZON WIRELESS	Cole Information Services
	RADIOSHACK	Cole Information Services

12471 LIMONITE AVE

Year	Uses	Source
2017	FANTASTIC SAMS	Cole Information Services
	AT&T	Cole Information Services
	BANK OF AMERICA	Cole Information Services
	CHIPOTLE MEXICAN GRILL	Cole Information Services
	DRESSBARN	Cole Information Services
	CVS PHAMACY	Cole Information Services
	DOMINOS PIZZA	Cole Information Services
	PICK UP STIX	Cole Information Services
	RADIOSHACK	Cole Information Services
	TJ MAXX	Cole Information Services
	JOHNNY ROCKETS	Cole Information Services
	NUTRISHOP EASTVALE GATEWAY	Cole Information Services
	TARGET	Cole Information Services
	ULTA	Cole Information Services
	GAMESTOP	Cole Information Services
	SPORT CHALET	Cole Information Services
	TUTTI FRUTTI	Cole Information Services
	BUFFALO WILD WINGS GRILL & BAR	Cole Information Services
	APPLEBEES NEIGHBORHOOD GRILL & BAR	Cole Information Services

FINDINGS

Year	Uses	Source
2017	DV URGENT CARE EASTVALE GATEWAY	Cole Information Services
	EDWARDS CINEMAS EASTVALE GATEWAY	Cole Information Services
	GNC	Cole Information Services
	STAPLES EASTVALE GATEWAY	Cole Information Services
	WORKFORCE OUTSOURCING EASTVALE GATEW	Cole Information Services
	TRAN TANNIE OD	Cole Information Services
2014	GEMMAS JEWELERS EASTVALE GATEWAY	Cole Information Services
	EDWARDS CINEMAS EASTVALE GATEWAY	Cole Information Services
	FANTASTIC SAMS EASTVALE GATEWAY	Cole Information Services
	DRESS BARN EASTVALE GATEWAY	Cole Information Services
	CITY OF EASTVALE EASTVALE GATEWAY	Cole Information Services
	BANK OF AMERICA EASTVALE GATEWAY	Cole Information Services
	VERIZON WIRELESS EASTVALE GATEWAY	Cole Information Services
	THAI BAMBOO BISTRO EASTVALE GATEWAY	Cole Information Services
	TARGET	Cole Information Services
	NUTRISHOP EASTVALE GATEWAY	Cole Information Services
	WORKFORCE OUTSOURCING EASTVALE GATEW	Cole Information Services
	THE JOINT CHIROPRACTIC PLACE EASTVAL	Cole Information Services
	BUFFALO WILD WINGS GRILL & BAR EAS	Cole Information Services
2009	TARGET PHARMACY 1961	Cole Information Services

12483 LIMONITE AVE

Year	Uses	Source
2017	PETSMART	Cole Information Services
2014	PETSMART	Cole Information Services
2009	BANFIELD THE PET HOSPITAL	Cole Information Services

12495 LIMONITE AVE

Year	Uses	Source
2017	STAPLES	Cole Information Services
	VERIZON WIRELESS	Cole Information Services

FINDINGS

Year	Uses	Source
2017	STAPLES PRINT & MARKETING	Cole Information Services
2014	STAPLES	Cole Information Services

12511 LIMONITE AVE

Year	Uses	Source
2017	BANK OF AMERICA FINANCIAL CENTER	Cole Information Services
	BANK OF AMERICA	Cole Information Services
2014	BANK OF AMERICA	Cole Information Services
2009	STAPLES THE OFFICE SUPERSTORE LLC	Cole Information Services

12523 LIMONITE AVE

Year	Uses	Source
2017	BRADY & BRADY LLC	Cole Information Services
	EASTVALE OPTOMETRY	Cole Information Services
	FANTASTIC SAMS CUT & COLOR	Cole Information Services
	THE UPS STORE	Cole Information Services
	FOOT REFLEXOLOGY	Cole Information Services
	LUNA GRILL	Cole Information Services
	STAR NAILS & SPA	Cole Information Services
	GNC	Cole Information Services
	BLACK BELT INVESTORS	Cole Information Services
	DISH NETWORK	Cole Information Services
	FANTASTIC SAMS	Cole Information Services
	BLAZE	Cole Information Services
	HAIR ELEGANCE	Cole Information Services
	VALLEY PACIFIC LANDSCAPE INC	Cole Information Services
2014	JASON SALYWODA	Cole Information Services
	STAR NAILS & SPA	Cole Information Services
	CARMEN JOHNSON	Cole Information Services
	LESLIE PHELAN	Cole Information Services
	STEFAN RENER	Cole Information Services
	DYANN LANSING	Cole Information Services
	ERIC LEE	Cole Information Services
	JACK SHELBY	Cole Information Services
	RICHARD GILLILAND	Cole Information Services
	JESSICA JANUS	Cole Information Services
	BERNARDO BARRERA	Cole Information Services
	THOMAS FRY	Cole Information Services

FINDINGS

Year	Uses	Source
2014	BRADY & BRADY LLC	Cole Information Services
	EASTVALE OPTOMETRY	Cole Information Services
	BLOCKBUSTER	Cole Information Services
	THE UPS STORE	Cole Information Services
	FOOT REFLEXOLOGY	Cole Information Services
	AMERICAN SERVCO IMAGING SYSTEMS	Cole Information Services
	GNC	Cole Information Services
	VALLEY PACIFIC LANDSCAPE INC	Cole Information Services
	HAIR ELEGANCE	Cole Information Services
	PATTI MCNABB	Cole Information Services
2009	EASTVALE OPTOMETRY	Cole Information Services
	THOMAS FRY	Cole Information Services
	TUFF INC	Cole Information Services
	BLOCKBUSTER VIDEO	Cole Information Services
	GENERAL NUTRITION CENTER	Cole Information Services
	CALIFORNIA HAIR PHASES INTERNATIONAL	Cole Information Services
	ULTIMATE GEAR	Cole Information Services
	AUTOMATED CASH MGMT SYSTEMS	Cole Information Services
	HAIR ELEGANCE	Cole Information Services
	GILLILAND REAL ESTATE NETWORK	Cole Information Services
	STAR NAILS & SPA	Cole Information Services
	TIFFANY CHIZMAR	Cole Information Services
	VERONICA MADRIGAL	Cole Information Services
	ALBERT HAUSER	Cole Information Services
	BRENT WILLIAMS	Cole Information Services
	ANDREA CONTRERAS	Cole Information Services
	SHARON MORRISON	Cole Information Services
	CHOONG LEE	Cole Information Services
	TONY CHUNG	Cole Information Services
	MARYS HALLMARK SHOP	Cole Information Services
1999	TIFFANY CHIZMAR	Cole Information Services
	VERONICA MADRIGAL	Cole Information Services
	ALBERT HAUSER	Cole Information Services
	BRENT WILLIAMS	Cole Information Services
	TONY CHUNG	Cole Information Services
	SHARON MORRISON	Cole Information Services
	CHOONG LEE	Cole Information Services

FINDINGS

Year	Uses	Source
1999	THOMAS FRY	Cole Information Services
	ANDREA CONTRERAS	Cole Information Services

12525 LIMONITE AVE

Year	Uses	Source
2014	MARILYN MASON	Cole Information Services

12545 LIMONITE AVE

Year	Uses	Source
2017	FARMER BOYS	Cole Information Services
2014	FARMER BOYS	Cole Information Services

12569 LIMONITE AVE

Year	Uses	Source
2017	THE HABIT BURGER GRILL	Cole Information Services
	OCEANVIEW WIRELESS LLC	Cole Information Services
	JERSEY MIKES SUBS	Cole Information Services
	AT&T AUTHORIZED RETAILER	Cole Information Services
	DICKEYS BARBECUE PIT	Cole Information Services
	COLD STONE CREAMERY	Cole Information Services
2014	JERSEY MIKES SUBS	Cole Information Services
	DICKEYS BARBECUE PIT	Cole Information Services
	COLD STONE CREAMERY	Cole Information Services
	HABIT RESTAURANTS LLC	Cole Information Services
	OCEANVIEW WIRELESS LLC	Cole Information Services
2009	COFFEE BEAN & TEA LEAF	Cole Information Services
	RED BRICK PIZZA	Cole Information Services
	COLD STONE CREAMERY	Cole Information Services
	PLANET MARS FAST FOOD INC	Cole Information Services

12571 LIMONITE AVE

Year	Uses	Source
2017	PICK UP STIX	Cole Information Services
	EASTVALE DENTAL GROUP	Cole Information Services
	WELLS FARGO ATM	Cole Information Services
	EASTVALE GATEWAY	Cole Information Services
	RAMI DIMITRI DDS	Cole Information Services
	CPR CELL PHONE REPAIR EASTVALE	Cole Information Services
	SUPERCUTS	Cole Information Services

FINDINGS

Year	Uses	Source
2017	GATEWAY DENTAL GROUP & ORTHODONTIC	Cole Information Services
	CHARLES RODGERS DDS	Cole Information Services
	C2 EDUCATION	Cole Information Services
	PIOS MEXICAN RESTAURANT	Cole Information Services
2014	PICK UP STIX	Cole Information Services
	DIMITRI RAMI DDS	Cole Information Services
	C2 EDUCATION	Cole Information Services
	GATEWAY DENTAL GROUP	Cole Information Services
	TUTTI FRUTTI	Cole Information Services
	EASTVALE GATEWAY	Cole Information Services
	EASTVALE DENTAL GROUP	Cole Information Services
	CHARLES RODGERS DDS	Cole Information Services
	SUPERCUTS	Cole Information Services
2009	COOL CUTS 4 KIDS	Cole Information Services
	L & L HAWAIIAN BBQ	Cole Information Services
	CELLULAR WORLD	Cole Information Services
	MARKETPLACE CLEANERS	Cole Information Services
	RODGERS DENTAL CORP	Cole Information Services
	JEWELRY HEAVEN	Cole Information Services

12700 LIMONITE AVE

Year	Uses	Source
2017	STARBUCKS COFFEE	Cole Information Services
	STARBUCKS	Cole Information Services
2014	STARBUCKS COFFEE	Cole Information Services

12732 LIMONITE AVE

Year	Uses	Source
2017	THE PRETTY KITTY INC	Cole Information Services
	GOLDEN SPOON FROZEN YOGURT	Cole Information Services
2014	THE PRETTY KITTY INC	Cole Information Services
	GOLDEN SPOON FROZEN YOGURT	Cole Information Services
2009	GOLDEN SPOON FROZEN YOGURT	Cole Information Services

12741 LIMONITE AVE

Year	Uses	Source
2014	BRAD LEAL	Cole Information Services
2009	JOHN LEAL	Cole Information Services
	HAIMAN SHANDRA	Cole Information Services

Year	Uses	Source
1999	JOHN LEAL	Cole Information Services

12754 LIMONITE AVE

Year	Uses	Source
2017	THE LEARNING EXPERIENCE	Cole Information Services
	CLOVERDALE MARKETPLACE LLC	Cole Information Services
2014	THE LEARNING EXPERIENCE	Cole Information Services
	CLOVERDALE MARKETPLACE LLC	Cole Information Services

12762 LIMONITE AVE

Year	Uses	Source
2017	CLOVERDALE MARKETPLACE LLC	Cole Information Services
	SOCCER WEARHOUSE	Cole Information Services
	WABA GRILL	Cole Information Services
2014	CLOVERDALE MARKETPLACE LLC	Cole Information Services
	SOCCER WEARHOUSE	Cole Information Services
	WABA GRILL	Cole Information Services

12768 LIMONITE AVE

Year	Uses	Source
2017	PONINOS PIZZARENA	Cole Information Services
2014	PONINOS PIZZARENA	Cole Information Services

12774 LIMONITE AVE

Year	Uses	Source
2017	BRENDA GUZMAN	Cole Information Services
2014	BRENDA GUZMAN	Cole Information Services
2009	HARADA FARMS	Cole Information Services
	GIHA TRANSPORT INC	Cole Information Services

LONGHORNE DR

12601 LONGHORNE DR

Year	Uses	Source
2017	ANDY GARCIA	Cole Information Services
2014	ANDY GARCIA	Cole Information Services
2009	ANDY GARCIA	Cole Information Services
2004	ANDY GARCIA	Cole Information Services
1999	ANDY GARCIA	Cole Information Services

FINDINGS

12613 LONGHORNE DR

Year	Uses	Source
2017	DIEGO CARRILLO	Cole Information Services
2014	DIEGO CARRILLO	Cole Information Services
2009	DIEGO CARRILLO	Cole Information Services
2004	EDEANNE LINK	Cole Information Services

12625 LONGHORNE DR

Year	Uses	Source
2017	TOMMY NGUYEN	Cole Information Services
2014	MINH NGUYEN	Cole Information Services
2009	MINHMERIT NGUYEN	Cole Information Services
2004	MINH NGUYEN	Cole Information Services
1999	MINHMERIT NGUYEN	Cole Information Services

12637 LONGHORNE DR

Year	Uses	Source
2014	RAMY GHABOUR	Cole Information Services
2009	RAMY GHABOUR	Cole Information Services
2004	RAMY GHABOUR	Cole Information Services
1999	RAMY GHABOUR	Cole Information Services

12649 LONGHORNE DR

Year	Uses	Source
2014	MARIA BRAVO	Cole Information Services
2009	JOSE DAVALOS	Cole Information Services
2004	MICHAEL RANDALL	Cole Information Services
1999	JOSE DAVALOS	Cole Information Services

12654 LONGHORNE DR

Year	Uses	Source
2017	KENT ROBERTS	Cole Information Services
2014	KENT ROBERTS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	NORCO REGENT	Cole Information Services

12661 LONGHORNE DR

Year	Uses	Source
2017	SON CHIEM	Cole Information Services
2014	SON CHIEM	Cole Information Services
2009	SON CHIEM	Cole Information Services

Year	Uses	Source
2004	SON CHIEM	Cole Information Services
1999	SON CHIEM	Cole Information Services

12666 LONGHORNE DR

Year	Uses	Source
2017	JANES TWYFORD	Cole Information Services
2014	JANES TWYFORD	Cole Information Services
2009	JIM TWYFORD MAINTENANCE CO	Cole Information Services
	JIM TWYFORD	Cole Information Services
2004	JIM TWYFORD	Cole Information Services
1999	JIM TWYFORD	Cole Information Services

12673 LONGHORNE DR

Year	Uses	Source
2017	MARK BELL	Cole Information Services
2014	MARK BELL	Cole Information Services
2009	MARK BELL	Cole Information Services
2004	MARK BELL	Cole Information Services
1999	MARK BELL	Cole Information Services

12678 LONGHORNE DR

Year	Uses	Source
2017	VUI HUYNH	Cole Information Services
2014	TERESA CHANG	Cole Information Services
2009	YOUNG CHANG	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	YOUNG CHANG	Cole Information Services

12685 LONGHORNE DR

Year	Uses	Source
2017	QUANG VO	Cole Information Services
	V Q	Cole Information Services
2014	QUANG VO	Cole Information Services
2009	QUANG VO	Cole Information Services
2004	LEMA NGUYEN	Cole Information Services
1999	QUANG VO	Cole Information Services

12690 LONGHORNE DR

Year	Uses	Source
2017	CECILIA MENDOZA	Cole Information Services

Year	Uses	Source
2014	NANCY MENDOZA	Cole Information Services
2009	WON HAM	Cole Information Services
2004	WILLIAM QUINONEZ	Cole Information Services
1999	WON HAM	Cole Information Services

12702 LONGHORNE DR

Year	Uses	Source
2017	DENNIS JAMES	Cole Information Services
2014	DENNIS JAMES	Cole Information Services
2009	DENNIS JAMES	Cole Information Services
2004	JAMES BERG	Cole Information Services
1999	DENNIS JAMES	Cole Information Services

12714 LONGHORNE DR

Year	Uses	Source
2017	GARY THOMPSON	Cole Information Services
2014	GARY THOMPSON	Cole Information Services
2009	GARY THOMPSON	Cole Information Services
2004	GARY THOMPSON	Cole Information Services
1999	GARY THOMPSON	Cole Information Services

12726 LONGHORNE DR

Year	Uses	Source
2017	CARLOS ESCUDERO	Cole Information Services
2014	CARLOS ESCUDERO	Cole Information Services
2009	CARLOS ESCUDERO	Cole Information Services
2004	CARLOS ESCUDERO	Cole Information Services
1999	CARLOS ESCUDERO	Cole Information Services

12733 LONGHORNE DR

Year	Uses	Source
2017	VIET HUYNH	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	VIET HUYNH	Cole Information Services
2004	VIET HUYNH	Cole Information Services
1999	VIET HUYNH	Cole Information Services

12738 LONGHORNE DR

Year	Uses	Source
2017	ABHISHEK JOSHI	Cole Information Services

FINDINGS

Year	Uses	Source
2014	ABHISHEK JOSHI	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JOHN PRIOR	Cole Information Services

12745 LONGHORNE DR

Year	Uses	Source
2017	PETRONILO MEDINA	Cole Information Services
2014	PETRONILO MEDINA	Cole Information Services
2009	PETRONILO MEDINA	Cole Information Services
2004	PETRONILO MEDINA	Cole Information Services
1999	PETRONILO MEDINA	Cole Information Services

12757 LONGHORNE DR

Year	Uses	Source
2017	MANUEL VIRAMONTES	Cole Information Services
2014	MANUEL VIRAMONTES	Cole Information Services
2009	MANUEL VIRAMONTES	Cole Information Services
2004	MANUEL VIRAMONTES	Cole Information Services
1999	MANUEL VIRAMONTES	Cole Information Services

12762 LONGHORNE DR

Year	Uses	Source
2017	DAVID LEITAO	Cole Information Services
2014	DAVID LEITAO	Cole Information Services
2009	GEORGE GARIBAY	Cole Information Services
2004	DAVID LEITAO	Cole Information Services
1999	GEORGE GARIBAY	Cole Information Services

12769 LONGHORNE DR

Year	Uses	Source
2017	JOSEPHINE PORRECA	Cole Information Services
2014	JOSEPHINE PORRECA	Cole Information Services
2009	JOSEPHINE PORRECA	Cole Information Services
2004	WILLIAM PORRECA	Cole Information Services
1999	JOSEPHINE PORRECA	Cole Information Services

12774 LONGHORNE DR

Year	Uses	Source
2017	IL CHOI	Cole Information Services
2014	IL CHOI	Cole Information Services

Year	Uses	Source
2009	CHOICE TRADING CO INC	Cole Information Services
	DUCK CHOI	Cole Information Services
2004	DUCK CHOI	Cole Information Services
1999	DUCK CHOI	Cole Information Services

12786 LONGHORNE DR

Year	Uses	Source
2017	NHO VO	Cole Information Services
2009	NHO VO	Cole Information Services
2004	NHO VO	Cole Information Services
1999	NHO VO	Cole Information Services

12793 LONGHORNE DR

Year	Uses	Source
2017	SHAOTANG GUO	Cole Information Services
2014	PAUL CUMMINS	Cole Information Services
2009	PAUL CUMMINS	Cole Information Services
	JMP DESIGNS	Cole Information Services
2004	PAUL CUMMINS	Cole Information Services
1999	PAUL CUMMINS	Cole Information Services

12798 LONGHORNE DR

Year	Uses	Source
2017	MICHAEL PAYNE	Cole Information Services
2014	MICHAEL PAYNE	Cole Information Services
2009	MICHAEL PAYNE	Cole Information Services
1999	MICHAEL PAYNE	Cole Information Services

MARIGOLD

6325 MARIGOLD

Year	Uses	Source
2002	Beyers James	SBC PACIFIC BELL

6335 MARIGOLD

Year	Uses	Source
2002	Carletello Dawn	SBC PACIFIC BELL

6352 MARIGOLD

Year	Uses	Source
2002	Policky John S	SBC PACIFIC BELL

FINDINGS

6362 MARIGOLD

Year	Uses	Source
2002	Jessop H Lynn	SBC PACIFIC BELL

6385 MARIGOLD

Year	Uses	Source
2002	Bow Andrew	SBC PACIFIC BELL

6392 MARIGOLD

Year	Uses	Source
2002	Dewhurst Roger	SBC PACIFIC BELL

MARIGOLD DR

6325 MARIGOLD DR

Year	Uses	Source
2001	BEYERSJames	Haines & Company, Inc.

6352 MARIGOLD DR

Year	Uses	Source
2001	POLICKYJohn S	Haines & Company, Inc.

6382 MARIGOLD DR

Year	Uses	Source
2001	JESSOPHLynn	Haines & Company, Inc.

6385 MARIGOLD DR

Year	Uses	Source
2001	BOWAndrew	Haines & Company, Inc.

6392 MARIGOLD DR

Year	Uses	Source
2001	DEWHURST Roger	Haines & Company, Inc.

MARIGOLD ST

6312 MARIGOLD ST

Year	Uses	Source
2017	ROBERT JACKSON	Cole Information Services
2014	ROBERT JACKSON	Cole Information Services
2009	ROBERT JACKSON	Cole Information Services

FINDINGS

Year	Uses	Source
2009	PEOPLE PROVIDING TRAINING SOLUTIONS	Cole Information Services
2004	ROBERT JACKSON	Cole Information Services
1999	ROBERT JACKSON	Cole Information Services

6315 MARIGOLD ST

Year	Uses	Source
2017	SANDRA NUNEZ	Cole Information Services
2014	EZEQUIEL VALENCIA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	DANIEL SALLARD	Cole Information Services

6322 MARIGOLD ST

Year	Uses	Source
2014	BRUCE SCHILLER	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JOHN CROSSE	Cole Information Services

6325 MARIGOLD ST

Year	Uses	Source
2017	HONGBING YU	Cole Information Services
2014	JAMES BEYERS	Cole Information Services
2009	JAMES BEYERS	Cole Information Services
2004	JAMES BEYERS	Cole Information Services
1999	JAMES BEYERS	Cole Information Services

6328 MARIGOLD ST

Year	Uses	Source
2009	KENNETH GIDNEY	Cole Information Services
1999	KENNETH GIDNEY	Cole Information Services

6332 MARIGOLD ST

Year	Uses	Source
2017	THANG NGUYEN	Cole Information Services
2014	THANG NGUYEN	Cole Information Services
2009	THANG NGUYEN	Cole Information Services
2004	LAVAUGHN HARRIS	Cole Information Services
1999	THANG NGUYEN	Cole Information Services

FINDINGS

6335 MARIGOLD ST

Year	Uses	Source
2017	JOHN CARLETELLO	Cole Information Services
2014	JOHNNY CARLETELLO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

6342 MARIGOLD ST

Year	Uses	Source
2017	JERRY WOOD	Cole Information Services
2014	JERRY WOOD	Cole Information Services
2009	JERRY WOOD	Cole Information Services
1999	JERRY WOOD	Cole Information Services

6345 MARIGOLD ST

Year	Uses	Source
2017	EDGAR NOICE	Cole Information Services
2014	EDGAR NOICE	Cole Information Services
2009	EDGAR NOICE	Cole Information Services
2004	EDGAR NOICE	Cole Information Services
1999	EDGAR NOICE	Cole Information Services

6352 MARIGOLD ST

Year	Uses	Source
2017	ANDRE YANCEY	Cole Information Services
2014	MANUEL JAIME	Cole Information Services
2009	MANUEL JAIME	Cole Information Services
2004	CORINNA BAKER	Cole Information Services
1999	MANUEL JAIME	Cole Information Services

6355 MARIGOLD ST

Year	Uses	Source
2017	MANUEL CID	Cole Information Services
2014	MANUEL CID	Cole Information Services
2009	MANUEL CID	Cole Information Services
2004	DANIELLE CAROCCIA	Cole Information Services
1999	MANUEL CID	Cole Information Services

6358 MARIGOLD ST

Year	Uses	Source
2009	ANDREW BOW	Cole Information Services

FINDINGS

Year	Uses	Source
2004	ANDREW BOW	Cole Information Services
1999	ANDREW BOW	Cole Information Services

6362 MARIGOLD ST

Year	Uses	Source
2017	JASON BOSCH	Cole Information Services
2014	JASON BOSCH	Cole Information Services
2009	JASON BOSCH	Cole Information Services
2004	LOREN BJORN	Cole Information Services
1999	JASON BOSCH	Cole Information Services

6365 MARIGOLD ST

Year	Uses	Source
2017	TANYA AQUINO	Cole Information Services
2014	TANYA AQUINO	Cole Information Services
2009	JOSE PENA	Cole Information Services
2004	MORRIS SHUBIN	Cole Information Services
1999	JOSE PENA	Cole Information Services

6372 MARIGOLD ST

Year	Uses	Source
2017	TINA YBARRA	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	EASTVALE CLEANING SERVICES	Cole Information Services
	MELISSA TACKER	Cole Information Services
2004	NORMAN WARE	Cole Information Services
	PARALEGAL FINDERS	Cole Information Services
1999	MELISSA TACKER	Cole Information Services

6375 MARIGOLD ST

Year	Uses	Source
2014	GREGORY GALLINGTON	Cole Information Services
2009	GREGORY GALLINGTON	Cole Information Services
2004	GREGORY GALLINGTON	Cole Information Services
1999	GREGORY GALLINGTON	Cole Information Services

6382 MARIGOLD ST

Year	Uses	Source
2017	ROGELIO MELENDEZ	Cole Information Services
2014	ROGELIO MELENDEZ	Cole Information Services

Year	Uses	Source
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	KENNETH GIDNEY	Cole Information Services

6385 MARIGOLD ST

Year	Uses	Source
2017	MOHAMMAD IRFAN	Cole Information Services
2014	MOHAMMAD IRFAN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	NADIA ARIF	Cole Information Services

6392 MARIGOLD ST

Year	Uses	Source
2017	KRISTY CORTEZ	Cole Information Services
2014	RAUL CASANOVA	Cole Information Services
2009	SHANI PANGANIBAN	Cole Information Services
2004	ROGER DEWHURST	Cole Information Services
1999	SHANI PANGANIBAN	Cole Information Services

6395 MARIGOLD ST

Year	Uses	Source
2017	ROBERT SHELDON	Cole Information Services
2014	ROBERT SHELDON	Cole Information Services
2009	ROBERT SHELDON	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	ROBERT SHELDON	Cole Information Services

MARK TWAIN CT

5713 MARK TWAIN CT

Year	Uses	Source
2017	KYLE HILL	Cole Information Services
2014	KYLE HILL	Cole Information Services
2009	DEBORAH BALIJA	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	DEBORAH BALIJA	Cole Information Services

5716 MARK TWAIN CT

Year	Uses	Source
2017	ERNESTO NAVARRO	Cole Information Services
2014	ERNELYN NAVARRO	Cole Information Services

FINDINGS

Year	Uses	Source
2009	KENNETH CHEUNG	Cole Information Services
2004	ERNELYN NAVARRO	Cole Information Services
1999	KENNETH CHEUNG	Cole Information Services

5719 MARK TWAIN CT

Year	Uses	Source
2017	LAURA MACIAS	Cole Information Services
2014	RUBEN MACIAS	Cole Information Services
2009	FLOYD HENRY	Cole Information Services
2004	FLOYD HENRY	Cole Information Services
1999	FLOYD HENRY	Cole Information Services

5722 MARK TWAIN CT

Year	Uses	Source
2014	ALEX ALVARADO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

5725 MARK TWAIN CT

Year	Uses	Source
2017	JOHN WOO	Cole Information Services
2014	JOHN WOO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JOSE ROSALES	Cole Information Services

5728 MARK TWAIN CT

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	CURTIS ROBERSON	Cole Information Services
1999	CURTIS ROBERSON	Cole Information Services

5731 MARK TWAIN CT

Year	Uses	Source
2014	MY BUI	Cole Information Services
2009	BRIAN TRAN	Cole Information Services
2004	BRIAN TRAN	Cole Information Services
1999	BRIAN TRAN	Cole Information Services

FINDINGS

5734 MARK TWAIN CT

Year	*Uses*	*Source*
2017	ROBERTO HULSEY	Cole Information Services
2014	ROBERTO HULSEY	Cole Information Services
2009	ROBERTO HULSEY	Cole Information Services
2004	ROBERTO HULSEY	Cole Information Services
1999	ROBERTO HULSEY	Cole Information Services

5737 MARK TWAIN CT

Year	*Uses*	*Source*
2017	JAMES TOBIN	Cole Information Services
2014	JAMES TOBIN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JAMES TOBIN	Cole Information Services
	JET ELECTRICAL CO	Cole Information Services

5740 MARK TWAIN CT

Year	*Uses*	*Source*
2017	ALFRED HORTA	Cole Information Services
2014	ALFRED HORTA	Cole Information Services
2009	JOSE HORTA	Cole Information Services
2004	JOSE HORTA	Cole Information Services
1999	JOSE HORTA	Cole Information Services

5743 MARK TWAIN CT

Year	*Uses*	*Source*
2017	PISETH CHRIN	Cole Information Services
2014	PISETH CHRIN	Cole Information Services
2009	MARGIE CHRIN	Cole Information Services
2004	MARGIE CHRIN	Cole Information Services
1999	MARGIE CHRIN	Cole Information Services

5749 MARK TWAIN CT

Year	*Uses*	*Source*
2017	JOHN RUBIO	Cole Information Services
2014	JOHN RUBIO	Cole Information Services
2009	ROBERT FIGUEROA	Cole Information Services
2004	JESUS MENA	Cole Information Services
1999	ROBERT FIGUEROA	Cole Information Services

FINDINGS

5755 MARK TWAIN CT

Year	Uses	Source
2017	SERGIO GONZALEZ	Cole Information Services
2014	DENISIA TALAVERA	Cole Information Services
2009	ALBERT LAPP	Cole Information Services
2004	ALBERT LAPP	Cole Information Services
1999	ALBERT LAPP	Cole Information Services

5761 MARK TWAIN CT

Year	Uses	Source
2017	EFREN DELGADO	Cole Information Services
2014	EFREN DELGADO	Cole Information Services
2009	EFREN DELGADO	Cole Information Services
2004	MICHAEL CONLEY	Cole Information Services
1999	EFREN DELGADO	Cole Information Services

5767 MARK TWAIN CT

Year	Uses	Source
2017	SHARON FLETCHER	Cole Information Services
2014	SHARON FLETCHER	Cole Information Services
2009	L CARDENAS	Cole Information Services
2004	SHARON FLETCHER	Cole Information Services

5773 MARK TWAIN CT

Year	Uses	Source
2017	RYAN CHRISTIAN	Cole Information Services
2014	RYAN CHRISTIAN	Cole Information Services
2009	RYAN CHRISTIAN	Cole Information Services
2004	RYAN CHRISTIAN	Cole Information Services
1999	RYAN CHRISTIAN	Cole Information Services

MARYLAND AVE

12830 MARYLAND AVE

Year	Uses	Source
2014	ELIZABETH SANTILLAN	Cole Information Services
2009	TODD NICHOLS	Cole Information Services
2004	TODD NICHOLS	Cole Information Services
1999	TODD NICHOLS	Cole Information Services

FINDINGS

12835 MARYLAND AVE

Year	Uses	Source
2017	RUSSELITO ALMANZOR	Cole Information Services
2014	RUSSELITO ALMANZOR	Cole Information Services
2009	RON HOGAN	Cole Information Services
1999	RON HOGAN	Cole Information Services

12840 MARYLAND AVE

Year	Uses	Source
2017	JAVIER SANTANA	Cole Information Services
2014	JAVIER SANTANA	Cole Information Services
2009	BLINDS TODAY	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2004	JAVIER SANTANA	Cole Information Services

12845 MARYLAND AVE

Year	Uses	Source
2017	CHEERAPORN CHAIYASIT	Cole Information Services
2014	CHEERAPORN CHAIYASIT	Cole Information Services
2009	CHEERAPORN CHAIYASIT	Cole Information Services
1999	CHEERAPORN CHAIYASIT	Cole Information Services

12850 MARYLAND AVE

Year	Uses	Source
2014	ERNESTINE BROWNING	Cole Information Services
2009	ERICK DOUGLAS	Cole Information Services
2004	DERRICK BROWNING	Cole Information Services
1999	ERICK DOUGLAS	Cole Information Services

12855 MARYLAND AVE

Year	Uses	Source
2017	JUNG KIM	Cole Information Services
2014	HYUN KIM	Cole Information Services
2009	TODSPORN BUNYAPANASARN	Cole Information Services
1999	TODSPORN BUNYAPANASARN	Cole Information Services

12860 MARYLAND AVE

Year	Uses	Source
2014	JORGE MEDRANO	Cole Information Services
2009	JORGE MEDRANO	Cole Information Services
2004	JORGE MEDRANO	Cole Information Services

FINDINGS

Year	Uses	Source
1999	JORGE MEDRANO	Cole Information Services

12865 MARYLAND AVE

Year	Uses	Source
2017	JOSE MAGALLON	Cole Information Services
2014	JOSE MAGALLON	Cole Information Services
2009	JOSE MAGALLON	Cole Information Services

12875 MARYLAND AVE

Year	Uses	Source
2017	BERNADETTE EZEKWE	Cole Information Services
2014	BERNADETTE EZEKWE	Cole Information Services
2009	ARTURO VASQUEZ	Cole Information Services
1999	ARTURO VASQUEZ	Cole Information Services

12885 MARYLAND AVE

Year	Uses	Source
2017	A AZILA	Cole Information Services
2014	CINDY AVILA	Cole Information Services
2009	RAMANI KETHIREDDY	Cole Information Services
1999	RAMANI KETHIREDDY	Cole Information Services

12895 MARYLAND AVE

Year	Uses	Source
2014	JOAN CUDE	Cole Information Services
2009	D RODRIGUEZ	Cole Information Services
1999	D RODRIGUEZ	Cole Information Services

12915 MARYLAND AVE

Year	Uses	Source
2017	DAVID BOSWELL	Cole Information Services
2014	DAVID BOSWELL	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	DAVID BOSWELL	Cole Information Services

12925 MARYLAND AVE

Year	Uses	Source
2017	JOSE MONTOYA	Cole Information Services
2014	ELIZABETH DIAZ	Cole Information Services
2009	TAIL WAG N FUN MOBILE PET SPAW	Cole Information Services

FINDINGS

Year	Uses	Source
2009	DONALD OCONNELL	Cole Information Services
2004	DONALD OCONNELL	Cole Information Services

12935 MARYLAND AVE

Year	Uses	Source
2017	JENNIFER MAURICIO	Cole Information Services
2014	JENNIFER MAURICIO	Cole Information Services
2009	RYAN PRITCHARD	Cole Information Services
2004	RYAN PRITCHARD	Cole Information Services
1999	RYAN PRITCHARD	Cole Information Services

12945 MARYLAND AVE

Year	Uses	Source
2014	ERNESTO GARCIA	Cole Information Services
2009	ERNESTO GARCIA	Cole Information Services
2004	MARTIN ESTRADA	Cole Information Services
	MCL ENTERPRISES	Cole Information Services
1999	ERNESTO GARCIA	Cole Information Services

12955 MARYLAND AVE

Year	Uses	Source
2017	TIMOTHY POLICY	Cole Information Services
2014	TIMOTHY POLICY	Cole Information Services
2009	TIMOTHY POLICY	Cole Information Services
2004	TIMOTHY POLICY	Cole Information Services
	TIMS WATER SERVICE	Cole Information Services
1999	TIMOTHY POLICY	Cole Information Services

12965 MARYLAND AVE

Year	Uses	Source
2017	GIOVANNI GHENT	Cole Information Services
2014	GIOVANNI GHENT	Cole Information Services
2009	GIOVANNI GHENT	Cole Information Services
2004	GIOVANNI GHENT	Cole Information Services
1999	GIOVANNI GHENT	Cole Information Services

12975 MARYLAND AVE

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	RICK ROOKER	Cole Information Services

Year	Uses	Source
2004	RICK ROOKER	Cole Information Services
1999	RICK ROOKER	Cole Information Services

12985 MARYLAND AVE

Year	Uses	Source
2017	MARTIN ZATARAIN	Cole Information Services
2014	MARTIN ZATARAIN	Cole Information Services
2009	MARTIN ZATARAIN	Cole Information Services
1999	MARTIN ZATARAIN	Cole Information Services

12995 MARYLAND AVE

Year	Uses	Source
2014	DAVE BOSWELL	Cole Information Services

MAYFAIR CIR

10 MAYFAIR CIR

Year	Uses	Source
1977	Manders Elmer F	Pacific Telephone

11 MAYFAIR CIR

Year	Uses	Source
1986	Hubbard Thos N	Pacific Bell Yellow Pages

96 MAYFAIR CIR

Year	Uses	Source
2004	LORETTA HERNANDEZ	Cole Information Services
1977	Papaleo Cataldo T	Pacific Telephone

97 MAYFAIR CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1994	STALLINGS, WILLIAM E	Cole Information Services
1986	Stallings Wm Earl	Pacific Bell Yellow Pages
1981	Stallings Wm Earl	Pacific Telephone
1977	Blue L M	Pacific Telephone

98 MAYFAIR CIR

Year	Uses	Source
2002	Gomez Angelica	SBC PACIFIC BELL
2001	GOMEZAngelica	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1986	Staerkel N E	Pacific Bell Yellow Pages
1981	Staerkel N E	Pacific Telephone
1977	Staerkel N E	Pacific Telephone

99 MAYFAIR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.

100 MAYFAIR CIR

Year	Uses	Source
2004	ANOTHER PLANT PLACE	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Conrad Clyde	Pacific Bell Yellow Pages
1977	Conrad Clyde	Pacific Telephone

101 MAYFAIR CIR

Year	Uses	Source
2004	JENNY HILL	Cole Information Services
2002	Hill Joe	SBC PACIFIC BELL

102 MAYFAIR CIR

Year	Uses	Source
2004	MARIA COVARRUBIAS	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1981	Callahan Lloyd J	Pacific Telephone
1977	Mc Quown P J	Pacific Telephone

103 MAYFAIR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
	HONDUMEX	Cole Information Services
1981	Reed John M	Pacific Telephone
1977	Reed John M	Pacific Telephone

104 MAYFAIR CIR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	LAYTON, HENRY L	Cole Information Services
1986	Layton Henry L	Pacific Bell Yellow Pages

Year	Uses	Source
1977	Layton Henry L	Pacific Telephone
	Layton Grace L	Pacific Telephone

105 MAYFAIR CIR

Year	Uses	Source
2004	JESUS LUPERCIO	Cole Information Services
2002	Lupercio Jesus	SBC PACIFIC BELL
2001	LUPERCIOJesus	Haines & Company, Inc.
1994	ANDERSON, DAVID	Cole Information Services
1977	Berger Clifford F	Pacific Telephone

106 MAYFAIR CIR

Year	Uses	Source
2017	PAULINE FLIPPO	Cole Information Services
2014	REGINA TRVJILLO	Cole Information Services
	PAULINE FLIPPO	Cole Information Services
2009	RAY TRVJILLO	Cole Information Services
2004	RAY TRVJILLO	Cole Information Services
2001	MORGAN Melissa L	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
	RAY TRVJILLO	Cole Information Services
1994	BOGDANOFF, NICK	Cole Information Services
	FUCHS, PAUL	Cole Information Services
1986	Fuchs Paul	Pacific Bell Yellow Pages
1981	Fuchs Paul	Pacific Telephone
1977	Fuchs Paul	Pacific Telephone

107 MAYFAIR CIR

Year	Uses	Source
2004	ALVARO ROBLEDO	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Beaver Pat	Pacific Bell Yellow Pages
1981	Nelson L H	Pacific Telephone
1977	Nelson Lee C	Pacific Telephone

108 MAYFAIR CIR

Year	Uses	Source
2004	HUMBERTO ESTRADA	Cole Information Services
2001	ESTRADAHum	Haines & Company, Inc.
1977	Heimerl Jos	Pacific Telephone

109 MAYFAIR CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Faulkner Danny & Toni	Pacific Bell Yellow Pages
1981	Hicks Braden W	Pacific Telephone
1977	Hicks Braden W	Pacific Telephone

110 MAYFAIR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1981	Manders Elmer F	Pacific Telephone

111 MAYFAIR CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1977	Novotny Arthur	Pacific Telephone

112 MAYFAIR CIR

Year	Uses	Source
2004	STEVEN ROMO	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Fitzgerald Bill	Pacific Bell Yellow Pages
1981	Pongetti Louis A	Pacific Telephone

MONTEREY CIR

149 MONTEREY CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1994	GORMLEY, LEE	Cole Information Services
1986	Gormley Lee	Pacific Bell Yellow Pages
1981	Gormley Lee	Pacific Telephone

150 MONTEREY CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1981	Seely Jinks	Pacific Telephone
1977	Seely Jas H	Pacific Telephone
	Seely Jinks	Pacific Telephone

FINDINGS

151 MONTEREY CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.

152 MONTEREY CIR

Year	Uses	Source
2004	JACK THOMPSON	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Manning Harold A	Pacific Telephone
1977	Manning Harold A	Pacific Telephone
	Manning J	Pacific Telephone

153 MONTEREY CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	MILLER, ELMER L	Cole Information Services
1986	Miller Elmer Lefty	Pacific Bell Yellow Pages
1981	Miller Elmer Lefty	Pacific Telephone
1977	Miller Elmer Lefty	Pacific Telephone

154 MONTEREY CIR

Year	Uses	Source
2004	RAYMOND RICHEY	Cole Information Services
2001	RICHEY Raymond L	Haines & Company, Inc.
1994	RICHEY, RAYMOND L	Cole Information Services
	RICHEY RAYMOND L	Cole Information Services
1986	Richey Raymond L	Pacific Bell Yellow Pages
1977	Morton Oscar W	Pacific Telephone

155 MONTEREY CIR

Year	Uses	Source
2004	ELIZABETH CASTRO	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1981	Moran Russell F	Pacific Telephone
1977	Moran Russell F	Pacific Telephone

156 MONTEREY CIR

Year	Uses	Source
1981	Hart Earl W	Pacific Telephone
1977	Hart Earl W	Pacific Telephone

157 MONTEREY CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Macy Jas D Sr	Pacific Bell Yellow Pages
	Macy H M	Pacific Bell Yellow Pages

158 MONTEREY CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	LOCKWOOD, VERNON C	Cole Information Services
1986	Lockwood Vernon C	Pacific Bell Yellow Pages
1981	Schanbacher FE	Pacific Telephone
1977	Schanbacher F E	Pacific Telephone

159 MONTEREY CIR

Year	Uses	Source
2004	ROBERT SCHIELKE	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Snyder B V	Pacific Bell Yellow Pages
1981	Snyder B V	Pacific Telephone
1977	Snyder B V	Pacific Telephone

160 MONTEREY CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Penton Chas E	Pacific Bell Yellow Pages
	Pentoney Ken	Pacific Bell Yellow Pages
1981	Penton Chas E	Pacific Telephone
1977	Pentland Jeff	Pacific Telephone

161 MONTEREY CIR

Year	Uses	Source
2004	FRANCISCO RUIZ	Cole Information Services

162 MONTEREY CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Coker Wm C	Pacific Bell Yellow Pages
1981	Coker Wm C	Pacific Telephone

Year	Uses	Source
1981	Coker Wm C	Pacific Telephone

MONTEREY LN

150 MONTEREY LN

Year	Uses	Source
1970	Fogliasso Jinks	Pacific Telephone

151 MONTEREY LN

Year	Uses	Source
1970	Peek Robt Earl	Pacific Telephone

152 MONTEREY LN

Year	Uses	Source
1970	Bristow Wm A Lt Col	Pacific Telephone

153 MONTEREY LN

Year	Uses	Source
1970	Parker Chas S	Pacific Telephone

154 MONTEREY LN

Year	Uses	Source
1970	Morton Oscar W	Pacific Telephone

155 MONTEREY LN

Year	Uses	Source
1970	Cuddeback Du Wayne	Pacific Telephone
	Moran Russell F	Pacific Telephone

157 MONTEREY LN

Year	Uses	Source
1970	Dehlin Carl O	Pacific Telephone

158 MONTEREY LN

Year	Uses	Source
1970	Schanbacher F E	Pacific Telephone

160 MONTEREY LN

Year	Uses	Source
1970	Collins Edwin H	Pacific Telephone

FINDINGS

161 MONTEREY LN

Year	Uses	Source
1970	Halliday John Sr	Pacific Telephone

162 MONTEREY LN

Year	Uses	Source
1970	Beutler Floyd	Pacific Telephone

MOUNTAIN VIEW CIR

1 MOUNTAIN VIEW CIR

Year	Uses	Source
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services

2 MOUNTAIN VIEW CIR

Year	Uses	Source
2009	RIGOBERTO MUNOZ	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	RIGOBERTO MUNOZ	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1986	Meier V	Pacific Bell Yellow Pages
	Meier S E	Pacific Bell Yellow Pages
1981	Meier S E	Pacific Telephone

3 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

4 MOUNTAIN VIEW CIR

Year	Uses	Source
1981	Thibodeaux Lois Diane	Pacific Telephone
1977	Paris Clifford L	Pacific Telephone

5 MOUNTAIN VIEW CIR

Year	Uses	Source
2001	JOYCE Bob	Haines & Company, Inc.

Year	Uses	Source
1986	Kufleitner John	Pacific Bell Yellow Pages
1981	Kufleitner John	Pacific Telephone

6 MOUNTAIN VIEW CIR

Year	Uses	Source
2009	ROBERT MONTENEGRO	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	CADENAM	Haines & Company, Inc.
1999	ROBERT MONTENEGRO	Cole Information Services
1981	Vandal Archie J	Pacific Telephone
1977	Gidney N HM	Pacific Telephone

7 MOUNTAIN VIEW CIR

Year	Uses	Source
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Watson T A	Pacific Bell Yellow Pages
1981	Watson T A	Pacific Telephone
1977	Hearn Jas R	Pacific Telephone
	Hearn Jas R	Pacific Telephone

8 MOUNTAIN VIEW CIR

Year	Uses	Source
1981	Porter Millburn	Pacific Telephone
1977	Porter Millburn	Pacific Telephone

9 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1981	Carlson Carl R	Pacific Telephone
1977	Carlson Carl R	Pacific Telephone

10 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	IPPOLITO, N M	Cole Information Services
1981	Ippolito Nicholas M	Pacific Telephone

FINDINGS

11 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Nousianen W W	Pacific Telephone

12 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	WILLIE BROWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Naber J	Pacific Bell Yellow Pages
1981	Naber J	Pacific Telephone
1977	N V Fashions	Pacific Telephone

13 MOUNTAIN VIEW CIR

Year	Uses	Source
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Myrdahl Jerry Paul Jr	Pacific Bell Yellow Pages

14 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	SAMANTHA SPENCER	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

15 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1977	Mertz S J	Pacific Telephone

16 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	M RAY	Cole Information Services
1994	RAY, M	Cole Information Services
1977	Carsell Haldon	Pacific Telephone

17 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	MARIA JIMEMEZ	Cole Information Services
2002	Jimemez Maria	SBC PACIFIC BELL
2001	XXXX	Haines & Company, Inc.
1986	Brown Harry H	Pacific Bell Yellow Pages

Year	Uses	Source
1981	Brown Harry H	Pacific Telephone
1977	Brown Harry H	Pacific Telephone

18 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	ANTHONY ACOSTA	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1994	ACOSTA, ANTHONY J	Cole Information Services
1981	Rheberg Jos R	Pacific Telephone

19 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	ANTHONY MARQUEZ	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	LUIS MARTINEZ	Cole Information Services
1986	Vinding Betty	Pacific Bell Yellow Pages
	Vinding Donald A	Pacific Bell Yellow Pages
1977	Elkins OE	Pacific Telephone

20 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	YESENIA GAMA	Cole Information Services
1986	Robertson Earl R	Pacific Bell Yellow Pages
1981	Robertson Earl R	Pacific Telephone
1977	Robertson Earl R	Pacific Telephone
1970	Robertson Earl R	Pacific Telephone

21 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	HERMAN COLLINS	Cole Information Services
1981	Yocum Mel F	Pacific Telephone
1977	Yocum Mel F	Pacific Telephone

22 MOUNTAIN VIEW CIR

Year	Uses	Source
1986	Hinson Lester A	Pacific Bell Yellow Pages
1981	Hinson Lester A	Pacific Telephone
1977	Williams Jack Mrs	Pacific Telephone

FINDINGS

23 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Dougan David P	Pacific Bell Yellow Pages
1981	Dougan David P	Pacific Telephone
1977	Dougan David P	Pacific Telephone

24 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	NANCEE AVILA	Cole Information Services
1994	CURTIS, ANDY	Cole Information Services
1986	Foster Lloyd G	Pacific Bell Yellow Pages
1981	Foster Lloyd G	Pacific Telephone
1977	Westra Albert	Pacific Telephone

25 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	CHRISTINA RIVERA	Cole Information Services
1986	Davis Leland & Iva	Pacific Bell Yellow Pages
	Davis Argie L	Pacific Bell Yellow Pages
1981	Davs Argie L	Pacific Telephone
	Davis Leland & Iva	Pacific Telephone

26 MOUNTAIN VIEW CIR

Year	Uses	Source
1986	Drumm B R	Pacific Bell Yellow Pages
1981	Drumm B R	Pacific Telephone
1977	Drumm B R	Pacific Telephone

27 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	SILVADesiree	Haines & Company, Inc.
1986	Haskins Dale	Pacific Bell Yellow Pages
1981	Haskins Dale	Pacific Telephone
1977	Haskett Wm L	Pacific Telephone

28 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	RONALD DICKY	Cole Information Services
2002	Dickey Debra	SBC PACIFIC BELL

FINDINGS

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Bamberg B J	Pacific Bell Yellow Pages
	Balzer Max P	Pacific Bell Yellow Pages
1981	Balzer Max P	Pacific Telephone
1977	Baizer Max P	Pacific Telephone

29 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	PATRICK LEE	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1994	COZAD, ROBERT	Cole Information Services
1986	Cook Donald & Viola	Pacific Bell Yellow Pages

30 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	RUBEN BERNAL	Cole Information Services
	AMERICAN CENTRAL	Cole Information Services
1986	Callahan Jas E	Pacific Bell Yellow Pages
1981	Callahan Jas E	Pacific Telephone
1977	Callahan Jas E I	Pacific Telephone

31 MOUNTAIN VIEW CIR

Year	Uses	Source
2001	BLAZINA Peter	Haines & Company, Inc.
1986	Blazina Peter	Pacific Bell Yellow Pages
1981	Blazina Peter	Pacific Telephone
1977	Biazina Peter	Pacific Telephone

32 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	JUANITA STRAIT	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Plunkett J E	Pacific Bell Yellow Pages
	Plummer Walter B	Pacific Bell Yellow Pages
1981	Plummer Walter B	Pacific Telephone
1977	Plummer Walter B	Pacific Telephone

FINDINGS

33 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.

34 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Schesser Jasper	Pacific Bell Yellow Pages
1981	Schesser Jasper	Pacific Telephone
1977	De Mouth Melvin R	Pacific Telephone

35 MOUNTAIN VIEW CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Ricard Norman & Janice	Pacific Bell Yellow Pages
1981	Ricard Norman & Janice	Pacific Telephone
1977	Walls Rachel	Pacific Telephone

36 MOUNTAIN VIEW CIR

Year	Uses	Source
1986	Fellwock Walter A	Pacific Bell Yellow Pages
1981	Fellwock Walter A	Pacific Telephone
1977	Fellwock Walter A	Pacific Telephone

37 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1981	Claytor Geo V	Pacific Telephone
1977	Swearingen Jas F	Pacific Telephone

38 MOUNTAIN VIEW CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	TAMM, ROSE	Cole Information Services
1986	Tamm Rose Mrs	Pacific Bell Yellow Pages
1981	Tamm Rose Mrs	Pacific Telephone
1977	Tamm Rose Mrs	Pacific Telephone

FINDINGS

MOUNTAIN VIEW DR

8 MOUNTAIN VIEW DR

Year	*Uses*	*Source*
2001	9 AKER Wiliam B 90 B	Haines & Company, Inc.

MOUNTN VIEW CIR

12 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Gillespie Geo H	Pacific Telephone

15 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Hanson Walter	Pacific Telephone

17 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Brown Harry H	Pacific Telephone

18 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Rheberg Jos R	Pacific Telephone

19 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Elkins Olive	Pacific Telephone

20 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Robertson Earl R	Pacific Telephone

21 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Yocum Mel F	Pacific Telephone

22 MOUNTN VIEW CIR

Year	*Uses*	*Source*
1970	Voorhies John H	Pacific Telephone

23 MOUNTN VIEW CIR

Year	Uses	Source
1970	Dougan David P	Pacific Telephone

24 MOUNTN VIEW CIR

Year	Uses	Source
1970	Westra Albert	Pacific Telephone

25 MOUNTN VIEW CIR

Year	Uses	Source
1970	Braman Chas D	Pacific Telephone

26 MOUNTN VIEW CIR

Year	Uses	Source
1970	Hurley Gertrude M	Pacific Telephone

27 MOUNTN VIEW CIR

Year	Uses	Source
1970	Thomas Clayton	Pacific Telephone

28 MOUNTN VIEW CIR

Year	Uses	Source
1970	Cumming Estelle	Pacific Telephone

29 MOUNTN VIEW CIR

Year	Uses	Source
1970	Gidney Hallie M	Pacific Telephone

30 MOUNTN VIEW CIR

Year	Uses	Source
1970	Callahan Jas E	Pacific Telephone

31 MOUNTN VIEW CIR

Year	Uses	Source
1970	Mc Avoy Chas E	Pacific Telephone

32 MOUNTN VIEW CIR

Year	Uses	Source
1970	Plummer Walter B	Pacific Telephone

33 MOUNTN VIEW CIR

Year	Uses	Source
1970	Atwood Park G	Pacific Telephone

34 MOUNTN VIEW CIR

Year	Uses	Source
1970	Scovotti Timinado	Pacific Telephone

35 MOUNTN VIEW CIR

Year	Uses	Source
1970	Ringoot M L	Pacific Telephone

37 MOUNTN VIEW CIR

Year	Uses	Source
1970	Swearingen Jas F	Pacific Telephone

38 MOUNTN VIEW CIR

Year	Uses	Source
1970	Tamm Rose Mrs	Pacific Telephone

NASSAU CT

12969 NASSAU CT

Year	Uses	Source
2017	ANDRES GONZALES	Cole Information Services
2014	ANDRES GONZALES	Cole Information Services
2009	EARL ALLISON	Cole Information Services
2004	EARL ALLISON	Cole Information Services
1999	EARL ALLISON	Cole Information Services

12974 NASSAU CT

Year	Uses	Source
2014	MICHAEL MEEHAN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

12979 NASSAU CT

Year	Uses	Source
2014	JOESPH LAMARCHE	Cole Information Services
2009	BRITTANY HOOK	Cole Information Services
1999	BRITTANY HOOK	Cole Information Services

12984 NASSAU CT

Year	Uses	Source
2017	JEFFREY GENTILE	Cole Information Services
2014	JEFFREY GENTILE	Cole Information Services
2009	GERALD BETHURUM	Cole Information Services

Year	Uses	Source
2004	GERALD BETHURUM	Cole Information Services
1999	GERALD BETHURUM	Cole Information Services

12989 NASSAU CT

Year	Uses	Source
2017	ROY JOU	Cole Information Services
2014	JAMES KELLY	Cole Information Services
2009	GERARD NAPOLSKE	Cole Information Services
1999	GERARD NAPOLSKE	Cole Information Services

12994 NASSAU CT

Year	Uses	Source
2017	ANTHONY BELLONIO	Cole Information Services
2014	DARLENE WAYNE	Cole Information Services
2009	DANIEL HERRERA	Cole Information Services
1999	DANIEL HERRERA	Cole Information Services

OAK CREST DR

226 OAK CREST DR

Year	Uses	Source
1966	Location Not Occupied	Luskey Brothers & Company Inc.
	8 Vacant	Luskey Brothers & Company Inc.

243 OAK CREST DR

Year	Uses	Source
1981	Le Roy Robt E	Pacific Telephone

OAKDALE

12643 OAKDALE

Year	Uses	Source
2002	Rello Robert M	SBC PACIFIC BELL

12653 OAKDALE

Year	Uses	Source
2002	Brooks Gary R	SBC PACIFIC BELL

FINDINGS

OAKDALE ST

12613 OAKDALE ST

Year	Uses	Source
2017	JORGE TALAVERA	Cole Information Services
2014	JORGE TALAVERA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	JORGE TALAVERA	Cole Information Services

12623 OAKDALE ST

Year	Uses	Source
2017	ROBERT MARQUEZ	Cole Information Services
2014	DANNY GALINDO	Cole Information Services
2009	MUHAMMAD SARWAR	Cole Information Services
2004	GEORGE ORTIZ	Cole Information Services
1999	MUHAMMAD SARWAR	Cole Information Services

12633 OAKDALE ST

Year	Uses	Source
2017	RAMESH PATEL	Cole Information Services
2014	ASHISH PATEL	Cole Information Services
2009	SITA SONI	Cole Information Services
2004	BELINDA FREDERIC	Cole Information Services
1999	SITA SONI	Cole Information Services

12643 OAKDALE ST

Year	Uses	Source
2017	ROBERT RELLO	Cole Information Services
2014	ROBERT RELLO	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

12653 OAKDALE ST

Year	Uses	Source
2017	GARY BROOKS	Cole Information Services
2014	GARY BROOKS	Cole Information Services
2009	GARY BROOKS	Cole Information Services
2004	ANITA JARAMILLO	Cole Information Services
	GARY BROOKS	Cole Information Services
1999	GARY BROOKS	Cole Information Services

FINDINGS

12673 OAKDALE ST

Year	Uses	Source
2017	ROBERT MOTTS	Cole Information Services
2014	ROBERT MOTTS	Cole Information Services
2009	IGNACIO GALLARDO	Cole Information Services
2004	NOUREDDINE CHOURAFA	Cole Information Services
1999	IGNACIO GALLARDO	Cole Information Services

12683 OAKDALE ST

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	STEVE NULL	Cole Information Services
	NULL TRUCKING	Cole Information Services

12693 OAKDALE ST

Year	Uses	Source
2017	MARK TRUJILLO	Cole Information Services
2014	BRANT DEAN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	RALPH DEAN	Cole Information Services

12703 OAKDALE ST

Year	Uses	Source
2017	RYAN SMITH	Cole Information Services
2014	JEFF STUART	Cole Information Services
2009	JEFF STUART	Cole Information Services
2004	DELWYN ORR	Cole Information Services
1999	JEFF STUART	Cole Information Services

12713 OAKDALE ST

Year	Uses	Source
2017	GEORGE CIPOLLONE	Cole Information Services
2014	GEORGE CIPOLLONE	Cole Information Services
2009	GEORGE CIPOLLONE	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	GEORGE CIPOLLONE	Cole Information Services

12723 OAKDALE ST

Year	Uses	Source
2017	RAUL VALDEZ	Cole Information Services

Year	Uses	Source
2009	RAUL VALDEZ	Cole Information Services
2004	BENJAMIN SHEEN	Cole Information Services
1999	RAUL VALDEZ	Cole Information Services

12803 OAKDALE ST

Year	Uses	Source
2017	SHOU WU	Cole Information Services
2014	HONG YOW	Cole Information Services
2009	ALLAN HOEFER	Cole Information Services
1999	ALLAN HOEFER	Cole Information Services

12809 OAKDALE ST

Year	Uses	Source
2014	JENIFFER HORN	Cole Information Services
2009	TOM ESPINAS	Cole Information Services
1999	TOM ESPINAS	Cole Information Services

12812 OAKDALE ST

Year	Uses	Source
2017	BRIAN TROUDY	Cole Information Services
2014	BRIAN TROUDY	Cole Information Services
2009	JUSTIN MONTGOMERY	Cole Information Services
1999	JUSTIN MONTGOMERY	Cole Information Services

12815 OAKDALE ST

Year	Uses	Source
2017	FRANK CASTREJON	Cole Information Services
2014	FRANK CASTREJON	Cole Information Services
2009	FRANK CASTREJON	Cole Information Services

PALM C!R

87 PALM C!R

Year	Uses	Source
1977	Quant Gwen	Pacific Telephone

PALM CIR

81 PALM CIR

Year	Uses	Source
2004	ADOLFO GELLI	Cole Information Services

FINDINGS

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1994	READINGER, PAT	Cole Information Services
1986	Gibson J C	Pacific Bell Yellow Pages
1977	Gibson J C	Pacific Telephone

82 PALM CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1981	Mc Millan Lawrence	Pacific Telephone
1977	Mc Millan Lawrence A I	Pacific Telephone

83 PALM CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	ESTRADA H	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	DEUSTUA, EDUARDO	Cole Information Services

84 PALM CIR

Year	Uses	Source
2004	MARY MERIWEATHER	Cole Information Services
1986	Grubaugh Harry B	Pacific Bell Yellow Pages
1981	Grubaugh Harry B	Pacific Telephone
1977	Grubaugh Harry B	Pacific Telephone

85 PALM CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1993	Govig Melvin	Pacific Bell
1986	Govig Melvin	Pacific Bell Yellow Pages
1981	Govig Melvin	Pacific Telephone
	Govig Mclvin	Pacific Telephone

86 PALM CIR

Year	Uses	Source
2004	ROSIE GONZALES	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	RAPHAEL, LEONARD A	Cole Information Services

Year	Uses	Source
1986	Raphael Leonard A	Pacific Bell Yellow Pages
1981	Rapattoi Construction Co	Pacific Telephone
1977	Raphael Lillian	Pacific Telephone

87 PALM CIR

Year	Uses	Source
1986	Quartana Peter J	Pacific Bell Yellow Pages
1981	Quartana Peter J	Pacific Telephone

88 PALM CIR

Year	Uses	Source
2001	HERNANDE	Haines & Company, Inc.

89 PALM CIR

Year	Uses	Source
2004	JOANNA LOPRESTO	Cole Information Services

90 PALM CIR

Year	Uses	Source
1986	Gilligan Robt J	Pacific Bell Yellow Pages
1981	Gitligan Robt J	Pacific Telephone
1977	Biddlngton Franklin H	Pacific Telephone

91 PALM CIR

Year	Uses	Source
2004	HENRY HARRIS	Cole Information Services
2001	HARRIS	Haines & Company, Inc.
1994	HARRIS, HENRY	Cole Information Services
1986	Harris Henry	Pacific Bell Yellow Pages
1981	Harris Henry	Pacific Telephone

92 PALM CIR

Year	Uses	Source
2004	RICHARD HARRELL	Cole Information Services
2001	HARRELL Richard C	Haines & Company, Inc.
1977	Norwidat Geo	Pacific Telephone

93 PALM CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	MCMAHANC	Haines & Company, Inc.

Year	Uses	Source
2001	MCMAHANS	Haines & Company, Inc.
1986	Ford F F	Pacific Bell Yellow Pages
1981	Ford F F	Pacific Telephone
1977	Ford F F	Pacific Telephone

94 PALM CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Webb Jessie J	Pacific Bell Yellow Pages
	Dupree John W	Pacific Bell Yellow Pages
1981	Webb Jessie J	Pacific Telephone
	Webb Jessie J	Pacific Telephone
1977	Beach Donald P	Pacific Telephone

95 PALM CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	GOMEZEduardo	Haines & Company, Inc.

PETER WILKS CT

5730 PETER WILKS CT

Year	Uses	Source
2014	FRANK VEGA	Cole Information Services
2009	NINA ROMO	Cole Information Services
1999	NINA ROMO	Cole Information Services

5733 PETER WILKS CT

Year	Uses	Source
2017	MANUEL JAINE	Cole Information Services
2014	MANUEL JAIME	Cole Information Services
2004	JOSE MORANO	Cole Information Services

5736 PETER WILKS CT

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	SILINEAR	Cole Information Services
	ARTHUR SILER	Cole Information Services
2004	GLORIA FILER	Cole Information Services
1999	ARTHUR SILER	Cole Information Services

5739 PETER WILKS CT

Year	Uses	Source
2014	THOMAS POER	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	THOMAS POER	Cole Information Services

5742 PETER WILKS CT

Year	Uses	Source
2017	STUART MOFFITT	Cole Information Services
2014	STUART MOFFITT	Cole Information Services
2009	JACCEES BOUTIQUE	Cole Information Services
	ARTHUR KINSLOW	Cole Information Services
2004	JACCEES BOUTIQUE	Cole Information Services
	ARTHUR KINSLOW	Cole Information Services
1999	ARTHUR KINSLOW	Cole Information Services

5745 PETER WILKS CT

Year	Uses	Source
2017	ROSALYN KIDD	Cole Information Services
2014	TROY HORN	Cole Information Services
2009	THERESA BAUGH	Cole Information Services
2004	TERESA ATWOOD	Cole Information Services
1999	THERESA BAUGH	Cole Information Services

POMEGRANATE CT

6314 POMEGRANATE CT

Year	Uses	Source
2017	JAMES CHON	Cole Information Services
2014	KENNETH JOHNSON	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	KEITH HUFFSTUTLER	Cole Information Services
2002	Ramelb Jeffrey A	SBC PACIFIC BELL

6317 POMEGRANATE CT

Year	Uses	Source
2017	ROMUALDO CREUS	Cole Information Services
2014	DOMINADOR FELARCA	Cole Information Services
2009	DOMINADOR FELARCA	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	ALPINE ELECTRONICS OF AMERICA	Cole Information Services

FINDINGS

Year	Uses	Source
1999	DOMINADOR FELARCA	Cole Information Services

6324 POMEGRANATE CT

Year	Uses	Source
2017	PATRICK EARHART	Cole Information Services
2014	PATRICK EARHART	Cole Information Services
2009	PATRICK EARHART	Cole Information Services
2004	PATRICK EARHART	Cole Information Services
2002	Earheart Carol	SBC PACIFIC BELL
2001	EARTHEART	Haines & Company, Inc.
1999	PATRICK EARHART	Cole Information Services

6327 POMEGRANATE CT

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	HARRY TOOLEY	Cole Information Services
2004	JAMES SIMPSON	Cole Information Services
1999	HARRY TOOLEY	Cole Information Services

6334 POMEGRANATE CT

Year	Uses	Source
2017	MANUEL HERNANDEZ	Cole Information Services
2014	ARTURO PEREZ	Cole Information Services
2009	STEVEN COOK	Cole Information Services
2004	RICHARD ZEGERS	Cole Information Services
	JEANNE HANLEY	Cole Information Services
1999	STEVEN COOK	Cole Information Services

6337 POMEGRANATE CT

Year	Uses	Source
2017	SEAN KENNEDY	Cole Information Services
2014	RICHARD LEYBA	Cole Information Services
2009	ROBERTO MARES	Cole Information Services
2004	CHRIS VONNIEDA	Cole Information Services
2002	Rash John	SBC PACIFIC BELL
	Rash Jon J	SBC PACIFIC BELL
2001	RASH John	Haines & Company, Inc.
	RASHJon J	Haines & Company, Inc.

FINDINGS

6344 POMEGRANATE CT

Year	Uses	Source
2017	L BRUNO	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	TIMOTHY HUGHES	Cole Information Services
2004	TIMOTHY HUGHES	Cole Information Services
1999	TIMOTHY HUGHES	Cole Information Services

6347 POMEGRANATE CT

Year	Uses	Source
2017	KENYA NELSON	Cole Information Services
2014	KENYA NELSON	Cole Information Services
2009	KENYA NELSON	Cole Information Services
2004	KEVIN BIGGS	Cole Information Services
1999	KENYA NELSON	Cole Information Services

6354 POMEGRANATE CT

Year	Uses	Source
2017	KOSI MOLELI	Cole Information Services
2014	KOSI MOLELI	Cole Information Services
2009	PENINA PESE	Cole Information Services
2004	FUATAI MAIAVA	Cole Information Services
2002	Maiava Fuatai	SBC PACIFIC BELL
2001	MAIAVAFuatio	Haines & Company, Inc.
1999	PENINA PESE	Cole Information Services

6357 POMEGRANATE CT

Year	Uses	Source
2017	MARK SEGURA	Cole Information Services
2014	STEPHEN SEGURA	Cole Information Services
2009	MARK SEGURA	Cole Information Services
2004	MARK SEGURA	Cole Information Services
1999	MARK SEGURA	Cole Information Services

6364 POMEGRANATE CT

Year	Uses	Source
2017	INOSCENIO RUIZ	Cole Information Services
2014	INOSCENIO RUIZ	Cole Information Services
2009	INOSCENIO RUIZ	Cole Information Services
2004	INOSCENIO RUIZ	Cole Information Services
1999	INOSCENIO RUIZ	Cole Information Services

FINDINGS

6367 POMEGRANATE CT

Year	Uses	Source
2017	SHIELAH CREUS	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	SHIELAH CREUS	Cole Information Services
2004	CREUS & ASSOCS	Cole Information Services
	ROMUALDO CREUS	Cole Information Services
1999	SHIELAH CREUS	Cole Information Services

6374 POMEGRANATE CT

Year	Uses	Source
2017	JOSE SANCHEZ	Cole Information Services
2014	JOSE SANCHEZ	Cole Information Services
2009	ANTONIO SANCHEZ	Cole Information Services
2004	JOSE SANCHEZ	Cole Information Services
	SLS PROFESSIONALS INC	Cole Information Services
2002	SLS PROFESSIONALS INC	SBC PACIFIC BELL
1999	ANTONIO SANCHEZ	Cole Information Services

6377 POMEGRANATE CT

Year	Uses	Source
2014	DAVID GLUTH	Cole Information Services
2009	DAVID GLUTH	Cole Information Services
2004	DAVID GLUTH	Cole Information Services
1999	DAVID GLUTH	Cole Information Services

6384 POMEGRANATE CT

Year	Uses	Source
2017	DAGOBERTO MELENDEZ	Cole Information Services
2014	DAGOBERTO MELENDEZ	Cole Information Services
2009	HENRY MELENDEZ	Cole Information Services
2004	DANIEL MCNEVIN	Cole Information Services
1999	HENRY MELENDEZ	Cole Information Services

6387 POMEGRANATE CT

Year	Uses	Source
2017	SUSAN KIEMA	Cole Information Services
2014	MANUEL PORTILLO	Cole Information Services
2009	VICTORIA ESCOBAR	Cole Information Services
2004	JANE NGUBA	Cole Information Services
1999	VICTORIA ESCOBAR	Cole Information Services

FINDINGS

6394 POMEGRANATE CT

Year	Uses	Source
2017	JERI MILLERON	Cole Information Services
2014	JERI MILLERON	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	RICHARD LONG	Cole Information Services

6397 POMEGRANATE CT

Year	Uses	Source
2017	MAURICE RAMSEY	Cole Information Services
2014	SAMANTHA LARSON	Cole Information Services
2009	SCOTT RUPERTO	Cole Information Services
2004	SCOTT RUPERTO	Cole Information Services
1999	SCOTT RUPERTO	Cole Information Services

RAFT CIR

5717 RAFT CIR

Year	Uses	Source
2017	BING LI	Cole Information Services
2014	HEUNG KIM	Cole Information Services
2009	HEUNG KIM	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	HEUNG KIM	Cole Information Services

5720 RAFT CIR

Year	Uses	Source
2017	RUDOLF SCHUURMANS	Cole Information Services
2014	RUDOLF SCHUURMANS	Cole Information Services
2009	RUDOLF SCHUURMANS	Cole Information Services
2004	RUDOLF SCHUURMANS	Cole Information Services
1999	RUDOLF SCHUURMANS	Cole Information Services

5723 RAFT CIR

Year	Uses	Source
2017	DAVID JIMENEZ	Cole Information Services
2014	DAVID JIMENEZ	Cole Information Services
2009	ALFRED HERRERA	Cole Information Services
2004	ROBERT JIMENEZ	Cole Information Services
1999	ALFRED HERRERA	Cole Information Services

FINDINGS

5726 RAFT CIR

Year	Uses	Source
2017	SOCORRO MORALES	Cole Information Services
2014	RAFAEL MORALES	Cole Information Services
2009	SOCORRO MORALES	Cole Information Services
2004	RAFAEL MORALES	Cole Information Services
1999	SOCORRO MORALES	Cole Information Services

5729 RAFT CIR

Year	Uses	Source
2017	ILDEFONSA JOYA	Cole Information Services
2014	HUGO ALVARADO	Cole Information Services
2009	HUGO ALVARADO	Cole Information Services
2004	ELIZAR BAXA	Cole Information Services
1999	HUGO ALVARADO	Cole Information Services

5732 RAFT CIR

Year	Uses	Source
2014	DARNESHA MILNER	Cole Information Services
2009	MARTIN SWEED	Cole Information Services
2004	MARTIN SWEED	Cole Information Services
1999	MARTIN SWEED	Cole Information Services

5735 RAFT CIR

Year	Uses	Source
2017	BYRON WOODS	Cole Information Services
2014	BYRON WOODS	Cole Information Services
2009	BYRON WOODS	Cole Information Services
2004	NEILA WILSON	Cole Information Services
1999	BYRON WOODS	Cole Information Services

5744 RAFT CIR

Year	Uses	Source
2017	CHRISTOPHER GEACH	Cole Information Services
2014	CHRISTOPHER GEACH	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	FRANK SZCZESNIAK	Cole Information Services

FINDINGS

ROSECLIFF CIR

12823 ROSECLIFF CIR

Year	Uses	Source
2017	STEPHANIE RAMIREZ	Cole Information Services
2014	JESSICA MENDEZ	Cole Information Services
2009	CHUCK COMPTON	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	CHUCK COMPTON	Cole Information Services

12833 ROSECLIFF CIR

Year	Uses	Source
2017	JESUS VAZQUEZ	Cole Information Services
2014	JESUS VAZQUEZ	Cole Information Services
2009	JESUS VAZQUEZ	Cole Information Services
2004	JESUS VAZQUEZ	Cole Information Services
1999	JESUS VAZQUEZ	Cole Information Services

12838 ROSECLIFF CIR

Year	Uses	Source
2017	EDUARDO GUEVARA	Cole Information Services
2014	FRANCISCO BARBA	Cole Information Services

12843 ROSECLIFF CIR

Year	Uses	Source
2017	RAFAEL AVILA	Cole Information Services
2014	RAFAEL AVILA	Cole Information Services
2009	RAFAEL AVILA	Cole Information Services
2004	MARK WALLACE	Cole Information Services
1999	RAFAEL AVILA	Cole Information Services

12848 ROSECLIFF CIR

Year	Uses	Source
2017	JUSTIN TRAN	Cole Information Services
2014	JUSTIN TRAN	Cole Information Services
2009	JUSTIN TRAN	Cole Information Services
1999	JUSTIN TRAN	Cole Information Services

12853 ROSECLIFF CIR

Year	Uses	Source
2017	ANTWANE SHOLES	Cole Information Services

Year	Uses	Source
2014	GINA CARSON	Cole Information Services
2009	ANGELA ALEXENDER	Cole Information Services
2004	DAVID RANDALL	Cole Information Services
1999	ANGELA ALEXENDER	Cole Information Services

12858 ROSECLIFF CIR

Year	Uses	Source
2017	NICK BARTOLOME	Cole Information Services
2014	NICK BARTOLOME	Cole Information Services
2009	SOOWAN KIM	Cole Information Services
1999	SOOWAN KIM	Cole Information Services

RUBY CT

13202 RUBY CT

Year	Uses	Source
2017	BOLA HAYNES	Cole Information Services
2014	BOLA HAYNES	Cole Information Services
2009	M PLANT	Cole Information Services
1999	M PLANT	Cole Information Services

13212 RUBY CT

Year	Uses	Source
2017	JAMES BUCHMILLER	Cole Information Services
2014	JAMES BUCHMILLER	Cole Information Services

13215 RUBY CT

Year	Uses	Source
2017	RICKPAUL VANDER	Cole Information Services
2014	ASHISH PATEL	Cole Information Services
2009	TONY LOURENCO	Cole Information Services
1999	TONY LOURENCO	Cole Information Services

13216 RUBY CT

Year	Uses	Source
2014	AVANI PATEL	Cole Information Services
2009	BHUPENDRA PATEL	Cole Information Services
1999	BHUPENDRA PATEL	Cole Information Services

FINDINGS

13222 RUBY CT

Year	Uses	Source
2017	LI KANG	Cole Information Services
2014	LI KANG	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

13225 RUBY CT

Year	Uses	Source
2017	JAMES LEWIS	Cole Information Services
2014	EDWIN LU	Cole Information Services
2009	ZHENG WEI	Cole Information Services
1999	ZHENG WEI	Cole Information Services

S MAYFAIR CIR

10 S MAYFAIR CIR

Year	Uses	Source
1986	Berger Gordon	Pacific Bell Yellow Pages
	Berger H M	Pacific Bell Yellow Pages
1981	Berger Gordon	Pacific Telephone

SILAS PHELPS DR

12607 SILAS PHELPS DR

Year	Uses	Source
2017	BRIAN KUDER	Cole Information Services
2014	BRIAN KUDER	Cole Information Services
2009	BRIAN KUDER	Cole Information Services
2004	ALFRED KUDER	Cole Information Services
1999	BRIAN KUDER	Cole Information Services

12619 SILAS PHELPS DR

Year	Uses	Source
2017	BRIAN CLARKSON	Cole Information Services
2014	BRIAN CLARKSON	Cole Information Services
2009	BRIAN CLARKSON	Cole Information Services
2004	BRIAN CLARKSON	Cole Information Services
1999	BRIAN CLARKSON	Cole Information Services

FINDINGS

12631 SILAS PHELPS DR

Year	Uses	Source
2017	WEI ZHU	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	STEPHEN MALDONADO	Cole Information Services
2004	JOSEPH SIMONETTA	Cole Information Services

12643 SILAS PHELPS DR

Year	Uses	Source
2017	GUERDA MENDEZ	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	LARRY MILLER	Cole Information Services

12667 SILAS PHELPS DR

Year	Uses	Source
2017	YOUNG CHUNG	Cole Information Services
2014	YOUNG CHUNG	Cole Information Services
2009	JAMES CHUNG	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	JAMES CHUNG	Cole Information Services

12679 SILAS PHELPS DR

Year	Uses	Source
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	DANIEL CHAN	Cole Information Services

12691 SILAS PHELPS DR

Year	Uses	Source
2017	RONALD SMITH	Cole Information Services
2014	RONALD SMITH	Cole Information Services
2009	RONALD SMITH	Cole Information Services
2004	RONALD SMITH	Cole Information Services
1999	RONALD SMITH	Cole Information Services

12702 SILAS PHELPS DR

Year	Uses	Source
2009	KI JUN	Cole Information Services
2004	KI JUN	Cole Information Services
1999	KI JUN	Cole Information Services

FINDINGS

12703 SILAS PHELPS DR

Year	Uses	Source
2017	ARSALOON ARIF	Cole Information Services
2014	ARSALOON ARIF	Cole Information Services
2009	ARSALOON ARIF	Cole Information Services
2004	YOUNG LEE	Cole Information Services
1999	ARSALOON ARIF	Cole Information Services

12708 SILAS PHELPS DR

Year	Uses	Source
2017	DENNIS STOCKHAUSEN	Cole Information Services
2014	MARGARET TOFFOLI	Cole Information Services
2009	DENNIS STOCKHAUSEN	Cole Information Services
2004	DENNIS STOCKHAUSEN	Cole Information Services
1999	DENNIS STOCKHAUSEN	Cole Information Services

12715 SILAS PHELPS DR

Year	Uses	Source
2017	KYLE MURAMOTO	Cole Information Services
2014	KYLE MURAMOTO	Cole Information Services
2004	KA ENTERPRISES LLC	Cole Information Services
	KENNETH AHN	Cole Information Services

12720 SILAS PHELPS DR

Year	Uses	Source
2017	DANIEL ZHOU	Cole Information Services
2014	DANIEL ZHOU	Cole Information Services
2009	PHOEUT KEO	Cole Information Services
2004	STEVE GEBHART	Cole Information Services
1999	PHOEUT KEO	Cole Information Services

12727 SILAS PHELPS DR

Year	Uses	Source
2017	MICHAEL TRAN	Cole Information Services
2014	MICHAEL TRAN	Cole Information Services
2009	MICHAEL TRAN	Cole Information Services
2004	MICHAEL TRAN	Cole Information Services
1999	MICHAEL TRAN	Cole Information Services

FINDINGS

12732 SILAS PHELPS DR

Year	Uses	Source
2017	CARLOS SANDOVAL	Cole Information Services
2014	CARLOS SANDOVAL	Cole Information Services
2009	CARLOS SANDOVAL	Cole Information Services
1999	CARLOS SANDOVAL	Cole Information Services

12739 SILAS PHELPS DR

Year	Uses	Source
2017	SHIN LEE	Cole Information Services
2014	SHIN LEE	Cole Information Services
2009	SHIN LEE	Cole Information Services
2004	SHIN LEE	Cole Information Services
1999	SHIN LEE	Cole Information Services

12744 SILAS PHELPS DR

Year	Uses	Source
2017	ESPERANZA MENES	Cole Information Services
2014	ESPERANZA MENES	Cole Information Services
2009	JOSE MENES	Cole Information Services
2004	JOSE MENES	Cole Information Services
1999	JOSE MENES	Cole Information Services

12751 SILAS PHELPS DR

Year	Uses	Source
2017	PEGGY VANDYK	Cole Information Services
2014	PEGGY VANDYK	Cole Information Services
2009	JIM VANDYK	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	JIM VANDYK	Cole Information Services

SUNRISE CIR

64 SUNRISE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Tweedy John M	Pacific Bell Yellow Pages
1981	Tweedy John M	Pacific Telephone
1977	TUXIES Self Service Drive In	Pacific Telephone

FINDINGS

65 SUNRISE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	COSTA, MICHAEL J	Cole Information Services
1981	Mc Comb Richard A	Pacific Telephone
1977	Scott Malcolm	Pacific Telephone

66 SUNRISE CIR

Year	Uses	Source
2004	CHRISTINA BERLIN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Graubner P G	Pacific Bell Yellow Pages
	Grauer Gerry & Toni	Pacific Bell Yellow Pages
	Grauer Eugene A Lt Col Ret	Pacific Bell Yellow Pages
1981	Graubner P G	Pacific Telephone
1977	Gratwick Stephen	Pacific Telephone

67 SUNRISE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1994	BETCHER, MELVIN	Cole Information Services
1986	Beth M	Pacific Bell Yellow Pages
	Betcher Melvin	Pacific Bell Yellow Pages
1981	Betcher Melvin	Pacific Telephone
1977	Betcher Melvin	Pacific Telephone

68 SUNRISE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Signorelli M	Pacific Bell Yellow Pages
	Signs By John Patrick	Pacific Bell Yellow Pages
1981	Signorelli Joseph Mrs	Pacific Telephone
1977	Mc Comb Richard A	Pacific Telephone

69 SUNRISE CIR

Year	Uses	Source
2001	X 0 XX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	FRANCIS, DANIEL	Cole Information Services
1986	Cullen John M & Margo	Pacific Bell Yellow Pages

Year	Uses	Source
1981	Cuilen John M	Pacific Telephone
1977	Cullen John M	Pacific Telephone

70 SUNRISE CIR

Year	Uses	Source
2004	BLANCHE MORAN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Davis C	Pacific Bell Yellow Pages

71 SUNRISE CIR

Year	Uses	Source
2004	HECTOR PEREZ	Cole Information Services
2001	PEREZHec Ior	Haines & Company, Inc.
1981	Dupree John W	Pacific Telephone
	Dupree John W	Pacific Telephone

72 SUNRISE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	GRANT, HILDA V	Cole Information Services
1986	Grant Hilda V	Pacific Bell Yellow Pages
1981	Grant Hilda V	Pacific Telephone
1977	Grant Hilda V	Pacific Telephone

73 SUNRISE CIR

Year	Uses	Source
2001	LAUDER Michelle E	Haines & Company, Inc.
1986	Case La Mar T Sr	Pacific Bell Yellow Pages
	Case Michael	Pacific Bell Yellow Pages
	CAS E POW E R & E QUIPME N T	Pacific Bell Yellow Pages
1977	Mc Nulty John R	Pacific Telephone

74 SUNRISE CIR

Year	Uses	Source
2004	JUSTIN MOTTER	Cole Information Services
	JAIME GROSS	Cole Information Services
	STEPHANIE REY	Cole Information Services
2002	Gross Jaime	SBC PACIFIC BELL

FINDINGS

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1977	Nosek Anton G Jr	Pacific Telephone

75 SUNRISE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1986	Dildine Richard	Pacific Bell Yellow Pages
1981	Dildine Richard	Pacific Telephone
1977	Dildine Richard	Pacific Telephone

76 SUNRISE CIR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Marquis Elizabeth	Pacific Bell Yellow Pages
1981	Marquis Elizabeth	Pacific Telephone
	Marquis Elizabeth	Pacific Telephone
1977	Marquis Elizabeth	Pacific Telephone
	Marquis Elizabeth	Pacific Telephone

77 SUNRISE CIR

Year	Uses	Source
2004	ROGER CUMMINGS	Cole Information Services
2001	CUMMINGS Roger	Haines & Company, Inc.
	CUMMINGS Cindy	Haines & Company, Inc.
1986	Tucker Chris	Pacific Bell Yellow Pages
	Tucker Beverly J	Pacific Bell Yellow Pages
1981	Tucker Lois E	Pacific Telephone
	Tucker Lois E	Pacific Telephone
1977	Tucker Lois E	Pacific Telephone
	Tucker Lois E	Pacific Telephone
1970	Williams Etheldra D Mrs	Pacific Telephone

78 SUNRISE CIR

Year	Uses	Source
2002	Young Dale A	SBC PACIFIC BELL
2001	XXXX	Haines & Company, Inc.
1981	Mac Leod Angus	Pacific Telephone
1977	Mac Leod Angus	Pacific Telephone

79 SUNRISE CIR

Year	Uses	Source
2004	JIM MILLER	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1994	MILLER, JIM	Cole Information Services
1986	Titus D W Col	Pacific Bell Yellow Pages
1981	Titus D W Col	Pacific Telephone
1977	Titus D W Col	Pacific Telephone

80 SUNRISE CIR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Viles May	Pacific Bell Yellow Pages
1981	Viles May	Pacific Telephone
1977	Viles May	Pacific Telephone

87 SUNRISE CIR

Year	Uses	Source
2001	STRANGE Edward	Haines & Company, Inc.

TERRITORY LN

5764 TERRITORY LN

Year	Uses	Source
2017	FABIAN VARGAS	Cole Information Services
2014	FABIAN VARGAS	Cole Information Services
2009	FABIAN VARGAS	Cole Information Services
2004	ANDREW BEQUER	Cole Information Services
1999	FABIAN VARGAS	Cole Information Services

5769 TERRITORY LN

Year	Uses	Source
2017	XIAOYUN TAN	Cole Information Services
2014	FRED BERNAL	Cole Information Services
2009	FRED BERNAL	Cole Information Services
2004	FRED BERNAL	Cole Information Services
1999	FRED BERNAL	Cole Information Services

FINDINGS

5772 TERRITORY LN

Year	Uses	Source
2017	LUIS GONZALEZ	Cole Information Services
2014	LUIS GONZALEZ	Cole Information Services
2009	CATALINA AGUILAR	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	CATALINA AGUILAR	Cole Information Services

5777 TERRITORY LN

Year	Uses	Source
2017	LARRY WALKER	Cole Information Services
2014	KYLE WALKER	Cole Information Services
2009	LARRY WALKER	Cole Information Services
1999	LARRY WALKER	Cole Information Services

5780 TERRITORY LN

Year	Uses	Source
2017	GORDON SCHAER	Cole Information Services
2014	GORDON SCHAER	Cole Information Services
2009	R CLARK	Cole Information Services
2004	BRUCE THOMPSON	Cole Information Services
1999	R CLARK	Cole Information Services

5785 TERRITORY LN

Year	Uses	Source
2017	IMELDA CERVANTES	Cole Information Services
2014	EDDIE DORANTES	Cole Information Services
2009	JEREMY RAMSEY	Cole Information Services
2004	NORCO REGENT	Cole Information Services
1999	JEREMY RAMSEY	Cole Information Services

5788 TERRITORY LN

Year	Uses	Source
2014	ERIC MCNAMARA	Cole Information Services
2009	ALL CITY HEATING & AIR	Cole Information Services
	DAVID TROUTWINE	Cole Information Services
1999	DAVID TROUTWINE	Cole Information Services

5793 TERRITORY LN

Year	Uses	Source
2014	RONALD SCOTT	Cole Information Services

Year	Uses	Source
2009	RONALD SCOTT	Cole Information Services
2004	YVONNE ARAKELIAN	Cole Information Services
1999	RONALD SCOTT	Cole Information Services

5796 TERRITORY LN

Year	Uses	Source
2017	RICARDO RAMIREZ	Cole Information Services
2014	MARCH RAMIREZ	Cole Information Services
2009	MARCH RAMIREZ	Cole Information Services
2004	DANTE LAMASTRA	Cole Information Services
1999	MARCH RAMIREZ	Cole Information Services

WESTCHESTER WAY

5710 WESTCHESTER WAY

Year	Uses	Source
2017	GARY NABARRETTE	Cole Information Services
2014	MARSHALL SAUBHAYANA	Cole Information Services
2009	GARY NABARRETE	Cole Information Services
2004	GARY NABARRETE	Cole Information Services
1999	GARY NABARRETE	Cole Information Services

5715 WESTCHESTER WAY

Year	Uses	Source
2017	DEL COLDIVAR	Cole Information Services
2009	DEL HEROD	Cole Information Services
2004	WARREN HACKET	Cole Information Services
1999	DEL HEROD	Cole Information Services

5720 WESTCHESTER WAY

Year	Uses	Source
2017	ELLENA WILLIAMS	Cole Information Services
2014	ELLENA WILLIAMS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2004	RICARDO RODRIGUEZ	Cole Information Services

5725 WESTCHESTER WAY

Year	Uses	Source
2017	JOSH RYDBECK	Cole Information Services
2014	MARY BUN	Cole Information Services

Year	Uses	Source
2009	JOSH RYDBECK	Cole Information Services
2004	JOSHUA RYDBECK	Cole Information Services
1999	JOSH RYDBECK	Cole Information Services

5730 WESTCHESTER WAY

Year	Uses	Source
2017	GIOVANNI COSTA	Cole Information Services
2014	GIOVANNI COSTA	Cole Information Services
2009	TAE LEE	Cole Information Services
2004	TAE LEE	Cole Information Services
1999	TAE LEE	Cole Information Services

5735 WESTCHESTER WAY

Year	Uses	Source
2014	SHARON STARKS	Cole Information Services
2009	ADRIANA RODRIGUEZ	Cole Information Services
2004	ADRIANA RODRIGUEZ	Cole Information Services
1999	ADRIANA RODRIGUEZ	Cole Information Services

5740 WESTCHESTER WAY

Year	Uses	Source
2017	BRIAN RUSSELL	Cole Information Services
2014	BRIAN RUSSELL	Cole Information Services
2009	BRIAN RUSSELL	Cole Information Services
2004	BRIAN RUSSELL	Cole Information Services
1999	BRIAN RUSSELL	Cole Information Services

5745 WESTCHESTER WAY

Year	Uses	Source
2017	VICTOR LONGORIA	Cole Information Services
2014	JERRY ADELL	Cole Information Services
2009	JERRY ADELL	Cole Information Services
2004	JERRY ADELL	Cole Information Services
1999	JERRY ADELL	Cole Information Services

5750 WESTCHESTER WAY

Year	Uses	Source
2017	KEITH BOWEN	Cole Information Services
2014	KYLER KREBS	Cole Information Services
2009	KYLER KREBS	Cole Information Services

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Year	Uses	Source
2004	KYLER KREBS	Cole Information Services
1999	KYLER KREBS	Cole Information Services

5755 WESTCHESTER WAY

Year	Uses	Source
2017	QUOC TRAN	Cole Information Services
2014	QUOCTUAN TRAN	Cole Information Services
2009	CUONG TRAN	Cole Information Services
2004	CUONG TRAN	Cole Information Services
1999	CUONG TRAN	Cole Information Services

5760 WESTCHESTER WAY

Year	Uses	Source
2017	NASSER MORCOS	Cole Information Services
2014	NESREEN GRACE	Cole Information Services
2009	PHYSICIANS BILLINGS SOLUTIONS	Cole Information Services
	MEDHAT GRACE	Cole Information Services
2004	MEDHAT GRACE	Cole Information Services
	PHYSICIANS BILLINGS SOLUTIONS	Cole Information Services
1999	MEDHAT GRACE	Cole Information Services

5765 WESTCHESTER WAY

Year	Uses	Source
2017	KELLY SWIFT	Cole Information Services
2014	KELLY SWIFT	Cole Information Services
2009	SWIFT DESIGN SOLUTIONS	Cole Information Services
	JAMES SWIFT	Cole Information Services
2004	JAMES SWIFT	Cole Information Services
1999	JAMES SWIFT	Cole Information Services

5770 WESTCHESTER WAY

Year	Uses	Source
2017	CANFU MEI	Cole Information Services
2014	STEVE SCHNAKENBERG	Cole Information Services
2009	STEVE SCHNAKENBERG	Cole Information Services
2004	STEVE SCHNAKENBERG	Cole Information Services
1999	STEVE SCHNAKENBERG	Cole Information Services

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5775 WESTCHESTER WAY

Year	Uses	Source
2017	ANTHONY SMITH	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	CYNTHIA SMITH	Cole Information Services
2004	CYNTHIA SMITH	Cole Information Services
1999	CYNTHIA SMITH	Cole Information Services

5780 WESTCHESTER WAY

Year	Uses	Source
2017	MATTHEW MILLER	Cole Information Services
2014	DEBORAH MILLER	Cole Information Services
2009	DJC SOLUTIONS	Cole Information Services
	GREGORY MILLER	Cole Information Services
2004	GREGORY MILLER	Cole Information Services
	DJC SOLUTIONS	Cole Information Services
1999	GREGORY MILLER	Cole Information Services

5785 WESTCHESTER WAY

Year	Uses	Source
2017	GEORGE TALAVERA	Cole Information Services
2014	ETIENNE GRAY	Cole Information Services
2009	JOSEPH MCNEILL	Cole Information Services
2004	JOSEPH MCNEILL	Cole Information Services
1999	JOSEPH MCNEILL	Cole Information Services

WESTPORT CIR

12826 WESTPORT CIR

Year	Uses	Source
2017	FAKHRUDDI ARFI	Cole Information Services
2014	RAFAELA ANGULO	Cole Information Services
2009	WAQAR RAJPUT	Cole Information Services
	FORECAST HOMES	Cole Information Services
2004	FORECAST HOMES	Cole Information Services
1999	WAQAR RAJPUT	Cole Information Services

12831 WESTPORT CIR

Year	Uses	Source
2017	GATES ADAMS	Cole Information Services
2014	T HEALY	Cole Information Services

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Year	Uses	Source
2009	RUTH HARTMAN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	RUTH HARTMAN	Cole Information Services

12836 WESTPORT CIR

Year	Uses	Source
2017	MARINA MAGDAELNO	Cole Information Services
2014	FRANCISCO PLACENCIA	Cole Information Services
2009	JOSE GONZALEZ	Cole Information Services
1999	JOSE GONZALEZ	Cole Information Services

12841 WESTPORT CIR

Year	Uses	Source
2017	PETER KIM	Cole Information Services
2014	DEAN BUI	Cole Information Services
2009	AGUSTIN CELIS	Cole Information Services
1999	AGUSTIN CELIS	Cole Information Services

12846 WESTPORT CIR

Year	Uses	Source
2017	WILLIAM ELLIOTT	Cole Information Services
2014	WILLIAM ELLIOTT	Cole Information Services
2009	KATE ELLIOTT	Cole Information Services
1999	KATE ELLIOTT	Cole Information Services

12851 WESTPORT CIR

Year	Uses	Source
2017	HANI HADDADIN	Cole Information Services
2014	HANI HADDADIN	Cole Information Services
2009	HANI HADDADIN	Cole Information Services
1999	HANI HADDADIN	Cole Information Services

12856 WESTPORT CIR

Year	Uses	Source
2017	MARCIA NUNEZ	Cole Information Services
2014	JODIE HUANG	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

WOODLAND DR

568 WOODLAND DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.

591 WOODLAND DR

Year	Uses	Source
2001	BATES Adair D	Haines & Company, Inc.

592 WOODLAND DR

Year	Uses	Source
2004	JOHN MANNING	Cole Information Services
2001	BROWN 8 N	Haines & Company, Inc.

593 WOODLAND DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Laguna Richard L & Shirley	Pacific Bell Yellow Pages
1981	Pearson Jim	Pacific Telephone

594 WOODLAND DR

Year	Uses	Source
2004	ROBBIE MENDES	Cole Information Services
2001	LOURENCOCarlos W	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services

595 WOODLAND DR

Year	Uses	Source
2001	LIMONAnnette E	Haines & Company, Inc.
1986	Leggett Leo	Pacific Bell Yellow Pages
	Leggett M	Pacific Bell Yellow Pages
1981	Leggett Leo	Pacific Telephone

596 WOODLAND DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Schilling S I	Pacific Bell Yellow Pages
1981	Schilling SI	Pacific Telephone

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597 WOODLAND DR

Year	Uses	Source
2004	APOLLO ANDERSON	Cole Information Services
2001	ANDERSON Apollo	Haines & Company, Inc.
1977	Siberell Jas	Pacific Telephone

598 WOODLAND DR

Year	Uses	Source
1986	Iverson Harry & Audrey	Pacific Bell Yellow Pages
1981	Smith Howard E	Pacific Telephone

599 WOODLAND DR

Year	Uses	Source
2004	PEDRO GARIBAY	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	De Carlo Drew & Mary	Pacific Bell Yellow Pages
	de Camp V	Pacific Bell Yellow Pages

600 WOODLAND DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1981	Hollmig Edwin J	Pacific Telephone

601 WOODLAND DR

Year	Uses	Source
2004	DAVID BEGHTEL	Cole Information Services

602 WOODLAND DR

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1986	Hoogeveen Bep	Pacific Bell Yellow Pages

603 WOODLAND DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Bealer Laurence	Pacific Bell Yellow Pages

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604 WOODLAND DR

Year	Uses	Source
2004	MELVIN BANKS	Cole Information Services
2001	VAN Monica	Haines & Company, Inc.
	VAN Monica	Haines & Company, Inc.
1999	OCCUPANT UNKNOWN	Cole Information Services
1994	MONROE, ROBERT E	Cole Information Services
1986	Monroe Robt E	Pacific Bell Yellow Pages

605 WOODLAND DR

Year	Uses	Source
2001	FIEN Arnold	Haines & Company, Inc.
1986	Paxton Li	Pacific Bell Yellow Pages
	Paxton John E	Pacific Bell Yellow Pages

606 WOODLAND DR

Year	Uses	Source
2004	JAMES LEFFLER	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services

607 WOODLAND DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	FRANK MACIAS	Cole Information Services

608 WOODLAND DR

Year	Uses	Source
2004	YOLANDA OLIVER	Cole Information Services
2001	ABARCAYolanda	Haines & Company, Inc.
1986	De Loach Harold & Anne	Pacific Bell Yellow Pages
1981	De Loach Harold & Anne	Pacific Telephone

609 WOODLAND DR

Year	Uses	Source
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
1986	Bradfield Paul C & Dorothy	Pacific Bell Yellow Pages
	Bradfield Lester	Pacific Bell Yellow Pages
1981	Bradfield Lester	Pacific Telephone

FINDINGS

610 WOODLAND DR

Year	Uses	Source
2004	BLANCHE BURDA	Cole Information Services
2001	BURDAB	Haines & Company, Inc.
1994	BURDA, BLANCHE	Cole Information Services
1986	Burda B	Pacific Bell Yellow Pages
1981	Burda B	Pacific Telephone

611 WOODLAND DR

Year	Uses	Source
2004	ELWYN ROBINSON	Cole Information Services
2001	XXXX	Haines & Company, Inc.
1986	Armstrong Dale	Pacific Bell Yellow Pages

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
1 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
1 MOUNTAIN VIEW CIR	2017, 2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
10 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
10 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
10 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
10 S MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
100 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
100 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
101 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
101 MAYFAIR CIR	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
102 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
102 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
103 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
103 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
104 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
104 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
105 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
105 MAYFAIR CIR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
106 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
106 MAYFAIR CIR	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
107 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
107 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
107 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
108 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
108 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
109 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
11 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
11 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
11 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
110 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
110 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
111 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
111 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
112 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
112 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
113 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
113 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
113 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
114 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
114 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
114 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
115 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
116 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
116 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
117 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
117 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
117 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
118 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
118 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
118 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
119 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
119 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
119 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
120 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
120 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
120 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
121 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
121 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
122 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
122 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
123 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
123 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
124 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
124 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
124 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12421 LIMONITE AVE	2017, 2014, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12423 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12435 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12447 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12459 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12471 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12483 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12495 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
125 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
125 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
125 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12511 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12523 LIMONITE AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12525 LIMONITE AVE	2017, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12545 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12569 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12571 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
126 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
126 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12601 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12602 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12605 BRIDGEWATER DR	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12607 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12611 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12613 LONGHORNE DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12613 OAKDALE ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12614 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12617 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12619 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12623 OAKDALE ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12625 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12626 AMBERHILL AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12629 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12631 SILAS PHELPS DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12633 AMBERHILL AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12633 OAKDALE ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12637 LONGHORNE DR	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12638 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12641 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12643 OAKDALE	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12643 OAKDALE ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12643 SILAS PHELPS DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12645 AMBERHILL AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12649 LONGHORNE DR	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12653 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12653 OAKDALE	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12653 OAKDALE ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12654 LONGHORNE DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12657 AMBERHILL AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12661 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12662 AMBERHILL AVE	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12665 BRIDGEWATER DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12666 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12667 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12669 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12673 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12673 OAKDALE ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12674 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12677 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12678 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12679 SILAS PHELPS DR	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12681 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12682 BRIDGEWATER DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12683 OAKDALE ST	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12685 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12686 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12690 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12691 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12693 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12693 OAKDALE ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12694 BRIDGEWATER DR	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12698 AMBERHILL AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
127 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
127 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
127 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12700 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12701 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12702 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12702 SILAS PHELPS DR	2017, 2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12703 OAKDALE ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12703 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12705 AMBERHILL AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12706 BRIDGEWATER DR	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12708 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12713 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12713 OAKDALE ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12714 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12715 SILAS PHELPS DR	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12717 AMBERHILL AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12718 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12720 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12722 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12723 OAKDALE ST	2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12725 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12726 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12727 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12729 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12730 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12732 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12732 SILAS PHELPS DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12733 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12734 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12737 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12738 LONGHORNE DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12739 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12740 58TH ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12741 CLOVERDALE RD	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12741 LIMONITE AVE	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12742 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12744 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12745 CLOVERDALE RD	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12745 CLOVERDALE ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12745 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12749 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12751 SILAS PHELPS DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12753 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12754 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12755 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12757 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12758 AMBERHILL AVE	2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12761 BRIDGEWATER DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12762 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12762 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12765 AMBERHILL AVE	2014, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12767 BRIDGEWATER DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12768 LIMONITE AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12769 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12774 CLOVERDALE RD	2017, 2014, 2009, 2004, 2001, 1999, 1994, 1986, 1967, 1966, 1961, 1960, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12774 CLOVERDALE ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12774 LIMONITE AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12774 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12776 AMBERHILL AVE	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12777 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12779 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12786 LONGHORNE DR	2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12789 AMBERHILL AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12791 BRIDGEWATER DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12793 LONGHORNE DR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12797 BRIDGEWATER DR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12798 LONGHORNE DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
128 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
128 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12803 OAKDALE ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12809 OAKDALE ST	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12812 OAKDALE ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12815 OAKDALE ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12823 ROSECLIFF CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12826 WESTPORT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12830 MARYLAND AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12831 WESTPORT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12833 ROSECLIFF CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12835 MARYLAND AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12836 WESTPORT CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12838 ROSECLIFF CIR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12840 MARYLAND AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12841 WESTPORT CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12843 ROSECLIFF CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12845 MARYLAND AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12846 WESTPORT CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12848 ROSECLIFF CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12850 MARYLAND AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12851 WESTPORT CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12853 ROSECLIFF CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12855 MARYLAND AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12856 WESTPORT CIR	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12858 ROSECLIFF CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12860 MARYLAND AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12865 MARYLAND AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12875 MARYLAND AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12885 MARYLAND AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12895 MARYLAND AVE	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
129 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
129 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
129 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12915 MARYLAND AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12925 MARYLAND AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12935 MARYLAND AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12945 MARYLAND AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12955 MARYLAND AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12965 MARYLAND AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12969 NASSAU CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12974 NASSAU CT	2017, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12975 MARYLAND AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12979 NASSAU CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12984 NASSAU CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
12985 MARYLAND AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12989 NASSAU CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12994 NASSAU CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
12995 MARYLAND AVE	2017, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
130 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
130 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
131 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
131 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
131 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13100 LAVONDA ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13103 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13110 LAVONDA ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13112 BRIAR ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13113 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13115 BRIAR ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
13120 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13122 BRIAR ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13123 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13125 BRIAR ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13130 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13132 BRIAR ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13133 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13135 BRIAR ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13140 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13143 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13150 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13153 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13163 LAVONDA ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13173 LAVONDA ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
132 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
132 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
132 DEL MAR WAY	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
13202 RUBY CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13204 DORSETT GOLDEN ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13207 DORSETT GOLDEN ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13208 EARLY CRIMSON ST	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13209 KARA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13212 RUBY CT	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13215 EARLY CRIMSON ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13215 RUBY CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13216 KARA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13216 RUBY CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13219 KARA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13222 RUBY CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13225 EARLY CRIMSON ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13225 RUBY CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13226 KARA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13228 DANCY ST	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
133 DEL MAR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
133 DEL MAR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
134 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
134 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
134 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
135 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
135 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
136 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
136 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
136 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
137 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
137 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
138 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
138 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
139 FAIRLANE CIR	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
139 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
139 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
14 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
140 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
140 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
140 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
141 FAIRLANE CIR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
141 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
142 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
142 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
143 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
143 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
144 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
144 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
145 FAIRLANE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
145 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
145 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
146 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
146 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
147 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
147 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
148 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
148 FAIRLANE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
148 FAIRLANE CT	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
149 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
149 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
15 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
15 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
15 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
150 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
150 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
150 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
151 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
151 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
151 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
152 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
152 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
152 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
153 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
153 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
153 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
154 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
154 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
154 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
155 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
155 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
155 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
156 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
157 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
157 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
157 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
158 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
158 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
158 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
159 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
159 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
16 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
16 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
160 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
160 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
160 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
161 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
161 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
162 MONTEREY CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
162 MONTEREY CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
162 MONTEREY LN	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
163 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
163 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
164 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
165 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
165 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
165 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
167 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
167 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
167 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
168 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
168 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
169 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
169 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
169 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
17 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
17 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
17 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
170 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
173 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
174 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
174 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
175 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
175 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
176 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
176 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
177 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
177 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
177 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
178 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
178 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
179 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
179 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
179 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
18 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
18 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
18 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
180 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
180 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
181 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
181 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
182 DRIFTW QOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
182 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
182 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
183 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
183 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
183 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
184 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
184 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
185 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
185 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
185 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
186 DRIFTWOOD CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
186 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
186 DRIFTWOOD ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
187 DRIFTWOOD CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
19 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
19 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
19 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
2 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
2 MOUNTAIN VIEW CIR	2017, 2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
20 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
20 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
20 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
21 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
21 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
21 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
22 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
22 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
226 OAK CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
23 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
23 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
23 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
24 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
24 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
24 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
243 OAK CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
25 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
25 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
25 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
26 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
26 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
263 LAKEVW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
27 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
27 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
27 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
28 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
28 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
28 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
29 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
29 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
29 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
3 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
30 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
30 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
30 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
31 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
31 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
32 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
32 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
32 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
33 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
33 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
33 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
34 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
34 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
34 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
35 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
35 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
35 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
36 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
37 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
37 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
37 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
38 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
38 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
38 MOUNTN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
39 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
39 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
4 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
40 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
41 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
41 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
42 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
43 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
43 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
44 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
44 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
44 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
45 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
45 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
45 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
46 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
46 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
47 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
47 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
48 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
48 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
49 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
49 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
49 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
50 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
50 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
50 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
51 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
51 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
52 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
52 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
52 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5240 HAMNER AVE	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
53 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
53 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
53 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
54 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
54 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
55 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
55 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5509 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5514 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5519 ALEXANDRIA AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5524 ALEXANDRIA AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5529 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5534 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5537 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5539 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5542 ANNANDALE PL	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5544 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5547 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5549 ALEXANDRIA AVE	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5552 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5554 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5557 ANNANDALE PL	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5559 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
556 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5564 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5567 ANNANDALE PL	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5569 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
557 EDGEMONT DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
557 EDGEMONT DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5572 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5574 ALEXANDRIA AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5577 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5579 ALEXANDRIA AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
558 EDGEMONT DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5582 ANNANDALE PL	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5584 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5587 ANNANDALE PL	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5589 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
559 EDGEMONT DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5594 ALEXANDRIA AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5597 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5599 ALEXANDRIA AVE	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
56 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
56 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
560 EDGEMONT DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
560 EDGEMONT DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5602 ANNANDALE PL	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5604 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5605 ASHWELL CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5607 ANNANDALE PL	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5609 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
561 EDGEMONT DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
561 EDGEMONT DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5612 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5614 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5617 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5617 ASHWELL CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5619 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
562 EDGEMONT DR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
562 EDGEMONT DR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5620 ASHWELL CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5621 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5621 JAMESTOWN AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5622 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5626 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5628 HARMONY DR	2014, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5629 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5629 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5629 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
563 EDGEMONT DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
563 EDGEMONT DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5631 HARMONY DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5631 JAMESTOWN AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5632 ASHWELL CT	2017, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5634 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5637 CAMBRIA DR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5639 ALEXANDRIA AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5639 HARMONY DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
564 EDGEMONT DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
564 EDGEMONT DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5641 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5641 JAMESTOWN AVE	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5642 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5642 CAMBRIA DR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5644 ALEXANDRIA AVE	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5644 ASHWELL CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5645 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5647 ANNANDALE PL	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5649 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
565 EDGEMONT DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5650 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5650 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5651 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5653 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5653 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5654 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5655 HARMONY DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5656 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5658 CAMBRIA DR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5659 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
566 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
566 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5661 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5662 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5663 HARMONY DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5664 ALEXANDRIA AVE	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5667 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5669 ALEXANDRIA AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
567 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5671 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5671 HARMONY DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5671 JAMESTOWN AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5672 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5674 ALEXANDRIA AVE	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5674 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5674 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5677 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5677 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5677 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
568 DRAKE DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
568 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
568 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5680 ASHWELL CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5681 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5682 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5683 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5684 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5685 CAMBRIA DR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5686 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5686 CAMBRIA DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5687 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5689 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5689 CAMBRIA DR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
569 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
569 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5690 CAMBRIA DR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5691 JAMESTOWN AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5692 ANNANDALE PL	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5692 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5693 CAMBRIA DR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5694 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5695 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5698 CALITERRA CT	2017, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5698 CAMBRIA DR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
57 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
57 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
570 DRAKE DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
570 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5701 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5701 JAMESTOWN AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5703 CAROLINAS LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5704 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5704 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5707 ANNANDALE PL	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5707 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5709 ALEXANDRIA AVE	2014, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
571 DRAKE DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
571 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5710 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5710 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5711 JAMESTOWN AVE	2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5712 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5713 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5713 CAROLINAS LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5713 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5714 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5715 WESTCHESTER WAY	2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5716 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5716 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5717 RAFT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5719 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5719 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5719 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
572 DRAKE DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5720 RAFT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5720 WESTCHESTER WAY	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5721 JAMESTOWN AVE	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5722 CALITERRA CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5722 MARK TWAIN CT	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5723 CAROLINAS LN	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5723 RAFT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5724 ALEXANDRIA AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5725 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5725 MARK TWAIN CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5725 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5726 RAFT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5727 ANNANDALE PL	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5728 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5728 MARK TWAIN CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5729 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5729 RAFT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
573 DRAKE DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5730 PETER WILKS CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5730 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5731 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5731 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5731 MARK TWAIN CT	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5732 ANNANDALE PL	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5732 RAFT CIR	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5733 CAROLINAS LN	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5733 PETER WILKS CT	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5734 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5734 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5734 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5735 RAFT CIR	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5735 WESTCHESTER WAY	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5736 PETER WILKS CT	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5737 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5737 MARK TWAIN CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5739 PETER WILKS CT	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
574 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5740 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5740 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5740 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5741 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5742 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5742 PETER WILKS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5743 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5743 CAROLINAS LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5743 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5744 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5744 RAFT CIR	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5745 PETER WILKS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5745 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5746 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5747 ANNANDALE PL	2017, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5749 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5749 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
575 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
575 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5750 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5751 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5752 ANNANDALE PL	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5752 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5753 CAROLINAS LN	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5754 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5755 CALITERRA CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5755 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5755 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5757 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5758 CAIRO CT	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5758 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5759 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
576 DRAKE DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
576 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5760 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5761 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5761 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5762 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5763 CAIRO CT	2014, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5763 CAROLINAS LN	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5764 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5764 ASHWELL CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5764 TERRITORY LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5765 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5766 CAIRO CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5767 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5767 CALITERRA CT	2017, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5767 MARK TWAIN CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5769 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5769 TERRITORY LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
577 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5770 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
5771 CAIRO CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5771 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5772 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5772 TERRITORY LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5773 CAROLINAS LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5773 MARK TWAIN CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5774 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5774 CAIRO CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5775 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5776 ASHWELL CT	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5777 ANNANDALE PL	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5777 TERRITORY LN	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5779 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5779 CAIRO CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5779 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
578 DRAKE DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
578 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
578 DRAKE DR MIRALMA	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5780 HAMNER AVE	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5780 TERRITORY LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5780 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5781 JAMESTOWN AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5782 ANNANDALE PL	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5782 CAIRO CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5783 CAROLINAS LN	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5784 ALEXANDRIA AVE	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5785 TERRITORY LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5785 WESTCHESTER WAY	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5787 ANNANDALE PL	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5787 CAIRO CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5788 ASHWELL CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5788 TERRITORY LN	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5789 ALEXANDRIA AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
579 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

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Address Researched	Address Not Identified in Research Source
5790 CAIRO CT	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5791 CALITERRA CT	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5791 JAMESTOWN AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5793 TERRITORY LN	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5795 CAIRO CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5796 TERRITORY LN	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5797 ANNANDALE PL	2017, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5798 CAIRO CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5799 ALEXANDRIA AVE	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
58 LARKDALE CIR	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
58 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
580 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5800 ASHWELL CT	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5800 HAMNER AVE	2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5800 HAMNER AVE	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
581 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
581 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
582 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
582 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
583 DRAKE DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
583 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
584 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
584 DRAKE DR	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
585 DRAKE DR	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
585 DRAKE DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
586 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
587 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
587 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
588 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
588 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5888 HAMNER AVE	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
589 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
589 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
5890 HAMNER AVE	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
59 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
59 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
59 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
590 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
590 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
591 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
592 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
592 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
593 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
593 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
594 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
594 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
595 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
596 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
596 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
597 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
597 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
598 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
599 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
599 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6 MOUNTAIN VIEW CIR	2017, 2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
60 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
60 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
60 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
600 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
600 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
601 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
602 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6020 HAMNER AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
603 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
603 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6031 FUJI ST	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6038 FUJI ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
604 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
604 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6041 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6048 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
605 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6051 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6058 FUJI ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
606 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6060 HAMNER AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6068 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
607 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6071 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6078 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
608 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
608 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6080 HAMNER AVE	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6081 FUJI ST	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6088 FUJI ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
609 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
609 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6091 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6098 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
61 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
61 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
61 LARKDLE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
610 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
610 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6101 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6108 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
611 WOODLAND DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
611 WOODLAND DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6111 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6118 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
612 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
612 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
612 CASTLE VREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6121 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6128 FUJI ST	2017, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
613 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6131 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6138 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
614 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
614 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6140 HAMNER AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6141 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6148 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
615 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
615 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6151 FUJI ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6158 FUJI ST	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
616 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

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Address Researched	Address Not Identified in Research Source
6168 FUJI ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
617 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
617 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6170 HAMNER AVE	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
618 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
619 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
619 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
62 LARKDALE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
620 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
620 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
621 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6219 BAY ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
622 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
622 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6229 BAY ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
623 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
623 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6239 BAY ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
624 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6245 CATTLEMAN DR	2017, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6249 BAY ST	2017, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
625 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6259 BAY ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
626 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
626 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
627 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
627 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6274 CATTLEMAN DR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6277 CATTLEMAN DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
628 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
628 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6282 CATTLEMAN DR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6285 CATTLEMAN DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
629 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
629 CHAPARRAL DR	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6290 CATTLEMAN DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6293 CATTLEMAN DR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
63 LARKDALE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
630 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
630 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6308 DAPHNE ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
631 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6310 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6312 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6313 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6314 POMEGRANATE CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6314 POMEGRANATE CT	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6315 MARIGOLD ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6316 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6316 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6316 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6317 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6318 DAPHNE ST	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6319 LAVENDER ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
632 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
632 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6320 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6322 MARIGOLD ST	2017, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6323 HAMNER AVE	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6323 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6324 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6324 POMEGRANATE CT	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6325 MARIGOLD	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6325 MARIGOLD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6325 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6326 LAVENDER ST	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6327 POMEGRANATE CT	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6328 MARIGOLD ST	2017, 2014, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6329 LAVENDER ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
633 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
633 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6330 IRIS CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6332 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6333 IRIS CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6333 IRIS CT	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6334 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6335 MARIGOLD	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6335 MARIGOLD ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6336 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6336 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6337 POMEGRANATE CT	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6337 POMEGRANATE CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6339 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
634 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
634 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6340 IRIS CT	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6342 MARIGOLD ST	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6343 IRIS CT	2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6344 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6345 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6346 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6346 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6346 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6347 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6349 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6349 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6349 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
635 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6350 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6352 MARIGOLD	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6352 MARIGOLD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6352 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6353 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6354 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6354 POMEGRANATE CT	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6355 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6356 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6356 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6356 LAVENDER ST	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6357 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6358 MARIGOLD ST	2017, 2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6359 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6359 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6359 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
636 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
636 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6360 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6362 MARIGOLD	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6362 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6363 IRIS CT	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6363 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6364 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6365 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6366 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6366 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6367 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6369 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6369 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6369 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
637 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
637 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6370 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6372 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6373 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6374 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6374 POMEGRANATE CT	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6375 MARIGOLD ST	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6376 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6377 POMEGRANATE CT	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6379 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
638 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6380 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6382 MARIGOLD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6382 MARIGOLD ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6383 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6384 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6385 MARIGOLD	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6385 MARIGOLD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6385 MARIGOLD ST	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6386 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6386 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6386 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6387 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6389 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6389 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
639 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
639 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6390 IRIS CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6392 MARIGOLD	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6392 MARIGOLD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6392 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6393 IRIS CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6394 POMEGRANATE CT	2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6395 MARIGOLD ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6396 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6396 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6396 LAVENDER ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6397 POMEGRANATE CT	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6399 LAVENDER	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
6399 LAVENDER ST	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
6399 LAVENDER ST	2017, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
64 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
64 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
640 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
640 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
641 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
641 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
642 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
642 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
643 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
644 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
645 CHAPARRAL DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
645 CHAPARRAL DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
646 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
646 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
647 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
648 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
648 BOXWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
649 BOXWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
649 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
65 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
65 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
650 BOXWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
650 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
651 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
652 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
653 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
653 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
654 BOXWOOD DR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
654 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
656 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
656 BOXWOOD DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
657 BOXWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
657 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
659 BOXWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
659 BOXWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
66 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
66 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
660 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
660 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
661 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
661 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
662 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
662 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
663 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
663 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
664 CASTLE CREST DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
664 CASTLE CREST DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
665 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
665 CYPRESS DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
666 CYPRESS DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
666 CYPRESS DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
667 CYPRESS DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
667 CYPRESS DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
668 CYPRESS DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
669 CYPRESS DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
67 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
67 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
670 CYPRESS DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
670 CYPRESS DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
670 CYPRESS DR MIRA LMNIA	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
671 CYPRESS DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
673 CYPRESS DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
674 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
674 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
675 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
675 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
676 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
677 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
677 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
678 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
679 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
68 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
68 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
680 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
681 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
682 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
682 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
683 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
684 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
684 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
685 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
686 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
686 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
687 BEACHWOOD DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
687 BEACHWOOD DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
688 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
689 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
69 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
69 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
690 AMBER DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
690 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
691 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
692 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
692 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
693 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
694 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
694 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
695 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
696 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
697 AMBER DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
697 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
698 AMBER DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
699 AMBER DR	2017, 2014, 2009, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7 MOUNTAIN VIEW CIR	2017, 2014, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
70 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
70 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
700 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
701 AMBER DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
702 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
703 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
704 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
704 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
705 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
706 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
706 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
707 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
707 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
708 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
708 AMBER DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
709 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
71 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
71 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
710 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
710 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
711 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
711 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
712 AMBER DR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
712 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
713 AMBER DR	2017, 2014, 2009, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
713 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
714 AMBER DR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
714 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
715 AMBER DR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
715 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
716 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
72 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
72 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
73 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
74 SUNRISE CIR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
74 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
75 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
75 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
76 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
77 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
77 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
78 SUNRISE CIR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
782 AMBER DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
79 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
79 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
8 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
8 MOUNTAIN VIEW DR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
80 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
80 SUNRISE CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
81 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
81 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
82 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
82 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
83 PALM CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
83 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
84 PALM CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
84 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
85 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
86 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
86 PALM CIR	2017, 2014, 2009, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
87 PALM C!R	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
87 PALM CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
87 SUNRISE CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
88 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
89 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
9 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
9 MOUNTAIN VIEW CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
90 PALM CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
91 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
91 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
92 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
92 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
93 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
93 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
94 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
95 PALM CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
95 PALM CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
96 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
96 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
97 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
97 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
98 MAYFAIR CIR	2017, 2014, 2009, 2004, 1999, 1996, 1994, 1993, 1990, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
99 MAYFAIR CIR	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
99 MAYFAIR CIR	2017, 2014, 2009, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
Hamer Ave and 58th Street	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

APPENDIX E

REGULATORY RECORDS DOCUMENTATION

Hamer Ave and 58th Street
Hamer Ave and 58th Street
Corona, CA 92880

Inquiry Number: 06529777.2r
June 09, 2021

EDR Summary Radius Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Detail Map	3
Map Findings Summary	4
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Physical Setting Source Map	A-10
Physical Setting Source Map Findings	A-12
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

HAMER AVE AND 58TH STREET
CORONA, CA 92880

COORDINATES

Latitude (North):	33.9791850 - 33° 58' 45.06''
Longitude (West):	117.5629320 - 117° 33' 46.55''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	448000.3
UTM Y (Meters):	3759796.5
Elevation:	669 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	TP
Source:	U.S. Geological Survey

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
HAMER AVE AND 58TH STREET
CORONA, CA 92880

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	LEAL RANCHES	12740 58TH STREET	FINDS, ECHO	Higher	1 ft.
A2	LEAL RANCHES	12740 58TH STREET	ENF, CIWQS	Higher	1 ft.
A3	LEAL RANCHES	12740 58TH	CERS	Higher	1 ft.
4	ECHEVERRIA DAIRY	CLEVELAND AVE	ENVIROSTOR, LUST, SCH	Lower	7, 0.001, SW
B5	LEAL RANCHES	12714 CLOVERDALE	HIST UST	Lower	72, 0.014, SE
B6	WESTERN SKY DAIRY	6500 HAMNER	ENF, HIST CORTESE, NPDES, WDS, CIWQS	Lower	118, 0.022, SE
C7	MOUNTAIN VIEW TIRE	6080 HAMNER AVE #105	CERS HAZ WASTE, CERS	Higher	122, 0.023, ESE
C8	MOUNTAIN VIEW TIRE &	6080 HAMNER AVE STE	RCRA NonGen / NLR	Higher	122, 0.023, ESE
B9	RALPHS GROCERY # 45	12618 LIMONITE AVE	CERS HAZ WASTE, CERS TANKS, HAZNET, CERS, HWTS	Lower	126, 0.024, SE
B10	RALPHS GROCERY COMPA	12618 LIMONITE AVE	RCRA-LQG	Lower	126, 0.024, SE
C11	VONS FUEL CENTER #26	6110 HAMNER AVE	UST	Higher	138, 0.026, ESE
C12	VONS FUEL #2688	6110 HAMNER AVE	RCRA NonGen / NLR	Higher	138, 0.026, ESE
C13	VONS FUEL CENTER #26	6110 HAMNER AVE	CERS HAZ WASTE, CERS TANKS, CHMIRS, CERS	Higher	138, 0.026, ESE
C14	VONS FUEL #2688	6110 HAMNER AVE	RCRA NonGen / NLR	Higher	138, 0.026, ESE
D15	PULTE HOMES COMPANY,	12774 LIMONITE	RCRA NonGen / NLR	Lower	142, 0.027, SSE
D16	RIVERSIDE MEDICAL CL	12742 LIMONITE AVE	RCRA NonGen / NLR	Lower	144, 0.027, SSE
B17	RALPH'S #45 FUEL CEN	12618 LIMONITE AVE	UST	Lower	225, 0.043, SE
E18	WALGREENS #13657	12574 LIMONITE AVE	RCRA NonGen / NLR	Lower	329, 0.062, SE
E19	WALGREENS #13657	12574 LIMONITE AVE	CERS HAZ WASTE, HAZNET, HWTS	Lower	329, 0.062, SE
D20	TIERRA FINA	12672 LIMONITE AVE	EDR Hist Auto	Lower	384, 0.073, SSE
F21	2688 VONS A SAFEWAY	6170 HAMNER AVE	CERS HAZ WASTE, CERS	Lower	405, 0.077, ESE
F22	VONS 2688	6170 HAMNER AVE	RCRA-LQG, FINDS	Lower	405, 0.077, ESE
G23	RALPHS GROCERY #45	12660 LIMONITE AVE	RCRA NonGen / NLR	Lower	463, 0.088, SSE
G24	SUNSET RECYCLING CEN	12660 LIMONITE	SWRCY	Lower	463, 0.088, SSE
G25	RALPHS GROCERY #45	12660 LIMONITE AVE	CERS HAZ WASTE, CHMIRS, HAZNET, CERS, HWTS	Lower	463, 0.088, SSE
26	THE PROCTER AND GAMB	16110 COSMOS ST	AST	Lower	494, 0.094, SW
27	BRIGHT NOW DENTAL A	12636 LIMONITE AVE S	RCRA NonGen / NLR	Lower	556, 0.105, SSE
28	HOME DEPOT USA INC H	6140 HAMNER AVE	RCRA-SQG, CERS HAZ WASTE, HAZNET, CERS, HWTS	Higher	724, 0.137, ESE
H29	PETSMART #1341	12483 LIMONITE AVE	CERS HAZ WASTE, CERS	Lower	1072, 0.203, ESE
H30	MEDICAL MNGT INTNL I	12483 LIMONITE AVE	RCRA NonGen / NLR	Lower	1072, 0.203, ESE
H31	PETSMART #1341	12483 LIMONITE AVE	RCRA NonGen / NLR	Lower	1072, 0.203, ESE
I32	STAPLES THE OFFICE S	12495 LIMONITE AVE	CERS HAZ WASTE, HAZNET, HWTS	Lower	1122, 0.213, ESE
I33	STAPLES THE OFFICE S	12495 LIMONITE AVE	RCRA NonGen / NLR	Lower	1122, 0.213, ESE
I34	TARGET STORE T1961	12471 LIMONITE AVE	RCRA-LQG	Lower	1177, 0.223, ESE
I35	TARGET T1961	12471 LIMONITE AVE	CERS HAZ WASTE, CERS	Lower	1177, 0.223, ESE
I36	CVS PHARMACY #17077	12471 LIMONITE AVE S	RCRA-VSQG, FINDS, ECHO	Lower	1177, 0.223, ESE
I37	CHEVRON STATION #210	12464 LIMONITE AVE	CERS HAZ WASTE, CERS TANKS, CERS	Lower	1199, 0.227, ESE
I38	CHEVRON STATION #210	12464 LIMONITE AVE	UST	Lower	1199, 0.227, ESE
39	PORSCHE CARS NORTH A	12567 BELLEGRAVE AVE	RCRA NonGen / NLR	Higher	1249, 0.237, NNW

MAPPED SITES SUMMARY

Target Property Address:
HAMER AVE AND 58TH STREET
CORONA, CA 92880

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
40	GATEWAY DENTAL GROUP	12571 LIMONITE AVE S	RCRA NonGen / NLR	Higher	1297, 0.246, East
J41	TEXACO SWAN LAKE	5800 HAMNER AVE	LUST, Cortese, HIST CORTESE, NPDES, CERS	Higher	1417, 0.268, ENE
J42	SWAN LAKE TEXACO	5800 HAMMER AVENUE	Notify 65	Higher	1417, 0.268, ENE
43	PROPOSED K-8 SCHOOL	5240 AND 5380 HAMNER	ENVIROSTOR, SCH	Higher	2304, 0.436, NNE
44	DRIFTY FARMS	5810 SUMNER	RCRA-SQG, LUST, SWEEPS UST, HIST UST, CA FID UST,...	Higher	2632, 0.498, West

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-LQG: A review of the RCRA-LQG list, as provided by EDR, and dated 03/22/2021 has revealed that there are 3 RCRA-LQG sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
RALPHS GROCERY COMPA EPA ID:: CAR000260547	12618 LIMONITE AVE	SE 0 - 1/8 (0.024 mi.)	B10	11
VONS 2688 EPA ID:: CAR000242420	***6170 HAMNER AVE***	***ESE 0 - 1/8 (0.077 mi.)***	***F22***	***13***
TARGET STORE T1961 EPA ID:: CAR000218032	12471 LIMONITE AVE	ESE 1/8 - 1/4 (0.223 mi.)	I34	16

RCRA-SQG: A review of the RCRA-SQG list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
HOME DEPOT USA INC H EPA ID:: CAR000168724	***6140 HAMNER AVE***	***ESE 1/8 - 1/4 (0.137 mi.)***	***28***	***14***

RCRA-VSQG: A review of the RCRA-VSQG list, as provided by EDR, and dated 03/22/2021 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CVS PHARMACY #17077	***12471 LIMONITE AVE S***	***ESE 1/8 - 1/4 (0.223 mi.)***	***I36***	***16***
EPA ID:: CAR000259713				

State- and tribal - equivalent CERCLIS

ENVIROSTOR: A review of the ENVIROSTOR list, as provided by EDR, and dated 01/25/2021 has revealed that there are 2 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PROPOSED K-8 SCHOOL	***5240 AND 5380 HAMNER***	***NNE 1/4 - 1/2 (0.436 mi.)***	***43***	***18***
Facility Id: 60000409				
Status: No Further Action				

Lower Elevation	Address	Direction / Distance	Map ID	Page
ECHEVERRIA DAIRY	***CLEVELAND AVE***	***SW 0 - 1/8 (0.001 mi.)***	***4***	***9***
Facility Id: 33020004				
Status: No Further Action				

State and tribal leaking storage tank lists

LUST: A review of the LUST list, as provided by EDR, has revealed that there are 3 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO SWAN LAKE	***5800 HAMNER AVE***	***ENE 1/4 - 1/2 (0.268 mi.)***	***J41***	***17***
Database: RIVERSIDE CO. LUST, Date of Government Version: 01/13/2021				
Database: LUST REG 8, Date of Government Version: 02/14/2005				
Database: LUST, Date of Government Version: 03/08/2021				
Facility Status: 9				
Facility Status: Case Closed				
Facility Id: 89159				
Global Id: T0606500101				
Global ID: T0606500101				
Status: Completed - Case Closed				
DRIFTY FARMS	***5810 SUMNER***	***W 1/4 - 1/2 (0.498 mi.)***	***44***	***18***
Database: RIVERSIDE CO. LUST, Date of Government Version: 01/13/2021				
Database: LUST REG 8, Date of Government Version: 02/14/2005				
Database: LUST, Date of Government Version: 03/08/2021				
Facility Status: 9				
Facility Status: Case Closed				
Facility Id: 90939				

Global Id: T0606500214
Global ID: T0606500214
Status: Completed - Case Closed

Lower Elevation	Address	Direction / Distance	Map ID	Page
ECHEVERRIA DAIRY	***CLEVELAND AVE***	***SW 0 - 1/8 (0.001 mi.)***	***4***	***9***

Database: LUST REG 8, Date of Government Version: 02/14/2005
Facility Status: Remediation Plan
Global ID: T0606523936

State and tribal registered storage tank lists

UST: A review of the UST list, as provided by EDR, has revealed that there are 3 UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VONS FUEL CENTER #26	6110 HAMNER AVE	ESE 0 - 1/8 (0.026 mi.)	C11	11

Database: RIVERSIDE CO. UST, Date of Government Version: 01/13/2021
Database: UST, Date of Government Version: 03/08/2021
Facility Id: FA0046411

Lower Elevation	Address	Direction / Distance	Map ID	Page
RALPH'S #45 FUEL CEN	12618 LIMONITE AVE	SE 0 - 1/8 (0.043 mi.)	B17	12

Database: RIVERSIDE CO. UST, Date of Government Version: 01/13/2021
Database: UST, Date of Government Version: 03/08/2021
Facility Id: FA0025177

CHEVRON STATION #210	12464 LIMONITE AVE	ESE 1/8 - 1/4 (0.227 mi.)	I38	16

Database: UST, Date of Government Version: 03/08/2021
Facility Id: FA0032436

AST: A review of the AST list, as provided by EDR, has revealed that there is 1 AST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
THE PROCTER AND GAMB	16110 COSMOS ST	SW 0 - 1/8 (0.094 mi.)	26	14

Database: AST, Date of Government Version: 07/06/2016

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A review of the SWRCY list, as provided by EDR, and dated 03/09/2021 has revealed that there

is 1 SWRCY site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
SUNSET RECYCLING CEN Cert Id: RC296631.001	12660 LIMONITE	SSE 0 - 1/8 (0.088 mi.)	G24	14

Local Lists of Hazardous waste / Contaminated Sites

SCH: A review of the SCH list, as provided by EDR, and dated 01/25/2021 has revealed that there is 1 SCH site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ECHEVERRIA DAIRY Facility Id: 33020004 Status: No Further Action	***CLEVELAND AVE***	***SW 0 - 1/8 (0.001 mi.)***	***4***	***9***

CERS HAZ WASTE: A review of the CERS HAZ WASTE list, as provided by EDR, and dated 01/20/2021 has revealed that there are 11 CERS HAZ WASTE sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MOUNTAIN VIEW TIRE	***6080 HAMNER AVE #105***	***ESE 0 - 1/8 (0.023 mi.)***	***C7***	***10***
VONS FUEL CENTER #26	***6110 HAMNER AVE***	***ESE 0 - 1/8 (0.026 mi.)***	***C13***	***11***
HOME DEPOT USA INC H	***6140 HAMNER AVE***	***ESE 1/8 - 1/4 (0.137 mi.)***	***28***	***14***

Lower Elevation	Address	Direction / Distance	Map ID	Page
RALPHS GROCERY # 45	***12618 LIMONITE AVE***	***SE 0 - 1/8 (0.024 mi.)***	***B9***	***11***
WALGREENS #13657	***12574 LIMONITE AVE***	***SE 0 - 1/8 (0.062 mi.)***	***E19***	***13***
2688 VONS A SAFEWAY	***6170 HAMNER AVE***	***ESE 0 - 1/8 (0.077 mi.)***	***F21***	***13***
RALPHS GROCERY #45	***12660 LIMONITE AVE***	***SSE 0 - 1/8 (0.088 mi.)***	***G25***	***14***
PETSMART #1341	***12483 LIMONITE AVE***	***ESE 1/8 - 1/4 (0.203 mi.)***	***H29***	***15***
STAPLES THE OFFICE S	***12495 LIMONITE AVE***	***ESE 1/8 - 1/4 (0.213 mi.)***	***I32***	***15***
TARGET T1961	***12471 LIMONITE AVE***	***ESE 1/8 - 1/4 (0.223 mi.)***	***I35***	***16***
CHEVRON STATION #210	***12464 LIMONITE AVE***	***ESE 1/8 - 1/4 (0.227 mi.)***	***I37***	***16***

Local Lists of Registered Storage Tanks

HIST UST: A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LEAL RANCHES Facility Id: 00000049612	12714 CLOVERDALE	SE 0 - 1/8 (0.014 mi.)	B5	10

CERS TANKS: A review of the CERS TANKS list, as provided by EDR, and dated 01/20/2021 has revealed that there are 3 CERS TANKS sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
VONS FUEL CENTER #26	***6110 HAMNER AVE***	***ESE 0 - 1/8 (0.026 mi.)***	***C13***	***11***

Lower Elevation	Address	Direction / Distance	Map ID	Page
RALPHS GROCERY # 45	***12618 LIMONITE AVE***	***SE 0 - 1/8 (0.024 mi.)***	***B9***	***11***
CHEVRON STATION #210	***12464 LIMONITE AVE***	***ESE 1/8 - 1/4 (0.227 mi.)***	***I37***	***16***

Other Ascertainable Records

RCRA NonGen / NLR: A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 03/22/2021 has revealed that there are 13 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MOUNTAIN VIEW TIRE & EPA ID:: CAL000367306	6080 HAMNER AVE STE	ESE 0 - 1/8 (0.023 mi.)	C8	10
VONS FUEL #2688 EPA ID:: CAL000442585	6110 HAMNER AVE	ESE 0 - 1/8 (0.026 mi.)	C12	11
VONS FUEL #2688 EPA ID:: CAL000288661	6110 HAMNER AVE	ESE 0 - 1/8 (0.026 mi.)	C14	12
PORSCHE CARS NORTH A EPA ID:: CAL000428608	12567 BELLEGRAVE AVE	NNW 1/8 - 1/4 (0.237 mi.)	39	17
GATEWAY DENTAL GROUP EPA ID:: CAL000429606	12571 LIMONITE AVE S	E 1/8 - 1/4 (0.246 mi.)	40	17

Lower Elevation	Address	Direction / Distance	Map ID	Page
PULTE HOMES COMPANY, EPA ID:: CAC002965887	12774 LIMONITE	SSE 0 - 1/8 (0.027 mi.)	D15	12
RIVERSIDE MEDICAL CL EPA ID:: CAL000445399	12742 LIMONITE AVE	SSE 0 - 1/8 (0.027 mi.)	D16	12
WALGREENS #13657 EPA ID:: CAL000368727	12574 LIMONITE AVE	SE 0 - 1/8 (0.062 mi.)	E18	12
RALPHS GROCERY #45 EPA ID:: CAL000302746	12660 LIMONITE AVE	SSE 0 - 1/8 (0.088 mi.)	G23	13
BRIGHT NOW DENTAL A EPA ID:: CAL000360939	12636 LIMONITE AVE S	SSE 0 - 1/8 (0.105 mi.)	27	14
MEDICAL MNGT INTNL I EPA ID:: CAL000322671	12483 LIMONITE AVE	ESE 1/8 - 1/4 (0.203 mi.)	H30	15
PETSMART #1341 EPA ID:: CAL000401531	12483 LIMONITE AVE	ESE 1/8 - 1/4 (0.203 mi.)	H31	15
STAPLES THE OFFICE S	12495 LIMONITE AVE	ESE 1/8 - 1/4 (0.213 mi.)	I33	15

EXECUTIVE SUMMARY

EPA ID:: CAL000390722

FINDS: A review of the FINDS list, as provided by EDR, and dated 02/03/2021 has revealed that there is 1 FINDS site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LEAL RANCHES	***12740 58TH STREET***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
Registry ID:: 110064614298				

ECHO: A review of the ECHO list, as provided by EDR, and dated 01/02/2021 has revealed that there is 1 ECHO site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LEAL RANCHES	***12740 58TH STREET***	***0 - 1/8 (0.000 mi.)***	***A1***	***9***
Registry ID: 110064614298				

Cortese: A review of the Cortese list, as provided by EDR, and dated 12/17/2020 has revealed that there are 2 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO SWAN LAKE	***5800 HAMNER AVE***	***ENE 1/4 - 1/2 (0.268 mi.)***	***J41***	***17***
Cleanup Status: COMPLETED - CASE CLOSED				
DRIFTY FARMS	***5810 SUMNER***	***W 1/4 - 1/2 (0.498 mi.)***	***44***	***18***
Cleanup Status: COMPLETED - CASE CLOSED				

ENF: A review of the ENF list, as provided by EDR, and dated 12/31/2020 has revealed that there is 1 ENF site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LEAL RANCHES	***12740 58TH STREET***	***0 - 1/8 (0.000 mi.)***	***A2***	***9***
Status: Historical				
Status: Active				
Facility Id: 236758				

HIST CORTESE: A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 3 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO SWAN LAKE	***5800 HAMNER AVE***	***ENE 1/4 - 1/2 (0.268 mi.)***	***J41***	***17***

Reg Id: 083301026T				
DRIFTY FARMS	***5810 SUMNER***	***W 1/4 - 1/2 (0.498 mi.)***	***44***	***18***
Reg Id: 083301720T				

Lower Elevation	Address	Direction / Distance	Map ID	Page
WESTERN SKY DAIRY	***6500 HAMNER***	***SE 0 - 1/8 (0.022 mi.)***	***B6***	***10***
Reg Id: 8 335298001				

Notify 65: A review of the Notify 65 list, as provided by EDR, and dated 03/12/2021 has revealed that there is 1 Notify 65 site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SWAN LAKE TEXACO	5800 HAMMER AVENUE	ENE 1/4 - 1/2 (0.268 mi.)	J42	17

CIWQS: A review of the CIWQS list, as provided by EDR, and dated 11/30/2020 has revealed that there is 1 CIWQS site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LEAL RANCHES	***12740 58TH STREET***	***0 - 1/8 (0.000 mi.)***	***A2***	***9***

CERS: A review of the CERS list, as provided by EDR, and dated 01/20/2021 has revealed that there is 1 CERS site within approximately 0.001 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LEAL RANCHES	12740 58TH	0 - 1/8 (0.000 mi.)	A3	9

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

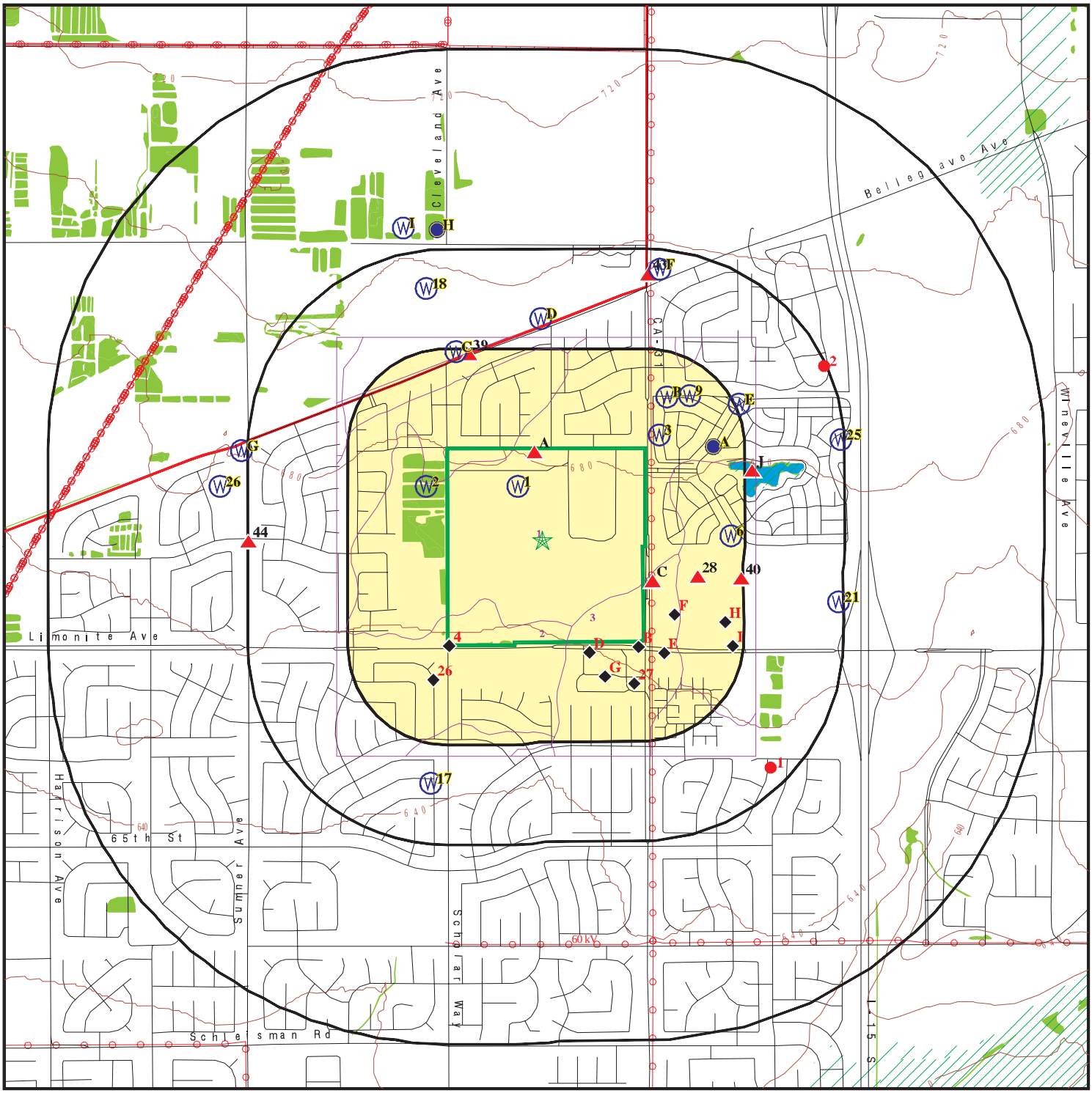
EDR Hist Auto: A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TIERRA FINA	12672 LIMONITE AVE	SSE 0 - 1/8 (0.073 mi.)	D20	13

Count: 3 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
MIRA LOMA	S121672591	SEC LIMONITE AVE & ARCHIBALD AVE	ARCHIBLAD AVE & CLOVERDALE & L	91752	CIWQS
ONTARIO	1009508586	SO CAL GAS/ONTARIO MGP	CORNER OF CAMPUS, MARTLAND, MO	91761	EDR MGP
ONTARIO	S101481941	MILLIKEN SANITARY LANDFILL	INTERSECTION: MILLIKEN AVE & M	91761	ENVIROSTOR

OVERVIEW MAP - 06529777.2R



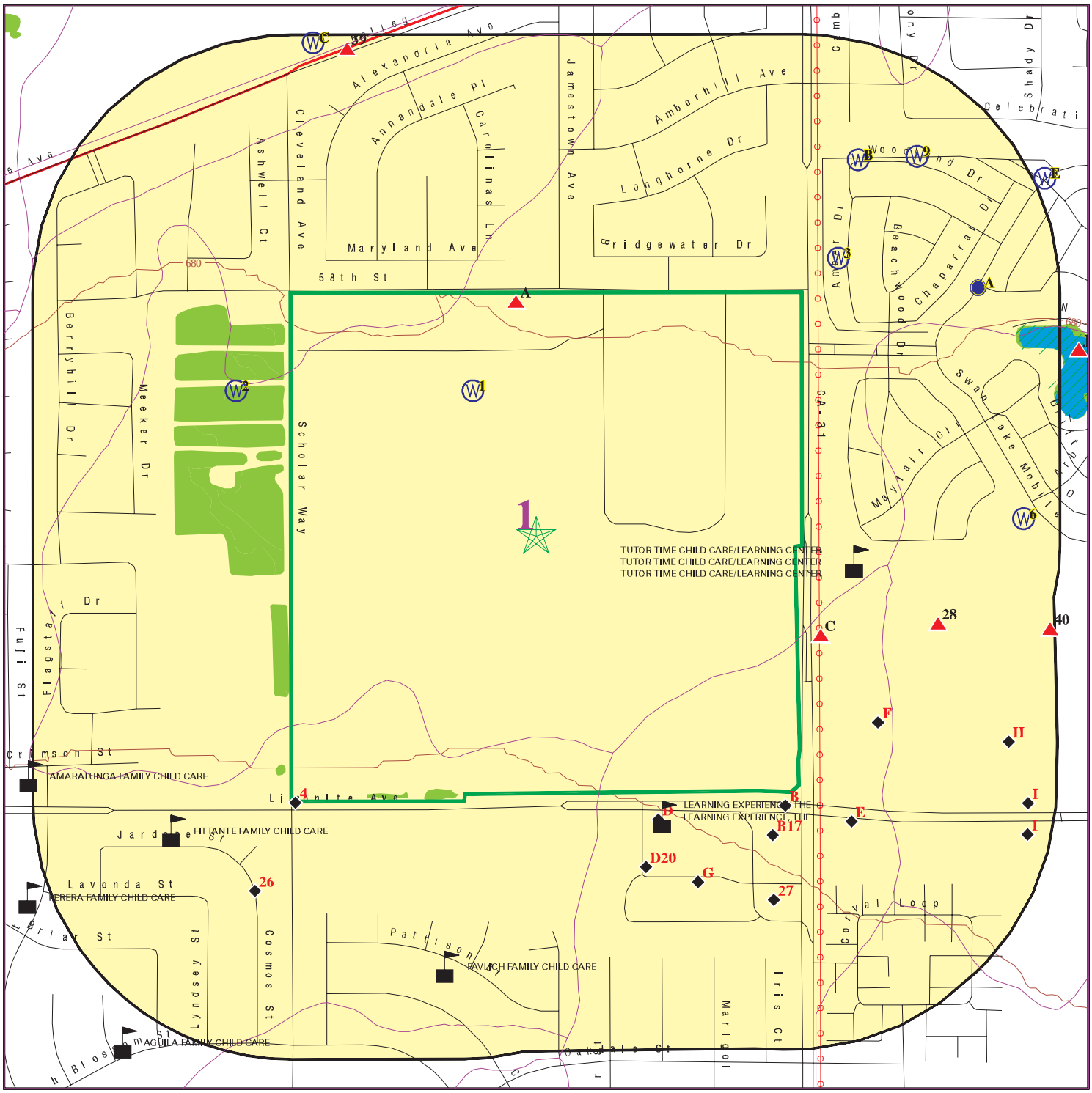
- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Pipelines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Hamer Ave and 58th Street	CLIENT: Hillmann Environmental Co.
ADDRESS: Hamer Ave and 58th Street Corona CA 92880	CONTACT: Gabby Cyrulik
LAT/LONG: 33.979185 / 117.562932	INQUIRY #: 06529777.2r DATE: June 09, 2021 2:41 pm

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DETAIL MAP - 06529777.2R



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- County Boundary
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Hamer Ave and 58th Street	CLIENT: Hillmann Environmental Co.
ADDRESS: Hamer Ave and 58th Street Corona CA 92880	CONTACT: Gabby Cyrulik
LAT/LONG: 33.979185 / 117.562932	INQUIRY #: 06529777.2r DATE: June 09, 2021 2:45 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		2	1	NR	NR	NR	3
RCRA-SQG	0.250		0	1	NR	NR	NR	1
RCRA-VSQG	0.250		0	1	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		1	0	1	0	NR	2
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		1	0	2	NR	NR	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		2	1	NR	NR	NR	3
AST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		1	0	0	NR	NR	1
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		1	0	NR	NR	NR	1
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		6	5	NR	NR	NR	11
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		1	0	NR	NR	NR	1
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		2	1	NR	NR	NR	3
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		8	5	NR	NR	NR	13
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		1	NR	NR	NR	NR	1
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		1	NR	NR	NR	NR	1
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	2	NR	NR	2
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		1	NR	NR	NR	NR	1
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		1	0	2	NR	NR	3
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	1	0	NR	1
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		1	NR	NR	NR	NR	1
CERS	0.001		1	NR	NR	NR	NR	1
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	33	15	8	0	0	56

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
< 1/8
1 ft.

LEAL RANCHES
12740 58TH STREET
CORONA, CA 92880

FINDS **1023199190**
ECHO **N/A**

Relative:
Higher

Click here for full text details

FINDS
Registry ID: 110064614298

ECHO
Registry ID 110064614298

A2
< 1/8
1 ft.

LEAL RANCHES
12740 58TH STREET
CORONA, CA 92880

ENF **S109692893**
CIWQS **N/A**

Relative:
Higher

Click here for full text details

ENF
Status Active
Facility Id 236758
Status Historical

A3
< 1/8
1 ft.

LEAL RANCHES
12740 58TH
CORONA, CA 92880

CERS **S123500605**
N/A

Relative:
Higher

Click here for full text details

4
SW
< 1/8
0.001 mi.
7 ft.

ECHEVERRIA DAIRY
CLEVELAND AVE
CORONA, CA 92880

ENVIROSTOR **S105628777**
LUST **N/A**
SCH

Relative:
Lower

Click here for full text details

ENVIROSTOR
Facility Id 33020004
Status No Further Action

LUST
Facility Status Remediation Plan
Global ID T0606523936

SCH
Facility Id 33020004
Status No Further Action

B5
SE
< 1/8
0.014 mi.
72 ft.

Relative:
Lower

LEAL RANCHES
12714 CLOVERDALE
CORONA, CA 91720

HIST UST | **U001569146**
N/A

Click here for full text details

HIST UST
Facility Id 00000049612

B6
SE
< 1/8
0.022 mi.
118 ft.

Relative:
Lower

WESTERN SKY DAIRY
6500 HAMNER
CORONA, CA 91720

ENF
HIST CORTESE
NPDES
WDS
CIWQS
S102005719
N/A

Click here for full text details

ENF
Status Historical
Facility Id 630518
Status Historical

HIST CORTESE
Reg Id 8 335298001

WDS
Facility Id 8 335298001
Facility Status Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.

C7
ESE
< 1/8
0.023 mi.
122 ft.

Relative:
Higher

MOUNTAIN VIEW TIRE
6080 HAMNER AVE #105
EASTVALE, CA 91752

CERS HAZ WASTE
CERS
S123530317
N/A

Click here for full text details

C8
ESE
< 1/8
0.023 mi.
122 ft.

Relative:
Higher

MOUNTAIN VIEW TIRE & SERVICE INC
6080 HAMNER AVE STE 105
MIRA LOMA, CA 91752

RCRA NonGen / NLR
1024831162
CAL000367306

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000367306

B9
SE
< 1/8
0.024 mi.
126 ft.

Relative:
Lower

RALPHS GROCERY # 45 (FUEL CENTER)
12618 LIMONITE AVE
CORONA, CA 92880

CERS HAZ WASTE
CERS TANKS
HAZNET
CERS
HWTS

S123625499
N/A

Click here for full text details

HAZNET
GEPAID CAL000319444

B10
SE
< 1/8
0.024 mi.
126 ft.

Relative:
Lower

RALPHS GROCERY COMPANY FUEL CENTER 45
12618 LIMONITE AVE
EASTVALE, CA 92880

RCRA-LQG

1018273845
CAR000260547

Click here for full text details

RCRA-LQG
EPA Id CAR000260547

C11
ESE
< 1/8
0.026 mi.
138 ft.

Relative:
Higher

VONS FUEL CENTER #2688
6110 HAMNER AVE
EASTVALE, CA 91752

UST

U004009968
N/A

Click here for full text details

UST
Facility Id FA0046411

C12
ESE
< 1/8
0.026 mi.
138 ft.

Relative:
Higher

VONS FUEL #2688
6110 HAMNER AVE
MIRA LOMA, CA 91752

RCRA NonGen / NLR

1024873932
CAL000442585

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000442585

C13
ESE
< 1/8
0.026 mi.
138 ft.

Relative:
Higher

VONS FUEL CENTER #2688
6110 HAMNER AVE
EASTVALE, CA 91752

CERS HAZ WASTE
CERS TANKS
CHMIRS
CERS

S109040136
N/A

Click here for full text details

CHMIRS
OES Incident Number 12-3603
OES Incident Number 6-1449

C14
ESE
< 1/8
0.026 mi.
138 ft.

Relative:
Higher

VONS FUEL #2688
6110 HAMNER AVE
MIRA LOMA, CA 91752

RCRA NonGen / NLR **1024810246**
CAL000288661

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000288661

D15
SSE
< 1/8
0.027 mi.
142 ft.

Relative:
Lower

PULTE HOMES COMPANY, LLC
12774 LIMONITE
EASTVALE, CA 92880

RCRA NonGen / NLR **1024746115**
CAC002965887

Click here for full text details

RCRA NonGen / NLR
EPA Id CAC002965887

D16
SSE
< 1/8
0.027 mi.
144 ft.

Relative:
Lower

RIVERSIDE MEDICAL CLINIC
12742 LIMONITE AVE
EASTVALE, CA 92880

RCRA NonGen / NLR **1025872278**
CAL000445399

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000445399

B17
SE
< 1/8
0.043 mi.
225 ft.

Relative:
Lower

RALPH'S #45 FUEL CENTER
12618 LIMONITE AVE
EASTVALE, CA 92880

UST **U004178983**
N/A

Click here for full text details

UST
Facility Id FA0025177

E18
SE
< 1/8
0.062 mi.
329 ft.

Relative:
Lower

WALGREENS #13657
12574 LIMONITE AVE
MIRA LOMA, CA 91752

RCRA NonGen / NLR **1016954654**
CAL000368727

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000368727

E19
SE
< 1/8
0.062 mi.
329 ft.

Relative:
Lower

WALGREENS #13657
12574 LIMONITE AVE
EASTVALE, CA 91752

CERS HAZ WASTE
HAZNET
HWTS

S113800239
N/A

Click here for full text details

HAZNET
GEPAID CAL000368727

D20
SSE
< 1/8
0.073 mi.
384 ft.

Relative:
Lower

TIERRA FINA
12672 LIMONITE AVE
CORONA, CA 92880

EDR Hist Auto

1020848439
N/A

Click here for full text details

F21
ESE
< 1/8
0.077 mi.
405 ft.

Relative:
Lower

2688 VONS A SAFEWAY COMPANY
6170 HAMNER AVE
MIRA LOMA, CA 91752

CERS HAZ WASTE
CERS

S123535444
N/A

Click here for full text details

F22
ESE
< 1/8
0.077 mi.
405 ft.

Relative:
Lower

VONS 2688
6170 HAMNER AVE
EASTVALE, CA 91752

RCRA-LQG
FINDS

1016447641
CAR000242420

Click here for full text details

RCRA-LQG
EPA Id CAR000242420

FINDS
Registry ID: 110056301005

G23
SSE
< 1/8
0.088 mi.
463 ft.

Relative:
Lower

RALPHS GROCERY #45
12660 LIMONITE AVE
CORONA, CA 92880

RCRA NonGen / NLR

1024813162
CAL000302746

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000302746

G24
SSE
< 1/8
0.088 mi.
463 ft.

Relative:
Lower

SUNSET RECYCLING CENTER — **SWRCY** — **S126254806**
12660 LIMONITE — **N/A**
CORONA, CA 92880

Click here for full text details

SWRCY
Cert Id RC296631.001

G25
SSE
< 1/8
0.088 mi.
463 ft.

Relative:
Lower

RALPHS GROCERY #45 — **CERS HAZ WASTE** — **S113140872**
12660 LIMONITE AVE — **CHMIRS** — **N/A**
CORONA, CA 92880 — **HAZNET**
CERS
HWTS

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CHMIRS
OES Incident Number 17-2138

HAZNET
GEPAID CAL000302746

26
SW
< 1/8
0.094 mi.
494 ft.

Relative:
Lower

THE PROCTER AND GAMBLE DISTRIBUTING LLC - WEST COA — **AST** — **A100425253**
16110 COSMOS ST — **N/A**
MORENO VALLEY, CA 92551

Click here for full text details

27
SSE
< 1/8
0.105 mi.
556 ft.

Relative:
Lower

BRIGHT NOW DENTAL A DENTAL OFFICE OF SAHAWNEH DENT — **RCRA NonGen / NLR** — **1024828755**
12636 LIMONITE AVE STE 1A — **CAL000360939**
CORONA, CA 92880

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000360939

28
ESE
1/8-1/4
0.137 mi.
724 ft.

Relative:
Higher

HOME DEPOT USA INC HD 1084 — **RCRA-SQG** — **1008879999**
6140 HAMNER AVE — **CERS HAZ WASTE** — **CAR000168724**
MIRA LOMA, CA 91752 — **HAZNET**
CERS
HWTS

Click here for full text details

RCRA-SQG
EPA Id CAR000168724

HAZNET
GEPAID CAR000168724

H29
ESE
1/8-1/4
0.203 mi.
1072 ft.

Relative:
Lower

PETSMART #1341
12483 LIMONITE AVE
MIRA LOMA, CA 91752

Click here for full text details

Database(s): CERS HAZ WASTE, CERS
EDR ID Number: S118938010
EPA ID Number: N/A

H30
ESE
1/8-1/4
0.203 mi.
1072 ft.

Relative:
Lower

MEDICAL MNGT INTNL INC DBA BANFIELD PET HOSPITAL #
12483 LIMONITE AVE
MIRA LOMA, CA 91752

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000322671

Database(s): RCRA NonGen / NLR
EDR ID Number: 1024817821
EPA ID Number: CAL000322671

H31
ESE
1/8-1/4
0.203 mi.
1072 ft.

Relative:
Lower

PETSMART #1341
12483 LIMONITE AVE
MIRA LOMA, CA 91752

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000401531

Database(s): RCRA NonGen / NLR
EDR ID Number: 1024846950
EPA ID Number: CAL000401531

I32
ESE
1/8-1/4
0.213 mi.
1122 ft.

Relative:
Lower

STAPLES THE OFFICE SUPERSTORE EAST INC STORE 1391
12495 LIMONITE AVE
MIRA LOMA, CA 91752

Click here for full text details

HAZNET
GEPAID CAL000390722

Database(s): CERS HAZ WASTE, HAZNET, HWTS
EDR ID Number: S118234238
EPA ID Number: N/A

I33
ESE
1/8-1/4
0.213 mi.
1122 ft.

Relative:
Lower

STAPLES THE OFFICE SUPERSTORE EAST INC STORE 1391
12495 LIMONITE AVE
MIRA LOMA, CA 91752

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000390722

Database(s): RCRA NonGen / NLR
EDR ID Number: 1024841141
EPA ID Number: CAL000390722

I34
ESE
1/8-1/4
0.223 mi.
1177 ft.

Relative:
Lower

TARGET STORE T1961
12471 LIMONITE AVE
MIRA LOMA, CA 91752

RCRA-LQG **1014465342**
CAR000218032

Click here for full text details

RCRA-LQG
EPA Id CAR000218032

I35
ESE
1/8-1/4
0.223 mi.
1177 ft.

Relative:
Lower

TARGET T1961
12471 LIMONITE AVE
MIRA LOMA, CA 91752

CERS HAZ WASTE **S113137385**
CERS **N/A**

Click here for full text details

I36
ESE
1/8-1/4
0.223 mi.
1177 ft.

Relative:
Lower

CVS PHARMACY #17077
12471 LIMONITE AVE STE B
MIRA LOMA, CA 91752

RCRA-VSQG **1018273774**
FINDS **CAR000259713**
ECHO

Click here for full text details

RCRA-VSQG
EPA Id CAR000259713

FINDS
Registry ID: 110067711140

ECHO
Registry ID 110067711140

I37
ESE
1/8-1/4
0.227 mi.
1199 ft.

Relative:
Lower

CHEVRON STATION #210408/2013
12464 LIMONITE AVE
MIRA LOMA, CA 91752

CERS HAZ WASTE **S123498716**
CERS TANKS **N/A**
CERS

Click here for full text details

I38
ESE
1/8-1/4
0.227 mi.
1199 ft.

Relative:
Lower

CHEVRON STATION #210408/2013
12464 LIMONITE AVE
MIRA LOMA, CA 91752

UST **U004264381**
N/A

Click here for full text details

UST
Facility Id FA0032436

39
NNW
1/8-1/4
0.237 mi.
1249 ft.

Relative:
Higher

PORSCHE CARS NORTH AMERICA
12567 BELLEGRAVE AVE BLDG #4
EASTVALE, CA 91752

RCRA NonGen / NLR **1025870707**
CAL000428608

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000428608

40
East
1/8-1/4
0.246 mi.
1297 ft.

Relative:
Higher

GATEWAY DENTAL GROUP AND ORTHODONTICS
12571 LIMONITE AVE STE 230
EASTVALE, CA 91752

RCRA NonGen / NLR **1024861140**
CAL000429606

Click here for full text details

RCRA NonGen / NLR
EPA Id CAL000429606

J41
ENE
1/4-1/2
0.268 mi.
1417 ft.

Relative:
Higher

TEXACO SWAN LAKE
5800 HAMNER AVE
MIRA LOMA, CA 92408

LUST **S103990108**
Cortese **N/A**
HIST CORTESE
NPDES
CERS

Click here for full text details

LUST
Facility Status Case Closed
Status Completed - Case Closed
Facility Id 89159
Global Id T0606500101
Facility Status 9
Global ID T0606500101

Cortese
Cleanup Status COMPLETED - CASE CLOSED

HIST CORTESE
Reg Id 083301026T

J42
ENE
1/4-1/2
0.268 mi.
1417 ft.

Relative:
Higher

SWAN LAKE TEXACO
5800 HAMMER AVENUE
MIRA LOMA, CA 91752

Notify 65 **S100178727**
N/A

Click here for full text details

43
NNE
1/4-1/2
0.436 mi.
2304 ft.

Relative:
Higher

PROPOSED K-8 SCHOOL NO. 2
5240 AND 5380 HAMNER AVENUE
MIRA LOMA, CA 91752

ENVIROSTOR **S108054398**
SCH **N/A**

Click here for full text details

ENVIROSTOR
Facility Id 60000409
Status No Further Action

SCH
Facility Id 60000409
Status No Further Action

44
West
1/4-1/2
0.498 mi.
2632 ft.

Relative:
Higher

DRIFTY FARMS
5810 SUMNER
CHINO, CA 91710

RCRA-SQG **1000231069**
LUST **CAD981970312**
SWEEPS UST
HIST UST
CA FID UST
FINDS
ECHO
Cortese
ENF
HIST CORTESE
CIWQS
CERS
HWTS

Click here for full text details

RCRA-SQG
EPA Id CAD981970312

LUST
Facility Status Case Closed
Status Completed - Case Closed
Facility Id 90939
Global Id T0606500214
Facility Status 9
Global ID T0606500214

SWEEPS UST
Status A
Tank Status A
Comp Number 27263

HIST UST
Facility Id 00000027263

CA FID UST
Facility Id 36003104
Status A

FINDS

DRIFTY FARMS (Continued) **1000231069**

Registry ID: 110002759881

ECHO
Registry ID 110002759881

Cortese
Cleanup Status COMPLETED - CASE CLOSED

ENF
Status Historical
Facility Id 220737
Status Historical

HIST CORTESE
Reg Id 083301720T

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
CA	BROWNFIELDS	Considered Brownfieds Sites Listing	State Water Resources Control Board	12/17/2020	12/17/2020	03/09/2021
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	12/31/2019	01/20/2021	04/08/2021
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	01/20/2021	01/20/2021	04/08/2021
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	01/20/2021	01/20/2021	04/08/2021
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	01/20/2021	01/20/2021	04/08/2021
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	12/31/2020	01/20/2021	04/08/2021
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	11/30/2020	12/01/2020	02/12/2021
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	12/17/2020	12/17/2020	03/09/2021
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	05/01/2019	05/14/2019	07/17/2019
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	03/02/2021	03/03/2021	05/19/2021
CA	DRYCLEAN AVAQMD	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	02/26/2021	03/02/2021	05/19/2021
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	02/23/2021	02/25/2021	05/19/2021
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substance Control	03/01/2021	03/04/2021	05/20/2021
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2018	06/16/2020	08/28/2020
CA	ENF	Enforcement Action Listing	State Water Resoruces Control Board	12/31/2020	01/20/2021	04/09/2021
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	01/25/2021	01/26/2021	04/13/2021
CA	Financial Assurance 1	Financial Assurance Information Listing	Department of Toxic Substances Control	01/25/2021	01/26/2021	04/13/2021
CA	Financial Assurance 2	Financial Assurance Information Listing	California Integrated Waste Management Board	02/08/2021	02/12/2021	05/05/2021
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	11/23/2020	11/23/2020	02/08/2021
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2019	04/15/2020	07/02/2020
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substance Control	08/08/2005	08/03/2006	08/24/2006
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	02/16/2021	02/17/2021	05/10/2021
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	01/05/2021	01/05/2021	03/18/2021
CA	HWTS	Hazardous Waste Tracking System	Department of Toxic Substances Control	04/08/2021	04/09/2021	04/20/2021
CA	ICE	ICE	Department of Toxic Subsances Control	02/16/2021	02/17/2021	05/07/2021
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Qualilty Control Board	03/08/2021	03/09/2021	03/31/2021
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	03/01/2021	03/03/2021	05/20/2021
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/31/2021
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CA	MINES	Mines Site Location Listing	Department of Conservation	03/08/2021	03/09/2021	03/30/2021
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	01/29/2021	03/03/2021	05/20/2021
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	03/12/2021	03/16/2021	06/01/2021
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	02/08/2021	02/09/2021	05/04/2021
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	03/02/2021	03/03/2021	05/20/2021
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	02/24/2021	02/24/2021	05/14/2021
CA	PROC	Certified Processors Database	Department of Conservation	03/09/2021	03/09/2021	03/31/2021
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	01/25/2021	01/26/2021	04/13/2021
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover		07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board		07/01/2013	12/30/2013
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	02/11/2021	02/11/2021	05/05/2021
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	01/25/2021	01/26/2021	04/13/2021
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board San Fran	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victorv	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	09/10/2007	09/11/2007	09/28/2007
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/06/2012	01/03/2013	02/22/2013
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	06/01/1994	07/07/2005	08/11/2005
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	02/08/2021	02/09/2021	05/03/2021
CA	SWRCY	Recycler Database	Department of Conservation	03/09/2021	03/09/2021	03/31/2021
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	07/01/1995	08/30/1995	09/26/1995
CA	UIC	UIC Listing	Deaprtment of Conservation	03/08/2021	03/09/2021	03/31/2021
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	03/08/2021	03/09/2021	03/30/2021
CA	UST	Active UST Facilities	SWRCB	03/08/2021	03/09/2021	03/31/2021
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	03/05/2021	03/09/2021	04/01/2021
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	01/25/2021	01/26/2021	04/13/2021
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	11/19/2019	01/07/2020	03/09/2020
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	03/09/2021	03/09/2021	03/31/2021
CA	WDS	Waste Discharge System	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	03/08/2021	03/09/2021	03/30/2021
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	04/01/2000	04/10/2000	05/10/2000
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	ABANDONED MINES	Abandoned Mines	Department of Interior	12/11/2020	12/11/2020	03/02/2021
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2017	06/22/2020	11/20/2020
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2019	12/01/2020	02/09/2021

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	12/31/2020	01/13/2021	03/22/2021
US	CORRACTS	Corrective Action Report	EPA	03/22/2021	03/23/2021	05/19/2021
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	11/03/2020	11/17/2020	02/09/2021
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transporation, Office of Pipeli	01/02/2020	01/28/2020	04/17/2020
US	Delisted NPL	National Priority List Deletions	EPA	04/27/2021	05/03/2021	05/19/2021
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	01/02/2021	01/08/2021	03/22/2021
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	12/14/2020	12/15/2020	12/22/2020
US	FEDERAL FACILITY	Federal Facility Site Information listing	Environmental Protection Agency	04/03/2019	04/05/2019	05/14/2019
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	01/29/2021	02/17/2021	03/22/2021
US	FINDS	Facility Index System/Facility Registry System	EPA	02/03/2021	03/03/2021	04/05/2021
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	02/11/2021	02/17/2021	04/05/2021
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	02/17/2021	02/17/2021	03/22/2021
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
US	HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	12/16/2020	12/17/2020	03/12/2021
US	ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Serivces, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	10/01/2020	12/16/2020	03/12/2021
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	11/12/2020	12/16/2020	03/12/2021
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	10/02/2020	12/18/2020	03/12/2021
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	10/07/2020	12/16/2020	03/12/2021
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/08/2020	05/20/2020	08/12/2020
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	09/30/2020	12/22/2020	03/12/2021
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	10/09/2020	12/16/2020	03/12/2021
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	10/01/2020	12/16/2020	03/12/2021
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	10/01/2020	12/16/2020	03/12/2021
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	11/12/2020	12/16/2020	03/12/2021
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	10/02/2020	12/18/2020	03/12/2021
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	10/07/2020	12/16/2020	03/12/2021
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/08/2020	05/20/2020	08/12/2020
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	09/30/2020	12/22/2020	03/12/2021
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	10/09/2020	12/16/2020	03/12/2021
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	10/01/2020	12/16/2020	03/12/2021
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
US	INDIAN VCP R7	Voluntary Cleanup Priority Lisitng	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	04/27/2021	05/03/2021	05/19/2021
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	04/27/2021	05/03/2021	05/19/2021
US	LUCIS	Land Use Control Information System	Department of the Navy	02/09/2021	02/11/2021	03/22/2021
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	11/24/2020	11/30/2020	01/25/2021
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	03/08/2021	03/11/2021	05/11/2021
US	NPL	National Priority List	EPA	04/27/2021	05/03/2021	05/19/2021
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	11/19/2020	01/08/2021	03/22/2021
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	09/13/2019	11/06/2019	02/10/2020
US	PCS	Permit Compliance System	EPA, Office of Water	07/14/2011	08/05/2011	09/29/2011
US	PCS ENF	Enforcement data	EPA	12/31/2014	02/05/2015	03/06/2015
US	PCS INACTIVE	Listing of Inactive PCS Permits	EPA	11/05/2014	01/06/2015	05/06/2015
US	PRP	Potentially Responsible Parties	EPA	12/30/2020	01/14/2021	03/05/2021
US	Proposed NPL	Proposed National Priority List Sites	EPA	04/27/2021	05/03/2021	05/19/2021
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	03/22/2021	03/23/2021	05/19/2021
US	RMP	Risk Management Plans	Environmental Protection Agency	01/22/2021	02/18/2021	05/11/2021
US	ROD	Records Of Decision	EPA	04/27/2021	05/03/2021	05/19/2021
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	04/27/2021	05/03/2021	05/19/2021
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	04/27/2021	05/03/2021	05/19/2021
US	SSTS	Section 7 Tracking Systems	EPA	01/20/2021	01/21/2021	03/22/2021
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2018	08/14/2020	11/04/2020
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/17/2020	09/10/2020
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (	EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	12/11/2020	12/11/2020	03/02/2021
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	12/07/2020	12/09/2020	03/02/2021
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	02/22/2021	02/23/2021	05/19/2021
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	12/14/2020	12/17/2020	03/12/2021
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	12/07/2020	12/09/2020	03/02/2021
US	US INST CONTROLS	Institutional Controls Sites List	Environmental Protection Agency	02/22/2021	02/23/2021	05/19/2021
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	02/01/2021	02/24/2021	05/19/2021
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	05/06/2020	05/27/2020	08/13/2020
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2018	07/02/2020	09/17/2020

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl. Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protecti	10/05/2020	02/17/2021	05/10/2021
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	04/29/2020	07/10/2020
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2019	02/11/2021	02/24/2021
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
CA	Daycare Centers	Sensitive Receptor: Licensed Facilities	Department of Social Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
CA	State Wetlands	Wetland Inventory	Department of Fish and Wildlife			
US	Topographic Map		U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

HAMER AVE AND 58TH STREET
HAMER AVE AND 58TH STREET
CORONA, CA 92880

TARGET PROPERTY COORDINATES

Latitude (North):	33.979185 - 33° 58' 45.07''
Longitude (West):	117.562932 - 117° 33' 46.56''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	448000.3
UTM Y (Meters):	3759796.5
Elevation:	669 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640930 CORONA NORTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

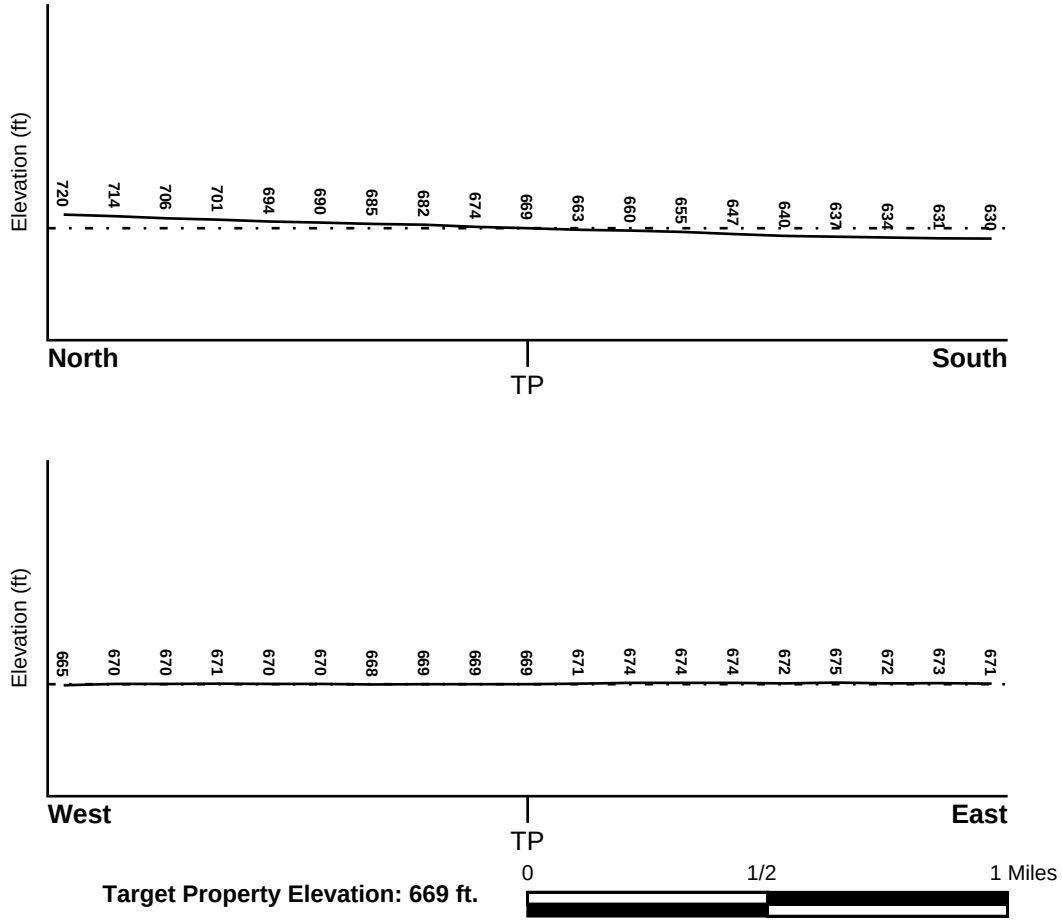
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06071C9375H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C0681G	FEMA FIRM Flood data
06065C0683G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CORONA NORTH	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

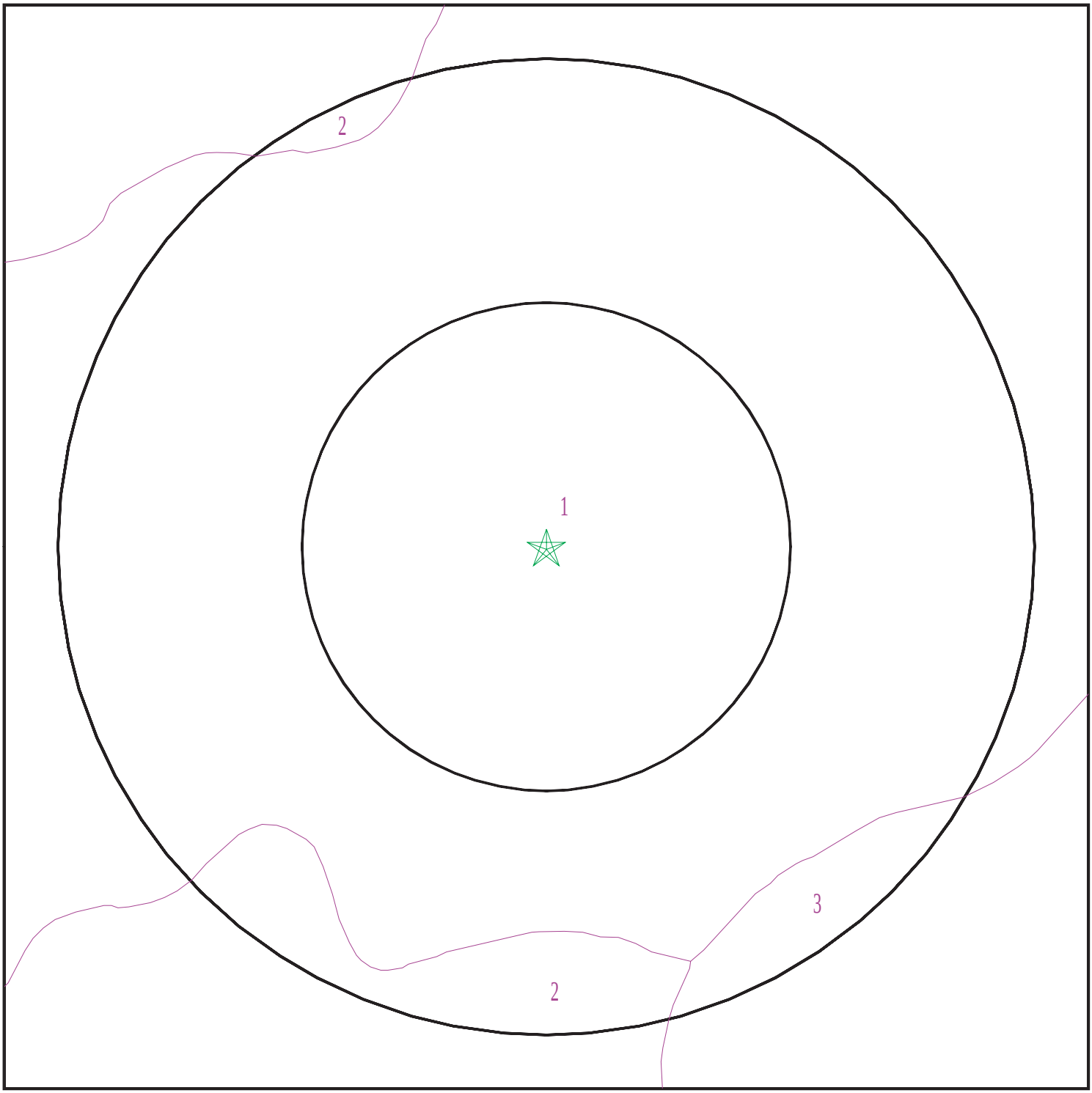
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 06529777.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Hamer Ave and 58th Street	CLIENT:	Hillmann Environmental Co.
ADDRESS:	Hamer Ave and 58th Street Corona CA 92880	CONTACT:	Gabby Cyrulik
LAT/LONG:	33.979185 / 117.562932	INQUIRY #:	06529777.2r
		DATE:	June 09, 2021 2:46 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: HILMAR

Soil Surface Texture: loamy fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
2	16 inches	72 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: HILMAR

Soil Surface Texture: loamy sand

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 9.6 Min: 8.4
2	16 inches	22 inches	stratified very fine sandy loam to silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 9.6 Min: 8.4
3	22 inches	72 inches	stratified very fine sandy loam to silt loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 1.4 Min: 0.42	Max: 9.6 Min: 8.4

Soil Map ID: 3

Soil Component Name: DELHI

Soil Surface Texture: loamy fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
2	9 inches	48 inches	sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1
3	48 inches	59 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.8 Min: 6.1

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
3	USGS40000139537	1/4 - 1/2 Mile NE
A12	USGS40000139530	1/2 - 1 Mile ENE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
H37	USGS40000139597	1/2 - 1 Mile NNW
H38	USGS40000139596	1/2 - 1 Mile NNW
H39	USGS40000139595	1/2 - 1 Mile NNW
H40	USGS40000139598	1/2 - 1 Mile NNW
H41	USGS40000139601	1/2 - 1 Mile NNW
H42	USGS40000139600	1/2 - 1 Mile NNW
H43	USGS40000139599	1/2 - 1 Mile NNW
H44	USGS40000139594	1/2 - 1 Mile NNW
H45	USGS40000139590	1/2 - 1 Mile NNW
H46	USGS40000139589	1/2 - 1 Mile NNW
H47	USGS40000139591	1/2 - 1 Mile NNW
H48	USGS40000139593	1/2 - 1 Mile NNW
H49	USGS40000139592	1/2 - 1 Mile NNW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CADWR0000036121	1/8 - 1/4 Mile NNW
2	CADWR0000036853	1/4 - 1/2 Mile WNW
A4	2583	1/4 - 1/2 Mile ENE
B5	CADDW0000012206	1/4 - 1/2 Mile NE
6	CADDW0000021047	1/4 - 1/2 Mile East
B7	2581	1/4 - 1/2 Mile NE
B8	CADDW0000017358	1/2 - 1 Mile NE
9	CADDW0000006675	1/2 - 1 Mile NE
C10	CADDW0000019117	1/2 - 1 Mile NNW
C11	CAPFAS000000511	1/2 - 1 Mile NNW
D13	CADDW0000013264	1/2 - 1 Mile North
D14	CAPFAS000000575	1/2 - 1 Mile North
E15	2582	1/2 - 1 Mile NE
E16	CADDW0000008868	1/2 - 1 Mile ENE
17	CADPR0000005448	1/2 - 1 Mile SSW
18	CADWR0000011820	1/2 - 1 Mile NNW
F19	CADDW0000004891	1/2 - 1 Mile NNE
F20	CAPFAS000000725	1/2 - 1 Mile NNE
21	CADWR8000006295	1/2 - 1 Mile ESE
G22	CADWR8000006311	1/2 - 1 Mile WNW
G23	CADDW0000022830	1/2 - 1 Mile WNW
G24	CAPFAS000001649	1/2 - 1 Mile WNW
25	CADDW0000022140	1/2 - 1 Mile ENE
26	CADWR0000001512	1/2 - 1 Mile West

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

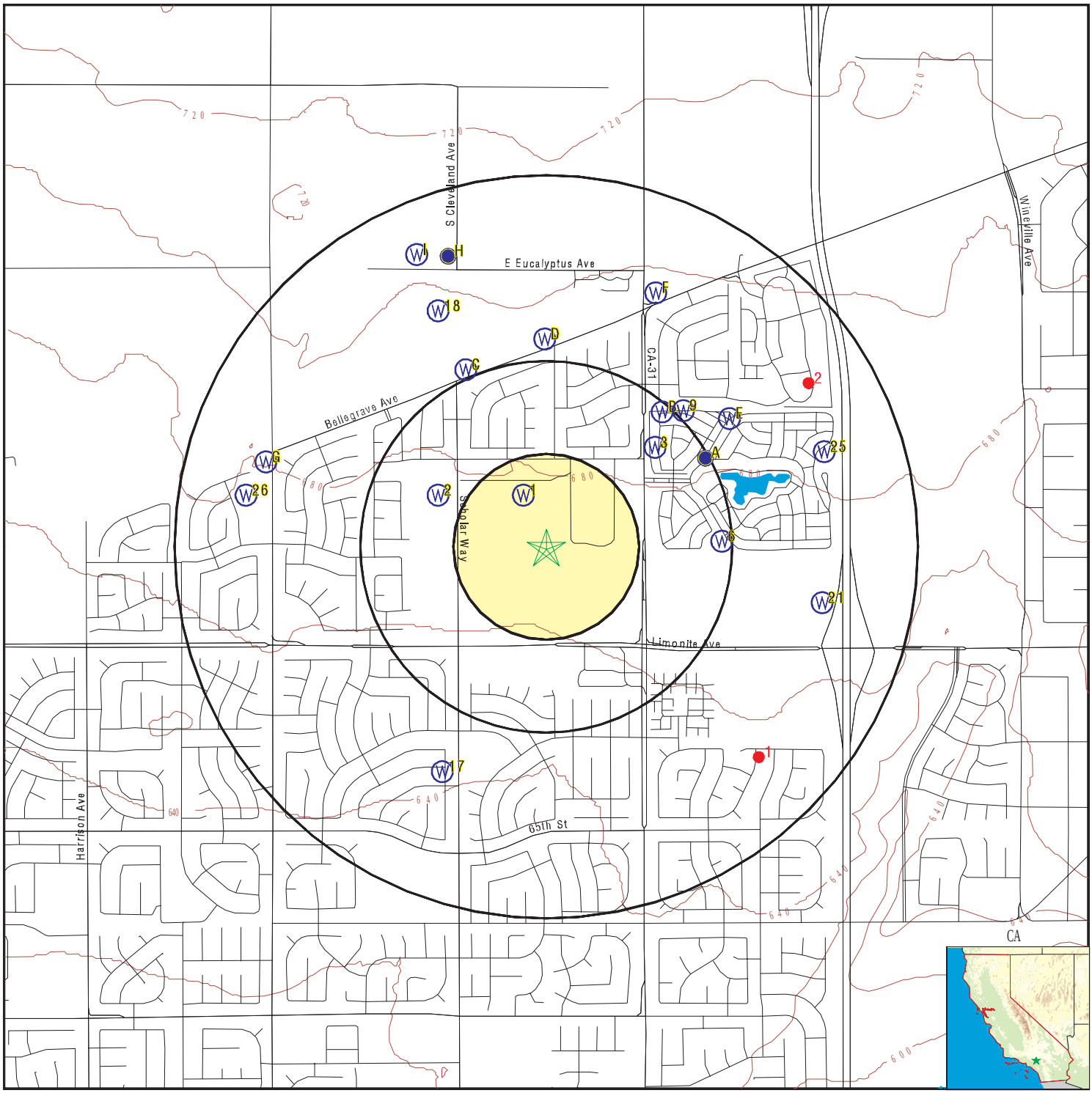
MAP ID	WELL ID	LOCATION FROM TP
H27	CAUSGSN00009264	1/2 - 1 Mile NNW
H28	CAUSGSN00007464	1/2 - 1 Mile NNW
H29	CAUSGSN00011131	1/2 - 1 Mile NNW
H30	CAUSGSN00007457	1/2 - 1 Mile NNW
H31	CAUSGSN00000786	1/2 - 1 Mile NNW
H32	CAUSGSN00016031	1/2 - 1 Mile NNW
H33	CAUSGSN00003256	1/2 - 1 Mile NNW
H34	CAUSGSN00019045	1/2 - 1 Mile NNW
H35	CAUSGSN00011745	1/2 - 1 Mile NNW
H36	CAUSGSN00002619	1/2 - 1 Mile NNW
I50	CADWR8000006331	1/2 - 1 Mile NNW
I51	CADWR8000006330	1/2 - 1 Mile NNW
I52	CADWR8000006332	1/2 - 1 Mile NNW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG14000006470	1/2 - 1 Mile SE
2	CAOG14000006473	1/2 - 1 Mile ENE

PHYSICAL SETTING SOURCE MAP - 06529777.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Hamer Ave and 58th Street	CLIENT: Hillmann Environmental Co.
ADDRESS: Hamer Ave and 58th Street Corona CA 92880	CONTACT: Gabby Cyrulik
LAT/LONG: 33.979185 / 117.562932	INQUIRY #: 06529777.2r DATE: June 09, 2021 2:45 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
1 **SE** **1/2 - 1 Mile**	**Click here for full text details**	**OIL_GAS**	**CAOG14000006470**
2 **ENE** **1/2 - 1 Mile**	**Click here for full text details**	**OIL_GAS**	**CAOG14000006473**
1 **NNW** **1/8 - 1/4 Mile** **Higher**	**Click here for full text details**	**CA WELLS**	**CADWR0000036121**
2 **WNW** **1/4 - 1/2 Mile** **Higher**	**Click here for full text details**	**CA WELLS**	**CADWR0000036853**
3 **NE** **1/4 - 1/2 Mile** **Higher**	**Click here for full text details**	**FED USGS**	**USGS40000139537**
A4 **ENE** **1/4 - 1/2 Mile** **Higher**	**Click here for full text details**	**CA WELLS**	**2583**
B5 **NE** **1/4 - 1/2 Mile** **Higher**	**Click here for full text details**	**CA WELLS**	**CADDW0000012206**
6 **East** **1/4 - 1/2 Mile** **Higher**	**Click here for full text details**	**CA WELLS**	**CADDW0000021047**
B7 **NE** **1/4 - 1/2 Mile** **Higher**	**Click here for full text details**	**CA WELLS**	**2581**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
B8 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000017358**
9 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000006675**
C10 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000019117**
C11 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAPFAS000000511**
A12 **ENE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139530**
D13 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000013264**
D14 **North** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAPFAS000000575**
E15 **NE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**2582**
E16 **ENE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000008868**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
17 **SSW** **1/2 - 1 Mile** **Lower**	Click here for full text details	**CA WELLS**	**CADPR0000005448**
18 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR0000011820**
F19 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000004891**
F20 **NNE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAPFAS000000725**
21 **ESE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR8000006295**
G22 **WNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR8000006311**
G23 **WNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000022830**
G24 **WNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAPFAS000001649**
25 **ENE** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADDW0000022140**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
26 **West** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR0000001512**
H27 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00009264**
H28 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00007464**
H29 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00011131**
H30 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00007457**
H31 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00000786**
H32 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00016031**
H33 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00003256**
H34 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00019045**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
H35 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00011745**
H36 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CAUSGSN00002619**
H37 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139597**
H38 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139596**
H39 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139595**
H40 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139598**
H41 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139601**
H42 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139600**
H43 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139599**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance Elevation		Database	EDR ID Number
H44 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139594**
H45 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139590**
H46 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139589**
H47 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139591**
H48 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139593**
H49 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**FED USGS**	**USGS40000139592**
I50 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR8000006331**
I51 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR8000006330**
I52 **NNW** **1/2 - 1 Mile** **Higher**	Click here for full text details	**CA WELLS**	**CADWR8000006332**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92880	15	1

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX F

OTHER DOCUMENTS

STATE WATER RESOURCES CONTROL BOARD
HAZARDOUS SUBSTANCE STORAGE CONTAINER INFORMATION FOR RIVERSIDE COUNTY
CONTAINER TYPES: 1,2,3,4,5
(1=FARM MOTOR VEHICLE FUEL TANKS, 2=ALL OTHER PRODUCT TANKS, 3=WASTE TANKS, 4=SUMPS, 5=PITS, PONDS, LAGOONS & OTHERS)

I OWNER
LEAL RANCHES
12714 CLOVERDALE CORONA CA 91720

II FACILITY

	MAILING ADDRESS TOWNSHIP/RANGE/SECTION	DEALER/FOREMAN/SUPERVISOR TELEPHONE	TYPE OF BUSINESS NO. OF CONTAINERS
LEAL RANCHES 12714 CLOVERDALE CORONA CA 91720 CROSS STREET : HAMMER	12714 CLOVERDALE CORONA CA 91720	BRAD W. LEAL (714) 947-6500	RANCH & DAIRY 1

III 24-HR. CONTACT PERSON / TELEPHONE
DAY: BRAD W. LEAL (714) 947-6500 NIGHT: (640) 0 -

********** OWNER ASSIGNED CONTAINER NUMBER: 1 ********** STATE BOARD ASSIGNED CONTAINER ID NUMBER: 00000049612001 **********

IV DESCRIPTION
A. CONTAINER TYPE : TANK
B. MANUFACTURER/YR OF MFG: /
C. YEAR INSTALLED : UNK
D. CAPACITY (GALLONS) : 550
E. REPAIRS : NONE IF YES WHEN :
F. CURRENTLY USED : YES IF NO, YEAR OF LAST USE:
G. STORES : PRODUCT
H. MOTOR VEHICLE FUEL/WASTE OIL : YES CONTAINS: REGULAR

IS CONTAINER LOCATED ON A FARM : YES

V CONTAINER CONSTRUCTION
A. THICKNESS: B. VAULTING: UNKNOWN C. WALLING: UNKNOWN
D. MATERIAL : UNKNOWN
E. LINING : UNKNOWN
F. WRAPPING : UNKNOWN

VI PIPING
A. ABOVEGROUND PIPING : B. UNDERGROUND PIPING :
C. REPAIRS : NONE IF YES, YEAR OF MOST RECENT REPAIR:

VII LEAK DETECTION
VISUAL

VIII CHEMICAL COMPOSITION OF SUBSTANCES CURRENTLY STORED IN CONTAINER
12032 REGULAR MOTOR VEHICLE FUEL

SOUTH COAST AQMD

PUBLIC RECORDS REQUEST FORM

Request Information (For Office Use Only)

Date Stored

Time Stored

Public Record Request Nbr

Public Record Request Tracking Nbr
114919

Attention Requestor

Please fill out this form completely. You may include an attachment to the form, if necessary.

Requestor Information

Requestor Name
Gabby Cyrulik

Requestor Company
Hillmann Consulting

Requestor Email *
GCYRULIK@HILLMANNCONSULTING.COM

Requestor Phone
(714)392-5920

Requestor Address
1745 W Orangewood Avenue

Requestor City
Orange

Requestor State
CA

Requestor Zip Code
92868

Type of Requested Record(s).

REQUESTED RECORDS. **Please be as specific as possible in describing the records you are seeking.** The more specific you are, the easier it will be to determine if such records exist in District files. Please contact the Public Records Unit if you need assistance in identifying District records.

Note: Permits to Operate, Equipment Lists, Notices of Violation, Notices to Comply, and Emissions Summaries are available through SCAQMD's FIND page at http://www3.aqmd.gov/webappl/fim/prog/search.aspx (you need to copy and paste this link into your browser).

Please Enter a description of the records you are requesting here: *

Permits to operate, equipment list, notices of violation, emission summaries, UST/AST records, asbestos records and notifications

Time Period of Documents Requested

Start Date *
01/01/1929

End Date *
6/22/2021

Requested Facility or Site Information (if applicable)

Note: You may only include one Facility or Site per Form.

Facility ID (if known)

Address
12741 and 12745 Limonite Ave

Facility Name (if known)
Leal Ranch

City
Corona

Zip Code
92880

Requested Application or Permit List. (if applicable)

Please click the Add Button to the right to enter a Application/Permit Number

Authorization Letter Attachment (0)

Authorization Letter

Note: Please use the above button for attaching an Authorization Letter from the facility to release confidential information for your public records request.

Supplemental Attachments (0)

Supplemental Documents

Note: Please use the above button for attaching additional documents that will help define your public records request.

INSTRUCTIONS FOR REQUESTING RECORDS

(California Public Records Act, Govt. Code Sections 6250-6276.48)

1. In order to expedite your request, please fill out the form completely. Requests may also be submitted by phone at (909) 396-3700, by facsimile to (909) 396-3330, or by email to PublicRecordsRequests@aqmd.gov.

2. Requests must be for records prepared, owned, used, or retained by the District (Gov. Code Sec. 6252(e)). Requests should be for clearly identifiable records. The District is not required to create a new record in response to a request. The District will assist the requestor in making a request that describes reasonably identifiable records (Gov. Code Sec. 6253.1). Documents will not be provided if disclosure would infringe upon a copyright, trade secret, or is otherwise exempt in accordance with state law.

3. A search for facility records can only be conducted by one or all of the following:

-- a) Facility Name, Address, or Identification Number

-- b) Facility Application Number, or Permit to Operate Number; or

-- c) Facility Notice of Violation/Notice to Comply Number.

4. You will be notified within ten (10) days whether your request seeks copies of disclosable public records prepared, owned, used, or retained by this agency. In some cases, the District may need an additional 14 days to respond. If so, you will be notified in writing. You will also be provided an estimated date of when the records will be made available.

5. Communications regarding your request, and any records, will be provided by email, unless specified otherwise.

6. If the search for records finds the records voluminous, you will be notified of the approximate number of pages and/or length of time it will take to process your request.

7. If the records you requested have been marked confidential by the source of the record, you will be notified and given the option of continuing with the District's Trade Secret process.

8. If your request is to review records, rather than receive copies, the District will notify you once the records are gathered, and arrangements will be made for your review.

9. The charge for the direct cost of duplication is as follows: Paper Copies, $0.15/page each over 10 pages (first 10 pages are free); Copied CD's or flash drives, no charge; and Copied Audio Tapes, $5.00 each. After a preliminary estimate, advance payment may be required.

10. If the request is for information in an electronic format, the requestor shall bear the cost of producing a copy of the record, including the cost to construct the record and the cost of programming and computer services necessary to produce a copy of the record, when either of the following applies: (1) the District would be required to produce a copy of an electronic record and the record is one that is produced only at otherwise regularly scheduled intervals, or (2) the request would require data compilation, extraction, or programming to produce the record. (Gov. Code Sec. 6253.9(b)). The transfer of gathered electronic records onto CD, DVD or flash drive typically costs $10.00 each. An invoice will accompany your records when completed.

Note: For further information, please refer to the District's Guidelines for Implementing the California Public Records Act. The Guidelines are available in the lobby of the District Headquarters or on the District's web site at www.aqmd.gov.

Note: If you have questions pertaining to the submittal of a Public Records Act request, you may contact the Public Records Unit, (909) 396-3700, Tuesday through Friday, 7:00 a.m. to 5:30 p.m. Our Fax number is (909) 396-3330. Our email address is PublicRecordsRequests@aqmd.gov.

From: LTrapp@aqmd.gov
To: Gabriela Cyrulik
Cc: ob_pr_support_docs@aqmd.gov
Subject: SCAQMD Public Records Request# 1406855, -- Completion Letter
Date: Friday, June 25, 2021 10:59:18 AM
Attachments: ATT00001.tif

Gabby Cyrulik
Hillman Consulting
1745 W Orangewood 201
Orange, Ca 92868

Ref: Request for Records; Control No. **1406855**, Received 6/23/2021
RE: P/O'S, EQL'S, NOV'S, EMISSION SUM, & ASBESTOS/SOIL NOTIF'S FOR 12741 & 12745 LIMONITE AVE, CORONA, CA, FROM 1/1/1929-6/22/2021.

After a thorough search of this agency's records:

NO REQUESTED RECORDS WERE FOUND FOR THE ABOVE REFERENCED FACILITY OR FACILITY SITE.

Should you have any questions or need additional information, please do not hesitate to contact me at (909) 396-3700, Tuesday through Friday, between the hours of **8:00 a.m.** and **4:30 p.m.**

Sincerely,

Lora Trapp
For Colleen Paine
Public Records Coordinator
Information Management

HILLMANN
CONSULTING

June 15, 2021

State of California
Regional Water Quality Control Board – Santa Ana Region (8)
3737 Main Street, Suite #500
Riverside, CA 92501-3339
Phone (951) 782-4130
Fax (951) 781-6288
FileReview8@waterboards.ca.gov

RE: Environmental Files:

12740, 12741, 12745 and Limonite Ave
Corona, CA 92880

Dear RWQCB:

Hillmann Consulting, LLC is conducting an environmental investigation of the above referenced property. Under the Freedom of Information Act, we are requesting any information your office has regarding this property. If any records are located, we would like to obtain copies or schedule a file review. If no records are available, please contact me to confirm. Thank you.

Sincerely,

Gabriela Cyrulik
Environmental Technician
Hillmann Consulting, LLC
gcyrulik@hillmanngroup.com

From: WB-RB8-FileReview8
To: Gabriela Cyrulik
Subject: RE: 12740, 12741, 12745 and Limonite Ave
Date: Friday, June 25, 2021 9:47:09 AM

Good morning,

After careful review of our records, we show we have no files for the following site(s):

12740 Limonite Ave Corona
12741 Limonite Ave Corona
12745 Limonite Ave Corona

If we can be of further assistance, please do not hesitate to contact us again.

Thank you,
File Review Desk
3737 Main St. Suite 500
Riverside, CA 92501

From: Gabriela Cyrulik <gcyrulik@hillmannconsulting.com>
Sent: Wednesday, June 16, 2021 3:26 PM
To: WB-RB8-FileReview8 <FileReview8@waterboards.ca.gov>
Subject: 12740, 12741, 12745 and Limonite Ave

EXTERNAL:

Please see attached file

Gabriela Cyrulik
Project Manager

Hillmann Consulting, LLC
1745 W. Orangewood Avenue, Suite #201
Orange, CA 92868
Office: (714) 634-9500
Fax: (714) 634-9507
Cell: (714) 392-5920

gcyrulik@hillmannconsulting.com
www.HillmannConsulting.com



This message contains information that may be privileged or confidential and is property of Hillmann Consulting, LLC. It is intended only for the person to whom it is addressed. If you are not the intended recipient, you are not authorized to read, retain, copy, disseminate, distribute, or use this message or any part thereof. If you receive this message in error, please notify the sender immediately and destroy all copies of this message.

County of Riverside
DEPARTMENT OF ENVIRONMENTAL HEALTH
www.rivcoeh.org

REQUEST FOR RECORDS

Land Use & Water Resources

PURSUANT TO CALIFORNIA GOVERNMENT CODE SECTION 6254 (F). RECORDS OF PENDING INVESTIGATION AND INFORMANTS NAMES, ADDRESSES AND TELEPHONE NUMBERS WILL NOT BE RELEASED.

REQUESTS WILL BE PROCESSED WITHIN TEN (10) BUSINESS DAYS PER CALIFORNIA GOVERNMENT CODE, SECTION 6256.

Send completed form to one of the addresses or faxes below:

Western Riverside County
3880 Lemon Street, Suite 200
Riverside, California, 92501
Phone: (951) 955-8980
Fax: (951) 955-8988
Email: landuse@rivco.org

Eastern Riverside County
47-950 Arabia St., Suite A
Indio, CA 92201
Phone: (760) 863-7570
Fax: (760) 863-7013

YOUR NAME: Gabriela Cyrulik		DATE:
MAILING ADDRESS: 1745 W Orangewood Ave, 201		PHONE: ( ) 714-392-5920
CITY: Orange	STATE: CA	ZIP: 92868
EMAIL ADDRESS: gcyrulik@hillmannconsulting.com		
INFORMATION REQUESTED: environmental records		
SITE ADDRESS: 12740, 12741, 12745 and Limonite Ave		APN: - -
CITY: Corona, CA		ZIP: 92880

THIS FORM IS FOR ACQUISITION OF ANY EXISTING RECORDS. ANY CONSULTATION IN REFERENCE TO THESE RECORDS MAY BE SUBJECT TO A CONSULTATION FEE (PURSUANT TO RIVERSIDE COUNTY ORDINANCE 640)

Gabriela Cyrulik
Signature

June 15, 2021
Date

Cash and/or credit cards are the only accepted form of payment for records requests.

FOR OFFICE USE ONLY

PROCESSING AND REPRODUCTION FEES FOR RECORDS RESEARCHED MUST BE PAID UPON RECEIPT OF RECORDS AS FOLLOWS:

EACH PAGE @ $ 0.10 TOTAL NO. OF PAGES: _____ = $ _____

TOTAL: _____

REVIEWED BY _____ TITLE _____

RECORDS RECEIVED BY _____ DATE _____

EPO-111 (REV 08/16)

RIVERSIDE COUNTY AGRICULTURAL COMMISSIONER'S OFFICE

RUBEN J. ARROYO
AGRICULTURAL COMMISSIONER
SEALER OF WEIGHTS AND MEASURES

DELIA JIMENEZ CIOC
ASSISTANT AGRICULTURAL COMMISSIONER / SEALER
DANIEL DELGADO
DEPUTY AGRICULTURAL COMMISSIONER / SEALER
ERIK DOWNS
DEPUTY AGRICULTURAL COMMISSIONER / SEALER
MISAEL MARTINEZ
DEPUTY AGRICULTURAL COMMISSIONER / SEALER

REQUEST FOR PUBLIC RECORDS

A: REQUESTOR		DATE
Gabriela Cyrulik		June 16, 2021
COMPANY		PHONE NUMBER (DAYTIME)
Hillmann Consulting		714-392-5920
MAILING ADDRESS	CITY / STATE	ZIP CODE
1745 W Orangewood Ave	Orange	92868
EMAIL ADDRESS		
gcyrulik@hillmanngroup.com		

B: I REQUEST THE FOLLOWING RECORDS FROM THE RIVERSIDE COUNTY AGRICULTURAL COMMISSIONER'S OFFICE PERTAINING TO:

☑ WEIGHTS & MEASURES ☑ PESTICIDE REGULATION ☑ PEST EXCLUSION / NURSERY

☐ OTHER PROGRAM - PLEASE SPECIFY _____

PLEASE DESCRIBE RECORDS REQUESTED IN DETAIL:

Any pesticides records located at the Property listed below;

12740, 12741, 12745 and Limonite Ave
Corona, CA 92880

(ATTACH ADDITIONAL SHEET IF NECESSARY)

C. I REQUEST THESE RECORDS IN THE FOLLOWING FORMAT:

- ☐ REVIEW RECORDS IN PERSON NO FEE
- ☐ FAX RECORDS (EXISTING FORMAT) NO FEE
- ☐ EMAIL RECORDS (EXISTING FORMAT) NO FEE
- ☐ COPIES $0.50 PER PAGE FOR FIRST COPY; $0.50 PER COPY FOR SUBSEQUENT COPIES OF SAME PAGE (8/12" X 11" SIZE PAPER)
- ☐ DATA COMPILATION, EXTRACTION, PROGRAMMING, REFORMATTING $_____ PER HOUR

SIGNATURE OF REQUESTOR: Gabriela Cyrulik

RIVERSIDE COUNTY AGRICULTURAL COMMISSIONER'S OFFICE

RUBEN J. ARROYO
AGRICULTURAL COMMISSIONER
SEALER OF WEIGHTS AND MEASURES

DELIA JIMENEZ CIOC
ASSISTANT AGRICULTURAL COMMISSIONER / SEALER
DANIEL DELGADO
DEPUTY AGRICULTURAL COMMISSIONER / SEALER
ERIK DOWNS
DEPUTY AGRICULTURAL COMMISSIONER / SEALER
MISAEL MARTINEZ
DEPUTY AGRICULTURAL COMMISSIONER / SEALER

RESPONSE TO REQUEST FOR PUBLIC INFORMATION

June 18, 2021

Attn: Ms. Gabriela Cyrulik
Hillmann Consulting
1745 W Orangewood Ave.,
Orange, CA 92868
gcyrulik@hillmanngroup.com

Dear Ms. Cyrulik,

On June 16, 2021 the Riverside Agricultural Commissioner / Weights & Measures office received your Public Records Act request dated June 16, 2021. There are no existing records responsive to your request for reported pesticides used for the properties located at 12740, 12741, and 12745 Limonite Ave., Corona, CA 92880.

If you have any further questions, please do not hesitate to contact us.

Sincerely,

Nicole Ortega
Agricultural & Standards Investigator
Riverside County Agricultural Commissioner's Office
Email: niortega@rivco.org
Cell: (760) 289-9971

Property Detail Report

For Property Located At :
12740 58TH ST, EASTVALE, CA 92880-3334

CoreLogic RealQuest

Owner Information

Owner Name:	**BORBA JAMES/KORTE MARK**
Mailing Address:	**12740 58TH ST, EASTVALE CA 92880-3334 R043**
Vesting Codes:	**/ /**

Location Information

Legal Description:	**28.20 ACRES M/L IN POR SE 1/4 OF SEC 24 T2S R7W FOR TOTAL DESCRIPTION SEE ASSESSORS MAPS**		
County:	**RIVERSIDE, CA**	APN:	**164-030-025**
Census Tract / Block:	**406.07 / 1**	Alternate APN:	**164-030-025**
Township-Range-Sect:	**2S-7W-24**	Subdivision:	
Legal Book/Page:		Map Reference:	**/**
Legal Lot:		Tract #:	
Legal Block:		School District:	**CORONA NORCO**
Market Area:	**248**	School District Name:	**CORONA NORCO**
Neighbor Code:		Munic/Township:	**CITY OF EASTVALE**

Owner Transfer Information

Recording/Sale Date:	**01/09/2017 / 01/03/2017**	Deed Type:	**AFFIDAVIT**
Sale Price:		1st Mtg Document #:	
Document #:	**9667**		

Last Market Sale Information

Recording/Sale Date:	**/**	1st Mtg Amount/Type:	**/**
Sale Price:		1st Mtg Int. Rate/Type:	**/**
Sale Type:		1st Mtg Document #:	
Document #:		2nd Mtg Amount/Type:	**/**
Deed Type:		2nd Mtg Int. Rate/Type:	**/**
Transfer Document #:		Price Per SqFt:	
New Construction:		Multi/Split Sale:	
Title Company:			
Lender:			
Seller Name:			

Prior Sale Information

Prior Rec/Sale Date:	**/**	Prior Lender:	
Prior Sale Price:		Prior 1st Mtg Amt/Type:	**/**
Prior Doc Number:		Prior 1st Mtg Rate/Type:	**/**
Prior Deed Type:			

Property Characteristics

Year Built / Eff:	**/**	Total Rooms/Offices		Garage Area:	
Gross Area:		Total Bedrooms:		Garage Capacity:	

Gross Area:		Total Restrooms:		Garage Capacity:	
Building Area:		Roof Type:		Parking Spaces:	
Tot Adj Area:		Roof Material:		Heat Type:	
Above Grade:		Construction:		Air Cond:	
# of Stories:		Foundation:		Pool:	
Other Improvements:	**Building Permit**	Exterior wall:		Quality:	
		Basement Area:		Condition:	

Site Information

Zoning:	**A-2-20**	Acres:	**28.20**	County Use:	**HORSE RANCH (AQ8)**
Lot Area:	**1,228,392**	Lot Width/Depth:	**x**	State Use:	**X12**
Land Use:	**RANCH**	Commercial Units:		Water Type:	
Site Influence:		Sewer Type:		Building Class:	

Tax Information

Total Value:	**$9,010,291**	Assessed Year:	**2020**	Property Tax:	**$100,849.36**
Land Value:	**$8,596,973**	Improved %:	**5%**	Tax Area:	**027002**
Improvement Value:	**$413,318**	Tax Year:	**2020**	Tax Exemption:	
Total Taxable Value:	**$9,010,291**				

From: Le, Luan (Murrieta DEH)
To: Gabriela Cyrulik
Subject: 12741 and 12745 Limonite Ave., Corona, CA 92880
Date: Thursday, July 1, 2021 9:04:55 AM
Attachments: image002.png
image003.png
image004.png
image005.png
image006.png

Hello Ms. Gyrulik,

There were no land use/water or septic records found for the above addresses. The address 12740 Limonite Ave., Corona, CA 92868 did not registered in our Map My County record search.

Sincerely,

Luan Le

Registered Environmental Health Specialist III
Riverside County Department of Environmental Health
Land Use & Water Resources Program
3880 Lemon Street, Ste 200, Riverside, CA 92501
Phone #: 951-955-8980
Fax #: 951-955-8988
E-mail: LuanLe@rivco.org
www.rivcoeh.org

"No one's better than you, but you're better than nobody"

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County of Riverside California

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

www.rivcoeh.org

Environmental Protection & Oversight Division
Hazardous Materials Management Branch

REQUEST FOR RECORDS

Requests for review of records are processed on a first come, first serve basis and the processing time is approximately 2-4 weeks. As required by California Public Records Act Section 6250 et seq., a response will be given within ten (10) business days to confirm receipt of your request.

Pursuant to California Government Code, Section 6254 (f), records of pending investigations and informant's names, addresses, and telephone numbers, will not be released.

For access to electronic records available online, visit the Public Information section at www.rivcoeh.org for more details.

REQUESTOR INFORMATION		
NAME: Gabriela Cyrulik	DATE OF REQUEST: June 16, 2021	
BUSINESS NAME (IF ANY): Hillmann Consulting		
RETURN LEGAL MAILING ADDRESS: 1745 W Orangewood Avenue, 201		
CITY: Orange	STATE: CA	ZIP: 92868
PHONE: 714-392-5920		

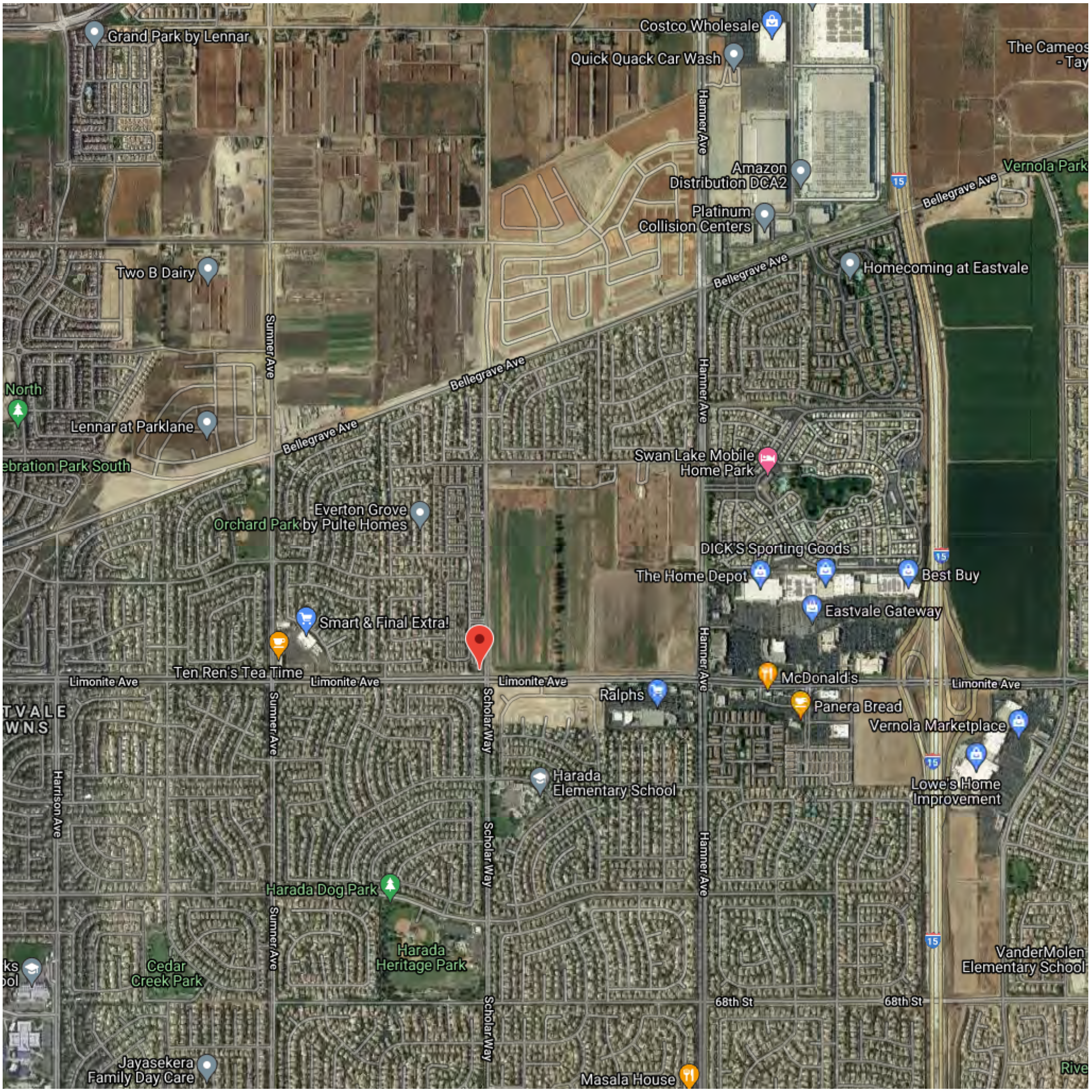
The following information is required. **List each street address separately.**

	SITE STREET ADDRESS (NO APNs)	CITY
1.	12740, 12741, 12745 and Limonite Ave	Corona, CA
2.		
3.	.	
4.		
5.		
6.		
7.		

Requests must be made in writing and submitted by mail, email, or in person to the following office:

4065 County Circle Drive, Room 104, Riverside, CA 92503
Phone: (951) 358-5055
Email: DEHRecordsMgmt@rivco.org
Mailing Address: P.O. Box 7909, Riverside, CA 92513-7909

For our office locations call us at (888) 722-4234 or visit our website at www.rivcoeh.org



LIST SITES VISIBLE ON MAP

Google

Map data ©2021 Google Imagery ©2021 , County of San Bernardino, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency

SHOW LEGEND Sites Shown on Map: 5 Total Sites 0 Open Sites 5 Closed Sites 0 Sites w/Water Quality Data

U.S. Environmental Protection Agency

MyProperty

Environmental Databases Search

The search of EPA's Facility Registry System did not locate any records for the search criteria provided below:

Search Criteria:

Street Address: 12741 Limonite Avenue
City, State: Corona , CA
Query executed on: 06/23/2021 04:54 PM **EST**

Contact the appropriate state, tribal or local agencies if you seek additional information.

Disclaimer

The MyProperty reports are provided solely for informational purposes. They do not provide legal advice, have legally binding effect, or expressly or implicitly create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits in regard to any person. EPA maintains the application to enhance public access to environmental information. This service has continual data updates, and we will correct errors brought to our attention, as appropriate.

U.S. Environmental Protection Agency

MyProperty

Environmental Databases Search

The search of EPA's Facility Registry System did not locate any records for the search criteria provided below:

Search Criteria:

Street Address: 12740 58TH STREET
City, State: Corona , CA
Query executed on: 06/23/2021 04:51 PM **EST**

Contact the appropriate state, tribal or local agencies if you seek additional information.

Disclaimer

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Detailed Facility Report

Facility Summary

LEAL RANCHES

12740 58TH STREET, CORONA, CA 92880

FRS (Facility Registry Service) ID: 110064614298
EPA Region: 09
Latitude: 33.982624
Longitude: -117.559313
Locational Data Source: FRS
Industry: Dairy Farms
Indian Country: N

Enforcement and Compliance Summary

Statute	Insp (5 Years)	Date of Last Inspection	Compliance Status	Qtrs with NC (Noncompliance) (of 12)	Qtrs with Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
CWA	5	03/03/2021	**No Violation Identified**	0	0	--	--	--	--	--

Regulatory Information

Clean Air Act (CAA): No Information
Clean Water Act (CWA): Minor, Permit Effective (CAC209348)
Resource Conservation and Recovery Act (RCRA): No Information
Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information
Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Known Data Problems

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110064614298					N	33.982624	-117.559313
ICIS-NPDES	CWA	CAC209348	Minor: General Permit Covered Facility	Effective		03/15/2024	N	33.9804	-117.56452

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110064614298	LEAL RANCHES	12740 58TH STREET, CORONA, CA 92880	
ICIS-NPDES	CWA	CAC209348	LEAL RANCHES	12740 58TH, CORONA, CA 92880	

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-NPDES	CAC209348	0241	Dairy Farms
NPDES	CAC209348	0241	Dairy Farms

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
No data records returned			

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description
No data records returned		

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
San Manuel Reservation	San Manuel Band of Mission Indians, California	100000256	22.15
San Manuel Reservation	San Manuel Band of Mission Indians, California	100000256	22.06

Enforcement and Compliance

Compliance Monitoring History (5 years)

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CWA	CAC209348	ICIS-NPDES	Inspection/Evaluation	CAFO - Evaluation	State	03/03/2021	
CWA	CAC209348	ICIS-NPDES	Inspection/Evaluation	CAFO - Evaluation	State	01/15/2021	

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CWA	CAC209348	ICIS-NPDES	Inspection/Evaluation	CAFO - Evaluation	State	08/27/2019	
CWA	CAC209348	ICIS-NPDES	Inspection/Evaluation	CAFO - Evaluation	State	01/28/2019	
CWA	CAC209348	ICIS-NPDES	Inspection/Evaluation	CAFO - Evaluation	State	01/09/2018	

Entries in italics are not counted in EPA compliance monitoring strategies or annual results.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CWA	CAC209348	No	03/31/2021	0	06/11/2021

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13+
	CWA (Source ID: CAC209348)	04/01-06/30/18	07/01-09/30/18	10/01-12/31/18	01/01-03/31/19	04/01-06/30/19	07/01-09/30/19	10/01-12/31/19	01/01-03/31/20	04/01-06/30/20	07/01-09/30/20	10/01-12/31/20	01/01-03/31/21	04/01-06/11/21
	Facility-Level Status	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**No Violation Identified**	**Undetermined**
	Quarterly Noncompliance Report History													

Informal Enforcement Actions (5 Years)

Statute	System	Source ID	Type of Action	Lead Agency	Date
No data records returned					

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions (5 Years)

Statute	System	Law/Section	Source ID	Action Type	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Cost	Comp Action Cost
No data records returned															

Environmental Conditions

Watershed(s)

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
180702030705	Lower Cucamonga Creek		No	No		Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Aquatic Life	Fish Consumption Use	Recreation Use	Other Use

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Aquatic Life	Fish Consumption Use	Recreation Use	Other Use
CA	2018	CAW8012100019991014103600	Prado Basin Management Zone	Impaired - 303(d) Listed	PH/ACIDITY/CAUSTIC CONDITIONS		Not Supporting		Insufficient Information	

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
Ozone	Yes	1-Hour Ozone (1979); 8-Hour Ozone (1997); 8-Hour Ozone (2008); 8-Hour Ozone (2015)	No	
Lead	No		No	
Particulate Matter	Yes	PM-2.5 (1997); PM-2.5 (2006); PM-2.5 (2012)	Yes	PM-10 (1987)
Carbon Monoxide	No		Yes	Carbon Monoxide (1971)
Sulfur Dioxide	No		No	

Pollutants

Toxics Release Inventory History of Reported Chemicals Released in Pounds per Year at Site

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Transfers
No data records returned								

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

Community

EJSCREEN EJ Indexes

Eleven primary environmental justice (EJ) indexes of EJSCREEN, EPA's screening tool for EJ concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. The index values below are for the Census block group in which the facility is located. Note that use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJSCREEN provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJSCREEN home page.

Census Block Group EJ Indexes (percentile)	
Particulate Matter (PM 2.5)	99
Ozone	99.2
NATA Diesel PM	98.6
NATA Air Toxics Cancer Risk	97.9

Number of EJ Indexes Above 80th Percentile
9

View EJSCREEN Report

Census Block Group EJ Indexes (percentile)	
NATA Respiratory Hazard Index (HI)	98.3
Traffic Proximity	76.4
Lead Paint Indicator	62.8
Superfund Proximity	93
Risk Management Plan (RMP) Proximity	82.4
Hazardous Waste Proximity	88.3
Wastewater Discharge Proximity	82.1

Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2006-2010 American Community Survey 5-Year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary.

General Statistics	
Total Persons (U.S. Census)	74,835
Population Density	2,678/sq.mi.
Percent Minority	73%
Households in Area	19,641
Housing Units in Area	20,732
Total Persons (ACS (American Community Survey))	--
Households on Public Assistance	289
Persons With Low Income	--
Percent With Low Income	--

Geography	
Radius of Selected Area	3 mi.
Center Latitude	33.982624
Center Longitude	-117.559313
Land Area	99%
Water Area	1%

Income Breakdown - Households (%)	
Less than $15,000	701 (3.74%)
$15,000 - $25,000	646 (3.44%)
$25,000 - $50,000	2,869 (15.29%)
$50,000 - $75,000	3,201 (17.06%)
Greater than $75,000	11,347 (60.47%)

Age Breakdown - Persons (%)	
Children 5 years and younger	6,387 (9%)
Minors 17 years and younger	23,506 (31%)
Adults 18 years and older	51,329 (69%)
Seniors 65 years and older	4,149 (6%)

Race Breakdown - Persons (%)	
White	36,810 (49%)
African-American	6,030 (8%)
Hispanic-Origin	34,522 (46%)
Asian/Pacific Islander	12,474 (17%)
American Indian	591 (1%)
Other/Multiracial	18,930 (25%)

Education Level (Persons 25 & older) - Persons (%)	
Less than 9th Grade	3,457 (8.39%)
9th through 12th Grade	3,533 (8.57%)
High School Diploma	9,874 (23.96%)
Some College/2-year	13,484 (32.73%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	10,855 (26.35%)

June 15, 2021

State of California
Department of Toxic Substances Control
Region 4 – Cypress Regional Office
5796 Corporate Avenue
Cypress, CA 90630-4732
Phone (714) 484-5337
Fax (714) 484-5318
PubReqAct@dtsc.ca.gov

RE: DTSC Files:

12740, 12741, 12745 and Limonite Ave
Corona, CA 92880

Dear Sir/Madam:

Hillmann Consulting, LLC is conducting an environmental investigation of the above referenced property. Under the Freedom of Information Act, we are requesting any information your office has regarding this property. If any records are located, we would like to obtain copies or schedule a file review. If no records are available, please contact me to confirm. Thank you.

Sincerely,

Gabriela Cyrulik
Environmental Technician
Hillmann Consulting, LLC
gcyrulik@hillmanngroup.com

Jared Blumenfeld
Secretary for
Environmental Protection

Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

June 18, 2021

Gabriela Cyrulik
Hillmann Consulting, LLC
gcyrulik@hillmanngroup.com

Public Records Request Number: 1-061621-10
Location(s): 12740, 12741, 12745 Limonite Ave, Corona, CA 92880

Dear Requestor:

On June 16, 2021 the Department of Toxic Substances Control (DTSC) received your email of the same date requesting records under the Public Records Act. After a thorough review of our files, no site records were found pertaining to the sites/facilities referenced above.

A large number of our records are available on EnviroStor, an online database that provides non-confidential, public access to DTSCs data management system. It tracks our cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known or suspected contamination issues. EnviroStor is available 24/7, 365 days a year. The data reflects the latest updates as they are entered in the system. Access it from your computer or smartphone, the local library – anywhere Internet access is available. Just go to www.envirostor.dtsc.ca.gov. You'll find a step-by-step tour of EnviroStor under the "How to Use EnviroStor" menu on the website.

If you have any questions or would like further information regarding your request, please contact me at 916-255-4159 or via email at PubReqAct@dtsc.ca.gov.

Sincerely,
Choua Her
Choua Her
Regional Records Coordinator

County of Riverside
DEPARTMENT OF ENVIRONMENTAL HEALTH
www.rivcoeh.org

REQUEST FOR RECORDS

To help expedite your request, mark the program for which you are requesting records (Call 951-358-5172 if you are uncertain):

☒ Hazardous Materials / Underground Storage Tanks
☒ Land Use / Water Resources / Body Art / Medical Waste / Solid Waste
☐ Food facility / Public Pools and Water Features / Retail Tobacco

- Requests will be responded to within ten (10) business days per California Government Code, sections 6253 and 6256.
- Pursuant to California Government Code section 6254 (f), records of pending investigations and informants' names, addresses, and telephone numbers will not be released.
- **This form is for acquisition of any existing records. Any consultation in reference to these records may be subject to a consultation fee (pursuant to Riverside County Ordinance 640).**
- For access to electronic records available online, visit the public information section at www.rivcoeh.org for more details.

NAME OF REQUESTING PARTY: Gabriela Cyrulik	DATE OF REQUEST: June 15, 2021	
BUSINESS NAME (IF ANY): Hillmann Consulting	TELEPHONE NUMBER: ( ) (714) 392-5920	
RETURN LEGAL MAILING ADDRESS: 1745 W. Orangewood Avenue, 201	EMAIL ADDRESS: gcyrulik@hillmanngroup.com	
CITY: Orange	STATE: CA	ZIP: 92868

The following information is required. **List each street address separately.**

INFORMATION REQUESTED: environmental records	PERIOD OF TIME TO BE RESEARCHED (If applicable) FROM: 1920	TO: 2021
SITE STREET ADDRESS (1): 12740, 12741, 12745 and Limonite Ave	CITY: Corona	
SITE STREET ADDRESS (2): Undeveloped land: SE corner Bryant Street and Oak Glen Road	CITY: Yucaipa, CA	
SITE STREET ADDRESS (3):	CITY:	
SITE STREET ADDRESS (4):	CITY:	
SITE STREET ADDRESS (5):	CITY:	
SITE STREET ADDRESS (6):	CITY:	
APN (**For Land Use and Water Resources ONLY**):		

Email this completed form to:

Land Use/Water Resources (WEST): landuse@rivco.org
Land Use/Water Resources (DESERT): landusedesert@rivco.org
Hazardous Materials: DEHRecordsMgmt@rivco.org
All other programs: dehwebmaster@rivco.org

To mail this form, go to http://rivcoeh.org/Contactus for the address of the DEH office closest to the requested location(s).

Duplication costs for records researched and duplicated must be paid upon receipt of records.

FOR OFFICE USE ONLY

COST OF REPRODUCTION: $_____	EACH ADDITIONAL PAGE: $_____	TOTAL: $_____
REVIEWED BY	TITLE	
RECORDS RECEIVED BY	DATE 6/15/21	

*** IF RECORD REQUEST IS MADE USING ALTERNATE METHOD AND NOT THIS FORM, ATTACH A COPY OF REQUEST TO THIS FORM.**

For our office locations call us at (888) 722-4234 or visit our website at www.rivcoeh.org

APPENDIX G

PROJECT PERSONNEL QUALIFICATIONS

HILLMANN CONSULTING

Gabriela Cyrulik

Environmental Technician
gcyrulik@hillmannconsulting.com

EDUCATION:

B.S. Geography and Minor in Environmental Science, Montclair State University, Montclair, NJ

CERTIFICATIONS:

OSHA 10-hr Construction Safety & Health

CA DPH Lead Sampling Technician

Certified in Fire & Smoke Restoration

YEARS OF EXPERIENCE:

With Hillmann: 2 years

Total: 2 years

PROFESSIONAL EXPERIENCE:

Ms. Cyrulik is an Environmental Technician for our Southern California Office. Ms. Cyrulik has supervised work practices and controls in accordance with job specifications, current EPA, OSHA, and state regulations for asbestos abatement projects in schools, as well as commercial, industrial, public, and multi-family residential buildings.

As an Environmental Technician, Ms. Cyrulik performs quality assurance air sampling for asbestos, lead, and mold abatement projects. She is also responsible for performing air and surface hazard materials testing, and potable and non-potable water sampling. She regularly performs Indoor Air Quality Assessments as well for several high-profile clients.

Additionally, Ms. Cyrulik is skilled at performing Phase I environmental site assessments and transaction screens to meet environmental due diligence requirements under CERCLA.

Representative Experience Includes:

Tishman Speyer Properties, nationwide: Hillmann has been providing the complete environmental program for Tishman Speyer's properties since 1987. Our services include: phase I environmental site assessments, asbestos surveys, air monitoring, bid administration, O&M programs, industrial hygiene, and indoor air quality programs. Ms. Cyrulik functions as an Industrial Hygienist on this contract, which is ongoing, and performs Indoor Air Quality Assessments.

Brookfield Properties, various locations: Since 1987, Hillmann has performed industrial hygiene, microbial, indoor air quality, asbestos surveys, project design investigations, project management, bulk sampling and analysis, and geotechnical services in numerous buildings in the New York and Los Angeles metropolitan areas. Ms. Cyrulik is an Industrial Hygienist on this contract.

HILLMANN CONSULTING

J. Ryan Terwilliger

Operational Manager, West Coast

EDUCATION:

B.S. Environmental Science, University of Southern California, Los Angeles, CA

CERTIFICATION:

Cal-OSHA Certified Asbestos Consultant
CDPH Accredited Lead Inspector/Assessor/ Project Monitor

CA Certified Site Surveillance Technician

OSHA 40 - Hr HAZWOPER

YEARS OF EXPERIENCE:

With Hillmann: 4 years

Total: 8 years

PROFESSIONAL EXPERIENCE:

Mr. Terwilliger is responsible for business operations, fiscal management and field staff management for Hillmann's California Office. He also performs asbestos surveys and investigations to identify asbestos and lead materials associated with occupational hazards. He supervises work practices and controls in accordance with job specifications, current EPA, OSHA and State Regulations for Asbestos remediation projects in commercial, industrial and multi-family residential buildings. Mr. Terwilliger performs IAQ, mold and moisture investigations in commercial, industrial and residential facilities nationwide. He also performs awareness training for asbestos, lead and microbial agents. Mr. Terwilliger provides litigation support consultation.

Representative Experience Includes:

Tishman Speyer Properties, Various locations: Hillmann has provided the complete environmental program for Tishman Speyer's properties since 1987. Our services include environmental health and safety, industrial hygiene, phase I environmental site assessments, asbestos surveys, air monitoring, bid administration, O&M programs and indoor air quality programs on various commercial, industrial and multi-family residential properties. Mr. Terwilliger is an Environmental Scientist on this contract, conducting on-site environmental services including phase I site assessments and NPDES water quality testing.

Westfield – Environmental Program, Various locations: Since 2000, Hillmann has been providing an environmental program encompassing environmental health and safety, Phase I environmental site assessments, asbestos and lead surveys, air monitoring, bid administration and O&M programs, industrial hygiene and indoor air quality programs, and hazardous materials assessments on their mall properties throughout the county. Mr. Terwilliger is an Environmental Scientist on this contract performing industrial hygiene services that include indoor air quality monitoring, Phase I environmental site assessments, asbestos and lead surveys.

Brookfield Office Properties, Various sites, CA: Hillmann has been providing hazardous materials surveys, development abatement specifications, and managing the oversight activities during the abatement at various Brookfield owned sites throughout California. Mr. Terwilliger functions as a Project Manager for this contract.

California Department of Transportation, Central Valley and Northern CA: Hillmann has been performing asbestos and Lead-based Paint Surveys for the California Department of Transportation. Performed comprehensive asbestos containing materials and lead-based paint surveys of residential and commercial buildings that were slated for demolition and generated report of findings in order to aid the Department of Transportation (DOT) in facilitating the road improvement programs and building renovations throughout the

Central Valley area. Also during the abatement of asbestos from DOT owned buildings, provided contractor oversight and air monitoring services for regulatory compliance.

Verizon, Various Sites, CA. Hillmann conducted hazardous materials surveys, development abatement specifications, and project monitoring during abatement at various Verizon owned sites throughout California. Mr. Terwilliger functioned as the Project Manager.

Public Storage, Los Angeles, CA: Hillman preformed comprehensive asbestos, lead-based paint and universal waste materials survey of commercial and industrial buildings throughout Southern California. Hazardous materials surveys were conducted prior to renovation for the storage units. Mr. Terwilliger developed abatement specifications and managed the abatement activities during the renovations of the buildings. He functioned as the Project Manager on this contract.

HILLMANN
CONSULTING

LIMITED PHASE II SUBSURFACE INVESTIGATION REPORT



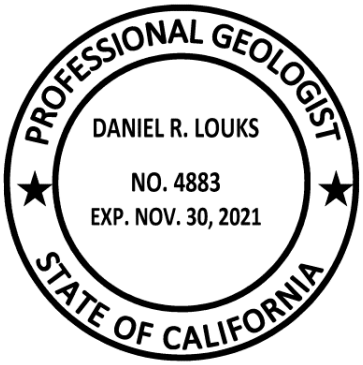
LEAL RANCH, EASTVALE, CALIFORNIA

Prepared For:

The New Home Company
15231 Laguna Canyon Road, Suite 250
Irvine, California 92618

Hillmann Project Number C3-8510

July 28, 2021
Revised March 23, 2022



Written By:
Hillmann Consulting, LLC

Dan Louks
Professional Geologist 4883

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www.HillmannConsulting.com

HILLMANN
CONSULTING

July 28, 2021

Mr. Matt Gibson
The New Home Company
15231 Laguna Canyon Road, Suite 250
Irvine, California 92618

RE: Limited Phase II Subsurface Investigation Report
Leal Ranch
Eastvale, California
Hillmann Project Number: C3-8510

Dear Mr. Gibson:

Hillmann Consulting, LLC, is pleased to provide this Limited Phase II Subsurface Investigation Report prepared for the above referenced property.

This report is for the exclusive use of the entities named on the front cover, its affiliates, designates and assignees, rating agencies, prospective bond holders and bond holders, and no other party shall have any right to rely on any service provided by Hillmann Consulting, LLC, without prior written consent.

We appreciate the opportunity to provide environmental due diligence services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact the Project Manager at 714-634-9500.

Very Truly Yours,
Hillmann Consulting, LLC

Brandon D. Clements

Brandon Clements
Partner; Western Regional Director

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1.0 INTRODUCTION / BACKGROUND

Hillmann Consulting, LLC (Hillmann) conducted a Limited Phase II Subsurface Investigation at Leal Ranch, Eastvale, California. The Property encompasses six contiguous parcels addressed as 12741 and 12745 Limonite Avenue and 12740 58th Street in Eastvale, California and occupies 153.3 acres. The Property is bounded by Limonite Avenue to the south, 58th Street to the north, Scholar Way to the west and Hamner Avenue to the east. The Property is located in an area being developed with new homes and is being considered for redevelopment from its most recent use as agricultural land and a dairy farm to residential. The site location and its vicinity is indicated on **Figure 1**. The Property is currently developed with five residential structures in the northern portion of the Property, and with various dairy barns or out structures. The southern portion of the Property that was formerly orchard-bearing has no structures. The layout of the site is depicted on **Figure 2**.

In June 2021, Hillmann conducted a Phase I Environmental Site Assessment at the site. Records indicate the Property was utilized as orchard growing land dating to the 1930s. The northern portion of the site was utilized for dairy operations from the 1970s until 2019. Large portions of the north portion of the Property were used for dairy ranching and several areas are laden with deposits of animal waste. In addition, the north-central portion of the site includes a maintenance area where repair of farm equipment and vehicles was conducted. This area has multiple areas with small surficial spills and storage of hazardous materials. Records also indicate that an underground storage tank (UST) was used at the site and was removed from the ground in the late 1980s, No closure records for the former UST were available. The large zones with animal waste were identified as a potential environmental concern due to possible methane off-gassing, especially given the proposed residential use. In addition, the maintenance area and UST areas were identified as potential environmental concerns that justified preliminary subsurface investigation.. Results of the Phase I investigation are presented in Hillmann's *"Phase I Environmental Site Assessment Report"* dated June 25, 2021.

In July 2021, Hillmann completed a Limited Phase II Subsurface Investigation at the Property that included soil and soil gas sampling. The objective was to provide a preliminary indication of the amount of animal waste that would need to be removed, determining if there was a significant subsurface methane issue in the waste deposit areas, investigate potential subsurface contamination in the former agricultural areas from historic applications of pesticides, determine whether the historic UST had been removed, and defining potential contamination concerns in the maintenance and UST areas. The current investigation is an independent assessment of the site that was constrained by time and cost factors as part of a self-directed effort. The investigation included installation of 15 soil borings and soil gas sampling probes in targeted locations, soil sampling for pesticides which included the collection of ninety-six (96) individual samples, which were then composited into twenty-four (24) composite samples, and analyzed for Organochlorine Pesticides (OCPs) and Title 22 Metals from ninety-six (96) quadrants throughout the Property, and a GPR investigation in the reported former UST area. This investigation was not intended to meet the more stringent requirements of a regulatory driven assessment.

2.0 GEOLOGY/HYDROGEOLOGY

Based on the drilling logs, the sediments beneath the site consist primarily of silty sand and sandy silt with occasional layers of silty clay and sand from near surface to at least 14 feet below grade, the maximum depth of exploration. The animal waste zones typically have 1-2 feet of material on the surface before native sediment was encountered. However, local areas have piles of the waste and the thickness of those occasional piles can reach 4-5 feet. Groundwater was not encountered during drilling. Descriptions of the sediments encountered are presented in the drilling logs (**Appendix C**).

Based on records available on the GeoTracker website, groundwater is present at about 72 feet below grade at a site located 2 miles east of the Property (76 Station 5204, 6190 Etiwanda Avenue, Mira Loma, CA-Global ID-T0606581722).

3.0 SITE INVESTIGATION

On July 12-19, 2021, Hillmann installed fifteen (15) soil borings (B1-B15) across the northern portion of the site to total depths ranging from 5 to 14 feet below grade. The borings were installed in targeted locations including in the surficial animal waste zones, in the former UST area and in targeted areas of the maintenance area. The borings were installed using hand auger tools. The locations of the borings are indicated on **Figure 2**.

During drilling, a California Professional Geologist described the soil using the Unified Soil Classification System. Soil samples were obtained at select depths in some borings and were preserved for analysis in stainless steel rings, sealed with Teflon tape and plastic end caps. Select samples were analyzed for carbon chain hydrocarbons corresponding to gasoline, diesel fuel, and oil weights (C4-C12, C13-C22, and C23-C40 ranges, respectively) by EPA Method 8015M for Volatile Organic Compounds (VOCs) by EPA Method 8260B, and for heavy metals by EPA Method 6010B. The soil samples were analyzed by A&R Laboratories of Ontario, California.

Each boring was completed as a soil gas sampling probe (SG1-SG15) with sampling tips installed at maximum depth (5-14 feet below grade). The soil gas sampling probes consist of plastic micro-porous vapor implants that are approximately 2 inches long with a 0.5-inch outside diameter, connected to 0.25-inch outside diameter Nylaflow tubing that extended above the surface. The annulus around each vapor implant was backfilled with approximately 1 foot of screen-washed #3 sand. Six inches of dry bentonite was placed immediately above the sand pack, followed by one-foot of bentonite that was hydrated during placement. The bentonite was further sealed with more hydrated bentonite to grade to provide a secure borehole seal. The probes were finished with gas-tight fittings at the surface pending vapor purging and sampling.

The soil gas sampling probes were allowed to equilibrate for at least 48 hours before collecting vapor samples. Prior to vapor sampling, shut-in and leak tests were conducted on the probes. The probe head was attached to the sampling train assembly of Nylaflow tubing, valves, and fittings and connected to a purge pump. The pump was used to evacuate the sealed system using an applied vacuum of 100 inches of water column (in. WC). The vacuum on each probe was monitored for 90 seconds with the sampling train system sealed. After the shut-in test was

validated, the sampling train was leak tested. Liquid isopropyl alcohol was applied around all connections in the sampling train to evaluate whether the system was sealed from ambient air leaks. A detection of 10 times the reporting limit of this compound might suggest that ambient air leakage had occurred.

The purpose of purging is to remove stagnant air from the vapor sampling train to ensure representative samples are obtained. The probes were purged using an adjustable vacuum pump set at 200 mL/minute. During purging, the soil gas was monitored for VOC, oxygen, carbon dioxide, and methane content using a Mini-Rae 2000 multi gas detector to ensure that non-atmospheric formation air was being sampled (**Appendix D**).

Probes SG1-SG5 were installed in targeted areas in the maintenance and former UST areas. These probes were sampled for VOC content. Probes SG6-SG15 were intended to provide data on possible subsurface methane issues and were screened for methane content in the field. The methane monitoring probes were intended to be screened using a Micro-Tip FID instrument calibrated for methane; however, the device malfunctioned in the field. Instead each probe was screened using the methane function on the Mini-Rae 2000 multi-gas detector. Results indicated most probes (12 of 15 total) had no detectable methane content (<1% LEL), however, probe SG11 had greater than 100% LEL (approximately 50,000 ppmV). To provide confirmation of the maximum result, a sample was obtained from SG11 for laboratory analysis of methane content.

After purging three soil gas volumes through the system, vapor samples were collected from the VOC probes (SG1-SG5), and from methane probe SG11 on July 21, 2021. During sampling, the purge pump was operated at 200 mL/minute, and the vacuum was monitored to ensure it was below 100 in. WC. Vacuum applied below this level helps ensure chemical partitioning from pore water to soil gas and the stress on the air seals are both minimized. The samples were containerized in Tedlar bags which were delivered to the laboratory for analysis. Fresh tubing was used on each sampling train between holes. Soil gas samples SG1-SG3 were analyzed for VOC using EPA Method 8260B. Soil gas samples SG4 and SG5, obtained from the UST area, and were analyzed for VOC using the more sensitive TO-15 analysis and for gasoline range hydrocarbons by EPA Method 8015. The soil gas sample from SG11 was analyzed for methane only by EPA Method 8015M by A&R Laboratories of Ontario, California.

On July 16 and 19, 2021 Hillmann collected ninety-six (96) shallow soil samples from agricultural fields on the Property, which were composited into twenty-four (24) samples representative of a sampling area/quadrant. The samples were collected using a hand auger tool or soil sampling spatula, and were completed from 0.5 to 1.5 feet below grade, according to the June 2008 Revision of the California Department of Toxic Substance Control (DTSC) guidelines "Interim Guidance for Sampling Agricultural Soils". Soil samples collected were preserved for analysis in laboratory jars, sealed with Teflon tape and plastic end caps, wrapped in aluminum foil and stored on ice. A total of twenty-four (24) composited soil samples were submitted for laboratory analysis for organo-chlorine pesticides (OCP) by EPA Method 8081A and Title 22 Metals by EPA Method 6010B. A&R Laboratories of Ontario, California analyzed the samples. The soil sample locations are indicated on **Figure 1A.**

Finally, on July 16, a limited Ground Penetrating Radar (GPR) investigation was conducted in the area reported to Hillmann as being the location of the former UST.

3.1 Laboratory Results

Results from soil sampling indicated none of the samples had detectable concentrations of Volatile Organic Compounds (VOCs) or petroleum hydrocarbons, or heavy metal concentrations that exceed residential screening levels. These results are summarized in **Table 1 and Table 1A**. The laboratory reports from soil sampling are included in **Appendix B**.

Results from soil gas sampling indicated samples SG4 and SG5 had low concentrations of petroleum–related VOC including benzene, toluene, ethylbenzene, xylenes, and trimethylbenzene, and the common solvent tetrachloroethene (PCE). The detected concentrations were compared to the Regional Screening Levels (RSLs) for soil gas which are based on human health risk factors for residential and commercial settings and are commonly used as screening tools. The screening criteria uses defined indoor air concentrations based on human health risk factors that are modified using attenuation factors provided by the Environmental Protection Agency (EPA) (0.03) and California Department of Toxic Substance Control (DTSC) (0.002). DTSC policy on which attenuation factor to use is currently under review, but our understanding is that the current accepted screening levels for residential applications for the most environmentally sensitive of the detected compounds (benzene and PCE) are 0.0485 ug/L and 0.23 ug/L, respectively. The more stringent screening levels (if applied) would be 0.003 ug/L and 0.015 ug/L, respectively. Results indicated none of the detected concentrations approaches the current residential screening levels. However, the benzene detection in sample SG5 (0.0043 ug/L) slightly exceeds the proposed screening level of 0.003 ug/L. The laboratory-measured methane concentration in sample SG11 was 45,800 ppmV and exceeds the minimum methane concentration that typically requires construction mitigation measures (1,000 ppmV). These results are summarized in **Table 2**. The laboratory report from soil gas sampling is included in **Appendix B**.

Results of Organochlorine Pesticide (OCP) analysis indicated low levels of dichloro-diphenyl-dichloroethylene (4, 4'-DDE) detected in samples B-2, 6, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 21, 23, 24 as well as low levels of dichloro-diphenyl-trichloroethane (4, 4'-DDT) detected in samples B-11. Results of heavy metal analysis indicated the samples had low background levels of barium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc.

The detected compounds were compared to Regional Screening Levels (RSLs) developed by EPA which are based on human health toxicity factors for residential and commercial settings. Results of the OCP analysis low levels of 4, 4'-DDE and 4, 4'-DDT which did not exceed the applicable RSLs for residential applications. These results are summarized in **Table 3**. The results from heavy metal analysis indicate the samples had low, background levels of metals, which did not exceed the applicable RSLs for residential applications. These results are summarized in **Table 4**. The laboratory report is included as **Appendix B**.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The site occupies approximately 153.3-acres, approximately 80 acres of which is former agricultural land that is being considered for a residential development. Records indicate the site is currently and historically utilized as agricultural land, which could pose possible environmental impacts if pesticides were used. Based on these factors Hillmann recommended that a soil sampling investigation that included sampling of near surface native soil for pesticides, and Title 22 Metals. Hillmann collected ninety-six (96) individual samples, which were then composited into twenty-four (24) composite samples, and analyzed for OCPs and Title 22 Metals. Results of the OCP analysis low levels of 4,4'-DDE and 4,4'-DDT which did not exceed the applicable RSLs for residential applications. The results from heavy metal analysis indicate the samples had low, background levels of metals, which did not exceed the applicable RSLs for residential applications.

The northern portion of the site maintained the dairy farm and areas of potential environmental concern including a former UST site, a vehicle maintenance area, and areas covered by animal waste. These concerns justified preliminary subsurface investigation. In July 2021, Hillmann conducted soil and soil gas sampling in targeted areas of the site. Results from soil sampling in the UST and maintenance areas indicated no detectable concentrations of petroleum hydrocarbons or VOC, and no heavy metal concentrations exceeding residential screening levels. The results from soil gas sampling in these areas (SG1-SG5) indicated no VOC concentrations exceeding current residential screening levels. One sample (SG5-14) had benzene concentrations that slightly exceed proposed residential screening levels (if they were to be adopted), but given the depth of the sample (14 feet) and consideration for attenuation provided by new construction, these very low concentrations likely do not pose a significant environmental or human health concern for the proposed residential use.

The results from methane testing in animal waste areas indicate most samples had insignificant concentrations of subsurface methane. Field screening indicated just three samples (of 15) had detectable concentrations of methane. The sample with the highest concentrations of methane (gauged in the field) was laboratory analyzed and had 45,800 ppmV methane which exceeds the typical screening level for determining if mitigation measures are required for new structures. However, it is important to note that the methane distribution is not wide spread and that the areas investigated are still covered with animal waste. This material will have to be removed and disposed prior to grading and construction. A follow-up methane survey should be performed when this is completed, possibly targeting sample SG11 as one of the primary future sampling sites. To provide a preliminary indication on the extent of animal waste, Hillmann recorded the depth of manure at each suspect location. The waste layer extended to 1-2 feet below grade in most areas investigated within the target zones. **Figure 3** shows the rough distribution of waste that would need to be removed and disposed to a depth of 1-2 feet below current surface grade. Based on this rough approximation, a minimum of about 60,000 cubic yards of waste would need to be removed and disposed.

A GPR investigation of the area reported to Hillmann as being the location of the former UST did not indicate any evidence of a UST still present. A copy of the GPR report is located in **Appendix E**.

5.0 LIMITATIONS

This Subsurface Investigation was performed in accordance with generally and currently accepted engineering practices and principles; however, the procedures and methodologies used in this investigation are not intended to meet all specific regulatory guidelines as this work was completed as a self-directed effort. Although the data in this report is indicative of subsurface conditions in areas investigated, no further conclusions regarding the absence or presence of subsurface contamination in other areas of the site should be construed or inferred other than those expressly stated in this report. The conclusions made are based on information obtained from field observations, independent laboratory analytical results, and from current and relevant Federal, State, regional, and local agencies.

TABLE 1
Summary of Soil Sampling Results (mg/Kg)

Sample ID	Heavy Metals Above Screening Levels	VOC	TPHg C4-C12	TPHd C13-C22	TPH-Oil C23-C40
Sampled July 12, 2021					
HB1-2	--	--	ND<0.20	ND<10	ND<20
HB2-2	None	--	ND<0.20	ND<10	ND<20
HB3-2	None	--	ND<0.20	ND<10	ND<20
HB4-13	--	ND	ND<0.20	ND<10	ND<20
Sampled July 16, 2021					
HB5-5	--	ND	ND<0.20	--	--
HB5-10	--	ND	ND<0.20	--	--
HB5-14	--	ND	ND<0.20	--	--
Residential RSL	***--***	***--***	***82***	***82***	***82***
Commercial RSL	***--***	***--***	***420***	***420***	***420***

Notes: ND - Not Detected. EPA Regional Screening Levels (RSLs) are human health risk based screening levels used by EPA and DTSC in residential and commercial settings. The RSL levels for total petroleum hydrocarbons are divided into six non-descript categories that depend on the relative speciation of aromatic and aliphatic hydrocarbons in the source contaminant. The most conservative screening level for petroleum hydrocarbons used. Please refer to lab report for complete results.

TABLE 1A
Summary of Heavy Metal Results (mg/Kg)

Sample ID	Arsenic	Barium	Cadmium	Chromium	Cobalt	Copper	Lead	Nickel	Vanadium	Zinc
HB2-2	ND<1.0	67.4	ND<0.5	18.4	5.64	9.15	2.48	9.14	48.5	28.9
HB3-2	1.45	88.0	ND<0.5	18.1	5.50	9.08	2.84	9.26	50.9	31.0
Residential RSL	***0.11***	***15,000***	***5.2****	***36,000***	***23***	***3,100***	***80****	***490****	***390****	***23,000***
Industrial RSL	***0.36***	***220,000***	***7.3****	***170,000***	***350***	***47,000***	***320****	***3,100****	***1,000****	***350,000***
DTSC Bkgrnd	***12***	***--***	***--***	***--***	***--***	***--***	***--***	***--***	***--***	***--***

Notes: ND - Not Detected. EPA Regional Screening Levels (RSLs) are human health risk based screening levels used by EPA and DTSC in residential and commercial settings. DTSC Background Concentration is based on statistical study of sites throughout southern California. This concentration may be used as a screening level for anthropogenic and naturally occurring levels of arsenic in soil in southern California. - Values modified by DTSC HERO Note 3. Please refer to lab report for complete results.*

TABLE 2
Summary of Soil Gas Sampling Results (ug/L)

Sample ID	Benzene	Toluene	Ethylbenzene	Xylenes	124 TMB	Styrene	PCE	Other VOC	TPHg	Methane (ppmV)
Sampled July 21, 2021										
SG1-5	ND<0.024	ND<0.05	ND<0.05	ND<0.10	ND<0.05	ND<0.05	ND<0.05	ND	--	--
SG2-5	ND<0.024	ND<0.05	ND<0.05	ND<0.10	ND<0.05	ND<0.05	ND<0.05	ND	--	--
SG3-5	ND<0.024	ND<0.05	ND<0.05	ND<0.10	ND<0.05	ND<0.05	ND<0.05	ND	--	--
SG4-13	0.0027	0.015	0.0069	0.0249	0.0049	0.0042	0.030	ND	ND<5	--
SG5-14	0.0043	0.060	0.010	0.036	0.0030	ND<0.005	0.014	ND	ND<5	--
SG11-5	--	--	--	--	--	--	--	--	--	45,800
Residential RSL AF=0.03	***0.003****	***10.33****	***0.037***	***3.33***	***0.243***	***31.33****	***0.015****	--	--	--
Residential RSL AF=0.001	***0.0485****	***155****	***0.55***	***50***	***3.65***	***470***	***0.23****	--	--	--

*Notes: ND - Not Detected. EPA Regional Screening Levels (RSLs) are human health risk based screening levels used by EPA and DTSC to determine Health Risk in residential and commercial settings. *-Values modified for California by DTSC HERO Note 3. Screening levels for soil gas calculated using indoor air values and attenuation factor provided by EPA (0.03) and DTSC (0.001). Please refer to lab report for complete results.*

TABLE 3
Summary of Pesticide Soil Sampling Results (mg/Kg)

Sample ID	4,4 DDD	4,4 DDE	4,4 DDT	Dieldrin	Other OCP
B-2-0.5'-1.5'	ND (<0.0020)	0.018	ND (<0.0020)	ND (<0.0020)	ND
B-3-0.5'-1.5'	ND (<0.0020)	0.0032	ND (<0.0020)	ND (<0.0020)	ND
B-5-0.5'-1.5'	ND (<0.0020)	0.0063	ND (<0.0020)	ND (<0.0020)	ND
B-6-0.5'-1.5'	ND (<0.0020)	0.0058	ND (<0.0020)	ND (<0.0020)	ND
B-9-0.5'-1.5'	ND (<0.0020)	0.0035	ND (<0.0020)	ND (<0.0020)	ND
B-10-0.5'-1.5'	ND (<0.0020)	0.0023	ND (<0.0020)	ND (<0.0020)	ND
B-11-0.5'-1.5'	ND (<0.0020)	0.0097	0.0041	ND (<0.0020)	ND
B-12-0.5'-1.5'	ND (<0.0020)	0.0040	ND (<0.0020)	ND (<0.0020)	ND
B-13-0.5'-1.5'	ND (<0.0020)	0.0044	ND (<0.0020)	ND (<0.0020)	ND
B-15-0.5'-1.5'	ND (<0.0020)	0.068	ND (<0.0020)	ND (<0.0020)	ND
B-16-0.5'-1.5'	ND (<0.0020)	0.057	ND (<0.0020)	ND (<0.0020)	ND
B-17-0.5'-1.5'	ND (<0.0020)	0.013	ND (<0.0020)	ND (<0.0020)	ND
B-18-0.5'-1.5'	ND (<0.0020)	0.019	ND (<0.0020)	ND (<0.0020)	ND
B-19-0.5'-1.5'	ND (<0.0020)	0.021	ND (<0.0020)	ND (<0.0020)	ND
B-21-0.5'-1.5'	ND (<0.0020)	0.011	ND (<0.0020)	ND (<0.0020)	ND
B-23-0.5'-1.5'	ND (<0.0020)	0.011	ND (<0.0020)	ND (<0.0020)	ND
B-24-0.5'-1.5'	ND (<0.0020)	0.017	ND (<0.0020)	ND (<0.0020)	ND
Residential RSL	***2.3***	***2.0***	***1.9***	***0.034***	***Var.***
Commercial RSL	***9.6***	***9.3***	***8.5***	***0.14***	***Var.***

Notes: Refer to Table 2 for heavy metal results summary. OCP - Organo-Chlorine Pesticides. ND - Not Detected NM – Not Measured. EPA Regional Screening Levels (RSLs) are human health risk-based screening levels used by EPA and DTSC in residential and commercial settings. Please refer to lab report for complete results.

TABLE 4
Summary of Heavy Metal Results (mg/Kg)

Sample ID	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Vanadium	Zinc
B-1-0.5'-1.5'	ND (<1.00)	90.9	16.2	4.48	13.3	13.7	ND (<0.500)	7.74	45.5	44.8
B-2-0.5'-1.5'	ND (<1.00)	94.2	17.2	5.04	14.3	18.7	ND (<0.500)	8.81	48.3	44.1
B-3-0.5'-1.5'	ND (<1.00)	79.3	16.2	4.54	12.9	15.8	ND (<0.500)	7.79	46.0	40.2
B-4-0.5'-1.5'	ND (<1.00)	86.6	16.1	4.69	13.3	16.9	ND (<0.500)	7.79	46.3	41.3
B-5-0.5'-1.5'	1.66	108	20.3	6.02	15.6	11.8	ND (<0.500)	11.3	59.5	41.5
B-6-0.5'-1.5'	ND (<1.00)	106	16.2	4.76	17.8	14.0	ND (<0.500)	8.08	47.5	57.4
B-7-0.5'-1.5'	ND (<1.00)	105	20.4	6.03	15.8	7.33	ND (<0.500)	10.9	59.6	41.6
B-8-0.5'-1.5'	1.97	100	18.1	5.12	16.1	10.1	ND (<0.500)	9.34	52.7	45.4
B-9-0.5'-1.5'	ND (<1.00)	73.6	16.1	4.62	14.2	15.4	ND (<0.500)	8.25	46.2	43.3
B-10-0.5'-1.5'	ND (<1.00)	107	17.5	5.26	18.0	18.7	ND (<0.500)	8.85	48.3	52.2
B-11-0.5'-1.5'	1.07	91.4	17.0	4.97	14.6	14.0	ND (<0.500)	8.52	49.7	41.0
B-12-0.5'-1.5'	ND (<1.00)	119	17.8	4.89	22.7	15.3	ND (<0.500)	8.57	47.3	75.8
B-13-0.5'-1.5'	ND (<1.00)	85.3	9.69	2.80	15.8	8.26	0.677	5.35	31.4	67.1
B-14-0.5'-1.5'	ND (<1.00)	107	17.1	4.84	17.0	11.8	ND (<0.500)	9.09	45.6	66.8
B-15-0.5'-1.5'	ND (<1.00)	76.2	11.8	3.65	11.8	11.0	ND (<0.500)	6.43	35.6	48.2
B-16-0.5'-1.5'	ND (<1.00)	68.8	13.2	4.06	10.2	11.7	ND (<0.500)	7.04	37.0	40.8
B-17-0.5'-1.5'	ND (<1.00)	81.5	14.6	4.16	17.3	11.5	ND (<0.500)	8.00	39.7	71.4
B-18-0.5'-1.5'	ND (<1.00)	76.5	13.8	3.96	16.6	10.9	ND (<0.500)	7.52	37.5	68.3
B-19-0.5'-1.5'	ND (<1.00)	87.4	14.0	4.36	15.1	8.59	ND (<0.500)	7.40	38.3	52.6
B-20-0.5'-1.5'	ND (<1.00)	111	17.8	5.09	17.9	12.4	ND (<0.500)	9.48	47.2	68.2
B-21-0.5'-1.5'	ND (<1.00)	98.2	14.7	4.58	14.9	7.99	ND (<0.500)	7.82	41.0	51.7
B-22-0.5'-1.5'	ND (<1.00)	112	16.9	4.95	20.2	12.1	ND (<0.500)	9.33	46.7	70.7

Sample ID	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Molybdenum	Nickel	Vanadium	Zinc
B-23-0.5'-1.5'	ND (<1.00)	95.2	14.6	4.56	14.7	8.21	ND (<0.500)	7.74	40.5	51.5
B-24-0.5'-1.5'	ND (<1.00)	79.1	14.4	4.24	17.5	12.7	ND (<0.500)	8.20	39.1	70.9
Residential RSL	***0.11***	***15,000***	***36,000***	***23***	***3,100***	***80***	***390***	***490****	***390****	***23,000***
Industrial RSL	***0.36***	***220,000***	***170,000***	***350***	***47,000***	***320***	***5,800***	***3,100****	***1,000****	***350,000***
DTSC Background	***12****									

Notes: ND - Not Detected. EPA Regional Screening Levels (RSLs) are human health risk-based screening levels used by EPA and DTSC in residential and commercial settings. DTSC Background Concentration is based on statistical study of sites throughout southern California. This concentration may be used as a screening level for anthropogenic and naturally occurring levels of arsenic in soil in southern California.* - Values modified by DTSC HHRA Note 3. Please refer to lab report for complete results.

SOIL GAS MONITORING DATA FORM

PROJECT: Dairy Farm

LOCATION: Leal Ranch, Eastvale, California

DATE: July 21, 2021

	VAPOR PROBE INFO							
PROBE ID	**SG1**	**SG2**	**SG3**	**SG4**	**SG5**			
PROBE DEPTH (ft)	5	5	5	13	14			
	EXTRACTION DATA							
Applied Vacuum (in. WC)	<5	<5	<5	<5	<5			
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2			
Pore Volumes (borehole - sand pack)	3	3	3	3	3			
	MONITORING DATA							
OXYGEN (%)	17.9	19.5	19.0	18.8	17.8			
CARBON DIOXIDE (%)	3.6	1.65	2.88	2.83	4.68			
VOC by PID (ppm)	0.0	0.0	0.0	0.0	0.0			
Methane (% LEL)	0.0	0.0	0.0	0.0	0.0			

	VAPOR PROBE INFO							
PROBE ID								
PROBE DEPTH (ft)								
	EXTRACTION DATA							
Applied Vacuum (in. WC)								
FLOW (L/min)								
Pore Volumes (borehole - sand pack)								
	MONITORING DATA							
OXYGEN (%)								
CARBON DIOXIDE (%)								
VOC by PID (ppm)								

REMARKS:

SAMPLED BY: DL

SOIL GAS MONITORING DATA FORM

PROJECT: Dairy Farm

LOCATION: Leal Ranch, Eastvale, California

DATE: July 21, 2021

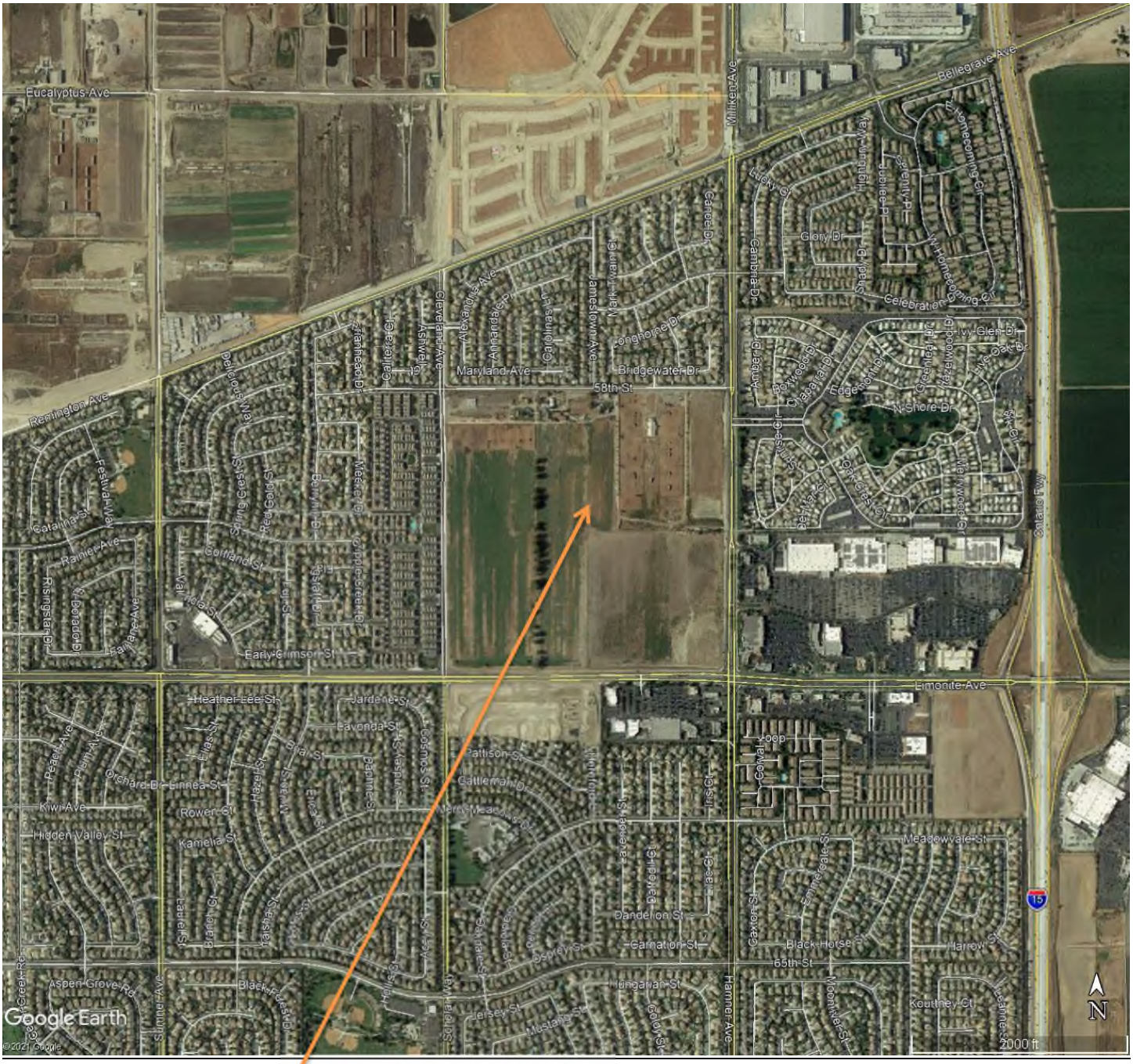
	VAPOR PROBE INFO							
PROBE ID	**SG6**	**SG7**	**SG8**	**SG9**	**SG10**	**SG11**	**SG12**	**SG13**
PROBE DEPTH (ft)	5	5	10	5	5	5	10	5
	EXTRACTION DATA							
Static Pressure (in. WC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Pore Volumes (borehole - sand pack)	3	3	3	3	3	3	3	3
	MONITORING DATA							
OXYGEN (%)	20.1	6.8	3.7	9.2	20.2	3.0	4.3	11.5
CARBON DIOXIDE (%)	0.78	>5	>5	>5	1.21	>5	>5	>5
VOC by PID (ppm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methane (%LEL)	0.0	0.0	0.0	0.0	0.0	>100	2.7	0.0

	VAPOR PROBE INFO							
PROBE ID	**SG14**	**SG15**						
PROBE DEPTH (ft)	5	5						
	EXTRACTION DATA							
Static Pressure (in. WC)	0.0	0.0						
FLOW (L/min)	0.2	0.2						
Pore Volumes (borehole - sand pack)	3	3						
	MONITORING DATA							
OXYGEN (%)	4.1	20.1						
CARBON DIOXIDE (%)	>5	0.89						
VOC by PID (ppm)	0.0	0.0						
Methane (%LEL)	39	0.0			--			

REMARKS:

SAMPLED BY: DL

FIGURES

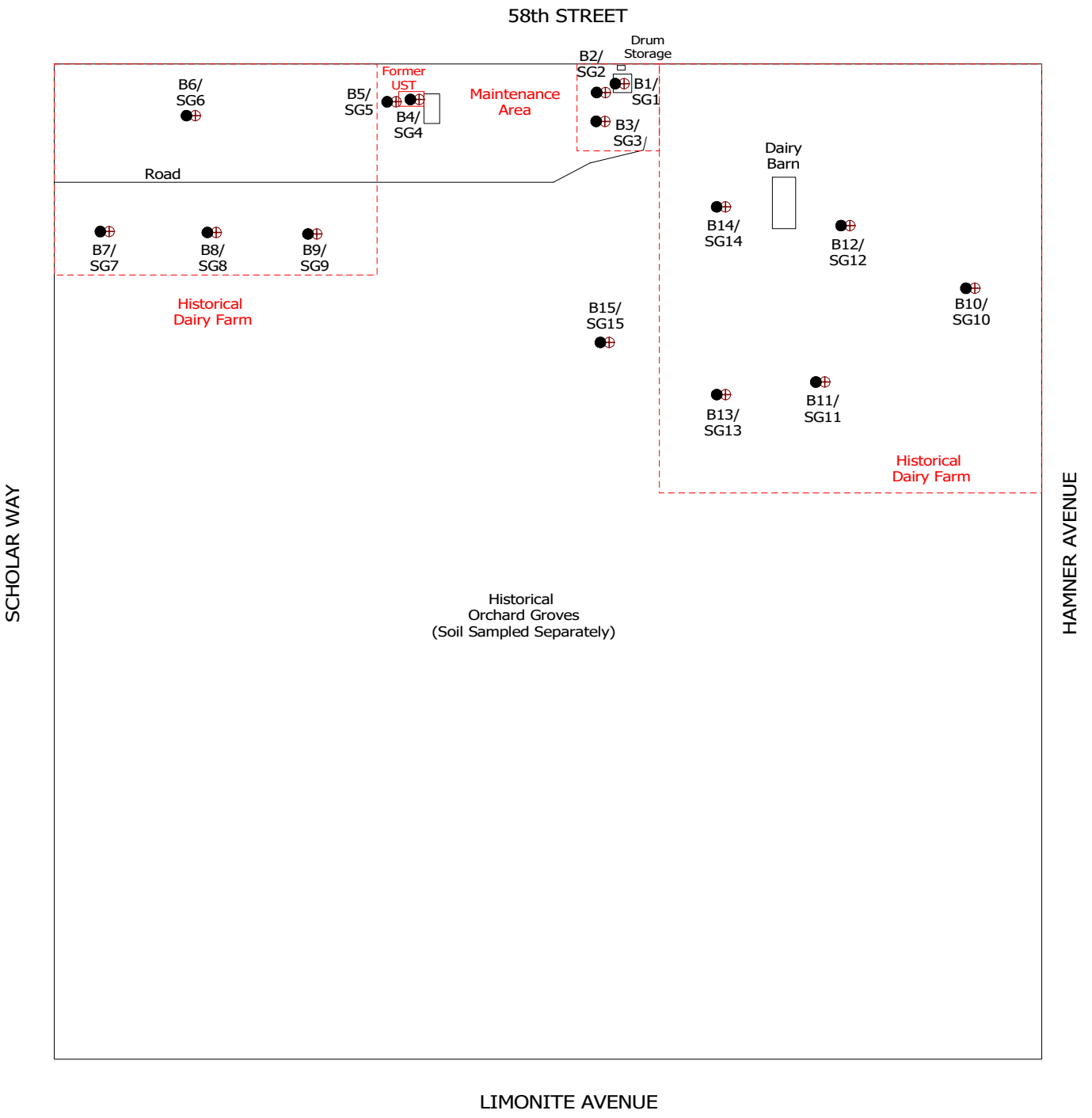


SITE

FIGURE 1

SITE VICINITY MAP
LEAL RANCH
12741-12745 Limonite Avenue
and 12740 58th Street
Eastvale, California

HILLMANN
CONSULTING



LEGEND

- Soil Borings
- Soil Gas Probes

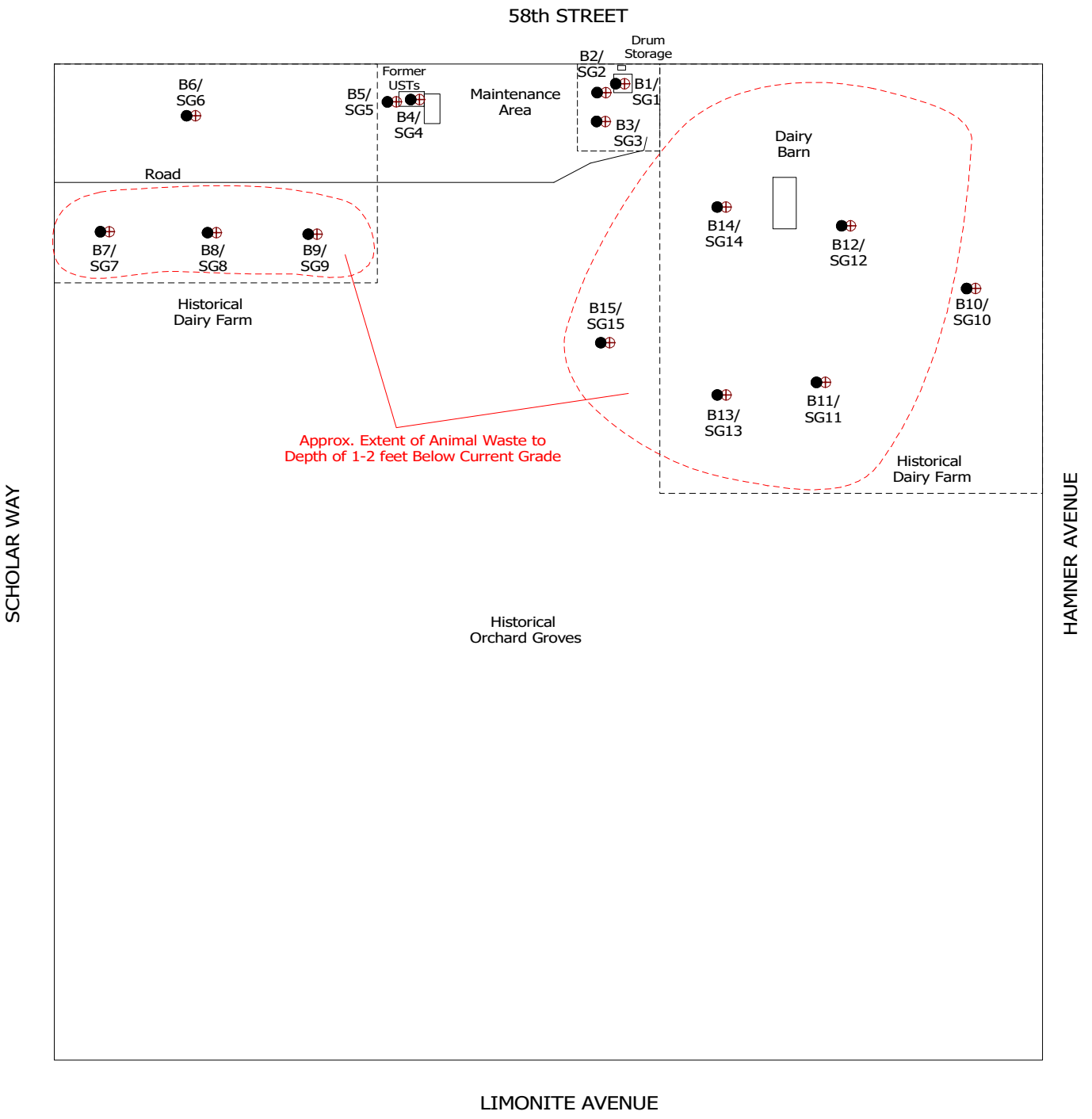
FIGURE 2
GENERAL SITE PLAN
LEAL RANCH
12741-12745 Limonite Avenue
and 12740 58th Street
Eastvale, California

HILLMANN CONSULTING

N

APPROXIMATE SCALE IN FEET

0 400 800



LEGEND

- Soil Borings
- Soil Gas Probes

FIGURE 3
DISTRIBUTION OF ANIMAL WASTE
LEAL RANCH
12741-12745 Limonite Avenue
and 12740 58th Street
Eastvale, California

HILLMANN CONSULTING

N

APPROXIMATE SCALE IN FEET

0 400 800

APPENDIX A
Site Photos



SG1



SG2



SG4



SG6



SG7



SG8



SG10



SG11



SG12



SG13



SG14



SG15

APPENDIX B
Laboratory Reports

A & R Laboratories, Inc.

1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 07/21/2021 9:46:30
Laboratory Job No. (Certificate of Analysis No.)	2107-00086
Project Name / No.	FORMER DAIRY
Dates Sampled (from/to)	07/12/21 To 07/12/21
Dates Received (from/to)	07/12/21 To 07/12/21
Dates Reported (from/to)	07/21/21 To 7/21/2021
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Inorganic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

None

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CERTIFICATE OF ANALYSIS

2107-00086

HILLMANN CONSULTING
DAN LOUKS
1745 W.ORANGEWOOD AVE
ORANGE, CA

Date Reported	07/21/21
Date Received	07/12/21
Invoice No.	92375
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DAIRY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 **HB1-2**					Date & Time Sampled:		07/12/21 @ 12:20	
Sample Matrix: **Soil**								
[TPH Gasoline (C4-C12)]								
Closed System P&T TPHg Soil	Complete			EPA 5035	1.0		07/14/21	SR
C4-C12	<0.20		mg/Kg	LUFT GC/MS	1.0	0.20	07/14/21	SR
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		07/19/21	JEN
C13-C22	<10		mg/Kg	EPA 8015M	1.0	10	07/19/21	JEN
C23-C40	<20		mg/Kg	EPA 8015M	1.0	20	07/19/21	JEN
[Surrogate]								
o-Terphenyl (OTP)	50		%REC	EPA 8015M		50-150	07/19/21	JEN
Sample: 002 **HB2-2**					Date & Time Sampled:		07/12/21 @ 13:00	
Sample Matrix: **Soil**								
[TPH Gasoline (C4-C12)]								
Closed System P&T TPHg Soil	Complete			EPA 5035	1.0		07/14/21	SR
C4-C12	<0.20		mg/Kg	LUFT GC/MS	1.0	0.20	07/14/21	SR
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		07/19/21	JEN
C13-C22	<10		mg/Kg	EPA 8015M	1.0	10	07/19/21	JEN
C23-C40	<20		mg/Kg	EPA 8015M	1.0	20	07/19/21	JEN
[Surrogate]								
o-Terphenyl (OTP)	50		%REC	EPA 8015M		50-150	07/19/21	JEN
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		07/13/21	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Barium	**67.4**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Chromium	**18.4**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Cobalt	**5.64**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Copper	**9.15**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Lead	**2.48**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB

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USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

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CERTIFICATE OF ANALYSIS

2107-00086

HILLMANN CONSULTING
DAN LOUKS
1745 W.ORANGEWOOD AVE
ORANGE, CA

Date Reported	07/21/21
Date Received	07/12/21
Invoice No.	92375
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DAIRY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 **HB2-2**					Date & Time Sampled:		07/12/21 @	13:00
Sample Matrix: **Soil**								
.....continued								
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Nickel	**9.14**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Vanadium	**48.5**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Zinc	**28.9**		mg/Kg	EPA 6010B	1.0	5.00	07/13/21	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		07/13/21	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	07/13/21	KZ
Sample: 003 **HB3-2**					Date & Time Sampled:		07/12/21 @	13:50
Sample Matrix: **Soil**								
[TPH Gasoline (C4-C12)]								
Closed System P&T TPHg Soil	Complete			EPA 5035	1.0		07/14/21	SR
C4-C12	<0.20		mg/Kg	LUFT GC/MS	1.0	0.20	07/14/21	SR
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		07/19/21	JEN
C13-C22	<10		mg/Kg	EPA 8015M	1.0	10	07/19/21	JEN
C23-C40	<20		mg/Kg	EPA 8015M	1.0	20	07/19/21	JEN
[Surrogate]								
o-Terphenyl (OTP)	60		%REC	EPA 8015M		50-150	07/19/21	JEN
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		07/13/21	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Arsenic	**1.45**		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Barium	**88.0**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Chromium	**18.1**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Cobalt	**5.50**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB

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CERTIFICATE OF ANALYSIS

2107-00086

HILLMANN CONSULTING
DAN LOUKS
1745 W.ORANGEWOOD AVE
ORANGE, CA

Date Reported 07/21/21
Date Received 07/12/21
Invoice No. 92375
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 **HB3-2** Sample Matrix: **Soil**					Date & Time Sampled:		07/12/21 @	13:50
.....continued								
Copper	**9.08**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Lead	**2.84**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Nickel	**9.26**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	07/13/21	TLB
Vanadium	**50.9**		mg/Kg	EPA 6010B	1.0	0.500	07/13/21	TLB
Zinc	**31.0**		mg/Kg	EPA 6010B	1.0	5.00	07/13/21	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		07/13/21	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	07/13/21	KZ
Sample: 004 **HB4-13** Sample Matrix: **Soil**					Date & Time Sampled:		07/12/21 @	16:00
[TPH Gasoline (C4-C12)]								
Closed System P&T TPHg Soil	Complete			EPA 5035	1.0		07/14/21	SR
C4-C12	<0.20		mg/Kg	LUFT GC/MS	1.0	0.20	07/14/21	SR
[Extractable Hydrocarbons]								
Extraction	Complete			EPA 3550B	1.0		07/19/21	JEN
C13-C22	<10		mg/Kg	EPA 8015M	1.0	10	07/19/21	JEN
C23-C40	<20		mg/Kg	EPA 8015M	1.0	20	07/19/21	JEN
[Surrogate]								
o-Terphenyl (OTP)	50		%REC	EPA 8015M		50-150	07/19/21	JEN
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		07/14/21	SR
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	07/14/21	SR
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	07/14/21	SR
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR

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USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

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FDA#	2030513
LA City#	10261
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Project: FORMER DAIRY

Sample: 004 **HB4-13** Date & Time Sampled: 07/12/21 @ 16:00
Sample Matrix: **Soil**
.....continued

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	07/14/21	SR
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/14/21	SR
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/14/21	SR
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/14/21	SR
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	07/14/21	SR
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR

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Customer P.O.	

Project: FORMER DAIRY

Sample: 004 **HB4-13** Date & Time Sampled: 07/12/21 @ 16:00
Sample Matrix: **Soil**
.....continued

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/14/21	SR
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/14/21	SR
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR

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Customer P.O.	

Project: FORMER DAIRY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 **HB4-13**					Date & Time Sampled:		07/12/21 @	16:00
Sample Matrix: **Soil**								
.....continued								
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/14/21	SR
[VOC Surrogates]								
Dibromofluoromethane	115		%REC	EPA 8260B		70-130	07/14/21	SR
Toluene-D8	116		%REC	EPA 8260B		70-130	07/14/21	SR
Bromofluorobenzene	117		%REC	EPA 8260B		70-130	07/14/21	SR

Respectfully Submitted: Ken Zheng

Ken Zheng - Lab Director

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

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QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING
PACIFIC PALISADES, CA 90272

2107-00086

Date Reported	**07/21/2021**
Date Received	**07/12/2021**
Date Sampled	**07/12/2021**
Invoice No.	**92375**
Customer #	**G073**
Customer P.O.	

Project: FORMER DAIRY

Method # EPA 6010B
QC Reference # 97304 **Date Analyzed:** 7/13/2021 **Technician:** TLB
Samples 002 003

Results

	LCS %REC	LCS %DUP	LCS %RPD	SPIKE %REC	SPIKE %DUP	SPIKE %RPD
Antimony	101	100	0.6	85	86	1.1
Arsenic	100	101	0.5	79	80	0.8
Barium	97	99	1.6	92	96	0.7
Beryllium	98	100	1.7	94	95	0.8
Cadmium	100	99	0.5	74	75	0.9
Chromium	100	101	1.6	85	85	0.1
Cobalt	100	100	0.0	72	73	0.7
Copper	99	99	0.2	86	84	0.6
Lead	99	99	0.2	67	68	0.7
Molybdenum	100	100	0.3	82	83	0.7
Nickel	100	99	0.7	71	73	0.9
Selenium	99	99	0.8	69	69	0.1
Silver	98	97	0.2	85	85	0.4
Thallium	101	98	3.1	86	84	0.4
Vanadium	99	99	0.4	85	84	0.3
Zinc	100	99	0.3	74	76	0.7

Control Ranges

LCS %REC	LCS %RPD	SPIKE %RPD
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20

Method # EPA 7471A
QC Reference # 97316 **Date Analyzed:** 7/13/2021 **Technician:** KZ
Samples 002 003

Results

	LCS %REC	LCS %DUP	LCS %RPD	SPIKE %REC	SPIKE %DUP	SPIKE %RPD
Mercury	100	100	0	94	97	3

Control Ranges

LCS %REC	LCS %RPD	SPIKE %RPD
75 - 125	0 - 25	0 - 25

Method # EPA 8015M
QC Reference # 97368 **Date Analyzed:** 7/19/2021 **Technician:** JEN
Samples 001 002 003 004

Results

	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD
C13-C22	100	110	107	3

Control Ranges

LCS %REC	SPIKE %RPD
70 - 130	0 - 25

Method # EPA 8260B
QC Reference # 97344 **Date Analyzed:** 7/14/2021 **Technician:** SR
Samples 004

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HILLMANN CONSULTING

Date Reported 07/21/2021
Date Received 07/12/2021
Date Sampled 07/12/2021

Project: FORMER DAIRY

Method # EPA 8260B
QC Reference # 97344 **Date Analyzed:** 7/14/2021 **Technician:** SR
Samples 004

Results	LCS %REC	Control Ranges LCS %REC
1,1-Dichloroethene	70	50 - 150
Benzene	118	50 - 150
Chlorobenzene	130	50 - 150
Toluene	124	50 - 150
Trichloroethene	122	50 - 150

Method # LUFT GC/MS
QC Reference # 97345 **Date Analyzed:** 7/14/2021 **Technician:** SR
Samples 001 002 003 004

Results	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	LCS %RPD
C4-C12	93	93	0	70 - 130	0 - 25

No method blank results were above reporting limit

Respectfully Submitted: Ken Zheng

Ken Zheng - President

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CHAIN OF CUSTODY

A & R Work Order #: 21 07-0086

Page 1 of 1

Client Name: HILLMANN CONSULTING
E-mail: Dan@gsaengineering.net
Address: 1745 W. ORANGEWOOD AVE., STE 107, ANA
Report Attention: DAN LOVE
Phone #: (714) 226-3916
Fax: #
Sampled By:
Project No./ Name: FORMER DAIRY
Project Site: 12741 LIMONITE AVE., EASTVALE

☒ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested
☐ Rush 8 12 24 48 Hours
☒ Normal

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
1	HB1-2	7/12/21	12:20	SOIL	ICE	SS							X	•		☒ RUN PCB
2	HB2-2	↓	13:00	↓	↓	↓							☒	X		ON HOLD
3	HB3-2	↓	13:50	↓	↓	↓							☒	X		TPH o:j if
	HB4-5	↓	14:45	↓	↓	↓							[illegible]			TPH 7750 mg/kg
	HB4-10	↓	15:30	↓	↓	↓							↓			
4	HB4-13	↓	16:00	↓	↓	↓	X						X			

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	Hillmann	7/12/21	17:00	[signature]	A+R	7/12/21	1700
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

Sample Acceptance Checklist

CLIENT: Hillmann Consulting WORK ORDER NUMBER: 2107-86

Temperature:(Criteria:0.0°C-6.0°C)

Sample Temp.(w/CF) °C(w/CF) 5.0°c

☐ Sample(s) outside temprature criteria: PM contacted by :

☐ Sample(s) outside temprature criteria, but received on ice/chilled on same day of sampling.

☐ Sample(s) received at ambient temprature; placed on ice for transport by courier.

Ambient Temprature ☐ Air ☐ Filter

CUSTODY SEAL:

Cooler	☐	Present and Intact	☐	Present and Not Intact	X	Not Present
Sample(s)	☐	Present and Intact	☐	Present and Not Intact	X	Not Present

Sample Condition:	Yes	No	N/A
Was a COC received	X		
Were sample IDs present?	X		
Were sampling dates & times present?	X		
Was a relingquished signature present?	X		
Were the tests required clearly indicated?	X		
Were all samples sealed in plastic bags?			X
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were correct containers used for the tests required?	X		
Was a sufficient amount of samples sent for tests indicated?	X		
Was there headspace in VOA vials?			X
Were the containers labeled with correct preservatives?			X

Explanations/Comments:

Notification:

For discrepancies, how was the Project Manager notified? Verbal

Verbal: PM Initials: _____ Data/Time: _____

Email: Send to: _____ Data/Time: _____

Project Manager's response:

Completed By: [signature] Date: 7/12/21

A R Laboratories
1650 S. Grove Ave., Suite C, Ontario, CA 91761
PH: 951-779-0310 Fax: 951-779-0344
Email: office@arlaboratories.com

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LA City#	10261
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CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 07/21/2021 9:47:07
Laboratory Job No. (Certificate of Analysis No.)	2107-00144
Project Name / No.	FARM LAND
Dates Sampled (from/to)	07/16/21 To 07/16/21
Dates Received (from/to)	07/16/21 To 07/16/21
Dates Reported (from/to)	07/21/21 To 7/21/2021
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

None

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USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

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CERTIFICATE OF ANALYSIS

2107-00144

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 **B5-5**					Date & Time Sampled:		07/16/21 @	12:00
Sample Matrix: **Soil**								
[TPH Gasoline (C4-C12)]								
Closed System P&T TPHg Soil	Complete			EPA 5035	1.0		07/19/21	JEN
C4-C12	<0.20		mg/Kg	LUFT GC/MS	1.0	0.20	07/19/21	JEN
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		07/19/21	JEN
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	07/19/21	JEN
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	07/19/21	JEN
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	07/19/21	JEN
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/19/21	JEN
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/19/21	JEN
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN

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CERTIFICATE OF ANALYSIS

2107-00144

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Sample: 001 **B5-5** Date & Time Sampled: 07/16/21 @ 12:00
Sample Matrix: **Soil**
.....continued

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	07/19/21	JEN
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN

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2107-00144

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 **B5-5**					Date & Time Sampled:		07/16/21 @	12:00
Sample Matrix: **Soil**								
.....continued								
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
[VOC Surrogates]								
Dibromofluoromethane	106		%REC	EPA 8260B		70-130	07/19/21	JEN
Toluene-D8	114		%REC	EPA 8260B		70-130	07/19/21	JEN
Bromofluorobenzene	112		%REC	EPA 8260B		70-130	07/19/21	JEN
Sample: 002 **B5-10**					Date & Time Sampled:		07/16/21 @	12:40
Sample Matrix: **Soil**								
[TPH Gasoline (C4-C12)]								
Closed System P&T TPHg Soil	Complete			EPA 5035	1.0		07/19/21	JEN
C4-C12	<0.20		mg/Kg	LUFT GC/MS	1.0	0.20	07/19/21	JEN
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		07/19/21	JEN
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	07/19/21	JEN
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	07/19/21	JEN
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN

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PACIFIC PALISADES, CA 90272

Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Sample: 002 **B5-10** Date & Time Sampled: 07/16/21 @ 12:40
Sample Matrix: **Soil**
.....continued

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	07/19/21	JEN
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/19/21	JEN
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/19/21	JEN
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	07/19/21	JEN
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN

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2107-00144

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Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Sample: 002 **B5-10** Date & Time Sampled: 07/16/21 @ 12:40
Sample Matrix: **Soil**
.....continued

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN

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CERTIFICATE OF ANALYSIS

2107-00144

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 **B5-10**					Date & Time Sampled:		07/16/21 @	12:40
Sample Matrix: **Soil**								
.....continued								
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
[VOC Surrogates]								
Dibromofluoromethane	120		%REC	EPA 8260B		70-130	07/19/21	JEN
Toluene-D8	114		%REC	EPA 8260B		70-130	07/19/21	JEN
Bromofluorobenzene	114		%REC	EPA 8260B		70-130	07/19/21	JEN
Sample: 003 **B5-14**					Date & Time Sampled:		07/16/21 @	13:30
Sample Matrix: **Soil**								
[TPH Gasoline (C4-C12)]								
Closed System P&T TPHg Soil	Complete			EPA 5035	1.0		07/19/21	JEN
C4-C12	<0.20		mg/Kg	LUFT GC/MS	1.0	0.20	07/19/21	JEN
[VOCs by GCMS]								
Closed System P&T VOC Soil	Complete			EPA 5035	1.0		07/19/21	JEN
Acetone	<0.10		mg/Kg	EPA 8260B	1.0	0.10	07/19/21	JEN
t-Amyl Methyl Ether (TAME)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Benzene	<0.0040		mg/Kg	EPA 8260B	1.0	0.0040	07/19/21	JEN
Bromobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromodichloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromoform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Bromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
t-Butanol (TBA)	<0.0625		mg/Kg	EPA 8260B	1.0	0.0625	07/19/21	JEN
2-Butanone (MEK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
n-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
sec-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
tert-Butylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Carbon Disulfide	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/19/21	JEN
Carbon Tetrachloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Chloroform	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN

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CERTIFICATE OF ANALYSIS

2107-00144

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Sample: 003 **B5-14** Date & Time Sampled: 07/16/21 @ 13:30
Sample Matrix: **Soil**
.....continued

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Chloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Chlorotoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Dibromochloromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dibromoethane (EDB)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dibromo-3-Chloropropane	<0.010		mg/Kg	EPA 8260B	1.0	0.010	07/19/21	JEN
Dibromomethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,4-Dichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Dichlorodifluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
cis-1,2-Dichloroethene	<0.0020		mg/Kg	EPA 8260B	1.0	0.0020	07/19/21	JEN
trans-1,2-Dichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2,2-Dichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
cis-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
trans-1,3-Dichloropropene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Diisopropyl Ether (DiPE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Ethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Hexachlorobutadiene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
2-Hexanone	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN
Isopropylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Isopropyltoluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Methylene Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
4-Methyl-2-Pentanone (MIBK)	<0.0313		mg/Kg	EPA 8260B	1.0	0.0313	07/19/21	JEN

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CERTIFICATE OF ANALYSIS

2107-00144

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	07/21/21
Date Received	07/16/21
Invoice No.	92383
Cust #	G073
Permit Number	
Customer P.O.	

Project: FARM LAND

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 **B5-14**					Date & Time Sampled:		07/16/21 @	13:30
Sample Matrix: **Soil**								
.....continued								
Methyl-t-butyl Ether (MtBE)	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Naphthalene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
n-Propylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Styrene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,1,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,2,2-Tetrachloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Tetrachloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Toluene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,3-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,4-Trichlorobenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,1-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,1,2-Trichloroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichloroethene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,3-Trichloropropane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichlorofluoromethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Trichlorotrifluoroethane	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,2,4-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
1,3,5-Trimethylbenzene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
Vinyl Chloride	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
m,p-Xylenes	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
o-Xylene	<0.0050		mg/Kg	EPA 8260B	1.0	0.0050	07/19/21	JEN
[VOC Surrogates]								
Dibromofluoromethane	118		%REC	EPA 8260B		70-130	07/19/21	JEN
Toluene-D8	116		%REC	EPA 8260B		70-130	07/19/21	JEN
Bromofluorobenzene	113		%REC	EPA 8260B		70-130	07/19/21	JEN

Respectfully Submitted: Ken Zheng

Ken Zheng - Lab Director

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QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

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QUALITY CONTROL DATA REPORT

2107-00144

GSA ENGINEERING
PACIFIC PALISADES, CA 90272

Date Reported	**07/21/2021**
Date Received	**07/16/2021**
Date Sampled	**07/16/2021**
Invoice No.	**92383**
Customer #	**G073**
Customer P.O.	

Project: FARM LAND

Method # EPA 8260B
QC Reference # 97450 **Date Analyzed:** 7/19/2021 **Technician:** JEN
Samples 001 002 003

Results	LCS %REC	Control Ranges LCS %REC
1,1-Dichloroethene	53	50 - 150
Benzene	94	50 - 150
Chlorobenzene	107	50 - 150
Toluene	101	50 - 150
Trichloroethene	104	50 - 150

Method # LUFT GC/MS
QC Reference # 97451 **Date Analyzed:** 7/19/2021 **Technician:** JEN
Samples 001 002 003

Results	LCS %REC	Control Ranges LCS %REC
C4-C12	95	70 - 130

No method blank results were above reporting limit

Respectfully Submitted: Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

ARL

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E-mail: office@arlaboratories.com

CHAIN OF CUSTODY

A & R Work Order #: 2017-144

Page 1 of 1

Client Name: HILLMAN CONSULTING
E-mail: Dan@gsaengineering.net
Address: 1745 ORANGEWOOD AVE #110 ORANGE
Report Attention: DAN L
Phone # 714 206-3916
Fax: #
Sampled By: NM
Project No./ Name: FARMLAND
Project Site: 12741 LIMONITE AVE EASTVALE

☒ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested
☐ Rush 8 12 24 48 Hours
☒ Normal

Analyses Requested

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	Remarks
1	B5-5	7-16-21	12:00	Soil	ICE	1	X		X							
2	B5-10	"	12:40	"	"	1	X		X							
3	B5-14	"	13:30	"	"	1	X		X							

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Nell Mullen		7-16-21	17:10			7/16	17:10
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SD=Solid Waste, SL=Sludge, SS=Soil/Sediment, AR=Air, PP=Pure Product

Preservative Code: IC=Ice, HC=HCl, HN=HNO_3, SH=NaOH, ST=$Na_2S_2O_3$, HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag, G=Glass Container, ST= Steel Tube, B= Brass Tube, P=Plastic Bottle, V=VOA Vial, E= EnCore

ARL

Sample Acceptance Checklist

CLIENT: Hillmann Consulting WORK ORDER NUMBER: 2107-144

Temperature:(Criteria:0.0°C-6.0°C)

Sample Temp.(w/CF) °C(w/CF) 3.1°c

☐ Sample(s) outside temprature criteria: PM contacted by :

☐ Sample(s) outside temprature criteria, but received on ice/chilled on same day of sampling.

☐ Sample(s) received at ambient temprature; placed on ice for transport by courier.

Ambient Temprature ☐ Air ☐ Filter

CUSTODY SEAL:

Cooler	☐	Present and Intact	☐	Present and Not Intact	☒	Not Present
Sample(s)	☐	Present and Intact	☐	Present and Not Intact	☒	Not Present

Sample Condition:	Yes	No	N/A
Was a COC received	X		
Were sample IDs present?	X		
Were sampling dates & times present?	X		
Was a relingquished signature present?	X		
Were the tests required clearly indicated?	X		
Were all samples sealed in plastic bags?			X
Did all bottle labels agree with COC? (ID, dates and times)	X		
Were correct containers used for the tests required?	X		
Was a sufficient amount of samples sent for tests indicated?	X		
Was there headspace in VOA vials?			X
Were the containers labeled with correct preservatives?			X

Explanations/Comments:

Notification:

For discrepancies, how was the Project Manager notified? Verbal

Verbal: PM Initials: _____ Data/Time: _____

Email: Send to: _____ Data/Time: _____

Project Manager's response:

Completed By: [signature] Date: 7/16/21

A R Laboratories
1650 S. Grove Ave., Suite C, Ontario, CA 91761
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FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

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CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 07/23/2021 10:21:54
Laboratory Job No. (Certificate of Analysis No.)	2107-00175
Project Name / No.	FARMLAND / 12741 LIMONITE, EASTVALE
Dates Sampled (from/to)	07/21/21 To 07/21/21
Dates Received (from/to)	07/21/21 To 07/21/21
Dates Reported (from/to)	07/23/21 To 7/23/2021
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Sample	Analyte	Result	Qual	Units	RL
SG4-13	1,2,4-Trimethylbenzene	**0.0049**		µg/L	0.0010	SG4-13	Benzene	**0.0027**		µg/L	0.0010
SG4-13	Ethylbenzene	**0.0069**		µg/L	0.0010	SG4-13	Styrene	**0.0042**		µg/L	0.0010
SG4-13	Tetrachloroethene	**0.030**		µg/L	0.0010	SG4-13	Toluene	**0.015**		µg/L	0.0010
SG4-13	m,p-Xylenes	**0.016**		µg/L	0.0010	SG4-13	o-Xylene	**0.0089**		µg/L	0.0010
SG5-14	1,2,4-Trimethylbenzene	**0.0030**		µg/L	0.0010	SG5-14	Benzene	**0.0043**		µg/L	0.0010
SG5-14	Ethylbenzene	**0.010**		µg/L	0.0010	SG5-14	Tetrachloroethene	**0.014**		µg/L	0.0010
SG5-14	Toluene	**0.060**		µg/L	0.0010	SG5-14	m,p-Xylenes	**0.024**		µg/L	0.0010
SG5-14	o-Xylene	**0.012**		µg/L	0.0010	SG11-5	Methane	**45800**		ppmv	15

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CERTIFICATE OF ANALYSIS

2107-00175

HILLMANN CONSULTING
BRANDON CLEMENTS
1745 W. ORANGEWOOD AVE
STE#110
ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Sample: 001 **SG1-5** Date & Time Sampled: 07/21/21 @ 13:00
Sample Matrix: **Soil Vapor**

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[VOCs by GCMS]										
Acetone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Benzene	<0.024		µg/L	EPA 8260B	1.0	0.0240	0.10	07/21/21	4:00	JEN
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.0250	0.050	07/21/21	4:00	JEN
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN

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CERTIFICATE OF ANALYSIS

2107-00175

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BRANDON CLEMENTS
1745 W. ORANGEWOOD AVE
STE#110
ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Sample: 001 **SG1-5** Date & Time Sampled: 07/21/21 @ 13:00
Sample Matrix: **Soil Vapor**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.1	07/21/21	4:00	JEN
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.0320	0.050	07/21/21	4:00	JEN
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN

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STE#110
ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 001 **SG1-5** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	13:00
.....continued										
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Trichlorotrifluoroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Vinyl Chloride	<0.008		µg/L	EPA 8260B	1.0	0.0080	0.050	07/21/21	4:00	JEN
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.1000	0.20	07/21/21	4:00	JEN
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
[VOC Surrogates]										
Dibromofluoromethane	124		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Toluene-D8	113		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Bromofluorobenzene	112		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Sample: 002 **SG2-5** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	13:10
[VOCs by GCMS]										
Acetone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Benzene	<0.024		µg/L	EPA 8260B	1.0	0.0240	0.10	07/21/21	4:00	JEN
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN

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Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Sample: 002 **SG2-5** Date & Time Sampled: 07/21/21 @ 13:10
Sample Matrix: **Soil Vapor**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.0250	0.050	07/21/21	4:00	JEN
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN

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A & R Laboratories, Inc.

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FDA#	2030513
LA City#	10261
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	2790
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CERTIFICATE OF ANALYSIS

2107-00175

HILLMANN CONSULTING
BRANDON CLEMENTS
1745 W. ORANGEWOOD AVE
STE#110
ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Sample: 002 **SG2-5** Date & Time Sampled: 07/21/21 @ 13:10
Sample Matrix: **Soil Vapor**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.1	07/21/21	4:00	JEN
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.0320	0.050	07/21/21	4:00	JEN
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Trichlorotrifluoroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Vinyl Chloride	<0.008		µg/L	EPA 8260B	1.0	0.0080	0.050	07/21/21	4:00	JEN
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.1000	0.20	07/21/21	4:00	JEN
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
[VOC Surrogates]										
Dibromofluoromethane	121		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Toluene-D8	112		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN

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CERTIFICATE OF ANALYSIS

2107-00175

HILLMANN CONSULTING
BRANDON CLEMENTS
1745 W. ORANGEWOOD AVE
STE#110
ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 002 **SG2-5** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	13:10
.....continued										
Bromofluorobenzene	115		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Sample: 003 **SG3-5** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	13:20
[VOCs by GCMS]										
Acetone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
t-Amyl Methyl Ether (TAME)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Benzene	<0.024		µg/L	EPA 8260B	1.0	0.0240	0.10	07/21/21	4:00	JEN
Bromobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromodichloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromoform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Bromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
t-Butanol (TBA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
2-Butanone (MEK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
n-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
sec-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
tert-Butylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Carbon Disulfide	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Carbon Tetrachloride	<0.025		µg/L	EPA 8260B	1.0	0.0250	0.050	07/21/21	4:00	JEN
Chlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloroform	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Chloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
4-Chlorotoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Dibromochloromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dibromoethane (EDB)	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
1,2-Dibromo-3-Chloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
Dibromomethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN

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CERTIFICATE OF ANALYSIS

2107-00175

HILLMANN CONSULTING
BRANDON CLEMENTS
1745 W. ORANGEWOOD AVE
STE#110
ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Sample: 003 **SG3-5** Date & Time Sampled: 07/21/21 @ 13:20
Sample Matrix: **Soil Vapor**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,3-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,4-Dichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Dichlorodifluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
cis-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
trans-1,2-Dichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2,2-Dichloropropane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
cis-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
trans-1,3-Dichloropropene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Diisopropyl Ether (DiPE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Ethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Hexachlorobutadiene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
2-Hexanone	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Isopropylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
4-Isopropyltoluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Methylene Chloride	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.1	07/21/21	4:00	JEN
4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Naphthalene	<0.032		µg/L	EPA 8260B	1.0	0.0320	0.050	07/21/21	4:00	JEN
n-Propylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Styrene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,1,2-Tetrachloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,2,2-Tetrachloroethane	<0.05		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Tetrachloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Toluene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN

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BRANDON CLEMENTS
1745 W. ORANGEWOOD AVE
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ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 003 **SG3-5** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	13:20
.....continued										
1,2,3-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,4-Trichlorobenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,1-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,1,2-Trichloroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Trichloroethene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,3-Trichloropropane	<0.020		µg/L	EPA 8260B	1.0	0.0200	0.10	07/21/21	4:00	JEN
Trichlorofluoromethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Trichlorotrifluoroethane	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,2,4-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
1,3,5-Trimethylbenzene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
Vinyl Chloride	<0.008		µg/L	EPA 8260B	1.0	0.0080	0.050	07/21/21	4:00	JEN
m,p-Xylenes	<0.10		µg/L	EPA 8260B	1.0	0.1000	0.20	07/21/21	4:00	JEN
o-Xylene	<0.050		µg/L	EPA 8260B	1.0	0.0500	0.10	07/21/21	4:00	JEN
[VOC Vapor Sampling Tracer]										
Isopropanol (IPA)	<0.50		µg/L	EPA 8260B	1.0	0.5000	1.0	07/21/21	4:00	JEN
[VOC Surrogates]										
Dibromofluoromethane	124		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Toluene-D8	113		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Bromofluorobenzene	115		%REC	EPA 8260B			70-130	07/21/21	4:00	JEN
Sample: 004 **SG4-13** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	13:45
[TPH Gasoline by GCMS]										
C4-C12	<5		µg/L	LUFT GCMS	1.0	5.0000	10	07/21/21	7:00	KZ
[TOXIC ORGANICS IN AIR]										
1,1,1-Trichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1,2,2-Tetrachloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Trichlorotrifluoroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1,2-Trichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1-Dichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1-Dichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ

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FDA#	2030513
LA City#	10261
ELAP#'s	2789
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CERTIFICATE OF ANALYSIS

2107-00175

HILLMANN CONSULTING
BRANDON CLEMENTS
1745 W. ORANGEWOOD AVE
STE#110
ORANGE, CA 92868

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Sample: 004 **SG4-13** Date & Time Sampled: 07/21/21 @ 13:45
Sample Matrix: **Soil Vapor**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
1,2,4-Trichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2,4-Trimethylbenzene	**0.0049**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dibromoethane (EDB)	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dichloropropane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Dichlorotetrafluoroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,3,5-Trimethylbenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,3-Butadiene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,3-Dichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,4-Dichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,4-Dioxane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
2-Butanone (MEK)	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
2-Hexanone	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
Isopropanol (IPA)	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
4-Ethyltoluene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
4-Methyl-2-Pentanone (MIBK)	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
Acetone	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
Benzene	**0.0027**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Benzyl chloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromodichloromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromoform	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromomethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Carbon Disulfide	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Carbon Tetrachloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chloroform	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chloromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
cis-1,2-Dichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
cis-1,3-Dichloropropene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ

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Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 004 **SG4-13** Sample Matrix: **Soil Vapor**							Date & Time Sampled:	07/21/21	@	13:45
.....continued										
Cyclohexane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Dibromochloromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Dichlorodifluoromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Ethyl acetate	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Ethylbenzene	**0.0069**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Heptane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Hexachlorobutadiene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Hexane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
m,p-Xylenes	**0.016**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Methyl-t-butyl Ether (MtBE)	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Methylene Chloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
o-Xylene	**0.0089**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Propylene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Styrene	**0.0042**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Tetrachloroethene	**0.030**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Tetrahydrofuran	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Toluene	**0.015**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
trans-1,2-Dichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
trans-1,3-Dichloropropene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Trichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Trichlorofluoromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Vinyl acetate	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Vinyl Chloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromofluorobenzene	104		%REC	EPA TO-15			70-130	07/21/21	7:00	KZ
Toluene-D8	110		%REC	EPA TO-15			70-130	07/21/21	7:00	KZ
Dibromofluoromethane	130		%REC	EPA TO-15			70-130	07/21/21	7:00	KZ
Sample: 005 **SG5-14** Sample Matrix: **Soil Vapor**							Date & Time Sampled:	07/21/21	@	14:00
[TPH Gasoline by GCMS]										
C4-C12	<5		µg/L	LUFT GCMS	1.0	5.0000	10	07/21/21	7:00	KZ

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ORANGE, CA 92868

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Date Reported 07/23/21
Date Received 07/21/21
Invoice No. 92403
Cust # G073
Permit Number
Customer P.O.

Sample: 005 **SG5-14** Date & Time Sampled: 07/21/21 @ 14:00
Sample Matrix: **Soil Vapor**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
[TOXIC ORGANICS IN AIR]										
1,1,1-Trichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1,2,2-Tetrachloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Trichlorotrifluoroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1,2-Trichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1-Dichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,1-Dichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2,4-Trichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2,4-Trimethylbenzene	**0.0030**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dibromoethane (EDB)	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dichloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,2-Dichloropropane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Dichlorotetrafluoroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,3,5-Trimethylbenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,3-Butadiene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,3-Dichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,4-Dichlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
1,4-Dioxane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
2-Butanone (MEK)	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
2-Hexanone	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
Isopropanol (IPA)	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
4-Ethyltoluene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
4-Methyl-2-Pentanone (MIBK)	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
Acetone	<0.0050		µg/L	EPA TO-15	0.2	0.0050	0.010	07/21/21	7:00	KZ
Benzene	**0.0043**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Benzyl chloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromodichloromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromoform	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromomethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Carbon Disulfide	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ

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Date Reported	07/23/21
Date Received	07/21/21
Invoice No.	92403
Cust #	G073
Permit Number	
Customer P.O.	

Sample: 005 **SG5-14** Date & Time Sampled: 07/21/21 @ 14:00
Sample Matrix: **Soil Vapor**
.....continued

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Carbon Tetrachloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chlorobenzene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chloroethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chloroform	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Chloromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
cis-1,2-Dichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
cis-1,3-Dichloropropene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Cyclohexane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Dibromochloromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Dichlorodifluoromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Ethyl acetate	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Ethylbenzene	**0.010**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Heptane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Hexachlorobutadiene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Hexane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
m,p-Xylenes	**0.024**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Methyl-t-butyl Ether (MtBE)	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Methylene Chloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
o-Xylene	**0.012**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Propylene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Styrene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Tetrachloroethene	**0.014**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Tetrahydrofuran	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Toluene	**0.060**		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
trans-1,2-Dichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
trans-1,3-Dichloropropene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Trichloroethene	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Trichlorofluoromethane	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Vinyl acetate	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Vinyl Chloride	<0.0005		µg/L	EPA TO-15	0.2	0.0005	0.0010	07/21/21	7:00	KZ
Bromofluorobenzene	103		%REC	EPA TO-15			70-130	07/21/21	7:00	KZ

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Invoice No.	92403
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Permit Number	
Customer P.O.	

Analysis	Result	Qual	Units	Method	DF	MDL	RL	Date	Time	Tech
Sample: 005 **SG5-14** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	14:00
.....continued										
Toluene-D8	112		%REC	EPA TO-15			70-130	07/21/21	7:00	KZ
Dibromofluoromethane	130		%REC	EPA TO-15			70-130	07/21/21	7:00	KZ
Sample: 006 **SG11-5** Sample Matrix: **Soil Vapor**						Date & Time Sampled:		07/21/21	@	15:30
Methane	**45800**		ppmv	EPA 8015M	1.0	10.0000	15	07/21/21	9:04	KZ

Respectfully Submitted: Ken Zheng

Ken Zheng - President

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, wholly or in part, for advertising or other purposes without approval from the laboratory.
USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

A & R Laboratories, Inc.

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951-779-0310 FAX 951-779-0344
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FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING
ORANGE, CA 92868

2107-00175

Date Reported	**07/23/2021**
Date Received	**07/21/2021**
Date Sampled	**07/21/2021**
Invoice No.	**92403**
Customer #	**G073**
Customer P.O.	

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Method # EPA 8015M
QC Reference # 97480 **Date Analyzed:** 7/21/2021 **Technician:** KZ
Samples 006

Results	LCS %REC	LCS %DUP	LCS %RPD	Control Ranges LCS %REC	Control Ranges LCS %RPD
Methane	90	75	16	70 - 130	0 - 25

Method # EPA 8260B
QC Reference # 97486 **Date Analyzed:** 7/21/2021 **Technician:** JEN
Samples 001 002 003

Results	LCS %REC	Control Ranges LCS %REC
1,1-Dichloroethene	70	70 - 130
Benzene	117	70 - 130
Chlorobenzene	130	70 - 130
Toluene	128	70 - 130
Trichloroethene	126	70 - 130

Method # EPA TO-15
QC Reference # 97487 **Date Analyzed:** 7/21/2021 **Technician:** KZ
Samples 004 005

Results	LCS %REC	Control Ranges LCS %REC
1,1-Dichloroethene	70	70 - 130
Benzene	79	70 - 130
Chlorobenzene	130	70 - 130
Toluene	90	70 - 130
Trichloroethene	121	70 - 130

Method # LUFT GCMS
QC Reference # 97489 **Date Analyzed:** 7/21/2021 **Technician:** KZ
Samples 004 005

Results	LCS %REC	Control Ranges LCS %REC
C4-C12	90	70 - 130

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QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING

2107-00175

Date Reported 07/23/2021
Date Received 07/21/2021
Date Sampled 07/21/2021

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Method blank results

Ref	Test Name	Result	Qualif	Units	MDL
97480	Methane	<10		ppmv	10
97486	Acetone	<0.50		µg/L	0.50
	t-Amyl Methyl Ether (TAME)	<0.050		µg/L	0.050
	Benzene	<0.024		µg/L	0.024
	Bromobenzene	<0.050		µg/L	0.050
	Bromochloromethane	<0.050		µg/L	0.050
	Bromodichloromethane	<0.050		µg/L	0.050
	Bromoform	<0.050		µg/L	0.050
	Bromomethane	<0.050		µg/L	0.050
	t-Butanol (TBA)	<0.50		µg/L	0.50
	2-Butanone (MEK)	<0.50		µg/L	0.50
	n-Butylbenzene	<0.050		µg/L	0.050
	sec-Butylbenzene	<0.050		µg/L	0.050
	tert-Butylbenzene	<0.050		µg/L	0.050
	Carbon Disulfide	<0.50		µg/L	0.50
	Carbon Tetrachloride	<0.025		µg/L	0.025
	Chlorobenzene	<0.050		µg/L	0.050
	Chloroethane	<0.050		µg/L	0.050
	Chloroform	<0.050		µg/L	0.050
	Chloromethane	<0.050		µg/L	0.050
	2-Chlorotoluene	<0.050		µg/L	0.050
	4-Chlorotoluene	<0.050		µg/L	0.050
	Dibromochloromethane	<0.050		µg/L	0.050
	1,2-Dibromoethane (EDB)	<0.020		µg/L	0.020
	1,2-Dibromo-3-Chloropropane	<0.020		µg/L	0.020
	Dibromomethane	<0.050		µg/L	0.050
	1,2-Dichlorobenzene	<0.050		µg/L	0.050
	1,3-Dichlorobenzene	<0.050		µg/L	0.050
	1,4-Dichlorobenzene	<0.050		µg/L	0.050
	Dichlorodifluoromethane	<0.050		µg/L	0.050
	1,1-Dichloroethane	<0.050		µg/L	0.050
	1,2-Dichloroethane	<0.050		µg/L	0.050
	1,1-Dichloroethene	<0.050		µg/L	0.050
	cis-1,2-Dichloroethene	<0.050		µg/L	0.050
	trans-1,2-Dichloroethene	<0.050		µg/L	0.050
	1,2-Dichloropropane	<0.050		µg/L	0.050
	1,3-Dichloropropane	<0.050		µg/L	0.050
	2,2-Dichloropropane	<0.050		µg/L	0.050
	1,1-Dichloropropene	<0.050		µg/L	0.050
	cis-1,3-Dichloropropene	<0.050		µg/L	0.050
	trans-1,3-Dichloropropene	<0.050		µg/L	0.050
	Diisopropyl Ether (DiPE)	<0.050		µg/L	0.050
	Ethylbenzene	<0.050		µg/L	0.050
	Ethyl-t-Butyl Ether (EtBE)	<0.050		µg/L	0.050
	Hexachlorobutadiene	<0.050		µg/L	0.050
	2-Hexanone	<0.50		µg/L	0.50
	Isopropylbenzene	<0.050		µg/L	0.050
	4-Isopropyltoluene	<0.050		µg/L	0.050
	Methylene Chloride	<0.05		µg/L	0.05
	4-Methyl-2-Pentanone (MIBK)	<0.50		µg/L	0.50
	Methyl-t-butyl Ether (MtBE)	<0.050		µg/L	0.050
	Naphthalene	<0.032		µg/L	0.032
	n-Propylbenzene	<0.050		µg/L	0.050
	Styrene	<0.050		µg/L	0.050
	1,1,1,2-Tetrachloroethane	<0.050		µg/L	0.050
	1,1,2,2-Tetrachloroethane	<0.05		µg/L	0.05
	Tetrachloroethene	<0.050		µg/L	0.050
	Toluene	<0.050		µg/L	0.050
	1,2,3-Trichlorobenzene	<0.050		µg/L	0.050
	1,2,4-Trichlorobenzene	<0.050		µg/L	0.050
	1,1,1-Trichloroethane	<0.050		µg/L	0.050
	1,1,2-Trichloroethane	<0.050		µg/L	0.050
	Trichloroethene	<0.050		µg/L	0.050
	1,2,3-Trichloropropane	<0.020		µg/L	0.020
	Trichlorofluoromethane	<0.050		µg/L	0.050
	Trichlorotrifluoroethane	<0.050		µg/L	0.050
	1,2,4-Trimethylbenzene	<0.050		µg/L	0.050
	1,3,5-Trimethylbenzene	<0.050		µg/L	0.050
	Vinyl Chloride	<0.008		µg/L	0.008
	m,p-Xylenes	<0.10		µg/L	0.10
	o-Xylene	<0.050		µg/L	0.050
	Isopropanol (IPA)	<0.50		µg/L	0.50
97487	1,1-Dichloroethene	<0.0005		µg/L	0.0005
	Benzene	<0.0005		µg/L	0.0005
	Chlorobenzene	<0.0005		µg/L	0.0005
	Toluene	<0.0005		µg/L	0.0005
	Trichloroethene	<0.0005		µg/L	0.0005
	Bromofluorobenzene			%REC	
97489	C4-C12	<5		µg/L	5

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QUALITY CONTROL DATA REPORT

2107-00175

HILLMANN CONSULTING

Date Reported 07/23/2021
Date Received 07/21/2021
Date Sampled 07/21/2021

Project: FARMLAND / 12741 LIMONITE, EASTVALE

Respectfully Submitted: Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

ARL

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CHAIN OF CUSTODY

A & R Work Order #: 2107-175

Page 1 of 1

RUSH

Client Name	HILLMAN CONSULTING
E-mail	DAN@GSAENGINEERING.NET
Address	1745 ORANGEWOOD AVE #110 ORANGE
Report Attention	BRANDON C
Phone # / Fax: #	714 206 3916
Sampled By	NM DL
Project No./ Name	FARMLAND
Project Site	12741 LIMONITE EASTVALE

☐ Chilled ☒ Intact ☐ Seal

Turn Around Time Requested

☒ Rush 8 12 24 48 Hours

☐ Normal

6 HOUR RUSH THANKS

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Sample Collection Time	Matrix Type	Sample Preserve	No., type* & size of container	EPA8260B (VOCs & Oxygenates)	EPA8260B(BTEX & Oxygenates)	LUFT / 8015 (Gasoline)	LUFT / 8015 (Diesel)	EPA8081A (Organochlorine Pesticides)	EPA 8082 (PCBs)	EPA 8015M (Carbon Chain C4-C40)	EPA 6010B/7000 (CAM 17 Metals)	Micro: Plate Cnt., Coliform, E-Coli	TPH (GRO) (6hr)	Methane (48hr)					Remarks
1	SG1-5	7.21.21	13:00	VAPOR		1	X															TPH GRO
2	SG2-5	"	13:10	"		1	X															TPH GRO
3	SG3-5	"	13:20	"		1	X															
4	SG4-13	"	13:45	"		1	~~X~~		X							X						POSSIBLE UST
5	SG5-14	"	14:00	"		1	~~X~~		X							X						POSSIBLE UST
6	SG11-5	"	15:30	"		1											X					* RUN
																		48 HR TAT				0.05 µg/L
																						Detection Limit

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]		7.21.21	15:45	[signature]	A&R	7.21.21	1545
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste; SL=Sludge; SS=Soil/Sediment; AR=Air; PP=Pure Product

Preservative Code: IC=Ice; HC=HCl; HN=HNO_3; SH=NaOH; ST=$Na_2S_2O_3$; HS=H_2SO_4

* Sample Container Types: T=Tedlar Air Bag; G=Glass Container; ST= Steel Tube; B= Brass Tube; P=Plastic Bottle; V=VOA Vial; E= EnCore

APPENDIX C
Drilling Logs

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB1

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 12, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-2			<1	HB1-2		SM	Silty SAND; brown, very fine to fine grained, loose, no odor.
2-4						ML	Clayey SILT; gray-brown, low plasticity, dry, no odor.
5						SM	Silty SAND; brown, very fine to medium grained, some gravel, loose, no odor.
							Install Probe SG1 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB2

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 12, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-2			<1	HB2-2		ML	Sandy SILT; brown, very fine to fine sand, loose, no odor.
2-4						ML	Clayey SILT; gray-brown, low plasticity, dry, no odor.
5						SM	Silty SAND; brown, very fine to medium grained, 10% fine gravel, no odor.
							Install Probe SG2 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB3

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 12, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-2			<1	HB3-2		SM	Silty SAND; brown, very fine to fine grained, loose, no odor.
2-4						ML	Clayey SILT; gray-brown, low plasticity, dry, no odor.
5						SW	SAND; light brown, very fine to coarse grained, poorly sorted, some silt, dry, no odor.
							Install Probe SG3 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB4

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 12, 2021
TOTAL DEPTH OF HOLE 13 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
5			<1	HB4-5		SM	Silty SAND; greenish gray, very fine to fine grained, dry, no odor.
10			<1	HB4-10		ML	Clayey Sandy SILT; greenish-gray, low plasticity, damp, no odor.
13			<1	HB4-13		SM	Silty SAND; greenish-gray, very fine to coarse grained, some clay, 20% fine gravel, no odor. Refusal at 13 feet. Install Probe SG4 at 13 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB5

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 16, 2021
TOTAL DEPTH OF HOLE 14 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
2						ML	Sandy SILT; light brown, very fine sand, loose, no odor.
5			<1	HB5-5		SM	Silty SAND; light gray, very fine to medium grained, dry, no odor.
10			<1	HB5-10		SW	SAND; light brown, very fine to coarse grained, poorly sorted, 10% fine gravel, no odor.
14			<1	HB5-14		SM	Silty SAND; light brown, very fine to coarse grained, 20% fine gravel, no odor. Refusal at 14 feet. Install Probe SG5 at 14 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB6

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 16, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0							No Surficial Animal Waste
0-5			<1			ML	Sandy Clayey SILT; brown, low plasticity, dry. Install Probe SG6 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB7

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 16, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-1							Surficial Animal Waste 0-1 feet
1-5			<1			SM	Silty SAND; greenish gray, very fine to fine grained, some gravel, dry. Install Probe SG7 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB8

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 16, 2021
TOTAL DEPTH OF HOLE 10 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-1							Surficial Animal Waste 0-1 feet
1-5			<1			SM	Silty SAND; greenish gray, very fine to fine grained, some gravel, dry.
5-10			<1			ML	Sandy SILT; gray, very fine sand, low plasticity, dry. Install Probe SG8 at 10 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB9

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 16, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-1							Surficial Animal Waste 0-1 feet
1-5			<1			ML	Sandy SILT; gray, very fine sand, low plasticity, dry. Install Probe SG9 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB10

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 19, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0							No Surficial Animal Waste
0-2						SM	Silty SAND; brown, very fine to fine grained, 10% fine gravel, dry.
2-5			<1			ML	Clayey SILT; gray, low plasticity, dense, dry, no odor.
							Install Probe SG10 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB11

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 19, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-1.5							Surficial Animal Waste 0-1.5 feet
2						SM	Silty SAND; greenish gray, very fine grained, loose.
2-4						SW	Gravelly SAND; greenish gray, very fine to coarse grained, 10% fine gravel, dry.
5			<1			ML	Clayey SILT; gray, low plasticity, dense, dry, no odor.
							Install Probe SG11 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB12

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 19, 2021
TOTAL DEPTH OF HOLE 10 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-1.5							Surficial Animal Waste 0-1.5 feet
2						ML	Clayey SILT; dark greenish gray, low plasticity, soft, slightly moist.
2-10			<1			SM	Silty SAND; greenish gray, very fine sand, some clay, damp, no odor.
							Install Probe SG12 at 10 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB13

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 19, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-1							Surficial Animal Waste 0-1 feet
1-5						ML	Clayey SILT; greenish gray, low plasticity, hard, dense, no odor. Install Probe SG13 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB14

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 19, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-2							Surficial Animal Waste 0-2 feet
2-4						ML	Clayey SILT; greenish gray, low plasticity, hard, dense, no odor.
1-5						SW	SAND; greenish gray, very fine to fine grained, poorly sorted, 10% fine gravel, dry, no odor.
							Install Probe SG14 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

HILLMANN CONSULTING

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER HB15

PROJECT Leal Ranch
OWNER
LOCATION Limonite Avenue-58th St, Eastvale, CA
PROJECT NUMBER
DATE DRILLED July 19, 2021
TOTAL DEPTH OF HOLE 5 Feet
SURFACE ELEVATION
DEPTH TO WATER
SCREEN: DIA. **LENGTH** **SLOT SIZE**
CASING: DIA. **LENGTH** **TYPE**
DRILLING COMPANY Hillmann
DRILL METHOD Hand Auger
DRILLER Neil/Dan
LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW	(USCS)	
0-1							Surficial Animal Waste 0-1 feet
1-5						ML	Sandy SILT; brown, low plasticity, very fine sand, dry. Install Probe SG15 at 5 feet. Install sand pack. Seal with bentonite and neat cement to surface.

APPENDIX D
Soil Gas Monitoring Data

SOIL GAS MONITORING DATA FORM

PROJECT: Dairy Farm

LOCATION: Leal Ranch, Eastvale, California

DATE: July 21, 2021

	VAPOR PROBE INFO							
PROBE ID	**SG1**	**SG2**	**SG3**	**SG4**	**SG5**			
PROBE DEPTH (ft)	5	5	5	13	14			
	EXTRACTION DATA							
Applied Vacuum (in. WC)	<5	<5	<5	<5	<5			
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2			
Pore Volumes (borehole - sand pack)	3	3	3	3	3			
	MONITORING DATA							
OXYGEN (%)	17.9	19.5	19.0	18.8	17.8			
CARBON DIOXIDE (%)	3.6	1.65	2.88	2.83	4.68			
VOC by PID (ppm)	0.0	0.0	0.0	0.0	0.0			
Methane (% LEL)	0.0	0.0	0.0	0.0	0.0			

	VAPOR PROBE INFO							
PROBE ID								
PROBE DEPTH (ft)								
	EXTRACTION DATA							
Applied Vacuum (in. WC)								
FLOW (L/min)								
Pore Volumes (borehole - sand pack)								
	MONITORING DATA							
OXYGEN (%)								
CARBON DIOXIDE (%)								
VOC by PID (ppm)								

REMARKS:

SAMPLED BY: DL

SOIL GAS MONITORING DATA FORM

PROJECT: Dairy Farm

LOCATION: Leal Ranch, Eastvale, California

DATE: July 21, 2021

	VAPOR PROBE INFO							
PROBE ID	**SG6**	**SG7**	**SG8**	**SG9**	**SG10**	**SG11**	**SG12**	**SG13**
PROBE DEPTH (ft)	5	5	10	5	5	5	10	5
	EXTRACTION DATA							
Static Pressure (in. WC)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Pore Volumes (borehole - sand pack)	3	3	3	3	3	3	3	3
	MONITORING DATA							
OXYGEN (%)	20.1	6.8	3.7	9.2	20.2	3.0	4.3	11.5
CARBON DIOXIDE (%)	0.78	>5	>5	>5	1.21	>5	>5	>5
VOC by PID (ppm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Methane (%LEL)	0.0	0.0	0.0	0.0	0.0	>100	2.7	0.0

	VAPOR PROBE INFO							
PROBE ID	**SG14**	**SG15**						
PROBE DEPTH (ft)	5	5						
	EXTRACTION DATA							
Static Pressure (in. WC)	0.0	0.0						
FLOW (L/min)	0.2	0.2						
Pore Volumes (borehole - sand pack)	3	3						
	MONITORING DATA							
OXYGEN (%)	4.1	20.1						
CARBON DIOXIDE (%)	>5	0.89						
VOC by PID (ppm)	0.0	0.0						
Methane (%LEL)	39	0.0			--			

REMARKS:

SAMPLED BY: DL

Appendix G

PRELIMINARY HYDROLOGY

ANALYSIS

FOR

LEAL RANCH
(TENTATIVE MAP NO. 38290)

NORTHWEST OF LIMONITE AVENUE AND HAMNER AVENUE

CITY OF EASTVALE, CA

November 29, 2021

Prepared for:

New Home Company

15231 Laguna Canyon Road, Suite 250
Irvine, CA 92618
(949) 382-7800

Prepared by:

Hunsaker & Associate Irvine, Inc.

3 Hughes
Irvine, CA 92618
(949)583-1010

PRELIMINARY HYDROLOGY ANALYSIS

For

LEAL RANCH

(TENTATIVE MAP NO. 38290)

NORTHWEST OF LIMONITE AVENUE AND HAMNER AVENUE

CITY OF EASTVALE, CA

Prepared Date: 11/29/2021



PREPARED UNDER THE SUPERVISION OF:

11/29/2021

Jianhua "Gary" Guan, R.C.E. 64519, Exp. 06/30/23 Date:

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1 INTRODUCTION &DISCUSSION

- **A. PROJECT LOCATION**
- **B. STUDY PURPOSE**
- **C. METHODOLOGY**
- **D. DISCUSSION**
  - **Existing Condition**
  - **Proposed Condition**
  - **Hydrology Calculation Results**
- **E. UNIT HYDROGRAPH AND BASIN ROUTING**
- **F. CONCLUSION**
- **G. HYDROLOGIC DATA**

2 PROPOSED CONDITION HYDROLOGY CALCULATIONS

3 PROPOSED CONDITION HYDROLOGY MAP

4 UNIT HYDROGRAPH AND BASIN ROUTING CALCULATIONS

5 REFERENCES

- **AS-BUILT STORM DRAIN IMPROVEMENT PLANS ALONG LIMONITE AVENUE (MDP LINE "D-5", RCFCD DWG NO. 2-0-323)**
- **AS-BUILT STORM DRAIN IMPROVEMENT PLANS ALONG SCHOLAR WAY AND 58TH STREET (MDP LINE "D-3", RCFCD DWG NO. 2-0-308)**
- **AS-BUILT STORM DRAIN IMPROVEMENT PLANS ALONG HAMNER AVENUE (MDP LINE "E", RCFCD DWG NO. 2-0-310)**

SECTION 1
INTRODUCTION

A. PROJECT LOCATION

The project site for the proposed New Home Company development (Leal Ranch - Tentative Tract 38290) is currently a vacant and undeveloped land in the City of Eastvale, Riverside County. The site has a total area of approximately 159.2 acres. It is bounded to the north by 58th Street and existing residential homes beyond; to the east by Hamner Avenue and existing residential homes and a commercial shopping center (Eastvale Gateway); to the south by Limonite Avenue and existing residential homes and a commercial shopping center beyond; and to the west by Scholar Way and existing residential homes beyond; See Vicinity Map for details.

B. STUDY PURPOSE

The purpose of this study is to provide a hydrology analysis for the flow rates produced from the proposed site and assure the proposed flow rates would not exceed the existing storm drain design flow rates in the surrounding streets.

It also serves as the basis for analyzing and designing proposed and required storm drain drainage facilities. The study also demonstrates the proposed detention basin to reduce the increased storm runoffs due to the project development to the existing storm drain design flows. In addition, water quality treatment measures are proposed to ensure the developed flows to be treated prior to releasing to downstream watercourses.

C. METHODOLOGY

This hydrology study was prepared in accordance with the Riverside County Flood Control and Water Conservation District (RCFC&WCD) criteria and Hydrology Manual (Manual) dated April 1978. All pertinent information is included in this report.

The hydrologic calculations were prepared using the CivilD Rational Method computer program. The results of the hydrologic calculations were used to design the required storm drain facilities.

D. DISCUSSION

Existing Condition:

Current development in the project site is comprised of one of the city's last operating dairies, the Leal family home, and a horse farm.

The project site is part of the Eastvale Master Drainage Plan (MPD) improvements. There are existing storm drain systems in the surrounding streets – Limonite Avenue, Scholar Way, Hamner Avenue and 58th Street. The as-built storm drain plans can be

found in Reference Section 5. The storm drains in the surrounding streets discharge into Cleveland Avenue Detention Basin per Eastvale Master Drainage Plan.

The project site sheet flows from north to south and to the existing storm drains along Limonite Avenue. The project site is part of Limonite Avenue storm drain (Line D-5) per Eastvale Master Drainage Plan. There are existing storm drain stubs provided for the future developments

Proposed Condition:

The New Home Company is proposing to develop the project into 14 Planning Areas (Lots 1-14) and 19 lettered lots (A-S) to accommodate a mixed use development consisting of multi-family residential, general retail (shopping center), general offices, medical offices, hotels, civic center, parks and supporting infrastructure improvements.

Storm drain systems are provided to convey the project site runoffs to the existing storm drain systems. Majority of the project site flows will join the existing storm drain systems along Limonite Avenue, following the Eastvale Master Drainage Plan. There are catch basins provided for the street improvements along 58th Street, Hamner Avenue, Limonite Avenue and Scholar Way. The catch basin laterals will be proposed to join the existing storm drains along the streets.

In addition to on-site drainage improvements, the proposed project will provide 2 water quality basins and one combined water quality/detention Basin for water quality treatments and mitigation of flow increases due to the project developments.

Hydrology Calculation Results:

There are three Drainage Areas in the proposed condition hydrology study, only the 100-year storm hydrology analysis were performed.

Drainage Area “A” consists half street improvements along Hamner Avenue and the storm drain laterals are provided to join the existing 66” RCP per Eastvale Master Drainage Plan Line “E”. It is anticipated that the proposed catch basins and laterals would follow the Eastvale MPD and would not have adverse impacts to the existing storm drain systems.

Drainage Area “B” consists majority of the project developments and the proposed storm drains are proposed to join the existing storm drains along Limonite Avenue (MDP Line “D-5”). The total 100-year storm peak flow rate is about 316.4 cfs with 149.1 acres of tributary areas. The design flow rate per the as-built plans is about 160 cfs. The project flows are more than the design flows for the existing storm drain systems.

Drainage Area “C” consists half street improvements along 58th Street and Scholar Way and the storm drain laterals are provided to join the existing 60” RCP and 72” RCP per

Eastvale Master Drainage Plan Line "D-3". It is anticipated that the proposed catch basins and laterals would follow the Eastvale MPD and would not have adverse impacts to the existing storm drain systems.

E. UNIT HYDROGRAPH AND BASIN ROUTING ANALYSIS

Per the 100-year hydrology analysis, the proposed peak flow rates are above the existing storm drain design flow rates for Limonite Storm drain. The proposed 100-year flow rate is about 316.4 cfs and the design flow rate is about 160 cfs.

Detention Basin

The underground Detention Basin with the sizes of approximately 360-ft long, 120-ft wide and 6-ft deep was provided at the southwest corner of the project site to reduce the peak flow rates to the existing storm drain design flows. The water quality basin is proposed at the south of the proposed underground detention basin for water quality basin. Please note the proposed detention basin and water quality basin locations and sizes are preliminary and subject to change during the final design.

Unit hydrograph and basin routing analysis were performed for the 100-year storm. The detailed unit hydrograph and basin routing calculations including stage-storage-outflow information can be found in the Section 4 and the basin routing summary can be found in Table 1. As shown from Table 1, the proposed detention facilities can mitigate the flow increases and reduce the flows to 252.1 cfs (inflow to the basin) to 82.0 cfs (outflow from the basin) with a flow reduction of 170.1 cfs. The total 100-year peak flow rate for Limonite Avenue storm drain is about 151.9 cfs with the proposed detention basin; refer to Table 2 for detailed explanations.

Table 1 Basin Routing Summary for Tentative Map No. 38290
in City of Eastvale

Storm	Inflow	outflow	flow reduction
	(cfs)	(cfs)	(cfs)
100-year	252.1	82.0	170.1

Note: the inflow used in the basin routing analysis was from Node 71

Table 2 100-year Flow Summary for Limonite Avenue Storm Drain after the flow mitigation provided by detention basin

in City of Eastvale

Node	Flow without Mitigation	Flow reduction per Table 1	Flow after Mitigation	Ex. Storm Drain Design Flow Rate	Flow after Mitigation less than the ex. SD Design Flow?
	(cfs)	(cfs)	(cfs)	(cfs)	yes
75	322.0	170.1	151.9	160.0	

As shown from Table 2, the proposed flows (151.9 cfs) is less than the existing storm drain design flow rate (160 cfs) with the proposed basin and would have no adverse impacts to the existing downstream storm drain systems.

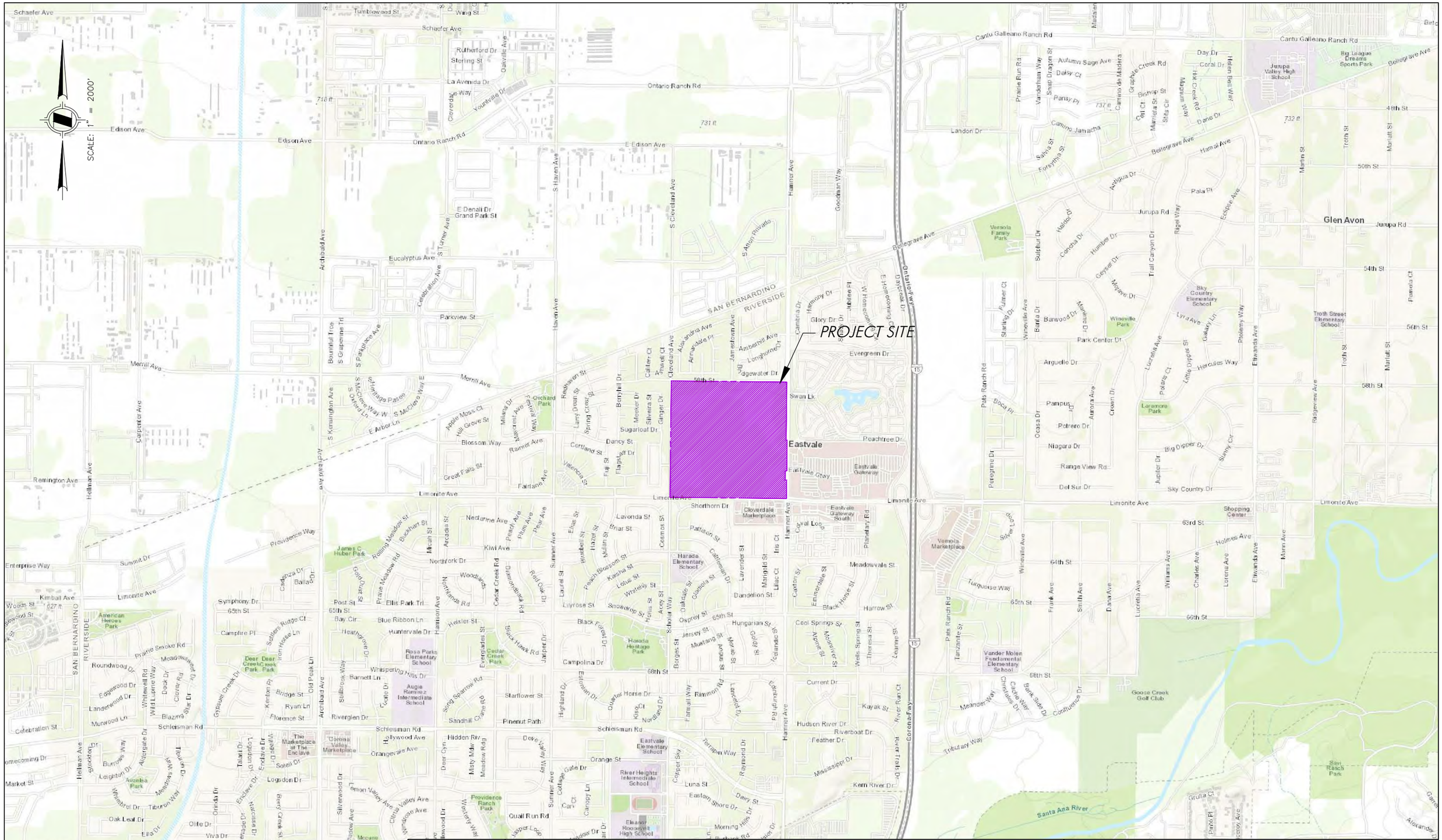
Water Quality:

A complete Water Quality Report is present under a separate cover.

F. CONCLUSION

The New Home Company is proposing to develop the project into 14 Planning Areas (Lots 1-14) and 19 lettered lots (A-S) to accommodate a mixed use development consisting of multi-family residential, general retail (shopping center), general offices, medical offices, hotels, civic center, parks and supporting infrastructure improvements. The proposed project would result in the storm runoff volume and peak flow rate increases due to the project developments at certain discharge points. The project proposes the water quality and detention basins to provide water quality treatments and flow increase mitigations. The flow rates after accounting for the proposed basins are below the design flow rates along Limonite Avenue. Catch basins and laterals are provided for the half street improvements along Scholar Way, 58th Street and Hamner Avenue.

As a result of the project development, it is our opinion that the project would follow Eastvale Master Drainage Plan and would have no adverse impacts to the downstream drainage systems.



DRAWN BY: TIH DATE: 10/18/2021 W.O.: 2749-44	PREPARED BY: **HUNSAKER & ASSOCIATES IRVINE, INC.** PLANNING ■ ENGINEERING ■ SURVEYING Three Hughes, Irvine, CA 92618 ■ PH: (949) 583-1010 ■ FX: (949) 583-0759	PREPARED FOR: THE NEW HOME COMPANY *15231 LAGUNA CANYON ROAD, SUITE 250* *IRVINE, CA 92618 (949) 382-7800*	*"LEAL RANCH" - TTM 38290* *NORTHWEST OF LIMONITE AVENUE* *& HAMNER AVENUE* *CITY OF EASTVALE, CALIFORNIA*	*VICINITY MAP*

DATE: Oct. 23, 2021 02:29:50 PM FILE: F:\0736\Planning\SY_WQ\WQMP\EXHIBITS\PWQMP_VIC LEAL RANCH.dwg

G. HYDROLOGIC DATA

LEAL RANCH
RAINFALL = 0.50

2 YEAR, 1 HOUR

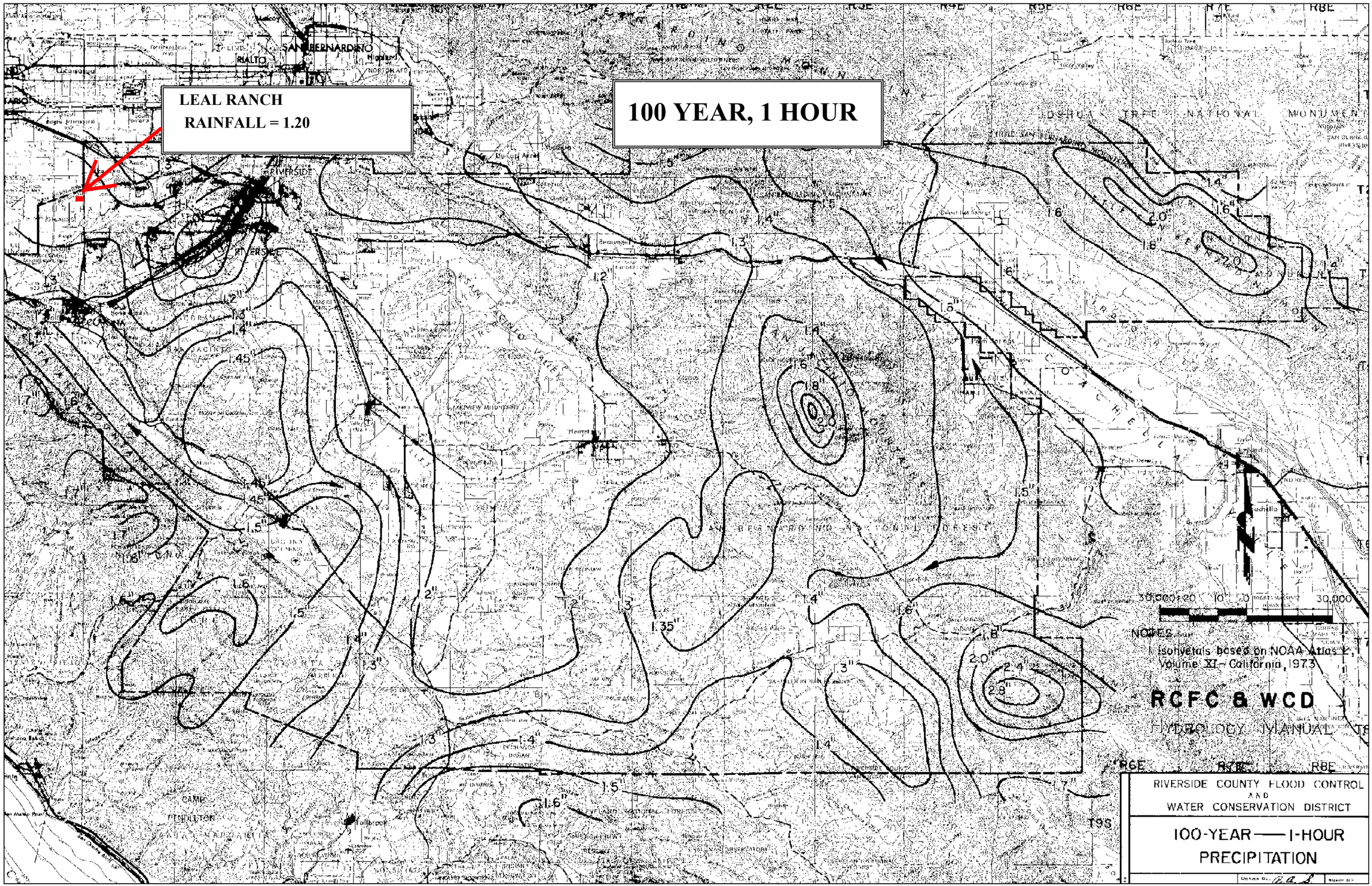
NOTES
1. Isohyetals based on NOAA Atlas 2, Volume XI – California, 1973

RCFC & WCD
HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

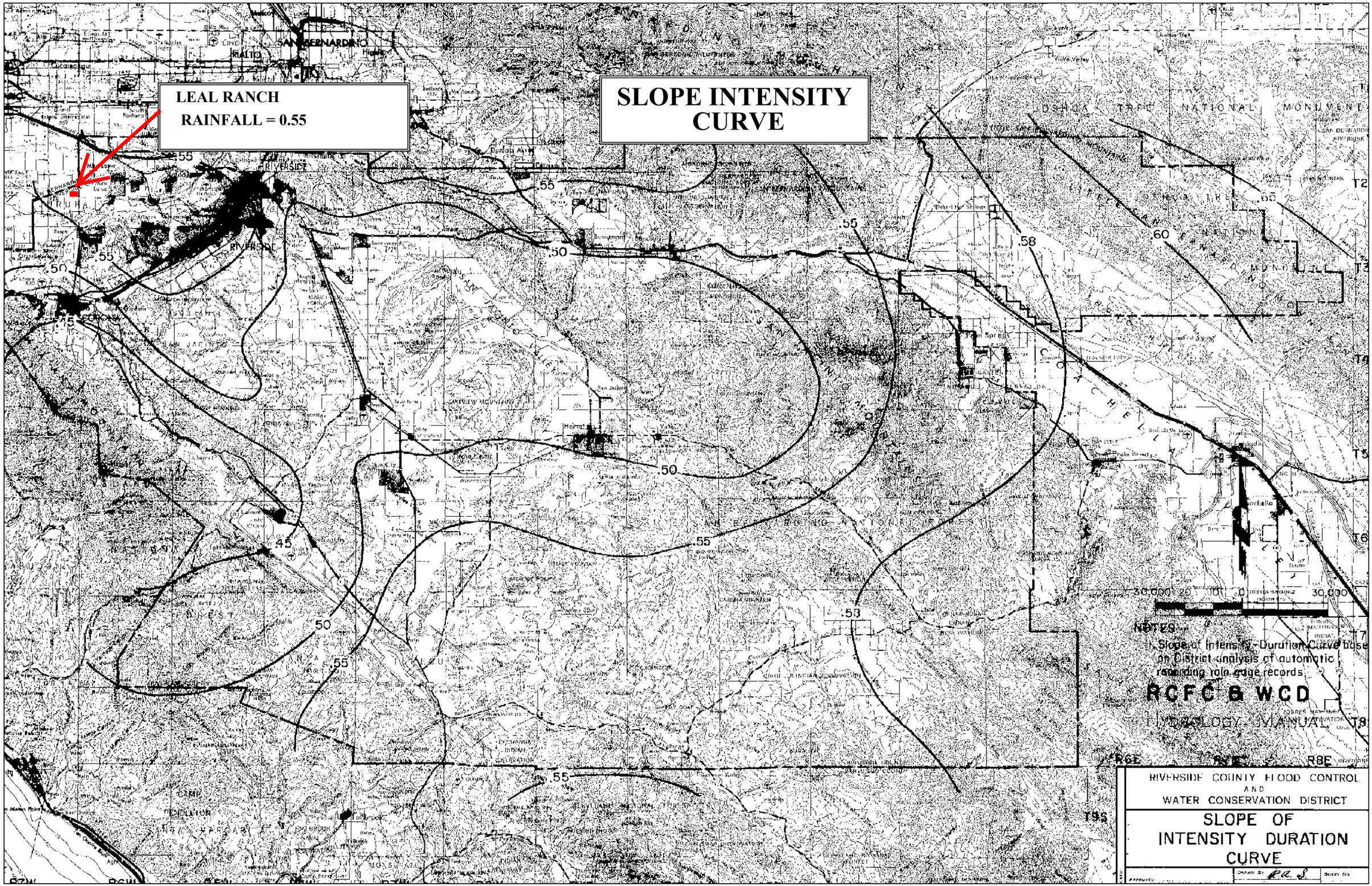
2-YEAR — 1-HOUR PRECIPITATION

PLATE D-4.3


LEAL RANCH
RAINFALL = 1.20
100 YEAR, 1 HOUR
SAN BERNARDINO
RIALTO
RIVERSIDE
JOSHUA TREE NATIONAL MONUMENT
SAN JACINTO VALLEY
SAN BERNARDINO NATIONAL FOREST
COACHELLA
CAMP PENDLETON
R4E
R5E
R6E
R7E
R8E
T9S
NOTES
Isohyetals based on NOAA Atlas 2, Volume XI - California, 1973
RCFC & WCD
HYDROLOGY MANUAL
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
100-YEAR — 1-HOUR PRECIPITATION

SLOPE INTENSITY CURVE

LEAL RANCH
RAINFALL = 0.55



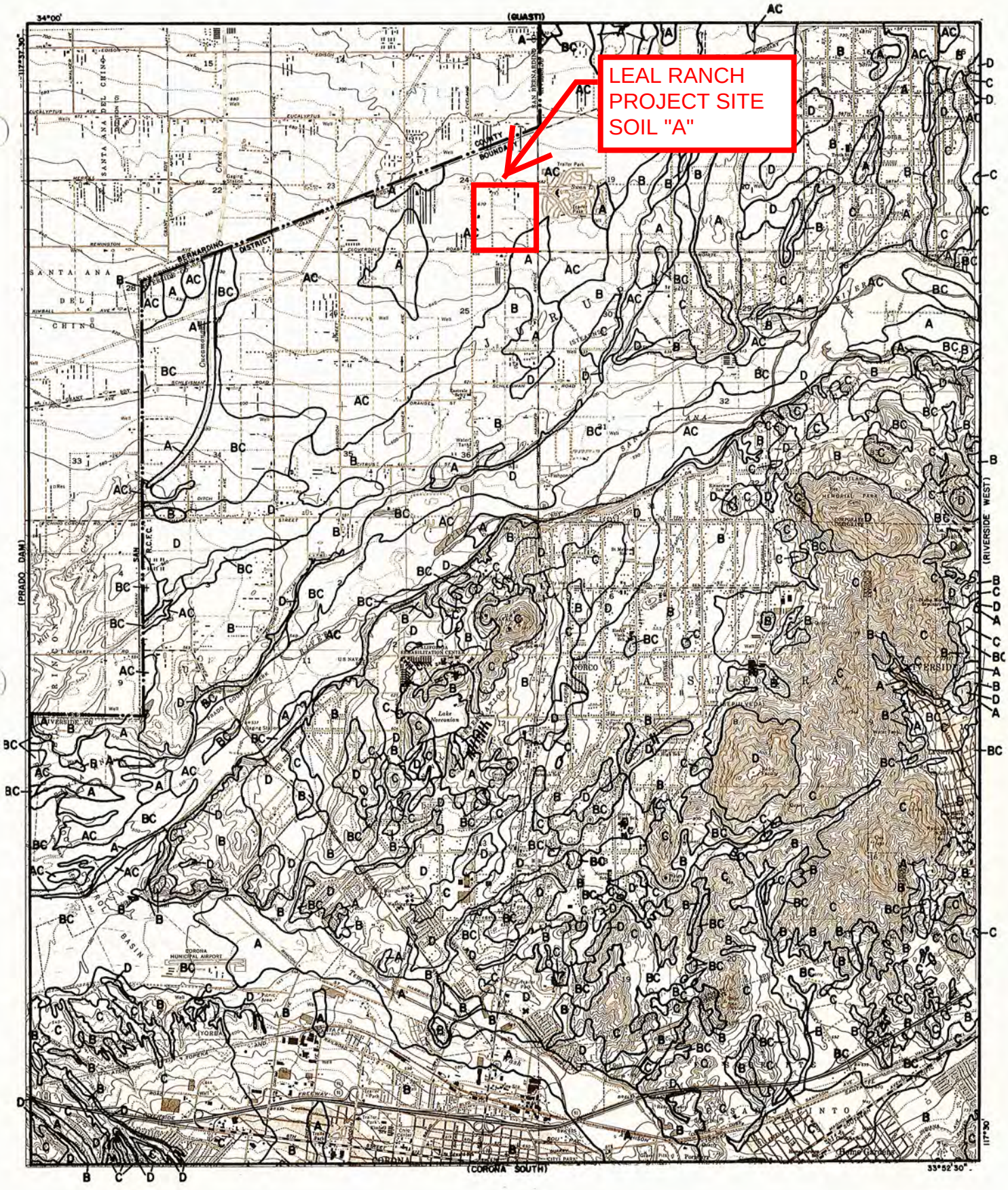
NOTES:
1. Slope of Intensity - Duration Curve based on District analysis of automatic recording rain gage records.

RCFC & WCD
HYDROLOGY MANUAL

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

SLOPE OF INTENSITY DURATION CURVE

Drawn By: E.A.S. Sheet No.



LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

HYDROLOGY MANUAL

N

0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR CORONA-NORTH

PLATE C-1.14

SECTION 2

PROPOSED CONDITION HYDROLOGY CALCULATIONS

```
            Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2014 Version 9.0
       Rational Hydrology Study        Date: 11/24/21  File:lealp.out
------------------------------------------------------------------------
TENTATIVE MAP NO. 38290 - LEAL Developments
CITY OF Eastvale
PROPOSED CONDITION
100-YEAR STORM
------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

------------------------------------------------------------------------


Program License Serial Number 6406

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 2

2 year, 1 hour precipitation =  0.500(In.)
100 year, 1 hour precipitation =  1.200(In.)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.200(In/Hr)
Slope of intensity duration curve = 0.5500




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        2.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   550.000(Ft.)
Top (of initial area) elevation =   684.000(Ft.)
Bottom (of initial area) elevation =   680.500(Ft.)
Difference in elevation =     3.500(Ft.)
Slope =    0.00636  s(percent)=       0.64
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.293 min.
Rainfall intensity =      3.164(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      2.442(CFS)
Total initial stream area =        0.900(Ac.)
Pervious area fraction = 0.100
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.000 to Point/Station        3.000
**** STREET FLOW TRAVEL TIME + SUBAREA FLOW ADDITION ****
______________________________________________________________________________
Top of street segment elevation =   680.500(Ft.)
End of street segment elevation =   677.000(Ft.)
Length of street segment  =   510.000(Ft.)
Height of curb above gutter flowline  =    6.0(In.)
Width of half street (curb to crown)  =  48.000(Ft.)
Distance from crown to crossfall grade break  =  38.000(Ft.)
Slope from gutter to grade break (v/hz) =   0.020
Slope from grade break to crown (v/hz)  =   0.020
Street flow is on [1] side(s) of the street
Distance from curb to property line  =  39.000(Ft.)
Slope from curb to property line (v/hz) =   0.020
Gutter width =   2.000(Ft.)
Gutter hike from flowline =  2.000(In.)
 Manning's N in gutter =  0.0150
 Manning's N from gutter to grade break =  0.0150
 Manning's N from grade break to crown =  0.0150
Estimated mean flow rate at midpoint of street =      3.832(CFS)
Depth of flow =   0.384(Ft.), Average velocity =   2.153(Ft/s)
Streetflow hydraulics at midpoint of street travel:
Halfstreet flow width =  12.859(Ft.)
Flow velocity =   2.15(Ft/s)
Travel time =    3.95 min.     TC =   14.24  min.
 Adding area flow to street
COMMERCIAL subarea type
Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Rainfall intensity =      2.647(In/Hr) for a   100.0 year storm
Subarea runoff =      2.711(CFS) for      1.200(Ac.)
Total runoff =      5.153(CFS)   Total area =       2.100(Ac.)
Street flow at end of street =      5.153(CFS)
Half street flow at end of street =      5.153(CFS)
Depth of flow =   0.417(Ft.), Average velocity =   2.310(Ft/s)
Flow width (from curb towards crown)=  14.503(Ft.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.000 to Point/Station        5.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =  1000.000(Ft.)
Top (of initial area) elevation =   677.000(Ft.)
Bottom (of initial area) elevation =   668.500(Ft.)
Difference in elevation =     8.500(Ft.)
Slope =    0.00850  s(percent)=       0.85
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.338 min.
Rainfall intensity =      2.864(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.855
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
```

```
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      5.144(CFS)
Total initial stream area =        2.100(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        6.000 to Point/Station        7.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   600.000(Ft.)
Top (of initial area) elevation =   670.000(Ft.)
Bottom (of initial area) elevation =   667.000(Ft.)
Difference in elevation =     3.000(Ft.)
Slope =    0.00500  s(percent)=       0.50
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.184 min.
Rainfall intensity =      3.023(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.856
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      3.366(CFS)
Total initial stream area =        1.300(Ac.)
Pervious area fraction = 0.100


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Process from Point/Station       10.000 to Point/Station       11.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   630.000(Ft.)
Top (of initial area) elevation =   674.000(Ft.)
Bottom (of initial area) elevation =   668.000(Ft.)
Difference in elevation =     6.000(Ft.)
Slope =    0.00952  s(percent)=       0.95
TC = k(0.323)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.794 min.
Rainfall intensity =      3.083(In/Hr) for a   100.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.814
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Initial subarea runoff =     16.055(CFS)
Total initial stream area =        6.400(Ac.)
Pervious area fraction = 0.200


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Process from Point/Station       11.000 to Point/Station       12.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   668.000(Ft.)
Downstream point/station elevation =   667.500(Ft.)
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Pipe length  =    65.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    16.055(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    16.055(CFS)
Normal flow depth in pipe =   16.38(In.)
Flow top width inside pipe =   22.34(In.)
Critical Depth =   17.34(In.)
Pipe flow velocity =      7.03(Ft/s)
Travel time through pipe =    0.15 min.
Time of concentration (TC) =    10.95 min.


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Process from Point/Station       12.000 to Point/Station       12.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.95 min.
Rainfall intensity =      3.059(In/Hr) for a   100.0 year storm
Subarea runoff =      2.096(CFS) for      0.800(Ac.)
Total runoff =     18.151(CFS)   Total area =       7.200(Ac.)


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Process from Point/Station       12.000 to Point/Station       12.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.95 min.
Rainfall intensity =      3.059(In/Hr) for a   100.0 year storm
Subarea runoff =      2.096(CFS) for      0.800(Ac.)
Total runoff =     20.248(CFS)   Total area =       8.000(Ac.)


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Process from Point/Station       12.000 to Point/Station       13.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   667.500(Ft.)
Downstream point/station elevation =   664.000(Ft.)
Pipe length  =   480.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    20.248(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    20.248(CFS)
Normal flow depth in pipe =   20.91(In.)
Flow top width inside pipe =   16.08(In.)
Critical Depth =   19.37(In.)
Pipe flow velocity =      6.97(Ft/s)
Travel time through pipe =    1.15 min.
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Time of concentration (TC) =    12.10 min.


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Process from Point/Station       13.000 to Point/Station       13.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.514
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  38.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Time of concentration =    12.10 min.
Rainfall intensity =      2.895(In/Hr) for a   100.0 year storm
Subarea runoff =      2.976(CFS) for      2.000(Ac.)
Total runoff =     23.224(CFS)   Total area =      10.000(Ac.)


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Process from Point/Station       13.000 to Point/Station       14.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   664.000(Ft.)
Downstream point/station elevation =   661.300(Ft.)
Pipe length  =   440.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    23.224(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    23.224(CFS)
Normal flow depth in pipe =   21.14(In.)
Flow top width inside pipe =   22.26(In.)
Critical Depth =   20.23(In.)
Pipe flow velocity =      6.95(Ft/s)
Travel time through pipe =    1.06 min.
Time of concentration (TC) =    13.15 min.


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Process from Point/Station       14.000 to Point/Station       14.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.15 min.
Rainfall intensity =      2.765(In/Hr) for a   100.0 year storm
Subarea runoff =     23.155(CFS) for      9.800(Ac.)
Total runoff =     46.378(CFS)   Total area =      19.800(Ac.)


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Process from Point/Station       14.000 to Point/Station       14.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
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Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.15 min.
Rainfall intensity =      2.765(In/Hr) for a   100.0 year storm
Subarea runoff =      8.270(CFS) for      3.500(Ac.)
Total runoff =     54.648(CFS)   Total area =      23.300(Ac.)


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Process from Point/Station       14.000 to Point/Station       15.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   661.300(Ft.)
Downstream point/station elevation =   661.100(Ft.)
Pipe length  =    30.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    54.648(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    54.648(CFS)
Normal flow depth in pipe =   29.63(In.)
Flow top width inside pipe =   27.49(In.)
Critical Depth =   28.80(In.)
Pipe flow velocity =      8.78(Ft/s)
Travel time through pipe =    0.06 min.
Time of concentration (TC) =    13.21 min.


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Process from Point/Station       15.000 to Point/Station       15.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.21 min.
Rainfall intensity =      2.759(In/Hr) for a   100.0 year storm
Subarea runoff =      1.178(CFS) for      0.500(Ac.)
Total runoff =     55.827(CFS)   Total area =      23.800(Ac.)


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Process from Point/Station       15.000 to Point/Station       15.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.21 min.
Rainfall intensity =      2.759(In/Hr) for a   100.0 year storm
Subarea runoff =      1.414(CFS) for      0.600(Ac.)
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Total runoff =     57.241(CFS)   Total area =      24.400(Ac.)


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Process from Point/Station       15.000 to Point/Station       16.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   661.100(Ft.)
Downstream point/station elevation =   660.800(Ft.)
Pipe length  =    35.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    57.241(CFS)
Nearest computed pipe diameter  =     36.00(In.)
Calculated individual pipe flow  =    57.241(CFS)
Normal flow depth in pipe =   27.38(In.)
Flow top width inside pipe =   30.73(In.)
Critical Depth =   29.39(In.)
Pipe flow velocity =      9.92(Ft/s)
Travel time through pipe =    0.06 min.
Time of concentration (TC) =    13.27 min.


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Process from Point/Station       16.000 to Point/Station       16.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.27 min.
Rainfall intensity =      2.752(In/Hr) for a   100.0 year storm
Subarea runoff =      0.940(CFS) for      0.400(Ac.)
Total runoff =     58.181(CFS)   Total area =      24.800(Ac.)


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Process from Point/Station       16.000 to Point/Station       16.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.27 min.
Rainfall intensity =      2.752(In/Hr) for a   100.0 year storm
Subarea runoff =      3.997(CFS) for      1.700(Ac.)
Total runoff =     62.178(CFS)   Total area =      26.500(Ac.)


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Process from Point/Station       16.000 to Point/Station       17.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   660.800(Ft.)
Downstream point/station elevation =   660.500(Ft.)
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Pipe length  =    75.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    62.178(CFS)
Nearest computed pipe diameter  =     42.00(In.)
Calculated individual pipe flow  =    62.178(CFS)
Normal flow depth in pipe =   33.56(In.)
Flow top width inside pipe =   33.66(In.)
Critical Depth =   29.63(In.)
Pipe flow velocity =      7.54(Ft/s)
Travel time through pipe =    0.17 min.
Time of concentration (TC) =    13.43 min.


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Process from Point/Station       17.000 to Point/Station       17.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.43 min.
Rainfall intensity =      2.733(In/Hr) for a   100.0 year storm
Subarea runoff =      3.969(CFS) for      1.700(Ac.)
Total runoff =     66.147(CFS)   Total area =      28.200(Ac.)


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Process from Point/Station       17.000 to Point/Station       18.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   660.500(Ft.)
Downstream point/station elevation =   659.400(Ft.)
Pipe length  =   980.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    66.147(CFS)
Nearest computed pipe diameter  =     54.00(In.)
Calculated individual pipe flow  =    66.147(CFS)
Normal flow depth in pipe =   44.44(In.)
Flow top width inside pipe =   41.23(In.)
Critical Depth =   28.39(In.)
Pipe flow velocity =      4.72(Ft/s)
Travel time through pipe =    3.46 min.
Time of concentration (TC) =    16.89 min.


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Process from Point/Station       18.000 to Point/Station       18.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.851
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    16.89 min.
Rainfall intensity =      2.410(In/Hr) for a   100.0 year storm
Subarea runoff =      3.898(CFS) for      1.900(Ac.)
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Total runoff =     70.045(CFS)   Total area =      30.100(Ac.)


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Process from Point/Station       18.000 to Point/Station       18.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.851
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    16.89 min.
Rainfall intensity =      2.410(In/Hr) for a   100.0 year storm
Subarea runoff =      4.308(CFS) for      2.100(Ac.)
Total runoff =     74.353(CFS)   Total area =      32.200(Ac.)


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Process from Point/Station       18.000 to Point/Station       75.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   659.400(Ft.)
Downstream point/station elevation =   659.000(Ft.)
Pipe length  =   270.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    74.353(CFS)
Nearest computed pipe diameter  =     54.00(In.)
Calculated individual pipe flow  =    74.353(CFS)
Normal flow depth in pipe =   43.41(In.)
Flow top width inside pipe =   42.89(In.)
Critical Depth =   30.21(In.)
Pipe flow velocity =      5.42(Ft/s)
Travel time through pipe =    0.83 min.
Time of concentration (TC) =    17.72 min.


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Process from Point/Station       75.000 to Point/Station       75.000
**** CONFLUENCE OF MAIN STREAMS ****
_____________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =     32.200(Ac.)
Runoff from this stream =     74.353(CFS)
Time of concentration =   17.72 min.
Rainfall intensity =     2.347(In/Hr)
Program is now starting with Main Stream No. 2


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Process from Point/Station       20.000 to Point/Station       21.000
**** INITIAL AREA EVALUATION ****
_____________________________________________________________________________
Initial area flow distance =   820.000(Ft.)
Top (of initial area) elevation =   678.500(Ft.)
Bottom (of initial area) elevation =   673.000(Ft.)
Difference in elevation =     5.500(Ft.)
Slope =    0.00671  s(percent)=       0.67
TC = k(0.323)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.865 min.
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Rainfall intensity =      2.799(In/Hr) for a   100.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.809
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Initial subarea runoff =     14.046(CFS)
Total initial stream area =        6.200(Ac.)
Pervious area fraction = 0.200


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Process from Point/Station       21.000 to Point/Station       22.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   673.000(Ft.)
Downstream point/station elevation =   670.300(Ft.)
Pipe length  =    75.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    14.046(CFS)
Nearest computed pipe diameter  =     18.00(In.)
Calculated individual pipe flow  =    14.046(CFS)
Normal flow depth in pipe =   11.14(In.)
Flow top width inside pipe =   17.48(In.)
Critical Depth =   16.58(In.)
Pipe flow velocity =     12.22(Ft/s)
Travel time through pipe =    0.10 min.
Time of concentration (TC) =    12.97 min.


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Process from Point/Station       22.000 to Point/Station       22.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.809
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    12.97 min.
Rainfall intensity =      2.787(In/Hr) for a   100.0 year storm
Subarea runoff =      9.923(CFS) for      4.400(Ac.)
Total runoff =     23.969(CFS)   Total area =      10.600(Ac.)


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Process from Point/Station       22.000 to Point/Station       23.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   670.300(Ft.)
Downstream point/station elevation =   668.300(Ft.)
Pipe length  =   140.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    23.969(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    23.969(CFS)
Normal flow depth in pipe =   17.58(In.)
Flow top width inside pipe =   21.25(In.)
Critical Depth =   20.81(In.)
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Pipe flow velocity =      9.72(Ft/s)
Travel time through pipe =    0.24 min.
Time of concentration (TC) =    13.21 min.


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Process from Point/Station       23.000 to Point/Station       23.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.21 min.
Rainfall intensity =      2.759(In/Hr) for a   100.0 year storm
Subarea runoff =      0.943(CFS) for      0.400(Ac.)
Total runoff =     24.912(CFS)   Total area =      11.000(Ac.)


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Process from Point/Station       23.000 to Point/Station       23.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.21 min.
Rainfall intensity =      2.759(In/Hr) for a   100.0 year storm
Subarea runoff =      0.943(CFS) for      0.400(Ac.)
Total runoff =     25.855(CFS)   Total area =      11.400(Ac.)


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Process from Point/Station       23.000 to Point/Station       24.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   668.300(Ft.)
Downstream point/station elevation =   666.300(Ft.)
Pipe length  =   395.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    25.855(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    25.855(CFS)
Normal flow depth in pipe =   21.96(In.)
Flow top width inside pipe =   26.57(In.)
Critical Depth =   20.79(In.)
Pipe flow velocity =      6.71(Ft/s)
Travel time through pipe =    0.98 min.
Time of concentration (TC) =    14.19 min.


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Process from Point/Station       24.000 to Point/Station       24.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
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COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.19 min.
Rainfall intensity =      2.652(In/Hr) for a   100.0 year storm
Subarea runoff =      0.679(CFS) for      0.300(Ac.)
Total runoff =     26.534(CFS)   Total area =      11.700(Ac.)


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Process from Point/Station       24.000 to Point/Station       24.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.19 min.
Rainfall intensity =      2.652(In/Hr) for a   100.0 year storm
Subarea runoff =      0.679(CFS) for      0.300(Ac.)
Total runoff =     27.213(CFS)   Total area =      12.000(Ac.)


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Process from Point/Station       24.000 to Point/Station       38.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   666.300(Ft.)
Downstream point/station elevation =   666.000(Ft.)
Pipe length  =    60.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    27.213(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    27.213(CFS)
Normal flow depth in pipe =   23.06(In.)
Flow top width inside pipe =   25.30(In.)
Critical Depth =   21.35(In.)
Pipe flow velocity =      6.72(Ft/s)
Travel time through pipe =    0.15 min.
Time of concentration (TC) =    14.34 min.


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Process from Point/Station       38.000 to Point/Station       38.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.34 min.
```

```
Rainfall intensity =      2.637(In/Hr) for a   100.0 year storm
Subarea runoff =      0.900(CFS) for      0.400(Ac.)
Total runoff =     28.113(CFS)   Total area =      12.400(Ac.)


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Process from Point/Station       38.000 to Point/Station       38.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.34 min.
Rainfall intensity =      2.637(In/Hr) for a   100.0 year storm
Subarea runoff =      0.900(CFS) for      0.400(Ac.)
Total runoff =     29.013(CFS)   Total area =      12.800(Ac.)


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Process from Point/Station       38.000 to Point/Station       38.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     12.800(Ac.)
Runoff from this stream =     29.013(CFS)
Time of concentration =   14.34 min.
Rainfall intensity =     2.637(In/Hr)


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Process from Point/Station       30.000 to Point/Station       31.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   635.000(Ft.)
Top (of initial area) elevation =   676.000(Ft.)
Bottom (of initial area) elevation =   669.500(Ft.)
Difference in elevation =     6.500(Ft.)
Slope =    0.01024  s(percent)=       1.02
TC = k(0.323)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.673 min.
Rainfall intensity =      3.102(In/Hr) for a   100.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.814
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Initial subarea runoff =     14.140(CFS)
Total initial stream area =        5.600(Ac.)
Pervious area fraction = 0.200


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Process from Point/Station       31.000 to Point/Station       32.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
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```
Upstream point/station elevation =   669.500(Ft.)
Downstream point/station elevation =   668.500(Ft.)
Pipe length  =    70.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    14.140(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    14.140(CFS)
Normal flow depth in pipe =   13.52(In.)
Flow top width inside pipe =   20.11(In.)
Critical Depth =   16.75(In.)
Pipe flow velocity =      8.63(Ft/s)
Travel time through pipe =    0.14 min.
Time of concentration (TC) =    10.81 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       32.000 to Point/Station       32.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.814
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    10.81 min.
Rainfall intensity =      3.080(In/Hr) for a   100.0 year storm
Subarea runoff =     11.280(CFS) for      4.500(Ac.)
Total runoff =     25.420(CFS)   Total area =      10.100(Ac.)


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Process from Point/Station       32.000 to Point/Station       33.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   668.500(Ft.)
Downstream point/station elevation =   668.200(Ft.)
Pipe length  =    50.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    25.420(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    25.420(CFS)
Normal flow depth in pipe =   24.00(In.)
Flow top width inside pipe =   16.97(In.)
Critical Depth =   21.14(In.)
Pipe flow velocity =      6.81(Ft/s)
Travel time through pipe =    0.12 min.
Time of concentration (TC) =    10.93 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       33.000 to Point/Station       33.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.93 min.
```

```
Rainfall intensity =      3.061(In/Hr) for a   100.0 year storm
Subarea runoff =      1.049(CFS) for      0.400(Ac.)
Total runoff =     26.469(CFS)   Total area =      10.500(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       33.000 to Point/Station       33.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.93 min.
Rainfall intensity =      3.061(In/Hr) for a   100.0 year storm
Subarea runoff =      1.049(CFS) for      0.400(Ac.)
Total runoff =     27.519(CFS)   Total area =      10.900(Ac.)


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Process from Point/Station       33.000 to Point/Station       34.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   668.200(Ft.)
Downstream point/station elevation =   666.900(Ft.)
Pipe length  =   300.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    27.519(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    27.519(CFS)
Normal flow depth in pipe =   25.13(In.)
Flow top width inside pipe =   22.13(In.)
Critical Depth =   21.45(In.)
Pipe flow velocity =      6.26(Ft/s)
Travel time through pipe =    0.80 min.
Time of concentration (TC) =    11.73 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       34.000 to Point/Station       34.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.812
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    11.73 min.
Rainfall intensity =      2.945(In/Hr) for a   100.0 year storm
Subarea runoff =     11.475(CFS) for      4.800(Ac.)
Total runoff =     38.993(CFS)   Total area =      15.700(Ac.)


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Process from Point/Station       34.000 to Point/Station       34.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
```

```
APARTMENT subarea type
Runoff Coefficient = 0.812
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    11.73 min.
Rainfall intensity =      2.945(In/Hr) for a   100.0 year storm
Subarea runoff =     10.518(CFS) for      4.400(Ac.)
Total runoff =     49.511(CFS)   Total area =      20.100(Ac.)


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Process from Point/Station       34.000 to Point/Station       35.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   666.900(Ft.)
Downstream point/station elevation =   666.500(Ft.)
Pipe length  =    35.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    49.511(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    49.511(CFS)
Normal flow depth in pipe =   23.93(In.)
Flow top width inside pipe =   29.47(In.)
Critical Depth =   27.82(In.)
Pipe flow velocity =     10.73(Ft/s)
Travel time through pipe =    0.05 min.
Time of concentration (TC) =    11.78 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       35.000 to Point/Station       35.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.856
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    11.78 min.
Rainfall intensity =      2.937(In/Hr) for a   100.0 year storm
Subarea runoff =      1.006(CFS) for      0.400(Ac.)
Total runoff =     50.517(CFS)   Total area =      20.500(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       35.000 to Point/Station       35.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.856
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    11.78 min.
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Rainfall intensity =      2.937(In/Hr) for a   100.0 year storm
Subarea runoff =      0.754(CFS) for      0.300(Ac.)
Total runoff =     51.271(CFS)   Total area =      20.800(Ac.)


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Process from Point/Station       35.000 to Point/Station       38.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   666.500(Ft.)
Downstream point/station elevation =   666.000(Ft.)
Pipe length  =    60.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    51.271(CFS)
Nearest computed pipe diameter  =     33.00(In.)
Calculated individual pipe flow  =    51.271(CFS)
Normal flow depth in pipe =   29.44(In.)
Flow top width inside pipe =   20.48(In.)
Critical Depth =   28.23(In.)
Pipe flow velocity =      9.16(Ft/s)
Travel time through pipe =    0.11 min.
Time of concentration (TC) =    11.89 min.


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Process from Point/Station       38.000 to Point/Station       38.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     20.800(Ac.)
Runoff from this stream =     51.271(CFS)
Time of concentration =   11.89 min.
Rainfall intensity =     2.923(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       29.013     14.34                2.637
2       51.271     11.89                2.923
Largest stream flow has longer or shorter time of concentration
Qp =     51.271 + sum of
         Qa          Tb/Ta
         29.013 *    0.829 =     24.066
Qp =     75.337

Total of 2 streams to confluence:
Flow rates before confluence point:
      29.013      51.271
Area of streams before confluence:
       12.800       20.800
Results of confluence:
Total flow rate =     75.337(CFS)
Time of concentration =    11.892 min.
Effective stream area after confluence =     33.600(Ac.)


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Process from Point/Station       38.000 to Point/Station       39.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   666.000(Ft.)
Downstream point/station elevation =   664.000(Ft.)
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```
Pipe length  =   370.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    75.337(CFS)
Nearest computed pipe diameter  =     42.00(In.)
Calculated individual pipe flow  =    75.337(CFS)
Normal flow depth in pipe =   35.16(In.)
Flow top width inside pipe =   31.02(In.)
Critical Depth =   32.58(In.)
Pipe flow velocity =      8.76(Ft/s)
Travel time through pipe =    0.70 min.
Time of concentration (TC) =    12.60 min.


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Process from Point/Station       39.000 to Point/Station       39.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.810
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    12.60 min.
Rainfall intensity =      2.832(In/Hr) for a   100.0 year storm
Subarea runoff =     20.642(CFS) for      9.000(Ac.)
Total runoff =     95.979(CFS)   Total area =      42.600(Ac.)


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Process from Point/Station       39.000 to Point/Station       39.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.810
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    12.60 min.
Rainfall intensity =      2.832(In/Hr) for a   100.0 year storm
Subarea runoff =      8.945(CFS) for      3.900(Ac.)
Total runoff =    104.923(CFS)   Total area =      46.500(Ac.)


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Process from Point/Station       39.000 to Point/Station       40.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   664.000(Ft.)
Downstream point/station elevation =   663.500(Ft.)
Pipe length  =   180.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   104.923(CFS)
Nearest computed pipe diameter  =     54.00(In.)
Calculated individual pipe flow  =   104.923(CFS)
Normal flow depth in pipe =   44.91(In.)
Flow top width inside pipe =   40.42(In.)
Critical Depth =   36.15(In.)
Pipe flow velocity =      7.42(Ft/s)
Travel time through pipe =    0.40 min.
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Time of concentration (TC) =    13.00 min.


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Process from Point/Station       40.000 to Point/Station       40.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.855
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.00 min.
Rainfall intensity =      2.783(In/Hr) for a   100.0 year storm
Subarea runoff =      1.189(CFS) for      0.500(Ac.)
Total runoff =    106.112(CFS)   Total area =      47.000(Ac.)


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Process from Point/Station       40.000 to Point/Station       40.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.855
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.00 min.
Rainfall intensity =      2.783(In/Hr) for a   100.0 year storm
Subarea runoff =      1.189(CFS) for      0.500(Ac.)
Total runoff =    107.302(CFS)   Total area =      47.500(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       40.000 to Point/Station       41.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   663.500(Ft.)
Downstream point/station elevation =   662.000(Ft.)
Pipe length  =   340.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   107.302(CFS)
Nearest computed pipe diameter  =     51.00(In.)
Calculated individual pipe flow  =   107.302(CFS)
Normal flow depth in pipe =   39.94(In.)
Flow top width inside pipe =   42.04(In.)
Critical Depth =   37.09(In.)
Pipe flow velocity =      9.00(Ft/s)
Travel time through pipe =    0.63 min.
Time of concentration (TC) =    13.63 min.


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Process from Point/Station       41.000 to Point/Station       41.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
CONDOMINIUM subarea type
Runoff Coefficient = 0.739
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Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.350; Impervious fraction =  0.650
Time of concentration =    13.63 min.
Rainfall intensity =      2.711(In/Hr) for a   100.0 year storm
Subarea runoff =     10.821(CFS) for      5.400(Ac.)
Total runoff =    118.122(CFS)   Total area =      52.900(Ac.)


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Process from Point/Station       41.000 to Point/Station       42.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   662.000(Ft.)
Downstream point/station elevation =   660.900(Ft.)
Pipe length  =   200.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   118.122(CFS)
Nearest computed pipe diameter  =     51.00(In.)
Calculated individual pipe flow  =   118.122(CFS)
Normal flow depth in pipe =   39.42(In.)
Flow top width inside pipe =   42.73(In.)
Critical Depth =   38.93(In.)
Pipe flow velocity =     10.04(Ft/s)
Travel time through pipe =    0.33 min.
Time of concentration (TC) =    13.96 min.


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Process from Point/Station       42.000 to Point/Station       42.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.96 min.
Rainfall intensity =      2.676(In/Hr) for a   100.0 year storm
Subarea runoff =      1.142(CFS) for      0.500(Ac.)
Total runoff =    119.264(CFS)   Total area =      53.400(Ac.)


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Process from Point/Station       42.000 to Point/Station       42.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.854
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    13.96 min.
Rainfall intensity =      2.676(In/Hr) for a   100.0 year storm
Subarea runoff =      1.142(CFS) for      0.500(Ac.)
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Total runoff =    120.406(CFS)   Total area =      53.900(Ac.)


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Process from Point/Station       42.000 to Point/Station       43.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   660.900(Ft.)
Downstream point/station elevation =   660.500(Ft.)
Pipe length  =    35.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   120.406(CFS)
Nearest computed pipe diameter  =     45.00(In.)
Calculated individual pipe flow  =   120.406(CFS)
Normal flow depth in pipe =   34.41(In.)
Flow top width inside pipe =   38.18(In.)
Critical Depth =   39.62(In.)
Pipe flow velocity =     13.30(Ft/s)
Travel time through pipe =    0.04 min.
Time of concentration (TC) =    14.01 min.


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Process from Point/Station       43.000 to Point/Station       43.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.807
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    14.01 min.
Rainfall intensity =      2.671(In/Hr) for a   100.0 year storm
Subarea runoff =     47.444(CFS) for     22.000(Ac.)
Total runoff =    167.850(CFS)   Total area =      75.900(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       43.000 to Point/Station       43.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
UNDEVELOPED (good cover) subarea
Runoff Coefficient = 0.496
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  38.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Time of concentration =    14.01 min.
Rainfall intensity =      2.671(In/Hr) for a   100.0 year storm
Subarea runoff =      4.637(CFS) for      3.500(Ac.)
Total runoff =    172.487(CFS)   Total area =      79.400(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       43.000 to Point/Station       44.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   660.500(Ft.)
Downstream point/station elevation =   660.000(Ft.)
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Pipe length  =   260.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   172.487(CFS)
Nearest computed pipe diameter  =     69.00(In.)
Calculated individual pipe flow  =   172.487(CFS)
Normal flow depth in pipe =   59.44(In.)
Flow top width inside pipe =   47.68(In.)
Critical Depth =   43.50(In.)
Pipe flow velocity =      7.25(Ft/s)
Travel time through pipe =    0.60 min.
Time of concentration (TC) =    14.60 min.


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Process from Point/Station       44.000 to Point/Station       44.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.60 min.
Rainfall intensity =      2.610(In/Hr) for a   100.0 year storm
Subarea runoff =      0.668(CFS) for      0.300(Ac.)
Total runoff =    173.155(CFS)   Total area =      79.700(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       44.000 to Point/Station       44.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.60 min.
Rainfall intensity =      2.610(In/Hr) for a   100.0 year storm
Subarea runoff =      0.668(CFS) for      0.300(Ac.)
Total runoff =    173.824(CFS)   Total area =      80.000(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       44.000 to Point/Station       45.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   660.000(Ft.)
Downstream point/station elevation =   659.800(Ft.)
Pipe length  =    45.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   173.824(CFS)
Nearest computed pipe diameter  =     60.00(In.)
Calculated individual pipe flow  =   173.824(CFS)
Normal flow depth in pipe =   49.22(In.)
Flow top width inside pipe =   46.07(In.)
Critical Depth =   45.33(In.)
Pipe flow velocity =     10.08(Ft/s)
Travel time through pipe =    0.07 min.
```

```
Time of concentration (TC) =    14.68 min.


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Process from Point/Station       45.000 to Point/Station       45.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.806
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    14.68 min.
Rainfall intensity =      2.603(In/Hr) for a   100.0 year storm
Subarea runoff =      5.247(CFS) for      2.500(Ac.)
Total runoff =    179.070(CFS)   Total area =      82.500(Ac.)


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Process from Point/Station       45.000 to Point/Station       46.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   659.800(Ft.)
Downstream point/station elevation =   659.300(Ft.)
Pipe length  =   130.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   179.070(CFS)
Nearest computed pipe diameter  =     63.00(In.)
Calculated individual pipe flow  =   179.070(CFS)
Normal flow depth in pipe =   50.16(In.)
Flow top width inside pipe =   50.76(In.)
Critical Depth =   45.48(In.)
Pipe flow velocity =      9.68(Ft/s)
Travel time through pipe =    0.22 min.
Time of concentration (TC) =    14.90 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       46.000 to Point/Station       46.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.90 min.
Rainfall intensity =      2.582(In/Hr) for a   100.0 year storm
Subarea runoff =      0.220(CFS) for      0.100(Ac.)
Total runoff =    179.290(CFS)   Total area =      82.600(Ac.)


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Process from Point/Station       46.000 to Point/Station       46.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.853
```

```
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    14.90 min.
Rainfall intensity =      2.582(In/Hr) for a   100.0 year storm
Subarea runoff =      0.220(CFS) for      0.100(Ac.)
Total runoff =    179.511(CFS)   Total area =      82.700(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       46.000 to Point/Station       61.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   659.300(Ft.)
Downstream point/station elevation =   659.000(Ft.)
Pipe length  =    95.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   179.511(CFS)
Nearest computed pipe diameter  =     66.00(In.)
Calculated individual pipe flow  =   179.511(CFS)
Normal flow depth in pipe =   51.38(In.)
Flow top width inside pipe =   54.82(In.)
Critical Depth =   45.01(In.)
Pipe flow velocity =      9.04(Ft/s)
Travel time through pipe =    0.18 min.
Time of concentration (TC) =    15.08 min.


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Process from Point/Station       61.000 to Point/Station       61.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =     82.700(Ac.)
Runoff from this stream =    179.511(CFS)
Time of concentration =   15.08 min.
Rainfall intensity =     2.565(In/Hr)


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Process from Point/Station       50.000 to Point/Station       51.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   560.000(Ft.)
Top (of initial area) elevation =   669.000(Ft.)
Bottom (of initial area) elevation =   663.500(Ft.)
Difference in elevation =     5.500(Ft.)
Slope =    0.00982  s(percent)=       0.98
TC = k(0.323)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.234 min.
Rainfall intensity =      3.174(In/Hr) for a   100.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.815
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Initial subarea runoff =     12.161(CFS)
Total initial stream area =        4.700(Ac.)
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Pervious area fraction = 0.200


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Process from Point/Station       51.000 to Point/Station       52.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   663.500(Ft.)
Downstream point/station elevation =   662.000(Ft.)
Pipe length  =   195.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    12.161(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    12.161(CFS)
Normal flow depth in pipe =   15.21(In.)
Flow top width inside pipe =   18.77(In.)
Critical Depth =   15.60(In.)
Pipe flow velocity =      6.51(Ft/s)
Travel time through pipe =    0.50 min.
Time of concentration (TC) =    10.73 min.


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Process from Point/Station       52.000 to Point/Station       52.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.73 min.
Rainfall intensity =      3.092(In/Hr) for a   100.0 year storm
Subarea runoff =      1.060(CFS) for      0.400(Ac.)
Total runoff =     13.221(CFS)   Total area =       5.100(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       52.000 to Point/Station       52.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
MOBILE HOME PARK subarea type
Runoff Coefficient = 0.792
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.250; Impervious fraction =  0.750
Time of concentration =    10.73 min.
Rainfall intensity =      3.092(In/Hr) for a   100.0 year storm
Subarea runoff =      0.980(CFS) for      0.400(Ac.)
Total runoff =     14.201(CFS)   Total area =       5.500(Ac.)


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Process from Point/Station       52.000 to Point/Station       53.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   662.000(Ft.)
Downstream point/station elevation =   660.400(Ft.)
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Pipe length  =   375.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    14.201(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    14.201(CFS)
Normal flow depth in pipe =   18.89(In.)
Flow top width inside pipe =   19.65(In.)
Critical Depth =   16.29(In.)
Pipe flow velocity =      5.36(Ft/s)
Travel time through pipe =    1.17 min.
Time of concentration (TC) =    11.90 min.


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Process from Point/Station       53.000 to Point/Station       53.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.811
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    11.90 min.
Rainfall intensity =      2.922(In/Hr) for a   100.0 year storm
Subarea runoff =      7.349(CFS) for      3.100(Ac.)
Total runoff =     21.549(CFS)   Total area =       8.600(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       53.000 to Point/Station       53.000
**** SUBAREA FLOW ADDITION ****
_____________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.811
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    11.90 min.
Rainfall intensity =      2.922(In/Hr) for a   100.0 year storm
Subarea runoff =     12.327(CFS) for      5.200(Ac.)
Total runoff =     33.876(CFS)   Total area =      13.800(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       53.000 to Point/Station       54.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
_____________________________________________________________________________
Upstream point/station elevation =   660.400(Ft.)
Downstream point/station elevation =   660.000(Ft.)
Pipe length  =    45.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    33.876(CFS)
Nearest computed pipe diameter  =     30.00(In.)
Calculated individual pipe flow  =    33.876(CFS)
Normal flow depth in pipe =   21.75(In.)
Flow top width inside pipe =   26.79(In.)
Critical Depth =   23.74(In.)
Pipe flow velocity =      8.88(Ft/s)
Travel time through pipe =    0.08 min.
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Time of concentration (TC) =    11.98 min.


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Process from Point/Station       54.000 to Point/Station       54.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.856
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    11.98 min.
Rainfall intensity =      2.910(In/Hr) for a   100.0 year storm
Subarea runoff =      0.996(CFS) for      0.400(Ac.)
Total runoff =     34.872(CFS)   Total area =      14.200(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       54.000 to Point/Station       54.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.856
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    11.98 min.
Rainfall intensity =      2.910(In/Hr) for a   100.0 year storm
Subarea runoff =      0.996(CFS) for      0.400(Ac.)
Total runoff =     35.868(CFS)   Total area =      14.600(Ac.)


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Process from Point/Station       54.000 to Point/Station       61.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   660.000(Ft.)
Downstream point/station elevation =   659.000(Ft.)
Pipe length  =    70.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    35.868(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    35.868(CFS)
Normal flow depth in pipe =   21.42(In.)
Flow top width inside pipe =   21.86(In.)
Critical Depth =   24.32(In.)
Pipe flow velocity =     10.61(Ft/s)
Travel time through pipe =    0.11 min.
Time of concentration (TC) =    12.09 min.


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Process from Point/Station       61.000 to Point/Station       61.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =     14.600(Ac.)
```

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Runoff from this stream =     35.868(CFS)
Time of concentration =   12.09 min.
Rainfall intensity =     2.896(In/Hr)


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Process from Point/Station       56.000 to Point/Station       57.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   585.000(Ft.)
Top (of initial area) elevation =   667.500(Ft.)
Bottom (of initial area) elevation =   661.500(Ft.)
Difference in elevation =     6.000(Ft.)
Slope =    0.01026  s(percent)=       1.03
TC = k(0.323)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.324 min.
Rainfall intensity =      3.159(In/Hr) for a   100.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.815
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Initial subarea runoff =      9.267(CFS)
Total initial stream area =        3.600(Ac.)
Pervious area fraction = 0.200


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Process from Point/Station       57.000 to Point/Station       58.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   661.500(Ft.)
Downstream point/station elevation =   661.000(Ft.)
Pipe length  =    75.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     9.267(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =     9.267(CFS)
Normal flow depth in pipe =   13.15(In.)
Flow top width inside pipe =   20.32(In.)
Critical Depth =   13.58(In.)
Pipe flow velocity =      5.85(Ft/s)
Travel time through pipe =    0.21 min.
Time of concentration (TC) =    10.54 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       58.000 to Point/Station       58.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.814
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    10.54 min.
Rainfall intensity =      3.124(In/Hr) for a   100.0 year storm
Subarea runoff =      7.886(CFS) for      3.100(Ac.)
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Total runoff =     17.153(CFS)   Total area =       6.700(Ac.)


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Process from Point/Station       58.000 to Point/Station       59.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   661.000(Ft.)
Downstream point/station elevation =   660.300(Ft.)
Pipe length  =   115.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    17.153(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    17.153(CFS)
Normal flow depth in pipe =   19.08(In.)
Flow top width inside pipe =   19.38(In.)
Critical Depth =   17.91(In.)
Pipe flow velocity =      6.40(Ft/s)
Travel time through pipe =    0.30 min.
Time of concentration (TC) =    10.84 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       59.000 to Point/Station       59.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
APARTMENT subarea type
Runoff Coefficient = 0.814
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    10.84 min.
Rainfall intensity =      3.076(In/Hr) for a   100.0 year storm
Subarea runoff =      3.754(CFS) for      1.500(Ac.)
Total runoff =     20.907(CFS)   Total area =       8.200(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       59.000 to Point/Station       60.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   660.300(Ft.)
Downstream point/station elevation =   660.000(Ft.)
Pipe length  =    35.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    20.907(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    20.907(CFS)
Normal flow depth in pipe =   19.64(In.)
Flow top width inside pipe =   18.51(In.)
Critical Depth =   19.67(In.)
Pipe flow velocity =      7.60(Ft/s)
Travel time through pipe =    0.08 min.
Time of concentration (TC) =    10.91 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       60.000 to Point/Station       60.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
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```
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.91 min.
Rainfall intensity =      3.064(In/Hr) for a   100.0 year storm
Subarea runoff =      1.312(CFS) for      0.500(Ac.)
Total runoff =     22.219(CFS)   Total area =       8.700(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       60.000 to Point/Station       60.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.91 min.
Rainfall intensity =      3.064(In/Hr) for a   100.0 year storm
Subarea runoff =      1.312(CFS) for      0.500(Ac.)
Total runoff =     23.532(CFS)   Total area =       9.200(Ac.)


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Process from Point/Station       60.000 to Point/Station       61.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   660.000(Ft.)
Downstream point/station elevation =   659.000(Ft.)
Pipe length  =    80.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    23.532(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    23.532(CFS)
Normal flow depth in pipe =   18.33(In.)
Flow top width inside pipe =   20.39(In.)
Critical Depth =   20.66(In.)
Pipe flow velocity =      9.15(Ft/s)
Travel time through pipe =    0.15 min.
Time of concentration (TC) =    11.06 min.


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Process from Point/Station       61.000 to Point/Station       61.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 3
Stream flow area =      9.200(Ac.)
Runoff from this stream =     23.532(CFS)
Time of concentration =   11.06 min.
Rainfall intensity =     3.042(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)
```

```
1      179.511     15.08                 2.565
2       35.868     12.09                 2.896
3       23.532     11.06                 3.042
Largest stream flow has longer time of concentration
Qp =    179.511 + sum of
         Qb         Ia/Ib
         35.868 *    0.886 =     31.772
         Qb         Ia/Ib
         23.532 *    0.843 =     19.845
Qp =    231.128

Total of 3 streams to confluence:
Flow rates before confluence point:
     179.511      35.868      23.532
Area of streams before confluence:
       82.700       14.600        9.200
Results of confluence:
Total flow rate =    231.128(CFS)
Time of concentration =    15.077 min.
Effective stream area after confluence =    106.500(Ac.)


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Process from Point/Station       61.000 to Point/Station       62.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   659.000(Ft.)
Downstream point/station elevation =   658.800(Ft.)
Pipe length  =    30.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   231.128(CFS)
Nearest computed pipe diameter  =     63.00(In.)
Calculated individual pipe flow  =   231.128(CFS)
Normal flow depth in pipe =   49.22(In.)
Flow top width inside pipe =   52.09(In.)
Critical Depth =   51.38(In.)
Pipe flow velocity =     12.74(Ft/s)
Travel time through pipe =    0.04 min.
Time of concentration (TC) =    15.12 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       62.000 to Point/Station       62.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    15.12 min.
Rainfall intensity =      2.561(In/Hr) for a   100.0 year storm
Subarea runoff =      0.437(CFS) for      0.200(Ac.)
Total runoff =    231.565(CFS)   Total area =     106.700(Ac.)


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Process from Point/Station       62.000 to Point/Station       62.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
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Runoff Coefficient = 0.853
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    15.12 min.
Rainfall intensity =      2.561(In/Hr) for a   100.0 year storm
Subarea runoff =      0.437(CFS) for      0.200(Ac.)
Total runoff =    232.002(CFS)   Total area =     106.900(Ac.)


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Process from Point/Station       62.000 to Point/Station       71.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   658.800(Ft.)
Downstream point/station elevation =   657.500(Ft.)
Pipe length  =   350.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   232.002(CFS)
Nearest computed pipe diameter  =     69.00(In.)
Calculated individual pipe flow  =   232.002(CFS)
Normal flow depth in pipe =   57.00(In.)
Flow top width inside pipe =   52.31(In.)
Critical Depth =   50.62(In.)
Pipe flow velocity =     10.11(Ft/s)
Travel time through pipe =    0.58 min.
Time of concentration (TC) =    15.69 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       71.000 to Point/Station       71.000
**** CONFLUENCE OF MINOR STREAMS ****
________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =    106.900(Ac.)
Runoff from this stream =    232.002(CFS)
Time of concentration =   15.69 min.
Rainfall intensity =     2.509(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       65.000 to Point/Station       66.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   650.000(Ft.)
Top (of initial area) elevation =   666.500(Ft.)
Bottom (of initial area) elevation =   660.000(Ft.)
Difference in elevation =     6.500(Ft.)
Slope =    0.01000  s(percent)=       1.00
TC = k(0.323)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.824 min.
Rainfall intensity =      3.078(In/Hr) for a   100.0 year storm
APARTMENT subarea type
Runoff Coefficient = 0.814
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Initial subarea runoff =     10.519(CFS)
```

```
Total initial stream area =        4.200(Ac.)
Pervious area fraction = 0.200


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       66.000 to Point/Station       67.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   660.000(Ft.)
Downstream point/station elevation =   659.500(Ft.)
Pipe length  =    55.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    10.519(CFS)
Nearest computed pipe diameter  =     21.00(In.)
Calculated individual pipe flow  =    10.519(CFS)
Normal flow depth in pipe =   12.90(In.)
Flow top width inside pipe =   20.44(In.)
Critical Depth =   14.50(In.)
Pipe flow velocity =      6.79(Ft/s)
Travel time through pipe =    0.14 min.
Time of concentration (TC) =    10.96 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       67.000 to Point/Station       67.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.96 min.
Rainfall intensity =      3.057(In/Hr) for a   100.0 year storm
Subarea runoff =      0.524(CFS) for      0.200(Ac.)
Total runoff =     11.043(CFS)   Total area =       4.400(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       67.000 to Point/Station       67.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    10.96 min.
Rainfall intensity =      3.057(In/Hr) for a   100.0 year storm
Subarea runoff =      0.524(CFS) for      0.200(Ac.)
Total runoff =     11.567(CFS)   Total area =       4.600(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       67.000 to Point/Station       67.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
APARTMENT subarea type
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Runoff Coefficient = 0.813
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.200; Impervious fraction =  0.800
Time of concentration =    10.96 min.
Rainfall intensity =      3.057(In/Hr) for a   100.0 year storm
Subarea runoff =     10.693(CFS) for      4.300(Ac.)
Total runoff =     22.260(CFS)   Total area =       8.900(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       67.000 to Point/Station       70.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   659.500(Ft.)
Downstream point/station elevation =   658.000(Ft.)
Pipe length  =   235.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    22.260(CFS)
Nearest computed pipe diameter  =     27.00(In.)
Calculated individual pipe flow  =    22.260(CFS)
Normal flow depth in pipe =   20.02(In.)
Flow top width inside pipe =   23.65(In.)
Critical Depth =   19.81(In.)
Pipe flow velocity =      7.04(Ft/s)
Travel time through pipe =    0.56 min.
Time of concentration (TC) =    11.51 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       70.000 to Point/Station       70.000
**** SUBAREA FLOW ADDITION ****
________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.856
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    11.51 min.
Rainfall intensity =      2.975(In/Hr) for a   100.0 year storm
Subarea runoff =      1.528(CFS) for      0.600(Ac.)
Total runoff =     23.788(CFS)   Total area =       9.500(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       70.000 to Point/Station       71.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
________________________________________________________________________
Upstream point/station elevation =   658.000(Ft.)
Downstream point/station elevation =   657.500(Ft.)
Pipe length  =    40.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    23.788(CFS)
Nearest computed pipe diameter  =     24.00(In.)
Calculated individual pipe flow  =    23.788(CFS)
Normal flow depth in pipe =   18.52(In.)
Flow top width inside pipe =   20.15(In.)
Critical Depth =   20.76(In.)
Pipe flow velocity =      9.15(Ft/s)
```

```
Travel time through pipe =    0.07 min.
Time of concentration (TC) =    11.59 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       71.000 to Point/Station       71.000
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
Stream flow area =      9.500(Ac.)
Runoff from this stream =     23.788(CFS)
Time of concentration =   11.59 min.
Rainfall intensity =     2.965(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1      232.002     15.69                 2.509
2       23.788     11.59                 2.965
Largest stream flow has longer time of concentration
Qp =    232.002 + sum of
         Qb         Ia/Ib
         23.788 *    0.846 =     20.133
Qp =    252.135

Total of 2 streams to confluence:
Flow rates before confluence point:
     232.002      23.788
Area of streams before confluence:
      106.900        9.500
Results of confluence:
Total flow rate =    252.135(CFS)
Time of concentration =    15.693 min.
Effective stream area after confluence =    116.400(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       71.000 to Point/Station       72.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   657.500(Ft.)
Downstream point/station elevation =   657.000(Ft.)
Pipe length  =   275.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   252.135(CFS)
Nearest computed pipe diameter  =     81.00(In.)
Calculated individual pipe flow  =   252.135(CFS)
Normal flow depth in pipe =   67.88(In.)
Flow top width inside pipe =   59.69(In.)
Critical Depth =   50.50(In.)
Pipe flow velocity =      7.87(Ft/s)
Travel time through pipe =    0.58 min.
Time of concentration (TC) =    16.28 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       72.000 to Point/Station       72.000
**** SUBAREA FLOW ADDITION ****
______________________________________________________________________________
COMMERCIAL subarea type
Runoff Coefficient = 0.852
Decimal fraction soil group A = 1.000
```

```
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Time of concentration =    16.28 min.
Rainfall intensity =      2.459(In/Hr) for a   100.0 year storm
Subarea runoff =      1.047(CFS) for      0.500(Ac.)
Total runoff =    253.182(CFS)   Total area =     116.900(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       72.000 to Point/Station       75.000
**** PIPEFLOW TRAVEL TIME (Program estimated size) ****
______________________________________________________________________________
Upstream point/station elevation =   657.000(Ft.)
Downstream point/station elevation =   656.500(Ft.)
Pipe length  =    90.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =   253.182(CFS)
Nearest computed pipe diameter  =     66.00(In.)
Calculated individual pipe flow  =   253.182(CFS)
Normal flow depth in pipe =   54.75(In.)
Flow top width inside pipe =   49.64(In.)
Critical Depth =   53.21(In.)
Pipe flow velocity =     12.01(Ft/s)
Travel time through pipe =    0.12 min.
Time of concentration (TC) =    16.40 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       75.000 to Point/Station       75.000
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =    116.900(Ac.)
Runoff from this stream =    253.182(CFS)
Time of concentration =   16.40 min.
Rainfall intensity =     2.449(In/Hr)
Summary of stream data:

Stream   Flow rate      TC            Rainfall Intensity
 No.       (CFS)       (min)                (In/Hr)


1       74.353     17.72           2.347
2      253.182     16.40           2.449
Largest stream flow has longer or shorter time of concentration
Qp =    253.182 + sum of
         Qa          Tb/Ta
         74.353 *    0.925 =     68.809
Qp =    321.991

Total of 2 main streams to confluence:
Flow rates before confluence point:
      74.353     253.182
Area of streams before confluence:
       32.200      116.900


Results of confluence:
Total flow rate =    321.991(CFS)
Time of concentration =    16.400 min.
```

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Effective stream area after confluence  =    149.100(Ac.)


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Process from Point/Station        1.000 to Point/Station       80.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   640.000(Ft.)
Top (of initial area) elevation =   684.000(Ft.)
Bottom (of initial area) elevation =   678.000(Ft.)
Difference in elevation =     6.000(Ft.)
Slope =    0.00937  s(percent)=       0.94
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.120 min.
Rainfall intensity =      3.194(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.858
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      1.917(CFS)
Total initial stream area =        0.700(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       81.000 to Point/Station       82.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   655.000(Ft.)
Top (of initial area) elevation =   679.000(Ft.)
Bottom (of initial area) elevation =   676.500(Ft.)
Difference in elevation =     2.500(Ft.)
Slope =    0.00382  s(percent)=       0.38
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   12.226 min.
Rainfall intensity =      2.878(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.855
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      1.970(CFS)
Total initial stream area =        0.800(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       81.000 to Point/Station       83.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   310.000(Ft.)
Top (of initial area) elevation =   679.000(Ft.)
Bottom (of initial area) elevation =   677.500(Ft.)
Difference in elevation =     1.500(Ft.)
Slope =    0.00484  s(percent)=       0.48
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
```

```
Initial area time of concentration =    8.644 min.
Rainfall intensity =      3.483(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.860
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      1.797(CFS)
Total initial stream area =        0.600(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       84.000 to Point/Station       85.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   300.000(Ft.)
Top (of initial area) elevation =   678.500(Ft.)
Bottom (of initial area) elevation =   676.000(Ft.)
Difference in elevation =     2.500(Ft.)
Slope =    0.00833  s(percent)=       0.83
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.653 min.
Rainfall intensity =      3.725(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.861
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      1.604(CFS)
Total initial stream area =        0.500(Ac.)
Pervious area fraction = 0.100


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Process from Point/Station       86.000 to Point/Station       87.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   590.000(Ft.)
Top (of initial area) elevation =   680.500(Ft.)
Bottom (of initial area) elevation =   673.500(Ft.)
Difference in elevation =     7.000(Ft.)
Slope =    0.01186  s(percent)=       1.19
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    9.346 min.
Rainfall intensity =      3.337(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.859
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      6.303(CFS)
Total initial stream area =        2.200(Ac.)
Pervious area fraction = 0.100
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       88.000 to Point/Station       89.000
**** INITIAL AREA EVALUATION ****
_____________________________________________________________________________
Initial area flow distance =  1000.000(Ft.)
Top (of initial area) elevation =   674.500(Ft.)
Bottom (of initial area) elevation =   663.500(Ft.)
Difference in elevation =    11.000(Ft.)
Slope =    0.01100  s(percent)=       1.10
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.718 min.
Rainfall intensity =      2.946(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.856
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      5.800(CFS)
Total initial stream area =        2.300(Ac.)
Pervious area fraction = 0.100


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       89.000 to Point/Station       90.000
**** INITIAL AREA EVALUATION ****
_____________________________________________________________________________
Initial area flow distance =   700.000(Ft.)
Top (of initial area) elevation =   663.500(Ft.)
Bottom (of initial area) elevation =   658.500(Ft.)
Difference in elevation =     5.000(Ft.)
Slope =    0.00714  s(percent)=       0.71
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.076 min.
Rainfall intensity =      3.039(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.857
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      3.384(CFS)
Total initial stream area =        1.300(Ac.)
Pervious area fraction = 0.100


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Process from Point/Station       91.000 to Point/Station       92.000
**** INITIAL AREA EVALUATION ****
_____________________________________________________________________________
Initial area flow distance =   400.000(Ft.)
Top (of initial area) elevation =   660.500(Ft.)
Bottom (of initial area) elevation =   659.100(Ft.)
Difference in elevation =     1.400(Ft.)
Slope =    0.00350  s(percent)=       0.35
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.212 min.
```

```
Rainfall intensity =      3.178(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.858
Decimal fraction soil group A = 1.000
Decimal fraction soil group B = 0.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
RI index for soil(AMC 2)  =  32.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      2.725(CFS)
Total initial stream area =        1.000(Ac.)
Pervious area fraction = 0.100
End of computations, total study area =          164.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.202
Area averaged RI index number =  32.2
```

SECTION 3
PROPOSED CONDITION HYDROLOGY

MAP

LEGEND

- MAJOR DRAINAGE BOUNDARY
- MINOR DRAINAGE BOUNDARY
- NODE NUMBER
- AREA DESIGNATION / AREA ACREAGE (IN ACRES)
- PEAK FLOW RATE / TIME OF CONCENTRATION
- PEAK CONFLUENCE FLOW RATE / TIME OF CONCENTRATION
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN
- A — SOIL GROUP

1" = 100'

100 50 0 100 300

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NOTE:
THE DETENTION BASIN AND WATER QUALITY BASIN SIZES AND LOCATIONS ARE PRELIMINARY AND SUBJECT TO CHANGE

HYDROLOGY MAP
TENTATIVE MAP NO. 38290
LEAL RANCH
PROPOSED CONDITION
CITY OF EASTVALE

SECTION 4
UNIT HYDROGRAPH AND BASIN ROUTING CALCULATIONS

```
       U n i t   H y d r o g r a p h   A n a l y s i s

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              Study date  11/24/21 File: lealp1100.out


      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
      --------------------------------------------------------------------------

      Riverside County Synthetic Unit Hydrology Method
      RCFC & WCD Manual date - April 1978


      Program License Serial Number 6406

      ------------------------------------------------------------------------
       English (in-lb) Input Units Used
       English Rainfall Data (Inches) Input Values Used

       English Units used in output format



      ------------------------------------------------------------------------
      TENTATIVE MAP NO. 38290 - LEAL Developments
      CITY OF Eastvale
      PROPOSED CONDITION
      100-YEAR STORM
      ------------------------------------------------------------------------
      Drainage Area =     116.40(Ac.)  =      0.182 Sq. Mi.
      Drainage Area for Depth-Area Areal Adjustment =     116.40(Ac.)  =      0.182
Sq. Mi.
      Length along longest watercourse =    3525.00(Ft.)
      Length along longest watercourse measured to centroid =    1700.00(Ft.)
      Length along longest watercourse =      0.668 Mi.
      Length along longest watercourse measured to centroid =      0.322 Mi.
      Difference in elevation =      21.00(Ft.)
      Slope along watercourse =     31.4553 Ft./Mi.
      Average Manning's 'N' = 0.021
      Lag time =    0.147 Hr.
      Lag time =     8.79 Min.
      25% of lag time =     2.20 Min.
      40% of lag time =     3.52 Min.
      Unit time =     5.00 Min.
      Duration of storm = 1 Hour(s)
      User Entered Base Flow =     0.00(CFS)

      2 YEAR Area rainfall data:


      Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
            116.40          0.50                58.20

      100 YEAR Area rainfall data:


      Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
            116.40          1.20               139.68

      STORM EVENT (YEAR) =  100.00
      Area Averaged 2-Year Rainfall =    0.500(In)
      Area Averaged 100-Year Rainfall =    1.200(In)
```

```
Point rain (area averaged) =    1.200(In)
Areal adjustment factor =   99.89 %
Adjusted average point rain =    1.199(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
   116.400           32.20          0.780
 Total Area Entered =    116.40(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-2     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
32.2  32.2      0.740     0.780        0.221       1.000      0.221
                                                  Sum (F) =   0.221
Area averaged mean soil loss (F) (In/Hr) =  0.221
Minimum soil loss rate ((In/Hr)) =  0.110
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.276
------------------------------------------------------------------------
Slope of intensity-duration curve for a 1 hour storm =0.5500
------------------------------------------------------------------------

             U n i t  H y d r o g r a p h
                    VALLEY S-Curve
------------------------------------------------------------------------
             Unit Hydrograph Data
------------------------------------------------------------------------
Unit time period   Time % of lag   Distribution   Unit Hydrograph
    (hrs)                          Graph %           (CFS)
------------------------------------------------------------------------
    1   0.083         56.860          7.518             8.819
    2   0.167        113.719         31.667            37.148
    3   0.250        170.579         27.543            32.311
    4   0.333        227.438         10.935            12.828
    5   0.417        284.298          6.287             7.376
    6   0.500        341.157          4.287             5.029
    7   0.583        398.017          3.113             3.652
    8   0.667        454.877          2.195             2.575
    9   0.750        511.736          1.744             2.046
   10   0.833        568.596          1.382             1.621
   11   0.917        625.455          1.052             1.234
   12   1.000        682.315          0.794             0.931
   13   1.083        739.174          0.590             0.692
   14   1.167        796.034          0.569             0.667
   15   1.250        852.893          0.324             0.380
                               Sum = 100.000   Sum=     117.309
------------------------------------------------------------------------

 The following loss rate calculations reflect use of the minimum calculated loss
 rate subtracted from the Storm Rain to produce the maximum Effective Rain value

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
       (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
    1   0.08     3.30      0.475       (  0.221)       0.131        0.344
    2   0.17     4.20      0.604       (  0.221)       0.167        0.437
    3   0.25     4.40      0.633       (  0.221)       0.175        0.458
    4   0.33     4.80      0.690       (  0.221)       0.191        0.500
    5   0.42     5.20      0.748       (  0.221)       0.206        0.542
    6   0.50     6.20      0.892          0.221    (  0.246)        0.671
    7   0.58     6.80      0.978          0.221    (  0.270)        0.758
    8   0.67     8.80      1.266          0.221    (  0.349)        1.045
```

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 9   0.75    13.90      1.999          0.221    (  0.552)        1.779
10   0.83    31.40      4.517          0.221    (  1.247)        4.296
11   0.92     7.20      1.036          0.221    (  0.286)        0.815
12   1.00     3.80      0.547       (  0.221)       0.151        0.396
            (Loss Rate Not Used)
   Sum =     100.0                                    Sum =    12.0
     Flood volume = Effective rainfall      1.00(In)
      times area     116.4(Ac.)/[(In)/(Ft.)] =       9.7(Ac.Ft)
     Total soil loss =      0.20(In)
     Total soil loss =     1.895(Ac.Ft)
     Total rainfall =      1.20(In)
     Flood volume =      423975.3 Cubic Feet
     Total soil loss =       82528.3 Cubic Feet
     ---------------------------------------------------------------------
      Peak flow rate of this hydrograph =    252.104(CFS)
     ---------------------------------------------------------------------
     +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         1 - H O U R    S T O R M
                    R u n o f f      H y d r o g r a p h
     ---------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     ---------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       75.0     150.0     225.0     300.0
-------------------------------------------------------------------------
  0+ 5       0.0209      3.03  Q         |         |         |         |
  0+10       0.1354     16.63  V Q       |         |         |         |
  0+15       0.3518     31.41  |V  Q     |         |         |         |
  0+20       0.6272     39.99  | V  Q    |         |         |         |
  0+25       0.9462     46.32  |  V  Q   |         |         |         |
  0+30       1.3116     53.05  |    V Q  |         |         |         |
  0+35       1.7413     62.40  |      VQ |         |         |         |
  0+40       2.2545     74.51  |        Q|         |         |         |
  0+45       2.9272     97.67  |         | VQ      |         |         |
  0+50       4.0269    159.68  |         |     V   |Q        |         |
  0+55       5.7631    252.10  |         |         |  V      |  Q      |
  1+ 0       7.2336    213.51  |         |         |       QV|         |
  1+ 5       8.0753    122.21  |         |     Q   |         |  V      |
  1+10       8.5815     73.51  |        Q|         |         |    V    |
  1+15       8.9012     46.42  |      Q  |         |         |     V   |
  1+20       9.1273     32.82  |    Q    |         |         |      V  |
  1+25       9.2913     23.82  |  Q      |         |         |       V |
  1+30       9.4169     18.24  | Q       |         |         |       V |
  1+35       9.5134     14.01  |Q        |         |         |        V|
  1+40       9.5862     10.58  |Q        |         |         |        V|
  1+45       9.6404      7.87  |Q        |         |         |        V|
  1+50       9.6804      5.81  Q         |         |         |        V|
  1+55       9.7113      4.48  Q         |         |         |        V|
  2+ 0       9.7281      2.45  Q         |         |         |        V|
  2+ 5       9.7321      0.57  Q         |         |         |        V|
  2+10       9.7331      0.15  Q         |         |         |        V|
-------------------------------------------------------------------------
```

UNDERGROUND DETENTION BASIN
Total Stage-Storage-Outflow Summary

Elevation	Depth	Volume		Discharge
		(ft^3)	(ac-ft)	(cfs)
642.00	0	0	0	0
643.00	1.00	43,200	0.99	6.86
644.00	2.00	86,400	1.98	19.77
645.00	3.00	129,600	2.98	36.19
646.00	4.00	172,800	3.97	55.37
647.00	5.00	216,000	4.96	70.83
648.00	6.00	259,200	5.95	82.74

Note: Refer to Basin Volume Calculations for Volumes and
Refer to the outflow vs. depth calcualtions for discharges

Provided underground Detention Basin
Designer: Gary Guan
Project: Leal Ranch
Location: Eastvale, Riverside County
Date: 11/24/2021

Elevation	$Depth_{incremental}$	$Depth_{cumulative}$	Area	$Area_{average}$	$Volume_{incremental}$		$Volume_{cumulative}$	
(ft)	(ft)	(ft)	(ft^2)	(ft^2)	(ft^3)	(ac-ft)	(ft^3)	(ac-ft)
642.00			43200				0	0
	1.00			43200	43200	0.992		
643.00		1.00	43200				43200	0.99
	1.00			43200	43200	0.992		
644.00		2.00	43200				86400	1.98
	1.00			43200	43200	0.992		
645.00		3.00	43200				129600	2.98
	1.00			43200	43200	0.992		
646.00		4.00	43200				172800	3.97
	1.00			43200	43200	0.992		
647.00		5.00	43200				216000	4.96
	1.00			43200	43200	0.992		
648.00		6.00	43200				259200	5.95

WATER QUALITY/DETENTION BASIN

OUTFLOW VS DEPTH CALCULATIONS

			HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	HOLES	TOP OF RISER		
		No. of Holes →	5	5	3	3	3	3	3	1	←	No. of Weir
			HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	HOLE C	TOP OF RISER C		
		Discharge Coefficient →	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.8	←	Weir Coefficient
			HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	HOLE FL	DIST TO TOP OF RISER		
Distance of Holes from Basin Bottom (in)		→	0	12	18	24	30	36	42	72	←	Distance of Top of Riser Pipe from Basin Bottom (in)
			HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	HOLE R	RISER LENGTH (FT)		
		Hole Radius (in) →	4.00	4.00	4.00	4.00	4	4	4	15.708	←	Riser Pipe Perimeter (ft) =PAI*D, 60" Riser Pipe
			CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	CEN EL	TOP OF RISER ELEV		
		Hole Centerline Elev →	642.3333	643.3333	643.8333	644.3333	644.8333	645.3333	645.8333	648.0	←	Top of Weir Elevation (ft)
ELEV	DEPTH	OUTFLOW								AREA		
642.00	0	0								0	←	(sq-ft)
643.00	1	6.86	6.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
644.00	2	19.77	10.85	6.86	2.06	0.00	0.00	0.00	0.00	0.00		
645.00	3	36.19	13.72	10.85	5.45	4.12	2.06	0.00	0.00	0.00		
646.00	4	55.37	16.09	13.72	7.42	6.51	5.45	4.12	2.06	0.00		
647.00	5	70.83	18.15	16.09	8.97	8.23	7.42	6.51	5.45	0.00		
648.00	6	82.74	20.00	18.15	10.29	9.66	8.97	8.23	7.42	0.00		

↑ [Σ FLOWS (HOLES+RISER)]

(OUTFLOW THROUGH HOLES)

↑ (FLOW OVER TOP OF RISER PIPE)

Note:

1. Orifice outflow is based on:
   $Q=CA(2gH)^{0.5}$
   where:
   C = Coefficient, 0.6 used here
   A = Orifice Area
   H = Headwater

2. Top of riser overflow is based on:
   $Q=CLH^{1.5}$
   where:
   C = Coefficient, 2.8 used here based on sharp crested weir
   L = Weir Length
   H = Headwater

```
                  FLOOD HYDROGRAPH ROUTING PROGRAM
            Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2014
                        Study date: 11/24/21

------------------------------------------------------------------------


Leal Ranch - Map Number 38290 - City of Eastvale
Detention Basin Routing
100-year storm (underground)

------------------------------------------------------------------------


Program License Serial Number 6406

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******************** HYDROGRAPH INFORMATION **********************

              From study/file name: LEALP1100.rte
****************************HYDROGRAPH DATA****************************
              Number of intervals =    26
              Time interval =    5.0 (Min.)
              Maximum/Peak flow rate =      252.104 (CFS)
              Total volume =       9.733 (Ac.Ft)
       Status of hydrographs being held in storage
                   Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
************************************************************************



++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station       70.000 to Point/Station       70.000
**** RETARDING BASIN ROUTING ****
________________________________________________________________________

User entry of depth-outflow-storage data
------------------------------------------------------------------------
Total number of inflow hydrograph intervals = 26
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
------------------------------------------------------------------------
------------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
------------------------------------------------------------------------
------------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
------------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      0.990      6.860      0.966        1.014
   2.000      1.980     19.770      1.912        2.048
   3.000      2.980     36.190      2.855        3.105
   4.000      3.970     55.370      3.779        4.161
   5.000      4.960     70.830      4.716        5.204
   6.000      5.950     82.740      5.665        6.235
```

Hydrograph Detention Basin Routing

Graph values: 'I'= unit inflow; 'O'=outflow at time shown

Time (Hours)	Inflow (CFS)	Outflow (CFS)	Storage (Ac.Ft)	.0 63.0 126.05 189.08 252.10	Depth (Ft.)
0.083	3.03	0.07	0.010	O	0.01
0.167	16.63	0.53	0.076	O I	0.08
0.250	31.41	1.62	0.234	O I	0.24
0.333	39.99	3.21	0.463	O I	0.47
0.417	46.32	5.07	0.732	O I	0.74
0.500	53.05	7.40	1.031	O I	1.04
0.583	62.40	11.72	1.363	O I	1.38
0.667	74.51	16.60	1.737	O I	1.75
0.750	97.67	23.26	2.192	O I	2.21
0.833	159.68	34.54	2.880	O I	2.90
0.917	252.10	55.64	3.987	O I	4.02
1.000	213.51	73.08	5.147	O I	5.19
1.083	122.21	80.62	5.774	O I	5.82
1.167	73.51	81.99	5.888	IO	5.94
1.250	46.42	80.24	5.742	I O	5.79
1.333	32.82	77.01	5.474	I O	5.52
1.417	23.82	73.14	5.152	I O	5.19
1.500	18.24	68.47	4.809	I O	4.85
1.583	14.01	63.13	4.467	I O	4.50
1.667	10.58	57.94	4.135	I O	4.17
1.750	7.87	52.43	3.818	I O	3.85
1.833	5.81	46.72	3.524	I O	3.55
1.917	4.48	41.52	3.255	I O	3.28
2.000	2.45	36.76	3.009	I O	3.03
2.083	0.57	32.91	2.780	I O	2.80
2.167	0.15	29.42	2.568	I O	2.59
2.250	0.00	26.28	2.377	I O	2.40
2.333	0.00	23.47	2.205	I O	2.23
2.417	0.00	20.96	2.052	I O	2.07
2.500	0.00	18.92	1.915	I O	1.93
2.583	0.00	17.30	1.790	I O	1.81
2.667	0.00	15.81	1.676	I O	1.69
2.750	0.00	14.45	1.572	IO	1.59
2.833	0.00	13.21	1.477	IO	1.49
2.917	0.00	12.07	1.390	IO	1.40
3.000	0.00	11.04	1.310	IO	1.32
3.083	0.00	10.09	1.237	IO	1.25
3.167	0.00	9.22	1.171	IO	1.18
3.250	0.00	8.43	1.110	IO	1.12
3.333	0.00	7.70	1.055	O	1.07
3.417	0.00	7.04	1.004	O	1.01
3.500	0.00	6.63	0.957	O	0.97
3.583	0.00	6.32	0.912	O	0.92
3.667	0.00	6.03	0.870	O	0.88
3.750	0.00	5.75	0.829	O	0.84
3.833	0.00	5.48	0.791	O	0.80
3.917	0.00	5.22	0.754	O	0.76
4.000	0.00	4.98	0.719	O	0.73
4.083	0.00	4.75	0.685	O	0.69
4.167	0.00	4.53	0.653	O	0.66
4.250	0.00	4.31	0.623	O	0.63
4.333	0.00	4.11	0.594	O	0.60
4.417	0.00	3.92	0.566	O	0.57
4.500	0.00	3.74	0.540	O	0.55
4.583	0.00	3.56	0.514	O	0.52

4.667	0.00	3.40	0.490	O	|	|	|	0.50
4.750	0.00	3.24	0.468	O	|	|	|	0.47
4.833	0.00	3.09	0.446	O	|	|	|	0.45
4.917	0.00	2.95	0.425	O	|	|	|	0.43
5.000	0.00	2.81	0.405	O	|	|	|	0.41
5.083	0.00	2.68	0.386	O	|	|	|	0.39
5.167	0.00	2.55	0.368	O	|	|	|	0.37
5.250	0.00	2.43	0.351	O	|	|	|	0.35
5.333	0.00	2.32	0.335	O	|	|	|	0.34
5.417	0.00	2.21	0.319	O	|	|	|	0.32
5.500	0.00	2.11	0.304	O	|	|	|	0.31
5.583	0.00	2.01	0.290	O	|	|	|	0.29
5.667	0.00	1.92	0.277	O	|	|	|	0.28
5.750	0.00	1.83	0.264	O	|	|	|	0.27
5.833	0.00	1.74	0.251	O	|	|	|	0.25
5.917	0.00	1.66	0.240	O	|	|	|	0.24
6.000	0.00	1.58	0.229	O	|	|	|	0.23
6.083	0.00	1.51	0.218	O	|	|	|	0.22
6.167	0.00	1.44	0.208	O	|	|	|	0.21
6.250	0.00	1.37	0.198	O	|	|	|	0.20
6.333	0.00	1.31	0.189	O	|	|	|	0.19
6.417	0.00	1.25	0.180	O	|	|	|	0.18
6.500	0.00	1.19	0.172	O	|	|	|	0.17
6.583	0.00	1.13	0.164	O	|	|	|	0.17
6.667	0.00	1.08	0.156	O	|	|	|	0.16
6.750	0.00	1.03	0.149	O	|	|	|	0.15
6.833	0.00	0.98	0.142	O	|	|	|	0.14
6.917	0.00	0.94	0.135	O	|	|	|	0.14
7.000	0.00	0.89	0.129	O	|	|	|	0.13
7.083	0.00	0.85	0.123	O	|	|	|	0.12
7.167	0.00	0.81	0.117	O	|	|	|	0.12
7.250	0.00	0.77	0.112	O	|	|	|	0.11
7.333	0.00	0.74	0.106	O	|	|	|	0.11
7.417	0.00	0.70	0.102	O	|	|	|	0.10
7.500	0.00	0.67	0.097	O	|	|	|	0.10
7.583	0.00	0.64	0.092	O	|	|	|	0.09
7.667	0.00	0.61	0.088	O	|	|	|	0.09
7.750	0.00	0.58	0.084	O	|	|	|	0.08
7.833	0.00	0.55	0.080	O	|	|	|	0.08
7.917	0.00	0.53	0.076	O	|	|	|	0.08
8.000	0.00	0.50	0.073	O	|	|	|	0.07
8.083	0.00	0.48	0.069	O	|	|	|	0.07
8.167	0.00	0.46	0.066	O	|	|	|	0.07
8.250	0.00	0.44	0.063	O	|	|	|	0.06
8.333	0.00	0.42	0.060	O	|	|	|	0.06
8.417	0.00	0.40	0.057	O	|	|	|	0.06
8.500	0.00	0.38	0.055	O	|	|	|	0.06
8.583	0.00	0.36	0.052	O	|	|	|	0.05
8.667	0.00	0.34	0.050	O	|	|	|	0.05
8.750	0.00	0.33	0.047	O	|	|	|	0.05
8.833	0.00	0.31	0.045	O	|	|	|	0.05
8.917	0.00	0.30	0.043	O	|	|	|	0.04
9.000	0.00	0.28	0.041	O	|	|	|	0.04
9.083	0.00	0.27	0.039	O	|	|	|	0.04
9.167	0.00	0.26	0.037	O	|	|	|	0.04
9.250	0.00	0.25	0.036	O	|	|	|	0.04
9.333	0.00	0.23	0.034	O	|	|	|	0.03
9.417	0.00	0.22	0.032	O	|	|	|	0.03
9.500	0.00	0.21	0.031	O	|	|	|	0.03
9.583	0.00	0.20	0.029	O	|	|	|	0.03
9.667	0.00	0.19	0.028	O	|	|	|	0.03
9.750	0.00	0.18	0.027	O	|	|	|	0.03
9.833	0.00	0.18	0.025	O	|	|	|	0.03

9.917	0.00	0.17	0.024	O	|	|	|	0.02
10.000	0.00	0.16	0.023	O	|	|	|	0.02
10.083	0.00	0.15	0.022	O	|	|	|	0.02
10.167	0.00	0.15	0.021	O	|	|	|	0.02
10.250	0.00	0.14	0.020	O	|	|	|	0.02
10.333	0.00	0.13	0.019	O	|	|	|	0.02
10.417	0.00	0.13	0.018	O	|	|	|	0.02
10.500	0.00	0.12	0.017	O	|	|	|	0.02
10.583	0.00	0.11	0.017	O	|	|	|	0.02
10.667	0.00	0.11	0.016	O	|	|	|	0.02
10.750	0.00	0.10	0.015	O	|	|	|	0.02
10.833	0.00	0.10	0.014	O	|	|	|	0.01
10.917	0.00	0.09	0.014	O	|	|	|	0.01
11.000	0.00	0.09	0.013	O	|	|	|	0.01
11.083	0.00	0.09	0.012	O	|	|	|	0.01
11.167	0.00	0.08	0.012	O	|	|	|	0.01
11.250	0.00	0.08	0.011	O	|	|	|	0.01
11.333	0.00	0.07	0.011	O	|	|	|	0.01
11.417	0.00	0.07	0.010	O	|	|	|	0.01
11.500	0.00	0.07	0.010	O	|	|	|	0.01
11.583	0.00	0.06	0.009	O	|	|	|	0.01
11.667	0.00	0.06	0.009	O	|	|	|	0.01
11.750	0.00	0.06	0.008	O	|	|	|	0.01
11.833	0.00	0.06	0.008	O	|	|	|	0.01
11.917	0.00	0.05	0.008	O	|	|	|	0.01
12.000	0.00	0.05	0.007	O	|	|	|	0.01
12.083	0.00	0.05	0.007	O	|	|	|	0.01
12.167	0.00	0.05	0.007	O	|	|	|	0.01
12.250	0.00	0.04	0.006	O	|	|	|	0.01
12.333	0.00	0.04	0.006	O	|	|	|	0.01
12.417	0.00	0.04	0.006	O	|	|	|	0.01
12.500	0.00	0.04	0.006	O	|	|	|	0.01
12.583	0.00	0.04	0.005	O	|	|	|	0.01
12.667	0.00	0.03	0.005	O	|	|	|	0.01
12.750	0.00	0.03	0.005	O	|	|	|	0.00
12.833	0.00	0.03	0.005	O	|	|	|	0.00
12.917	0.00	0.03	0.004	O	|	|	|	0.00
13.000	0.00	0.03	0.004	O	|	|	|	0.00
13.083	0.00	0.03	0.004	O	|	|	|	0.00
13.167	0.00	0.03	0.004	O	|	|	|	0.00
13.250	0.00	0.02	0.004	O	|	|	|	0.00
13.333	0.00	0.02	0.003	O	|	|	|	0.00
13.417	0.00	0.02	0.003	O	|	|	|	0.00
13.500	0.00	0.02	0.003	O	|	|	|	0.00
13.583	0.00	0.02	0.003	O	|	|	|	0.00
13.667	0.00	0.02	0.003	O	|	|	|	0.00
13.750	0.00	0.02	0.003	O	|	|	|	0.00
13.833	0.00	0.02	0.003	O	|	|	|	0.00
13.917	0.00	0.02	0.002	O	|	|	|	0.00
14.000	0.00	0.02	0.002	O	|	|	|	0.00
14.083	0.00	0.02	0.002	O	|	|	|	0.00
14.167	0.00	0.01	0.002	O	|	|	|	0.00
14.250	0.00	0.01	0.002	O	|	|	|	0.00
14.333	0.00	0.01	0.002	O	|	|	|	0.00
14.417	0.00	0.01	0.002	O	|	|	|	0.00
14.500	0.00	0.01	0.002	O	|	|	|	0.00
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14.667	0.00	0.01	0.002	O	|	|	|	0.00
14.750	0.00	0.01	0.002	O	|	|	|	0.00
14.833	0.00	0.01	0.001	O	|	|	|	0.00
14.917	0.00	0.01	0.001	O	|	|	|	0.00
15.000	0.00	0.01	0.001	O	|	|	|	0.00
15.083	0.00	0.01	0.001	O	|	|	|	0.00

```
15.167    0.00    0.01      0.001  O       |       |       |       |     0.00
15.250    0.00    0.01      0.001  O       |       |       |       |     0.00
15.333    0.00    0.01      0.001  O       |       |       |       |     0.00
15.417    0.00    0.01      0.001  O       |       |       |       |     0.00
15.500    0.00    0.01      0.001  O       |       |       |       |     0.00
15.583    0.00    0.01      0.001  O       |       |       |       |     0.00

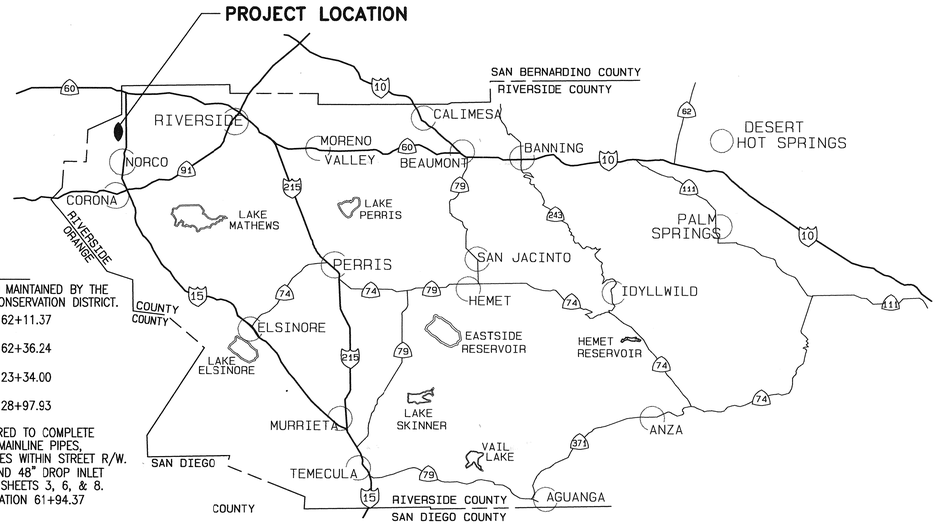
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                  Number of intervals =   187
                  Time interval =    5.0 (Min.)
                  Maximum/Peak flow rate =       81.994 (CFS)
                  Total volume =       9.732 (Ac.Ft)
            Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
            Peak (CFS)      0.000     0.000     0.000     0.000     0.000
            Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ***********************************************************************

      ---------------------------------------------------------------------
```

SECTION 5
REFERENCES

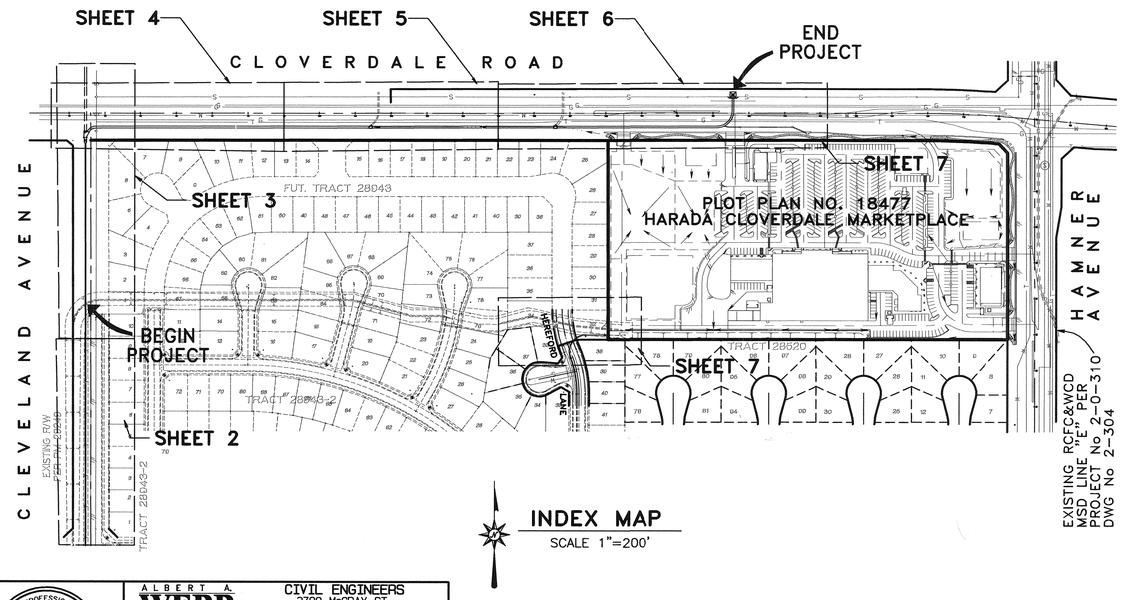
- **AS-BUILT STORM DRAIN IMPROVEMENT PLANS ALONG LIMONITE AVENUE (MDP LINE "D-5", RCFCD DWG NO. 2-0-323)**

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT



VICINITY MAP

N.T.S.



INDEX MAP

SCALE 1"=200'

MAINTENANCE NOTES

THE FOLLOWING ITEMS ARE TO BE INSPECTED AND MAINTAINED BY THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT.

1. 78" RCP FROM STATION 62+03.37 TO STATION 62+11.37 AS SHOWN ON SHEET 3.
2. 72" RCP FROM STATION 62+30.24 TO STATION 62+36.24 AS SHOWN ON SHEET 3.
3. 60" RCP FROM STATION 10+06.67 TO STATION 23+34.00 AS SHOWN ON SHEETS 4 & 5.
4. 54" RCP FROM STATION 23+37.93 TO STATION 28+97.93 AS SHOWN ON SHEETS 5 & 6.
5. ALL MANHOLES AND OTHER STRUCTURES REQUIRED TO COMPLETE THE CONSTRUCTION OF THE ABOVE MENTIOND MAINLINE PIPES, EXCLUDING CATCH BASINS AND COLLECTOR PIPES WITHIN STREET R/W.
6. 72" BUBBLER FACILITY AT STATION 61+99.37 AND 48" DROP INLET FACILITY AT STATION 28+97.93 AS SHOWN ON SHEETS 3, 6, & 8.
7. 24" HDPE/PVC FROM STATION 49+93.05 TO STATION 61+94.37 AS SHOWN ON SHEETS 2 & 3.

GENERAL NOTES

1. THE CONTRACTOR SHALL CONSTRUCT THE FLOOD CONTROL IMPROVEMENTS SHOWN ON THE DRAWINGS IN CONFORMANCE WITH THE REQUIREMENTS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT'S MEMORANDUM OF UNDERSTANDING STANDARD SPECIFICATIONS, DATED SEPTEMBER 1984, AND DESIGN MANUAL STANDARD DRAWINGS, RECENT EDITION DATED MAY 1971.
2. THE CONTRACTOR IS REQUIRED TO CONTACT ALL UTILITY AGENCIES REGARDING TEMPORARY SUPPORT AND SHORING REQUIREMENTS FOR THE VARIOUS UTILITIES SHOWN IN THE PLAN.
3. CONSTRUCTION INSPECTION WILL BE PERFORMED BY RIVERSIDE COUNTY FLOOD CONTROL. CONTACT DALE ANDERSON AT (909) 955-1288. THE DISTRICT MUST BE NOTIFIED TWENTY DAYS PRIOR TO CONSTRUCTION.
4. ALL STATIONING REFERS TO THE CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE NOTED.
5. STATIONING FOR LATERALS AND CONNECTOR PIPE REFER TO THE CENTERLINE-CENTERLINE INTERSECTION STATION.
6. FORTY-EIGHT HOURS BEFORE EXCAVATION, CALL UNDERGROUND SERVICE ALERT (800) 227-2600.
7. ALL ELEVATIONS SHOWN ARE IN FEET AND DECIMALS THEREOF BASED ON U.S.C. & G.S. DATUM.
8. ALL CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM.
9. ELEVATIONS AND LOCATIONS OF UTILITIES SHOWN ARE APPROXIMATE UNLESS OTHERWISE NOTED. ALL UTILITIES ARE TO BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
10. OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES TO BE ABANDONED SHALL BE SEALED WITH 6 INCHES OF CLASS "B" CONCRETE.
11. PIPE CONNECTED TO THE MAINLINE PIPE SHALL CONFORM TO JUNCTION STRUCTURE NO. 4 (JS 229) UNLESS OTHERWISE NOTED.
12. "V" IS THE DEPTH OF INLET AND CATCH BASINS MEASURED FROM THE TOP OF CURB TO INVERT OF CONNECTOR PIPE.
13. ALL CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS TO BE RECONSTRUCTED IN KIND AND AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS UNLESS OTHERWISE NOTED.
14. HYDRAULIC GRADE LINES SHOWN IN PROFILES ARE FOR 100 YEAR FREQUENCY FLOWS, UNLESS OTHERWISE NOTED.
15. THE CONTRACTOR SHALL COMPLY WITH THE STATE AND LOCAL SAFETY CODES DURING THE PROGRESS OF WORK.
16. THE DEVELOPER SHALL MAINTAIN ADJACENT STREETS IN A NEAT, SAFE, CLEAN AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE COUNTY OF RIVERSIDE'S OR DISTRICT'S INSPECTOR. THE ADJACENT STREETS SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY CLEAN-UP ON ADJACENT STREETS AFFECTED BY HIS CONSTRUCTION. METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS.

GENERAL NOTES CONT.

17. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, R.C.F.C.D., COUNTY ROAD DEPARTMENT, AND THE DEVELOPER'S ENGINEER HARLMESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNERS, OR THE DEVELOPER'S ENGINEER.
18. ADJUST ALL STORM DRAIN AND SEWER MANHOLES, AND WATER VALVES TO GRADE.
19. ALL PIPE LENGTHS ARE HORIZONTAL PROJECTIONS (NOT TRUE LENGTHS OF PIPE) AND ARE THE BASIS OF THE ESTIMATES OF QUANTITIES. THE CONTRACTOR SHALL DETERMINE THE TRUE QUANTITY OF PIPE REQUIRED FOR THIS PROJECT PRIOR TO PLACING THE ORDER.
20. ELEVATIONS SHOWN ARE TO THE INVERT OF PIPE, EXCEPT WHERE OTHERWISE NOTED.
21. AT THE DISCRETION OF THE ENGINEER, THE CONTRACTOR MAY BE REQUIRED TO VERIFY BY POTHOLING THE LOCATION OF POTENTIALLY AFFECTED UTILITIES.
22. CONTRACTOR SHALL DISPOSE OF ALL EXCESS EXCAVATED MATERIAL AT MANDATORY DISPOSAL SITE. MUST BE NOTIFIED ONE WEEK PRIOR TO CONSTRUCTION.
23. ALL BACKFILL AND BEDDING AROUND STRUCTURES AND PIPES SHALL BE COMPACTED TO NOT LESS THAN 90 PERCENT RELATIVE COMPACTION EXCEPT WHERE SUCH MATERIAL IS PLACED UNDER EXISTING PAVED ROADWAYS, THE TOP 3 FEET, MEASURED FROM THE FINISHED PAVING, SHALL BE COMPACTED TO 95 PERCENT RELATIVE COMPACTION.
24. PIPE BEDDING SHALL CONFORM TO RCFC&WCD STD. DWG. NO. M815 EXCEPT FOR COVER <2 FEET. FOR COVER <2 FEET, CONCRETE SLURRY (2000 PSI - 2 SACK) SHALL BE USED. THE ENTIRE TRENCH SHALL BE SLURRY EXTENDING 4 INCHES MINIMUM AND 12 INCHES MAXIMUM ABOVE THE TOP OF THE PIPE.
25. APPROVAL OF THESE PLANS BY THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DOES NOT RELIEVE THE DEVELOPER'S ENGINEER OF RESPONSIBILITY FOR THE ENGINEERING DESIGN. IF FIELD CHANGES ARE REQUIRED, IT WILL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO MAKE THE NECESSARY CORRECTIONS.
26. THE CONTRACTOR OR DEVELOPER SHALL SECURE ALL REQUIRED ENCROACHMENT AND/OR STATE AND FEDERAL REGULATORY PERMITS PRIOR TO THE COMMENCEMENT OF ANY WORK.
27. STANDARD DRAWINGS CALLED FOR ON THE PLANS AND PROFILES SHALL CONFORM TO DISTRICT STANDARD DRAWINGS UNLESS NOTED OTHERWISE.
28. DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, TEMPORARY DRAINAGE CONTROL SHOULD BE PROVIDED TO PREVENT PONDING WATER AND DRAINAGE TO ADJACENT PROPERTIES.

AS BUILT
APPROVED BY:
DATE 7-6-06

CONSTRUCTION NOTES

(1)	CONSTRUCT 72" CMP BUBBLER PER DETAIL ON SHEET 8	1 EA
(2)	INSTALL 24" HDPE OR PVC.	1,184 LF
(3)	CONSTRUCT MANHOLE #4 PER RCFC & WCD STD. DWG. NO. MH 254,	3 EA
(4)	INSTALL 60" RCP (D-LOAD PER PLANS)	1,310 LF
(5)	INSTALL 54" RCP (D-LOAD PER PLANS)	545 LF
(6)	CONSTRUCT JUNCTION STRUCTURE #2 PER RCFC&WCD STD. DWG. JS 227.	1 EA
(7)	CONSTRUCT DROP INLET PER DETAIL ON SHEET 8	1 EA
(8)	CONSTRUCT METAL GUARD RAIL PER CALTRANS STD. PLAN NO. A77A	30 LF
(9)	CONSTRUCT MANHOLE #2 PER RCFC&WCD STD. DWG. MH252.	4 EA
(10)	CONSTRUCT CONCRETE COLLAR PER RCFC&WCD STD. DWG. M821.	3 EA
(11)	INSTALL 24" RCP (D-LOAD PER PLANS)	230 LF
(12)	INSTALL 30" RCP (D-LOAD PER PLANS)	91 LF
(13)	CONSTRUCT MANHOLE #1 PER RCFC & WCD STD. No. MH251	1 EA
(14)	CONSTRUCT CONCRETE BULKHEAD PER RCFC & WCD STD. No. M816	3 EA
(15)	INSTALL HDPE TEE FITTINGS WITH 6" CLEANOUT CAP	2 EA
(16)	INSTALL 22'x22' RIP-RAP WITH 1/4 TON, 30" THICKNESS ROCK (TYP)	1 EA

QUANTITIES

R.C.F.C. & W.C.D. STD. DRAWINGS

JS 227	JUNCTION STRUCTURE No. 2
MH 252	MANHOLE NO. 2
M 815	BEDDING AND PAY LINES
MH 251	MANHOLE NO. 1
MH 254	MANHOLE NO. 4
M 816	BULKHEAD

CALTRANS STD. DRAWINGS

D93C	DEBRIS RACK CAGE
A77A	METAL GUARD RAIL

SHEET INDEX

TITLE SHEET	1
TEMP LINE D-3 STA 50+50.03 TO STA 56+50.00	2
TEMP LINE D-3 STA 56+50.00 TO STA 62+34.69	3
LINE D-5 STA 10+00.00 TO STA 16+00.00	4
LINE D-5 STA 16+00.00 TO STA 23+00.00	5
LINE D-5 STA 23+00.00 TO STA 28+89.88	6
LINE D-5-1 STA 10+00.00 TO STA 12+37.23	7
LINE A STA 1+00.00 TO STA 2+14.00	
DETAILS	8

PP 18477 - IP 040028
CLOVERDALE MARKETPLACE

GHY

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH (909) 686-1070
FAX (909) 788-1256
PREPARED BY: [signature]
DATE: 6/25/04
R.C.E. NO. C44762
EXP. DATE: 3-31-06
REGISTERED PROFESSIONAL ENGINEER SCOTT R. HILDEBRAND NO. C44762 EXP. 3-31-06 CIVIL STATE OF CALIFORNIA

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY: [signature] 7/19/04
DEPUTY DIRECTOR OF TRANSPORTATION
DATE: 8287-6-04
REGISTERED PROFESSIONAL ENGINEER (SEALED) A. OTHMAN NO. 33950 EXP. 6-30-06 CIVIL STATE OF CALIFORNIA

Don't Dig...Until You Call U.S.A. Toll Free
1-800-227-2600
for the location of buried utility lines.
Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
M.L. 36-34 1988
AT THE CORNER OF HAMNER AVE. & BELLEGRAVE AVE. 60 FEET E OF HAMNER AVE., 36 FEET NW OF BELLEGRAVE AVE, A BRASS DISK ON TOP OF SW CORNER OF 4'x7' CONC. GAS CO. VAULT MARKED ML 36-34
ELEV=694.35'

REF.	DESCRIPTION	APPR.	DATE
	P8/235729 REVISIONS		
2	AS-BUILT		
1	REVISED "D" LOADS SENT 8-31-04	SEM	9/21/06

DESIGNED BY: WL
DRAWN BY: WL
DATE DRAWN: 6/25/2004
CHECKED BY: [signature]

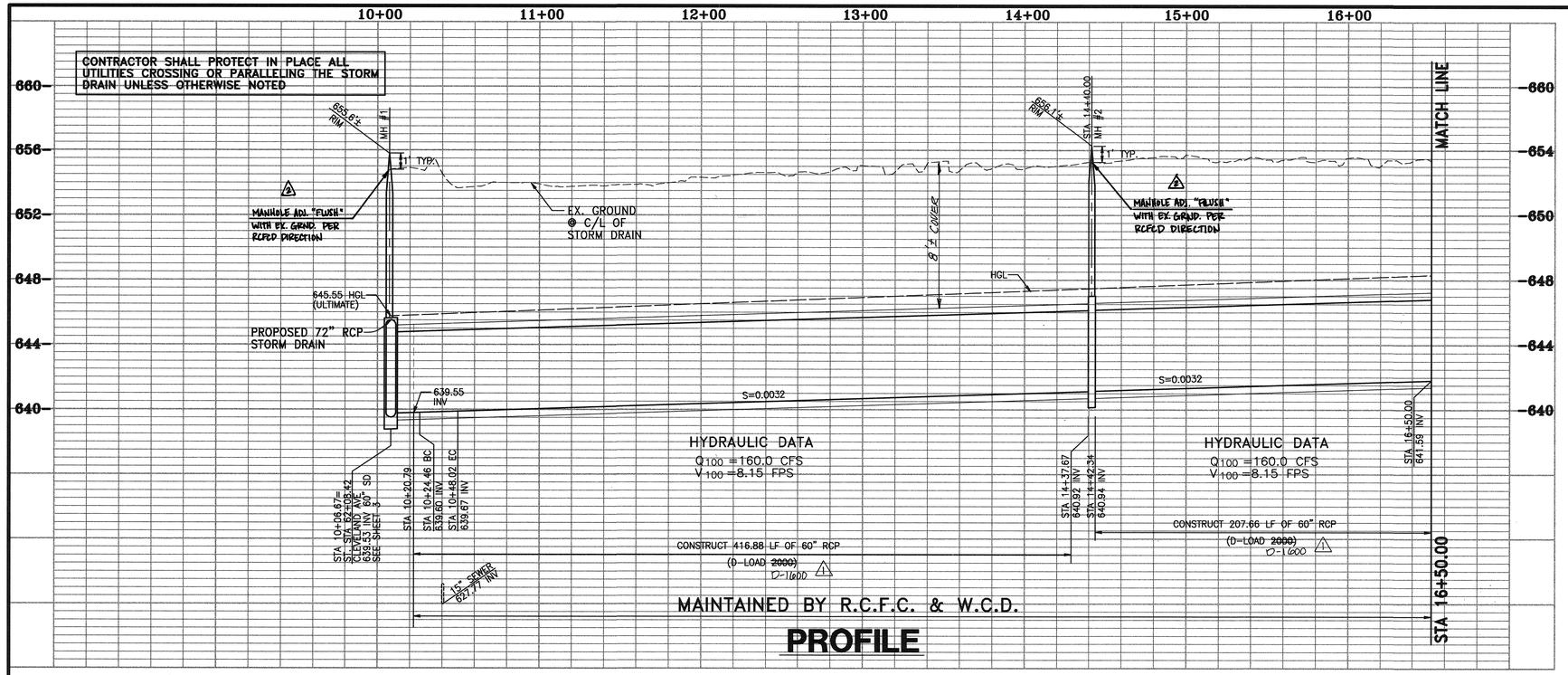
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RECOMMENDED FOR APPROVAL BY: [signature]
PLANNING ENGINEER
DATE: 8-3-2004
APPROVED BY: [signature]
CHIEF ENGINEER
DATE: 8/3/04

EASTVALE MDP LINE D-5 & D-3 (TEMPORARY)
TITLE SHEET

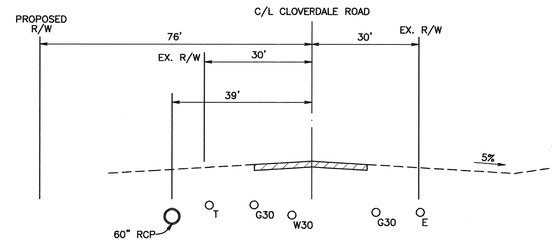
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DRAWING NO. 2-350
SHEET NO. 1 OF 8

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CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED



PROFILE



SECTION AT STA 16+00.00
CLOVERDALE ROAD

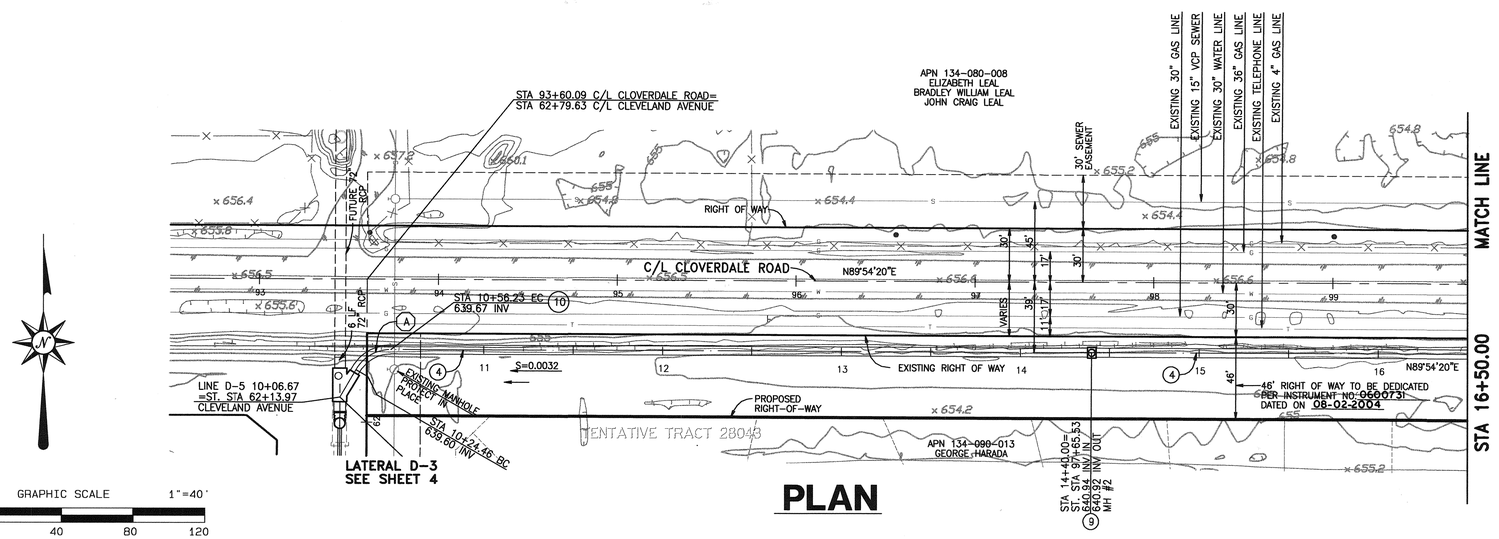
GRAPHIC SCALE 1"=20'

0 20 40 60

CURVE DATA				
	DELTA	RADIUS	LENGTH	TANGENT
A	60°00'00"	22.56'	23.56'	12.99'

CONSTRUCTION NOTES

4. INSTALL 60" RCP (D-LOAD PER PLANS)
9. CONSTRUCT MANHOLE #2 PER RCFC & WCD STD. DWG. NO. MH252.



PLAN

GRAPHIC SCALE 1"=40'

0 40 80 120

AS BUILT
APPROVED BY:
DATE 7-6-06

PP 18477 – IP 040028
CLOVERDALE MARKETPLACE

GMY

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REGISTERED PROFESSIONAL ENGINEER SCOTT R. HILDEBRANDT NO. C44762 EXP. 3-31-06 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH. (909) 686-1070
FAX (909) 788-1256
PREPARED BY:
R.C.E. NO. C44762
DATE: 6/25/04
EXP. DATE: 3-31-06

Don't Dig...Until You Call U.S.A. Toll Free
1-800-227-2600
for the location of buried utility lines.
Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
B.M. NO. M-13-65
IN THE INTER. OF LINDENBERGER RD. AND SIMPSON RD, A 1-INCH IRON PIPE AND TAG MARKED COUNTY SURVEYOR IN A CAP WELL MONUMENT
ELEV. 1444.021

REF.	DESCRIPTION	APPR.	DATE
	P8/235729 REVISIONS		
2	AS-BUILT		
1	REVISED "D" LOADS SRH 8-31-04	SEM	9/01/04

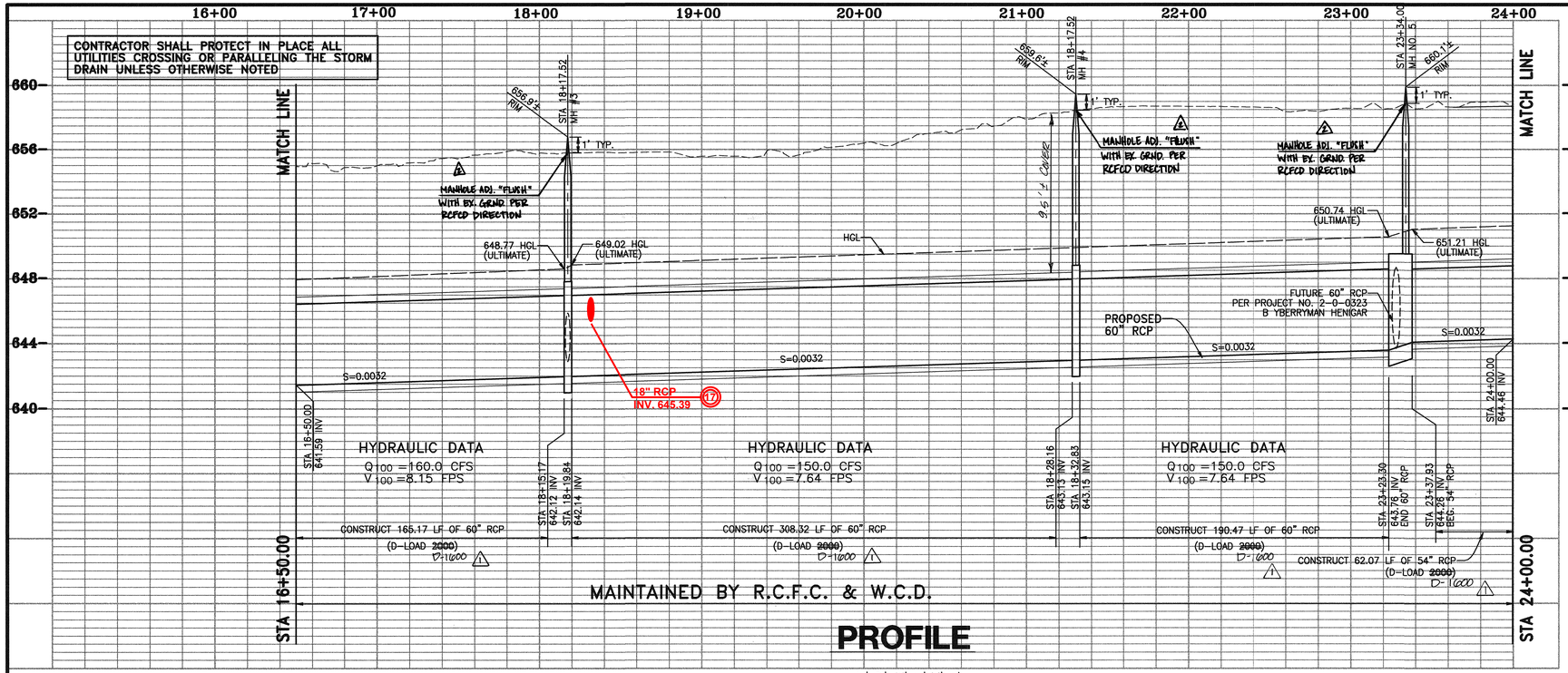
DESIGNED BY: WL
DRAWN BY: WL
DATE DRAWN: 6/25/2004
CHECKED BY: RB

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY:
DATE: 8/3/04
APPROVED BY:
DATE: 8-3-2004

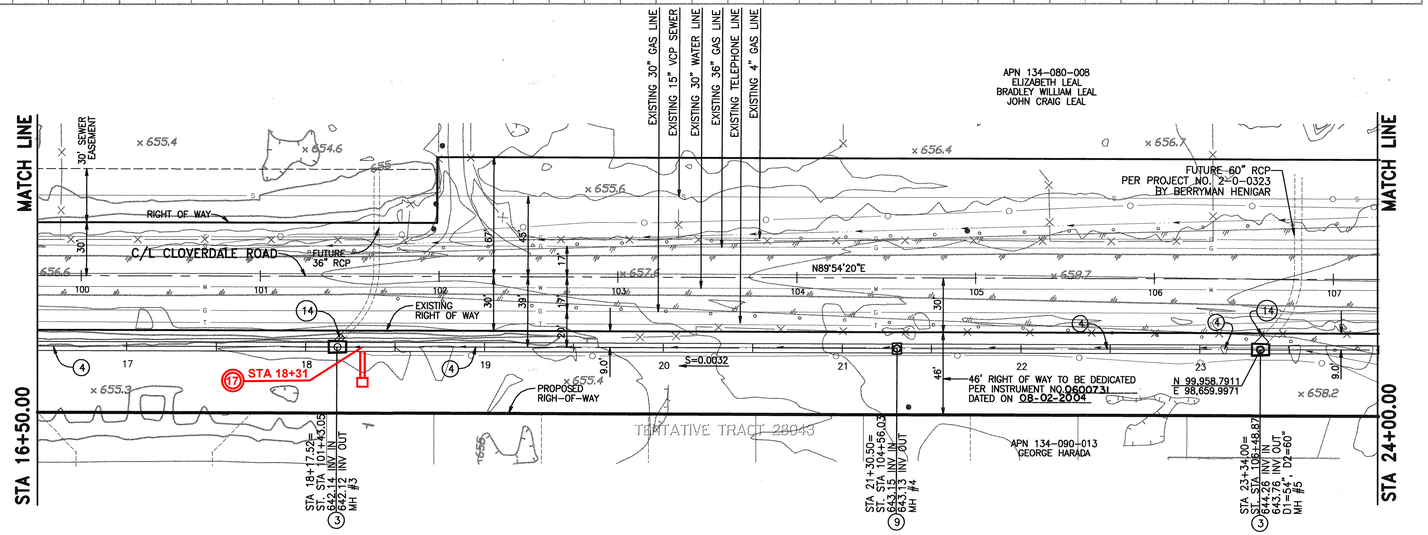
EASTVALE MDP LINE D-5
STA 10+00.00 TO STA 16+00.00

PROJECT NO. 2-0-0323
DRAWING NO. 2-350
SHEET NO. 4 OF 8

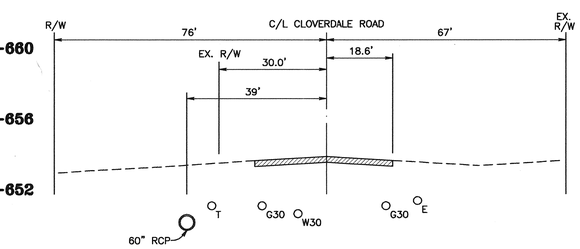
CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED



PROFILE



PLAN



SECTION AT STA 20+00.00
CLOVERDALE ROAD
GRAPHIC SCALE 1"=20'
0 20 40 60

MH NO. 4	
M.L. STA.	18+17.52 LAT. D-5
LATERAL	FUTURE 36" RCP
A	30'±
B	36"
D1	60"
D2	60"
C	9.59'
L	10.00'
ELEV."S"	643.07
ELEV."R"	643.14

MH NO. 4	
M.L. STA.	23+34.00 LAT. D-5
LATERAL	FUTURE 60" RCP
A	30'±
B	60"
D1	54"
D2	60"
C	8.42'
L	10.00'
ELEV."S"	643.87
ELEV."R"	643.93

CONSTRUCTION NOTES

(3) CONSTRUCT MANHOLE #4 PER RCFC & WCD STD. DWG. NO. MH 254,
(4) INSTALL 60" RCP (D-LOAD PER PLANS)
(9) CONSTRUCT MANHOLE #2 PER RCFC & WCD STD. DWG. NO. MH252.
(14) CONSTRUCT CONCRETE BULKHEAD PER RCFC & WCD STD. No. M816
(17) EP 3675, 11/16/2018, 18" RCP CONNECTION W/ JS NO. 4 PER STD JS229

AS BUILT
APPROVED BY: [illegible]
DATE 7-6-05

GRAPHIC SCALE 1"=40'
0 40 80 120

PP 18477 – IP 040028
CLOVERDALE MARKETPLACE

GHY

REGISTERED PROFESSIONAL ENGINEER SCOTT R. HILDEBRANDT NO. C44762 EXP. 3-31-06 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX (909) 788-1256
PREPARED BY: [signature] R.C.E. NO. C44762
DATE: 6/28/04 EXP. DATE: 3-31-06

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
BURIED CABLE
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
B.M. NO. M-13-65
IN THE INTER. OF LINDENBERGER RD. AND SIMPSON RD, A 1-INCH IRON PIPE AND TAG MARKED COUNTY SURVEYOR IN A CAP WELL MONUMENT
ELEV. 1444.021

P8/235729 REVISIONS

REF.	DESCRIPTION	APPR.	DATE
2	AS-BUILT	SET	6/21/04
1	REVISED "D" LOADS [signature] 8-3-04		

DESIGNED BY: WL
DRAWN BY: WL
DATE DRAWN: 6/25/2004
CHECKED BY: RB

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL: [signature] DATE: 8/3/04
APPROVED BY: Stuart E. McKibbin DATE: 8-3-2004

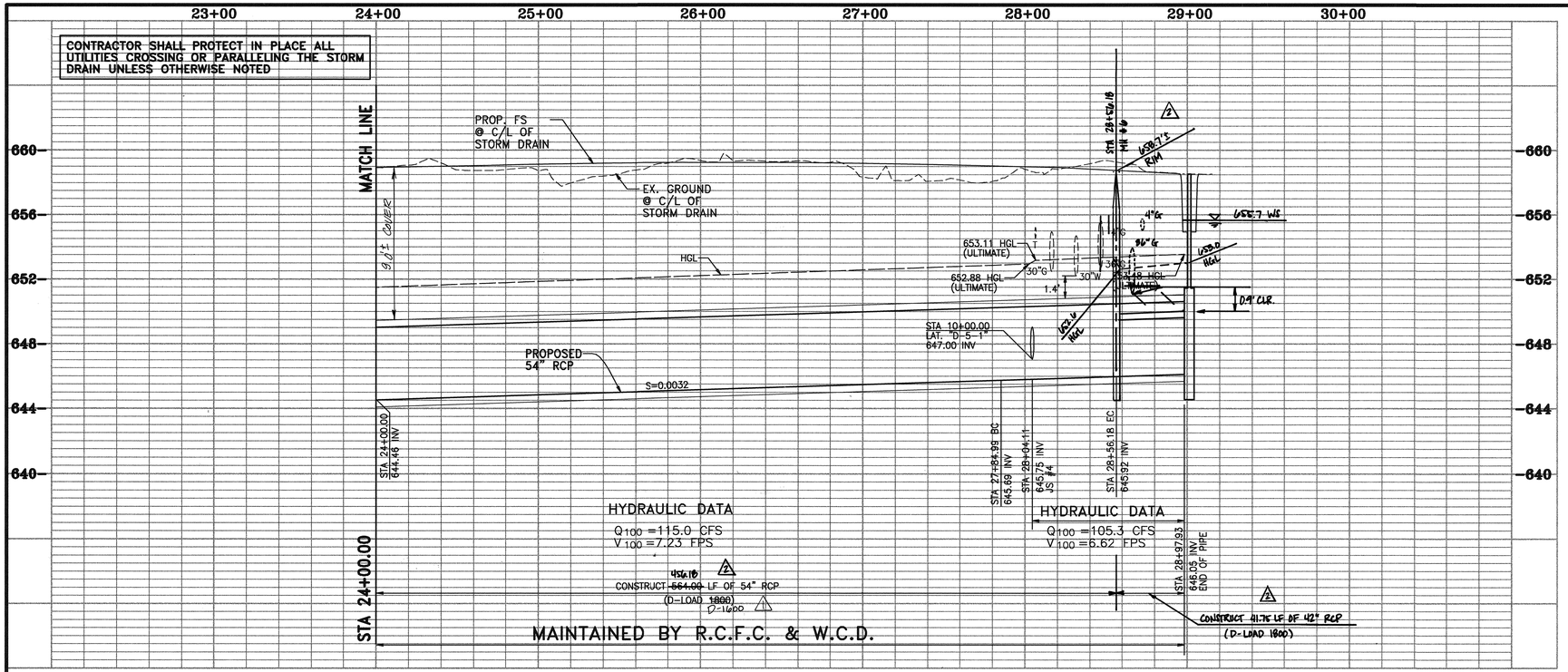
EASTVALE MDP LINE D-5
STA 16+00.00 TO STA 23+00.00

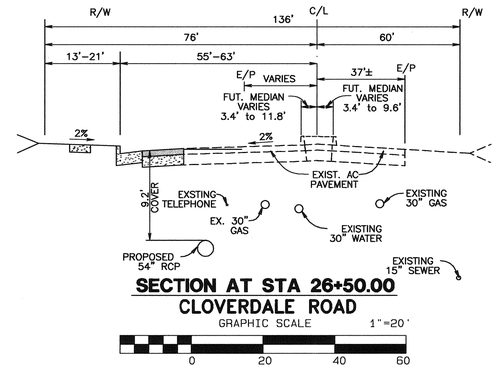
PROJECT NO. 2-0-0323
DRAWING NO. 2-350
SHEET NO. 5 OF 8

G:\2003\03-0263\Design\03-0263PCD.pro 6/25/2004 10:58AM

CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED

PROFILE





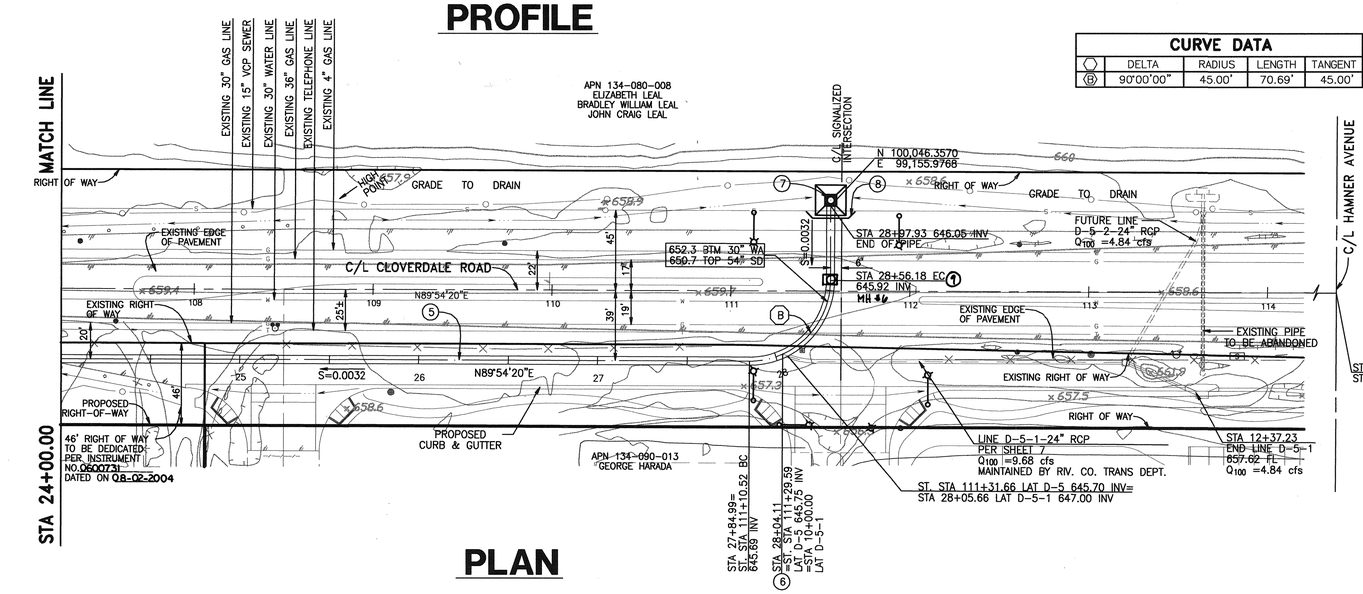
SECTION AT STA 26+50.00
CLOVERDALE ROAD

GRAPHIC SCALE 1"=20'

J.S. NO. 4	
M.L. STA.	28+04.11 LAT. D-5
LATERAL	LAT. D-5-1
A	30"±
B	24"
D	54"
C	6.9'
E	5.8'
F	2.01'
G	1.89'
L	6.8'
ELEV."S"	647.00
ELEV."R"	647.10

CURVE DATA				
	DELTA	RADIUS	LENGTH	TANGENT
Ⓑ	90°00'00"	45.00'	70.69'	45.00'

PLAN



GRAPHIC SCALE 1"=40'
0 40 80 120

CONSTRUCTION NOTES

4. INSTALL 60" RCP (D-LOAD PER PLANS)
5. INSTALL 54" RCP (D-LOAD PER PLANS)
6. CONSTRUCT JUNCTION STRUCTURE #2 PER RCFC & WCD STD. DWG. NO. JS 227.
7. CONSTRUCT DROP INLET PER DETAIL ON SHEET 8
8. CONSTRUCT METAL GUARD RAIL PER CALTRANS STD. PLAN NO. A77A
9. CONSTRUCT MANHOLE #2 PER RCFC & WCD STD. DWG. NO. MH252.
14. CONSTRUCT CONCRETE BULKHEAD PER RCFC & WCD STD. No. M816

AS BUILT
APPROVED BY: [signature]
DATE 7-6-06

PP 18477 – IP 040028
CLOVERDALE MARKETPLACE

GMY

REGISTERED PROFESSIONAL ENGINEER SCOTT R. HILDEBRANDT NO. C44762 EXP. 3-31-06 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX: (909) 788-1256
PREPARED BY: [signature] DATE: 6-25-04
R.C.E. NO. C44762
EXP. DATE: 3-31-06

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services. TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
B.M. NO. M-13-65
IN THE INTER. OF LINDENBERGER RD. AND SIMPSON RD, A 1-INCH IRON PIPE AND TAG MARKED COUNTY SURVEYOR IN A CAP WELL MONUMENT
ELEV. 1444.021

P8/235729 REVISIONS

REF.	DESCRIPTION	APPR.	DATE
A	AS-BUILT	GET	8/31/04
1	REVISED "D" LOADS SRH 8-31-04		

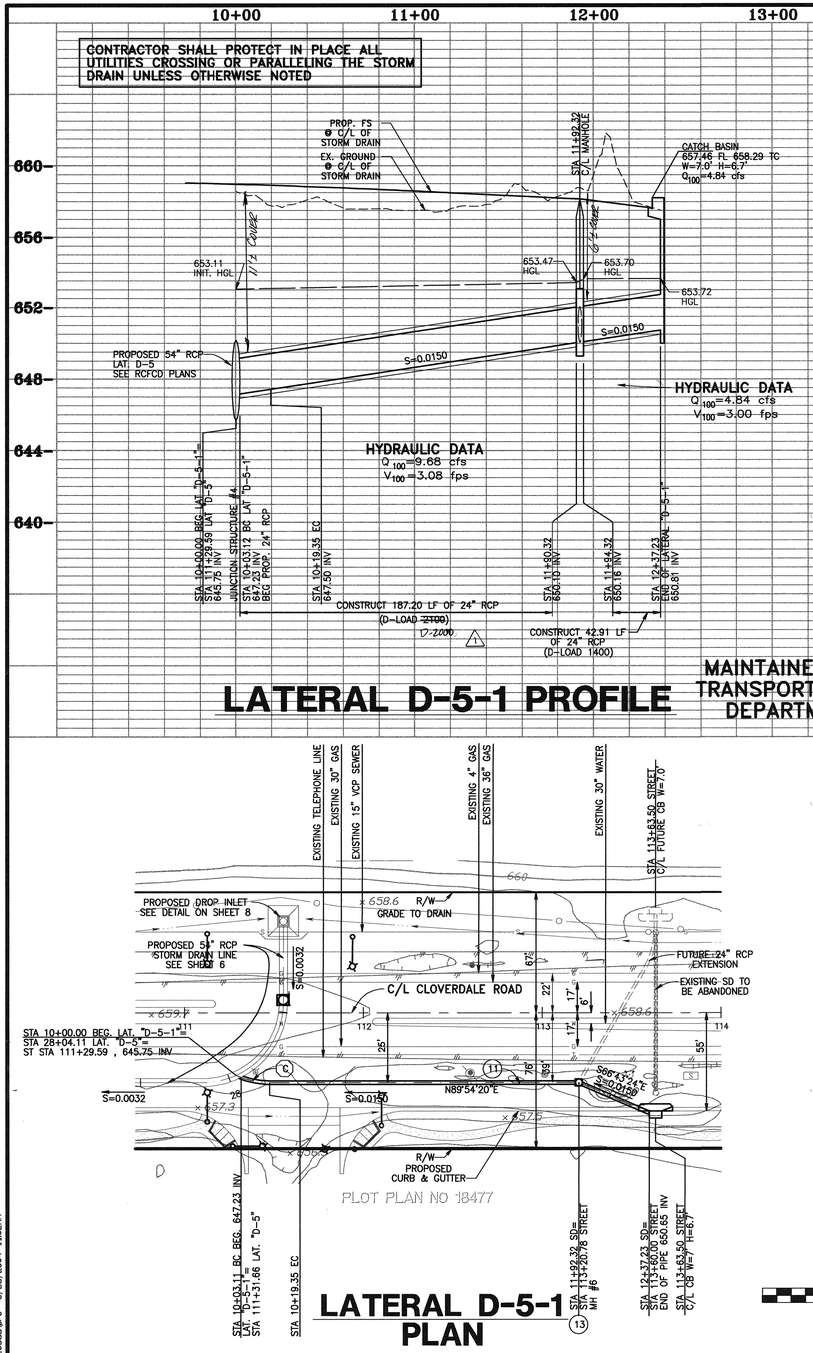
DESIGNED BY: WL
DRAWN BY: WL
DATE DRAWN: 6/25/2004
CHECKED BY: RB

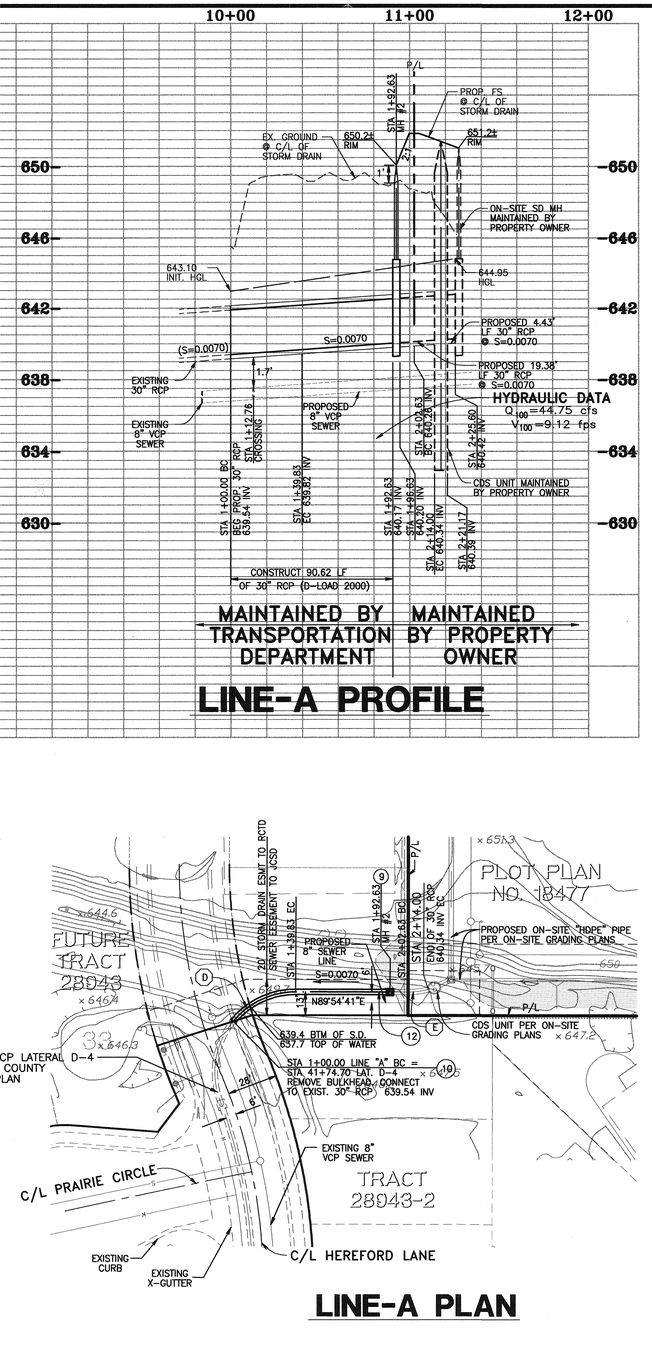
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: [signature] DATE: 8/31/04
APPROVED BY: [signature] DATE: 8-3-2004

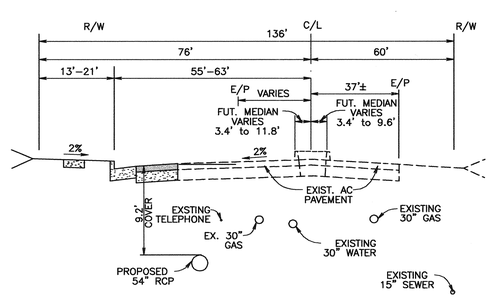
EASTVALE MDP LINE D-5
STA 23+00.00 to STA 28+89.88

PROJECT NO. 2-0-0323
DRAWING NO. 2-350
SHEET NO. 6 OF 8

G:\2003\03-0203\Design\03-0203PCFD.pro 6/25/2004 10:59AM



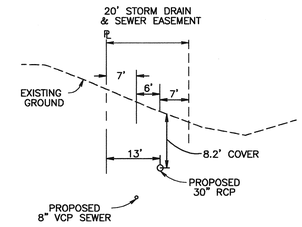




SECTION AT STA 11+00.00
CLOVERDALE ROAD
LATERAL D 5-1

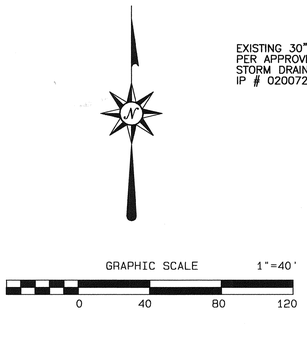
GRAPHIC SCALE 1"=20'

0 20 40 60



SECTION AT STA 1+50.00
LINE "A"

N.T.S.



CURVE DATA				
	DELTA	RADIUS	LENGTH	TENGENT
Ⓒ	20°39'34"	45.00'	16.23'	8.20'
Ⓓ	50°43'00"	45.00'	39.83'	21.33'
Ⓔ	14°28'39"	45.00'	11.37'	5.72'

CONSTRUCTION NOTES

(9) CONSTRUCT MANHOLE #2 PER RCFC & WCD STD. No. MH252
(10) CONSTRUCT CONCRETE COLLAR PER RCFC & WCD STD. No. MH821
(11) INSTALL 24" RCP (D-LOAD PER PLANS)
(12) INSTALL 30" RCP (D-LOAD PER PLANS)
(13) CONSTRUCT MANHOLE #1 PER RCFC & WCD STD. No. MH251

AS BUILT
APPROVED BY:
DATE 7-6-06

PP 18477 – IP 040028
CLOVERDALE MARKETPLACE

GH4

REGISTERED PROFESSIONAL ENGINEER SCOTT R. MILLERSMITH NO. C44762 EXP. 3-31-06 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX: (909) 788-1256
PREPARED BY:
DATE 6-25-04
R.C.E. NO. C44762
EXP. DATE: 3-31-06

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
B.M. NO. M-13-65
IN THE INTER. OF LINDENBERGER RD. AND SIMPSON RD, A 1-INCH IRON PIPE AND TAG MARKED COUNTY SURVEYOR IN A CAP WELL MONUMENT
ELEV. 1444.021

P8/235729 REVISIONS

REF.	DESCRIPTION	APPR.	DATE
1	REVISED "O" LOADS	SRM 8-31-04	SRM 8/31/04

DESIGNED BY: WL
DRAWN BY: WL
DATE DRAWN: 6/25/2004
CHECKED BY: RB

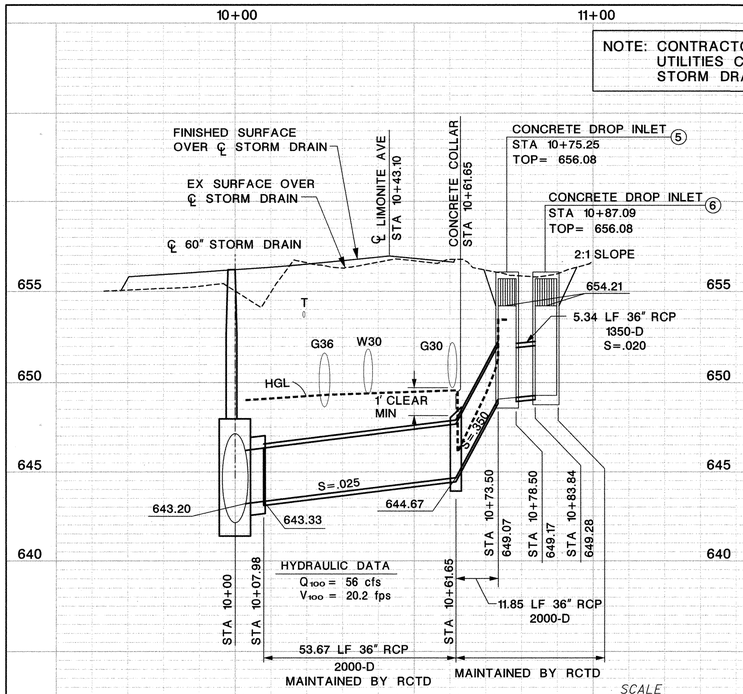
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE: 8/3/04
APPROVED BY: Stuart E. McKibbin DATE: 8-3-2004

EASTVALE MDP LINE D-5
LATERAL D-5-1 STA 10+00.00 TO STA 12+37.23
LINE A STA 1+00.00 TO STA 2+14.00

PROJECT NO. 2-0-0323
DRAWING NO. 2-350
SHEET NO. 7 OF 8

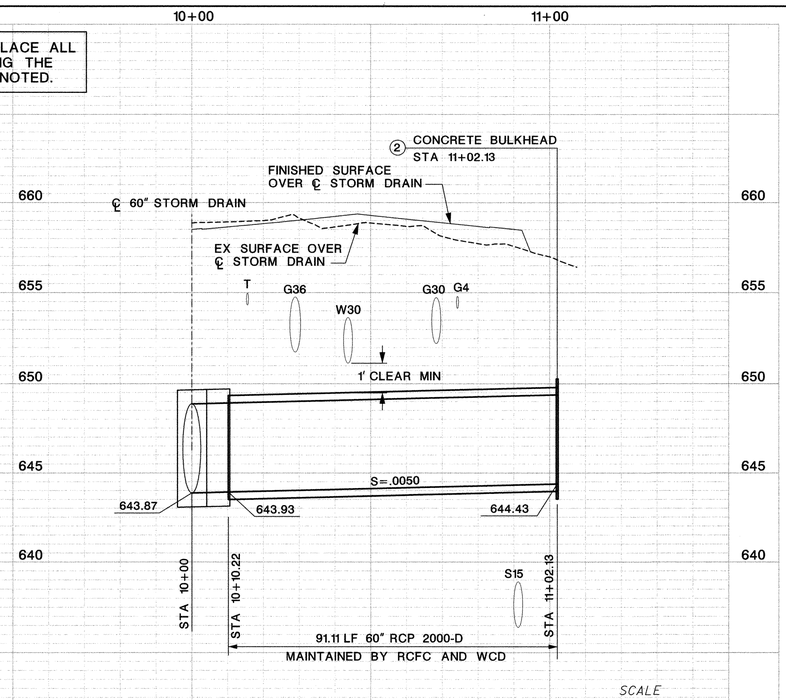
G:\2003\03-0263\Design\03-2635D.pro 6/25/2004 11:02AM

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.



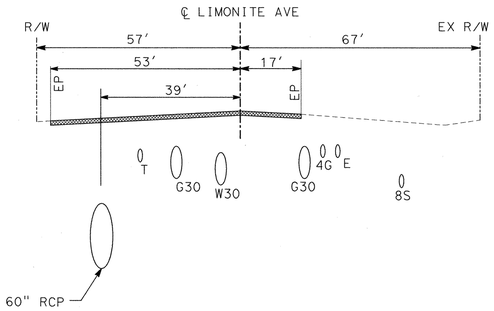
SCALE
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

CONNECTOR P PROFILE



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

CONNECTOR Q PROFILE



SECTION AT STA 103+00

TYPICAL SECTION FROM STA 99+80 TO STA 107+50

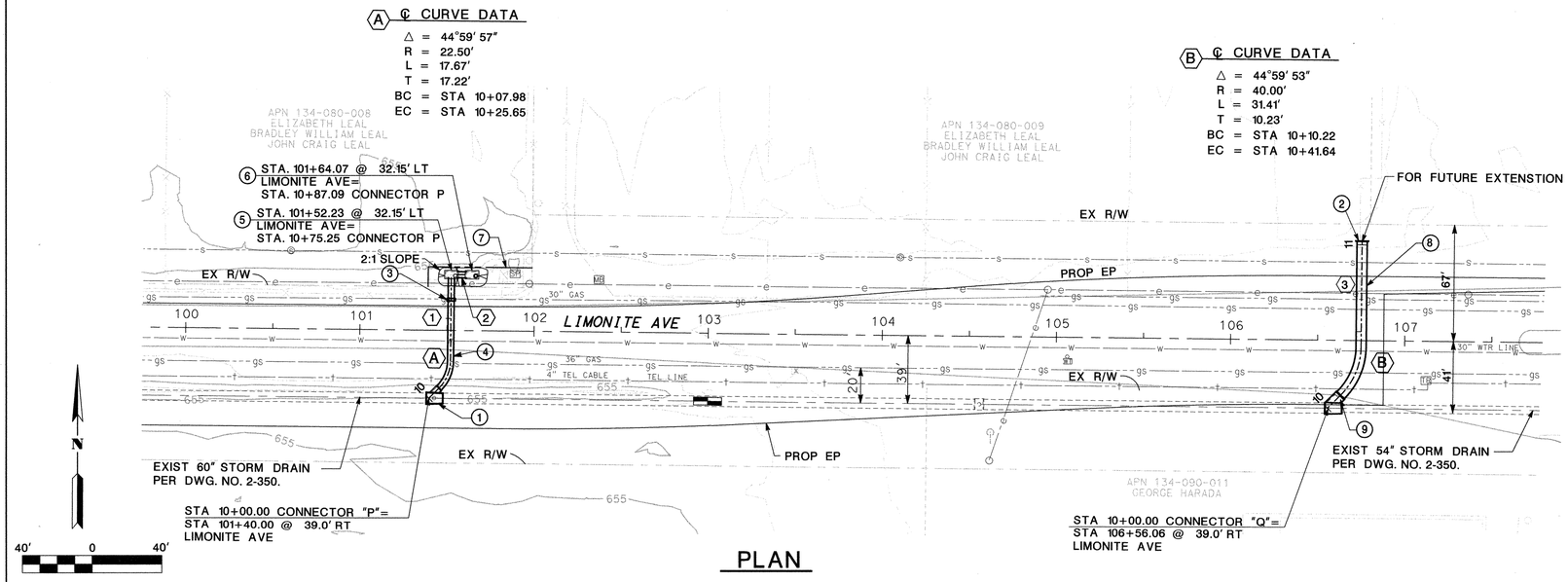
20' 0 20'

INFORMATIONAL NOTE

ALL X-SECTIONS TAKEN LOOKING DOWNSTREAM

Ⓐ ℄ CURVE DATA
- Δ = 44°59' 57"
- R = 22.50'
- L = 17.67'
- T = 17.22'
- BC = STA 10+07.98
- EC = STA 10+25.65

Ⓑ ℄ CURVE DATA
- Δ = 44°59' 53"
- R = 40.00'
- L = 31.41'
- T = 10.23'
- BC = STA 10+10.22
- EC = STA 10+41.64



PLAN

STORM DRAIN DATA TABLE

NO.	DELTA / BEARING	RADIUS	LENGTH	TANGENT	REMARKS
1	N 00°38'23"E	--	47.85'	--	36" RCP
2	S 89°21'40"E	--	5.34'	--	36" RCP
3	N 00°38'20"E	--	60.49'	--	60" RCP

NOTES

1. REMOVE EXIST MANHOLE. CONSTRUCT MH #4 PER RCFC STD DRAWING MH254. A=45°, B=36", C=8.4', D1=60", D2=60", R=643.20, S=643.33.
2. CONSTRUCT CONCRETE BULKHEAD PER RCFC STD DRAWING M816.
3. CONSTRUCT CONCRETE COLLAR PER RCFC & WCD STD DWG M803.
4. CONSTRUCT 30" RCP CONNECTOR "P".
5. CONSTRUCT CONCRETE DROP INLET PER RCFC & WCD STD DWG CB 110, V=7.01', H=1.5', W=6.5', A=3.5'
6. CONSTRUCT CONCRETE DROP INLET PER RCFC & WCD STD DWG CB 110, V=6.8', H=1.5', W=6.5', A=3.5'
7. DRAINAGE EASEMENT DEDICATED TO RIVERSIDE COUNTY.
8. CONSTRUCT 60" RCP CONNECTOR "Q".
9. REMOVE EXIST MANHOLE. CONSTRUCT MH #4 PER RCFC STD DRAWING MH254. A=45°, B=60", C=10.64', D1=60", D2=54", R=643.87, S=643.93

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
DEPUTY DIRECTOR OF TRANSPORTATION
DATE: 6/24/05

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER HOANG NGUYEN No. C64747 Exp. 06/30/07 CIVIL STATE OF CALIFORNIA

Berryman & Henigar
11590 W. Bernardo Ct. Suite 100 San Diego, CA 92127
TEL: (858)451-6100 FAX: (858)451-2646

THE BENCHMARK USED FOR THIS SURVEY IS A FOUND AERIAL CONTROL POINT DESIGNATED HVP-3. THE VERTICAL VALUE FOR THIS AERIAL CONTROL POINT WAS PROVIDED BY RCTD AND LAND MANAGEMENT AGENCY IN A SURVEY CONTROL REPORT FOR LIMONITE AVE DATED 1-14-2002, W.O. NO. A3-0320, B10670, F.B. 2207, SURVEY NO. 6269.
ELEV: 654.044

REF.	REVISIONS	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE: 6/29/05
APPROVED BY: DATE: 6-29-2005

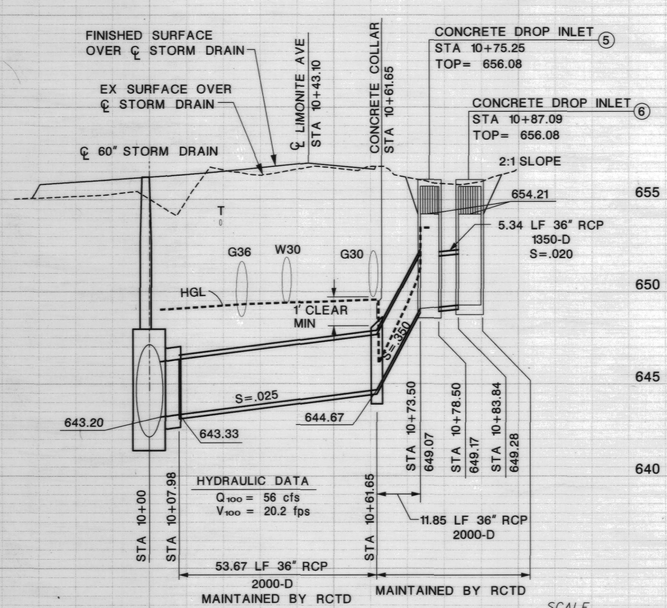
EASTVALE MASTER DRAINAGE PLAN
CONNECTOR P & Q

PROJECT NO. 2-0-0323
DRAWING NO. 2-339
SHEET NO. 9 OF 10

\\SD9P&P.dgn
5/12/2005
hngu@rc

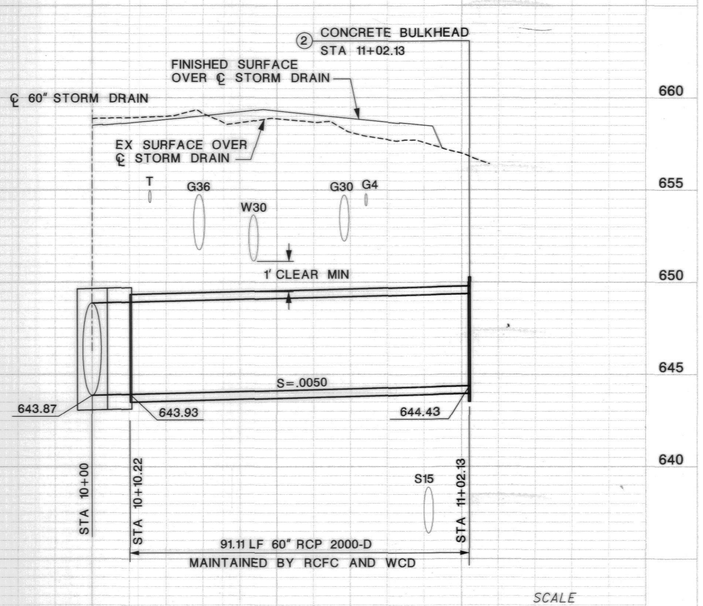
\SD9PLAN&PROFILE

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.



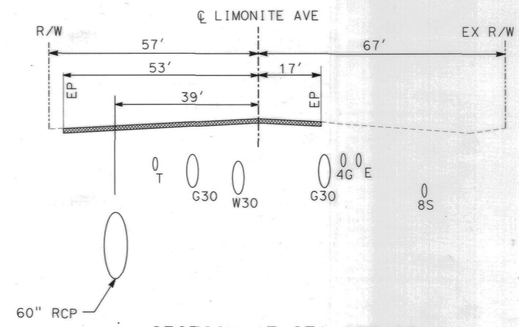
CONNECTOR P PROFILE

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



CONNECTOR Q PROFILE

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



SECTION AT STA 103+00
TYPICAL SECTION FROM STA 99+80 TO STA 107+50

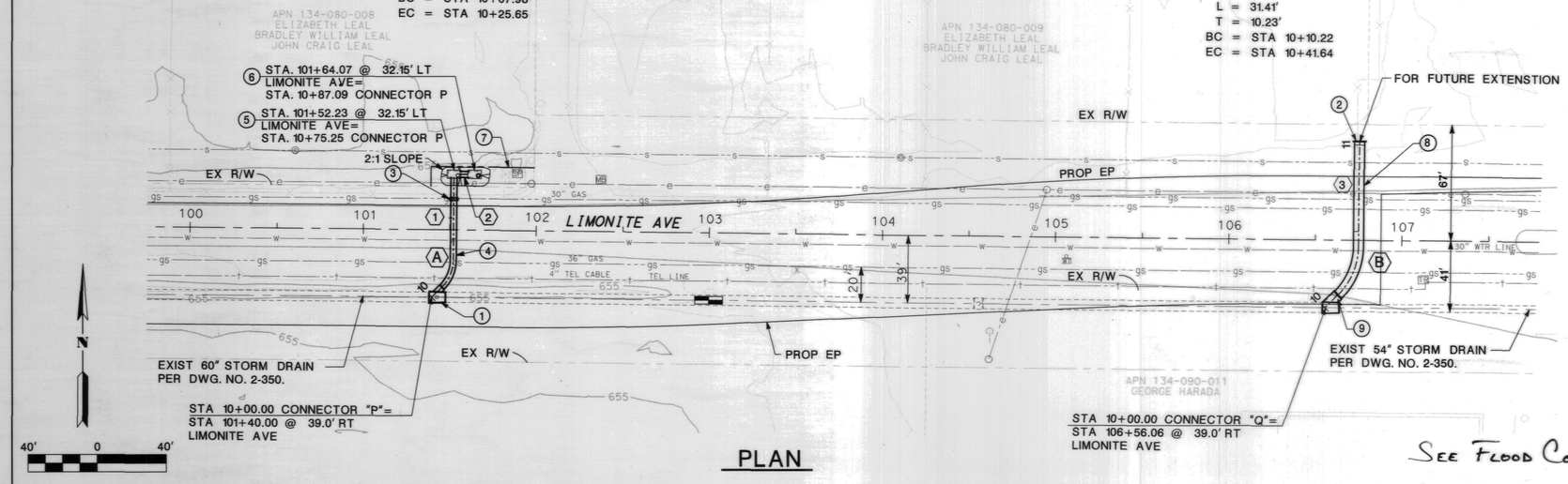
20' 0 20'

INFORMATIONAL NOTE

ALL X-SECTIONS TAKEN LOOKING DOWNSTREAM

Ⓐ ℄ CURVE DATA
Δ = 44°59' 57"
R = 22.50'
L = 17.67'
T = 17.22'
BC = STA 10+07.98
EC = STA 10+25.65

Ⓑ ℄ CURVE DATA
Δ = 44°59' 53"
R = 40.00'
L = 31.41'
T = 10.23'
BC = STA 10+10.22
EC = STA 10+41.64



PLAN

STORM DRAIN DATA TABLE

NO.	DELTA / BEARING	RADIUS	LENGTH	TANGENT	REMARKS
1	N 00°38'23"E	--	47.85'	--	36" RCP
2	S 89°21'40"E	--	5.34'	--	36" RCP
3	N 00°38'20"E	--	60.49'	--	60" RCP

NOTES

1. REMOVE EXIST MANHOLE. CONSTRUCT MH #4 PER RCFC STD DRAWING MH254. A=45°, B=36", C=8.4', D1=60", D2=60", R=643.20, S=643.33.
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3. CONSTRUCT CONCRETE COLLAR PER RCFC & WCD STD DWG M803.
4. CONSTRUCT 30" RCP CONNECTOR "P".
5. CONSTRUCT CONCRETE DROP INLET PER RCFC & WCD STD DWG CB 110, V=7.01', H=1.5', W=6.5', A=3.5'
6. CONSTRUCT CONCRETE DROP INLET PER RCFC & WCD STD DWG CB 110, V=6.8', H=1.5', W=6.5', A=3.5'
7. DRAINAGE EASEMENT DEDICATED TO RIVERSIDE COUNTY.
8. CONSTRUCT 60" RCP CONNECTOR "Q".
9. REMOVE EXIST MANHOLE. CONSTRUCT MH #4 PER RCFC STD DRAWING MH254. A=45°, B=60", C=10.64', D1=60", D2=54", R=643.87, S=643.93

See Flood Control As-Builts

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
DEPUTY DIRECTOR OF TRANSPORTATION
DATE: 6/24/05

Don't Dig...Until You Call U.S.A. Toll Free
1-800-227-2600
for the location of buried utility lines.
Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER
HOANG NGUYEN
No. C64747
Exp. 06/30/07
5-12-05
CIVIL
STATE OF CALIFORNIA

Berryman & Henigar
11590 W. Bernardo Ct. Suite 100
San Diego, CA 92127
TEL: (858)451-6100 FAX: (858)451-2846

THE BENCHMARK USED FOR THIS SURVEY IS A FOUND AERIAL CONTROL POINT DESIGNATED HVP-3. THE VERTICAL VALUE FOR THIS AERIAL CONTROL POINT WAS PROVIDED BY RCTD AND LAND MANAGEMENT AGENCY IN A SURVEY CONTROL REPORT FOR LIMONITE AVE DATED 1-14-2002, W.O. NO. A3-0320, B10670, F.B. 2207, SURVEY NO. 6269.
ELEV: 654.044

REF.	REVISIONS	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY:
DATE: 6/29/05
APPROVED BY:
DATE: 6-29-2005

EASTVALE MASTER DRAINAGE PLAN
CONNECTOR P & Q

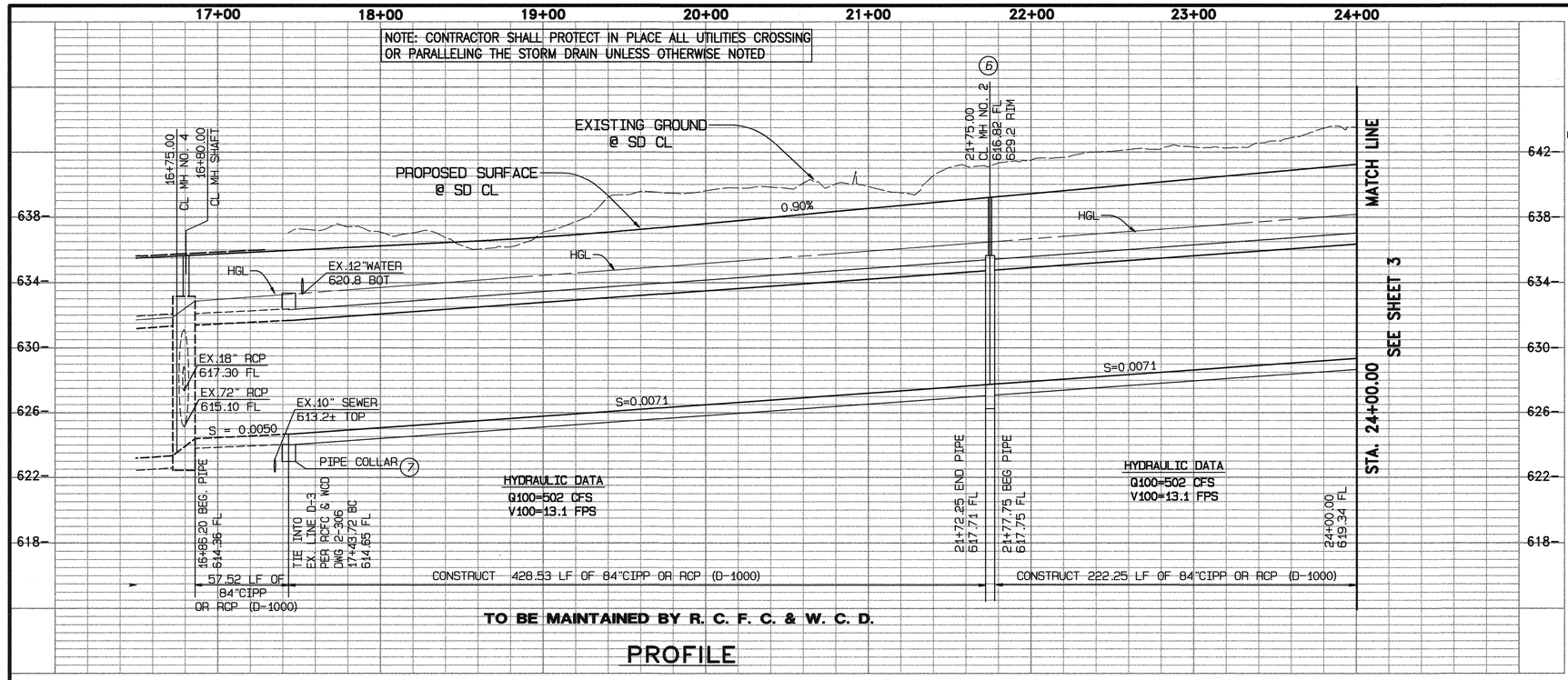
PROJECT NO. 2-0-0323
DRAWING NO. 2-339
SHEET NO. 9 OF 10

939-D

\\939982.dgn
5/12/2005
mgunn
PLAN&PROFILE

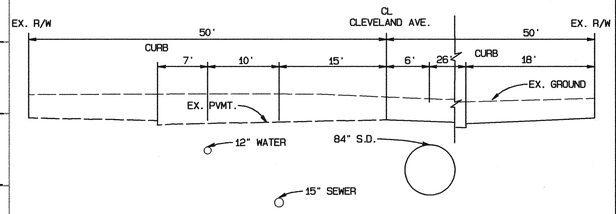
- **AS-BUILT STORM DRAIN IMPROVEMENT PLANS ALONG SCHOLAR WAY AND 58TH STREET (MDP LINE "D-3", RCFCD DWG NO. 2-0-308)**

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED



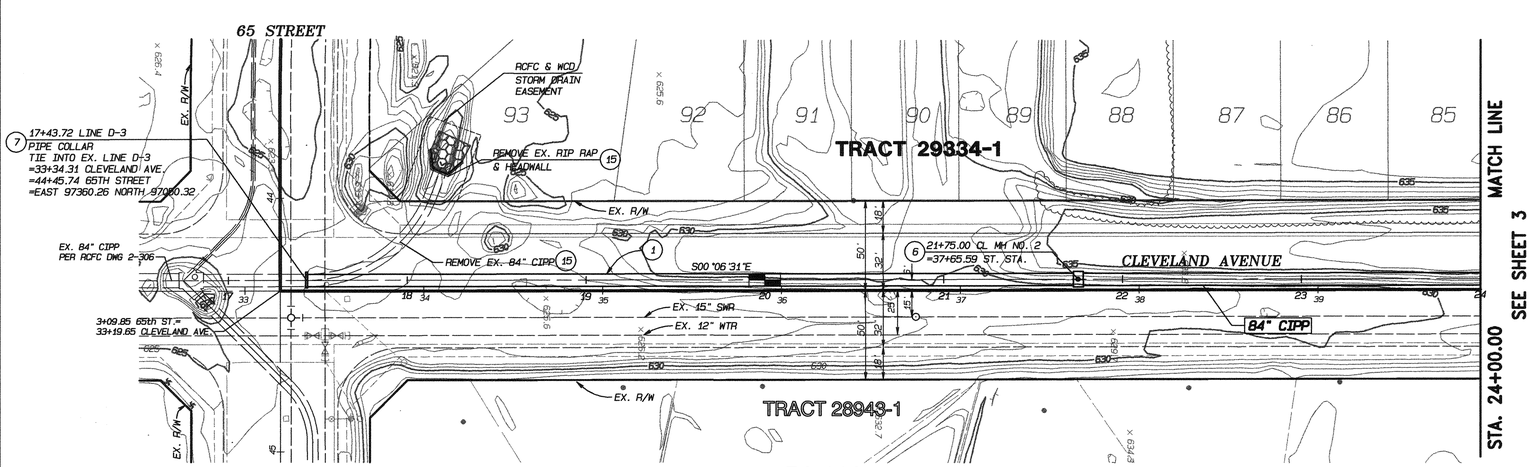
TO BE MAINTAINED BY R. C. F. C. & W. C. D.

PROFILE



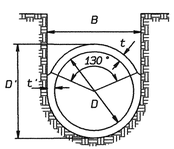
SECTION AT STA. 20+00.00
CLEVELAND AVENUE

GRAPHIC SCALE 1"=10'
0 10 20 30



PLAN

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120



B	WIDTH OF PIPE TRENCH
D	NOMINAL PIPE DIAMETER
D'	OUTER PIPE DIAMETER
t	NOMINAL THICKNESS
t'	SIDEWALL THICKNESS

D	D'	B	t	t'
78"	93"	94"	7.5"	7.5"
84"	100"	101"	8.0"	8.0"

CIPP TRENCH DETAIL
N.T.S.

AS BUILT
APPROVED BY: J. McCraffey
DATE 11-4-05

NOTES

(1) CONSTRUCT 84" CIPP
(6) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(7) CONSTRUCT CONCRETE COLLAR PER RCFC STD M 803
(15) REMOVE PORTION OF EXIST. 84" RCP, HEADWALL, AND RIP RAP

REGISTERED PROFESSIONAL ENGINEER JOHN LIN McCRAFFEY No. C49405 EXP. 9-30-06 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN No. 53950 EXP. 6-30-06 CIVIL STATE OF CALIFORNIA

TRACT NO. 29334-1 IP 040057

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX: (909) 788-1256
PREPARED BY:
DATE: 11-8-04
R.C.E. NO. C49405
EXP. DATE: 9-30-06

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY: 11/15/04 DATE
KHALED A. OTHMAN, P.E.
R.C.E. 53950 EXP. 6-30-06
RECOMMENDED 11/15/04 DATE

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
BURIED CABLE
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
RIVERSIDE COUNTYBENCH MARK M.L. 35-64 DISK IN TOP OF CONC. AT N.E. COR. OF LIMONITE AVE. & HAMMER AVE., 51.0 FT. E OF HAMMER AVE., 45 FT. N. OF LIMONITE AVE., 5FT. N.W.OF A 4"X4" CONC. GAS CO. MARKER POST & 5FT BELOW GROUND. MARKED M.L. 35
ELEVATION: 661.66

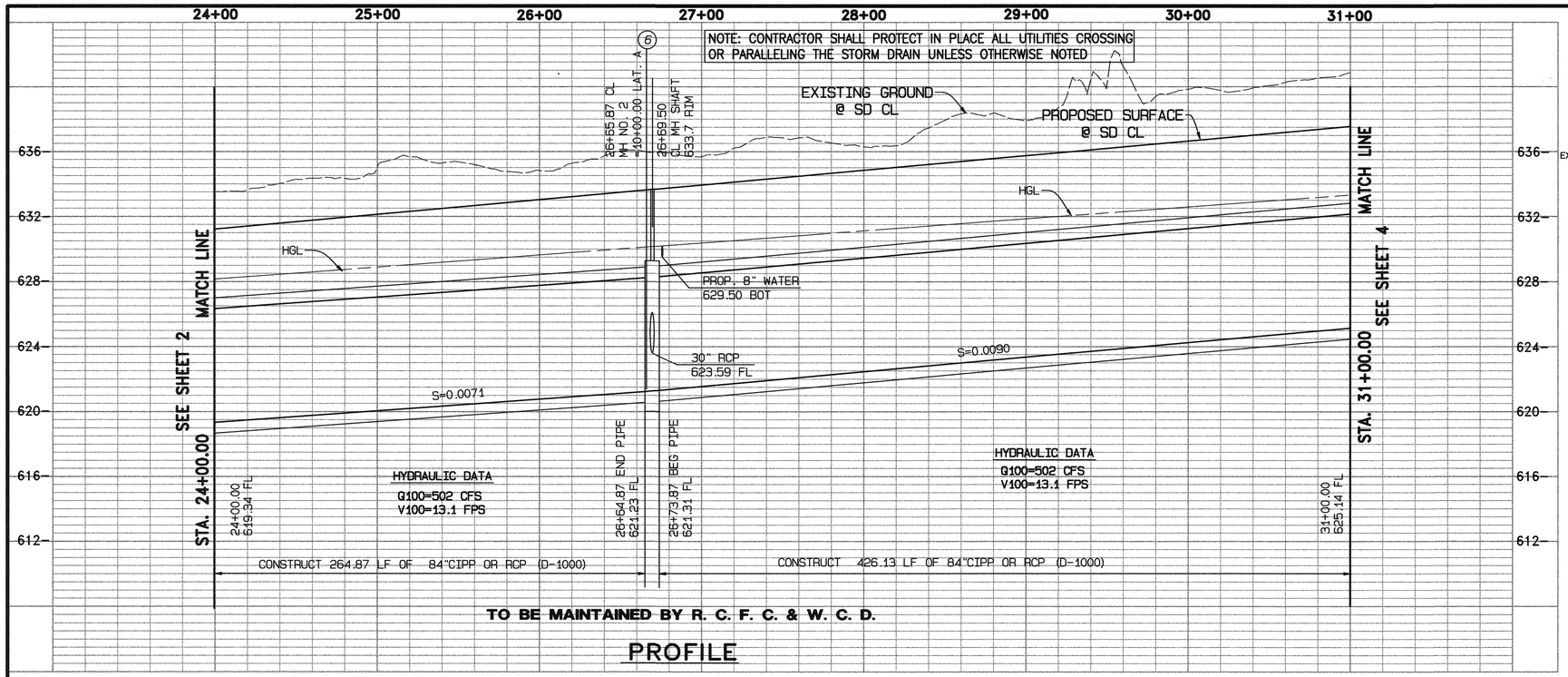
REF.	REVISIONS	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE: 12/15/04
APPROVED BY: DATE: 12-15-2004

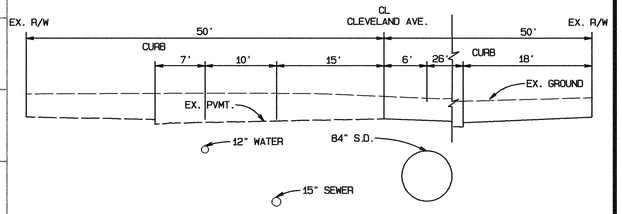
EASTVALE
MASTER DRAINAGE PLAN
LINE D-3 (STAGE 5)
STA. 17+43.72 TO STA. 24+00.00

PROJECT NO. 2-0-308
DRAWING NO. 2-363
SHEET NO. 2 OF 9

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PROFILE

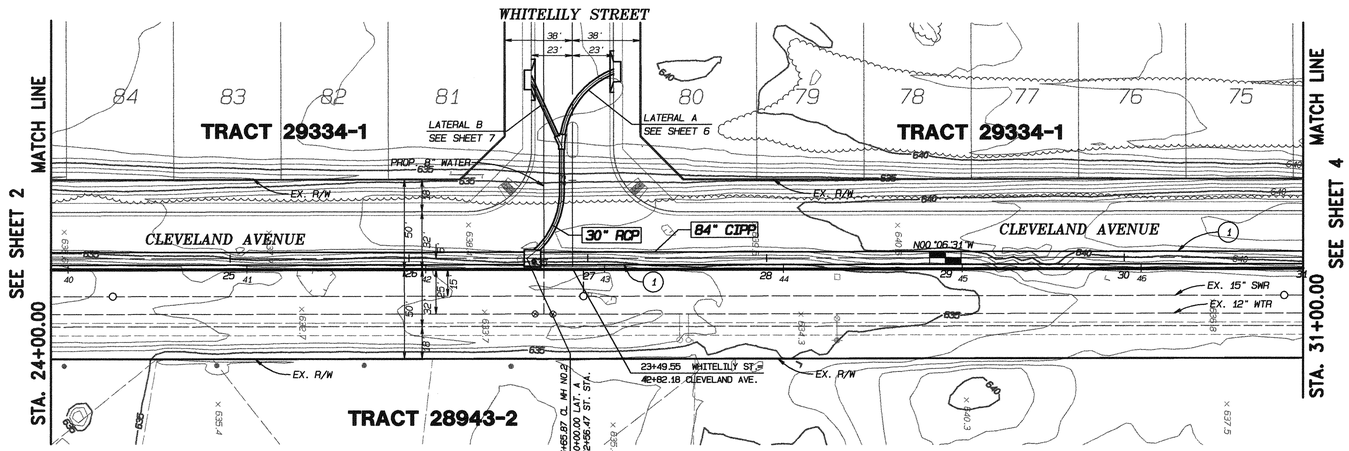


SECTION AT STA. 29+00.00

CLEVELAND AVENUE

GRAPHIC SCALE 1"=10'

0 10 20 30



PLAN

GRAPHIC SCALE 1"=40'

40 20 0 40 80 120

NOTES

1. CONSTRUCT 84" CIPP
6. CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252

AS BUILT

APPROVED BY:

DATE 11-4-05

TRACT NO. 29334-1 IP 040057

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ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS

CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX: (909) 788-1256

PREPARED BY:
R.C.E. NO. C49405
EXP. DATE: 9-30-06
DATE: 11-8-04

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY: 11/15/04 DATE
KHALED A. OTHMAN, P.E.
R.C.E. 33950 EXP. 6-30-06
RECOMMENDED 11/15/04 DATE

REGISTERED PROFESSIONAL ENGINEER JOHN C.W. McCRAY NO. C49405 EXP. 9-30-06 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-06 CIVIL STATE OF CALIFORNIA

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
RIVERSIDE COUNTYBENCH MARK M.L.
35-64 DISK IN TOP OF CONC. AT N.E. COR. OF LIMONITE AVE. & HAMMER AVE., 51.0 FT. E OF HAMMER AVE., 45 FT. N. OF LIMONITE AVE., 5FT. N.W.OF A 4"X4" CONC. GAS CO. MARKER POST & 1FT BELOW GROUND. MARKED M.L. 35
ELEVATION: 661.66

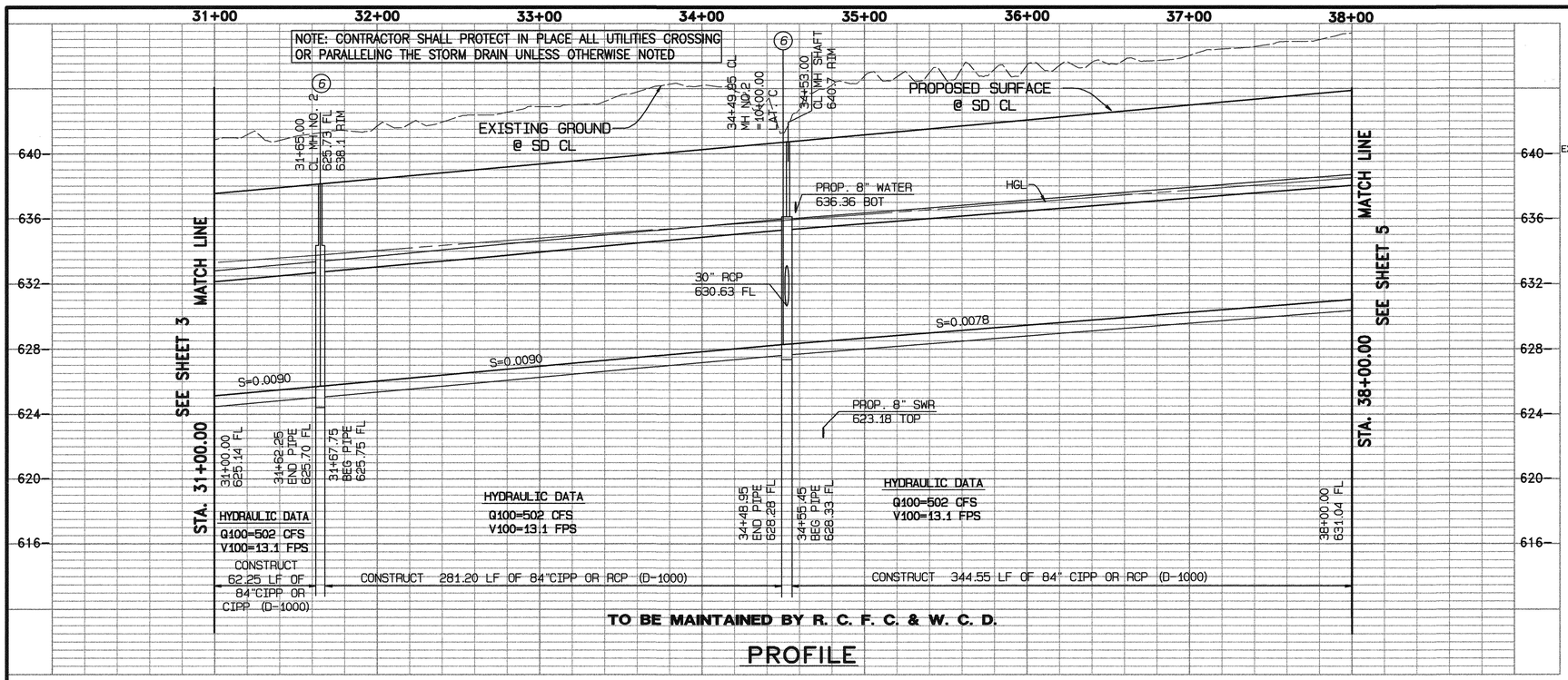
REF.	REVISIONS	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE: 12/15/04
APPROVED BY: DATE: 12-15-2004

EASTVALE
MASTER DRAINAGE PLAN
LINE D-3 (STAGE 5)
STA. 24+00.00 TO STA. 31+00.00

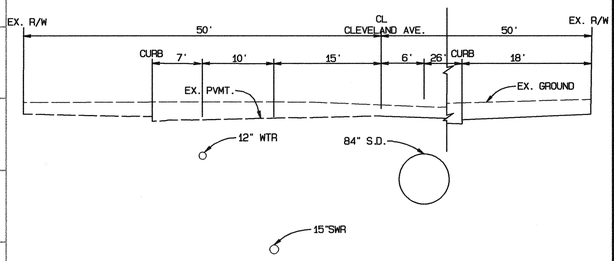
PROJECT NO. 2-0-308
DRAWING NO. 2-363
SHEET NO. 3 OF 9

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED



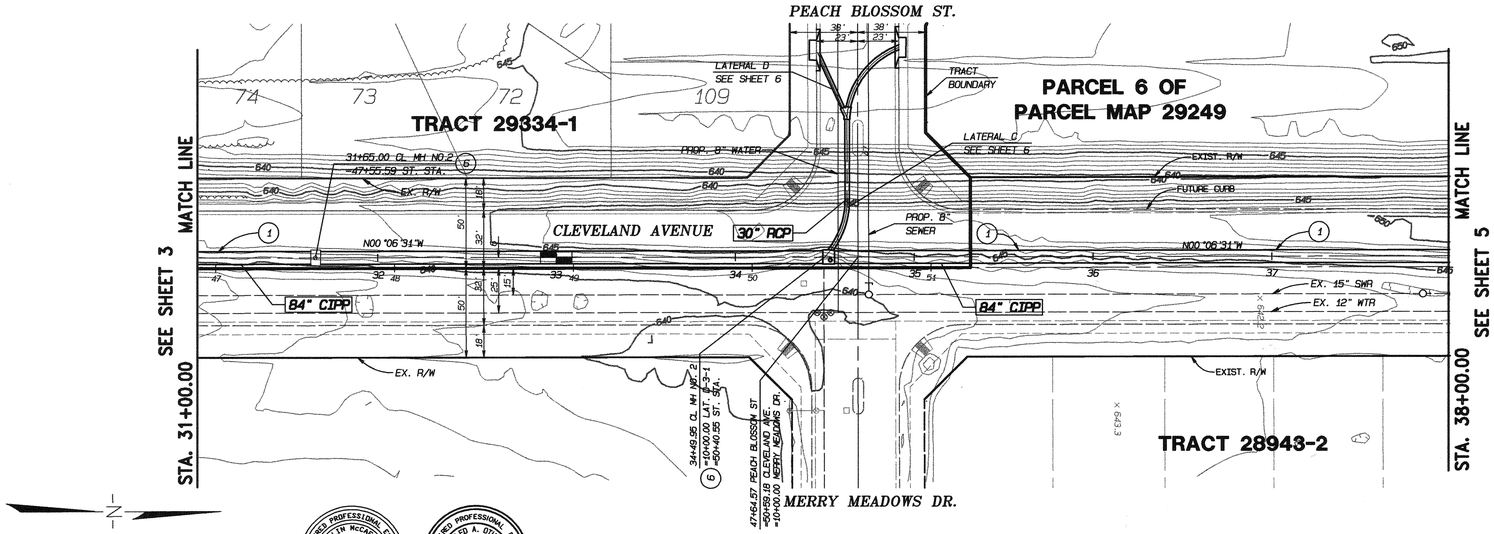
TO BE MAINTAINED BY R. C. F. C. & W. C. D.

PROFILE



SECTION AT STA. 33+00.00
CLEVELAND AVENUE

GRAPHIC SCALE 1"=10'
0 10 20 30



GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

PLAN

NOTES

1. CONSTRUCT 84" CIPP
6. CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252

AS BUILT
APPROVED BY: [signature]
DATE 11-4-05

TRACT NO. 29334-1 IP 040057

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX: (909) 788-1256
PREPARED BY: [signature] R.C.E. NO. C49405
DATE: 11-8-04 EXP. DATE: 9-30-06

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY: [signature] 11/15/04 DATE
KHALED A. OTHMAN, P.E. R.C.E. 33950 EXP. 6-30-06
RECOMMENDED [signature] 11/15/04 DATE

REGISTERED PROFESSIONAL ENGINEER IGOR I.N. McCRAY NO. C49405 EXP. 9-30-06 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-06 CIVIL STATE OF CALIFORNIA

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
BURIED CABLE
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
RIVERSIDE COUNTYBENCH MARK M.L. 35-64 DISK IN TOP OF CONC. AT N.E. COR. OF LIMONITE AVE. & HAMNER AVE., 51.0 FT. E OF HAMNER AVE., 45 FT. N. OF LIMONITE AVE., 5FT. N.W.OF A 4"X4" CONC. GAS CO. MARKER POST & 5FT BELOW GROUND. MARKED M.L. 35
ELEVATION: 661.66

REF.	REVISIONS	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: [signature] DATE: 12/15/04
APPROVED BY: Stuart E McKibbin DATE: 12-15-2004

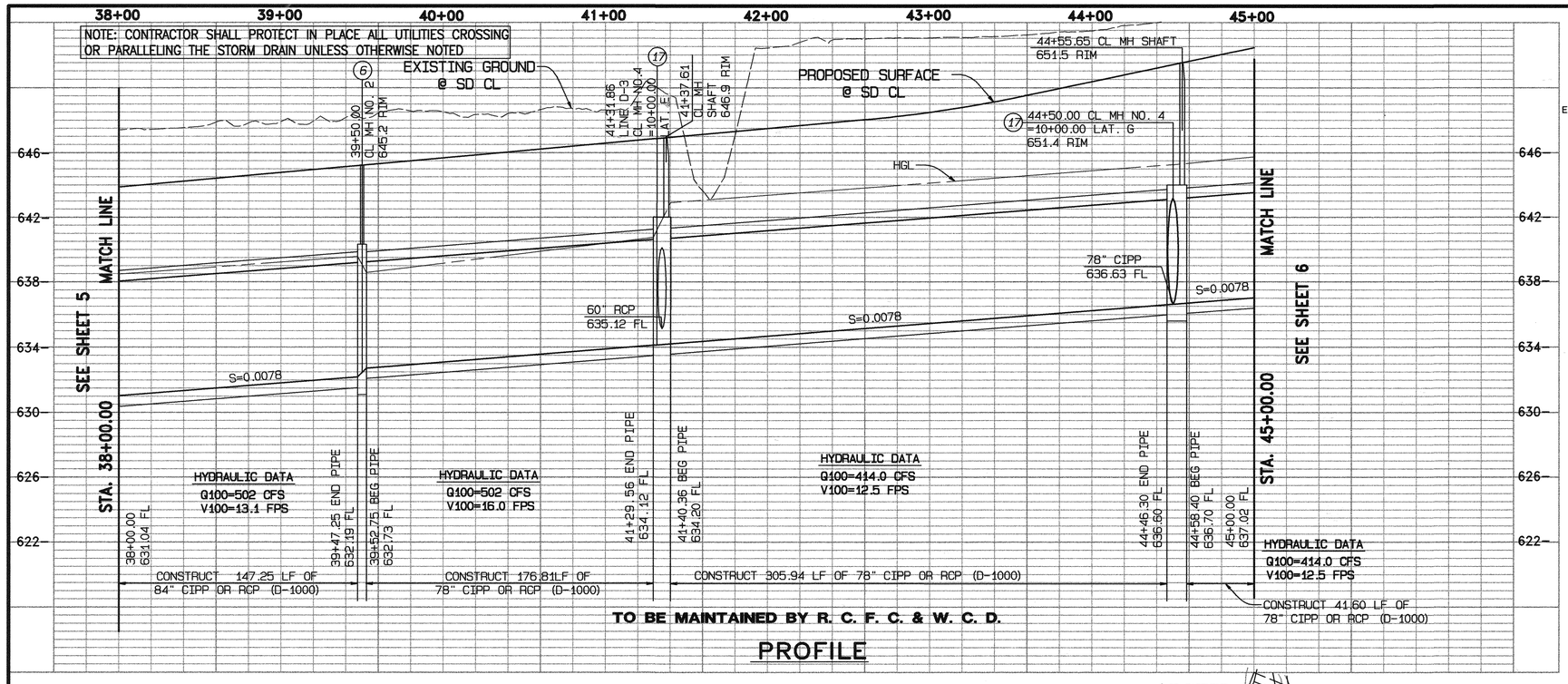
EASTVALE MASTER DRAINAGE PLAN LINE D-3 (STAGE 5)
STA. 31+00.00 TO STA. 38+00.00

PROJECT NO. 2-0-308
DRAWING NO. 2-363
SHEET NO. 4 OF 9

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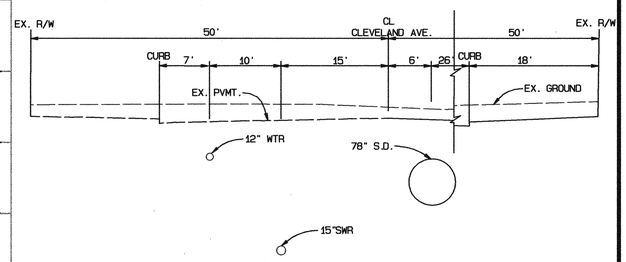
64

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED



TO BE MAINTAINED BY R. C. F. C. & W. C. D.

PROFILE

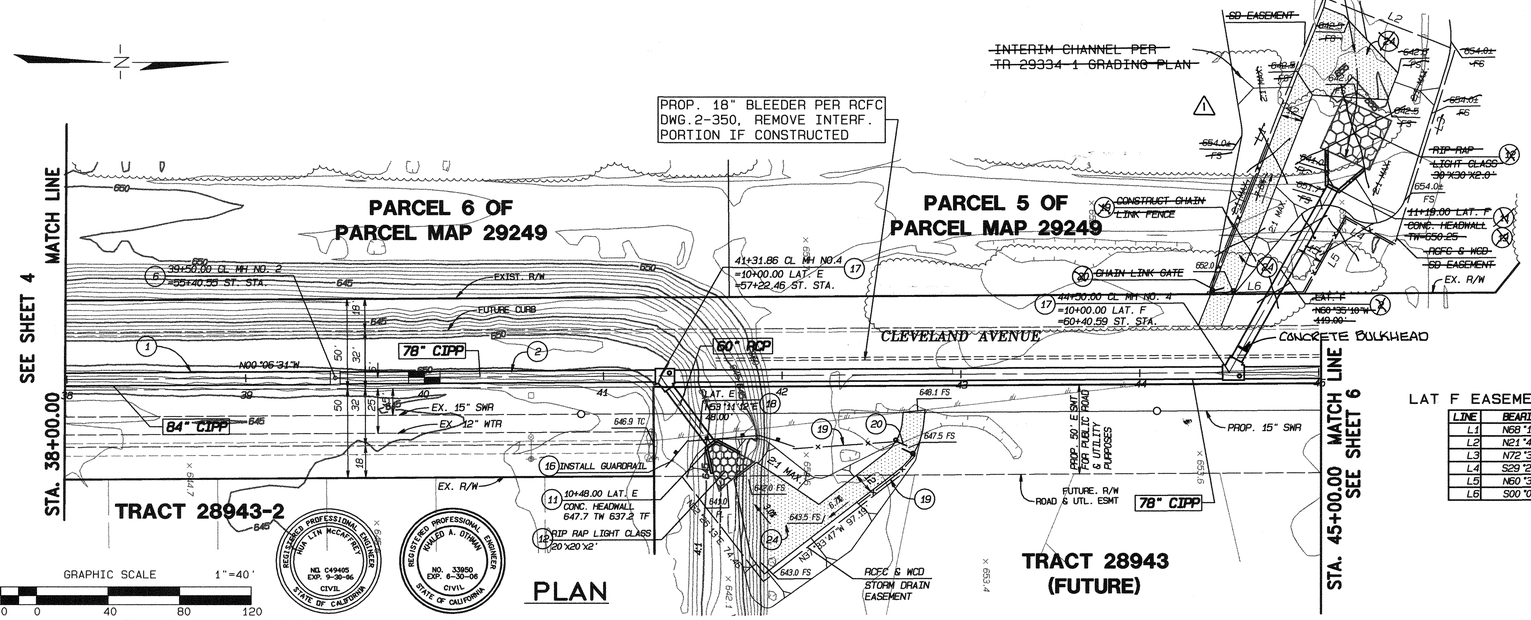


SECTION AT STA. 40+00.00
CLEVELAND AVENUE

GRAPHIC SCALE 1"=10'
0 10 20 30

	MH NO. 4
M.L. STA.	41+36.86 LINE E-3
LATERAL	LAT. E
A	55°±
B	60"
D1	78"
D2	78"
C	8.5'
E	8.0'
L	10.8'
ELEV."S"	635.12
ELEV."R"	635.78

	MH NO. 4
M.L. STA.	44+50.00 LINE E-3
LATERAL	LAT. F
A	60°±
B	78"
D1	78"
D2	78"
C	8.4'
E	8.4'
L	12.1'
ELEV."S"	636.63
ELEV."R"	637.19



GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

PLAN

LAT F EASEMENT DIMENSIONS

LINE	BEARING	DISTANCE
L1	N58°16'09"W	178.11'
L2	N21°47'04"E	79.01'
L3	N72°31'17"W	114.70'
L4	S29°22'27"W	30.87'
L5	N60°35'10"W	47.94'
L6	S00°06'31"E	54.42'

AS BUILT

APPROVED BY: [signature]

DATE 11-4-05

NOTES

1. CONSTRUCT 84" CIPP
2. CONSTRUCT 78" CIPP
6. CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
7. CONSTRUCT CONCRETE COLLAR PER RCFC STD M 803
9. CONSTRUCT J.S. NO.4 PER RCFC STD. JS 229
11. CONSTRUCT TYPE A CONC. HEADWALL PER CALTRANS STD D90
12. CONSTRUCT LIGHT CLASS RIP RAP
16. INSTALL GUARDRAIL PER CALTRANS STD A77A
17. CONSTRUCT MANHOLE NO. 4 PER RCFC STD. MH 254
18. CONSTRUCT 60" RCP (D-1050)
19. CONSTRUCT CHAIN LINK FENCE PER RCFC. STD.M801
20. CONSTRUCT CHAIN LINK FENCE GATE PER RCFC STD. M801
24. CONSTRUCT 3" CLASS II BASE ON ACCESS ROAD

TRACT NO. 29334-1 IP 040057

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
CIVIL ENGINEERS
3788 McCRAY ST.
RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX: (909) 788-1256
PREPARED BY: R.C.E. NO. C49405
DATE: 11-8-04 EXP. DATE: 9-30-06

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY: [signature] 11/15/04 DATE
KHALED OTHMAN R.E.
R.C.E. 53950 EXP. 6-30-06
RECOMMENDED [signature] 11/15/04 DATE

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK:
RIVERSIDE COUNTYBENCH MARK M.L. 35-64 DISK IN TOP OF CONC. AT N.E. COR. OF LIMONITE AVE. & HAMMER AVE., 51.0 FT. E OF HAMMER AVE., 45 FT. N. OF LIMONITE AVE., SFT. N.W.OF A 4"X4" CONC. GAS CO. MARKER POST & 1FT BELOW GROUND. MARKED M.L. 35
ELEVATION: 661.66

REF.	REVISIONS	APPR.	DATE
1	DELETED INTERIM CHANNEL FOR AS BUILT		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: [signature] DATE: 12/15/04
APPROVED BY: [signature] DATE: 12-15-2004

EASTVALE MASTER DRAINAGE PLAN LINE D-3 (STAGE 5)

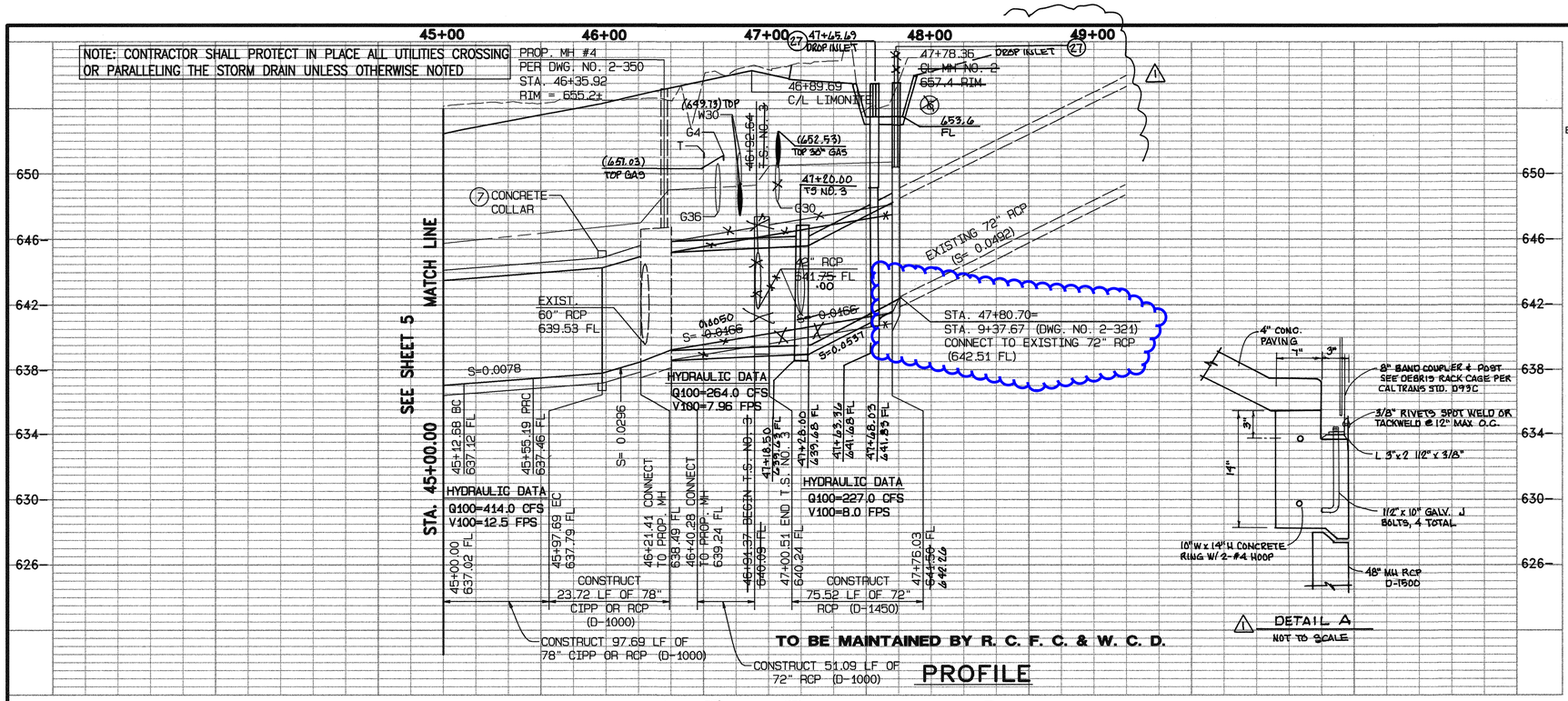
STA. 38+00.00 TO STA. 45+00.00

PROJECT NO. 2-0-308
DRAWING NO. 2-363
SHEET NO. 5 OF 9

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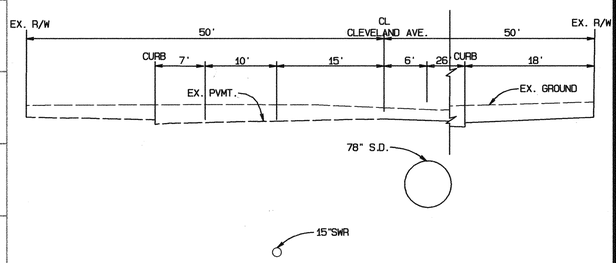
64

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED



PROFILE

⚠1 DETAIL A
NOT TO SCALE



SECTION AT STA. 46+00.00
CLEVELAND AVENUE

GRAPHIC SCALE 1"=10'
0 10 20 30

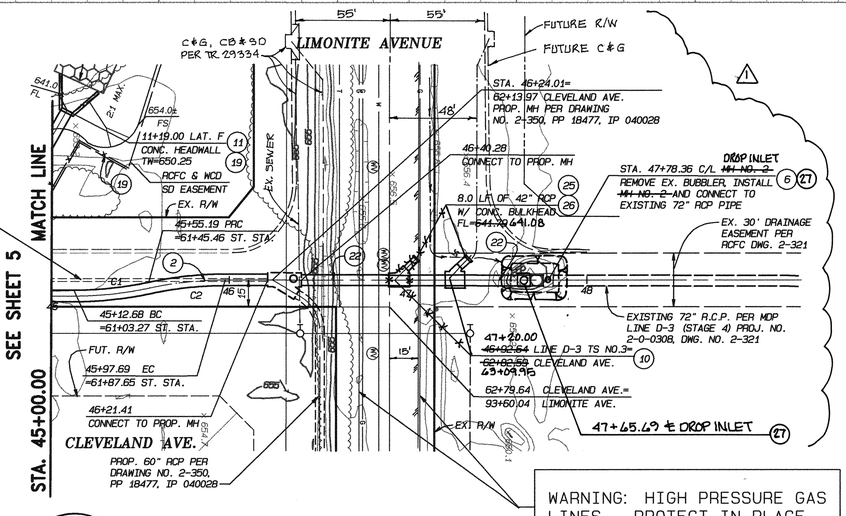
	T.S. NO. 3
M.L. STA.	~~46+24.58~~ LINE D-3 47+20 LINE D-5 ⚠1
LATERAL	
A	45°
B	42"
D1	72"
D2	72"
C	8.92'
ELEV. "S"	~~641.75 00~~
ELEV. "R"	~~641.77 02~~
FL @ BULKHEAD	~~641.79 08~~

AS BUILT
APPROVED BY: [signature]
DATE 11-4-05

MDP LINE D-3 CURVE TABLE

NO.	RADIUS	DELTA	TANGENT	LENGTH
C1	200.00'	12°10'38"	21.33'	42.51'
C2	200.00'	12°10'38"	21.33'	42.51'

PROP. 18" BLEEDER PER RCFC DWG.2-350, REMOVE INTERF. PORTION IF CONSTRUCTED

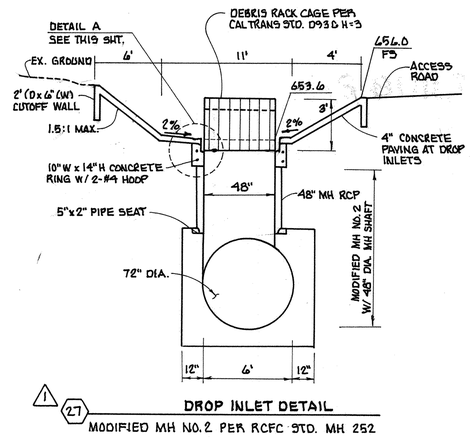


WARNING: HIGH PRESSURE GAS LINES. PROTECT IN PLACE.

PLAN

NOTES

(2) CONSTRUCT 78" CIPP
(6) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(7) CONSTRUCT CONCRETE COLLAR PER RCFC STD M 803
(10) CONSTRUCT T.S. NO.3 PER RCFC STD. TS 303
(11) CONSTRUCT TYPE A HEADWALLS PER CALTRANS STD D90
(12) CONSTRUCT LIGHT CLASS RIP RAP
(19) CONSTRUCT CHAIN LINK FENCE PER RCFC STD. M801
(22) CONSTRUCT 72" RCP (D-1450)
(25) CONSTRUCT 8.0 LF OF 42" RCP (D-1450)
(26) CONSTRUCT CONCRETE BULKHEAD PER RCFC STD M 816
⚠1 (27) CONSTRUCT DROP INLET PER DETAIL THIS SHEET



⚠1 (27) DROP INLET DETAIL
MODIFIED MH NO.2 PER RCFC STD. MH 252

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

REGISTERED PROFESSIONAL ENGINEER JOHN LIN McCRAY NO. C49405 EXP. 9-30-06 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-06 CIVIL STATE OF CALIFORNIA

TRACT NO. 29334-1 IP 040057

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CIVIL ENGINEERS
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RIVERSIDE CA. 92506
PH: (909) 686-1070
FAX: (909) 788-1256
PREPARED BY: [signature]
R.C.E. NO. C49405
EXP. DATE: 9-30-06
DATE: 11-8-04

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY: [signature] DATE 11/15/04
KHALED A. OTHMAN, P.E.
R.C.E. 33950 EXP. 6-30-06
RECOMMENDED [signature] DATE 11/15/04

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
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BENCH MARK:
RIVERSIDE COUNTYBENCH MARK M.L. 35-64 DISK IN TOP OF CONC. AT N.E. COR. OF LIMONITE AVE. & HAMMER AVE., 51.0 FT. E OF HAMMER AVE., 45 FT. N. OF LIMONITE AVE., 5FT. N.W.OF A 4"X4" CONC. GAS CO. MARKER POST & 5FT BELOW GROUND. MARKED M.L. 35
ELEVATION: 661.66

REF.	DESCRIPTION	APPR.	DATE
⚠1	REVISE TS NO. 3 LOCATION, LINE D-3 PROFILE ADD POTHOLE INFO. ADD 2-DROP INLET AND DETAILS. FOR AS-BUILT.		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: [signature] DATE: 12/15/04
APPROVED BY: [signature] DATE: 12-15-2004

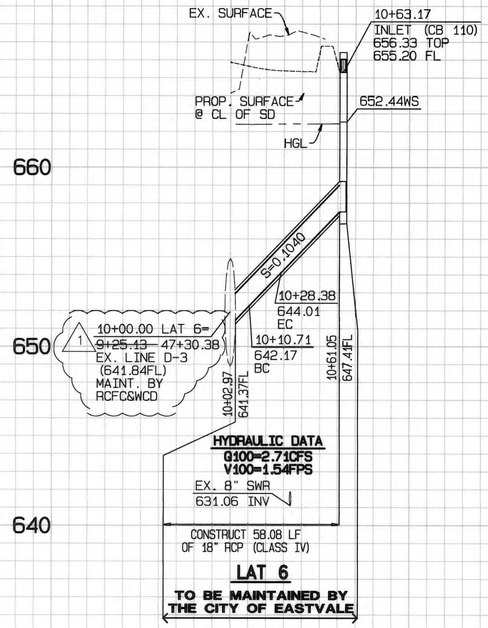
EASTVALE MASTER DRAINAGE PLAN LINE D-3 (STAGE 5)

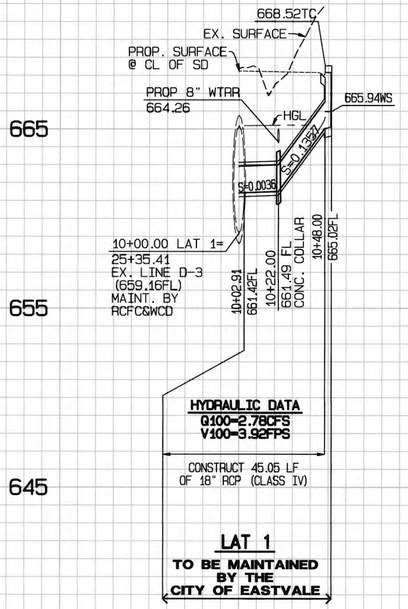
STA. 45+00.00 TO STA. 47+75.03

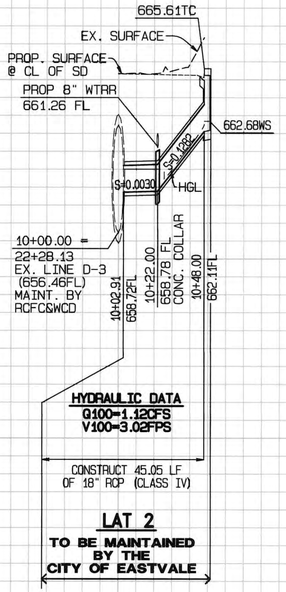
PROJECT NO. 2-0-308
DRAWING NO. 2-363
SHEET NO. 6 OF 9

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GY

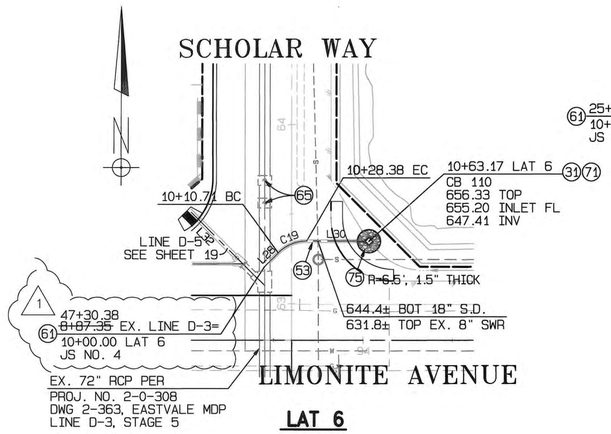


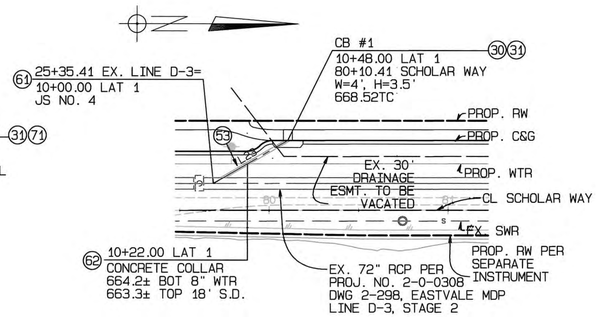


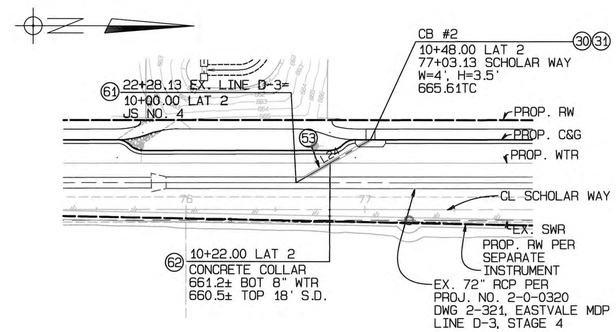


PROFILE SCALES	
HORIZ.	1"=40'
VERT.	1"=4'

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.







CONSTRUCTION NOTES

30. CONSTRUCT 4' CATCH INLET CATCH BASIN PER CITY STD. NO. 300 AND LOCAL DEPRESSION PER CITY STD. NO. 311
31. INSTALL FOSSIL FILTER PER CONTY STD. 300A, TO BE MAINTAINED BY HOA
53. CONSTRUCT 18" RCP (CLASS IV)
61. CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229
62. CONSTRUCT CONCRETE COLLAR PER RCFC STD. M 803
65. REMOVE DROP INLET, REPLACE WITH MH CONE (2 TOTAL)
71. CONSTRUCT CONCRETE DROP INLET PER RCFC STD. CB 110
75. CONSTRUCT LIGH CLASS RIP-RAP (SIZE PER PLAN WxDxT) W/ MIRAFI 1100N PR APPROVED EQUAL

LINE TABLE

LINE	BEARING	DISTANCE
L23	N30°04'57"W	48.00'
L24	N30°04'57"W	48.00'
L28	N44°55'03"E	10.71'
L30	N89°55'03"E	32.68'

CURVE TABLE

LINE	DELTA	RADIUS	LENGTH	TANGENT
C19	45°00'00"	22.50'	17.67'	9.32'

RCFC&WCD PERMIT # _____

GRAPHIC SCALE 1"=40'

40 20 0 40 80 120

G:\2010\10-0040\DWG\PRO\Design\10-0040_S3.prvj 1/27/2014 7:58:49 AM

PUBLIC WORKS

DATE SIGNED 1-27-14

ACCEPTED AS TO CONFORMANCE WITH APPLICABLE CITY OF EASTVALE STANDARDS AND PRACTICES.

DIGALERT — DIAL BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG — TOLL FREE 1-800-227-2600 — A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

NOTE:

WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR ACCEPTANCE BY THE CITY.

MARK	BY	DATE	REVISIONS	APPR.	DATE
1	SKK	1/27/14	CORRECT STATION CALL OUT FOR EXISTING LINE D-3	Accepted	1/27/14

ENGINEER — CITY

SEAL — ENGINEER

REGISTERED PROFESSIONAL ENGINEER — SHAHI K. KOHANLOU — NO. C81093 — CIVIL — STATE OF CALIFORNIA

PREPARED BY: _____ DATE 1-27-14

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
3788 McCRAY STREET
RIVERSIDE, CA. 92506
PH: (951) 686-1070
FAX: (951) 788-1256

R.C.E. NO. C81093

BENCHMARK: SEE SHEET NO.1

SCALE: H: AS SHOWN V: N/A

STORM DRAIN IMPROVEMENT PLANS

TRACT No. 32821-1

SCHEDULE "A"

LAT. 1, LAT. 2 & LAT. 6

SHEET NO. 17 OF 21 SHEETS

FOR: KB HOME | W.O. 10-0040 | CITY FILE NO. 10-0124



CAUTION
PROFILE SCALE HORIZ. 1"=40' VERT 1"=4'

STORM DRAIN

1. CONSTRUCT 72" RCP (D LOAD PER PLAN PROFILE)
4. CONSTRUCT 72" CMP RISER PER DETAIL ON SHEET 6A.
5. CONSTRUCT 6" BOLLARD PER DETAIL SHEET 6A.
11. PROTECT IN PLACE (AS NOTED ON PLAN)

△1

REGISTERED PROFESSIONAL ENGINEER — THOMAS W. CHADWELL — 33755 Exp. 06-30-06 — CIVIL — STATE OF CALIFORNIA

AS BUILT

APPROVED BY: Thomas W. Chadwell

DATE 10-27-03

NOTE:
HGL1= HYDRAULIC GRADE LINE AT ULTIMATE CONDITIONS PER LINE D-3 MASTER PLAN

DFM

Underground Service Alert — Call: TOLL FREE 1-800 227-2600 — TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK: SEE SHEET NO. 1

SEAL—ENGINEER: REGISTERED PROFESSIONAL ENGINEER — KENNETH W. CRAWFORD, JR. — No. 26928 Exp. 3/31/05 — CIVIL — STATE OF CALIFORNIA

KWC ENGINEERS, INC.
CIVIL ENGINEERING, PLANNING AND CONSTRUCTION MANAGEMENT
1289 W. POMONA ROAD, SUITE 104 ● CORONA, CA. 92882-7158 ● 909-734-2130

Designed by	Drawn by	Checked by
MVG	HP	LAL

PLANS PREPARED UNDER SUPERVISION OF
KENNETH W. CRAWFORD, JR. — 12-6-03 DATE — 26928 R.C.E. — 03-31-05 EXP. DATE

SEAL—COUNTY: REGISTERED PROFESSIONAL ENGINEER — RANEE A. OTTMAN — No. 33950 Exp. 06-30-02 — CIVIL — STATE OF CALIFORNIA

P8/232161 REVISIONS

REF.	DESCRIPTION	APPR.	DATE
△	ADD FENCE & 4' GATE		3/16/04
△1	ADD 72" RCP, REMOVE 18" RCP		

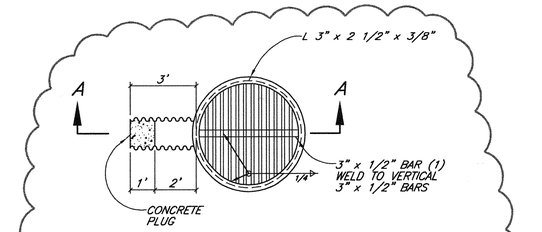
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL — PLANNING ENGINEER — DATE 10 Mar 03
APPROVED BY: — CHIEF ENGINEER — DATE 3-10-03

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: — DATE — RCE NO. — EXP. DATE

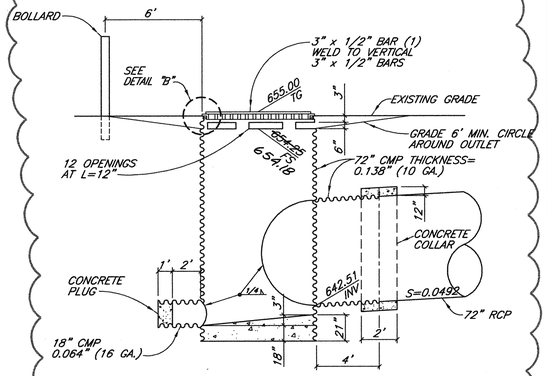
EASTVALE MASTER DRAINAGE PLAN
LINE D-3 (STAGE 4)
9+37.67 TO 9+50

PROJECT NO. 2-0-0308
DRAWING NO.: 2-321
SHEET NO.: 5A OF 7

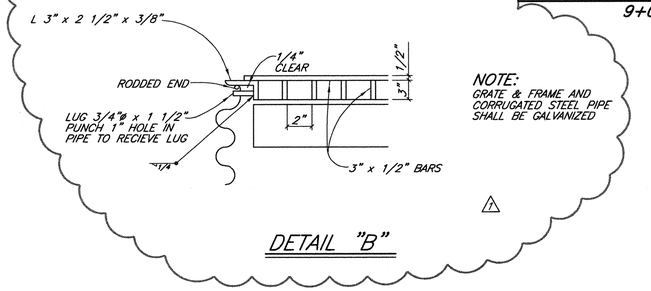
J:\01.581.2\10 RCH\01.581\CONST\MPP\581SD05A.DWG 03-06-03 RCH



PLAN

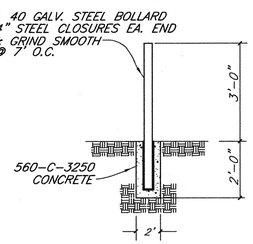


SECTION A–A



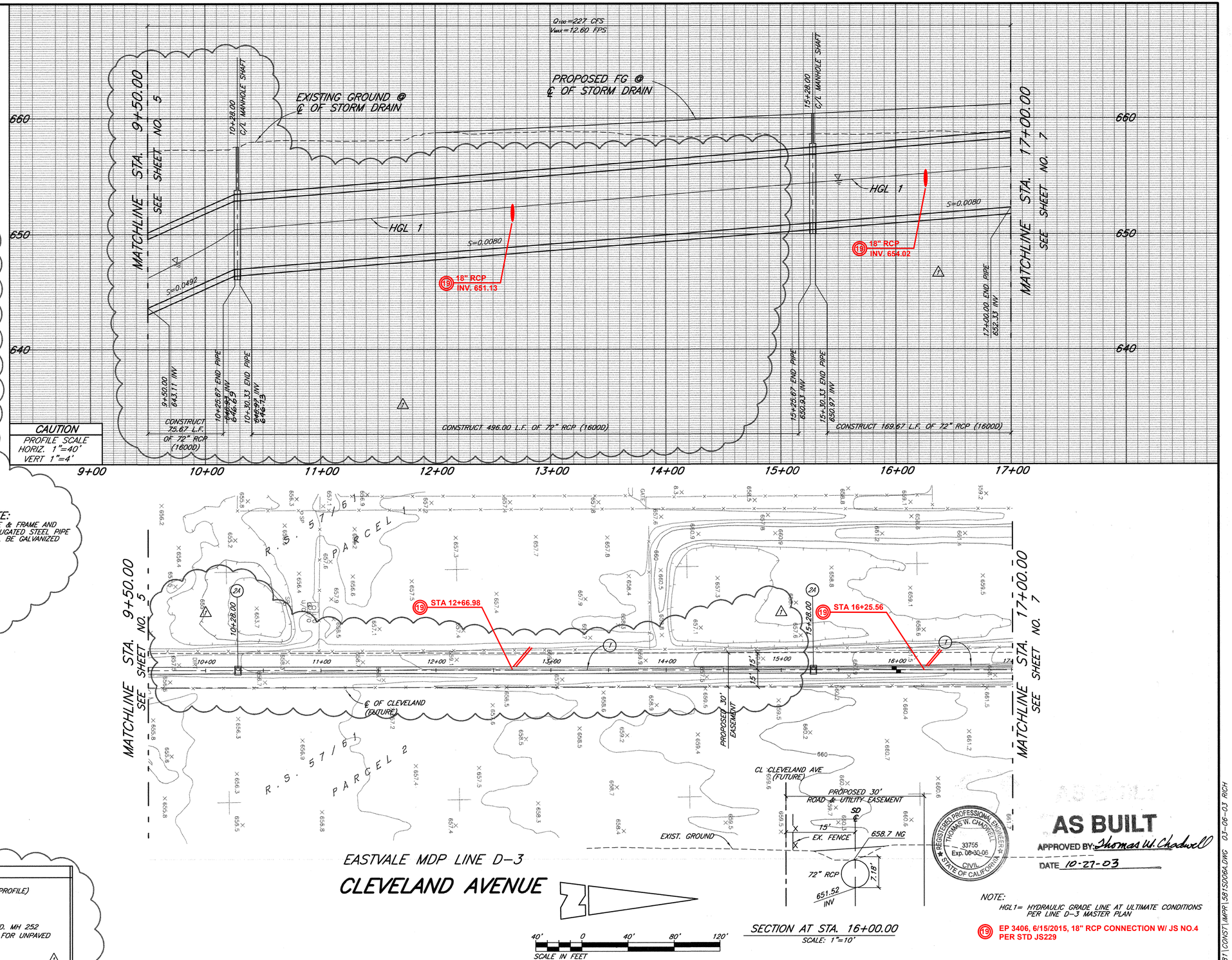
DETAIL "B"

NOTE:
GRATE & FRAME AND CORRUGATED STEEL PIPE SHALL BE GALVANIZED



BOLLARD DETAIL

N.T.S.



CAUTION
PROFILE SCALE
HORIZ. 1"=40'
VERT 1"=4'

EASTVALE MDP LINE D-3

CLEVELAND AVENUE

40' 0 40' 80' 120'
SCALE IN FEET

SECTION AT STA. 16+00.00
SCALE: 1"=10'

NOTE:
HGL1= HYDRAULIC GRADE LINE AT ULTIMATE CONDITIONS PER LINE D-3 MASTER PLAN

19 EP 3406, 6/15/2015, 18" RCP CONNECTION W/ JS NO.4 PER STD JS229

AS BUILT
APPROVED BY: Thomas W. Chadwell
DATE 10-27-03

△	R	L	T	STORM DRAIN
			1	CONSTRUCT 72" RCP (D LOAD PER PLAN PROFILE)
			1B	CONSTRUCT 42" RCP (D LOAD PER PLAN)
			2A	CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252 SEE DETAIL "A" ON SHEET NO. 1 FOR MH FOR UNPAVED

Underground Service Alert
Call: TOLL FREE
1–800 227–2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
SEE SHEET NO.

SEAL–ENGINEER
REGISTERED PROFESSIONAL ENGINEER KENNETH W. CRAWFORD, JR. No. 26928 Exp. 3/31/05 CIVIL STATE OF CALIFORNIA

KWC ENGINEERS, INC.
CIVIL ENGINEERING, PLANNING AND CONSTRUCTION MANAGEMENT
1289 W. POMONA ROAD, SUITE 104 ● CORONA, CA. 92882–7198 ● 909–734–2130

Designed by	Drawn by	Checked by
MVG	HP	LAL

PLANS PREPARED UNDER SUPERVISION OF
KENNETH W. CRAWFORD, JR. — 3-6-03 DATE — 26928 R.C.E. — 03-31-05 EXP. DATE

SEAL–COUNTY
REGISTERED PROFESSIONAL ENGINEER MANED A. OTHMAN No. 33950 Exp. 06-30-02 CIVIL STATE OF CALIFORNIA

P8/232161 REVISIONS

REF.	DESCRIPTION	APPR.	DATE
△	ADD 72" RCP, REMOVE 18" RCP		

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
PLANNING ENGINEER
DATE 10 Mar 03
APPROVED BY:
CHIEF ENGINEER
DATE 3-10-03

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE
RCE NO. EXP. DATE

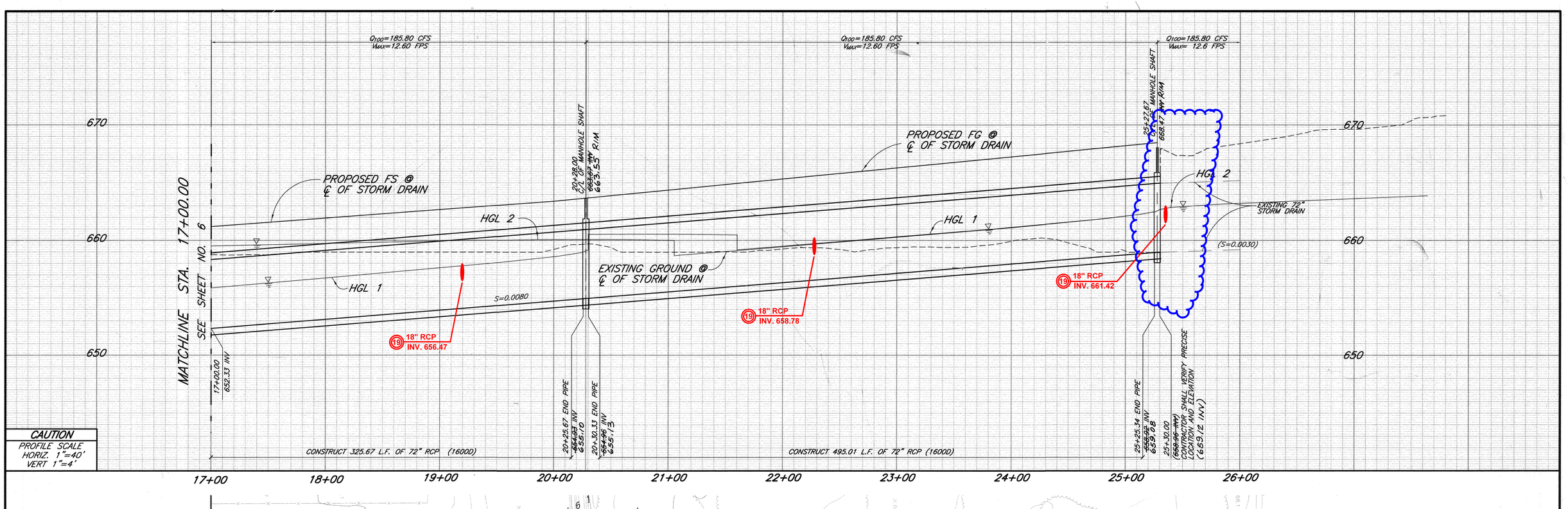
EASTVALE MASTER DRAINAGE PLAN LINE D-3 (STAGE 4) AND 18" BLEEDER PIPE

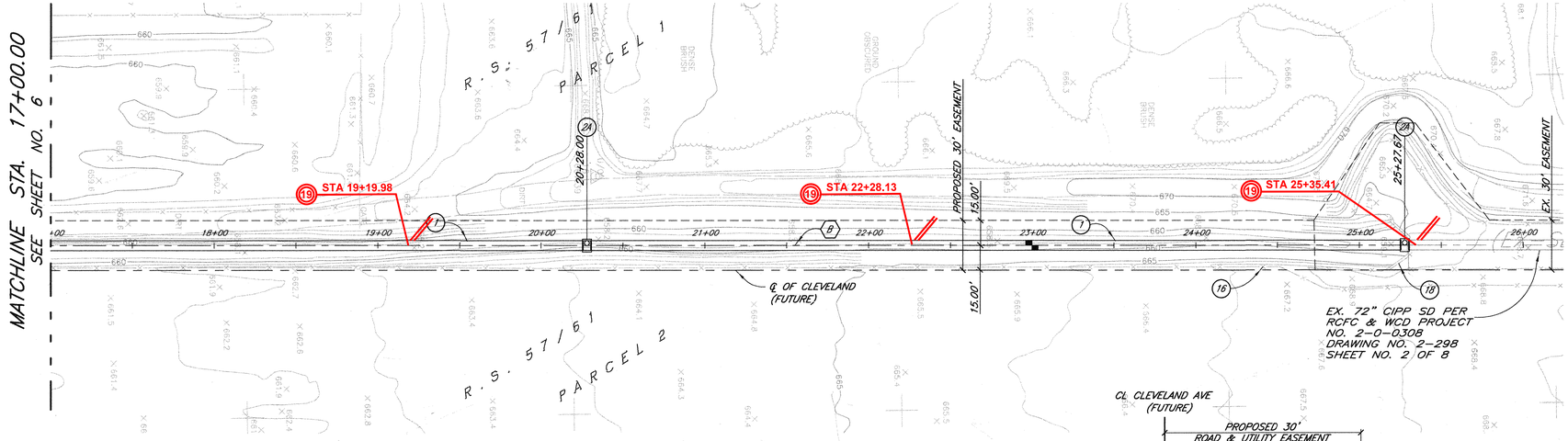
9+50 TO 17+00

PROJECT NO. 2-0-0308
DRAWING NO.: 2-321
SHEET NO.: 6A OF 7

DEM

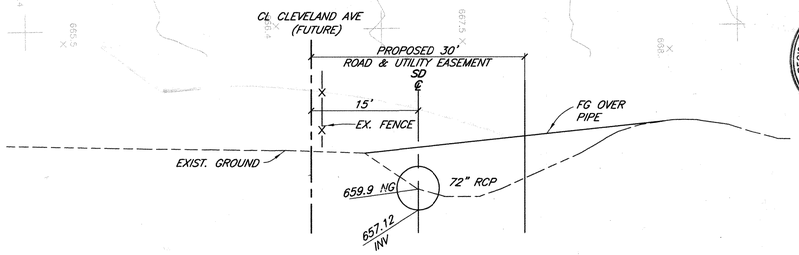
03-06-03 RICH
H:\01_561\CONST\MPR\561S0064.DWG
VN: 01.561.2.10





EASTVALE MDP LINE D-3

CLEVELAND AVENUE



SECTION AT STA. 23+00.00
SCALE: 1"=10'

	Δ	R	L	T
B	N00°39'30"E	–	1676.34'	–

STORM DRAIN

1. CONSTRUCT 72" RCP (D LOAD PER PLAN PROFILE)
2A. CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252 SEE DETAIL "A" ON SHEET NO. 1 FOR MH FOR UNPAVED AREAS.
16. REMOVE INTERFERRING PORTION OF EXISTING FENCE & REPLACE AT PROPERTY LINE
18. REMOVE EXISTING HEADWALL AND RIPRAP

NOTE:
HGL1=HYDRAULIC GRADE LINE AT ULTIMATE CONDITIONS PER LINE D-3 MASTER PLAN
HGL2=HYDRAULIC GRADE LINE AT PROJECT CONDITIONS WITH 18" SD SOUTH OF STA. 15+04.13

19 EP 3406, 6/15/2015, 18" RCP CONNECTION W/ JS NO.4 PER STD JS229

REGISTERED PROFESSIONAL ENGINEER THOMAS W. CHADWELL 33755 Exp. 06-30-06 CIVIL STATE OF CALIFORNIA

AS BUILT
APPROVED BY: Thomas W. Chadwell
DATE 10-27-03

40' 0 40' 80' 120'
SCALE IN FEET

DM

Underground Service Alert
DIG ALERT
Call: TOLL FREE
1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
SEE SHEET NO. 1

SEAL—ENGINEER
REGISTERED PROFESSIONAL ENGINEER KENNETH W. CRAWFORD, JR. No. 26928 Exp. 3/31/05 CIVIL STATE OF CALIFORNIA

KWC ENGINEERS, INC.
CIVIL ENGINEERING, PLANNING AND CONSTRUCTION MANAGEMENT
1269 W. POMONA ROAD, SUITE 104 ● CORONA, CA. 92882-7158 ● 909-734-2130

Designed by	Drawn by	Checked by
MVG	HP	LAL

PLANS PREPARED UNDER SUPERVISION OF
KENNETH W. CRAWFORD, JR. 11-1-02 DATE 26928 R.C.E. 03-31-05 EXP. DATE

SEAL—COUNTY
REGISTERED PROFESSIONAL ENGINEER RALEO A. ORMAN No. 33950 Exp. 06-30-04 CIVIL STATE OF CALIFORNIA

P8/232161 REVISIONS

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
PLANNING ENGINEER
DATE 11/12/02
APPROVED BY:
CHIEF ENGINEER
DATE 11/13/02

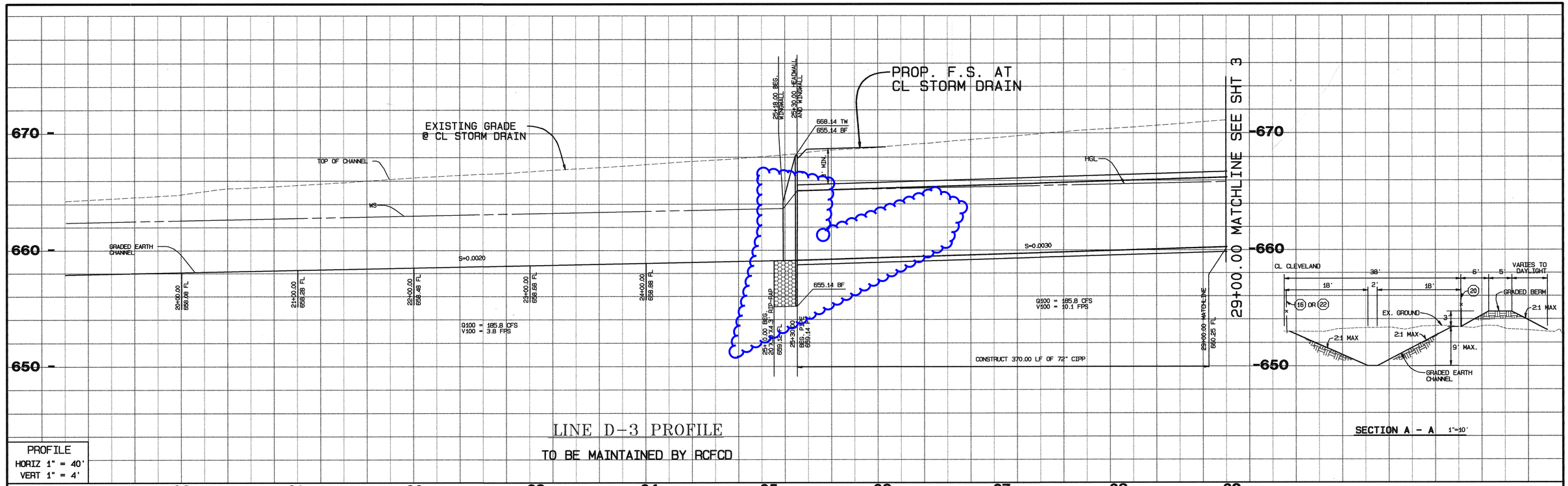
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE 11/14/02
RCE NO. _____ EXP. DATE _____

EASTVALE MASTER DRAINAGE PLAN LINE D-3 (STAGE 4)

17+00.00 TO 25+30.00

PROJECT NO. 2-0-0308
DRAWING NO.: 2-321
SHEET NO.: 7 OF 7

J.N. 01.581.2.10 H:\01581\ALT_SD\ALT_IMPR\581SD07A.DWG 10-01-02 MVG

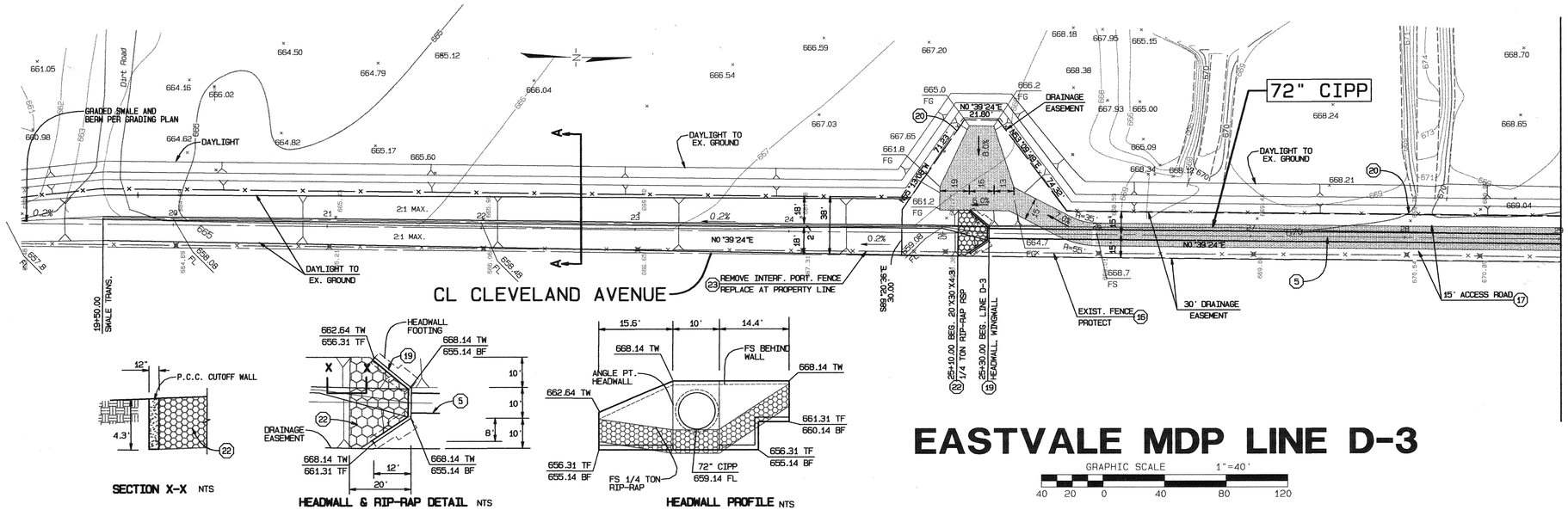


LINE D-3 PROFILE

TO BE MAINTAINED BY RCFCD

SECTION A - A 1"=10'

PROFILE
HORIZ 1" = 40'
VERT 1" = 4'



SECTION AT STA 26+00.00

SECTION X-X NTS

HEADWALL & RIP-RAP DETAIL NTS

HEADWALL PROFILE NTS

CONSTRUCTION NOTES

(5) CONSTRUCT 72" CIPP
(5) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(16) PROTECT EXISTING FENCE IN PLACE
(17) PLACE CRUSHED SLAG (2" MIN. THICKNESS) ON 15' ACCESS ROAD
(19) CONSTRUCT TYPE A HEADWALL & WINGWALL PER CALTRANS STD. D-90
(20) INSTALL 6' CHAIN-LINK FENCE PER RCFC STD. M 801
(22) CONSTRUCT 1/4 TON GROUTED RIP-RAP PER DETAIL THIS SHEET
(23) REMOVE INTERF. PORTION OF EX. FENCE & REPLACE IT AT PROPERTY LINE

EASTVALE MDP LINE D-3

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

GRAPHIC SCALE 1"=10'
0 10 20 30

DM

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
A BRASS DISK IN CONCRETE MONUMENT LOCATED 15 FT. SOUTH OF 4 FT. HIGH SOLID FIVE-BAR DAIRY FENCE IN CORRAL, AT S/W CORNER EUCALYPTUS & CLEVELAND AVES., 37 FT. SOUTH OF EUCALYPTUS, 44 FT. WEST OF CLEVELAND.
ELEV. = 699.8640

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FASHAHI NO. C39530 EXP. 12-31-01 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256
APPROVED BY: Mohd Fashahi DATE: 12/21/00
R.C.E. NO. C39530 EXP. DATE 12-31-01
DESIGNED BY: L.M.
CHECKED BY: MF

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	REVISIONS	APPR.	DATE

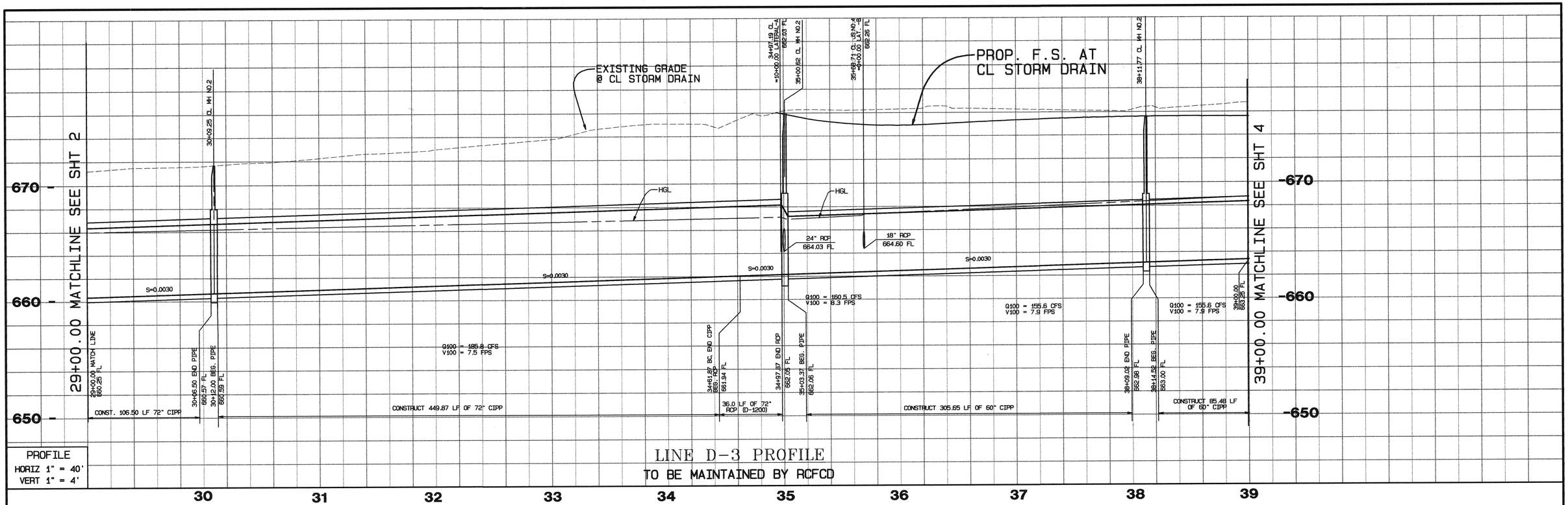
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
Michael D Rawson
PLANNING ENGINEER
DATE : 2/26/01
APPROVED BY:
CHIEF ENGINEER
DATE : 2/26/01

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 1/10/01
RCE NO. 33950 EXP. DATE 6/30/01

EASTVALE MASTER DRAINAGE PLAN
LINE D-3 (STAGE 2)
TRACT 28933-1 IP 990097
STA 21+61.00 TO 29+00.00
FOR: FORECAST HOMES
W.O. 98-370

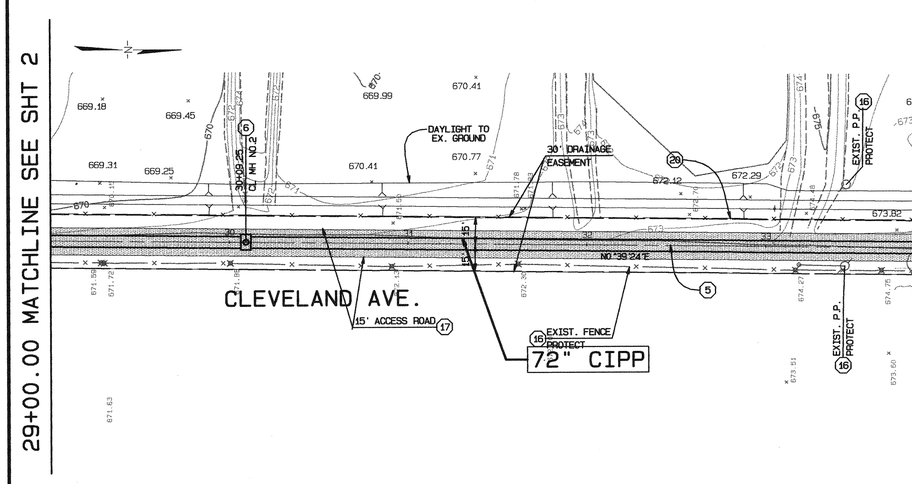
PROJECT NO. 2-0-0308
DRAWING NO. 2-298
SHEET NO. 2 OF 8

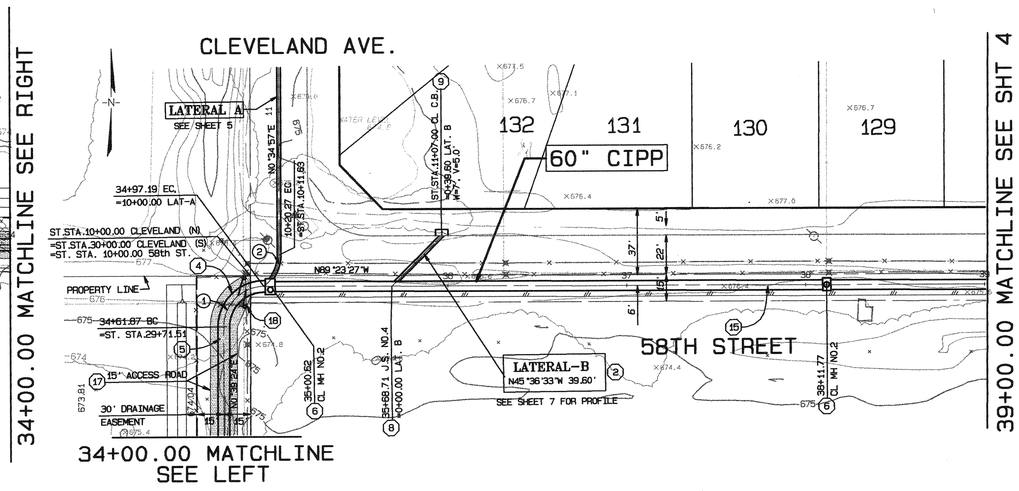
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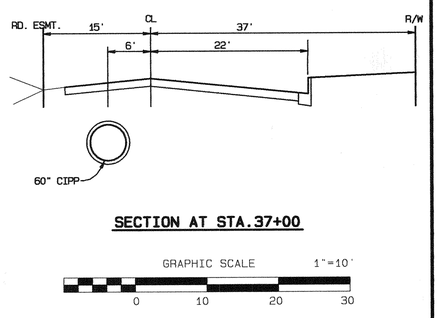
PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

LINE D-3 PROFILE
TO BE MAINTAINED BY RCFCD





34+00.00 MATCHLINE SEE LEFT



SECTION AT STA.37+00

GRAPHIC SCALE 1"=10'
0 10 20 30

CONSTRUCTION NOTES

2. CONSTRUCT 18" RCP CLASS IV
4. CONSTRUCT 72" RCP D-1200
5. CONSTRUCT 72" CIPP
6. CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
8. CONSTRUCT JUNCTION STRUCTURE NO.4 PER RCFC STD. JS 229
9. CONSTRUCT CATCH BASIN NO.1 PER RCFC STD.CB100 W/ LOCAL DEPRESSION PER RCFC STD. LD201
15. CONSTRUCT 60" CIPP
16. PROTECT EXIST. FENCE IN PLACE
17. CONSTRUCT 15' ACCESS ROAD WITH CRUSHED SLAG (2" MIN. THICK)
18. REMOVE INTERFERING PORTION OF EX. FENCE, INSTALL 14' DOUBLE DRIVE GATE PER RCFC STD. M 801

EASTVALE MDP LINE D-3

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

DM

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UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
A BRASS DISK IN CONCRETE MONUMENT LOCATED 15 FT. SOUTH OF 4 FT. HIGH SOLID FIVE-BAR DAIRY FENCE IN CORRAL. AT S/W CORNER EUCALYPTUS & CLEVELAND AVES., 37 FT. SOUTH OF EUCALYPTUS, 44 FT. WEST OF CLEVELAND.
ELEV. = 699.8640

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMAD FAGHIH NO. C39530 EXP. 12-31-01 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

APPROVED BY: [signature] DATE: 12/21/00
R.C.E. NO. C39530 EXP. DATE 12-31-01
DESIGNED BY: C.M.
CHECKED BY: MF

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

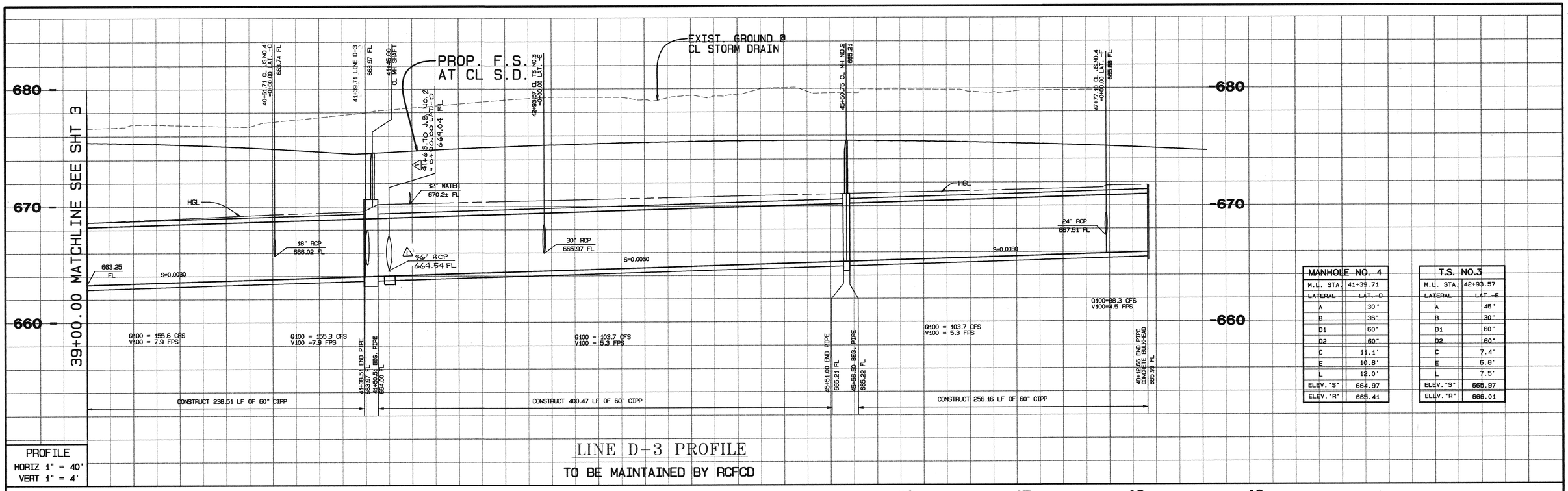
REF.	REVISIONS	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL: [signature] PLANNING ENGINEER
DATE: 3/26/01
APPROVED BY: [signature] CHIEF ENGINEER
DATE: 2/28/01

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: [signature] DATE: 1/10/01
RCE NO. 33950 EXP. DATE 6/30

EASTVALE MASTER DRAINAGE PLAN
LINE D-3 (STAGE 2)
TRACT 28933-1 IP 990097
STA 29+00.00 TO 39+00.00
FOR: FORECAST HOMES W.O. 98-370

PROJECT NO. 2-0-0308
DRAWING NO. 2-298
SHEET NO. 3 OF 8



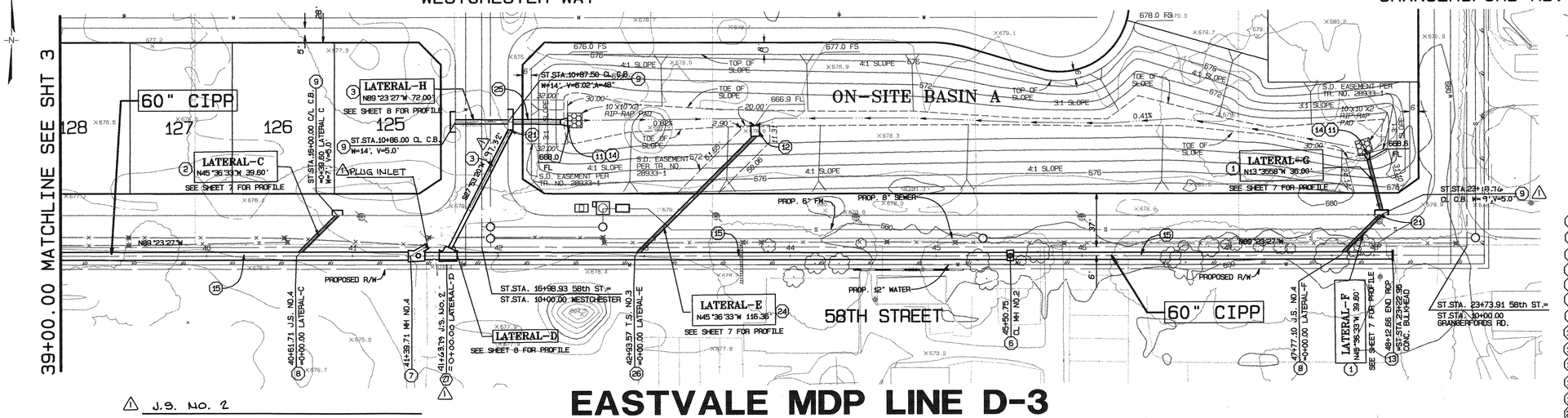
LINE D-3 PROFILE

TO BE MAINTAINED BY RCFCD

PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

MANHOLE NO. 4	
M.L. STA.	41+39.71
LATERAL	LAT.-D
A	30°
B	36"
D1	60"
D2	60"
C	11.1'
E	10.8'
L	12.0'
ELEV. "S"	664.97
ELEV. "R"	665.41

T.S. NO.3	
M.L. STA.	42+93.57
LATERAL	LAT.-E
A	45°
B	30"
D1	60"
D2	60"
C	7.4'
E	6.8'
L	7.5'
ELEV. "S"	665.97
ELEV. "R"	666.01



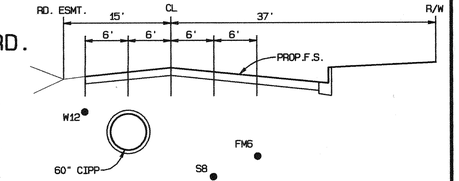
EASTVALE MDP LINE D-3

GRAPHIC SCALE 1"=40'
0 20 40 80 120

⚠ J.S. NO. 2

Δ = 62°43'13", B=36", C=5.2', D= 60", E=3.71, F=2.49', G=1.25', L= 5.0', ELEV. "R" = 664.56, ELEV. "S" = 664.54

⚠ ⑦ CONSTRUCT JUNCTION STRUCTURE NO. 2 PER RCFC STD. JS 227.



SECTION AT STA.46+00

GRAPHIC SCALE 1"=10'
0 10 20 30

CONSTRUCTION NOTES

1. CONSTRUCT 24" RCP CLASS IV
2. CONSTRUCT 18" RCP CLASS IV
3. CONSTRUCT 36" RCP (D-1100)
6. CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
7. CONSTRUCT MANHOLE NO. 4 PER RCFC STD. MH 254
8. CONSTRUCT JUNCTION STRUCTURE NO.4 PER RCFC STD. JS 229
9. CONSTRUCT CATCH BASIN NO.1 PER RCFC STD.CB100 W/ LOCAL DEPRESSION PER RCFC STD. LD201
11. CONSTRUCT METAL FLARED END PER CALTRANS STD. D-94A
12. CONST. DETENTION BASIN OUTLET STRUCTURE PER DETAIL SHT.6
13. CONSTRUCT CONCRETE BULKHEAD PER RCFC STD. M 816
14. CONSTRUCT NO.2 BACKING RSP PER DETAIL SHT. 6
15. CONSTRUCT 60" CIPP
21. INSTALL 1/4" GALVANIZED STEEL BULKHEAD PER DETAIL ON SHT 7
24. CONSTRUCT 30" RCP D-1500
25. CONSTRUCT 42" RCP D-1100
26. CONSTRUCT TRANSITION STRUCTURE NO.3 PER RCFC STD.TS 303

DM

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UNDERGROUND SERVICE ALERT
CALL: TOLL FREE 1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
A BRASS DISK IN CONCRETE MONUMENT LOCATED 15 FT. SOUTH OF 4 FT. HIGH SOLID FIVE-BAR DAIRY FENCE IN CORRAL AT S/W CORNER EUCALYPTUS & CLEVELAND AVES., 37 FT. SOUTH OF EUCALYPTUS, 44 FT.WEST OF CLEVELAND.
ELEV. = 699.8640

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGIH NO. C39530 EXP. 12-31-01 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET
RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

APPROVED BY: M. Fagih DATE: 12/21/00
R.C.E. NO. C39530 EXP. DATE 12-31-01
DESIGNED BY: L.M.
CHECKED BY: MF

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER DONALD A. OTTMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REVISIONS			
⚠	REVISE C.B. WIDTH AND	MHP MF	1/16/01
	ADDED J.S. NO. 2		2/12
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
PLANNING ENGINEER
DATE : 2/26/01

APPROVED BY:
CHIEF ENGINEER
DATE : 2/26/01

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 1/19/01
RCE NO. 33950 EXP.DATE 6/30/02

EASTVALE MASTER DRAINAGE PLAN
LINE D-3 (STAGE 2)
TRACT 28933-1 IP 990097
STA 39+00.00 TO 48+12.66
FOR: FORECAST HOMES
W.O. 98-370

PROJECT NO. 2-0-0308
DRAWING NO. 2-298
SHEET NO. 4 OF 8

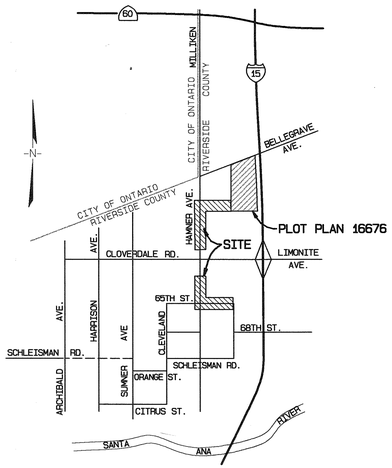
- **AS-BUILT STORM DRAIN IMPROVEMENT PLANS ALONG HAMNER AVENUE (MDP LINE "E", RCFCD DWG NO. 2-0-310)**

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

EASTVALE MASTER DRAINAGE PLAN LINE E

GENERAL NOTES

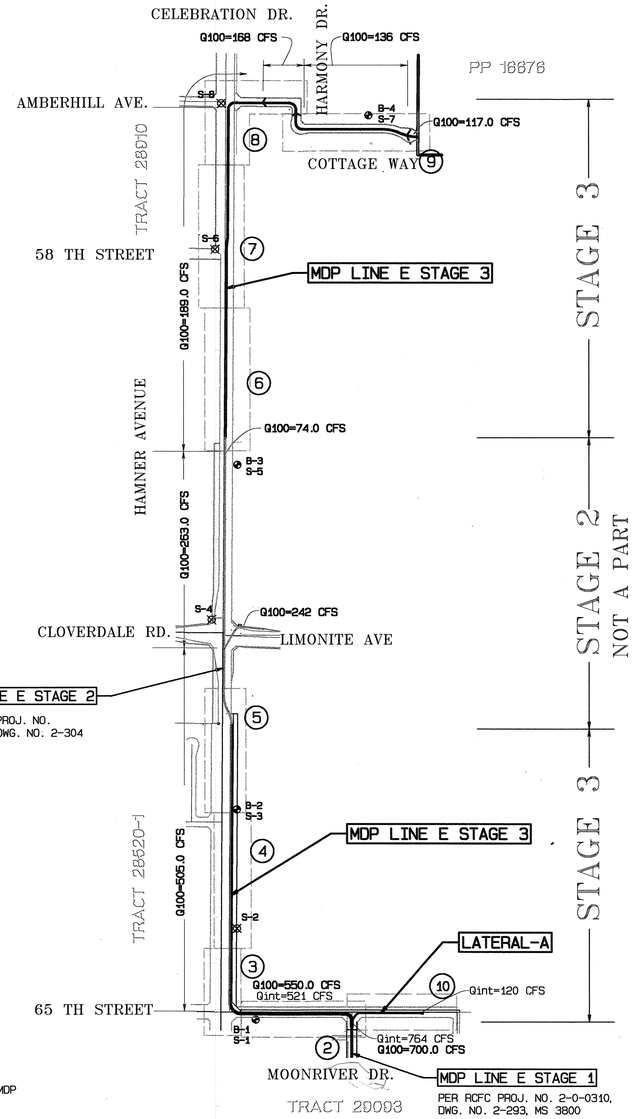
1. ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION.
2. ALL CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM.
3. TOPOGRAPHY BY DIGITAL PHOTOGRAMMETRIC METHODS. AERIAL PHOTOGRAPHS TAKEN AT AN ALTITUDE NOT TO EXCEED A FLYING HEIGHT TO CONTOUR INTERVAL RATIO OF 1800. PHOTOGRAPHY DATED 10-25-00, BY INLAND AERIAL SURVEYS, INC.
4. THE VERTICAL DATUM IS DERIVED FROM NGVD 29. THE HORIZONTAL DATUM IS DERIVED FROM NAD 83.
5. STANDARD DRAWINGS CALLED FOR ON THE PLAN & PROFILE SHALL CONFORM TO R.C.F.C. & W.C.D. STD. DRAWINGS, CALTRANS OR COUNTY STANDARD PLANS.
6. ELEVATIONS AND LOCATIONS OF UTILITIES WERE OBTAINED FROM AVAILABLE INFORMATION AND ARE SHOWN APPROXIMATELY ON THESE PLANS. 48 HOURS BEFORE EXCAVATION CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600. ALL UTILITIES SHALL BE PROTECTED IN PLACE EXCEPT AS NOTED ON PLANS AND SPECIFICATIONS.
7. THE CONTRACTOR IS REQUIRED TO CONTACT ALL UTILITY AGENCIES REGARDING TEMPORARY SUPPORT AND SHORING REQUIREMENTS FOR THE VARIOUS UTILITY LINES SHOWN ON THESE PLANS.
8. ALL OPENINGS RESULTING FROM CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES, OR SIMILAR STRUCTURES TO BE ABANDONED, SHALL BE SEALED AT BOTH ENDS WITH 6" MIN. CLASS "B" CONCRETE.
9. STREET RECONSTRUCTION SHALL BE AS SHOWN ON TYPICAL STREET PAVEMENT DETAILS. IF THERE IS NO TYPICAL DETAIL, THE RECONSTRUCTION SHALL BE 0.65' AC OVER 0.60' AB OR IN KIND, WHICHEVER IS GREATER, INCLUDING STRIPING AND MARKING.
10. ALL RECONSTRUCTION, RESURFACING AND PAVEMENT DELINEATION, CURBS, SIDEWALKS AND OTHER IMPROVEMENTS ARE TO BE RECONSTRUCTED IN KIND AT THE SAME LOCATIONS AND ELEVATIONS AS THE EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.
11. ⊕ INDICATES APPROX. SOIL BORING LOCATION PER SOILS REPORT DATED 6/11/2001.
12. FOR COMPLETE RIGHT-OF-WAY AND TEMPORARY CONSTRUCTION EASEMENT REFER TO GRANT OF EASEMENTS & OFFER OF DEDICATIONS RECORDED AS SHOWN ON PLAN
13. ALL TRENCH EDGES SHALL BE SAWCUT NEAT OR AS DIRECTED BY THE ENGINEER.
14. APPROVAL FOR THESE PLANS BY THE RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT DOES NOT RELIEVE THE DEVELOPER'S ENGINEER OF RESPONSIBILITY FOR THE ENGINEERING DESIGN. IF FIELD CHANGES ARE REQUIRED, IT WILL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO MAKE THE NECESSARY CHANGES.
15. ALL WORK WITHIN THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT R/W WILL REQUIRE AN ENCROACHMENT PERMIT.
16. ITEMS WITHIN THE TEMPORARY CONSTRUCTION EASEMENT NOT IDENTIFIED ON THE PLANS SHALL BE PROTECTED IN PLACE OR RESTORED TO THE ORIGINAL CONDITIONS
17. CONTRACTOR SHALL INSTALL TEMPORARY CHAIN-LINK FENCE ALONG TEMPORARY CONSTRUCTION EASEMENT, OR RELOCATE EXIST. FENCE TO TEMPORARY CONSTRUCTION EASEMENT. TEMPORARY FENCE SHALL BE REMOVED AFTER CONSTRUCTION COMPLETED



VICINITY MAP NTS

T2S, R7W, SECTION 25





CONSTRUCTION NOTES

1	CONSTRUCT 12'WX7'H RCB PER CALTRANS STD.D-80, MAX. COVER 20'	22	PROTECT EXISTING POWER POLE/ TEL POLE
2	CONSTRUCT 10'WX7'H RCB PER CALTRANS STD.D-80, MAX. COVER 10'	23	REMOVE AND REPLACE EXIST. PAVEMENT, STRIPING AND MARKING. PAVEMENT TO BE
3	CONSTRUCT 84" RCP (D=1750)		RESTORED PER DETAILS AND SECTIONS ON SHEET 14
4	CONSTRUCT 66" RCP (D=1750)	24	RECONSTRUCT DRIVEWAY IN KIND TO MATCH EXIST.& PROVIDE ACCESS DURING CONST.
5	CONSTRUCT 60" RCP (D-1750)	25	REMOVE EXISTING FENCE AND REINSTALL IN KIND TO ITS ORIG. LOCATION
6	CONSTRUCT 48" RCP (D-1500)		AFTER COMPLETION OF CONSTRUCTION
7	CONSTRUCT 24" RCP CLASS IV	25A	RELOCATE EXISTING FENCE TO TCE AND REINSTALL IN KIND TO ITS ORIG.
8	CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252		LOCATION AFTER COMPLETION OF CONSTRUCTION
9	CONSTRUCT MANHOLE NO. 3 PER RCFC STD. MH 253	26	PROTECT IN PLACE
10	CONSTRUCT TRANSITION STRUCTURE NO.1 PER RCFC STD. TS 301	28	PROTECT EXISTING 4" GAS LINE
11	CONSTRUCT TRANSITION STRUCTURE NO.2 PER RCFC STD. TS 302	29	INSTALL 6' TEMP. CHAIN LINK FENCE ALONG TCE PER RCFC STD. M801
12	CONSTRUCT JUNCTION STRUCTURE NO. 1 PER RCFC STD. JS 226	30	EXISTING PACIFIC BELL TEL. RISER TO BE RELOCATED BY TELE. CO.
13	CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229	31	RELOCATE EX. MONITORING VAULT AND FIXTURES FOR DAIRY WASHWATER
14	CONSTRUCT CONCRETE BULKHEAD PER RCFC STD. M 816		PER ORANGE CO. SANITATION DIST. DWG. C4, M1 & M2
15	INSTALL BARRICADE PER RCTD STD. 810	32	REMOVE EX. 6" PVC IRR. LINE & RISER AND REINSTALL IN KIND TO ORIG. LOCATION
16	INSTALL 14' DOUBLE DRIVE GATE PER RCFC STD. M 801		AFTER COMPLETION OF CONSTRUCTION. PROVIDE TEMP. IRR. SYSTEM DURING CONST.
17	INSTALL 6' CHAIN LINK FENCE PER RCFC STD. M801	33	REMOVE AND REPLANT EX. ITAL. CYPRESS TREE W/ AN EXTRA TREE IN KIND @ 6' APART
18	CONSTRUCT DROP INLET 1 PER DETAIL ON SHEET 3	34	CONSTRUCT DECK ACCESS OPENING PER CALTRANS STD. B7-11, DETAIL U43
19	CONSTRUCT DROP INLET 2 PER DETAIL ON SHEET 10		
20	CONSTRUCT 4" CONC. PAVING W/ 2' CUTOFF WALL AT INLET STRUCTURES		
21	CONST. MODIFIED CONCRETE DROP INLET WITH 2" A.C. APRON PER RCFC		
	STD. CB110 & DETAIL ON SHT 11		

LEGEND

- (3) SHEET NUMBERS
- ⊕ B-2 S-3 APPROXIMATE SOIL BORING/ SOUNDING LOCATION
- Q100 100-YEAR FLOW PER EASTVALE MDP
- Qint INTERIM 100-YEAR FLOW FOR EXISTING CONDITION

INDEX MAP

SCALE: 1"=500'

INDEX

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RCFC STD. DRAWINGS

CB 103	MANHOLE FRAME & COVER FOR CATCH BASIN	18
CB 106	CATCH BASIN REINFORCEMENT	19
CB 110	CONCRETE DROP INLET	20
MH 252	MANHOLE NO. 2	21
MH 253	MANHOLE NO. 3	22
MH 255	MANHOLE FRAME AND COVER, NON-ROCKING	23
MH 257	MANHOLE SHAFT FOR CAST PIPE	24
MH 259	STANDARD DROP STEP	25
JS 226	JUNCTION STRUCTURE NO. 1	26
JS 229	JUNCTION STRUCTURE NO. 4	27
TS 301	TRANSITION STRUCTURE NO. 1	28
TS 302	TRANSITION STRUCTURE NO. 2	29
M 801	CHAIN LINK FENCE AND GATE	30
M 815	BEDDING AND PAY LINES	31
M 816	CONCRETE BULKHEAD	32

CALTRANS STD. DRAWINGS

D 80	REINFORCED CONCRETE SINGLE BOX CULVERT	33
D 82	REINFORCED CONCRETE BOX CULVERT MISC. DETAILS	34
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ORANGE CO. SANITATION DIST.

C4	DAIRY WASHWATER PILOT PROJ. PLAN & PROFILES	39
M1	DAIRY WASHWATER PILOT PROJ. STD. DETAILS	40
M2	MONITORING VAULT PLAN & SECTION	41

NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY - NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBER AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. LOCATIONS OF UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

CALL UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-227-2600 AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION.

IP 010027

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1·800
227·2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGIHI NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: M. Fagi DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	REVISIONS	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02

APPROVED BY:
CHIEF ENGINEER
DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP.DATE

EASTVALE MDP
LINE E
STAGE 3
TITLE SHEET

PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 1 OF 41

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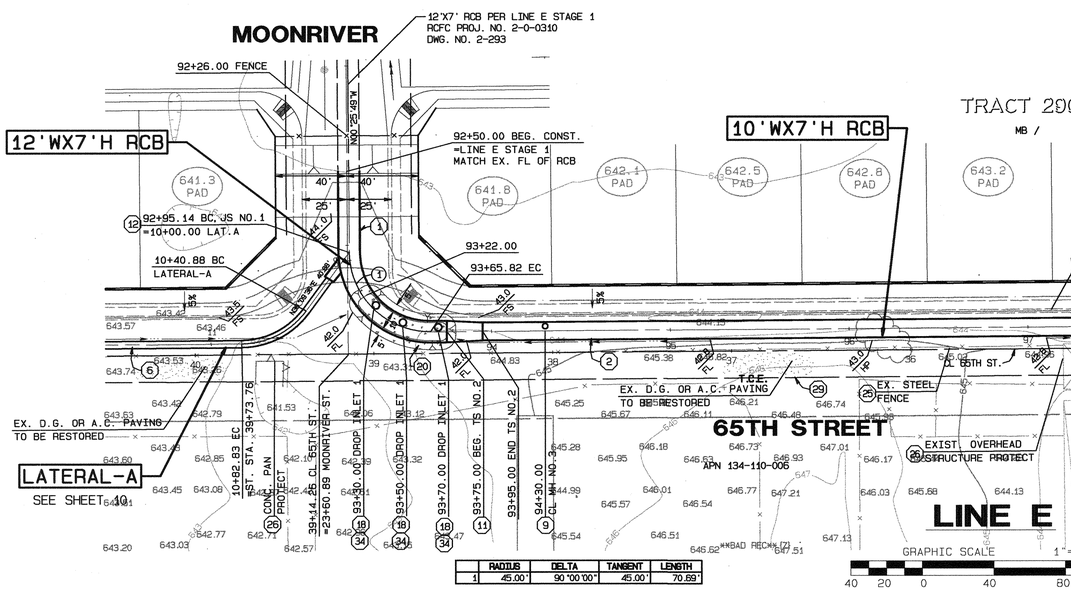
NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.

J.S. NO.1	
M.L. STA.	93+15.81
LATERAL	LAT.-A
A	36°±
B	48"
C	17.0
EL. "S"	625.94
EL. "R"	626.08

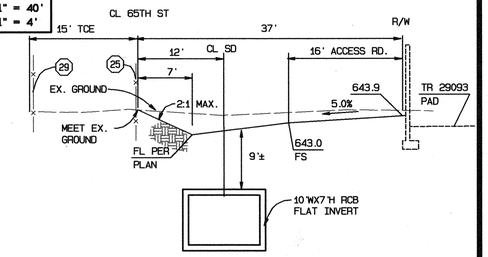
CONSTRUCTION NOTES

1. CONSTRUCT 12'WX7'H RCB PER CALTRANS STD.D-80, MAX. COVER 20' FLAT INVERT
2. CONSTRUCT 10'WX7'H RCB PER CALTRANS STD.D-80, MAX. COVER 10' FLAT INVERT
6. CONSTRUCT 48" RCP D-1500
9. CONSTRUCT MANHOLE NO. 3 PER RCFC STD. MH 253
11. CONSTRUCT TRANSITION STRUCTURE NO.2 PER RCFC STD. TS 302
12. CONSTRUCT JUNCTION STRUCTURE NO. 1 PER RCFC STD. JS 226
18. CONSTRUCT DROP INLET NO.1 PER DETAIL ON SHEET 3
20. CONSTRUCT 4" CONC. PAVING W/ 2' CUTOFF WALL AT INLET STRUC.
25. REMOVE EXISTING FENCE AND REINSTALL IN KIND TO ITS ORIG. LOCATION AFTER COMPLETION OF CONSTRUCTION
26. PROTECT IN PLACE
29. INSTALL 6' TEMP. CHAIN LINK FENCE ALONG TCE PER RCFC STD. M801
34. CONSTRUCT DECK ACCESS OPENING PER CALTRANS STD. B7-11, DETAIL U43

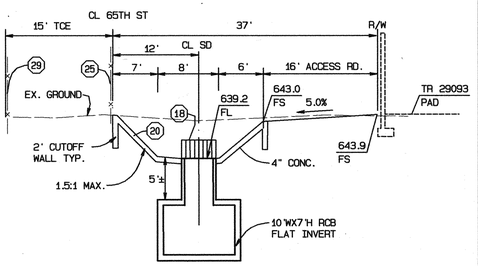
PROFILE
HORIZ 1" = 40'
VERT 1" = 4'



	RADIUS	DELTA	TANGENT	LENGTH
1	45.00'	90°00'00"	45.00'	70.69'



SECTION @ STA.95+00



SECTION @ STA.99+00

GRAPHIC SCALE 1"=10'
0 10 20 30

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMMER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REG. STERED PROFESSIONAL ENGINEER MOHAMMAD FAGHRI NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: Mohammad Faghri DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
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DATE: 2/20/02

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DATE: 2/20/02

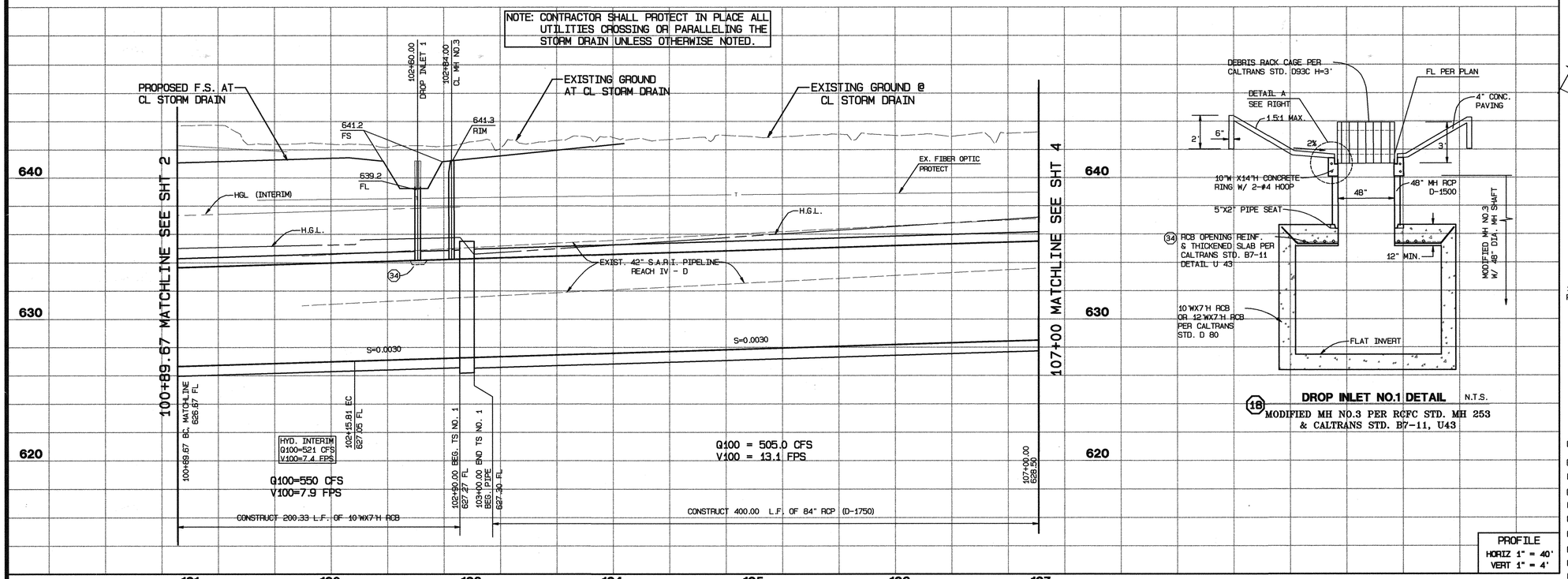
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 3
PLAN & PROFILE
STA. 92+50.00 TO STA. 100+89.67

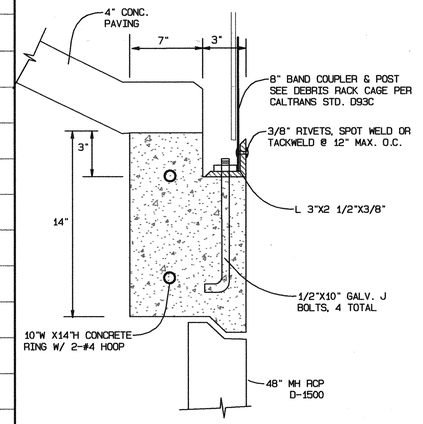
IP 010027
PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 2 OF 41

G:\2000\00-0101\00101SD.prn2/19/2002

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.



(18) **DROP INLET NO.1 DETAIL** N.T.S.
MODIFIED MH NO.3 PER RCFC STD. MH 253 & CALTRANS STD. B7-11, U43



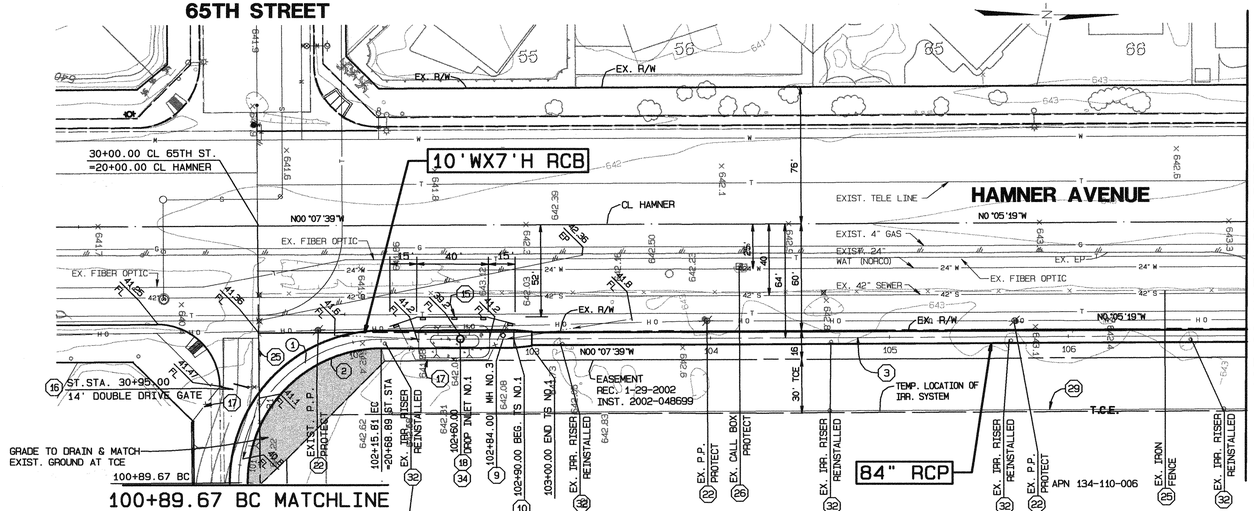
DETAIL A
NOT TO SCALE

CONSTRUCTION NOTES

(2) CONSTRUCT 10'WX7'H RCB PER CALTRANS STD.D-80, MAX. COVER 10' FLAT INVERT
(3) CONSTRUCT 84" RCP (D=1750)
(9) CONSTRUCT MANHOLE NO. 3 PER RCFC STD. MH 253
(10) CONSTRUCT TRANSITION STRUCTURE NO.1 PER RCFC STD. TS 301
(15) INSTALL BARRICADE PER RCTC STD. 810
(16) INSTALL 14' DOUBLE DRIVE GATE PER RCFC STD. M 801
(17) INSTALL 6' CHAIN LINK FENCE PER RCFC STD. M801
(18) CONSTRUCT DROP INLET 1 PER DETAIL ON SHEET 3
(20) CONSTRUCT 4" CONC. PAVING W/ 2' CUTOFF WALL AT INLET STRUC.
(22) PROTECT EXISTING POWER POLE/ TEL POLE
(25) REMOVE EXISTING FENCE AND REINSTALL IN KIND TO ITS ORIG. LOCATION AFTER COMPLETION OF CONSTRUCTION
(26) PROTECT IN PLACE
(29) INSTALL 6' TEMP. CHAIN LINK FENCE ALONG TCE PER RCFC STD. M801
(32) REMOVE EX. 6" PVC IRR. LINE & RISER AND REINSTALL IN KIND TO ORIG. LOCATION UNLESS NOTED OTHERWISE ON PLAN AFTER COMPLETION OF CONSTRUCTION. PROVIDE TEMP. IRR. SYSTEM DURING CONST.
(34) CONSTRUCT DECK ACCESS OPENING PER CALTRANS STD. B7-11, DETAIL U43

PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

101 102 103 104 105 106 107

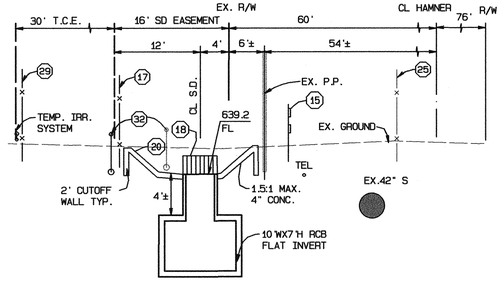


NOTE TO CONTRACTOR:
IRR. LINE TO BE REINSTALLED OR REPLACED ALONG E'LY EDGE OF DROP INLET NO.1

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

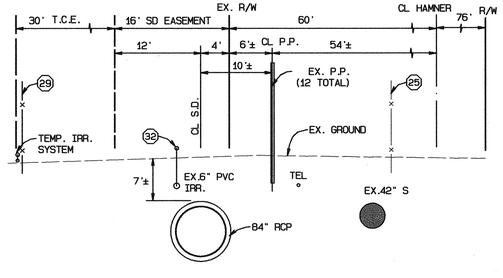
LINE E

	RADIUS	DELTA	TANGENT	LENGTH
1	80.00'	90°20'22"	80.48'	126.14'



SECTION @ STA.102+60
1"=10'

GRAPHIC SCALE 1"=10'
0 10 20 30



SECTION @ STA.105+00
1"=10'

GRAPHIC SCALE 1"=10'
0 10 20 30

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PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: Mo Faghfouri DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
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CHIEF ENGINEER
DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP.DATE

EASTVALE MDP
LINE E
STAGE 3
PLAN & PROFILE
STA. 100+89.67 TO STA. 107+00

IP 010027
PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 3 OF 41

G:\2000\00-0101\0010150.pro2/19/2002

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.

MATCH LINE 107+00 SEE SHEET 3

MATCH LINE 116+00 SEE SHEET 5

107+98.75 CL MH NO.2 643.5± RIM

113+00.25 CL MH NO.2 648.9± RIM

EXISTING GROUND @ CL STORM DRAIN

EX. FIBER OPTIC PROTECT

6" PVC SWR 647.8± FL

H.G.L.

EXIST. 42" S.A.R.I. PIPELINE REACH IV - D

650 / 640 / 630 / 620

S=0.0030

S=0.0030

S=0.0030

Q100 = 505.0 CFS
V100 = 13.1 FPS

Q100 = 505.0 CFS
V100 = 13.1 FPS

107+00.00 628.50

107+96.00 END PIPE 628.79 FL

108+01.50 BEG. PIPE 628.81 FL

112+97.50 END PIPE 630.30 FL

113+03.00 BEG. PIPE 630.31 FL

116+00.00 631.20 FL

96.00 LF OF 84" RCP (D-1750)

CONSTRUCT 496.00 L.F. OF 84" RCP (D-1750)

CONSTRUCT 297.00 L.F. OF 84" RCP (D-1750)

PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

107 / 108 / 109 / 110 / 111 / 112 / 113 / 114 / 115 / 116

CONSTRUCTION NOTES

(3) CONSTRUCT 84" RCP (D=1750)
(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(22) PROTECT EXISTING POWER POLE/ TEL POLE
(24) RECONSTRUCT CONCRETE DRIVEWAY AND A.C. ROAD IN KIND TO MATCH EXISTING AND PROVIDE ACCESS DURING CONSTRUCTION
(25) REMOVE EXISTING FENCE AND REINSTALL IN KIND TO ITS ORIG. LOCATION AFTER COMPLETION OF CONSTRUCTION (FROM STA. 107+00 TO 114+55)
(25A) RELOCATE EXISTING FENCE AS SHOWN AND REINSTALL IN KIND TO ITS ORIG. LOCATION AFTER COMPLETION OF CONSTRUCTION (FROM STA. 114+55 TO STA. 116+00)
(26) PROTECT IN PLACE
(29) INSTALL 6' TEMP. CHAIN LINK FENCE ALONG TCE PER RCFC STD. M801
(30) EXISTING PACIFIC BELL TEL. RISER TO BE RELOCATED BY TELE. CO.
(31) RELOCATE EX. MONITORING VAULT AND FIXTURES FOR DAIRY WASHWATER @ 90° ROTATION PER ORANGE CO. SANITATION DIST. DWG. C4, M1 & M2
(32) REMOVE EX. 6" PVC IRR. LINE & RISER AND REINSTALL IN KIND TO ORIG. LOCATION AFTER CONSTRUCTION. PROVIDE TEMP. IRR. SYSTEM DURING CONST.
(33) REMOVE AND REPLANT EX. ITAL. CYPRESS TREE W/ AN EXTRA TREE IN KIND @ 6' APART

TRACT 28520

MB /

OAKDALE ST.

HAMNER AVENUE

MATCH LINE 107+00 SEE SHEET 3

MATCH LINE 116+00 SEE SHEET 5

EX. R/W

CL HAMNER

NO°05'19"W

EXIST. TELE LINE

EXIST. 4" GAS

EXIST. 24" WAT (NORCO)

EX. FIBER OPTIC

EX. 42" SEWER

EX. EP

EX. ENTRY WALL PROTECT (26)

EASEMENT REC: 1-29-2002 INST. 2002-048699

TEMP. LOCATION OF IRR. LINE & RISER

APN 134-110-006

APN 134-110-022

LINE E

84" RCP

EX. P.P. PROTECT (22)
EX. PALM TREE PROTECT (26)
107+55 CL CONC. D/W & A/C ROAD (24)
EX. PALM TREE PROTECT (26)
107+98.75 CL MH NO.2 (8)
EX. IRR. RISER REINSTALLED (32)
EX. IRON FENCE (25)
EX. P.P. PROTECT (22)
EX. TEL RISER TO BE RELOCATED (30)
EX. IRR. RISER REINSTALLED (32)
EX. IRR. RISER REINSTALLED (32)
EX. P.P. PROTECT (22)
EX. STEEL FENCE (25)
EX. IRR. RISER REINSTALLED (32)
EX. IRR. RISER REINSTALLED (32)
113+00.25 CL MH NO.2 (8)
EX. P.P. PROTECT (22)
EX. IRR. RISER REINSTALLED (32)
EX. SWR MH PROTECT (26)
4" PVC RISER (31)
EXIST. MONITORING VAULT (DAIRY WASH) (31)
EX. W.V. (31)
EX. P.P. PROTECT (22)
EX. CONC. PAVING (26)
EX. D.G. ROAD RESTORE (26)
HAYSTACK WITH OVERHEAD STRUCT. (26)

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

30' T.C.E. / 16' EASEMENT / EX. R/W / 60' / CL HAMNER / 76' R/W
12' / 4' / 6'± CL P.P. / 54'±
10'±
EX. P.P. (12 TOTAL)
CL S.D.
TEMP. IRR. SYSTEM
EX. GROUND
8'±
EX.6" PVC IRR.
TEL
EX.42" S
84" RCP

SECTION @ STA. 110+00

GRAPHIC SCALE 1"=10'
0 10 20 30

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMMER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGIH NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: MF DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02

APPROVED BY:
CHIEF ENGINEER
DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP.DATE

EASTVALE MDP
LINE E
STAGE 3
PLAN & PROFILE
STA. 107+00 TO STA. 116+00

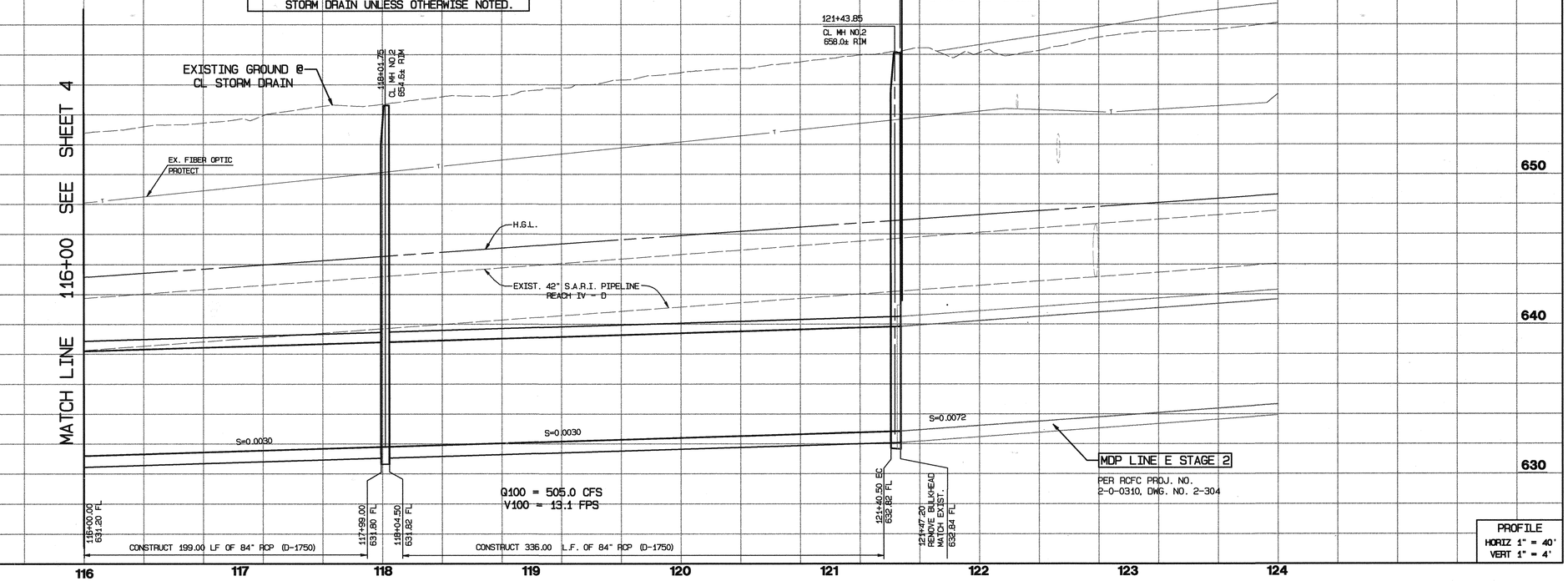
IP 010027
PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 4 OF 41

G:\2000\00-0101\0010150.pro2/19/2002

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.

STAGE 3 | STAGE 2

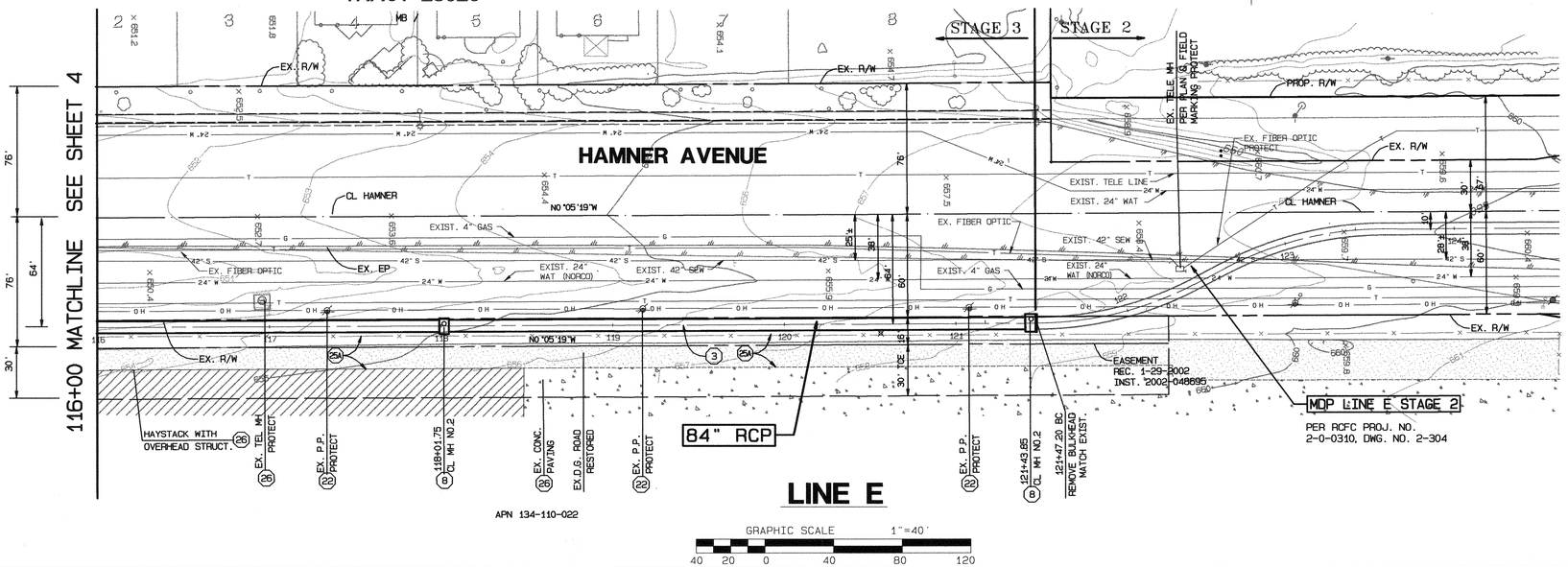
NOT A PART

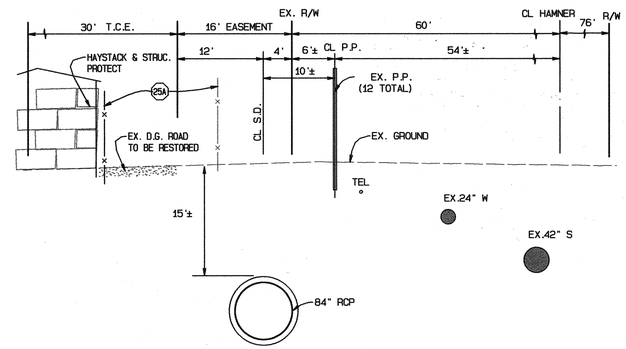


CONSTRUCTION NOTES

(3) CONSTRUCT 84" RCP (D=1750)
(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(22) PROTECT EXISTING POWER POLE/ TEL POLE
(25A) RELOCATE EXISTING FENCE AS SHOWN AND REINSTALL IN KIND TO ITS ORIG. LOCATION AFTER COMPLETION OF CONSTRUCTION
(26) PROTECT IN PLACE

TRACT 28520





SECTION @ STA.118+00

GRAPHIC SCALE 1"=10'
0 10 20 30

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1·800
227·2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT; CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHMAD FAGIH NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: MF DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTAIMAT NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE : 2/20/02
APPROVED BY:
CHIEF ENGINEER
DATE : 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP.DATE

EASTVALE MDP
LINE E
STAGE 3
PLAN & PROFILE
STA.116+00 TO STA. 121+47.20

IP 010027

PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 5 OF 41

G:\2000\00-0101\001015D.prn02/19/2002

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.

STAGE 2 | STAGE 3

NOT A PART

EXISTING F.S. @ CL STORM DRAIN

145+59.25 CL MH NO.2 675.2± RIM

EX. FIBER OPTIC PROTECT

PROP. 12" W (666.3±) FL

H.G.L.

EXIST. 42" S.A.R.I. PIPELINE REACH IV - D

S=0.0030

S=0.0030

S=0.0030

LINE E STAGE 2
RCFC PROJ. NO. 2-0-0310
DWG. NO. 2-304

141+56.50 REMOVE EX. CONCRETE BULKHEAD (657.07) FL

145+56.50 END PIPE 658.27 FL

145+62.00 BEG. PIPE 658.29 FL

150+58.00 END PIPE 659.77 FL

Q100 = 189.0 CFS
V100 = 8.0 FPS

CONSTRUCT 400.00 L.F. OF 66" RCP (D=1750)

Q100 = 189.0 CFS
V100 = 8.0 FPS

CONSTRUCT 496.00 L.F. OF 66" RCP (D=1750)

MATCH LINE 150+58.00 SEE SHEET 7

PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

680 670 660 650

141 142 143 144 145 146 147 148 149 150

CONSTRUCTION NOTES

(4) CONSTRUCT 66" RCP (D=1750)

(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252

(23) REMOVE AND REPLACE EXIST. PAVEMENT, STRIPING AND MARKING. PAVEMENT TO BE RESTORED PER DETAILS AND SECTIONS ON SHEET 14

(26) PROTECT IN PLACE

PROP. R/W REC. 1-15-2002 INST. 2002-025215

141+56.50 REMOVE BULKHEAD

BEGIN CONST.

EX. WATER MANWAY PROTECT

EX. 30" WATER PROTECT

EX. FIBER OPTIC

EX. R/W

145+59.25 CL MH NO. 2

66" RCP

EX. FIBER OPTIC

CL HAMNER

EX. C & G

EX. 6" F.M.

EX. 12" WATER PROTECT

EXIST. 42" SEW

EX. 24" WAT (NORCO)

EXIST. 4" GAS

EXIST. 15" GAS

EX. R/W

HAMNER AVENUE

EX. SEWER MH PROTECT

SWAN LAKE TRAILER PARK

APN 160-030-005

LINE E STAGE 2
PER RCFC PROJ. NO. 2-0-0310, DWG. NO. 2-304

APN 160-030-012

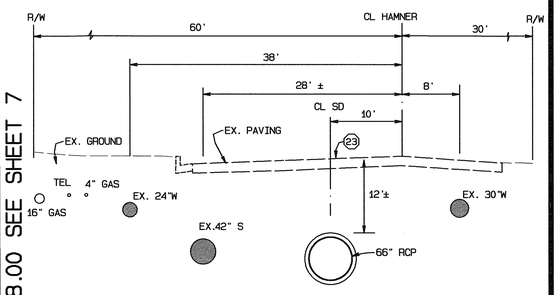
STAGE 2 | STAGE 3

MATCH LINE 150+58.00 SEE SHEET 7

LINE E

GRAPHIC SCALE 1"=40'

40 20 0 40 80 120



SECTION @ STA. 147+00

GRAPHIC SCALE 1"=10'

0 10 20 30

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1·800
227·2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF C\L INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MUHAMMAD FAGHIH NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: [signature] DATE 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER DONALD A. GITHENS NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE : 2/20/02
APPROVED BY:
CHIEF ENGINEER
DATE : 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP. DATE

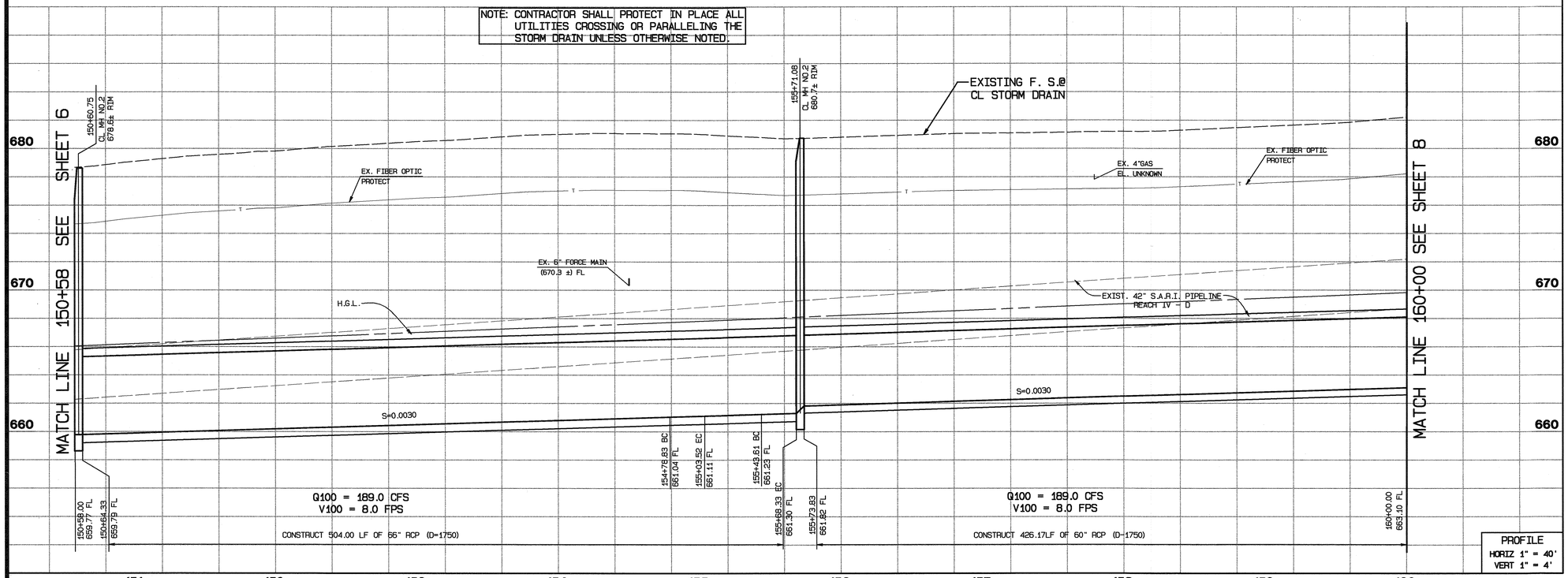
EASTVALE MDP
LINE E
STAGE 3
PLAN & PLOT
STA.141+56.50 TO STA. 150+58.00

IP 010027

PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 6 OF 41

2002/19/2/pd\SI01001010-V\00023

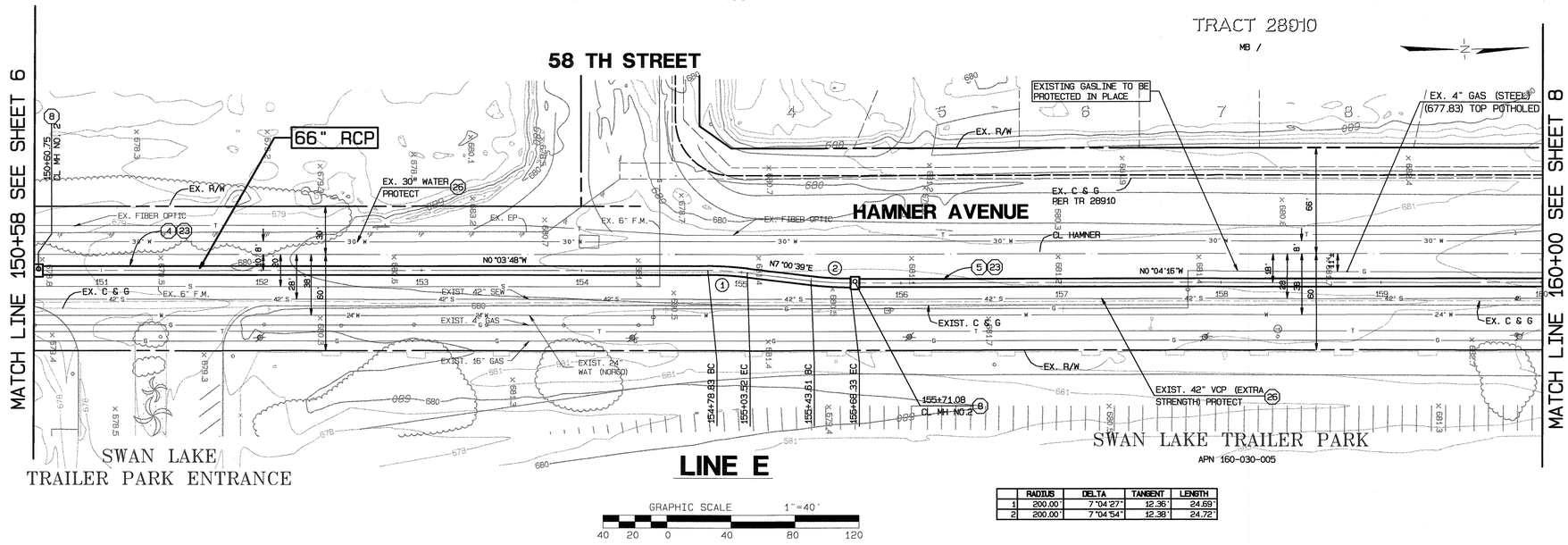
NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.



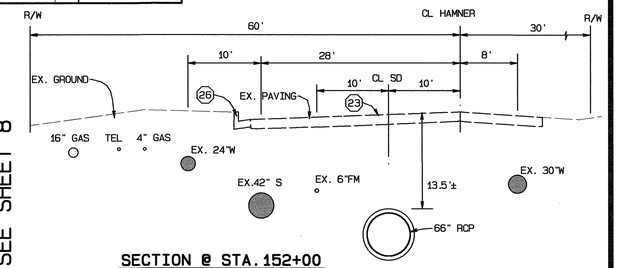
PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

CONSTRUCTION NOTES

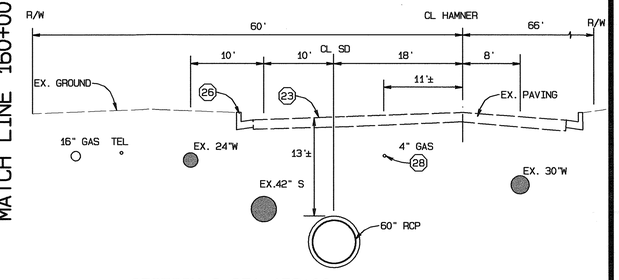
(4) CONSTRUCT 66" RCP (D=1750)
(5) CONSTRUCT 60" RCP (D=1750)
(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(23) REMOVE AND REPLACE EXIST. PAVEMENT, STRIPING AND MARKING. PAVEMENT TO BE RESTORED PER DETAILS AND SECTIONS ON SHEET 14
(26) PROTECT IN PLACE
(28) EXISTING 4" GASLINE PROTECT IN PLACE



	RADIUS	DELTA	TANGENT	LENGTH
1	200.00'	7°04'27"	12.36'	24.69'
2	200.00'	7°04'54"	12.38'	24.72'



SECTION @ STA. 152+00



SECTION @ STA. 159+00

GRAPHIC SCALE 1"=10'
0 10 20 30

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1·800
227·2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMAD FAGHIH NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: [signature] DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02
APPROVED BY:
CHIEF ENGINEER
DATE: 2/25/02

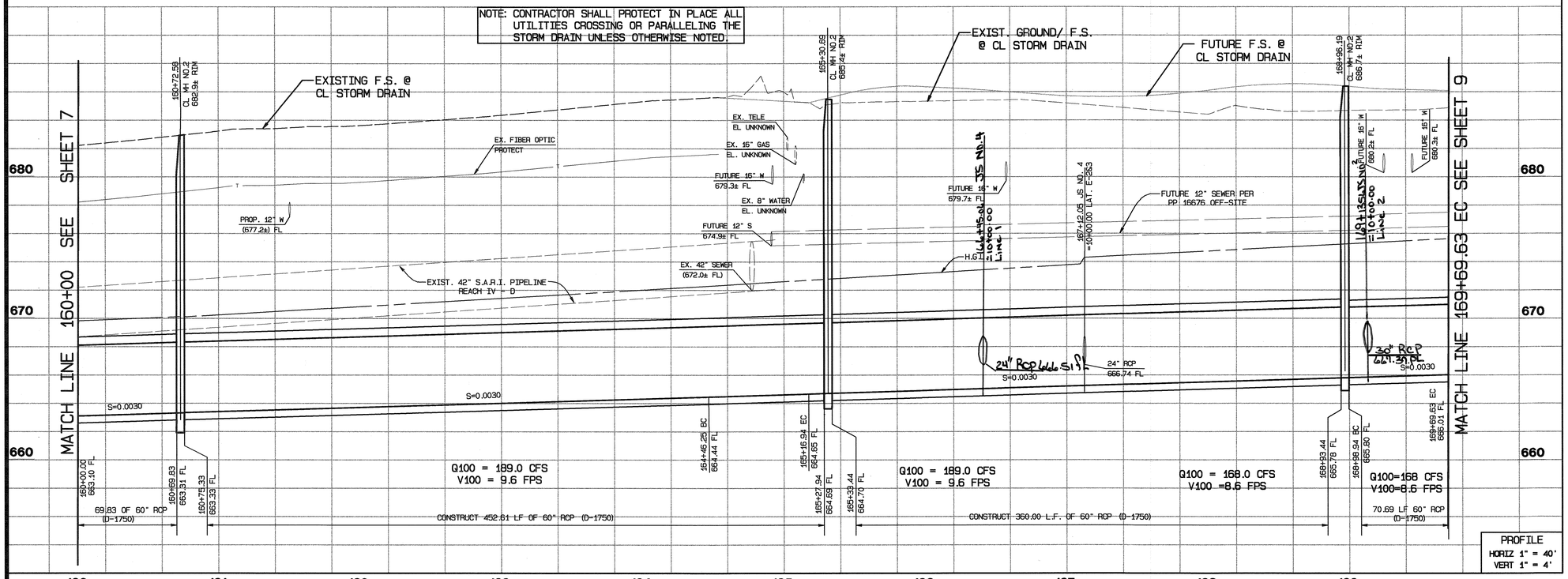
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: [signature] DATE: 2/21/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 3
PLAN & PROFILE
STA.150+58 TO STA. 160+00

IP 010027
PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 7 OF 41

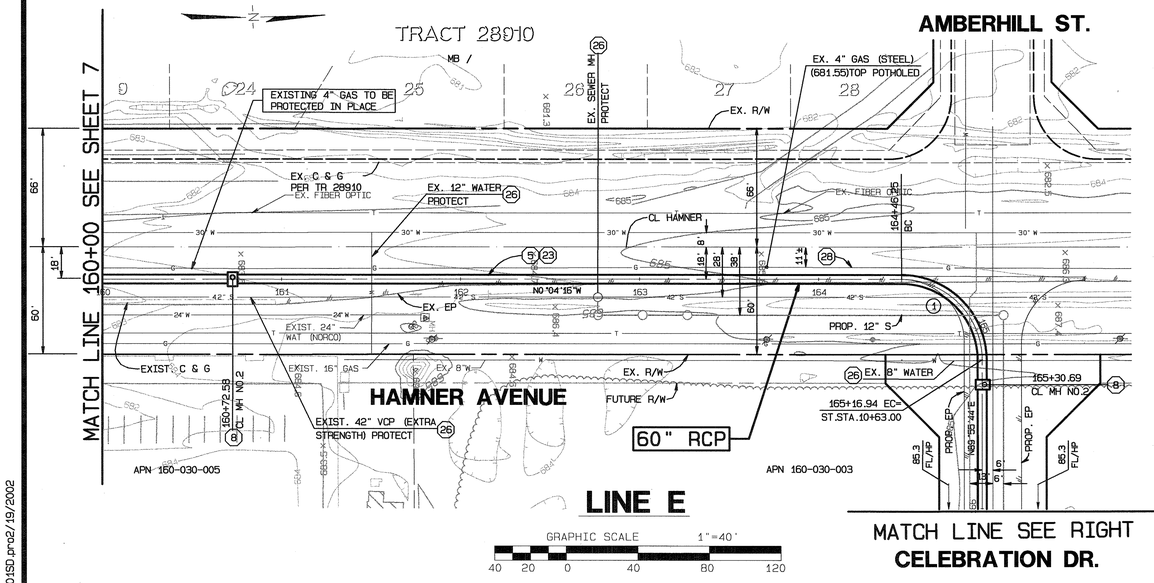
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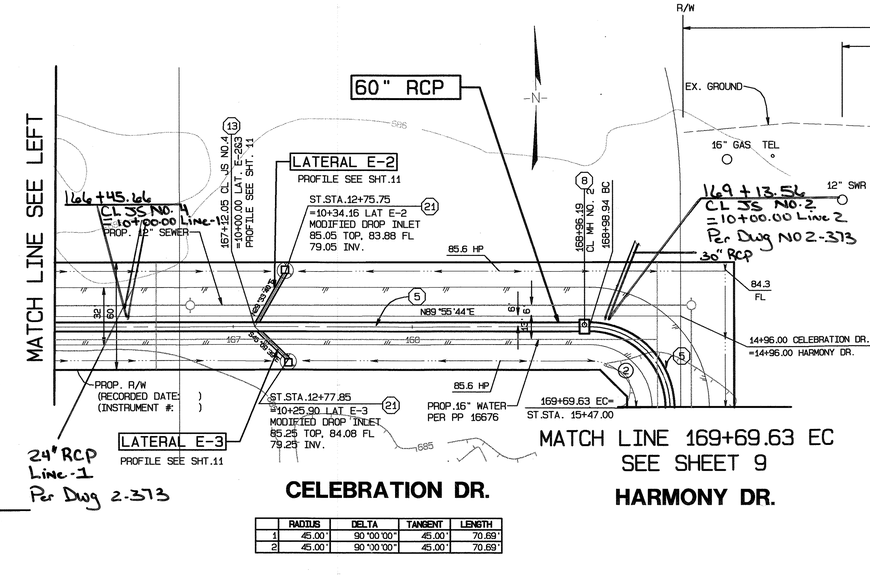
NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.



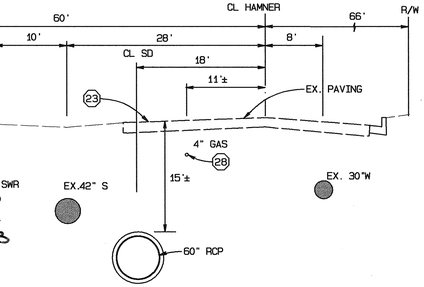
CONSTRUCTION NOTES

(5) CONSTRUCT 60" RCP (D-1750)
(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(13) CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229
(21) CONST. MODIFIED CONCRETE DROP INLET WITH 2" A.C. APRON PER RCFC STD. CB110 & DETAIL ON SHT 11
(23) REMOVE AND REPLACE EXIST. PAVEMENT, STRIPING AND MARKING. PAVEMENT TO BE RESTORED PER DETAILS AND SECTIONS ON SHEET 14
(26) PROTECT IN PLACE
(28) EXISTING 4" GASLINE TO BE PROTECTED IN PLACE





	RADIUS	DELTA	TANGENT	LENGTH
1	45.00'	90°00'00"	45.00'	70.69'
2	45.00'	90°00'00"	45.00'	70.69'



Ep# 20-0324-2956
February 27, 2006
Lennar Homes

G:\2000\00-0101\00101SD.prc2/19/2002

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE 1·800 227·2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF C.L. INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL—ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMAD FASHTAMI NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256
PREPARED BY: Moe + Fogl DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: C.M.
DRAWN BY: C.M.
CHECKED BY:

SEAL—COUNTY
REGISTERED PROFESSIONAL ENGINEER HALED A. GITMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02
APPROVED BY:
CHIEF ENGINEER
DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP.DATE

IP 010027

EASTVALE MDP
LINE E
STAGE 3
PLAN & PROFILE
STA.160+00 TO STA. 169+69.63

PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 8 OF 41

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.

EXIST. GROUND/ F.S. @ CL STORM DRAIN

FUTURE F.S. @ CL STORM DRAIN

MATCH LINE 169+69.63 EC SEE SHEET 8

169+95.00 JS NO.4 =10+00.00 LAT. E=462 668.09

171+34.78 CL MH NO.2 668.8± RIM

175+40.28 CL MH NO.2 668.01± RIM

178+68.57 CL MH NO.2 668.4± RIM

177+43.93 36 No.4 =10+00.00 Line 4

FUTURE 12" SEWER PER PP 16676 OFF-SITE

H.G.L.

FUTURE 15" W 687.7± FL

24" RCP 668.62 FL

S=0.0030

24" RCP 670.69 FL

24"RCP 669.98 FL

169+69.63 EC 668.01 FL

170+61.14 BC 666.29 FL

171+32.03 EC 666.50 FL

171+37.53 BEG. PIPE 666.32 FL

175+57.53 667.72 FL

175+43.03 667.73 FL

176+95.68 BC 668.19 FL

178+18.98 PRC 668.55 FL

178+71.32 668.72 FL

178+65.82 668.70 FL

179+47.28 EC CONC. BULKHEAD 668.95 FL

Q100 = 136.0 CFS
V100 = 6.9 FPS

Q100 = 136.0 CFS
V100 = 6.9 FPS

Q100 = 136.0 CFS
V100 = 6.9 FPS

Q100=117.0 CFS
V100=6.0 FPS

CONSTRUCT 162.40 L.F. OF 60" RCP D-1750

CONSTRUCT 400.00 L.F. OF 60" RCP (D-1750)

CONSTRUCT 322.79 L.F. OF 60" RCP (D-1750)

75.96 L.F. OF 60" RCP (D-1750)

PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

170 171 172 173 174 175 176 177 178 179

680 670 660

CONSTRUCTION NOTES

(5) CONSTRUCT 60" RCP (D-1750)

(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252

(13) CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229

(14) CONSTRUCT CONCRETE BULKHEAD PER RCFC STD. M816

(21) CONST. MODIFIED CONCRETE DROP INLET WITH 2' A.C. APRON PER RCFC STD. CB110 & DETAIL ON SHT 11

	RADIUS	DELTA	TANGENT	LENGTH
1	45.00'	90°16'03"	45.21'	70.90'
2	294.00'	24°01'47"	62.57'	123.30'
3	306.00'	24°01'24"	65.11'	128.30'

EP# 2-0-0324-2956
February 27, 2006
Lennar Homes

HARMONY DR.

MATCH LINE 169+69.63 EC SEE SHEET 8

LATERAL E-5
PROFILE SEE SHT.12

LATERAL E-4
PROFILE SEE SHT.12

ST.STA. 15+87.57 =10+23.50 LAT E-5 MODIFIED DROP INLET 84.65 TG 83.48 FL

ST.STA. 15+86.21 =10+32.74 LAT E-4 MODIF. DROP INLET 84.25 TG 83.08 FL

60" RCP

PROP. 12" SEWER PER PP 16676 OFF-SITE

PROP. R/W (RECORDED DATE:) (INSTRUMENT #:)

177+43.93 CL JS NO.4 = 10+00.00 Line 4

EDGE OF PAVEMENT PER IP # 010027

Dwg NO 2-373

COTTAGE WAY

N89°39'41"E

170+61.14 BC

16+77.69 HARMONY DR. =16+77.69 COTTAGE WAY

PROP. 16" WATER PER PP 16676 OFF-SITE

APN 160-030-003

EXISTING LOT LINE

LATERAL E-7
PROFILE SEE SHT.13

ST.STA. 24+71.80 =10+31.39 LAT E-7 MODIF. DROP INLET 84.15 TG 82.98 FL

BOUNDARY

ST.STA. 24+69.98 =10+43.96 LAT E-6 MODIFIED DROP INLET 84.35 TG 83.18 FL

LATERAL E-6
PROFILE SEE SHT.13

179+47.28 EC END CONSTRUCTION CONC. BULKHEAD

LINE E

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120

PLOT PLAN 16676

R/W 60' R/W
30' CL 30'
13'
CL SD 6' 6'
FUTURE 16" WATER
FUTURE 12" SEWER
12.5'±
60" RCP

SECTION @ STA. 175+00

GRAPHIC SCALE 1"=10'
0 10 20 30

G:\2000\00-0101\00101SD.prn2/19/2002

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMMER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGHRI
NO. C39530 EXP. 12-31-05 CIVIL
STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: Mol & Fagl DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTMAN
NO. 33950 EXP. 6-30-02 CIVIL
STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02
APPROVED BY:
CHIEF ENGINEER
DATE: 2/20/02

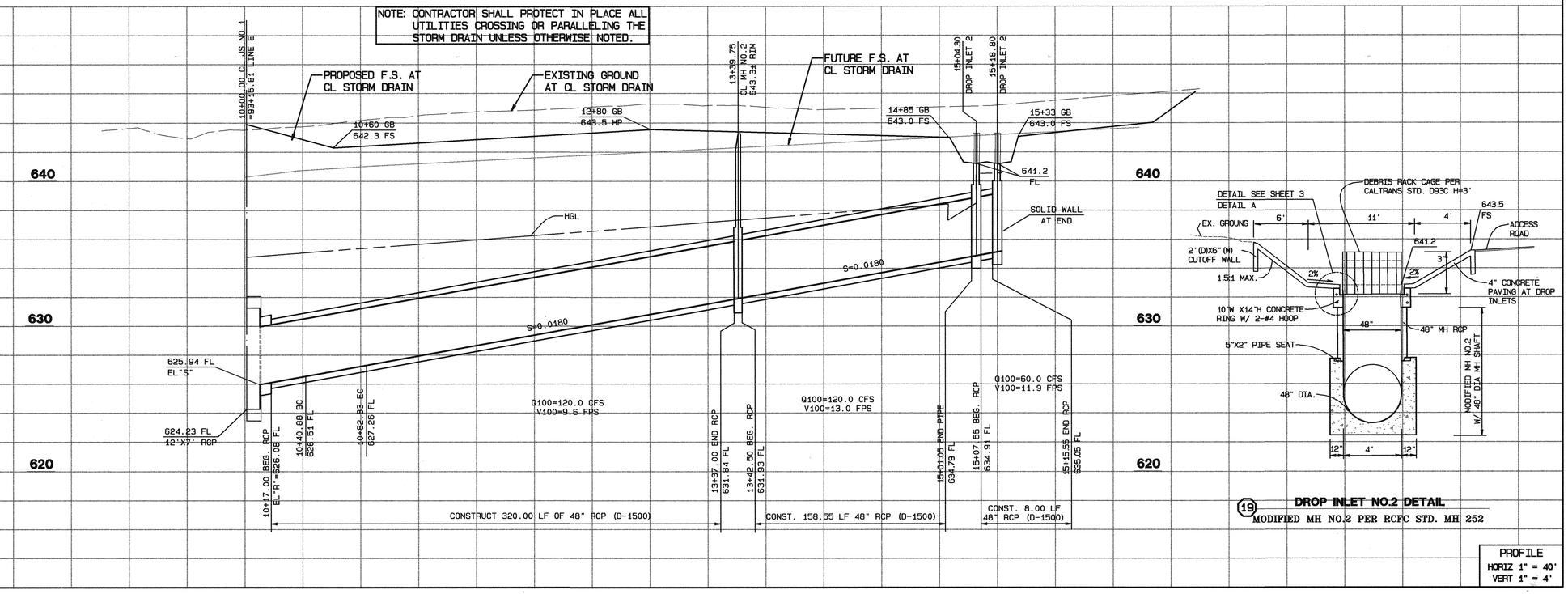
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP. DATE

IP 010027

EASTVALE MDP
LINE E
STAGE 3
PLAN & PROFILE
STA.169+69.63 TO STA. 179+47.28

PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 9 OF 41

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.



(19) DROP INLET NO.2 DETAIL
MODIFIED MH NO.2 PER RCFC STD. MH 252

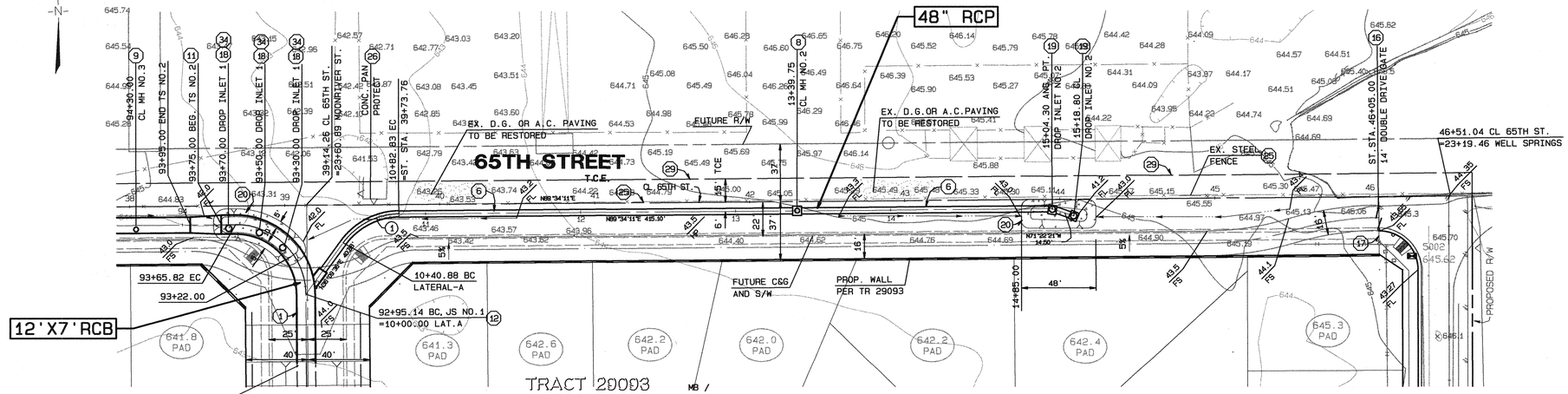
PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

J.S. NO.1	
M.L. STA.	93+15.81
LATERAL	LAT.-A
A	36'±
B	48"
C	17.0
EL."S"	625.94
EL."R"	626.08

CONSTRUCTION NOTES

(1) CONSTRUCT 12'WX7'H RCB PER CALTRANS STD.D-80, MAX. COVER 20' FLAT INVERT
(6) CONSTRUCT 48" RCP D-1500
(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(11) CONSTRUCT TRANSITION STRUCTURE NO.2 PER RCFC STD. TS 302
(12) CONSTRUCT JUNCTION STRUCTURE NO. 1 PER RCFC STD. JS 226
(17) INSTALL 6' CHAIN LINK FENCE PER RCFC STD. M801
(18) CONSTRUCT DROP INLET 1 PER DETAIL ON SHEET 3
(19) CONSTRUCT DROP INLET 2 PER DETAIL ON SHEET 10
(20) CONSTRUCT 4" CONC. PAVING W/2' CUTOFF WALL AT INLET STRUC.
(25) REMOVE & REINSTALL EXIST. FENCE IN KIND
(26) PROTECT IN PLACE
(29) INSTALL 6'TEMP. CHAINLINK FENCE ALONG TCE PER RCFC STD. M801

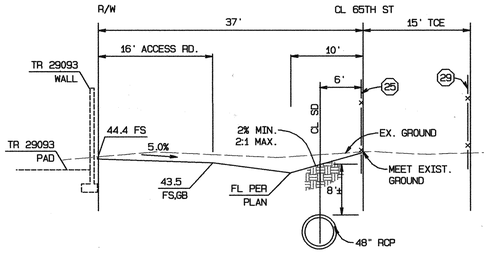
10 11 12 13 14 15 16



	RADIUS	DELTA	TANGENT	LENGTH
1	45.00'	53°24'35"	22.64'	41.95'

MOONRIVER — **LATERAL A** — **WELLS SPRINGS**

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120



SECTION @ STA. 13+00

GRAPHIC SCALE 1"=10'
0 10 20 30

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UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800 227-2600
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BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMMER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL—ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGIH NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: moe Fagih DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL—COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

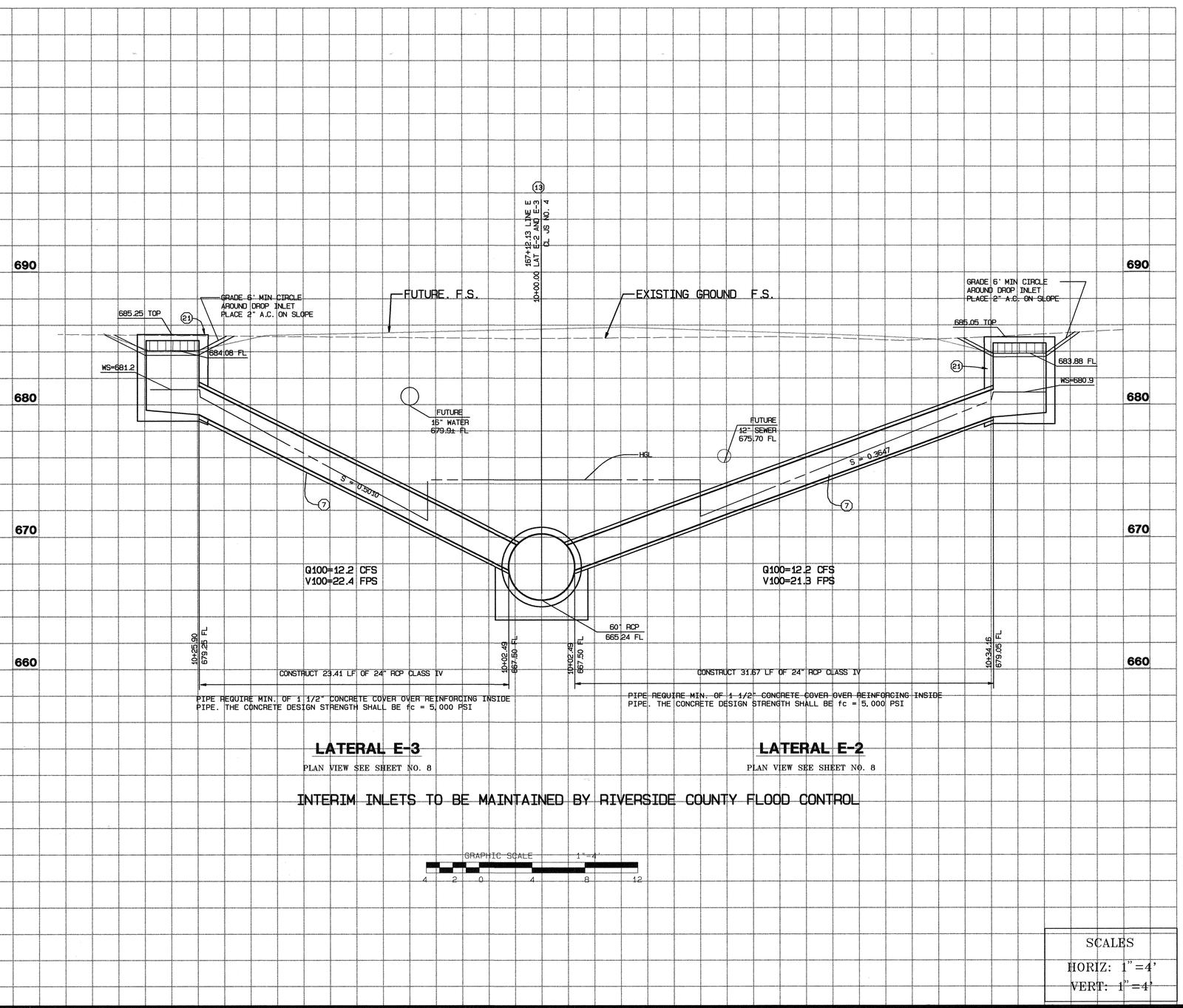
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02

APPROVED BY:
CHIEF ENGINEER
DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP.DATE

EASTVALE MDP
LINE E
STAGE 3
LATERAL A
STA. 10+00 TO STA. 15+18.80

IP 010027
PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 10 OF 41



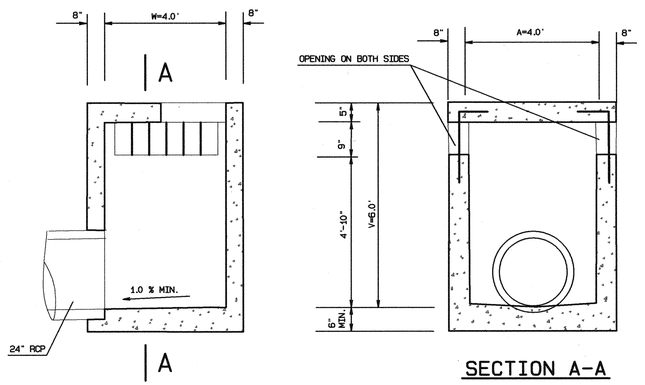
LATERAL E-3

PLAN VIEW SEE SHEET NO. 8

LATERAL E-2

PLAN VIEW SEE SHEET NO. 8

INTERIM INLETS TO BE MAINTAINED BY RIVERSIDE COUNTY FLOOD CONTROL



MODIFIED CONCRETE DROP INLET

N.T.S. (21)

REBAR, MANHOLE & PROTECTION BAR DETAILS PER RCFDC STD. CB 110

CONSTRUCTION NOTES

(7) CONSTRUCT 24" RCP CLASS IV

(13) CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229

(21) CONST. MODIFIED CONCRETE DROP INLET WITH 2" A.C. APRON PER RCFC STD. CB110 & DETAIL ON THIS SHEET

SCALES
HORIZ: 1"=4'
VERT: 1"=4'

G:\2000\00-0101\00101SD.prod2/19/2002

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE 1·800 227·2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGHRI NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256
PREPARED BY: mo & Fagi DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

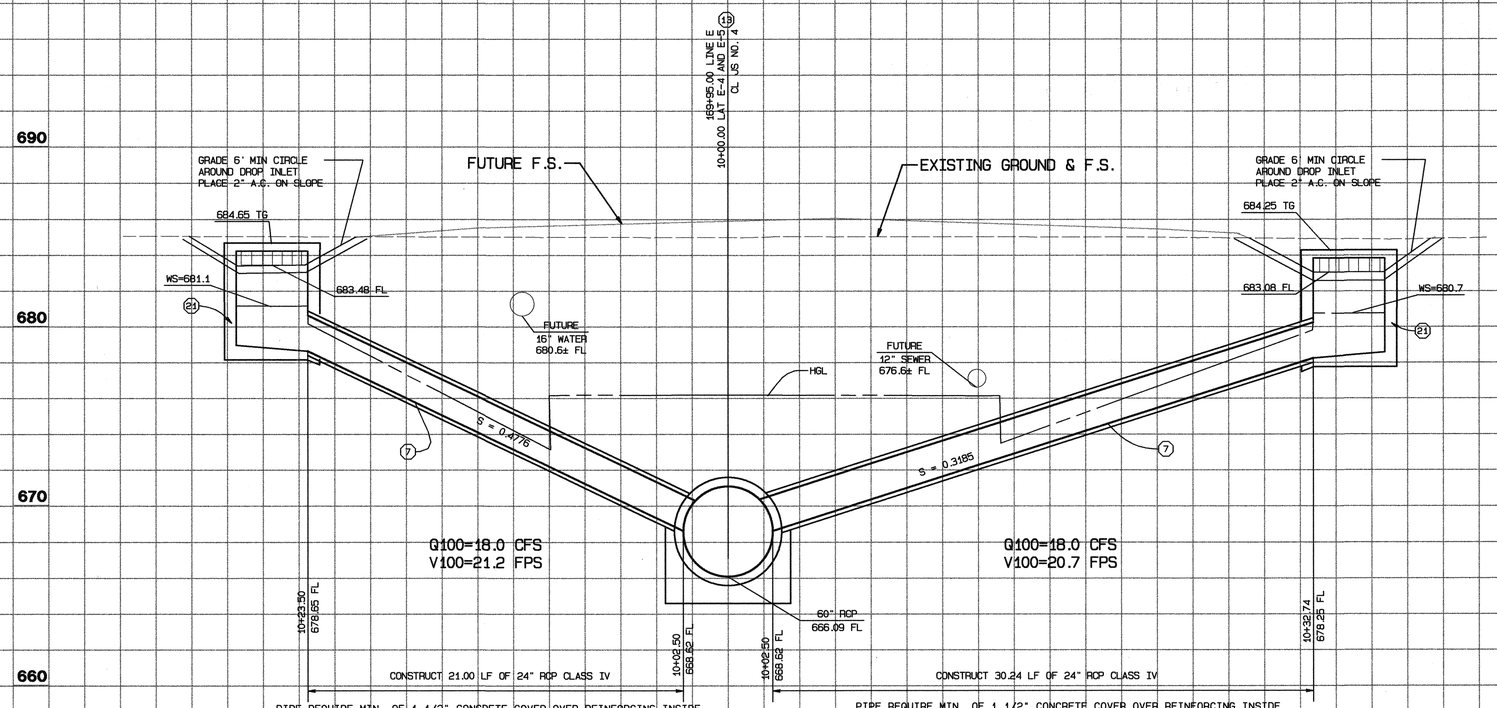
REF.	REVISIONS	APPR.	DATE
1	revise drawing NO	JK	2/6/02

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE: 2/20/02
APPROVED BY:
CHIEF ENGINEER DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: DATE: 2/24/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 3
CONNECTORS

IP 010027
PROJECT NO. 2-0-0310
DRAWING NO. 2-~~293~~ 307 Δ
SHEET NO. 11 OF 41



LATERAL E-5

PLAN VIEW SEE SHEET NO. 9

LATERAL E-4

PLAN VIEW SEE SHEET NO. 9

INTERIM INLETS TO BE MAINTAINED BY RIVERSIDE COUNTY FLOOD CONTROL

GRAPHIC SCALE 1"=4'

4 2 0 4 8 12

CONSTRUCTION NOTES

(7) CONSTRUCT 24" RCP CLASS IV

(13) CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229

(21) CONST. MODIFIED CONCRETE DROP INLET WITH 2" A.C. APRON PER RCFC STD. CB110 & DETAIL ON SHT 11

SCALES
HORIZ: 1"=4'
VERT: 1"=4'

IP 010027

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1·800
227·2600
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ML-34-88 EL 661.945'
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ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256
PREPARED BY: mc DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	REVISIONS	APPR.	DATE
1	revise drawing no.	SK	2/21/02

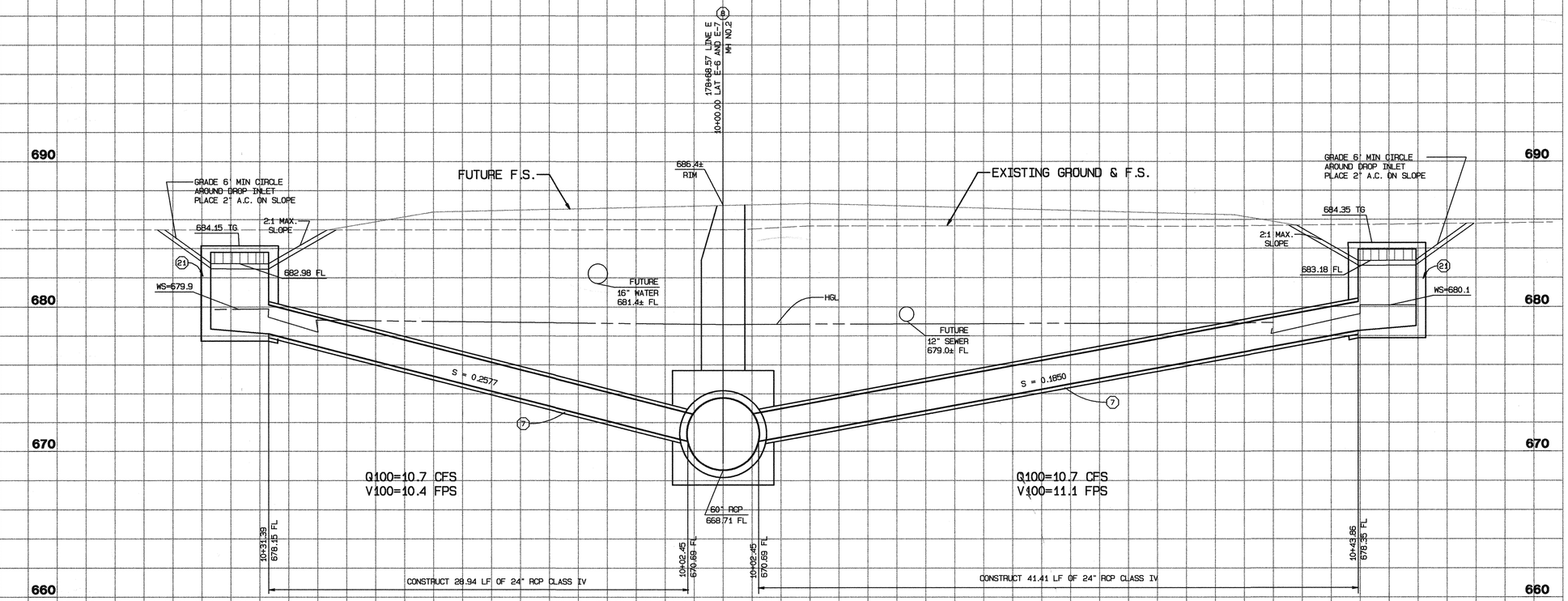
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02
APPROVED BY:
CHIEF ENGINEER
DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 3
CONNECTORS

PROJECT NO. 2-0-0310
DRAWING NO. 2-~~293~~ 307 1
SHEET NO. 12 OF 41

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LATERAL E-7

PLAN VIEW SEE SHEET NO. 9

LATERAL E-6

PLAN VIEW SEE SHEET NO. 9

INTERIM INLETS TO BE MAINTAINED BY RIVERSIDE COUNTY FLOOD CONTROL

GRAPHIC SCALE 1"=4'

4 2 0 4 8 12

CONSTRUCTION NOTES

(7) CONSTRUCT 24" RCP CLASS IV

(8) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252

(21) CONST. MODIFIED CONCRETE DROP INLET WITH 2" A.C. APRON PER RCFC STD. CB110 & DETAIL ON SHT 11

SCALES
HORIZ: 1"=4'
VERT: 1"=4'

IP 010027

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
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BENCHMARK
ML-34-88 EL. 661.945'
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SEAL—ENGINEER
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ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: M Faghri DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL—COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE
1	revise drawing no.	JK	2/21/02

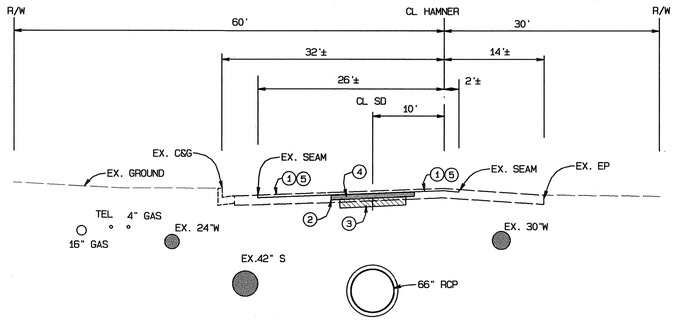
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/20/02
APPROVED BY:
CHIEF ENGINEER
DATE: 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 3
CONNECTORS

PROJECT NO. 2-0-0310
DRAWING NO. 1 2-293 307
SHEET NO. 13 OF 41

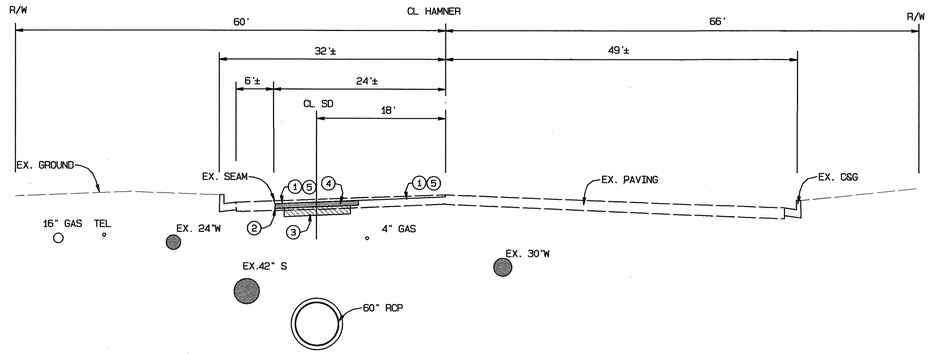
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TYP. SECTION STA.141+56.50 TO STA.150+00.00

GRAPHIC SCALE 1"=10'

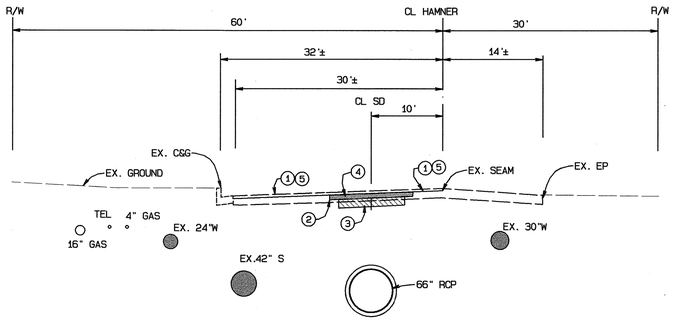
0 10 20 30



TYP. SECTION STA.155+68.33 TO 161+00.00

GRAPHIC SCALE 1"=10'

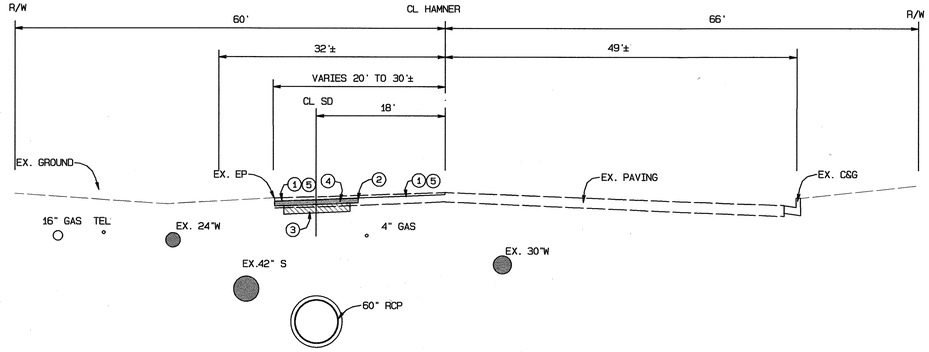
0 10 20 30



TYP. SECTION STA.150+00.00 TO STA.155+68.33

GRAPHIC SCALE 1"=10'

0 10 20 30



TYP. SECTION STA.161+00.00 TO 165+00

GRAPHIC SCALE 1"=10'

0 10 20 30

NOTES

1. HEADER CUT EXISTING A.C. PAVING 0.1' IN DEPTH
2. SAW CUT EXIST. A.C. PAVING PER RCFC STD. M 815
3. CONSTRUCT 0.6' CLASS II AGGREGATE BASE
4. CONSTRUCT 0.55' ASPHALT CONCRETE
5. CONSTRUCT 0.1' ASPHALT CONCRETE OVERLAY

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IP 010027

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1·800
227·2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL—ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGIH NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: Moe Fagih DATE 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL—COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33959 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	REVISIONS	APPR.	DATE

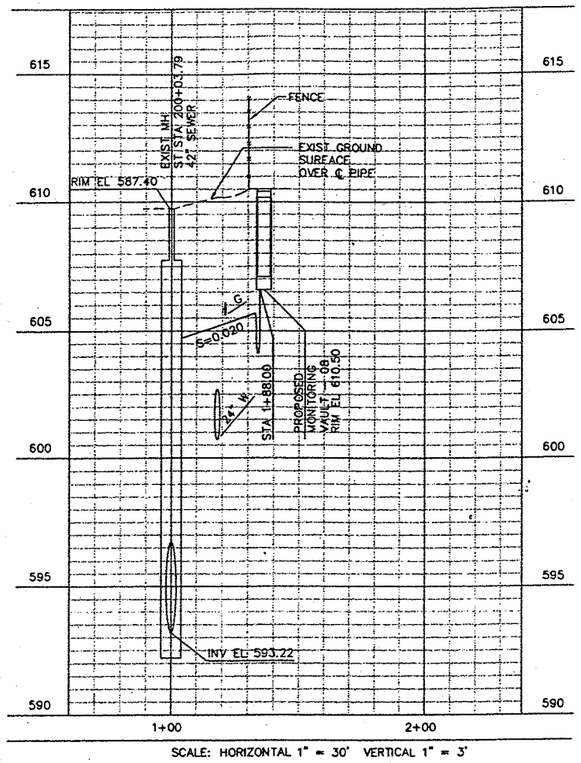
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE : 2/20/02

APPROVED BY:
CHIEF ENGINEER
DATE : 2/20/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 2/20/02
RCE NO. EXP.DATE

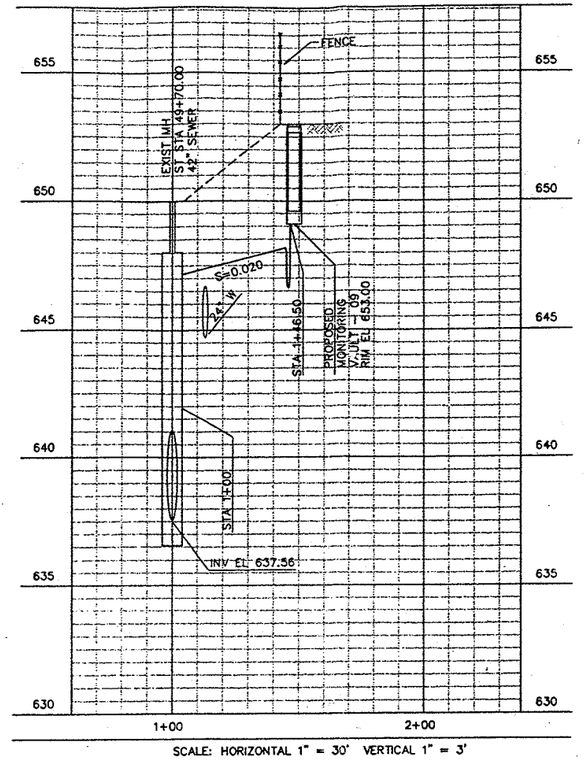
EASTVALE MDP
LINE E
STAGE 3
PAVEMENT RESTORATION DETAILS

PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 14 OF 41



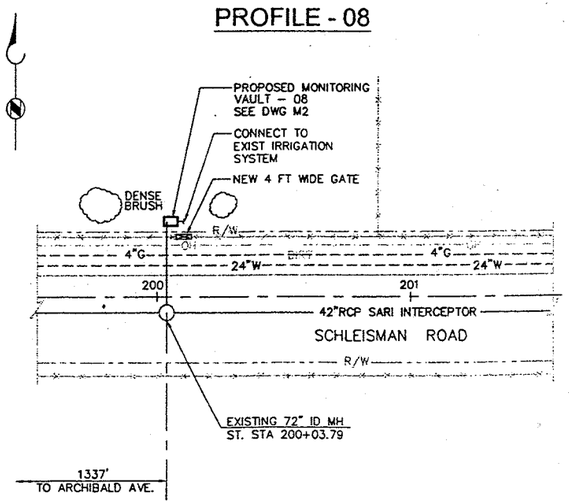
SCALE: HORIZONTAL 1" = 30' VERTICAL 1" = 3'

PROFILE - 08



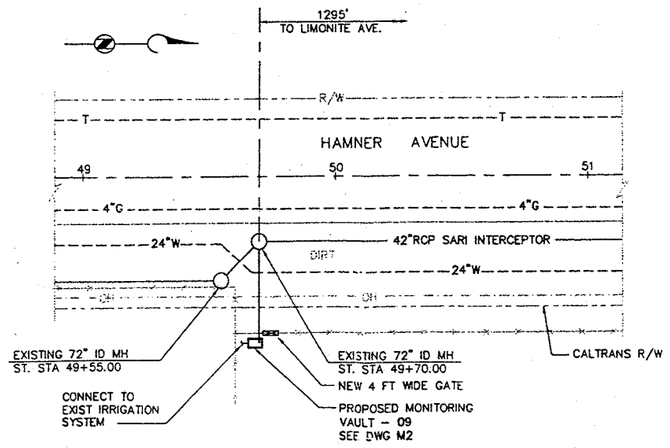
SCALE: HORIZONTAL 1" = 30' VERTICAL 1" = 3'

PROFILE - 09



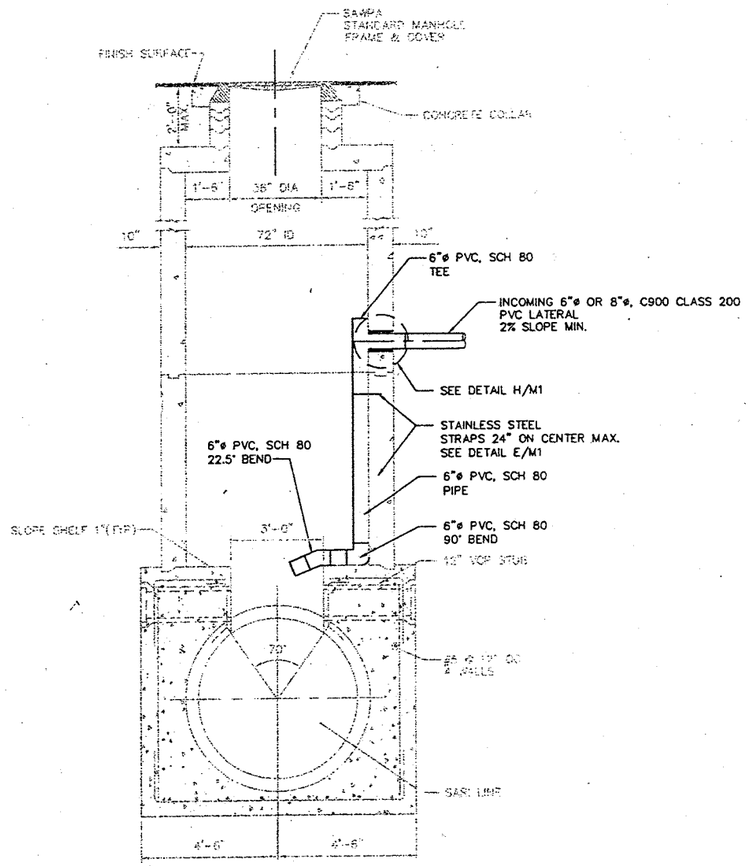
MONITORING VAULT- 08

SCALE: 1"=30'-0"



MONITORING VAULT- 09

SCALE: 1"=30'-0"



SEWER CONNECTION TO EXISTING SEWER MANHOLE

NOT TO SCALE

A TYP

CONSTRUCTION NOTES :

1. ALL MANHOLE PENETRATIONS SHALL BE MADE BY CORE DRILLING.
2. ALL PIPES AND PIPE FITTINGS SHALL BE SOLVENT WELDED.

ONE INCH ON ORIGINAL

PROJECT NO.	2-0-0310
DRAWING NO.	2-307
SHEET NO.	39 OF 41

ORANGE COUNTY SANITATION DISTRICT

DAIRY WASHWATER PILOT PROJECT

PLANS AND PROFILES

REGISTERED PROFESSIONAL ENGINEER GUILLERMO E. CLARK No. 34082 CIVIL STATE OF CALIFORNIA

NO.	DESCRIPTION	APPROVED	DATE

REVISIONS

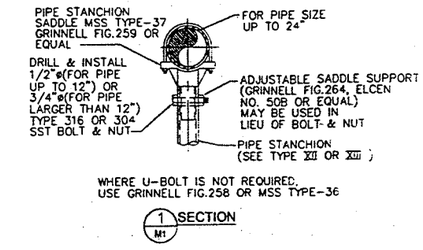
DATE:	SEP. 00
DESIGNED:	MC/DY
DRAWN BY:	CS
CHECKED:	GEG

CGvL ENGINEERS 6 HUGHES • SUITE 100 IRVINE, CALIFORNIA 92XXX (949)454-3600 Fax(949)454-3601

DRAWING NO. C4

SHEET NO. 6 OF 8

09/11/00 at 09:59:38am P:\194-06\DWPP\19406-C4.dwg



NOTE:

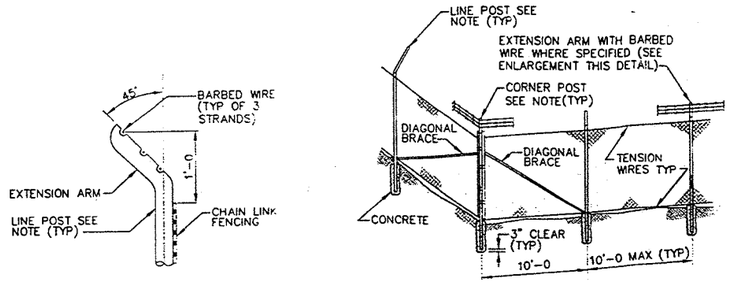
PIPE SUPPORT SHOWN IS FOR GRAVITY LOAD ONLY. FOR SEISMIC ACTIVE AREA PROVIDE SEISMIC BRACING SEISMIC BRACING:

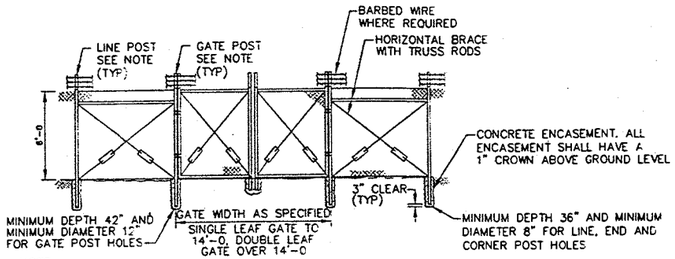
A. TRANSVERSE BRACING SHALL BE PROVIDED AT 20'-0" MAX SPACING. (MIN TWO STRAIGHT RUN GREATER THAN 10'-0")

B. LONGITUDINAL BRACES SHALL BE PROVIDED AT 40'-0" MAX SPACING. (MIN ONE PER EACH END)

PIPE SUPPORT (TYP)

DETAIL A / M1 — NOT TO SCALE



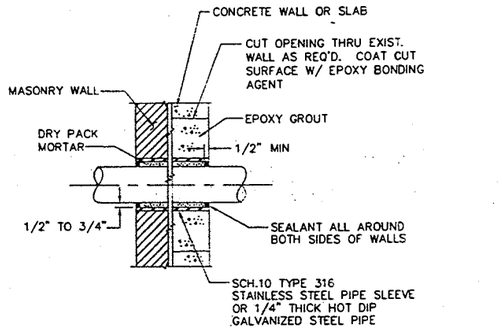


NOTE:

PROVIDE POST CAP WHERE EXTENSION ARM WITH BARBED WIRE IS NOT SPECIFIED.

CHAIN LINK FENCE AND GATE

DETAIL B / VAR — NOT TO SCALE

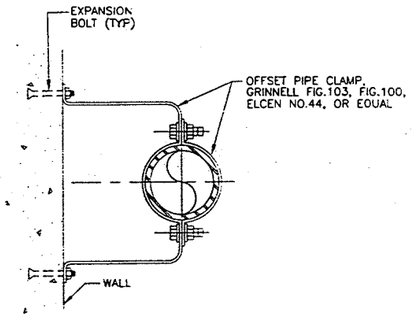


NOTES:

1. SLEEVE MAY BE OMITTED IF HOLE IS CORE DRILLED. CORE DRILLING SHALL BE APPROVED BY THE ENGINEER
2. HOT DIP GALVANIZED SCH 40 STEEL PIPE MAY BE USED FOR SLEEVES 6" DIA AND SMALLER.

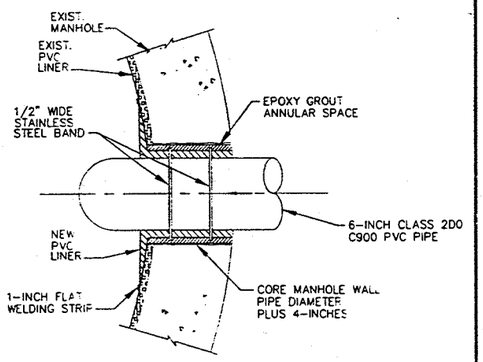
PIPE PENETRATION

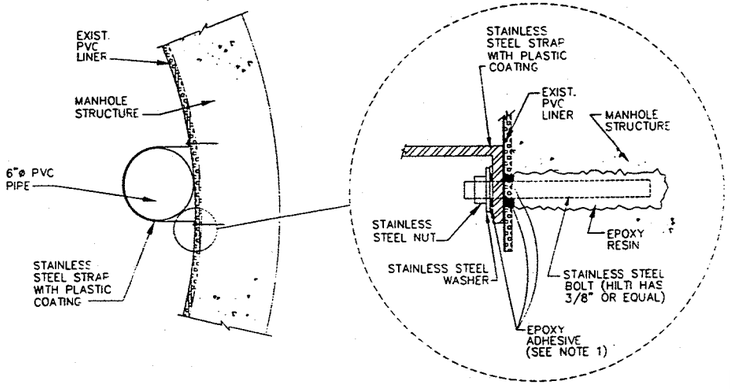
DETAIL C / M2 — NOT TO SCALE



HORIZONTAL PIPE HANGER

DETAIL D / M2 — NOT TO SCALE





PIPE PENETRATION THROUGH PVC LINER

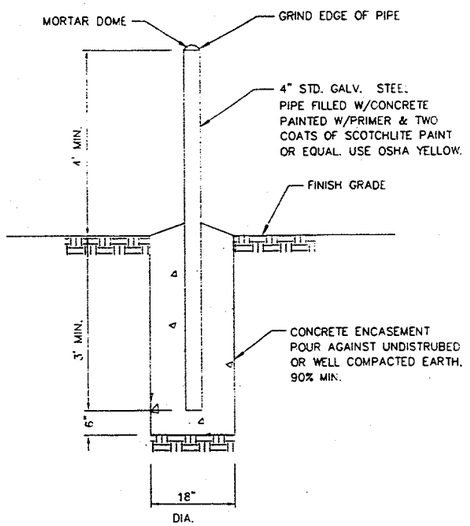
DETAIL H / C4 — NOT TO SCALE

PIPE STRAPPING

DETAIL E / C4 — NOT TO SCALE

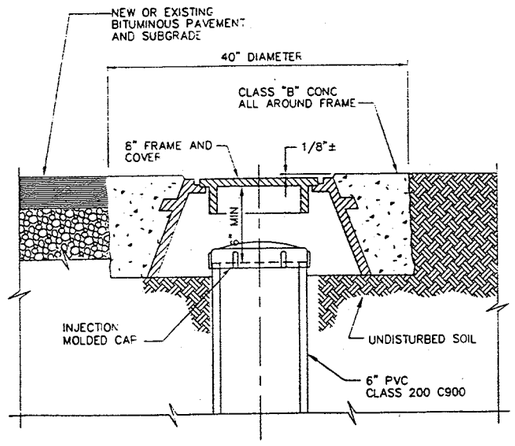
NOTE:

1. EPOXY ADHESIVE SHALL BE APPLIED AROUND THE CEMENTED STAINLESS STEEL BOLT BEFORE AND AFTER INSTALLING THE STAINLESS STEEL STRAP TO ASSURE A GOOD STRUCTURE PROTECTION. SEE EPOXY ADHESIVE ANCHOR SPECIFICATION SECTION 05500.



GUARD POST (TYP)

DETAIL F / M2 — NOT TO SCALE



CLEANOUT

DETAIL G / C3 — NOT TO SCALE

NO.	DESCRIPTION	APPROVED	DATE

REVISIONS

PROJECT NO. 2-0-0310
DRAWING NO. 2-307
SHEET NO. 40 OF 41

ONE INCH ON ORIGINAL

ORANGE COUNTY SANITATION DISTRICT

DAIRY WASHWATER PILOT PROJECT

STANDARD DETAILS

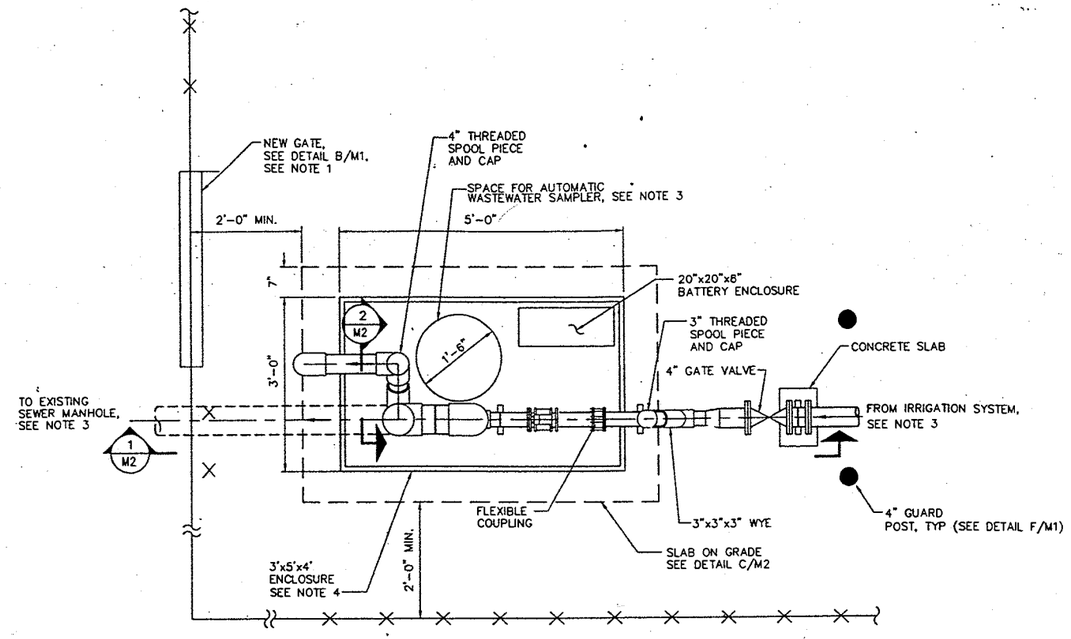
DATE: SEP. 00
DESIGNED: MC/DY
DRAWN BY: CS
CHECKED: GEG

CGVL ENGINEERS — 6 HUGHES • SUITE 100 IRVINE, CALIFORNIA 92XXX (949)454-3600 Fax(949)454-3601

DRAWING NO. M1
SHEET NO. 7 OF 8

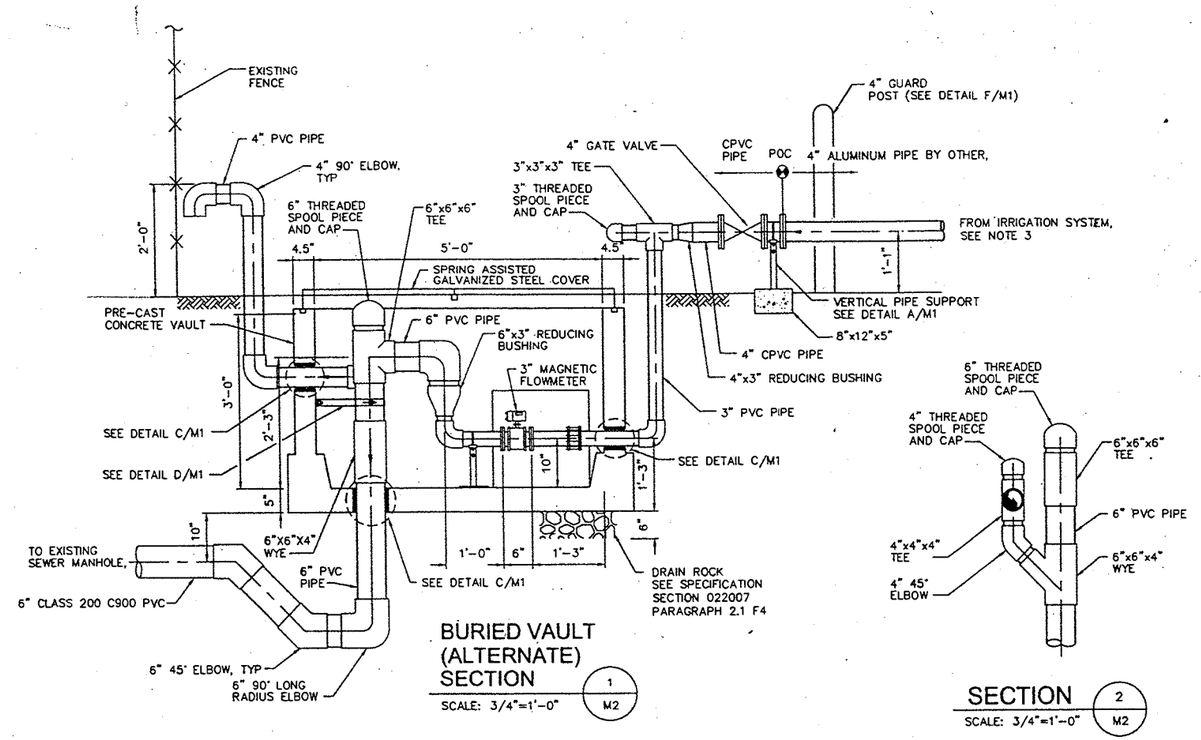
REGISTERED PROFESSIONAL ENGINEER — ARMANDO C. GRIJALVA — No. 43882 — CIVIL — STATE OF CALIFORNIA

09/11/00 at 11:58:29am P:\194-06\DWP\19406-M1.dwg



ABOVE-GROUND VAULT PLAN

SCALE: 3/4"=1'-0"



BURIED VAULT (ALTERNATE) SECTION

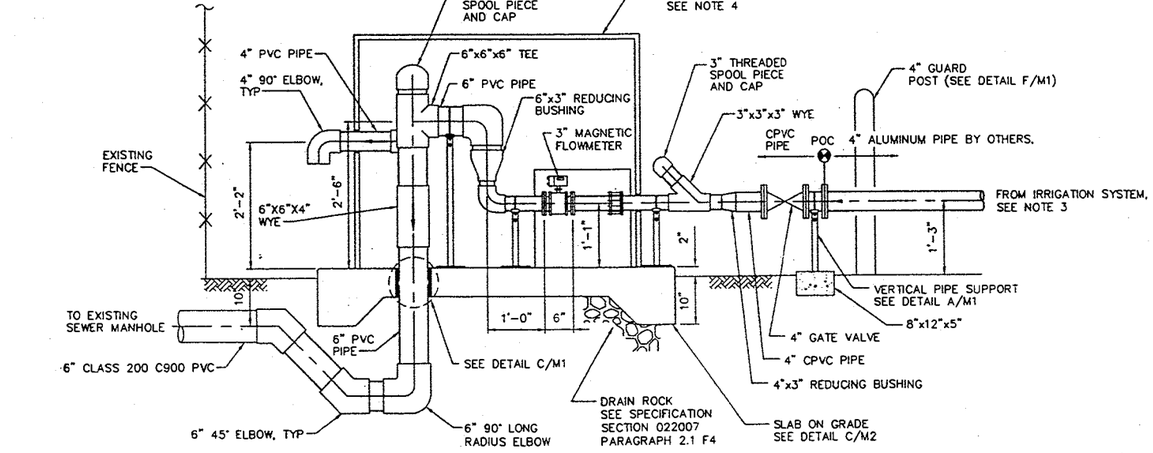
1 / M2

SCALE: 3/4"=1'-0"

SECTION

2 / M2

SCALE: 3/4"=1'-0"

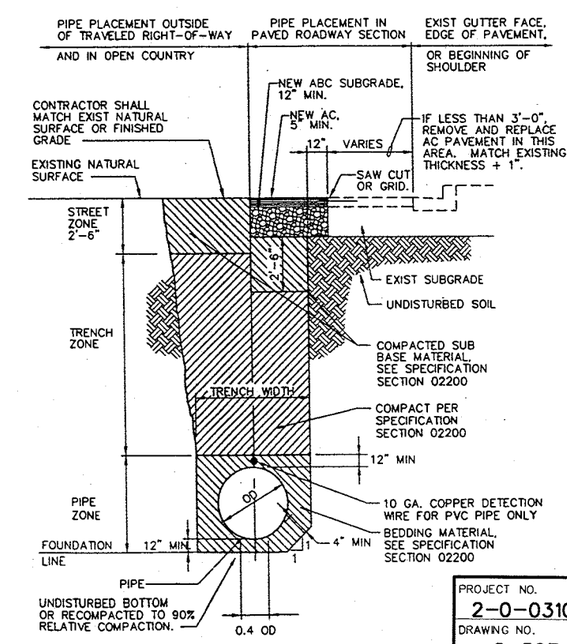


ABOVE-GROUND VAULT SECTION

1 / M2

SCALE: 3/4"=1'-0"

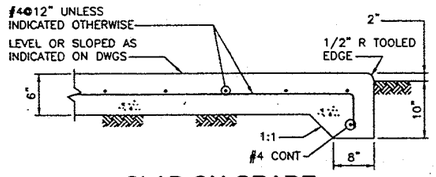
TABLE 1 – MONITORING VAULT INFORMATION SUMMARY									
LOCATION	1	2	3	4	5	6	7	8	9
DAIRY NAME	LOYOLA DAIRY	STUEVE DAIRY	VANDER POEL BROS. DAIRY	LEGEND DAIRY #1	LEGEND DAIRY #2	VAN RYN DAIRY	GOEDHART DAIRY	HARRY MIERSMA DAIRY	KASBERGEN DAIRY
DISTANCE TO MANHOLE, FEET	40	75	30	40	40	85	75	30	35
UNDERGROUND VAULT	YES	YES	YES	YES	NO	NO	NO	YES	YES
GATE REQUIRED	YES	YES	NO	YES	NO	YES	YES	YES	YES
CLEANOUT REQUIRED	NO	NO	NO	NO	NO	YES	YES	NO	NO



PIPE INSTALLATION AND PAVEMENT REPLACEMENT

DETAIL A / M2

NOT TO SCALE



SLAB ON GRADE EQUIPMENT PAD

DETAIL C / M2

NOT TO SCALE

NOTES:

1. MODIFY TO EXISTING FENCE TO ACCOMMODATE 4'-0" WIDE GATE. A GATE SHALL BE PROVIDED WITHIN 20 FT OF VAULT AT THE LOCATIONS LISTED IN TABLE 1.
2. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR PIPES, VALVES, EQUIPMENT AND FLOW METERS.
3. ADEQUATE SPACE SHALL BE PROVIDED TO ACCOMMODATE AUTOMATIC WASTEWATER SAMPLER IN THE VAULT.
4. MATERIAL AND MANUFACTURER TO BE DETERMINED BY OWNER AND APPROVED BY OCSD.

ONE INCH ON ORIGINAL

PROJECT NO. 2-0-0310

DRAWING NO. 2-307

SHEET NO. 41 OF 41

REGISTERED PROFESSIONAL ENGINEER GREGORY E. GEISLER No. 31682 CIVIL STATE OF CALIFORNIA

NO.	DESCRIPTION	APPROVED	DATE
	REVISIONS		

ORANGE COUNTY SANITATION DISTRICT

DAIRY WASHWATER PILOT PROJECT

MONITORING VAULT - PLAN AND SECTION

DATE: SEP, 00
DESIGNED: MC/DY
DRAWN BY: CS
CHECKED: GEG

CGvL ENGINEERS 6 HUGHES • SUITE 100 IRVINE, CALIFORNIA 92XXX (949)454-3600 Fax(949)454-3601

DRAWING NO. M2

SHEET NO. 8 OF 8

09/08/00 at 11:28:48am P:\194-06\DWP\19406-M2.dwg

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
EASTVALE MASTER DRAINAGE PLAN LINE E

GENERAL NOTES

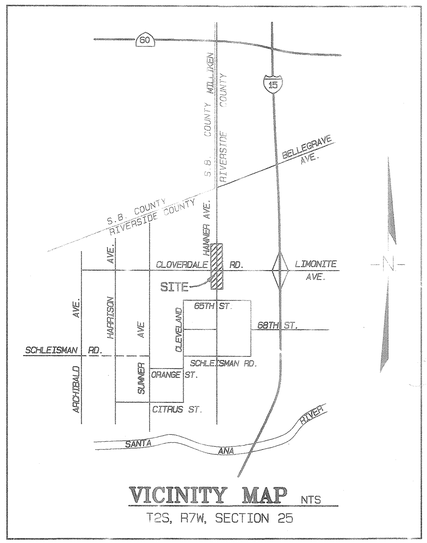
1. ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION.
2. ALL CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM
3. TOPOGRAPHY BY DIGITAL PHOTOGRAMMETRIC METHODS. AERIAL PHOTOGRAPHS TAKEN AT AN ALTITUDE NO TO EXCEED A FLYING HEIGHT TO CONTOUR INTERVAL RATIO OF 1800. PHOTOGRAPHY DATED 2-13-1999, BY INLAND AERIAL SURVEYS, INC.
4. THE VERTICAL DATUM IS DERIVED FROM NGVD 29. THE HORIZONTAL DATUM IS DERIVED FROM NAD 83.
5. STANDARD DRAWINGS CALLED FOR ON THE PLAN & PROFILE SHALL CONFORM TO R.C.F.C. & W.C.D. STD. DRAWINGS, CALTRANS OR COUNTY STANDARD PLANS.
6. ELEVATIONS AND LOCATIONS OF UTILITIES WERE OBTAINED FROM AVAILABLE INFORMATION AND ARE SHOWN APPROXIMATELY ON THESE PLANS. 48 HOURS BEFORE EXCAVATION CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600. ALL UTILITIES SHALL BE PROTECTED I
7. THE CONTRACTOR IS REQUIRED TO CONTACT ALL UTILITY AGENCIES REGARDING TEMPORARY SUPPORT AND SHORING REQUIREMENTS FOR THE VARIOUS UTILITY LINES SHOWN ON THESE PLANS.
8. ALL OPENINGS RESULTING FROM CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES, OR SIMILAR STRUCTURES TO BE ABANDONED, SHALL BE SEALED AT BOTH ENDS WITH 6" MIN. CLASS "B" CONCRETE.
9. STREET RECONSTRUCTION SHALL BE AS SHOWN ON TYPICAL STREET PAVEMENT DETAILS. IF THERE IS NO TYPICAL DETAIL, THE RECONSTRUCTION SHALL BE IN KIND.
10. ALL RECONSTRUCTION, RESURFACING AND PAVEMENT DELINEATION, CURBS, SIDEWALKS AND OTHER IMPROVEMENTS ARE TO BE RECONSTRUCTED IN KIND AT THE SAME LOCATIONS AND ELEVATIONS AS THE EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.
11. ⊗ INDICATES APPROX. SOIL BORING LOCATION PER SOILS REPORT BY RMA GROUP DATED 6/11/2001
12. CONSTRUCTION INSPECTION OF STORM DRAIN WILL BE PERFORMED BY RIVERSIDE COUNTY FLOOD CONTROL. CONTACT DALE ANDERSON AT (909) 275-1288. THE DISTRICT MUST BE NOTIFIED TWO WEEKS PRIOR TO CONSTRUCTION. CONSTRUCTION INSPECTION OF ROADWAY RELATED ITEMS WILL BE PERFORMED BY RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT.
13. ALL TRENCH EDGES SHALL BE SAWCUT NEAT OR AS DIRECTED BY THE ENGINEER
14. ALL ROAD WORK SHALL CONFORM TO COUNTY ROAD IMPROVEMENT STANDARDS AND SPECIFICATIONS PER ORDINANCE 461.
15. APPROVAL FOR THESE PLANS BY THE RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT DOES NOT RELIEVE THE DEVELOPER'S ENGINEER OF RESPONSIBILITY FOR THE ENGINEERING DESIGN. IF FIELD CHANGES ARE REQUIRED, IT WILL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO MAKE THE NECESSARY CHANGES.
16. ALL WORK WITHIN THE RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT R/W WILL REQUIRE AN ENCROACHMENT PERMIT.
17. ITEMS WITHIN THE TEMPORARY CONSTRUCTION EASEMENT NOT IDENTIFIED ON THE PLANS SHALL BE PROTECTED IN PLACE OR RESTORED IN KIND
18. STANDARD LOCATION OF STORM DRAIN (RIV. CO. STD 817) IS WAIVED DUE TO EXISTING UTILITY CONFLICTS.
19. THE OPENINGS OF CATCH BASIN AND CONCRETE DROP INLETS SHALL BE SEALED COMPLETELY WITH SAND BAGS OR OTHER METHOD APPROVED BY INSPECTOR UNTIL THE DOWN STREAM PORTION OF THE LINE E STAGE 3 CONSTRUCTED.

NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY – NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBER AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. LOCATIONS OF UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

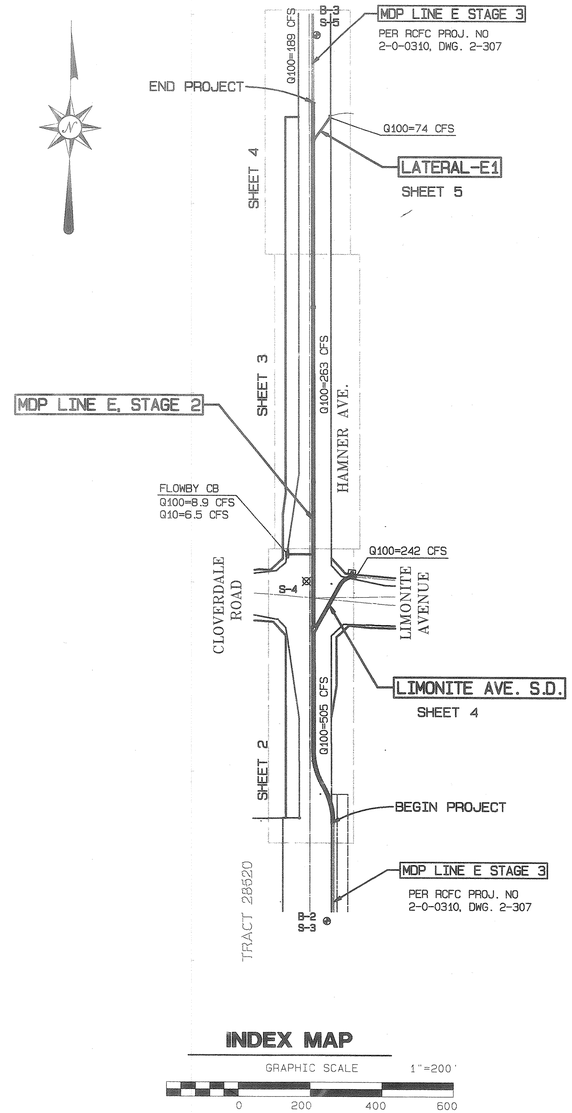
CALL UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-227-2600 AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION.



VICINITY MAP NTS
T2S, R7W, SECTION 25

CONSTRUCTION NOTES

1	CONSTRUCT 84" RCP (D=1750)
2	CONSTRUCT 66" RCP (D=1750)
3	CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
4	CONSTRUCT MANHOLE NO. 4 PER RCFC STD. MH 254
5	CONSTRUCT CONCRETE BULKHEAD PER RCFC STD. M 816
6	PROTECT IN PLACE
7	CONSTRUCT MODIFIED CONCRETE DROP INLET 1 PER RCFC STD. CB110 AND
	DETAIL ON SHEET 5
8	CONSTRUCT 30" RCP (D=1500)
9	PROTECT EXISTING POWER POLE/ TEL POLE
10	CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229
11	CONSTRUCT 24" RCP CLASS IV
12	CONSTRUCT CATCH BASIN PER RIV.CO. STD. 300 AND GUTTER DEPRESSION
	PER RIV.CO. STD. 311, CASE B
13	CONSTRUCT CONCRETE COLLAR PER RCFC STD. M 803
14	EXIST. FENCE TO BE RELOCATED TO TCE, AND REINSTALLED IN ITS
	ORIG. LOCATION IN KIND AFTER CONPLETION OF CONSTRUCTION
15	CONSTRUCT MODIFIED CONCRETE DROP INLET 2 WITH 2" A.C. APRON PER RCFC
	STD. CB 110 AND DETAIL ON SHEET 5



INDEX MAP
GRAPHIC SCALE 1"=200'
0 200 400 600

INDEX

	SHEET NO.
TITLE SHEET	1
STORM DRAIN PLAN AND PROFILES	2 - 4
CONNECTORS	5 - 6
TRAFFIC CONTROL	7 - 14
STANDARD DRAWINGS	15 - 33

RCFC STD. DRAWINGS

		SHEET NO.
CB 103	MANHOLE FRAME & COVER FOR CATCH BASIN	15
CB 106	CATCH BASIN REINFORCEMENT	16
CB 110	CONCRETE DROP INLET	17
MH 252	MANHOLE NO. 2	18
MH 254	MANHOLE NO. 4	19 - 20
MH 255	MANHOLE FRAME AND COVER, NON-ROCKING	21
MH 257	MANHOLE SHAFT FOR CAST PIPE	22
MH 259	STANDARD DROP STEP	23
JS 229	JUNCTION STRUCTURE NO. 4	24
M 801	CHAIN LINK FENCE DETAILS	25
M 803	CONCRETE COLLAR FOR PIPE 12" TO 66"	26
M 815	BEDDING AND PAY LINES	27
M 816	CONCRETE BULKHEAD	28

RCTD STD. DRAWINGS

		SHEET NO.
300	CURB INLET CATCH BASIN	29
300A	CURB INLET CATCH BASIN SPECS.	30
304	CURB SUPPORT DETAIL	31
311	GUTTER DEPRESSION FOR CURB OPENING CATCH BASIN	32
608	PARKWAY COVER & FRAME	33

G:\2000\00-0101\0101SD.pre2/20/2002

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE 1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF PP NO. H331Y

SEAL–ENGINEER: REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FARHAN NO. C39530 EXP. 12-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256
PREPARED BY: mac-9 Fayl DATE: 2/20/02
R.C.E. NO. C39530 EXP. DATE: 12-31-05
DESIGNED BY: MF
DRAWN BY: L.A.
CHECKED BY:

SEAL–COUNTY: REGISTERED PROFESSIONAL ENGINEER CHARLES A. OTHMAN NO. 33950 EXP. 6-30-02 CIVIL STATE OF CALIFORNIA

REF.	REVISIONS DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 2/21/02

APPROVED BY:
CHIEF ENGINEER
DATE: 2/21/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE: 3/01/02
RCE NO. EXP. DATE

EASTVALE MDP LINE E
STAGE 2
TITLE SHEET

MS 3765
IP 990098
PROJECT NO. 2-0-0310
DRAWING NO. 2-304
SHEET NO. 1 OF 33

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.

STAGE 3 | STAGE 2

NOT A PART

PROPOSED F.S. @ CL STORM DRAIN

EXIST. GROUND @ CL STORM DRAIN

126+90.00 CL MH SHAFT 663.5± RIM

CL LIMONITE

121+47.20 CONC. BULKHEAD BEGIN CONSTRUCTION

EX. FIBER OPTIC PROTECT

EX. TEL. EL. UNKNOWN

EX. 4" GAS EL. UNKNOWN

EX. 24" WAT (650.70 FL)

EX. TEL. (659.2± TOP)

EX. 36" GAS (658.4± TOP)

EX. 2"GAS (655.0± TOP)

EX. 30" GAS (657.0 TOP)

EX. 30" WAT (655.9 TOP)

126+85.00 CL MH NO.4 =10+00.00 LIMONITE SD 636.72

129+00.00 JS NO.4 =10+00.00 LAT. B 644.21 FL

MDP LINE E STAGE 3

PER RCFC PROJ. NO 2-0-0310, DWG. 2-307

H.G.L.

42" SEWER (643.14 FL)

EXIST. 42" S.A.R.I. PIPELINE REACH IV D

24" RCP 646.50 FL

S=0.0294

66" RCP 637.75 FL

S=0.0072

S=0.0072

EP. 2.0-0310.2858
Albert A. Webb Associates
Construct an 18" diameter RCP Storm drain (Line F) Connection to Existing line E
November 29, 2005

121+47.20 BC 632.84 FL

122+42.42 EC, BB 639.69 FL

122+63.19 BC 639.88 FL

123+58.40 EC 634.37 FL

Q100 = 505 CFS
V100 = 13.1 FPS

CONSTRUCT 535.00 L.F. OF 84" RCP (D=1750)

126+83.20 END RCP 636.71 FL

127+00.00 BEG. RCP 638.32 FL

Q100 = 263.0 CFS
V100 = 11.1 FPS

CONSTRUCT 240.00 L.F. OF 66" RCP (D=1750)

129+40.00 645.38 FL

MATCH LINE 129+40 SEE SHEET 3

PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

120 121 122 123 124 125 126 127 128 129 130

660 650 640 630

MH NO.4	
M.L. STA.	126+85.00
LATERAL	LIMONITE SD
A	30°
B	66"
C	15.0'
D1	84"
D2	66"
E	15.0'
L	16.8'
EL."S"	637.75'
EL."R"	637.88'

CONSTRUCTION NOTES

1. CONSTRUCT 84" RCP (D=1750)
2. CONSTRUCT 66" RCP (D=1750)
3. CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
4. CONSTRUCT MANHOLE NO. 4 PER RCFC STD. MH 254
5. CONSTRUCT CONCRETE BULKHEAD PER RCFC STD. M 816
6. PROTECT IN PLACE
9. PROTECT EXISTING POWER POLE/ TEL POLE
10. CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229
11. CONSTRUCT 24" RCP CLASS IV
12. CONSTRUCT CATCH BASIN PER RIV.CO. STD. 300 AND GUTTER DEPRESSION PER RIV.CO. STD. 311, CASE B
14. EXIST. FENCE TO BE RELOCATED TO TCE, REINSTALLED IN ITS ORIG. LOCATION IN KIND AFTER CONPLETION OF CONSTRUCTION
15. CONSTRUCT MODIFIED CONCRETE DROP INLET 2 WITH 2" A.C. APRON PER RCFC STD. CB 110 AND DETAIL ON SHEET 5

TRACT 28520-1

STAGE 3 | STAGE 2

CLOVERDALE ROAD

84" RCP

66" RCP

45+23.23 CL HAMNER STA. BACK
=20+00.00 HAMNER STA. AHEAD
=20+00.00 CLOVERDALE (W)
=20+00.00 LIMONITE (E)

PROP. R/W REC.1-29-2002 INST. #2002-048701

EX. R/W

PROP. AC DIKE

EX. TELE MH PER PLAN & FIELD MARKING PROTECT

EX. FIBER OPTIC PROTECT

EX. 24" WATER PROTECT

EX. B.O.

EX. FIBER OPTIC

EXIST. TELE LINE

EXIST. 24" WAT

EXIST. 42" SEW

EXIST. 24" WAT (INDICD)

EXIST. 4" GAS

EX. FIBER OPTIC

EX. EP

CL HAMNER

PROP. EP

EX. FENCE

EX. CONC. PAVING

EX. P.P. PROTECT

MDP LINE E STAGE 3

PER RCFC PROJ. NO 2-0-0310, DWG. 2-307

121+47.20 BC, BEG. STAGE 2 CONCRETE BULKHEAD

N21°38'38"W 124.75'

STA. 124+02.75

EASEMENT REC. 1-29-2002 INST. 2002-048695

EXIST. D.G. ROAD RESTORED

RELOCATE EX. FENCE TO TCE

122+42.42 EC

122+63.19 BC

123+58.40 EC =ST.STA.42+02.06

HAMNER AVENUE

APN 134-110-022

PROP. R/W REC. 1-29-2002 INST.#2002-048697

EX. SEWER MH PROTECT

PROPOSED STREET AND TRAFFIC SIGNAL IMPROVEMENT PER CO. OF RIV. MS 3765, IP 990098

LIMONITE AVE. STORM DRAIN

PROFILE SEE SHEET 4

LINE E

GRAPHIC SCALE 1"=40'

40 20 0 40 80 120

	RADIUS	DELTA	TANGENT	LENGTH
1	200.00'	27°16'38"	48.53'	95.22'
2	200.00'	27°16'38"	48.53'	95.22'
3	45.00'	65°02'06"	28.69'	51.08'

EX. R/W

EX. F.H.

ST. STA. 21+20.36 =10+73.00 LAT.-B CL CB W=14' V=6' 654.38 TC 653.38 FL Q100/10=8.9/6.5 CFS

20+98.69 BCR 64.28 TC

64.44 TC

N89°56'12"W

EX. FIBER OPTIC

64.40 TC

63.73 TC

11+90 LIMONITE SD =10+00.00 LAT. C JS NO.4

12'X20' SD ESMT

10+10+00 DROP INLET 2 660.82 TG 659.20 FL PROFILE ON SHT.6

12+01.45 EC CONC. BULKHEAD

129+00.00 CL JS NO.4 =10+00.00 LAT. B PROFILE SEE SHT 6

MATCH LINE 129+40 SEE SHEET 3

N00°05'19"W

N85°03'13"W

11+50.37 BC

EX. 30" GAS

EX. 36" GAS

EX. 30" WAT

CONST. CL.

PROP. AC DIKE

SECTION @ STA.124+00

GRAPHIC SCALE 1"=10'

0 10 20 30

R/W 60' 38' 25' 10' 30' R/W

CL HAMMER

CL SD

EX. GROUND

EX. PAVING

TEL 4"G

EX. 24"W

EX. 24"W

EX.42" S

18'±

84" RCP

MS 3765
iP 990098

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
YOU SHOULD CALL TWO DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF 9X X H331Y

SEAL—ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FARHAN NO. C39530 EXP. 12-31-03 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: M&F DATE 2/25/02
DESIGNED BY: M.F.
DRAWN BY: M.F.
CHECKED BY:
R.C.E. NO. C39530 EXP. DATE 12-31-03

SEAL—COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN

REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE 2-26-02

APPROVED BY:
CHIEF ENGINEER
DATE 2-26-02

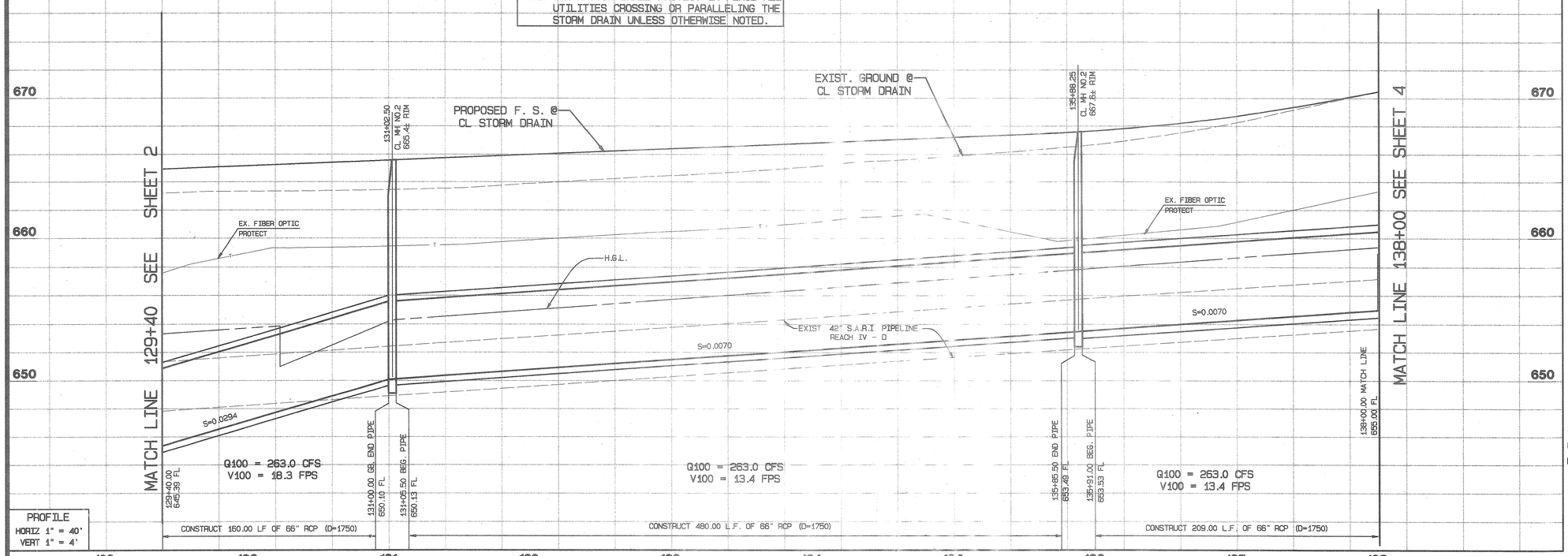
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE 3/4/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 2
PLAN & PROFILE
STA. 121+47.20 TO STA. 129+40

PROJECT NO. 2-0-0310
DRAWING NO. 2-304
SHEET NO. 2 OF

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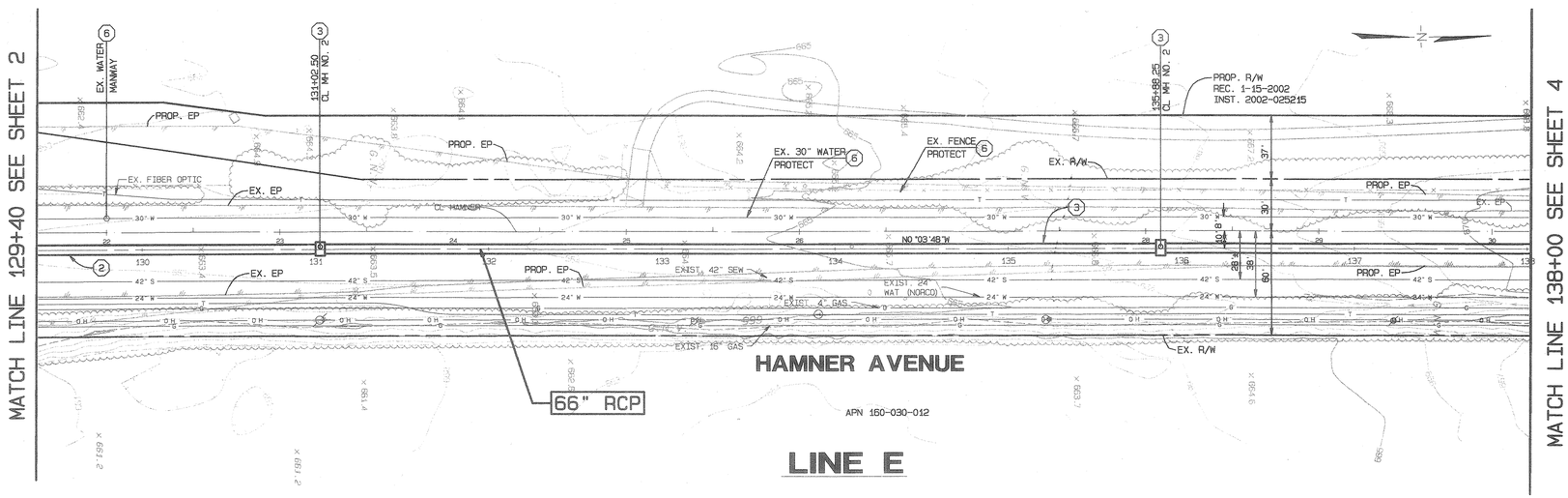
NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES CROSSING OR PARALLELING THE STORM DRAIN UNLESS OTHERWISE NOTED.



PROFILE
HORIZ 1" = 40'
VERT 1" = 4'

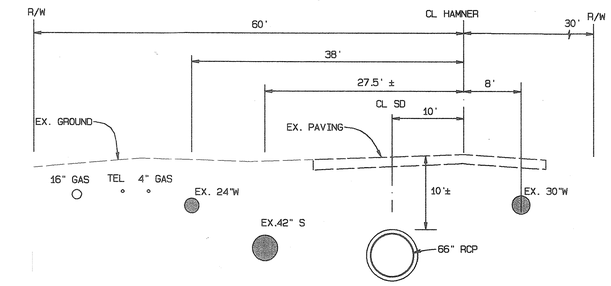
CONSTRUCTION NOTES

(2) CONSTRUCT 66" RCP (D=1750)
(3) CONSTRUCT MANHOLE NO. 2 PER RCFC STD. MH 252
(6) PROTECT IN PLACE



LINE E

GRAPHIC SCALE 1"=40'
40 20 0 40 80 120



SECTION @ STA. 135+00

GRAPHIC SCALE 1"=10'
0 10 20 30

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF DE. NO. 4331

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAGHIN NO. C39530 EXP. 12-31-05 STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: Mohammad Faghih DATE 2/26/02
R.C.E. NO. C39530 EXP. DATE 12-31-05
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 39530 EXP. 6-30-03 STATE OF CALIFORNIA

REF.	DESCRIPTION	APPR.	DATE

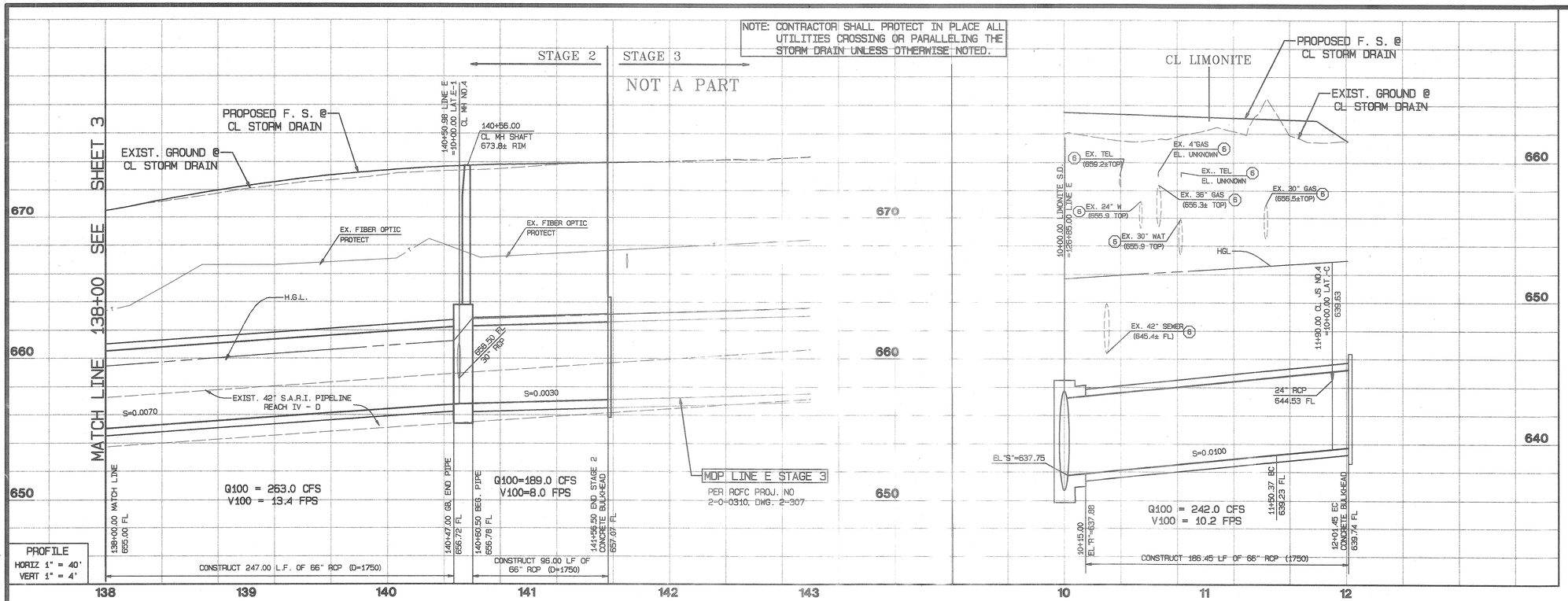
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE 2-26-02
APPROVED BY:
CHIEF ENGINEER
DATE 3/4/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE 3/4/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 2
PLAN & PROFILE
STA. 129+40 TO STA. 138+00

MS 3765
iP 990098
PROJECT NO. 2-0-0310
DRAWING NO. 2-304
SHEET NO. 3 OF 23

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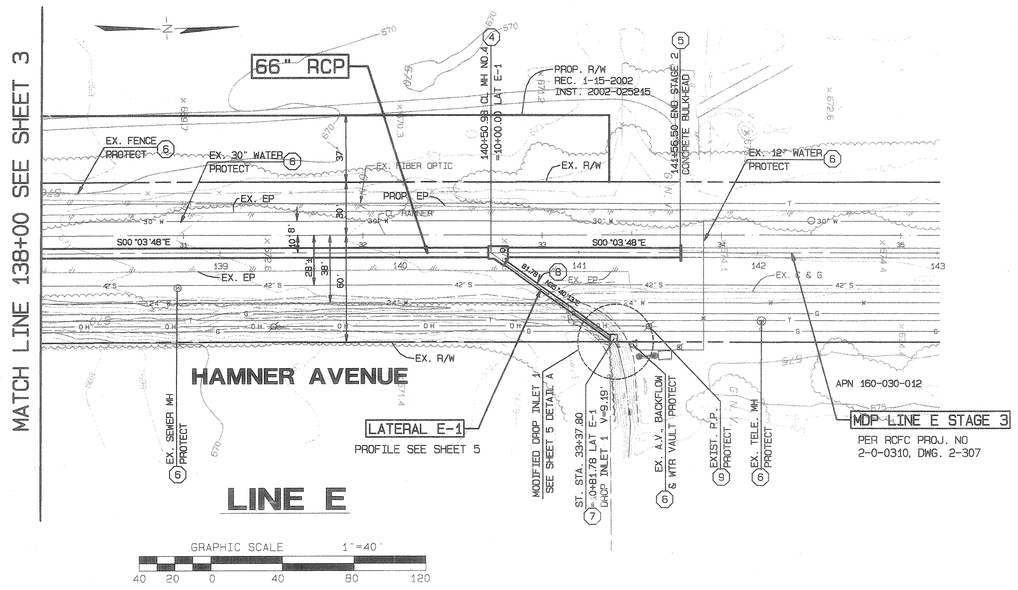
MH NO.4	
M.L. STA.	140+50.98
LATERAL	LATERAL E1
A	35°
B	30"
C	9.8'
D1	66"
D2	66"
E	9.52'
L	13.50'
EL."S"	658.50
EL."R"	659.19

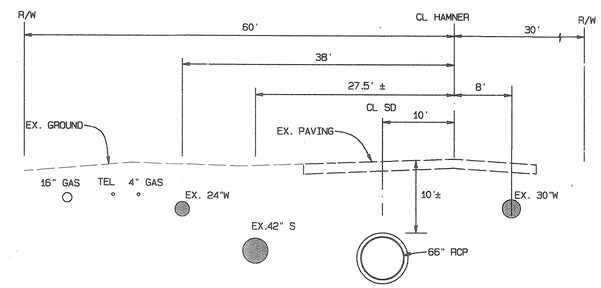
CONSTRUCTION NOTES

(2) CONSTRUCT 66" RCP (D=1750)
(4) CONSTRUCT MANHOLE NO. 4 PER RCFC STD. MH 254
(5) CONSTRUCT CONCRETE BULKHEAD PER RCFC STD. M 816
(6) PROTECT IN PLACE
(7) CONSTRUCT MODIFIED CONCRETE DROP INLET 1 PER RCFC STD. CB110 AND DETAIL ON SHEET 5
(8) CONSTRUCT 30" RCP (D=1500)
(9) PROTECT EXISTING POWER POLE/ TEL POLE

LIMONITE AVE. STORM DRAIN

PLAN VIEW SEE SHEET 2





SECTION @ STA. 140+00

GRAPHIC SCALE 1"=10'
0 10 20 30

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
(48 HOURS) TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER ST. SIDE OF CLOVERDALE IN FRONT OF DR. M. HASSI

SEAL—ENGINEER

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256
PREPARED BY: Mohd Fagih DATE 2/20/02
RCE. NO. C39530 EXP. DATE 12-31-03
DESIGNED BY: L.M.
DRAWN BY: L.M.
CHECKED BY:

SEAL—COUNTY

REF.	DESCRIPTION	APPR. DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL
DATE 4/4/02

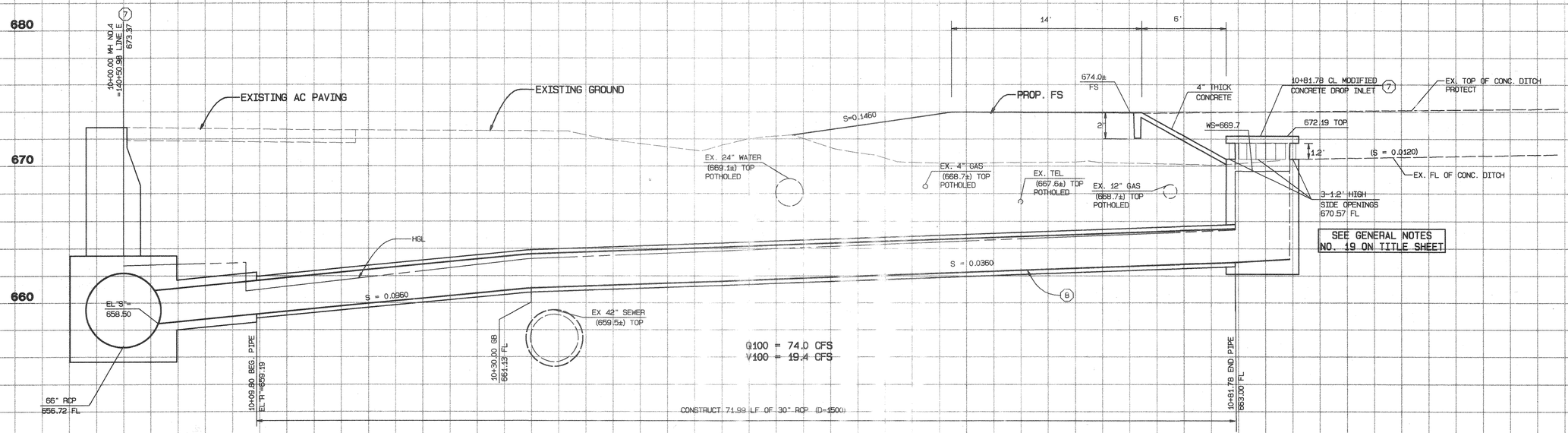
APPROVED BY:
DATE 3/21/02

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
DATE 3/21/02
RCE NO. EXP. DATE

EASTVALE MDP
LINE E
STAGE 2
PLAN & PROFILE
STA.138+00 TO STA. 111+56.50

MS 3765
IP 990098
PROJECT NO. 2-0-0310
DRAWING NO. 2-304
SHEET NO 4 OF

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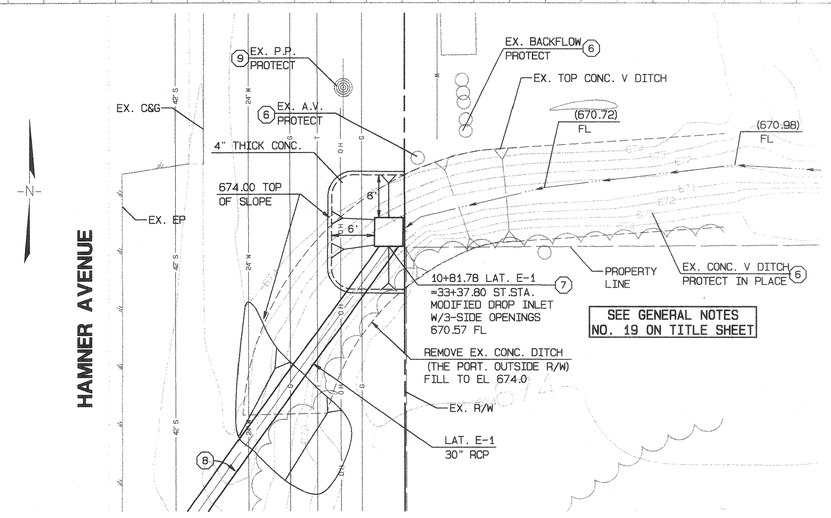


LATERAL E-1

PLAN VIEW SEE SHEET NO. 4

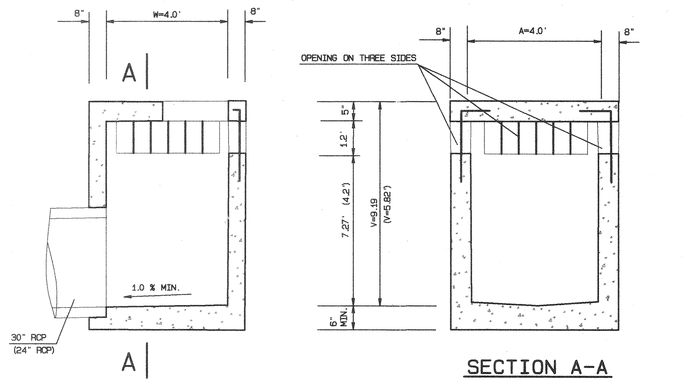
TO BE MAINTAINED BY RIV. CO TRANSPROTATION DEPT.

SCALES
HORIZ: 1"=4'
VERT: 1"=4'



MODIFIED DROP INLET 1 DETAIL A

GRAPHIC SCALE 1"=10'
0 10 20 30



SECTION A-A

MODIFIED CONCRETE DROP INLET 1 & 2

N.T.S. (7) (15)

REBAR, MANHOLE & PROTECTION BAR DETAILS PER RCFDC STD. CB 110

(DIMENSIONS IN PARENTHESIS REPRESENT DROP INLET 2)

CONSTRUCTION NOTES

(4) CONSTRUCT MANHOLE NO. 4 PER RCFC STD. MH 254

(6) PROTECT IN PLACE

(7) CONSTRUCT MODIFIED CONCRETE DROP INLET PER RCFC STD. CB110 & DETAIL THIS SHEET

(8) CONSTRUCT 30" RCP (D=1500)

(9) PROTECT EXISTING POWER POLE/ TEL POLE

(15) CONSTRUCT MODIFIED CONCRETE DROP INLET 2 WITH 2" A.C. APRON PER RCFC STD. CB 110 AND DETAIL ON SHEET 5

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1·800 227 2600
TWO WORKING DAYS BEFORE YOU DIG

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER S'LY SIDE OF CLOVERDALE IN FRONT OF #NO #4351

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAQHIRI NO. C39530 EXP. 2-31-05 CIVIL STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256
PREPARED BY: Mo Faqhiri DATE 2/7/02
R.C.E. NO. C39530 EXP. DATE 12-31-05
DESIGNED BY L.M.
DRAWN BY L.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 19980 EXP. 6-30-03 CIVIL STATE OF CALIFORNIA

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL: PLANNING ENGINEER DATE
APPROVED BY: CHIEF ENGINEER DATE

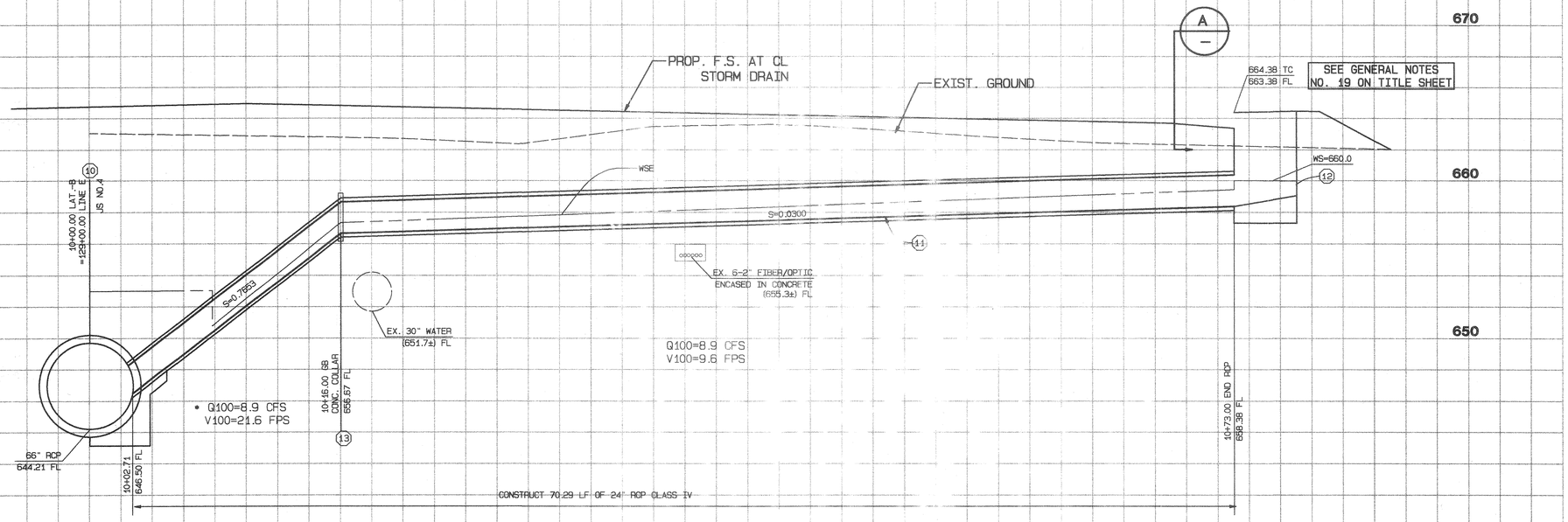
COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY: DATE: 3/4/02
RCE NO. EXP.DATE

EASTVALE MDP
LINE E
STAGE 2
LATERAL E-1

MS 3765
IP 990098

PROJECT NO. 2-0-0310
DRAWING NO. 2-304
SHEET NO. 5 OF 33

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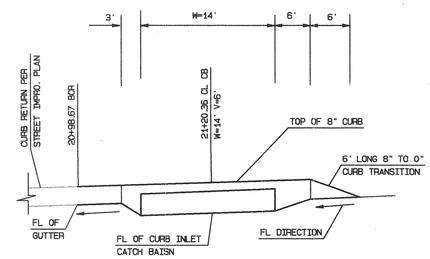
* PIPES NOTED REQUIRE MIN. OF 1 1/2" CONCRETE COVER OVER REINFORCING INSIDE PIPE. THE CONCRETE DESIGN STRENGTH SHALL BE fc=5000 PSI

LATERAL B

PLAN VIEW SEE SHEET NO. 2

TO BE MAINTAINED BY RIV. CO TRANSPROTATION DEPT.

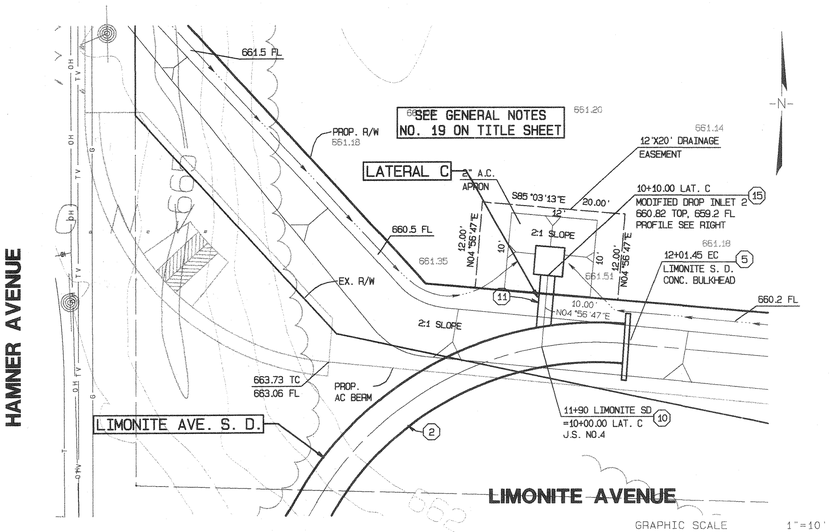
GRAPHIC SCALE 1"=4'



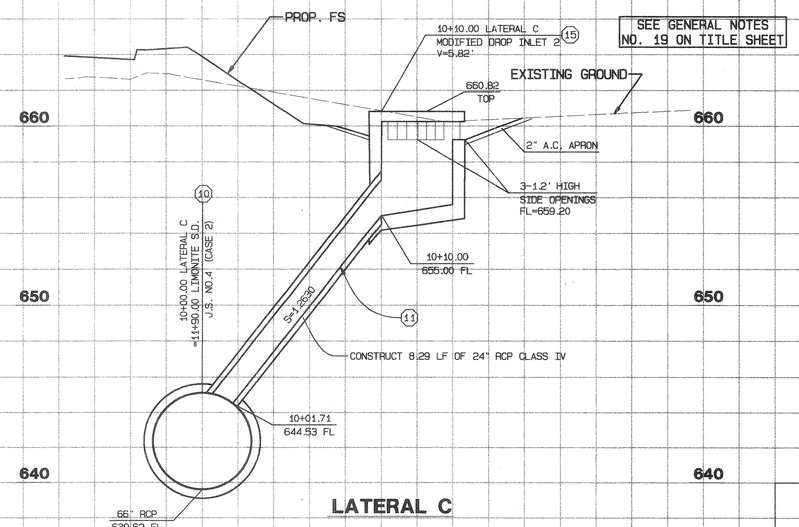
SECTION A-A

N.T.S.

SEE GENERAL NOTES NO.19 ON TITLE SHEET



LATERAL C DROP INLET DETAIL



LATERAL C

PLAN VIEW SEE SHEET NO. 2 AND LEFT

TO BE MAINTAINED BY RIV. CO TRANSPROTATION DEPT.

CONSTRUCTION NOTES

(2) CONSTRUCT 66" RCP (D-1750)

(5) CONSTRUCT CONCRETE BULKHEAD PER RCFC STD. M 816

(10) CONSTRUCT JUNCTION STRUCTURE NO. 4 PER RCFC STD. JS 229

(11) CONSTRUCT 24" RCP CLASS IV

(12) CONSTRUCT CATCH BASIN PER RIV.CO. STD. 300 AND GUTTER DEPRESSION PER RIV.CO. STD. 311, CASE B

(13) CONSTRUCT CONCRETE COLLAR PER RCFC STD. M 803

(15) CONSTRUCT MODIFIED CONCRETE DROP INLET 2 WITH 2" A.C. APRON PER RCFC STD. CB 110 AND DETAIL ON SHEET 5

SCALES
HORIZ: 1"=4'
VERT: 1"=4'

UNDERGROUND SERVICE ALERT
CALL: TOLL FREE
1-800
227-2600
(TWO WORKING DAYS BEFORE YOU DIG)

BENCHMARK
ML-34-88 EL. 661.945'
RE-SET 1988 APPROX. 200'± WEST OF CL INT. CLOVERDALE AND SUMNER ST.\Y SIDE OF CLOVERDALE IN FRONT OF PH NK -331'

SEAL-ENGINEER
REGISTERED PROFESSIONAL ENGINEER MOHAMMAD FAQIH NO. C39530 EXP. 12-31-05 STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES ENGINEERING CONSULTANTS
3788 McCRAY STREET, RIVERSIDE, CA 92506
PH. (909) 686-1070 FAX (909) 788-1256

PREPARED BY: mac F Faqih DATE: 2/7/02
R.C.E. NO.: C39530 EXP. DATE: 12-31-05
DESIGNED BY: C.M.
DRAWN BY: C.M.
CHECKED BY:

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN NO. 33950 STATE OF CALIFORNIA

REVISIONS			
REF.	DESCRIPTION	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL: PLANNING ENGINEER DATE
APPROVED BY: FIELD ENGINEER DATE

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: DATE: 3/4/02
RCE NO. EXP. DATE

EASTVALE MDP LINE E STAGE 2 CONNECTORS

MS 3765
IP 990098
PROJECT NO. 2-0-0310
DRAWING NO. 2-304
SHEET NO. 6 OF 33

C:\2000\00-0101\0101SD.prc2/7/2002

Appendix H

PRELIMINARY WATER QUALITY MANAGEMENT PLAN

"LEAL RANCH"
TENTATIVE TRACT MAP NO. 38290

Project Address:
Northwest of Limonite Avenue and Hamner Avenue
City of Eastvale, CA

Prepared for:

25231 Laguna Canyon Road, Suite 250
Irvine, CA 926183
(949) 382-7800

Prepared by:

Hunsaker & Associates Irvine, Inc.
3 Hughes
Irvine, CA 92618
(949) 583-1010

Preparation Date:
November 29, 2021

W.O. 2749-44C

W.O. 2749-44C

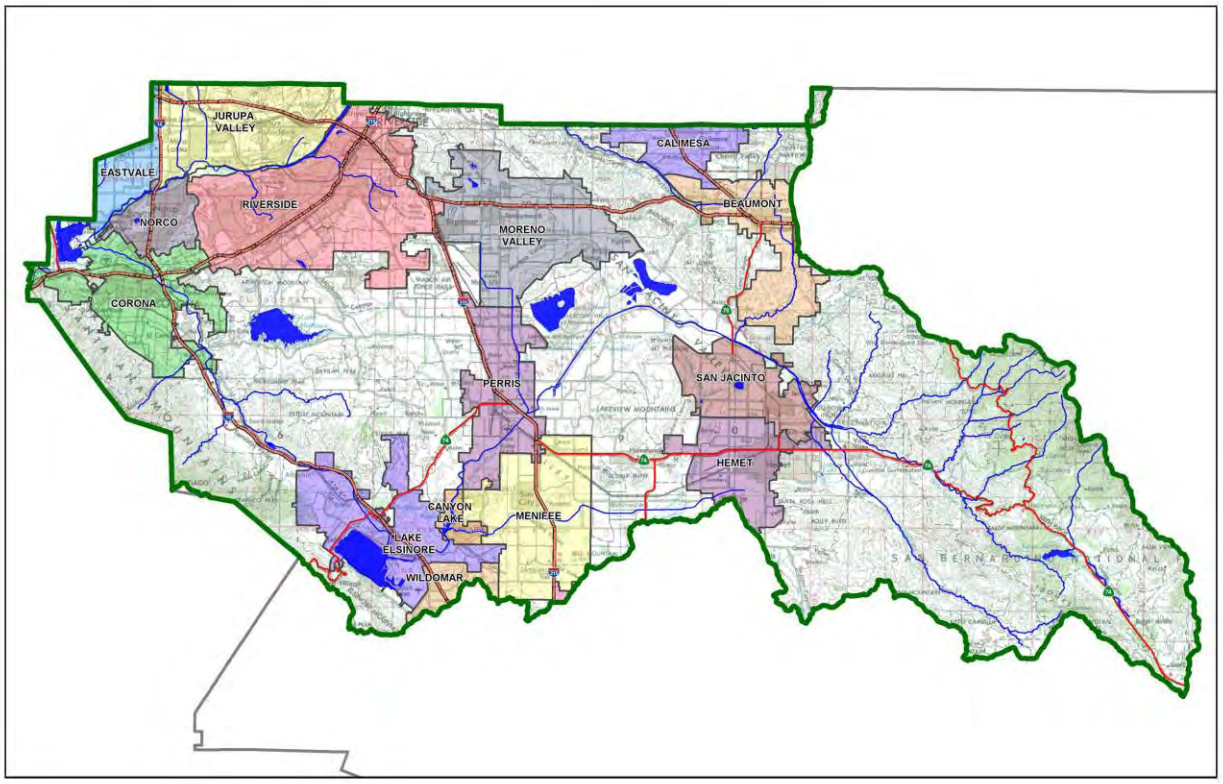
PRELIMINARY WATER QUALITY MANAGEMENT PLAN
"LEAL RANCH" – TENTATIVE TRACT MAP NO. 38290
City of Eastvale, CA

Project Specific Water Quality Management Plan

Project Title: "Leal Ranch" – Tentative Tract Map No. 38290

Public Works No: N/A

Design Review/Case No: TBD



☒ Preliminary
☐ Final

Original Date Prepared: November 29, 2021

Revision Date(s):

Prepared for Compliance with
Regional Board Order No. R8-2010-0033

Contact Information:

Prepared for:
The New Home Company
15231 Laguna Canyon Road, Suite 250
Irvine, CA 92618
(949) 382-7800

Prepared by:
Hunsaker & Associates Irvine, Inc.
3 Hughes,
Irvine, CA 92618
(949) 583-1010

OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for The New Home Company by Hunsaker & Associates Irvine, Inc. for the "Leal Ranch" Project.

This WQMP is intended to comply with the requirements of The City of Eastvale requirements for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under the City of Eastvale Water Quality Ordinance.

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature	Date
Owner's Printed Name	Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. R8-2010-0033 and any subsequent amendments thereto."

Preparer's Signature	Date
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure:

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Section A: Project and Site Information

The New Home Company proposes the development of "Leal Ranch", Tentative Tract Map No. 38290, located just northwest of the intersection of Limonite Avenue and Hamner Avenue, in the City of Eastvale, California. Specifically, the project site is bound to the north by 58th Street and existing residential homes beyond; to the east by Hamner Avenue and existing residential homes and a commercial shopping center (Eastvale Gateway); to the south by Limonite Avenue and existing residential homes and a commercial shopping center beyond; and to the west by Scholar Way and existing residential homes beyond.

The Project Site consists of approximately 159.2 acres (6,934,278 SF) and will be subdivided into 14 Planning Areas (Lots 1-14) and 19 lettered lots (A-S) to accommodate a mixed use development consisting of multi-family residential, general retail (shopping center), general offices, medical offices, hotels, civic center, parks and supporting infrastructure improvements. Proposed lot summary is as follows:

NUMBERED LOTS			
Lot #	USAGE	S.F.	Acres
1	RESIDENTIAL	315,892.10	7.252
2	MIXED USE	550,731.85	12.643
3	COMMERCIAL CIVIC	426,869.17	9.800
4	MIXED USE	279,624.41	6.419
5	MIXED USE	198,540.25	4.558
6	RESIDENTIAL	244,324.99	5.609
7	RESIDENTIAL	613,599.82	14.086
8	RESIDENTIAL	171,451.45	3.936
9	RESIDENTIAL	191,384.23	4.394
10	MIXED USE	195,395.18	4.486
11	RESIDENTIAL	724,736.51	16.638
12	RESIDENTIAL	754,749.47	17.327
13	RESIDENTIAL	574,268.61	13.183
14	FIRE STATION	53,083.07	1.219
Total		5,294,651.10	121.5485

LETTERED LOTS			
Lot #	USAGE	S.F.	Acres
A	RIGHT OF WAY	139,937.69	3.213
B	RIGHT OF WAY	147,811.51	3.393
C	RIGHT OF WAY	84,478.50	1.939
D	RIGHT OF WAY	38,267.77	0.879
E	ROADWAY	246,244.32	5.653
F	ROADWAY	44,673.74	1.026
G	ROADWAY	113,590.68	2.608
H	ROADWAY	115,905.65	2.661
I	ROADWAY	67,321.01	1.545
J	PARK	89,220.27	2.048
K	PRIVATE REC. FAC.	68,998.58	1.584
L	PARK	153,611.43	3.526
M	TRAIL/LINEAR PARK	44,835.28	1.029
N	TRAIL/LINEAR PARK	31,408.46	0.721
O	TRAIL/LINEAR PARK	32,546.77	0.747
P	TRAIL/LINEAR PARK	84,078.57	1.930
Q	TRAIL/LINEAR PARK	46,663.19	1.071
R	TRAIL/LINEAR PARK	42,155.07	0.968
S	TRAIL/LINEAR PARK	21,801.21	0.500
Total		1,613,549.69	37.0420

Impervious and paved areas for the site include each building structures, streets and parkways, walkways, parking lots and other miscellaneous hardscape areas. Total impervious area is anticipated to consist of approximately 127.36 acres, or 80% of the gross project area.

Pervious areas of the project include open space and designated landscaping areas located in designated park areas, street parkways and parking lots (planters), and private homeowner maintained landscaping areas. Project landscaping and revegetation areas will consist of native and/or drought tolerant plant species. Total pervious area is anticipated to consist of approximately 31.84 acres, or 20% of the gross project area.

Parking is anticipated to be provided via garage parking, driveway parking, open parking lots, parking structures and off-street parking. Total parking shall be consistent with City requirements per each development area's land use.

Normal trash typical of residential and commercial facilities can be anticipated to be produced daily from the project. These include food wastes (wrappers, bottles, etc.) plastics and paper wastes. Such trash is anticipated to be disposed of by residents, staff, and facility users in designated trash storage, to be hauled off for disposal on a weekly basis (minimum) by the contracting waste disposal company.

PROJECT INFORMATION	
Type of Project:	Mixed-Use (Residential, commercial, office, park, hotel, civic center)
Planning Area:	Eastvale Area Plan
Community Name:	"Leal Ranch"
Development Name:	"Leal Ranch"
PROJECT LOCATION	
Latitude & Longitude (DD): 33.978862414978266, -117.56268204581465	
Project Watershed and Sub-Watershed: Santa Ana River Watershed and Lower Cucamonga Creek	
APN(s): 164-030-010, 164-030-025, 164-030-012	
Map Book and Page No.: TBD	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Commercial, office, medical office, hotel, residential, park
Proposed or Potential SIC Code(s)	TBD
Area of Impervious Project Footprint (SF)	5,547,422 SF
Total Area of proposed Impervious Surfaces within the Project Limits (SF)/or Replacement	5,547,422 SF
Does the project consist of offsite road improvements?	☐ Y ☒ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of Existing Impervious Surfaces within the project limits (SF)	693,428 SF
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	N/A
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	Project resides in A and C areas
What is the Water Quality Design Storm Depth for the project?	0.86"

A.1 Maps and Site Plans

The project's Vicinity Map and Site Plan is provided in Appendix 1 of this WQMP. The maps show the following elements, as required by the WQMP Guidance Document.

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling

A.2 Receiving Waters

The project's receiving waters are as follows:

Table A.1 Identification of Receiving Waters

Receiving Waters	303(d) List Impairments[1]	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Cucamonga Creek (Reach 1) 801.21	Cadmium, Copper, Lead, Zinc	GWR, REC2, LWRM, WILD	No RARE designation
Prado Basin Management Zone Hydrologic Unit 801.21	pH	REC1, REC2, WARM, WILD, RARE	6 miles
Santa Ana River (Reach 3) Hydrologic Unit 801.21	Copper, Lead *(Indicator Bacteria, Nitrate)*	AGR, GWR, REC1, REC2, WARM, WILD, RARE,SPWN	7 miles
Santa Ana River (Reach 2) Hydrologic Unit 801.11	None	REC2, WARM, WILD,	30 miles
Santa Ana River (Reach 1) Hydrologic Unit 801.11	None	REC2, WARM, WILD, RARE	35 miles
Tidal Prism of Santa Ana River and Newport Slough Hydrologic Unit 801.11	None	REC1, REC2, COMM, WILD, RARE, MAR	36.5 miles
Pacific Ocean Offshore Zone Hydrologic Unit 801.11	None	IND, NAV, REC1, REC2, COMM, WILD, RARE, SPWN, MAR	36.5 miles

[1] TMDLs denoted in italics and parenthesis.

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)* City of Eastvale Development and Grading Permits	☒ Y	☐ N

Section B: Optimize Site Utilization (LID Principles)

Site Optimization

Does the project identify and preserve existing drainage patterns? If so, how? If not, why?

Yes. Pre-project site drains southerly to the existing storm rain in Limonite. Proposed condition will preserve flow patterns of project site.

Does the project identify and protect existing vegetation? If so, how? If not, why?

No. Pre-project site does not consist of any natural or native vegetation to be preserved. All vegetation will be removed and replaced with native and/or drought tolerant landscaping.

Does the project identify and preserve natural infiltration capacity? If so, how? If not, why?

Yes. Project will allow incidental infiltration of BMPs in the northern and central project areas, and only in areas where suitable soils are known to be present. Although the project tested favorable infiltration rates at a single location and per County data, is located with HSG Type A soils, per the geotechnical professional's recommendation, infiltration rates at the tested location is not typical of the project site due to the presence of large quantities of silt/compacted silt in project's subsurface soils. Due to unsuitable soils and low tested infiltration rates in the southern portion of the project site, infiltration will not be employed.

Does the project identify and minimize impervious area? If so, how? If not, why?

Yes. Wherever feasible, open space and landscaping areas have been proposed to minimize the amount of directly connected impervious area.

Does the project identify and disperse runoff to adjacent pervious areas? If so, how? If not, why? No. The project will not disperse runoff to adjacent pervious areas at this time. However, runoff dispersion will be considered as project design approaches final.

Section C: Delineate Drainage Management Areas (DMAs)

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
DMA 1 (Sub-Areas A – F)	Mixed Surface Type (landscaping, concrete/asphalt, roof)	5,563,173	Type D
DMA 2	Mixed Surface Type (landscaping, concrete/asphalt)	571,177	Type D
DMA 3	Mixed Surface Type (landscaping, concrete/asphalt)	20,004	Type D
DMA 4	Mixed Surface Type (landscaping, concrete/asphalt)	27,082	Type D
DMA 5	Mixed Surface Type (landscaping, concrete/asphalt)	37,514	Type D
DMA 6	Mixed Surface Type (landscaping, concrete/asphalt)	32,384	Type D
DMA 7	Mixed Surface Type (landscaping, concrete/asphalt)	91,523	Type D
DMA 8	Mixed Surface Type (landscaping, concrete/asphalt)	93,166	Type D
DMA 9	Mixed Surface Type (landscaping, concrete/asphalt)	52,777	Type D
DMA 10	Mixed Surface Type (landscaping, concrete/asphalt)	72,452	Type D
DMA 11	Mixed Surface Type (landscaping, concrete/asphalt)	17,237	Type D
DMA 12	Mixed Surface Type (landscaping, concrete/asphalt)	81,864	Type D
DMA 13	Mixed Surface Type (landscaping, concrete/asphalt)	20,030	Type D
DMA 14	Mixed Surface Type (landscaping, concrete/asphalt)	40,079	Type D
DMA 15	Mixed Surface Type (landscaping, concrete/asphalt)	57,984	Type D

DMA Name or ID	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
DMA 16	Mixed Surface Type (landscaping, concrete/asphalt)	95,700	Type D
DMA 17	Mixed Surface Type (landscaping, concrete/asphalt)	97,608	Type D
Total	--	6,971,734	--

[1] *Reference Table 2-1 in the WQMP Guidance Document to populate this column*

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
None			

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				Type 'C' DMAs that are draining to the Self-Retaining Area		
DMA Name/ ID	Post-project surface type	Area (square feet)	Storm Depth (inches)	DMA Name / ID	[C] from Table C.4 =	Required Retention Depth (inches)
		[A]	[B]		[C]	[D]
None						

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Runoff factor	Product	DMA name /ID	Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]		[D]	[C]/[D]
None							

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
DMA 1 (A-F)	Biotreatment BMP 1
DMA 2	Biotreatment/Bioretention BMP 2
DMA 3	Biotreatment/Bioretention BMP 3
DMA 4	Biotreatment/Bioretention BMP 4
DMA 5	Biotreatment/Bioretention BMP 5
DMA 6	Biotreatment/Bioretention BMP 6
DMA 7	Biotreatment/Bioretention BMP 7
DMA 8	Biotreatment/Bioretention BMP 8
DMA 9	Biotreatment/Bioretention BMP 9
DMA 10	Biotreatment/Bioretention BMP 10
DMA 11	Biotreatment/Bioretention BMP 11
DMA 12	Biotreatment/Bioretention BMP 12
DMA 13	Biotreatment/Bioretention BMP 13
DMA 14	Biotreatment/Bioretention BMP 14
DMA 15	Biotreatment/Bioretention BMP 15
DMA 16	Biotreatment/Bioretention BMP 16
DMA 17	Biotreatment/Bioretention BMP 17

Note: More than one drainage management area can drain to a single LID BMP; however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (Reference Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

Geotechnical Report

A Geotechnical Report is required by the City of Eastvale to confirm present and past site characteristics that may affect the use of Infiltration BMPs, see Appendix 3.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?	X	
If Yes, list affected DMAs:		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identifies other site-specific factors that would preclude effective and safe infiltration?		X
Describe here: *Based on preliminary infiltration testing conducted onsite, infiltration of the site is feasible for norther and central areas of the project site. Southern areas is not feasible.*		

D.2 Harvest and Use Assessment

The following conditions apply*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐ Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☒ The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but are not required as the Design Capture Volume will be infiltrated or evapotranspired.

Irrigation Use Feasibility

Step 1: *Total Area of Irrigated Landscape*: *N/A*

Type of Landscaping (Conservation Design or Active Turf): *N/A*

Step 2: *Total Area of Impervious Surfaces: N/A*

Step 3: *The project EIATIA factor*: *N/A*

Step 4: *Minimum required irrigated area*:

Step 5:

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
N/A	*N/A*

Toilet Use Feasibility

Step 1: *Projected Number of Daily Toilet Users: N/A*

Project Type: N/A

Step 2: *Total Area of Impervious Surfaces: N/A*

Step 3: *Enter your TUTIA factor: N/A*

Step 4: *Minimum number of toilet users: N/A*

Step 5:

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
N/A	*N/A*

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? There are no other non-potable uses for stormwater runoff of site.

Step 1: *Average Daily Demand: N/A*

Step 2: *Total Area of Impervious Surfaces: N/A*

Step 3: *Enter the factor from Table 2-3: N/A*

Step 4: *Minimum required use: N/A*

Step 5:

Minimum required non-potable use (Step 4)	Projected average daily use (Step 1)
N/A	*N/A*

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

For the project neither of the following applies:

☒ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5.

The project proposes to use a combination of Bioretention BMPs (non-infiltration type) and Proprietary Biotreatment BMPs to address project runoff.

D.4 Feasibility Assessment Summaries

Table D.2 LID Prioritization Summary Matrix

DMA* Name/ ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA 1	☐	☐	☐	☒	☐
DMA 2	☐	☐	☒	☒	☐
DMA 3	☐	☐	☒	☒	☐
DMA 4	☐	☐	☒	☒	☐
DMA 5	☐	☐	☒	☒	☐
DMA 6	☐	☐	☒	☒	☐
DMA 7	☐	☐	☒	☒	☐
DMA 8	☐	☐	☒	☒	☐
DMA 9	☐	☐	☒	☒	☐
DMA 10	☐	☐	☒	☒	☐
DMA 11	☐	☐	☒	☒	☐
DMA 12	☐	☐	☒	☒	☐
DMA 13	☐	☐	☒	☒	☐
DMA 14	☐	☐	☒	☒	☐
DMA 15	☐	☐	☒	☒	☐
DMA 16	☐	☐	☒	☒	☐
DMA 17	☐	☐	☒	☒	☐

Runoff from DMA 1 will be conveyed to a proprietary biotreatment BMP facility located in the southwestern portion of the project site (exact location to be determined) for treatment prior to discharging to the existing storm drain system in Limonite Avenue.

DMAs 2 (onsite backbone streets) and 2 through 17 (offsite perimeter street improvements) will be conveyed to parkway bioretention BMPs and/or proprietary biotreatment BMPs prior to discharging to the existing storm drain system along the project's perimeter streets.

Since the project is in the preliminary stage of design (TTM level), the exact locations and actual BMPs to be implemented are tentative and subject to change. Therefore, only feasible BMP alternatives and preliminary locations are provided at this time.

The required Design Capture Volume (V_{BMP}) and Design Flow Rate (Q_{BMP}) for each BMP are provided in the following tables. Although sizing of the proposed BMPs have not been determined at this time, it is anticipated that the project will be able to achieve minimum V_{BMP} and Q_{BMP} requirements for each DMA.

D.5 LID BMP Sizing

Table D.3 DCV Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor[1]	*Design Storm Depth (In)*	*Design Capture Volume, Vbmp (cubic feet)*[2]	*Proposed Volume on Plans (cubic feet)*
DMA 1A	2,002,660	Mixed Surface Type	0.8	0.6	1,201,596.0	0.86	86,114.4	*TBD*
DMA 1B	723,208	Mixed Surface Type	0.8	0.6	433,924.8	0.86	31,097.9	
DMA 1C	668,544	Mixed Surface Type	0.8	0.6	401,126.4	0.86	28,747.4	
DMA 1D	1,287,889	Mixed Surface Type	0.8	0.6	772,733.4	0.86	55,379.2	
DMA 1E	558,821	Mixed Surface Type	0.8	0.6	335,292.6	0.86	24,029.3	
DMA 1F	322,031	Mixed Surface Type	0.8	0.6	193,218.6	0.86	13,847.3	
DMA 2	571,177	Mixed Surface Type	0.8	0.6	342,706.2	0.86	24,560.6	
DMA 3	20,004	Mixed Surface Type	0.8	0.6	12,002.4	0.86	860.2	
DMA 4	27,082	Mixed Surface Type	0.8	0.6	16,249.2	0.86	1,164.5	
DMA 5	37,514	Mixed Surface Type	0.8	0.6	22,508.4	0.86	1,613.1	
DMA 6	32,384	Mixed Surface Type	0.8	0.6	19,430.4	0.86	1,392.5	
DMA 7	91,523	Mixed Surface Type	0.8	0.6	54,913.8	0.86	3,935.5	
DMA 8	93,166	Mixed Surface Type	0.8	0.6	55,899.6	0.86	4,006.1	
DMA 9	52,777	Mixed Surface Type	0.8	0.6	31,666.2	0.86	2,269.4	

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor[1]	*Design Storm Depth (In)*	*Design Capture Volume, Vbmp (cubic feet)*[2]	*Proposed Volume on Plans (cubic feet)*
DMA 10	72,452	Mixed Surface Type	0.8	0.6	43,471.2	0.86	3,115.4	*TBD*
DMA 11	17,237	Mixed Surface Type	0.8	0.6	10,342.2	0.86	741.2	
DMA 12	81,864	Mixed Surface Type	0.8	0.6	49,118.4	0.86	3,520.2	
DMA 13	20,030	Mixed Surface Type	0.8	0.6	12,018.0	0.86	861.3	
DMA 14	40,079	Mixed Surface Type	0.8	0.6	24,047.4	0.86	1,723.4	
DMA 15	57,984	Mixed Surface Type	0.8	0.6	34,790.4	0.86	2,493.3	
DMA 16	95,700	Mixed Surface Type	0.8	0.6	57,420.0	0.86	4,115.1	
DMA 17	97,608	Mixed Surface Type	0.8	0.6	58,564.8	0.86	4,197.1	
Total	6,971,734	--			4,183,040.4	0.86	299,784.6	

[1], [2] *Differences between values obtained in this table and County Worksheets due to rounding of values.*

Table D.4.1 Q_{BMP} Calculations for LID BMPs

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor[1]	*Design Rainfall Intensity (in/hr)*	*Design Flow Rate (cfs)*[2]	*Proposed Flow Rate (cfs)*
DMA 1A	2,002,660	Mixed Surface Type	0.8	0.6	1,201,596.0	0.2	5.52	*TBD*
DMA 1B	723,208	Mixed Surface Type	0.8	0.6	433,924.8	0.2	1.99	
DMA 1C	668,544	Mixed Surface Type	0.8	0.6	401,126.4	0.2	1.84	
DMA 1D	1,287,889	Mixed Surface Type	0.8	0.6	772,733.4	0.2	3.55	
DMA 1E	558,821	Mixed Surface Type	0.8	0.6	335,292.6	0.2	1.54	
DMA 1F	322,031	Mixed Surface Type	0.8	0.6	193,218.6	0.2	0.89	
DMA 2	571,177	Mixed Surface Type	0.8	0.6	342,706.2	0.2	1.57	
DMA 3	20,004	Mixed Surface Type	0.8	0.6	12,002.4	0.2	0.06	
DMA 4	27,082	Mixed Surface Type	0.8	0.6	16,249.2	0.2	0.07	
DMA 5	37,514	Mixed Surface Type	0.8	0.6	22,508.4	0.2	0.10	
DMA 6	32,384	Mixed Surface Type	0.8	0.6	19,430.4	0.2	0.09	
DMA 7	91,523	Mixed Surface Type	0.8	0.6	54,913.8	0.2	0.25	
DMA 8	93,166	Mixed Surface Type	0.8	0.6	55,899.6	0.2	0.26	
DMA 9	52,777	Mixed Surface Type	0.8	0.6	31,666.2	0.2	0.15	
DMA 10	72,452	Mixed Surface Type	0.8	0.6	43,471.2	0.2	0.20	

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor[1]	*Design Rainfall Intensity (in/hr)*	*Design Flow Rate (cfs)*[2]	*Proposed Flow Rate (cfs)*
DMA 11	17,237	Mixed Surface Type	0.8	0.6	10,342.2	0.2	0.05	*TBD*
DMA 12	81,864	Mixed Surface Type	0.8	0.6	49,118.4	0.2	0.23	
DMA 13	20,030	Mixed Surface Type	0.8	0.6	12,018.0	0.2	0.06	
DMA 14	40,079	Mixed Surface Type	0.8	0.6	24,047.4	0.2	0.11	
DMA 15	57,984	Mixed Surface Type	0.8	0.6	34,790.4	0.2	0.16	
DMA 16	95,700	Mixed Surface Type	0.8	0.6	57,420.0	0.2	0.26	
DMA 17	97,608	Mixed Surface Type	0.8	0.6	58,564.8	0.2	0.27	
Total	6,971,734	--			4,183,040.4	0.20	19.21	

[1], [2] Differences between values obtained in this table and County Worksheets due to rounding of values.

Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Regional Board). For the project, the following applies:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- Or -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Regional Board and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

D.6 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table D.5 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☒ Detached Residential Development	P	N	P	P	N	P	P	P
☒ Attached Residential Development	P	N	P	P	N	P	P	P[2]
☒ Commercial/Industrial Development	P[3]	P	P[1]	P[1]	P[5]	P[1]	P	P
☐ Automotive Repair Shops	N	P	N	N	P[4, 5]	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☒ Parking Lots (>5,000 ft^2)	P[6]	P	P[1]	P[1]	P[4]	P[1]	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☒	☒	☒	☐	☐	☐	☐	☐

P = Potential
N = Not Potential
[1] A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected
[2] A potential Pollutant if the project includes uncovered parking areas; otherwise not expected
[3] A potential Pollutant is land use involving animal waste
[4] Specifically petroleum hydrocarbons
[5] Specifically solvents
[6] Bacterial indicators are routinely detected in pavement runoff

D.7 Stormwater Credits

Projects that cannot implement LID BMPs but implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit.

Table D.6 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
Not applicable to project. Project will implement LID BMPs to address runoff.	
Total Credit Percentage[1]	

[1] *Cannot Exceed 50%*
[2] *Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

D.8 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information. ***This section is not applicable to project. Project will use LID BMPs to address project runoff.***

Table D.7 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Area x Runoff Factor		*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]				
						Design Storm Depth (in)	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = Σ[A]				Σ= [D]	[E]	$[F] = \frac{[D]x[E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

D.9 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

This section is not applicable to project. Project will employ LID BMPs to address runoff.

Table D.8 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.
[2] Cross Reference Table E.1 above to populate this column.
[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section E: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The City of Eastvale has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

The project does not qualify.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the City of Eastvale

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

The project does not qualify.

Table E.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	Post-condition	% Difference

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Sensitivity Maps.

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

Per most recent hydromodification susceptibility data, project is located within a hydromodification exempt area. See Appendix 7.

F.2 HCOC Mitigation

As an alternative to the HCOC Exemption Criteria above, HCOC criteria is considered mitigated if the project meets one of the following conditions, as indicated:

☐ Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

☐ The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

☐ Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

☒ None of the above.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, the following Source Control BMPs are applicable to this project:

Table G.1 Permanent and Operations Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
A. On-site storm drain inlets	Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Makers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	Maintain and periodically repaint or replace inlet markings. Provide stormwater pollution prevention information to new site owners, lessees, or operators. See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
B. Interior floor drains and elevator shaft sump pumps	Any interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	Inspect and maintain drains to prevent blockages and overflow.
C. Interior parking garages	Parking garage floor drains will be plumbed to the sanitary sewer.	Inspect and maintain drains to prevent blockages and overflow.
D1. Need for future indoor and structural pest control	Design building features that discourage entry of pests	Provide Integrated Pest Management information to owners, lessees and operators.

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
D2. Landscape/Outdoor Pesticide Use	Preserve, existing native trees, shrubs, and ground cover to the maximum extent possible. Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Where landscaping areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. Consider using pest-resistant plants, especially to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	Maintain landscaping using minimum or no pesticides. See applicable operation BMPs in "What you show know for…..Landscaping and Gardening" Provide IPM information to new owners, lessees and operators.
E. Pools, spas, ponds, decorative fountains, and other water features.	Ensure pools are plumbed to the sanitary sewer, place notes on plans that connection will be made according to local requirements.	See applicable operational BMPs in "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain"
F. Food service	Provide description of cleaning area locations and features. Provide description of items to be cleaned in facility and sizing to ensure largest items can be accommodated.	See brochure "The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries". Provide brochure to new site owners, lessees and operators.
G. Refuse areas	Trash enclosure areas shall be paved, covered with a solid canopy-type roof and precluded from rain, run-on and runoff. Drainage from any adjoining roofs and pavements shall be diverted around facility. Perimeter walls shall be installed and dumpster lid provided to prevent offsite transport of trash. Surrounding area shall be kept	Ensure adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
	clean, with all leaks and over-spilled materials clean up as soon as possible. Trash shall be emptied on a weekly basis (at minimum) and as needed.	available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
N. Fire sprinkler test water	Provide a means to drain fire sprinkler test water to the sanitary sewer.	See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www. Cabmphandbooks.com
P. Plazas, sidewalks and parking lots	Sweep regularly	Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect wash water containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Section H: Construction Plan Checklist

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)
N/A	Project is currently in the TTM approval process.	

Section I: Operation, Maintenance and Funding

As required by the City of Eastvale, the following Operation, Maintenance and Funding details are provided as summarized:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred.
3. An outline of general maintenance requirements for the Stormwater BMPs selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility..
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance.

See Appendix 9 for a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on site, and an agreement assigning responsibility for maintenance and providing for inspections and certification.

Maintenance Mechanism: Property Owner (The New Home Company) prior to takeover by HOA.

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☒ Y ☐ N

Operation and Maintenance Plan and Maintenance Mechanism are included in Appendix 9. Educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP are included in Appendix 10. Maintenance

Appendix 1: Maps and Site Plans

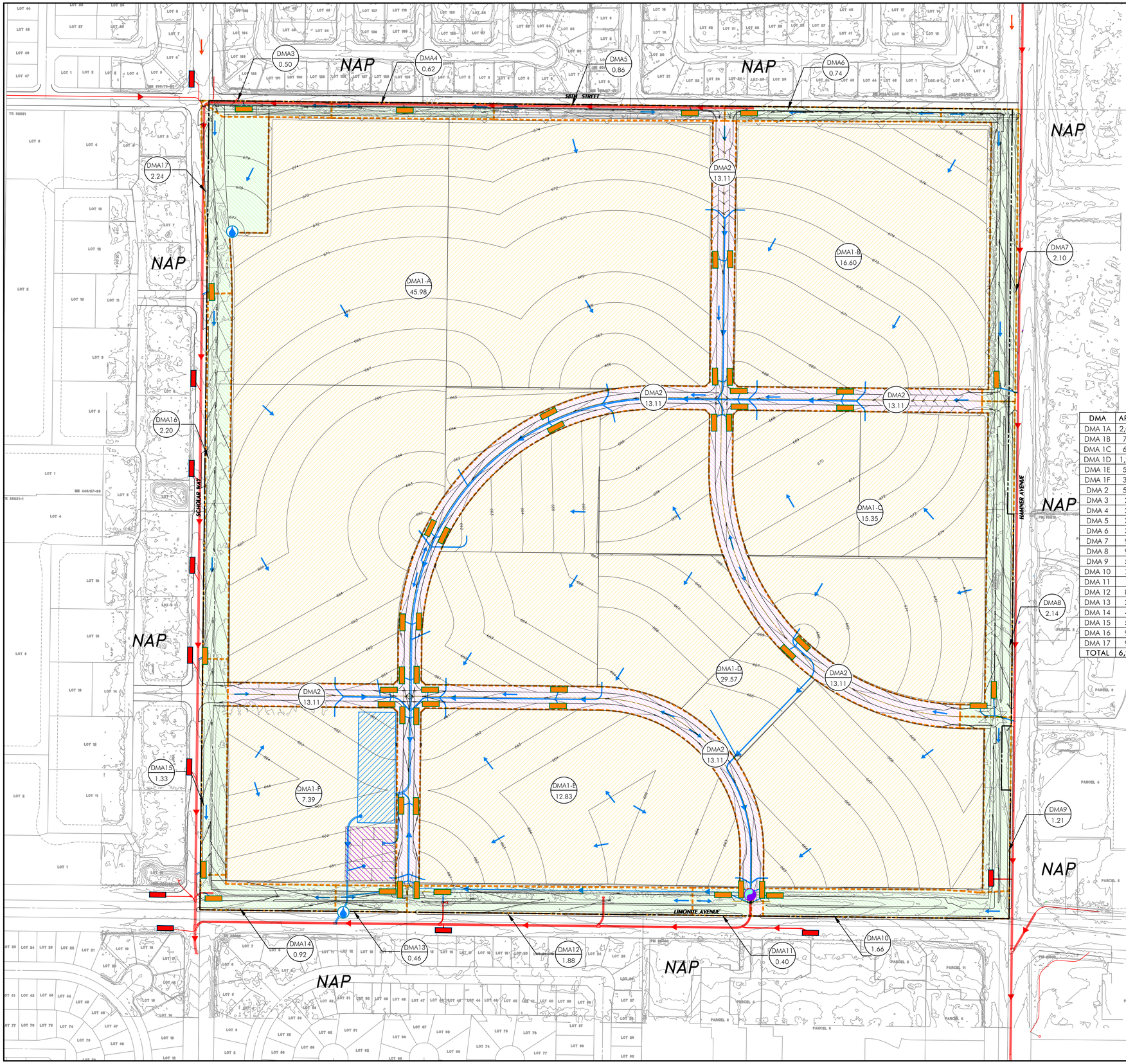
Vicinity Map, WQMP Site Plan and Receiving Waters Exhibit

SCALE: 1" = 2000'

PROJECT SITE

DRAWN BY: TIH	PREPARED BY: HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING ■ ENGINEERING ■ SURVEYING Three Hughes, Irvine, CA 92618 ■ PH: (949) 583-1010 ■ FX: (949) 583-0759	PREPARED FOR: THE NEW HOME COMPANY 15231 LAGUNA CANYON ROAD, SUITE 250 IRVINE, CA 92618 (949) 382-7800	"LEAL RANCH" - TTM 38290 NORTHWEST OF LIMONITE AVENUE & HAMNER AVENUE CITY OF EASTVALE, CALIFORNIA	PRELIMINARY WQMP VICINITY MAP
DATE: 10/18/2021				
W.O.: 2749-44				

DATE: Oct. 23, 2021 02:29:50 PM FILE: F:\0736\Planning\SY_WQ\WQMP\EXHIBITS\PWQMP_VIC LEAL RANCH.dwg



LEGEND

- TRACT LIMITS
- NAP — NOT A PART
- DRAINAGE MANAGEMENT AREA (DMA) LIMITS
- DMA / ACRE — DMA DESIGNATION AND ACRES
- SURFACE FLOW (ONSITE)
- SURFACE FLOW (OFFSITE)
- EXISTING DRAINAGE SYSTEM
- PROPOSED DRAINAGE SYSTEM
- EXISTING CATCH BASIN
- PROJECT CATCH BASIN WITH BMPS SD-13 STORM DRAIN STENCILING
- SUBSURFACE DETENTION VAULT (FLOOD CONTROL)
- PROPRIETARY BIOTREATMENT
- DMA 1 – ONSITE DEVELOPMENT AREA
- DMA 2 – ONSITE BACKBONE STREETS
- DMA 3 – PERIMETER STREET IMPROVEMENT AREAS
- WATER QUALITY DIVERSION STRUCTURE
- DISCHARGE POINT

DMA SUMMARY

DMA	AREA (SF)	SURFACE TYPE	IMP	C-VALUE	DMA*C	D_{B5} (IN)	V_{BMP} (CU-FT)	I_{B5} (IN/HR)	Q_{BMP} (CFS)	BMP ALTERNATIVES
DMA 1A	2,002,660	Mixed Surface Type	0.8	0.6	1,201,596.0	0.86	86,114.4	0.2	5.52	PROPRIETARY BIOTREATMENT
DMA 1B	723,208	Mixed Surface Type	0.8	0.6	433,924.8	0.86	31,097.9	0.2	1.99	
DMA 1C	668,544	Mixed Surface Type	0.8	0.6	401,126.4	0.86	28,747.4	0.2	1.84	
DMA 1D	1,287,889	Mixed Surface Type	0.8	0.6	772,733.4	0.86	55,379.2	0.2	3.55	
DMA 1E	558,821	Mixed Surface Type	0.8	0.6	335,292.6	0.86	24,029.3	0.2	1.54	
DMA 1F	322,031	Mixed Surface Type	0.8	0.6	193,218.6	0.86	13,847.3	0.2	0.89	
DMA 2	571,177	Mixed Surface Type	0.8	0.6	342,706.2	0.86	24,560.6	0.2	1.57	BIORETENTION, PROPRIETARY BIOTREATMENT
DMA 3	20,004	Mixed Surface Type	0.8	0.6	12,002.4	0.86	860.2	0.2	0.06	
DMA 4	27,082	Mixed Surface Type	0.8	0.6	16,249.2	0.86	1,164.5	0.2	0.07	
DMA 5	37,514	Mixed Surface Type	0.8	0.6	22,508.4	0.86	1,613.1	0.2	0.10	
DMA 6	32,384	Mixed Surface Type	0.8	0.6	19,430.4	0.86	1,392.5	0.2	0.09	
DMA 7	91,523	Mixed Surface Type	0.8	0.6	54,913.8	0.86	3,935.5	0.2	0.25	
DMA 8	93,166	Mixed Surface Type	0.8	0.6	55,899.6	0.86	4,006.1	0.2	0.26	
DMA 9	52,777	Mixed Surface Type	0.8	0.6	31,666.2	0.86	2,269.4	0.2	0.15	
DMA 10	72,452	Mixed Surface Type	0.8	0.6	43,471.2	0.86	3,115.4	0.2	0.20	
DMA 11	17,237	Mixed Surface Type	0.8	0.6	10,342.2	0.86	741.2	0.2	0.05	
DMA 12	81,864	Mixed Surface Type	0.8	0.6	49,118.4	0.86	3,520.2	0.2	0.23	
DMA 13	20,030	Mixed Surface Type	0.8	0.6	12,018.0	0.86	861.3	0.2	0.06	
DMA 14	40,079	Mixed Surface Type	0.8	0.6	24,047.4	0.86	1,723.4	0.2	0.11	
DMA 15	57,984	Mixed Surface Type	0.8	0.6	34,790.4	0.86	2,493.3	0.2	0.16	
DMA 16	95,700	Mixed Surface Type	0.8	0.6	57,420.0	0.86	4,115.1	0.2	0.26	
DMA 17	97,608	Mixed Surface Type	0.8	0.6	58,564.8	0.86	4,197.1	0.2	0.27	
TOTAL	6,971,734	--	--	--	4,183,040.4	--	299,784.6	--	19.21	--

N

GRAPHIC SCALE
0 75 150 300
(IN FEET)
1 INCH = 150 FT.

PRELIMINARY
WATER QUALITY MANAGEMENT PLAN (WQMP)

APPLICANT:
NEW HOME COMPANY
15231 LAGUNA CANYON ROAD., SUITE 250
IRVINE, CA 92618
(949) 382-7800

PREPARED BY:
HUNSAKER & ASSOCIATES
I R V I N E , I N C .
PLANNING ■ ENGINEERING ■ SURVEYING
Three Hughes Irvine, CA 92618 PH: (949) 583-1010 FX: (949) 583-0759

"LEAL RANCH" - TENTATIVE TRACT MAP NO. 38290
NORTHWEST OF LIMONITE AVENUE
& HAMNER AVENUE
CITY OF EASTVALE, COUNTY OF RIVERSIDE, CALIFORNIA

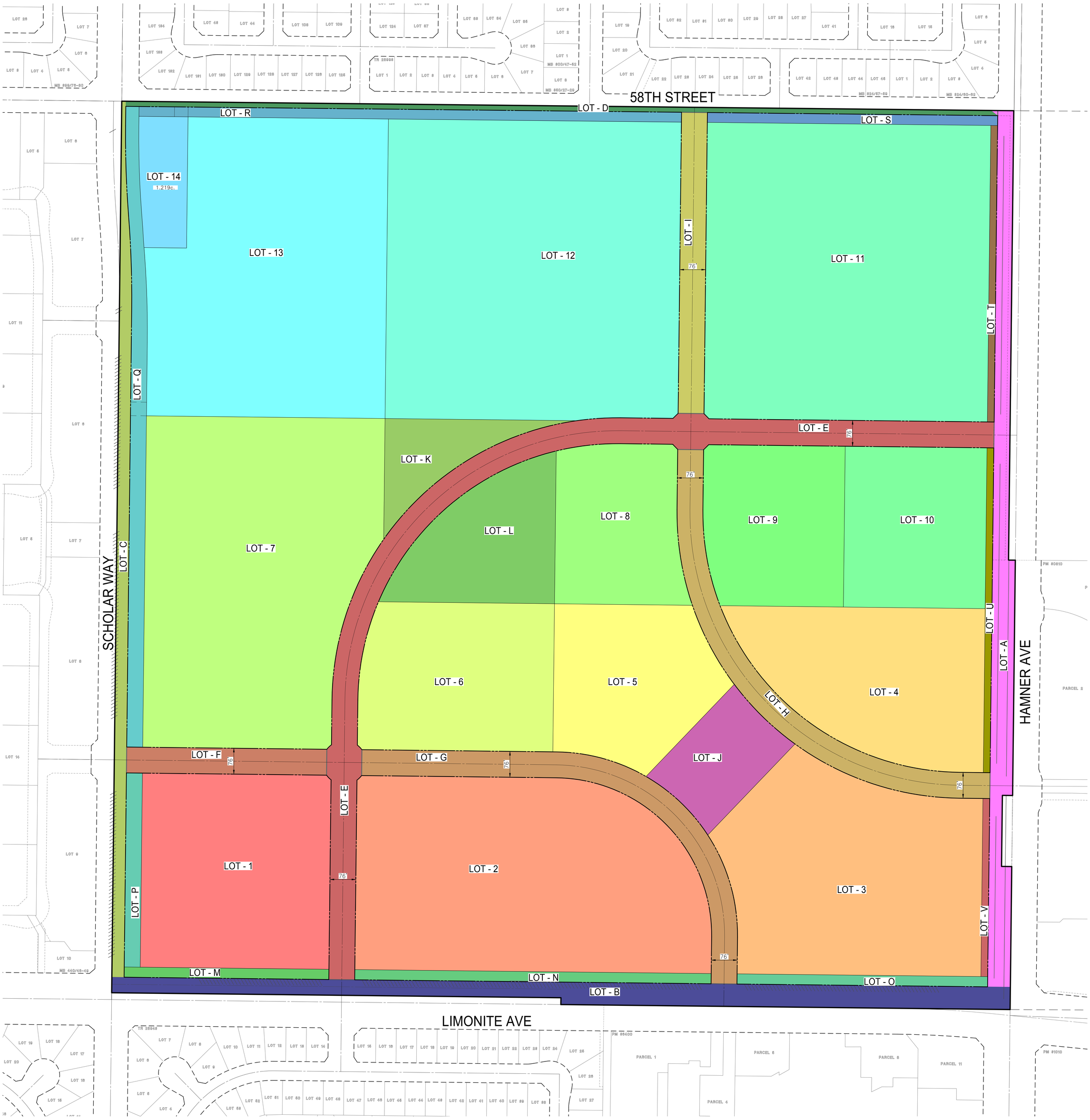
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TIH	11/29/2021	2749-44	1 OF 1

DATE: Nov. 29, 2021 10:22:30 AM FILE: F:\0736\Planning\SY_WQ\WQMP\EXHIBITS\PWQMP_SP LEAL RANCH 11.28.2021.dwg

PLANNING AREAS MAP

LEAL RANCH - A MAP LOTTING EXHIBIT

CITY OF EASTVALE, CA



Numbered Lots		
Lot #	S.F.	Acres
1	315,892.10	7.252
2	550,731.85	12.643
3	42,245.50	0.970
4	280,986.58	6.451
5	203,068.13	4.662
6	244,324.99	5.609
7	613,599.82	14.086
8	171,451.45	3.936
9	191,384.23	4.394
10	196,757.07	4.517
11	724,736.51	16.638
12	754,749.47	17.327
13	574,268.61	13.183
14	53,083.07	1.219
Total	4,917,279.37	112.8852

Lettered Lots		
Lot #	S.F.	Acres
A	139,937.69	3.213
B	147,811.51	3.393
C	84,478.50	1.939
D	38,267.77	0.879
E	246,244.32	5.653
F	44,673.74	1.026
G	113,590.68	2.608
H	115,905.65	2.661
I	67,321.01	1.545
J	89,110.05	2.046
K	68,998.58	1.584
L	153,611.43	3.526
M	18,039.30	0.414
N	31,408.46	0.721
O	22,086.67	0.507
P	26,795.98	0.615
Q	84,078.57	1.930
R	46,663.19	1.071
S	24,737.25	0.568
T	17,417.82	0.400
U	19,077.17	0.438
V	10,461.10	0.240
Total	1,610,716.43	36.9770

N

W HUNSAKER E

S

0 50 100 200

SCALE: 1" = 100'

PREPARED BY

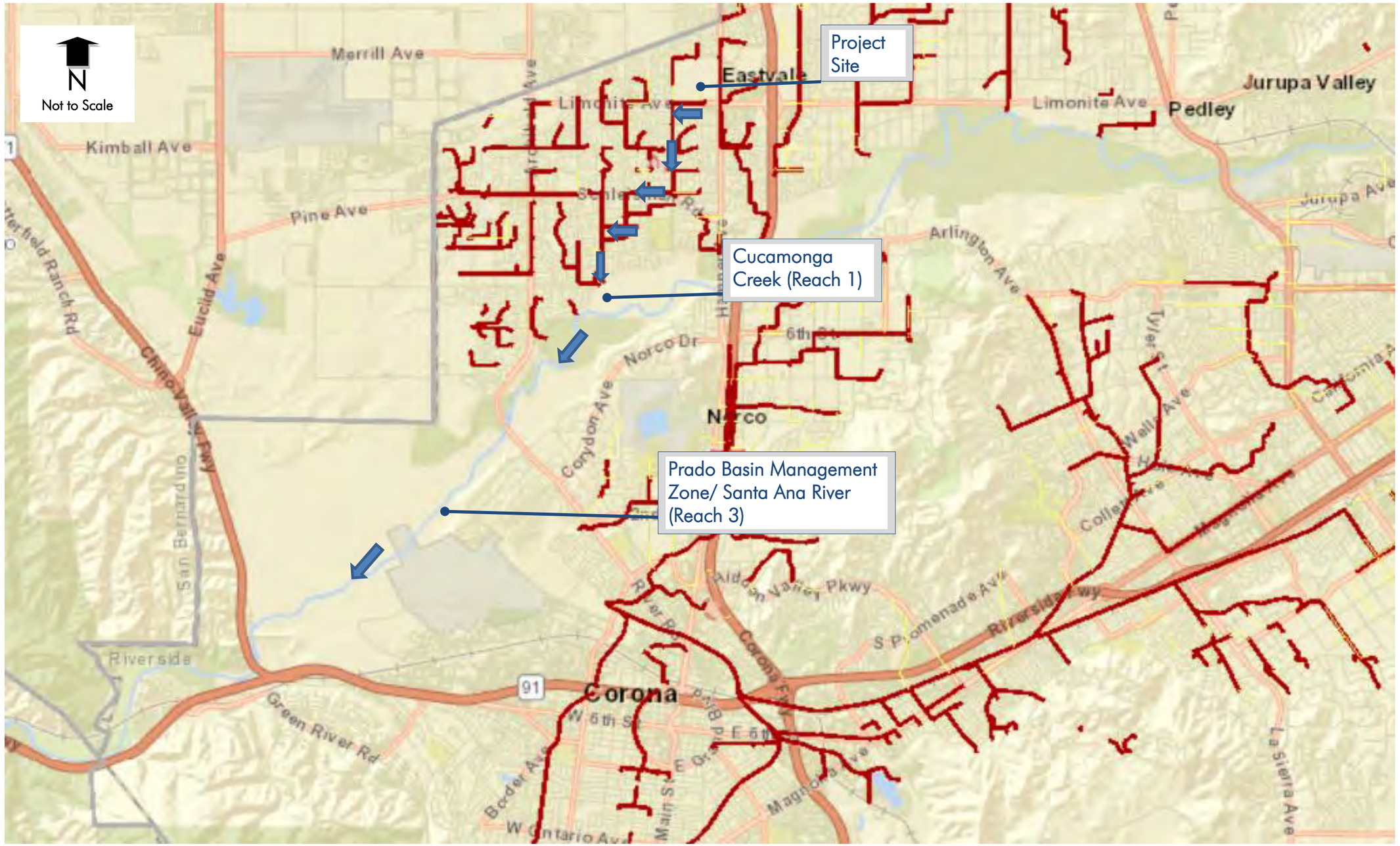
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

DATE PREPARED: September 15, 2021

W.O. 2749-44X

PLOT DATE: November 2, 2021

DATE: Nov. 02, 2021 10:40:11 AM FILE: H:\00750\Planning\Misc Files\Planning Areas\Leal Ranch-TTM Lot Exhibit.dwg



Receiving Waters Exhibit

Appendix 2: Construction Plans

Grading and Drainage Plans

- Construction Plans shall be submitted with the Final WQMP, at the time of Grading Plan submittal, which will provide detailed design drawings of all LID BMPs for the project and structural source control BMP locations.

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

June 21, 2021 Project No. 21116-01

Mr. A.J. Jarvis
The New Home Company
85 Enterprise, Suite 450
Aliso Viejo, CA 92656

Subject: ***Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California***

In accordance with your request, LGC Geotechnical, Inc. has performed a geotechnical evaluation including near surface organic content for the proposed approximate 160-acre "Leal" property located southwest of the intersection of Hamner Avenue and 58th Street in the City of Eastvale, California. This report summarizes the results of our background review, subsurface exploration, and geotechnical analyses of the data collected, and presents our findings, conclusions, and preliminary recommendations for the proposed residential project.

If you should have any questions regarding this report, please do not hesitate to contact our office. We appreciate this opportunity to be of service.

Respectfully,

LGC Geotechnical, Inc.

Blake J. Elliott, RCE 70705
Project Engineer

REGISTERED PROFESSIONAL ENGINEER
BLAKE J. ELLIOTT
No. 70705
CIVIL
STATE OF CALIFORNIA

Barry Graham, CEG 2749
Project Geologist

CERTIFIED ENGINEERING GEOLOGIST
BARRY GRAHAM
No. 2749
STATE OF CALIFORNIA

BJE/BPG/amm

Distribution: (1) Addressee (electronic copy, wet signed copies can be provided upon request)

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1.0 INTRODUCTION

1.1 Purpose and Scope of Services

This report presents the results of our geotechnical evaluation including near surface organic content for the proposed approximately 160-acre "Leal" property in the City of Eastvale, California (see Site Location Map, Figure 1). The purpose of our work was to collect subsurface data in order to prepare a geotechnical report providing recommendations for design and construction of the proposed project. Our scope of services included:

- Review of pertinent readily available geotechnical information and geologic maps (Appendix A).
- Subsurface investigation including excavation, sampling, and logging of ten small-diameter hollow stem borings.
- Excavation of 10 exploratory geotechnical trenches throughout the site to aid in estimating the depth of required removals during grading and assist in characterizing the near surface soils.
- Excavation of 25 shallow trenches to assess the organic content of near surface "soils".
- Laboratory testing of representative samples obtained during our subsurface investigation (Appendix C).
- Geotechnical analysis and evaluation of the data obtained, including:
  - Suitability of the site for the proposed development from a geotechnical standpoint;
  - Description of the site geology, and subsurface soil and groundwater conditions;
  - Assessment of the organic content of near surface "soils" including recommendations for offsite organic export and/or mixing;
  - Evaluation of the seismic conditions at the site, including seismic design criteria based on the 2019 California Building Code (CBC); and
  - Recommendations for remedial grading operations and site preparation.
- Preparation of this report presenting our findings, conclusions and recommendations with respect to the proposed site development.

1.2 Existing Site Conditions and Proposed Improvements

The square shaped site is approximately 160 acres in size with minor relief. The site is composed of four adjacent 40-acre parcels, and is bounded to the north by 58th street, the south by Limonite Avenue, the west by Scholar Way, and to the East by Hamner Avenue. The northern portion of the site is a former dairy that has been inactive for several years, while the south has remained as open pasture for decades. A review of historic aerial photographs suggests the site has been used as a dairy or agricultural farm dating back to the earliest available photos in 1938.

As of the date of this report, neither a conceptual plan nor grading plan was available. It is our understanding that the site will most likely consist of residential units, parks and associated street improvements and underground utilities. We expect the proposed residential development will be at-grade with relatively light building loads (column and wall loads assumed to be a maximum of approximately 30 kips and 3 kips per lineal foot, respectively). A preliminary grading plan was not available at this time either.

The recommendations provided herein are based upon the estimated structural loading and expected layout information above. We understand that the project plans are currently being developed at this time; LGC Geotechnical should be provided with updated project plans and any changes to the assumed structural loads when they become available, in order to either confirm or modify the recommendations provided herein.

1.3 Subsurface Evaluation

LGC Geotechnical performed a subsurface geotechnical evaluation of the site consisting of the excavation of 10 hollow-stem auger borings, 2 infiltration borings, 10 exploratory geotechnical trenches with organic testing, and 25 near surface organic trenches.

10 hollow-stem borings (HS-1 through HS-10) were drilled to depths ranging from approximately 25 to 50 feet below existing grade. An LGC Geotechnical representative observed the drilling operations, logged the borings, and collected soil samples for laboratory testing. The borings were excavated using a track-mounted drill rig equipped with 8-inch-diameter hollow-stem augers. Driven soil samples were collected by means of the Standard Penetration Test (SPT) and Modified California Drive (MCD) sampler generally obtained at 2.5 to 5-foot vertical increments. The MCD is a split-barrel sampler with a tapered cutting tip and lined with a series of 1-inch-tall brass rings. The SPT sampler and MCD sampler were driven using a 140-pound automatic hammer falling 30 inches to advance the sampler a total depth of 18 inches. The raw blow counts for each 6-inch increment of penetration were recorded on the boring logs. Bulk samples were also collected and logged at select depths for laboratory testing. At the completion of drilling, the borings were backfilled with the native soil cuttings and tamped. Some settlement of the backfill soils may occur over time.

Ten exploratory geotechnical trenches (TP-1 through TP-10) were excavated utilizing a standard backhoe in order to estimate removal depths and obtain samples for laboratory testing. A staff geologist observed the operation, logged the geotechnical trenches and collected the soil samples. Each exploratory geotechnical trench was also logged and sampled for the organic content of the near surface "soils." The exploratory geotechnical trenches were subsequently backfilled with tamped native soils.

Twenty-five additional shallow trenches (T-1 through T-25) were excavated utilizing a standard backhoe in order to assess the organic content of near surface "soils". Samples were collected at various depths within each trench. In general, based on visual observations, 2 layers of soil were identified including 1) near surface heavily tainted organic "soils" and 2) "clean" (organic free) soils. In some areas there was a "transitional" layer in between these two. The shallow trenches were subsequently backfilled and tamped with native soils. There are 4 areas identified as having thick zones of buried or stockpiled high-organic material. These 4 areas have been outlined on our Geotechnical Map (Figure 2).

LGC Geotechnical, Inc. was asked to avoid the northwest corner of the property during our evaluation as this area is currently occupied by a local farmer. This area was not explored during our evaluation. The boundary for this area is shown on the Geotechnical Map (Figure 2).

The approximate locations of borings and trenches are shown on the Geotechnical Map (Figure

2). Boring and geotechnical trench logs are presented in Appendix B. The Encumbrance Map prepared by Hunsaker & Associates (H&A, 2021) was utilized as a base map for our Geotechnical Map.

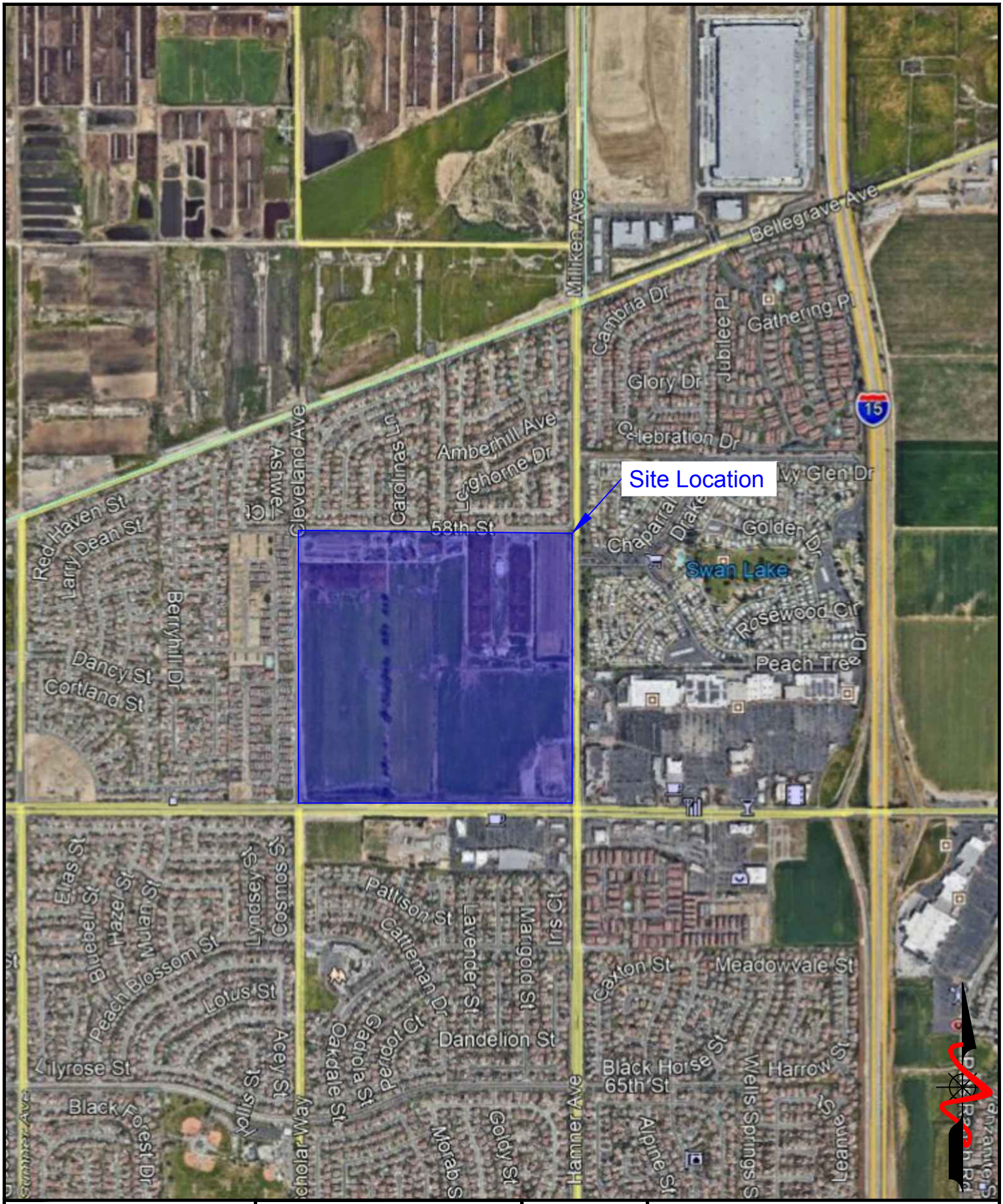
1.4 Laboratory Testing

Laboratory testing was performed on representative soil samples obtained from our subsurface evaluation. Laboratory testing included in-situ moisture and density tests, fines content/sieve analysis, Atterberg Limits (liquid limit and plastic limits), consolidation, collapse/swell potential, expansion index, laboratory compaction and corrosion (sulfate and chloride). Additionally, the near surface organic content trench samples were tested for characterization of the organic content (ASTM 2974).

The following is a summary of the laboratory test results.

- Dry density of the samples collected ranged from approximately 90 pounds per cubic foot (pcf) to 122 pcf, with an average of approximately 109 pcf. Field moisture contents ranged from approximately 1.1 percent to 32.0 percent, with an average of approximately 12 percent.
- One sample tested for fines content indicated a fines content (passing No. 200 sieve) of 83 percent. According to the Unified Soils Classification System (USCS), the tested sample is classified as "fine grained" soil.
- One Atterberg Limit (liquid limit and plastic limit) test was performed. The result indicated a Plasticity Index value of 11.
- One consolidation test was performed. The deformation versus vertical stress plot is provided in Appendix C.
- One swell/collapse test was performed. The plots are provided in Appendix C.
- One Expansion Index (EI) test was performed. The result indicates an EI value of 11, corresponding to "Very Low" expansion potential.
- One laboratory compaction test of a near surface sample indicated maximum dry density of 125.0 pcf with an optimum moisture content of 8.5 percent.
- Corrosion testing indicated soluble sulfate content of 78 parts per million (ppm) and chloride content of 100 ppm.
- The organic content of the samples ranged from approximately 0.1 to 33.2 percent.

A summary of the results is presented in Appendix C. The moisture and dry density test results are presented on the boring logs in Appendix B.



PROJECT NAME	TNHC - Eastvale
PROJECT NO.	21116-01
ENG. / GEOL.	BJE / BPG
SCALE	Not to Scale
DATE	June 2021

LGC Geotechnical, Inc.

FIGURE 1
Site Location Map

2.0 GEOTECHNICAL CONDITIONS

2.1 Regional Geology

The subject site is located south of the San Gabriel Mountains within the broad alluvial plain of the Santa Ana River Basin, within the Peninsular Ranges Geomorphic Province. Specifically, the site is located within the northern portion of the Perris Block, a geologic zone consisting of granitics overlain by sedimentary deposits that are bounded by active faults including the northwest-trending Whittier-Elsinore Fault Zone at the southwest and the northwest-trending San Jacinto Fault Zone at the northeast (USGS, 2002). The roughly rectangular Perris Block is transected by the southwest-trending Santa Ana River that passes approximately 2 miles south of the subject site.

Regional geologic mapping and local topographic expressions do not indicate the presence of large-scale landslides within or adjacent to the project area.

2.2 Site Geology and Generalized Subsurface Conditions

Based on regional mapping (USGS, 2002 & 2003), the subject site is underlain by Holocene- to Pleistocene-age alluvial fan deposits (Qyf), minor amounts of similar age eolian (wind-blown) deposits (Qye), and older early Pleistocene age alluvial channel deposits at depth. For this report however, alluvial and eolian deposits have been undifferentiated as general Quaternary deposits. As indicated in our field explorations, soils generally consisted of medium dense to dense sands and silty sands with thinner layers of stiff to very stiff fine-grained soils (i.e., silts and clays) to the maximum explored depth of approximately 50 feet below existing grade. Descriptions of the subsurface conditions are presented on the boring and geotechnical trench logs located in Appendix B. A brief description of the site geologic units can be found below.

2.3 Groundwater

Groundwater was not encountered in any of our borings. Groundwater levels recorded in the area by California Department of Water Resources are at depths greater than 100 feet below the ground surface (CDWR, 2021).

In general, groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present within the near-surface deposits due to local seepage or during rainy seasons. Groundwater conditions below the site may be variable, depending on numerous factors including seasonal rainfall, local irrigation and groundwater pumping, among others.

2.4 Field Infiltration Testing

Two field percolation tests were performed on Borings I-1 and I-2 to approximate depths of 10 feet below existing grade, respectively. Estimation of infiltration rates was performed in general accordance with guidelines set forth by the Riverside County Flood Control (2011). In general, a 3-inch diameter perforated PVC pipe was placed in each borehole to be tested and

the annulus was backfilled with gravel, including placement of about 2 inches of gravel at the bottom of the borehole. The infiltration wells were pre-soaked prior to testing. Based on the County of Riverside methodology, the calculated (observed) infiltration rates are provided in Table 1 below. These infiltration rates do not include any factor of safety (to be determined by the project Civil Engineer); however, they have been normalized to correct the 3-D flow that occurs within the field test to 1-D flow out of the bottom of the boring only. The locations and depths of the infiltration tests were coordinated with the civil engineer. The approximate infiltration test locations are shown on the Geotechnical Map (Figure 2) and the infiltration test data is included in Appendix D and summarized below.

TABLE 1

Summary of Infiltration Testing

Infiltration Test Location	Infiltration Test Depth Below Existing Grade (ft)	Observed Infiltration Rate* (Inch/Hr.)
I-1	10	3.8
I-2	10	0.6

*Normalized to One-Dimensional Flow, does not include any Factor of Safety.

It should be emphasized that infiltration test results are only representative of the location and depth where they are performed. Varying subsurface conditions may exist outside of the test locations which could alter the calculated infiltration rates indicated above. Infiltration tests are performed using relatively clean water free of particulates, silt, etc. Refer to Section 4.8 for subsurface water infiltration recommendations.

2.5 Faulting and Seismic Hazards

Prompted by damaging earthquakes in California, State legislation and policies concerning the classification and land-use criteria associated with faults have been developed. Their purpose was to prevent the construction of urban developments across the trace of active faults, resulting in the Alquist-Priolo Earthquake Fault Zoning Act. Earthquake Fault Zones have been delineated along the traces of active faults within California. Where developments for human occupation are proposed within these zones, the State requires detailed fault evaluations be performed so that engineering geologists can mitigate the hazards associated with active faulting by identifying the location of active faults and allowing for a setback from zones of previous ground rupture.

The subject site is not located within an Alquist-Priolo Earthquake Fault Zone and no faults were identified on the site during our site evaluation. The possibility of damage due to ground rupture is considered low since no active faults are known to cross the site.

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the Southern California region, which may affect the site, include ground lurching, shallow ground rupture, soil liquefaction and dynamic settlement. These secondary effects of seismic shaking

are a possibility throughout the Southern California region and are dependent on the distance between the site and causative fault and the onsite geology. Some of the major active nearby faults that could produce these secondary effects include the Chino-Central, Elsinore, Cucamonga and San Andreas Faults, among others (CGS, 2018). A discussion of these secondary effects is provided in the following sections.

2.5.1 Liquefaction and Dynamic Settlement

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions coexist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Studies indicate that loose, saturated, near-surface, cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils, and cohesive soils exhibit low to negligible liquefaction potential. In general, cohesive soils are not considered susceptible to liquefaction. Effects of liquefaction on level ground include settlement, sand boils, and bearing capacity failures below structures. Furthermore, dynamic settlement of dry sands can occur as the sand particles tend to settle and densify as a result of a seismic event.

Based on our review of the City of Eastvale General Plan (CE, 2012), the subject site is located in an area of "High" liquefaction susceptibility based only on soil type (sediments being less than 10,000 years old and unconsolidated). Site soils are not generally susceptible to liquefaction due to a lack of groundwater in the upper 50 feet. However, isolated layers may be susceptible to dry sand seismic settlement. Seismically induced dry sand settlements were estimated by the procedures outlined by Pradel (Pradel, 1998) using the PGA_M per the 2019 CBC and a moment magnitude of 6.71 (USGS, 2014). Based on the data obtained from our field evaluation, seismic settlement due to dry sands is estimated to be on the order of about 0.5-inch or less. Differential settlement may be estimated as half of the total settlement over a horizontal span of 40 feet.

2.5.2 Lateral Spreading

Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures.

Due to the depth to groundwater, low potential for liquefaction and lack of nearby "free face" conditions, the potential for lateral spreading is considered extremely low.

2.6 Seismic Design Criteria

The site seismic characteristics were evaluated per the guidelines set forth in Chapter 16, Section 1613 of the 2019 California Building Code (CBC) and applicable portions of ASCE 7-16 which has been adopted by the CBC. **Please note that the following seismic parameters are only applicable for code-based acceleration response spectra and are not applicable for where site-specific ground motion procedures are required by ASCE 7-16.** Representative site coordinates of latitude 33.975696 degrees north and longitude -117.566832 degrees west were utilized in our analyses. The maximum considered earthquake (MCE) spectral response accelerations (S_{MS} and S_{M1}) and adjusted design spectral response acceleration parameters (S_{DS} and S_{D1}) for Site Class D are provided in Table 1 on the following page. Since site soils are Site Class D, additional adjustments are required to code acceleration response spectrums as outlined below and provided in ASCE 7-16. The structural designer should contact the geotechnical consultant if structural conditions (e.g., number of stories, seismically isolated structures, etc.) require site-specific ground motions.

A deaggregation of the PGA based on a 2,475-year average return period (MCE) indicates that an earthquake magnitude of 6.71 at a distance of approximately 14.03 km from the site would contribute the most to this ground motion. A deaggregation of the PGA based on a 475-year average return period (Design Earthquake) indicates that an earthquake magnitude of 6.7 at a distance of approximately 17.24 km from the site would contribute the most to this ground motion (USGS, 2014).

Section 1803.5.12 of the 2019 CBC (per Section 11.8.3 of ASCE 7) states that the maximum considered earthquake geometric mean (MCE_G) Peak Ground Acceleration (PGA) should be used for liquefaction potential. The PGA_M for the site is equal to 0.74g (SEAOC, 2021).

TABLE 2

Seismic Design Parameters

Selected Parameters from 2019 CBC, Section 1613 - Earthquake Loads	Seismic Design Values	Notes/Exceptions
Distance to applicable faults classifies the site as a "Near-Fault" site.		Section 11.4.1 of ASCE 7
Site Class	D*	Chapter 20 of ASCE 7
Ss (Risk-Targeted Spectral Acceleration for Short Periods)	1.63g	From SEAOC, 2021
S_1 (Risk-Targeted Spectral Accelerations for 1-Second Periods)	0.586g	From SEAOC, 2021
F_a (per Table 1613.2.3(1))	1.0	For Simplified Design Procedure of Section 12.14 of ASCE 7, F_a shall be taken as 1.4 (Section 12.14.8.1)
F_v (per Table 1613.2.3(2))	1.714	Value is only applicable per requirements/exceptions per Section 11.4.8 of ASCE 7
S_{MS} for Site Class D [Note: $S_{MS} = F_aS_S$]	1.63g	-
S_{M1} for Site Class D [Note: $S_{M1} = F_vS_1$]	1.004g	Value is only applicable per requirements/exceptions per Section 11.4.8 of ASCE 7
S_{DS} for Site Class D [Note: $S_{DS} = (^2/_3)S_{MS}$]	1.087g	-
S_{D1} for Site Class D [Note: $S_{D1} = (^2/_3)S_{M1}$]	0.669g	Value is only applicable per requirements/exceptions per Section 11.4.8 of ASCE 7
C_{RS} (Mapped Risk Coefficient at 0.2 sec)	0.941	ASCE 7 Chapter 22
C_{R1} (Mapped Risk Coefficient at 1 sec)	0.918	ASCE 7 Chapter 22
*Since site soils are Site Class D and S_1 is greater than or equal to 0.2, the seismic response coefficient Cs is determined by Eq. 12.8-2 for values of $T \leq 1.5T_s$ and taken equal to 1.5 times the value calculated in accordance with either Eq. 12.8-3 for $T_L \geq T > T_s$, or Eq. 12.8-4 for $T > T_L$. Refer to ASCE 7-16.		

2.7 Organic Rich Soils

Approximately 60 bag soil samples were collected to determine their organic content (based on ASTM 2974). The organic content of the samples ranged from approximately 0.1 to 33.2 percent. In general, the organic content is higher near existing grade and decreases with depth. Table 6 (Appendix C) summarizes the measured organic content and also notes where the

organic content was estimated to be greater than 10% based on observation.

For most of the site there is a distinct contact between high organic content (greater than 5%) and low organic content (less than 2%) at the 1-foot depth. This upper 1-foot of soil across the site requires removal and disposal off-site due to high organic content (greater than 5.0 percent). In a few areas, there is a "transition zone" from 1-foot below the ground surface to approximately 2 feet below the ground surface where the organic content is greater than 2%. Below approximately 2 feet on average is generally free of organics.

There are 4 locations noted on our geotechnical map where appreciable amounts of high organic material is known to be stockpiled above the adjacent ground surface or buried below the ground surface. The depths of high organic material within these areas are noted on the Geotechnical Map (Figure 2). The material noted in these areas will need to be disposed of off-site.

Recommendations for off-site disposal and/or mixing to dilute organics to geotechnically acceptable organic levels (less than 2 percent) are provided in the following "Organic Rich Soil Recommendations" Section 4.1.2.

3.0 CONCLUSIONS

Based on the results of our subsurface geotechnical evaluation, it is our opinion that the proposed improvements are feasible from a geotechnical standpoint, provided that the recommendations contained in the following sections are incorporated during site grading and development. A summary of our geotechnical conclusions are as follows:

- The near-surface loose and compressible soils are not suitable for the planned improvements in their present condition (refer to Section 4.1). Organic rich soils (total organic carbon content generally greater than 2 percent) are not suitable for compacted fill soils from a geotechnical perspective.
- From a geotechnical perspective, onsite soils are anticipated to be suitable for use as general compacted fill provided the high organic content soils (soils with organic content greater than 5 percent) are removed from the site and the remaining soils with organic content between 2 and 5 percent are blended and mixed with "clean" soils and screened of construction debris and any oversized material (8 inches in greatest dimension).
- Records indicate groundwater levels recorded in the area are at depths greater than 100 feet below the ground surface.
- The subject study area is not located within a mapped State of California Earthquake Fault Zone, and based upon our review of published geologic mapping, no known active or potentially active faults are known to exist within or in the immediate vicinity of the site. Therefore, the potential for ground rupture as a result of faulting is considered very low.
- The main seismic hazard that may affect the site is ground shaking from one of the active regional faults. The subject site will likely experience strong seismic ground shaking during its design life.
- Site soils are not generally susceptible to liquefaction due to a lack of groundwater in the upper 50 feet. However, isolated layers are susceptible to dry sand seismic settlement. Total dynamic settlement is estimated to be on the order 0.5-inch or less. Differential settlement may be estimated as half of the total settlement over a horizontal span of 40 feet.
- Based on the results of preliminary laboratory testing, site soils are anticipated to have "Very Low" expansion potential. Final design expansion potential must be determined at the completion of grading.
- Based on the corrosion test results, soils are not considered corrosive per the Caltrans criteria (Caltrans, 2015).
- Excavations into the existing site soils should be feasible with heavy construction equipment in good working order. We anticipate that the sandy and silty earth materials generated from the excavations will be generally suitable for re-use as compacted fill, provided they are relatively free of rocks larger than 8 inches in dimension, construction debris, and significant organic material.
- Some portion of the onsite soils have high fines content; therefore, are not suitable for backfill of site retaining walls. Therefore, import of sandy soils meeting project recommendation is required.
- Field testing resulted in observed infiltration rates ranging from 0.6 to 3.8 inches per hour. The observed infiltration rates do not include a factor of safety. Discussion regarding infiltration is provided in Section 4.8.

4.0 RECOMMENDATIONS

The following recommendations are to be considered preliminary and should be confirmed upon completion of grading and earthwork operations. In addition, they should be considered minimal from a geotechnical viewpoint, as there may be more restrictive requirements from the architect, structural engineer, building codes, governing agencies, or the owner.

It should be noted that the following geotechnical recommendations are intended to provide sufficient information to develop the site in general accordance with the 2019 CBC requirements. With regard to the possible occurrence of potentially catastrophic geotechnical hazards such as fault rupture, earthquake-induced landslides, liquefaction, etc. the following geotechnical recommendations should provide adequate protection for the proposed development to the extent required to reduce seismic risk to an "acceptable level." The "acceptable level" of risk is defined by the California Code of Regulations as "that level that provides reasonable protection of the public safety, though it does not necessarily ensure continued structural integrity and functionality of the project" [Section 3721(a)]. Therefore, repair and remedial work of the proposed improvement may be required after a significant seismic event. With regards to the potential for less significant geologic hazards to the proposed development, the recommendations contained herein are intended as a reasonable protection against the potential damaging effects of geotechnical phenomena such as expansive soils, fill settlement, groundwater seepage, etc. It should be understood, however, that our recommendations are intended to maintain the structural integrity of the proposed development and structures given the site geotechnical conditions but cannot preclude the potential for some cosmetic distress or nuisance issues to develop as a result of the site geotechnical conditions.

The geotechnical recommendations contained herein must be confirmed to be suitable or modified based on the actual as-graded conditions.

4.1 Site Earthwork

Rough grading shall include removal of high organic content soils, remedial earthwork grading and placement of engineered compacted fill to design grades. Geotechnical recommendations for precise grading and construction of the proposed new improvements will be provided, as necessary.

We recommend that earthwork onsite be performed in accordance with the following recommendations, future grading plan review report(s), the 2019 CBC/City of Eastvale requirements, and the General Earthwork and Grading Specifications for Rough Grading included in Appendix D. In case of conflict, the following recommendations shall supersede those included in Appendix D. The following recommendations may be revised within future grading plan review reports or based on the actual conditions encountered during site grading.

4.1.1 Site Preparation

Prior to grading, areas to be developed should undergo the stripping and clearing of vegetation, high organic content soil removal/export and clearing of surface obstructions, pavements, foundation and slab elements from the site. Vegetation, debris and excessive organic material from livestock holding areas should be removed and properly disposed of offsite. Recommendations for removal of organic rich soils are provided in the following section. Holes resulting from removals of buried obstructions, which extend below proposed remedial and/or finish grades, should be replaced with suitable compacted fill material.

If cesspools or septic systems are encountered, they should be removed in their entirety. The resulting excavation should be backfilled with properly compacted fill soils. As an alternative, cesspools can be backfilled with lean sand-cement slurry. Any encountered wells should be properly abandoned in accordance with regulatory requirements.

4.1.2 Organic Rich Soil Recommendations

We recommend soils with an organic content greater than 5 percent be removed and exported from the site. For most of the site this is the top 1 foot. Figure 2 outlines areas that contains high organic content with more than 1-foot in thickness. Our recommendations are based on the following assumptions; 1) all soils with "high" organic contents greater than 5 percent shall be removed and disposed of off-site, 2) "transitional" soils (soils with organic content ranging from 2 to 5 percent) shall be adequately mixed or blended with the "clean" soils (soils with organic content less than 2.0 percent), and 3) There will be sufficient "clean" soils to dilute the limited "transitional" soils during the grading operation. From a geotechnical perspective, organic content of compacted fill soils should not exceed 2 percent.

After export of the top 1 foot of material, remedial grading as described in the following section should result in organic content of the fill materials to be approximately 1 percent. To satisfy the City's requirement of documenting the organic content in the fill, samples should be collected during grading and tested for organic content.

We recommend the geotechnical consultant be present during grading to observe the mixing of the onsite soils and perform periodic testing of the compacted fill. Organic materials shall be thoroughly mixed such that no nesting of organic materials occurs. Removal of organic materials is to satisfy geotechnical concerns and does not mitigate the potential for methane gas. Some methane gas should be expected after grading especially in former wastewater areas. Methane potential shall be evaluated by others.

4.1.3 Removal Depths and Limits

In order to provide a relatively uniform bearing condition for the planned improvements, we recommend the site soils be removed and recompacted. We recommend that soils within building pads be removed and recompacted to a minimum depth of 5 feet below

existing grade (not below base of organic removal). The envelope for removal and recompaction should extend laterally a minimum distance of 5 feet beyond the edges of the proposed improvements. In areas of design cut, over-excavation shall extend a minimum of 5 feet below existing grade or a minimum of 3 feet below finished grade, whichever is deeper. In the design cut areas, this depth may be reduced if in-place alluvial materials are tested and found to have an in-situ dry density equal or greater than 90 percent relative compaction (based on American Standard of Testing and Materials [ASTM] Test Method D1557) and exhibit uniform conditions. The Remedial Grading Diagram (Figure 5) provides a simplified example of the building pad remedial recommendations.

As shown on the attached Geotechnical Map (Figure 2), there is one isolated area of the site on the eastern edge of the property where removals will extend a minimum of 15 feet to remove a buried stockpile of manure. A representative from LGC geotechnical should be on site to approve the removal bottom to ensure it is acceptable from a geotechnical standpoint, and free of organic content.

For minor site structures such as free-standing and screen walls, the removals should extend at least 3 feet beneath the existing grade or 2 feet beneath the base of foundations, whichever is deeper. Within pavement and hardscape areas, removals should extend to a depth of at least 2 feet below the existing grade. The over-excavation in any design cut areas of the pavement may be reduced by the depth of the design cut but should not be less than 1-foot below the finished subgrade (i.e., below planned aggregate base/asphalt concrete). In general, the envelope for over-excavation should extend laterally a minimum distance of 2 feet beyond the edges of the proposed improvements mentioned above.

Local conditions may be encountered during excavation that could require additional over-excavation beyond the above-noted minimum in order to obtain an acceptable subgrade. The actual depths and lateral extents of grading will be determined by the geotechnical consultant, based on subsurface conditions encountered during grading. Removal areas and areas to be over-excavated should be accurately staked in the field by the Project Surveyor.

4.1.4 Temporary Excavations

Temporary excavations should be performed in accordance with project plans, specifications, and applicable Occupational Safety and Health Administration (OSHA) requirements. Excavations should be laid back or shored in accordance with OSHA requirements before personnel or equipment are allowed to enter. Based on our field investigation, the majority of site soils are anticipated to be OSHA Type "C" soils (refer to the attached boring logs). Sandy soils are present and should be considered susceptible to caving. Soil conditions should be regularly evaluated during construction to verify conditions are as anticipated. The contractor shall be responsible for providing the "competent person" required by OSHA standards to evaluate soil conditions. Close coordination with the geotechnical consultant should be maintained to facilitate construction while providing safe excavations. Excavation safety is the sole responsibility

of the contractor.

Vehicular traffic, stockpiles, and equipment storage should be set back from the perimeter of excavations a minimum distance equivalent to a 1:1(horizontal to vertical) projection from the bottom of the excavation or 5 feet, whichever is greater. Once an excavation has been initiated, it should be backfilled as soon as practical. Prolonged exposure of temporary excavations may result in some localized instability. Excavations should be planned so that they are not initiated without sufficient time to shore/fill them prior to weekends, holidays, or forecasted rain.

It should be noted that any excavation that extends below a 1:1 (horizontal to vertical) projection of an existing foundation will remove existing support of the structure foundation. If requested, temporary shoring parameters will be provided.

4.1.5 Subgrade Preparation

In general, areas to receive compacted fill should be scarified to a minimum depth of 6 inches, brought to a near-optimum moisture condition (generally within optimum and 2 percent above optimum moisture content), and re-compacted per project requirements. Removal bottoms and areas to receive fill should be observed and accepted by the geotechnical consultant prior to subsequent fill placement.

4.1.6 Material for Fill

From a geotechnical perspective, the onsite soils are generally considered suitable for use as general compacted fill, provided they are screened of organic materials, construction debris and any oversized material (8 inches in greatest dimension). From a geotechnical perspective, soils with an organic content of less than 2 percent are generally considered suitable for re-use as compacted fill.

From a geotechnical viewpoint, import soils for general fill (i.e., non-retaining wall backfill) should consist of clean, granular soils of Very Low expansion potential (expansion index 20 or less based on ASTM D4829). Import for retaining wall backfill should meet the criteria outlined in the paragraph below. Source samples should be provided to the geotechnical consultant for laboratory testing a minimum of three working days prior to any planned importation.

Retaining wall backfill should consist of granular free draining soils (sand equivalent of 30 or greater as determined by ASTM D2419 or CTM 217). Soils should also be screened of organic materials, construction debris, and any material greater than 3 inches in maximum dimension. The onsite soils are not considered suitable for retaining wall backfill due to their fines content (i.e., silt and clay content). Therefore, import of suitable soils meeting the criteria outlined above will be required.

Aggregate base should conform to the requirements of Section 200-2 of the most recent version of the Standard Specifications for Public Works Construction ("Greenbook") for

untreated base materials and/or City of Ontario requirements. It is our understanding that the City of Ontario only allows crushed aggregate base (CAB) and crushed miscellaneous base (CMB) is not allowed.

4.1.7 Placement and Compaction of Fills

Material to be placed as fill should be brought to near-optimum moisture content (generally within optimum and 2 percent above optimum moisture content) and recompacted to at least 90 percent relative compaction (per ASTM D1557). Moisture conditioning of site soils will be required in order to achieve adequate compaction. Drying and/or mixing the very moist soils will be required prior to reusing the materials in compacted fills. Soils are also present that will require additional moisture in order to achieve the required compaction.

The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in compacted thickness. Each lift should be thoroughly compacted and accepted prior to subsequent lifts. Generally, placement and compaction of fill should be performed in accordance with local grading ordinances and with observation and testing by LGC Geotechnical. Oversized material as previously defined should be removed from site fills.

During backfill of excavations, the fill should be properly benched into firm and competent soils of temporary backcut slopes as it is placed in lifts.

Aggregate base material should be compacted to a minimum of 95 percent relative compaction at or slightly above optimum moisture content per ASTM D1557. Subgrade below aggregate base should be compacted to a minimum of 90 percent relative compaction per ASTM D1557 at near-optimum moisture content (generally within optimum and 2 percent above optimum moisture content).

4.1.8 Trench and Retaining Wall Backfill and Compaction

The onsite soils may generally be suitable as trench backfill, provided the soils are screened of rocks and other material greater than 6 inches in diameter and organic matter. If trenches are shallow or the use of conventional equipment may result in damage to the utilities, sand having a sand equivalent (SE) of 30 or greater (per California Test Method [CTM] 217) may be used to bed and shade the pipes. Sand backfill within the pipe bedding zone may be densified by jetting or flooding and then tamping to ensure adequate compaction. Subsequent trench backfill should be compacted in uniform thin lifts by mechanical means to at least the recommended minimum relative compaction (per ASTM D1557).

Retaining wall backfill should consist of sandy soils as outlined in preceding Section 4.1.6. The contractor should anticipate the importing of soils for the required retaining wall backfill. The limits of select sandy backfill should extend a minimum ½ the height of the

retaining wall or the width of the heel (if applicable), whichever is greater, refer to Figures 3 and 4 (rear of text). Retaining wall backfill soils should be compacted in relatively uniform thin lifts to at least 90 percent relative compaction (per ASTM D1557). Jetting or flooding of retaining wall backfill materials should not be permitted.

A representative from LGC Geotechnical should observe, probe, and test the backfill to verify compliance with the project recommendations.

4.1.9 Shrinkage and Subsidence

Allowance in the earthwork volumes budget should be made for an estimated 0 to 5 percent reduction in volume of near-surface (upper approximate 5 feet) soils. It should be stressed that these values are only estimates and that an actual shrinkage factor would be extremely difficult to predetermine. Subsidence due to earthwork equipment is expected to be up to 0.1 feet. These values are estimates only and exclude losses due to removal of vegetation or debris. The effective change in volume of onsite soils will depend primarily on the type of compaction equipment, method of compaction used onsite by the contractor, and accuracy of the topographic survey.

Due to the combined variability in topographic surveys, inability to precisely model the removals and variability of on-site near-surface conditions, it is our opinion that the site will not balance at the end of grading. If importing/exporting a large volume of soils is not considered feasible or economical, we recommend a balance area be designated onsite that can fluctuate up or down based on the actual volume of soil. We recommend a "balance" area that can accommodate on the order of 5 percent (plus or minus) of the total grading volume be considered.

4.2 Preliminary Foundation Recommendations

Provided that the remedial grading recommendations provided herein are implemented, the site may be considered suitable for the support of the residential structures using a conventional or post-tensioned foundation system. Site soils are anticipated to be "Very Low" expansion potential (EI of 20 or less per ASTM D4829) and special design considerations from a geotechnical perspective is not required, however, this must be verified based on as-graded conditions. Please note that the following foundation recommendations are preliminary and must be confirmed by LGC Geotechnical.

Preliminary foundation recommendations are provided in the following sections. Recommended soil bearing and estimated settlement due to structural loads are provided in Section 4.3.

4.2.1 Provisional Conventional Foundation Design

Due to the very low expansion potential of the onsite soils, the foundation/structural engineer may design a conventional foundation system that is tied together based upon the anticipated dead and live loads (wind, seismic) that will be imparted by the

structure. The recommendations provided in the "Soil Bearing and Lateral Resistance" section may be utilized in the design of a rigid slab-on-grade conventional foundation designed in accordance with Section 1808 of the 2019 C.B.C.

4.2.2 Provisional Post-Tensioned Foundation Design Parameters

The foundation designer may use a modulus of vertical subgrade reaction (k) of 200 pounds per cubic inch (pounds per square inch per inch of deflection). This value is for a 1-foot by 1-foot square loaded area and should be adjusted by the structural designer for the area of the proposed footing using the following formula:

$k = 200 \times [(B+1)/2B]^2$
k = modulus of vertical subgrade reaction, pounds per cubic inch (pci)
B = foundation width (feet)

The moisture content of near surface fill soils should be maintained at the level it was placed up to the time of concrete placement.

4.2.3 Shallow Foundation Maintenance

The geotechnical parameters provided herein assume that if the areas adjacent to the foundation are planted and irrigated, these areas will be designed with proper drainage and adequately maintained so that ponding, which causes significant moisture changes below the foundation, does not occur. Our recommendations do not account for excessive irrigation and/or incorrect landscape design. Plants should only be provided with sufficient irrigation for life and not overwatered to saturate subgrade soils. Sunken planters placed adjacent to the foundation, should either be designed with an efficient drainage system or liners to prevent moisture infiltration below the foundation. Some lifting of the perimeter foundation beam should be expected even with properly constructed planters.

In addition to the factors mentioned above, future owners/property management personnel should be made aware of the potential negative influences of trees and/or other large vegetation. Roots that extend near the vicinity of foundations can cause distress to foundations. Future owners (and the owner's landscape architect) should not plant trees/large shrubs closer to the foundations than a distance equal to half the mature height of the tree or 20 feet, whichever is more conservative unless specifically provided with root barriers to prevent root growth below the building foundation.

It is the owner's responsibility to perform periodic maintenance during hot and dry periods to ensure that adequate watering has been provided to keep soil from separating or pulling back from the foundation. Future owners and property management personnel should be informed and educated regarding the importance of maintaining a constant level of soil-moisture. The owners should be made aware of the potential negative consequences of both excessive watering, as well as allowing potentially expansive soils to become too dry. Expansive soils can undergo shrinkage

during drying, and swelling during the rainy winter season, or when irrigation is resumed. This can result in distress to building structures and hardscape improvements. The builder should provide these recommendations to future owners and property management personnel.

4.2.4 Slab Underlayment Guidelines

The following is for informational purposes only since slab underlayment (e.g., moisture retarder, sand or gravel layers for concrete curing and/or capillary break) is unrelated to the geotechnical performance of the foundation and thereby not the purview of the geotechnical consultant. Post-construction moisture migration should be expected below the foundation. The foundation engineer/architect should determine whether the use of a capillary break (sand or gravel layer), in conjunction with the vapor retarder, is necessary or required by code. Sand layer thickness and location (above and/or below vapor retarder) should also be determined by the foundation engineer/architect.

4.3 Soil Bearing and Lateral Resistance

Provided our earthwork recommendations are implemented, an allowable soil bearing pressure of 2,000 pounds per square foot (psf) may be used for the design of footings having a minimum width of 12 inches and minimum embedment of 15 inches below lowest adjacent ground surface. This value may be increased by 400 psf for each additional foot of embedment and 200 psf for each additional foot of foundation width to a maximum value of 3,000 psf. A mat foundation a minimum of 6 inches below lowest adjacent grade may be designed for an allowable soil bearing pressure of 1,200 psf. These allowable bearing pressures are applicable for level (ground slope equal to or flatter than 5H:1V) conditions only. Bearing values indicated are for total dead loads and frequently applied live loads and may be increased by ⅓ for short duration loading (i.e., wind or seismic loads).

Soil settlement is a function of footing dimensions and applied soil bearing pressure. In utilizing the above-mentioned allowable bearing capacity, assumed structural loads, and provided our earthwork recommendations are implemented, foundation settlement due to structural loads is anticipated to be on the order of 1-inch or less and ½-inch over a horizontal span of 40 feet for total and differential settlement, respectively. Differential settlement should be anticipated between nearby columns or walls where a large differential loading condition exists Furthermore, seismic settlement due to dry-sand settlement is anticipated to be 0.5 inches or less. Differential seismic settlement may be taken as half of the seismic settlement (i.e., ¼-inch over a horizontal span of 40 feet).

Resistance to lateral loads can be provided by friction acting at the base of foundations and by passive earth pressure. For concrete/soil frictional resistance, an allowable coefficient of friction of 0.35 may be assumed with dead-load forces. An allowable passive lateral earth pressure of 270 psf per foot of depth (or pcf) to a maximum of 2,700 psf may be used for the sides of footings poured against properly compacted fill. Allowable passive pressure may be increased to 360 pcf (maximum of 3,600 psf) for short duration seismic loading. This passive pressure is applicable for level (ground slope equal to or flatter than 5H:1V) conditions only. Frictional resistance and

passive pressure may be used in combination without reduction. We recommend that the upper foot of passive resistance be neglected if finished grade will not be covered with concrete or asphalt. The provided allowable passive pressures are based on a factor of safety of 1.5 and 1.1 for static and seismic loading conditions, respectively. The structural designer should incorporate appropriate factors of safety and/or load factors in their design.

4.4 Lateral Earth Pressures and Retaining Wall Design Considerations

Lateral earth pressures are provided as equivalent fluid unit weights, in pound per square foot (psf) per foot of depth or pcf. The values for the active condition do not contain an appreciable factor of safety, so the retaining wall designer should apply the applicable factors of safety and/or load factors during design. A soil unit weight of 120 pcf may be assumed for calculating the actual weight of soil over the wall footing.

Lateral earth pressures are presented in Table 2. Table 2 contains values for approved select sandy backfill for both drained and undrained conditions. Typically, retaining walls are designed for a drained condition with select sandy soils used as backfill. Should retaining walls have constraints limiting the ability to install or drain or appropriately outlet a drain, the values for undrained conditions should be used. Approved select sandy soils should have a sand equivalent of 30 or greater as determined by ASTM D2419.

The retaining wall designer should clearly indicate on the retaining wall plans if drains are required.

TABLE 3

Lateral Earth Pressures – Select Sand Backfill

Condition	**Equivalent Fluid Weight (pcf)**	
	Level Backfill	
	Approved Sandy Backfill Material - Drained	**Approved Sandy Backfill Material - Undrained**
Active	35	80

The drained equivalent fluid pressure values assume free-draining conditions and a drainage system will be installed and maintained to prevent the build-up of hydrostatic pressures. A relatively sandy backfill along with a subdrain pipe wrapped in drainage aggregate and filter fabric (e.g., “burrito” subdrain) properly outletted to a suitable discharge point is typically used for conventional retaining walls. Retaining wall structures should be provided with appropriate drainage and appropriately waterproofed. Typical conventional (i.e., backfilled) retaining wall drainage is shown in Figure 3. At similar sites, wall drainage through the face has been a preferred option. For this condition wall drainage is shown in Figure 4. If conditions other than

those assumed above are anticipated, the equivalent fluid pressure values should be provided on an individual-case basis by the geotechnical consultant.

Surcharge loading effects from any adjacent structures should be evaluated by the retaining wall designer. In general, structural loads within a 1:1 (horizontal to vertical) upward projection from the bottom of the proposed retaining wall footing will surcharge the proposed retaining structure. Uniform surcharges may be estimated using the applicable coefficient of lateral earth pressure using a rectangular distribution. A factor of 0.5 and 0.33 may be used for at-rest and active conditions, respectively. The retaining wall designer should contact the geotechnical engineer for any required geotechnical input in estimating any applicable surcharge loads.

If required, the retaining wall designer may use a seismic lateral earth pressure increment of 5 pcf for retaining walls up to a maximum of 10 feet in height with level backfill. This increment should be applied in addition to the applicable static lateral earth pressure using a triangular distribution with the resultant acting at H/3 in relation to the base of the retaining structure (where H is the retained height). For the restrained, at-rest condition, the seismic increment may be added to the applicable active lateral earth pressure (in lieu of the at-rest lateral earth pressure) when analyzing short duration seismic loading. Per Section 1803.5.12 of the 2019 CBC, the seismic lateral earth pressure is applicable to structures assigned to Seismic Design Category D through F for retaining wall structures supporting more than 6 feet of backfill height. This seismic lateral earth pressure is estimated using the procedure outlined by the Structural Engineers Association of California (Lew, et al, 2010). The provided seismic lateral earth pressure is for a level backfill condition and a maximum of 10 feet in height; a sloping backfill condition and greater retaining wall heights are not anticipated. However, if a sloping backfill condition or retaining walls greater than 10 feet in height are proposed, the retaining wall designer should contact the geotechnical engineer for specific seismic lateral earth pressure increments based on the configuration of the planned retaining wall structures.

For soil bearing and lateral resistance (friction coefficient and passive resistance) is provided in Section 4.3 “Soil Bearing and Lateral Resistance”. Earthwork considerations (temporary backcuts, backfill, compaction, etc.) for retaining walls are provided in Section 4.1 “Site Earthwork” and the subsequent earthwork related sub-sections.

4.5 Corrosivity to Concrete and Metal

Although not corrosion engineers (LGC Geotechnical is not a corrosion consultant), several governing agencies in Southern California require the geotechnical consultant to determine the corrosion potential of soils to buried concrete and metal facilities. We therefore present the results of our testing with regard to corrosion for the use of the client and other consultants, as they determine necessary.

Corrosion testing of near-surface bulk samples indicated a soluble sulfate content value of 78 ppm (less than 0.02 percent) and a chloride content of 100 ppm. Based on Caltrans Corrosion Guidelines (2015), soils are considered corrosive if the chloride concentration is 500 ppm or greater, or the sulfate concentration is 2,000 ppm (0.2 percent) or greater. Based on the test results, soils are not considered corrosive using Caltrans criteria.

Based on our laboratory test results of representative site soil samples, onsite soils should be considered as having a severity categorization of "not applicable" and are designated class "S0" per ACI 318, Table 19.3.1.1, sulfate. As a result, the minimum compressive strength of the concrete shall be 2,500 psi.

Laboratory testing may need to be performed at the completion of grading by the project corrosion engineer to further evaluate the as-graded soil corrosivity characteristics. Accordingly, revision of the corrosion potential may be needed, should future test results differ substantially from the conditions reported herein. The client and/or other members of the development team should consider this during the design and planning phase of the project and formulate an appropriate course of action.

4.6 Preliminary Asphalt Concrete Pavement Sections

For the purposes of these preliminary recommendations, we have selected a preliminary design R-value of 40 and calculated pavement sections for Traffic Indices of 5.5, 6.0 and 6.5. R-value testing of the street subgrade will need to be performed to confirm our preliminary testing results/assumptions once the streets have been graded to finish subgrade elevations and the final Traffic Index is determined by the Civil Engineer. It is our understanding that the City of Ontario requires that local streets have a minimum pavement section consisting of 4 inches of asphalt over 6 inches of crushed aggregate base (CAB).

TABLE 4

Preliminary Pavement Sections

Assumed Traffic Index	5.5	6.0	6.5
R -Value Subgrade	40	40	40
AC Thickness	4.0 inches	4.0 inches	4.0 inches
CAB Thickness	6.0 inches	6.0 inches	6.0 inches

Increasing the thickness of asphalt or adding additional base material will reduce the likelihood of the pavement experiencing distress during its service life. The above recommendations are based on the assumption that proper maintenance and irrigation of the areas adjacent to the roadway will occur through the design life of the pavement. Failure to maintain a proper maintenance and/or irrigation program may jeopardize the integrity of the pavement.

Earthwork recommendations regarding aggregate base and subgrade are provided in the previous Section "Site Earthwork" and the related sub-sections of this report.

4.7 Nonstructural Concrete Flatwork

Nonstructural concrete (such as flatwork, sidewalks, patios, etc.) has a potential for cracking due to changes in soil volume related to soil-moisture fluctuations. To reduce the potential for excessive cracking and lifting, concrete should be designed in accordance with the minimum guidelines outlined in Table 5 below. These guidelines will reduce the potential for irregular cracking and promote cracking along construction joints but will not eliminate all cracking or lifting. Thickening the concrete and/or adding additional reinforcement will further reduce cosmetic distress.

TABLE 5

Preliminary Geotechnical Parameters for Nonstructural Concrete Flatwork Placed on Very Low to Low Expansion Potential Subgrade

	Homeowner Sidewalks	**Private Drives**	**Patios/Entryways**	**City Sidewalk Curb and Gutters**
Minimum Thickness (in.)	4 (nominal)	4 (full)	4 (full)	City/Agency Standard
Presoaking	Wet down prior to placing	Wet down prior to placing	Wet down prior to placing	City/Agency Standard
Reinforcement	—	No. 3 at 24 inches on centers	No. 3 at 24 inches on centers	City/Agency Standard
Thickened Edge (in.)	—	8 x 8	—	City/Agency Standard
Crack Control Joints	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness	Saw cut or deep open tool joint to a minimum of $^1/_3$ the concrete thickness	City/Agency Standard
Maximum Joint Spacing	5 feet	10 feet or quarter cut whichever is closer	6 feet	City/Agency Standard
Aggregate Base Thickness (in.)	—	—	—	City/Agency Standard

To reduce the potential for driveways to separate from the garage slab, the builder may elect to install dowels to tie these two elements together. Similarly, future homeowners should

consider the use of dowels to connect flatwork to the foundation.

4.8 Subsurface Water Infiltration

Recent regulatory changes have occurred that mandate storm water be infiltrated below grade rather than collected in a conventional storm drain system. Typically, a combination of methods are implemented to reduce surface water runoff and increase infiltration including; permeable pavements/pavers for roadways and walkways, directing surface water runoff to grass-lined swales, retention areas, and/or drywells, etc. It should be noted that collecting and concentrating surface water for the purpose of intentionally infiltrating below grade, conflicts with the geotechnical engineering objective of directing surface water away from slopes, structures and other improvements. The geotechnical stability and integrity of a site is reliant upon appropriately handling surface water. In general, we do not recommend that surface water be intentionally infiltrated into the subsurface soils.

Considering the results of the infiltration testing, if required, stormwater may be infiltrated into the subsurface soils at the depths tested below existing grade, using the values presented in Table 1 and the appropriate County of Riverside Flood Control (2011) safety factors. The Civil Engineer should determine the appropriate safety factor applicable to the proposed infiltration system. Results of field infiltration testing are provided in Appendix D.

The following should be considered for design of any required infiltration system:

- Water discharge from any infiltration systems should not occur within the zone of influence of foundation footings (column and load bearing wall locations). For preliminary purposes we recommend a minimum setback of 15 feet from the structural improvements, or the County recommended minimum setback, whichever is more conservative.
- An adequate setback distance between any infiltration facility and adjacent private property should be maintained.
- It may be prudent to provide an overflow system directly connected to the storm drain system in order to prevent failure of the infiltration system, either as a result of lower than anticipated infiltration and/or very high flow volumes. It should be noted that if pretreatment of runoff to remove debris, soil particles, etc., cannot be performed, design infiltration rates may need to be further reduced. Over time, siltation and plugging may reduce the infiltration rate and subsequent effectiveness of the infiltration system.
- Any designed infiltration system will require routine periodic maintenance.
- As with any systems that are designed to concentrate the surface flow and direct the water into the subsurface soils, some type of nuisance water and/or other water-related issues should be expected.

LGC Geotechnical should be provided with details for any planned required infiltration system early in the design process for geotechnical input.

4.9 Control of Surface Water and Drainage Control

From a geotechnical perspective, we recommend that compacted finished grade soils adjacent to proposed structures be sloped away from the proposed structures and towards an approved drainage device or unobstructed swale. Drainage swales, wherever feasible, should not be constructed within 5 feet of buildings. Where lot and building geometry necessitates that drainage swales be routed closer than 5 feet to structural foundations, we recommend the use of area drains together with drainage swales. Drainage swales used in conjunction with area drains should be designed by the project civil engineer so that a properly constructed and maintained system will prevent ponding within 5 feet of the foundation. Code compliance of grades is not the purview of the geotechnical consultant.

Planters with open bottoms adjacent to buildings should be avoided. Planters should not be designed adjacent to buildings unless provisions for drainage, such as catch basins, liners, and/or area drains, are made. Overwatering must be avoided.

4.10 Supplemental Field Explorations

It should be noted that a portion in the northwestern corner of the site was not accessible at the time of our field evaluation (see Figure 2). This area was not explored and did not receive testing for near surface organic rich soils. We recommend performing a future evaluation addressing the organic content of the area prior to the export of high organic "soils" from the site.

4.11 Geotechnical Plan Review

Project plans (grading, foundation, etc.) should be reviewed by this office prior to construction to verify that our geotechnical recommendations have been incorporated. Additional or modified geotechnical recommendations may be required based on the proposed layout.

4.12 Geotechnical Observation and Testing

The recommendations provided in this report are based on limited subsurface observations and geotechnical analysis. The interpolated subsurface conditions should be checked in the field during construction by a representative of LGC Geotechnical. Geotechnical observation and testing is required per Section 1705 of the 2019 California Building Code (CBC).

Geotechnical observation and/or testing should be performed by LGC Geotechnical at the following stages:

- During grading (removal bottoms, fill placement, etc.);
- During retaining wall backfill and compaction;
- During utility trench backfill and compaction;

- After presoaking building pad and other concrete-flatwork subgrades, and prior to placement of aggregate base or concrete;
- Preparation of pavement subgrade and placement of aggregate base;
- After building and wall footing excavation and prior to placement of steel reinforcement and/or concrete; and
- When any unusual soil conditions are encountered during any construction operation subsequent to issuance of this report.

5.0 LIMITATIONS

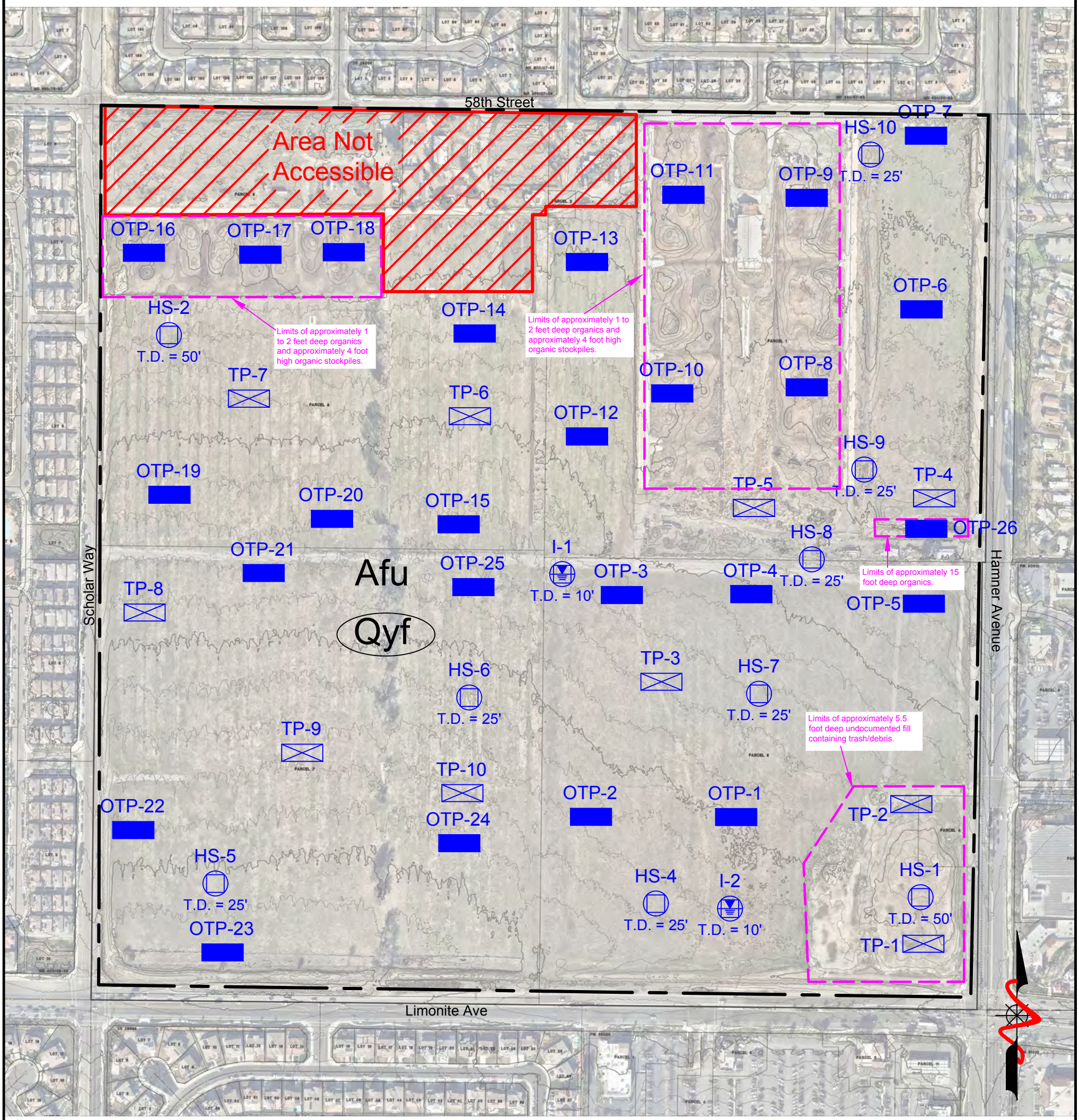
Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable soils engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

This report is based on data obtained from limited observations of the site, which have been extrapolated to characterize the site. While the scope of services performed is considered suitable to adequately characterize the site geotechnical conditions relative to the proposed development, no practical evaluation can completely eliminate uncertainty regarding the anticipated geotechnical conditions in connection with a subject site. Variations may exist and conditions not observed or described in this report may be encountered during grading and construction.

This report is issued with the understanding that it is the responsibility of the owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of the other consultants (at a minimum the civil engineer, structural engineer, landscape architect) and incorporated into their plans. The contractor should properly implement the recommendations during construction and notify the owner if they consider any of the recommendations presented herein to be unsafe, or unsuitable.

The findings of this report are valid as of the present date. However, changes in the conditions of a site can and do occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. The findings, conclusions, and recommendations presented in this report can be relied upon only if LGC Geotechnical has the opportunity to observe the subsurface conditions during grading and construction of the project, in order to confirm that our preliminary findings are representative for the site. This report is intended exclusively for use by the client, any use of or reliance on this report by a third party shall be at such party's sole risk.

In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and modification.



Legend

SCALE: 1"=300'

300' 0 300' 600'

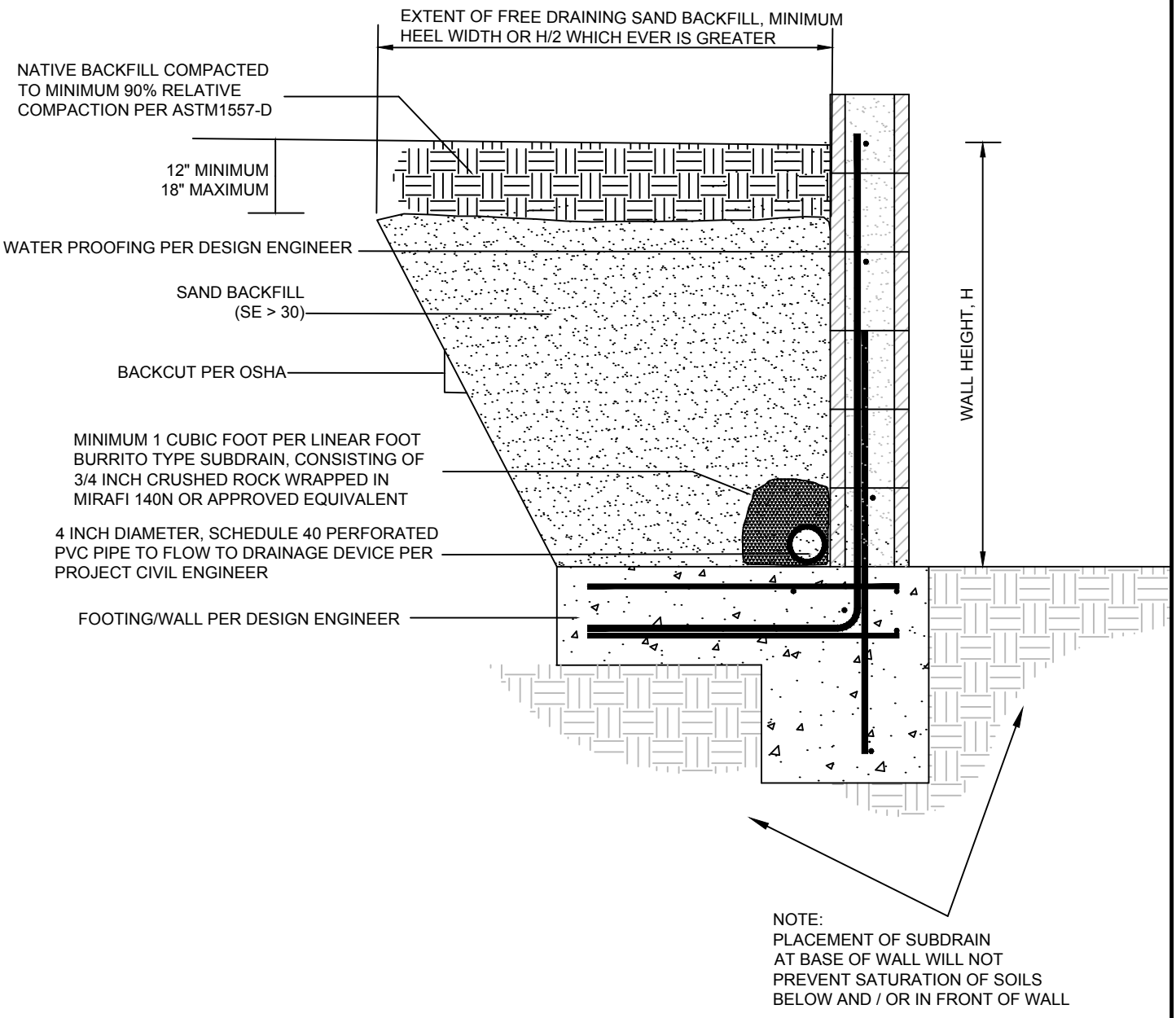
Afu	Artificial Fill - Undocumented
Qyf	Quaternary Alluvial Fan/Eolian Deposits - Undifferentiated (Circled Where Buried)
----	Approximate Limits of This Report
OTP-26	Approximate Location of Organic Test Pit
TP-10	Approximate Location of Geotechnical Test Pit
HS-10 T.D. = 25'	Approximate Location of Hollow Stem Auger Boring by LGC Geotechnical, Inc, with Total Depth in Feet
I-2 T.D. = 10'	Approximate Location of Hollow Stem Auger Infiltration Boring by LGC Geotechnical, Inc, with Total Depth in Feet

LGC Geotechnical, Inc.

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FIGURE 2
Geotechnical Map

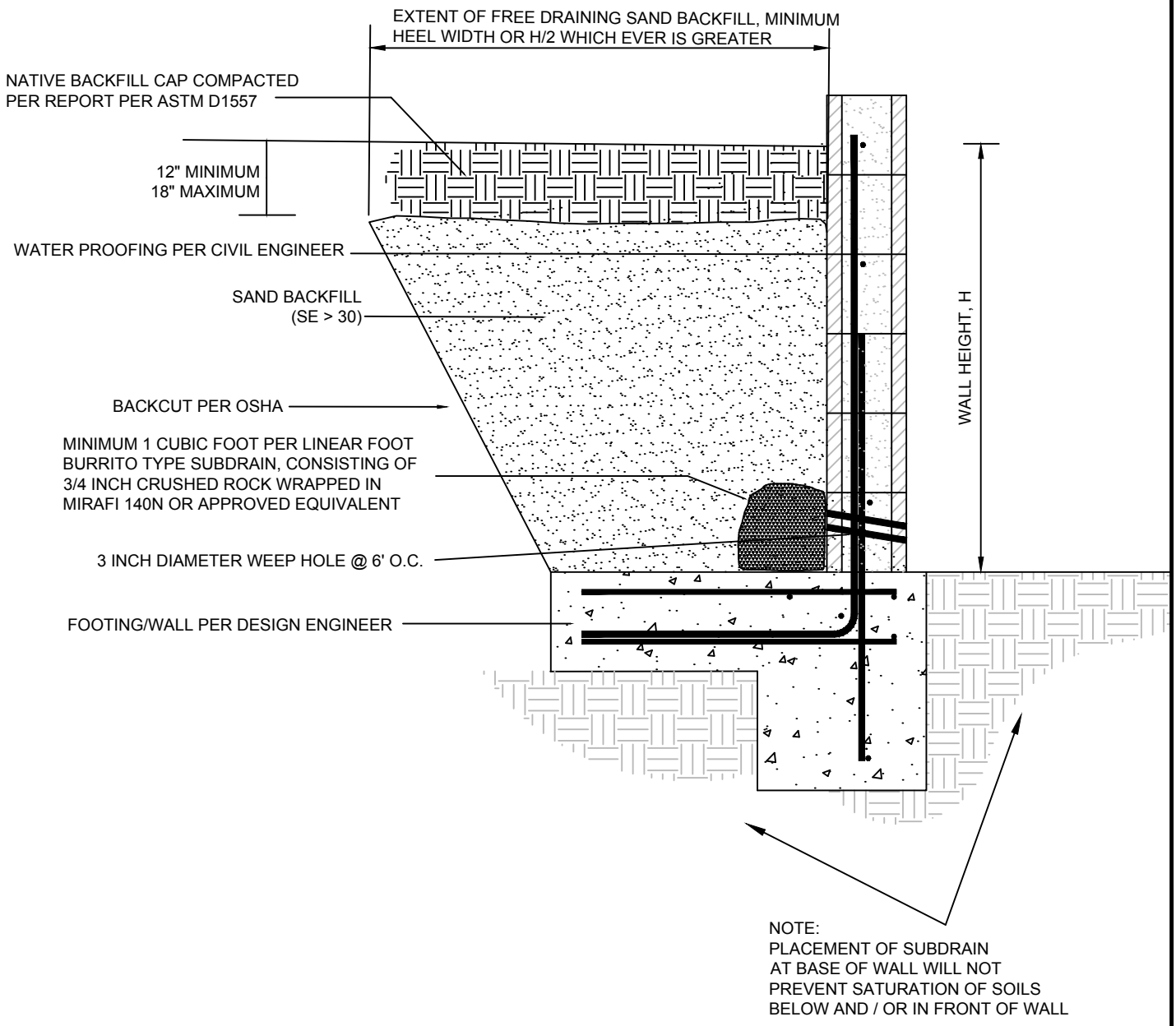
PROJECT NAME	TNHC - Eastvale
PROJECT NO.	21116-01
ENG. / GEOL.	BJE / BPG
SCALE	1" = 300'
DATE	June 2021



LGC Geotechnical, Inc.

FIGURE 3
Retaining Wall Backfill Detail Option 1

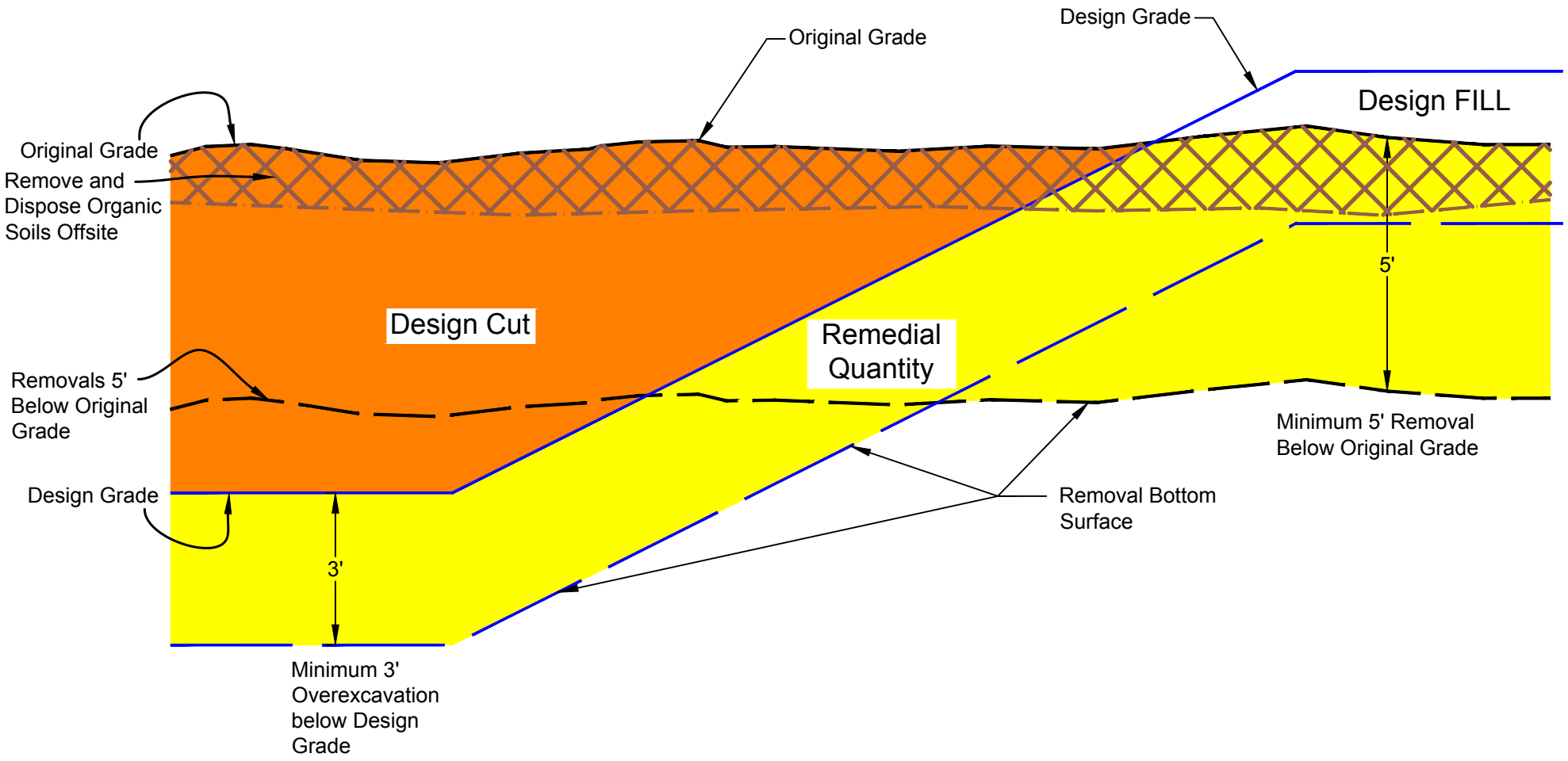
PROJECT NAME	The New Home Company - Eastvale
PROJECT NO.	21116-01
ENG./GEO.	BJE/BPG
SCALE	Not to Scale
DATE	June 2021



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FIGURE 4
Retaining Wall Backfill Detail Option 2

PROJECT NAME	The New Home Company - Eastvale
PROJECT NO.	21116-01
ENG./GEO.	BJE/BPG
SCALE	Not to Scale
DATE	June 2021



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FIGURE 5
Remedial Grading Diagram

PROJECT NAME	*The New Home Company - Eastvale*
PROJECT NO.	*21116-01*
ENG. / GEOL.	*BJE/BPG*
SCALE	*NTS*
DATE	*June 2021*

Appendix A
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APPENDIX A

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Appendix B
Boring, CPT & Geotechnical Trench Logs

Geotechnical Boring Log Borehole HS-1

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~671' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 2

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
670	0							**@ 0 to 7.5' - <u>Undocumented Artificial Fill (Afu)</u>**	
			R-1	18 20 28	116.7	4.2	SM	@2.5' Silty SAND: light brown, slightly moist, dense	
665	5	B-1	SPT-1	4 6 9		2.9	SP	@5' SAND: gray to brown, slightly moist, medium dense **@ 7.5' to 40' - <u>Quaternary Young Alluvial Fan deposits (Qyf)</u>**	
			R-2	4 9 12				@7.5' Silty SAND: brown, slightly moist, medium dense	
660	10		SPT-2	2 7 9		10.7	SM	@10' Silty SAND: olive brown, slightly moist, medium dense	
655	15		R-3	7 18 22	110.6	13.3		@15' Silty SAND: orangish olive brown, slightly moist, medium dense	
650	20		SPT-3	6 9 9		21.3	CL	@20' CLAY with sand: light brown, moist, medium dense	
645	25		R-4	8 15 22	115.0	17.4	SM	@25' Silty SAND w/ Clay: brown, moist, medium dense	
	30								

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-1

Date: 5/21/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~671' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
640	30		SPT-4	3 5 7		23.5	CL	@30' Sandy Lean CLAY: brown, moist, medium dense	
635	35		R-5	8 10 15	103.3	23.2	CL	@35' Sandy Lean CLAY: light brown, moist, very stiff	
								@ 40' to T.D. - <u>Quaternary Very Old Alluvial Channel deposits (Qvoa)</u>	
630	40		SPT-5	10 18 20		9.2	SC	@40' Clayey SAND: orange brown, moist, dense	
625	45		R-6	15 19 27	120.2	15.3	SM/ML	@45' Silty SAND/Sandy SILT: reddish brown, moist, dense	
620	50		SPT-6	16 19 25		9.1	SM	@50' Silty SAND: orangish brown, moist, very dense	
615	55							Total Depth = 51.5' Groundwater Not Encountered Backfilled with Cuttings on 5/21/2021	
	60								

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Geotechnical Boring Log Borehole HS-2

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~673' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 2

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 5' <u>Artificial Undocumented Fill</u>**	
670			R-1	9 11 18	104.1	5.4	SM	@2.5' Silty SAND with Gravel: light gray, slightly moist, medium dense	
								@5' to T.D. <u>Quaternary Young Alluvial Fan Deposits</u>	
	5	B-1	SPT-1	6 9 13		11.7	SM/ML	@5' Sandy SILT: light gray, slightly moist, very stiff	
665			R-2	12 15 21	118.8	14.1	SM	@7.5' Silty SAND: grayish light brown, slightly moist, medium dense	
	10		SPT-2	9 9 15		13.6		@10' Silty SAND: grayish light brown, moist, medium dense	
660									
	15		R-3	9 12 19	122.1	8.5		@15' Silty SAND: brown, moist, medium dense	
655									
	20		SPT-3	10 12 15		3.7	SP	@20' SAND with Gravel: grayish light brown, moist, dense, poorly graded	
650									
	25		R-4	12 15 19	99.7	14.9	SP/SM	@25' Silty CLAY transition to Silty SAND to Sandy SILT: olive gray to orangish brown, moist, verty stiff to medium dense	
645									
	30								

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THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-2

Date: 5/21/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~673' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	30		SPT-4	9 9 12		20.2	SC	@30' Clayey SAND: orangish light brown, moist, medium dense	
640									
	35		R-5	9 12 20	111.7	16.9	SM	@35' Silty SAND to Sandy SILT: brown, moist, medium dense to very stiff	
635									
	40		SPT-5	12 15 21		19.6	CL	@40' Sandy Lean CLAY: brown, moist, dense	
630									
	45		R-6	27 25 50/4"	118.5	6.0	SP	@45' SAND: brown, moist, very dense, poorly graded	
625									
	50		SPT-6	8 12 15		28.3	CL	@50' CLAY w/ Sand: light brown, moist, hard	
620								Total Depth = 51.5' Groundwater Not Encountered Backfilled with Cuttings on 5/21/2021	
	55								
615									
	60								

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Geotechnical Boring Log Borehole HS-3

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~667' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 1

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
665	0							**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D. Quaternary Young Fan Deposits (Qyf)**	
			R-1	12 28 34	116.3	5.2	SM	@2.5' Silty SAND: light gray, slightly moist, dense	
660	5	B-1	SPT-1	10 12 15		6.8		@5' Silty SAND: light gray, slightly moist, dense	
			R-2	10 15 19	103.2	3.2	SM	@7.5' Silty SAND: light gray, slightly moist, medium dense	
655	10		SPT-2	7 9 11		2.1	SP	@10' SAND: grayish light brown, slightly moist, medium dense	
	15		R-3	13 19 22	105.5	12.6	SC	@15' Clayey SAND: orangish light brown, slightly moist, dense	
650									
	20		SPT-3	8 12 16		22.2	ML	@20' Sandy SILT: light brown, moist, dense	
645									
	25		R-4	9 12 13	105.8	22.7	ML	@25' Sandy SILT: light brown, moist, medium dense	
640								Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/21/2021	
	30								

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-4

Date: 5/24/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~663' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 1

Logged By SHH
Sampled By SHH
Checked By MJG

Elevation (ft)	Depth (ft)	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0						**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D. Quaternary Young Fan Deposits (Qyf)**	
660		R-1	8 8 13	106.7	1.9	SM	@2.5' Silty SAND: light brown, slightly moist, medium dense	
	5	SPT-1	6 7 9		4.0		@5' Silty SAND: grayish light brown, slightly moist, medium dense	
655		R-2	12 15 21	114.8	7.0	CL	@7.5' Sandy CLAY: grayish light brown, slightly moist, medium dense	
	10	SPT-2	6 9 11		12.3	SM	@10' Silty SAND: light brown, slightly moist, medium dense	
650								
	15	R-3	12 18 20	107.7	8.0	SC	@15' Clayey SAND: light brown, slightly moist, medium dense	
645								
	20	SPT-3	9 10 15		32	CL	@20' CLAY: light brown, moist, medium dense to very stiff	
640								
	25	R-4	12 50/5"	118.9	12.8	CL	@25' Sandy CLAY: brown, moist, hard to very dense	
635							Total Depth = 26' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	
	30							

B-1

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-5

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~659' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By MJG

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D. Quaternary Young Fan Deposits (Qyf)**	
655			R-1	9 14 17	108.3	2.9	SM	@2.5' Silty SAND: grayish light brown, slightly moist, medium dense	
	5	B-1	SPT-1	5 9 9		8.2	SM	@5' Silty SAND: light brown, slightly moist, medium dense	
			R-2	8 12 14	103.0	13.1	SC	@7.5' Clayey SAND: light brown, slightly moist, medium dense	
650	10		SPT-2	4 4 6		25.2	ML	@10' Sandy SILT: olive light brown, moist, medium dense to stiff	
645	15		R-3	27 38 50/4"	113.2	1.5	SP	@15' Poorly Graded SAND: light gray, slightly moist, very dense	
640	20		SPT-3	4 5 6		25.4	ML	@20' Sandy SILT: brown, moist, stiff to medium dense	
635	25		R-4	9 12 18	103.0	18.9	SC	@25' Clayey SAND: brown, moist, very stiff to medium dense	
630	30							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-6

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~665' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D.' Quaternary Young Fan Deposits (Qyf)**	
			R-1	7 9 9	115.3	5.1	ML	@2.5' SILT: light gray, slightly moist, medium dense	
660	5	B-1	SPT-1	5 7 9		6.4	SM	@5' Silty SAND: grayish light brown, slightly moist, medium dense	
			R-2	7 9 12				@7.5' Silty SAND: grayish light brown, slightly moist, medium dense	
655	10		SPT-2	12 18 21		2.3	SP	@10' SAND w/ Gravel: brown, moist, dense, poorly graded	
650	15		R-3	10 12 18	97.9	19.6	ML	@15' SILT: olive light brown, moist, very stiff	
645	20		SPT-3	8 10 10		21.4	ML	@20' Sandy SILT to SILT: olive brown, moist, very stiff	
640	25		R-4	12 15 19	90.5	25.5	ML	@25' Sandy SILT: orangish brown, moist, medium dense	
	30							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-7

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~668' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0						**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D.' Quaternary Young Fan Deposits (Qyf)**	
665		R-1	9 12 12	104.1	3.6	SM	@2.5' Silty SAND: light gray, slightly moist, medium dense	
	5	SPT-1	9 10 10		8.3		@5' Silty SAND: light gray, slightly moist, medium dense	
660		R-2	7 9 12	106.3	7.2	SM	@7.5' Silty SAND: light gray, slightly moist, medium dense	
	10	SPT-2	7 7 9		8.3		@10' Silty SAND to Sandy SILT: light brown, slightly moist, medium dense to very stiff	
655								
	15	R-3	12 18 22	111.4	5.3		@15' Silty SAND: light brown, slightly moist, medium dense	
650								
	20	SPT-3	5 7 9		24.4	CL	@20' Sandy CLAY: light brown, moist, very stiff	
645								
	25	R-4	9 12 18	95.4	27.1	CL	@25' CLAY: light brown, moist, very stiff	
640							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	
	30							

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-8

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~671' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
670	0						**@0' to 2.5' Undocumented Artificial Fill (Afu)** **@2.5' to T.D.' Quaternary Young Fan Deposits (Qyf)**	
		R-1	4 7 9	110.2	1.9	SM	@2.5' Silty SAND: light gray, slightly moist, medium dense	
665	5	SPT-1	4 4 7		8.6		@5' Silty SAND: light gray, slightly moist, medium dense	
		R-2	9 10 15	103.0	9.6	ML	@7.5' Sandy SILT: light gray, slightly moist, medium dense to very stiff	
660	10	SPT-2	5 7 9		10.6	CL	@10' CLAY: light gray, slightly moist, very stiff	
655	15	R-3	12 19 21	94.8	15.5	MH	@15' SILT: light gray, slightly moist, very stiff	
650	20	SPT-3	15 19 19		3.8	SP	@20' SAND: brownish light gray, slightly moist, dense, poorly graded	
645	25	R-4	14 15 19	115.3	15.2	SC/CL	@25' Clayey SAND transition to Silty SAND w/ Clay: brown, slightly moist, medium dense	
	30						Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-9

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~676' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
675	0							**@0' to 5' Undocumented Artificial Fill (Afu)**	
			R-1	6 6 6	112.1	9.8	SM	@2.5' Silty SAND: light brown, slightly moist, loose	
								@5' to T.D.' Quaternary Young Eolian Deposits (Qye)	
670	5	B-1	SPT-1	4 6 9		8.2		@5' Silty SAND: grayish light brown, slightly moist, medium dense	
			R-2	9 13 17	118.1	12.3	SM/ML	@7.5' Silty SAND to Sandy SILT: gray, slightly moist, medium dense to very stiff	
665	10		SPT-2	5 7 9		17.0	ML	@10' Sandy SILT: brownish gray, slightly moist, very stiff	
660	15		R-3	12 18 21	120.4	8.1	SM	@15' SAND: brown, slightly moist, medium dense	
655	20		SPT-3	9 9 13		17.8	CL	@20' Sandy CLAY: orangish brown, moist, medium dense	
650	25		R-4	10 11 15	109.0	8.0	SM	@25' Silty SAND: orangish brown to brown, moist, medium dense to very stiff	
	30							Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole HS-10

Date: 5/24/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~682' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**@0' to 5' Undocumented Artificial Fill (Afu)**	
680			R-1	9 7 9	105.6	8.2	SM	@2.5' Silty SAND: light brown, slightly moist, medium dense	
								@5' to T.D.' Quaternary Young Eolian Deposits (Qye)	
	5		SPT-1	4 7 7		13.0	SM	@5' Silty SAND: grayish light brown, slightly moist, medium dense	
675			R-2	12 14 15	113.2	15.1	CL/SC	@7.5' CLAY/Clayey Silty SAND: grayish brown, moist, medium dense	
	10		SPT-2	3 5 5		25.8	ML	@10' Sandy SILT: orangish brown, moist, stiff	
670									
	15		R-3	13 16 21	115.4	6.0	SM	@15' Silty SAND: brown, moist, medium dense	
665									
	20		SPT-3	5 7 8		20.1	CL	@20' Sandy CLAY: brown, moist, medium dense to stiff	
660									
	25		R-4	9 15 21	111.7	8.9	SM	@25' Silty SAND: light brown, moist, very stiff to medium dense	
655								Total Depth = 26.5' Groundwater Not Encountered Backfilled with Cuttings on 5/24/2021	
	30								

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole I-1

Date: 5/21/2021 | **Drilling Company:** Choice Drilling

Project Name: Eastvale | **Type of Rig:** CME 95

Project Number: 21116-01 | **Drop:** 30" | **Hole Diameter:** 8"

Elevation of Top of Hole: ~668' MSL | **Drive Weight:** 140 pounds

Hole Location: See Geotechnical Map |

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
665	0							**@0 to .5' - Undocumented Artificial Fill (Afu)** **@.5 to T.D. - QuaternaryAlluvial Fan Deposits**	
660	5		SPT-1	4 6 7		3.9	SM	@7.5' SAND with Gravel: light gray, slightly moist, medium dense	
655	10							Total Depth = 10' Groundwater Not Encountered 3" Perforated Pipe Surrounded by Gravel Installed on 5/21/2021 and Presoaked on 5/24/2021 Backfilled with Cuttings on 5/25/2021	
650	15								
645	20								
640	25								
	30								

LGC Geotechnical, Inc.

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SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Geotechnical Boring Log Borehole I-2

Date: 5/21/2021	**Drilling Company:** Choice Drilling
Project Name: Eastvale	**Type of Rig:** CME 95
Project Number: 21116-01	**Drop:** 30" **Hole Diameter:** 8"
Elevation of Top of Hole: ~663' MSL	**Drive Weight:** 140 pounds
Hole Location: See Geotechnical Map	Page 1 of 1

Logged By SHH
Sampled By SHH
Checked By BJE

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
660	0							**@0 to .5' - Undocumented Artificial Fill (Afu)** **@.5 to T.D. - QuaternaryAlluvial Fan Deposits**	
655	5		SPT-1	4 6 6		9.8	CL	@7.5' CLAY with Sand: light gray, slightly moist, medium dense	
650	10							Total Depth = 10' Groundwater Not Encountered 3" Perforated Pipe Surrounded by Gravel Installed on 5/21/2021 and Presoaked on 5/24/2021 Backfilled with Cuttings on 5/25/2021	
645	15								
640	20								
635	25								
	30								

LGC Geotechnical, Inc.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIONS ENCOUNTERED. THE DESCRIPTIONS PROVIDED ARE QUALITATIVE FIELD DESCRIPTIONS AND ARE NOT BASED ON QUANTITATIVE ENGINEERING ANALYSIS.

SAMPLE TYPES:

B	BULK SAMPLE
R	RING SAMPLE (CA Modified Sampler)
G	GRAB SAMPLE
SPT	STANDARD PENETRATION TEST SAMPLE
▽	GROUNDWATER TABLE

TEST TYPES:

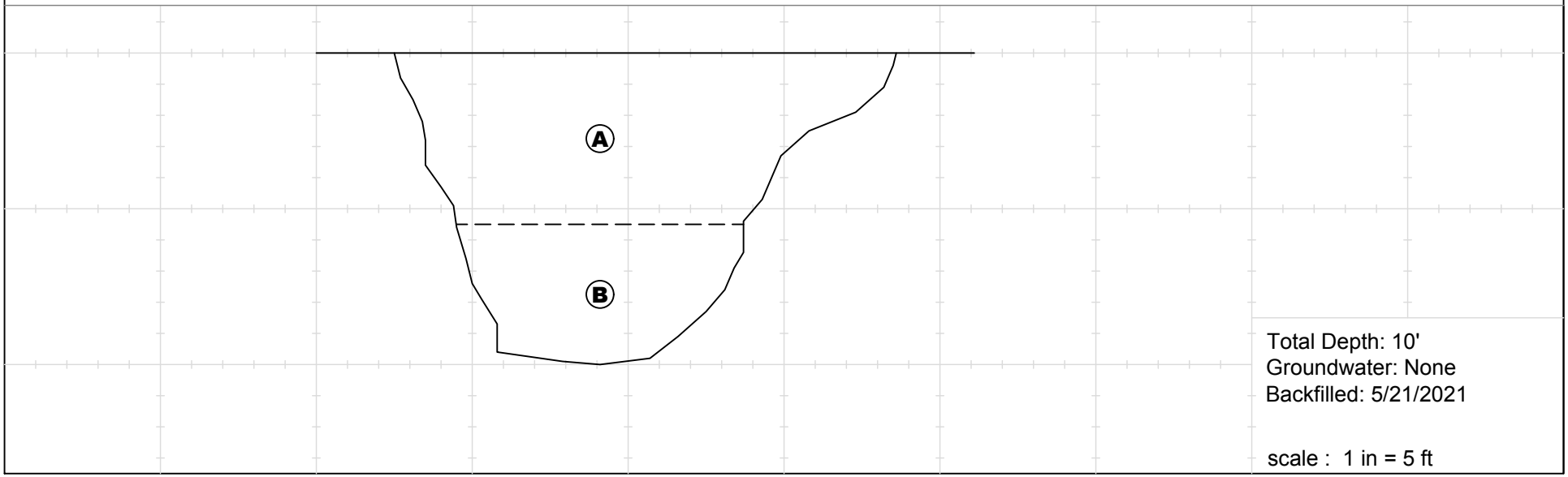
DS	DIRECT SHEAR
MD	MAXIMUM DENSITY
SA	SIEVE ANALYSIS
S&H	SIEVE AND HYDROMETER
EI	EXPANSION INDEX
CN	CONSOLIDATION
CR	CORROSION
AL	ATTERBERG LIMITS
CO	COLLAPSE/SWELL
RV	R-VALUE
-#200	% PASSING # 200 SIEVE

Last Edited: 5/27/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-1	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' to 5.5' - Artifical Fill - Undocumented (Afu) @ 0' - Silty SAND with gravel: gray, dry, loose to medium dense, trash down to 5' to 5.5' (nails, tarps, plastic, etc.)	Afu		G-1		
	B	@ 5.5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf) @ 5.5' - SAND: light brown to gray, slightly moist to moist, loose, fine grained	Qyf		G-2, G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**

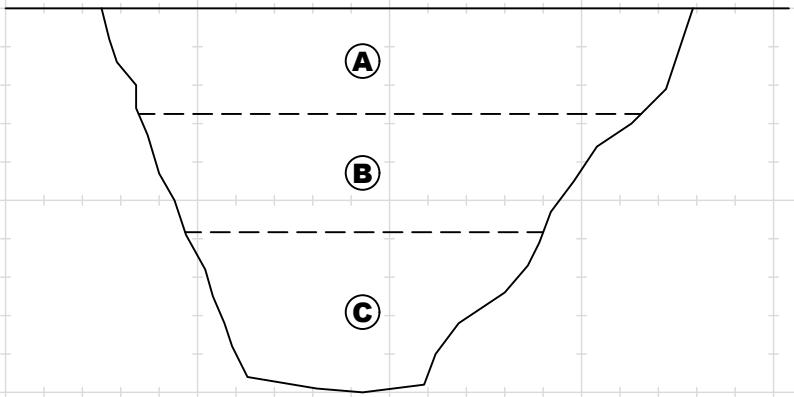


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-2	
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 5.83' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND with gravel: gray, dry, loose in upper 1'-2' then medium dense beyond 2', rootlets, minor trash present, some cobbles (~3" diameter)	Afu	SM	G-1		
	B	@ 2.75' - SAND/SAND with Silt: gray to light brown, dry to slightly moist, medium dense, (~10") metal pipe running north to south through trench at ~3.25' below the surface			G-2, B-1		
		@ 5.83' to T.D. - Quaternary Young Eolian deposits (Qye)					
	C	@ 5.83' - Silty SAND/Sandy SILT: dark gray, moist, fine sand	Qye		G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 668 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/21/2021

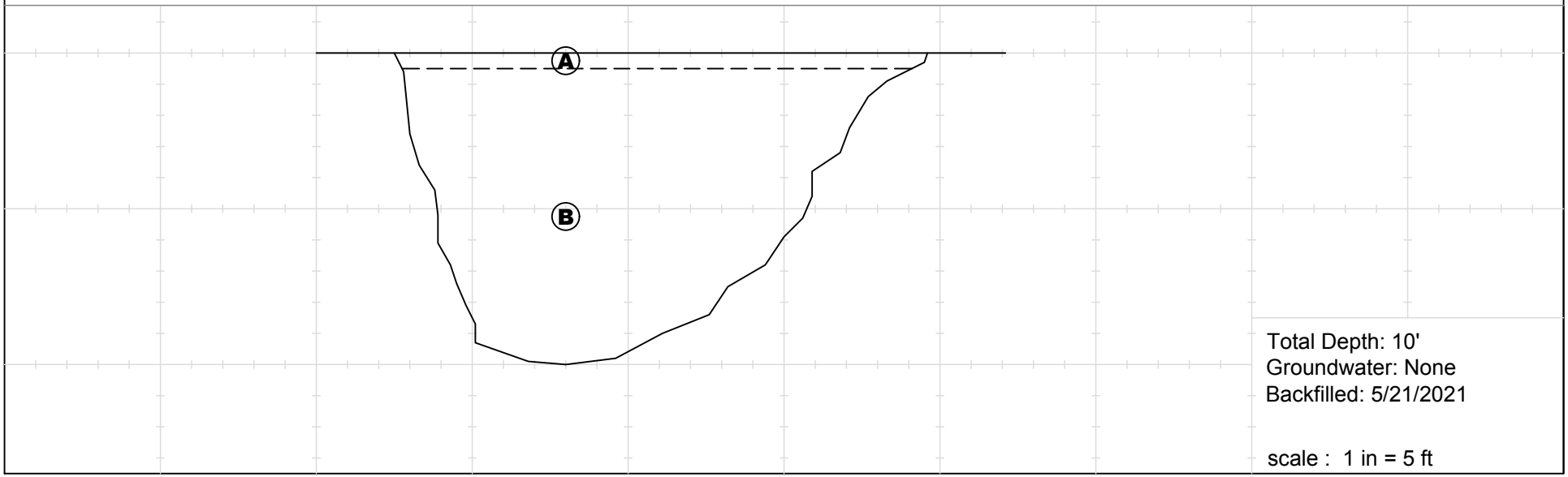
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-3	
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to .5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM			
		@ .5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	B	@ 0.5' - Silty SAND to Silt: gray with white mottle, moist, varied density with depth, ~6" layer of softer moist sand at 7' grading into a stiffer silt.	Qyf		G-1, G-2, G-3, B-1		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 667 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**

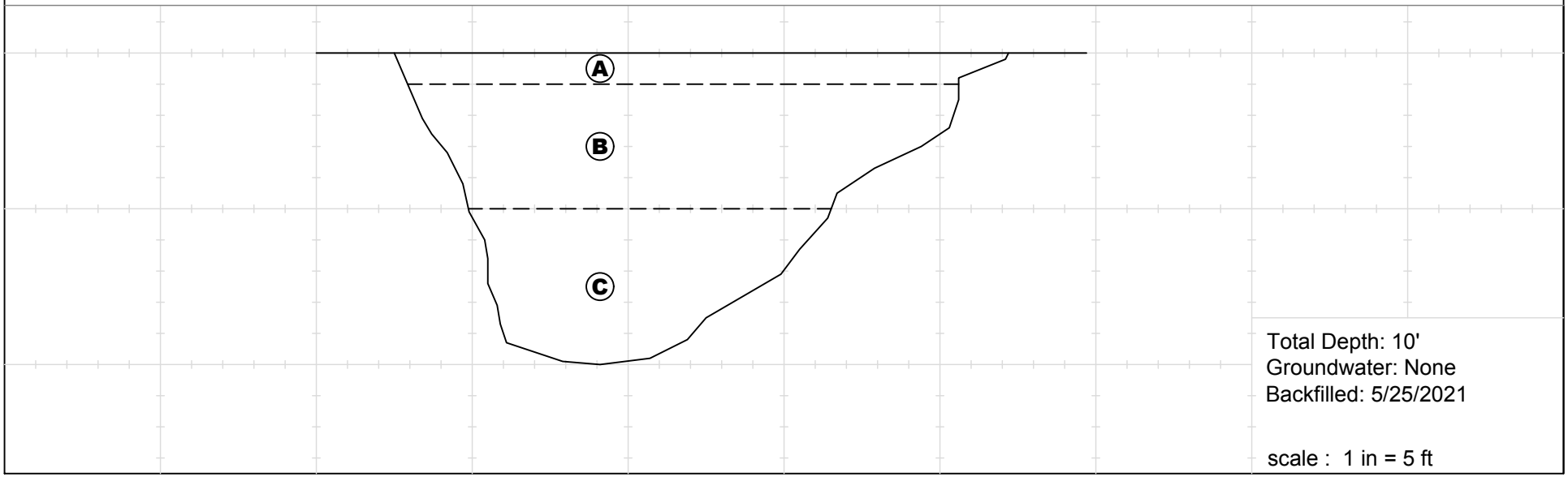


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-4	
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND/ Sandy Silt: gray, slightly moist, loose, roots	Afu	SM			
	B	@ 1' Silty SAND: olive gray, slightly moist to moist, trash (tarp, rope, charcoal)			G-1, G-2		
		@ 5' to T.D. - Quaternary Young Eolian deposits (Qye)					
	C	@ 5' Silty SAND: olive gray to gray, slightly moist, medium dense, some cobbles	Qye		G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 677 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**

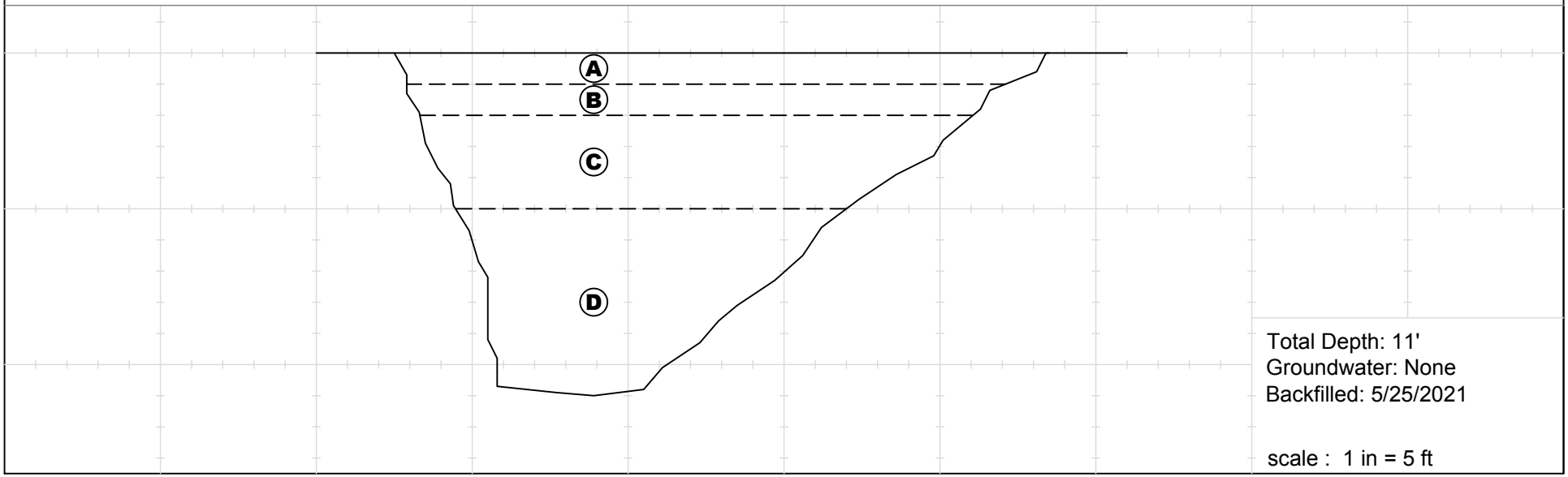


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-5	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to T.D. - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Pure cow dung down to 6", mixed organics and silt past 6" to 1'. dry and loose overall	Afu		G-1		
	B	@ 1' - Silty SAND with gravel: olive gray, moist to slightly moist, medium dense, gravel, roots, grading into unit "C"		SM	G-2		
		@ 2' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	C	@ 2' - Silty SAND: olive gray, slightly moist, dense, minor gravel present	Qyf		G-3		
	D	@ 5' Silt: gray to olive gray, slightly moist, dense, some oxidation		ML	G-4		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 672 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**

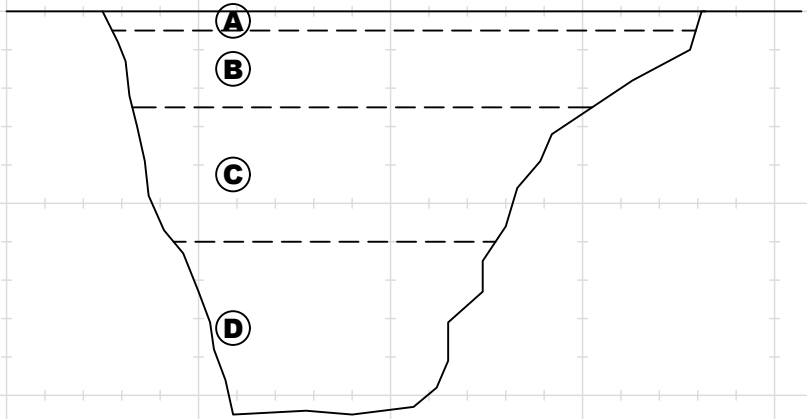


Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-6	
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 2.5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light brown to light gray, dead vegetation, dry, loose	Afu	SM			
	B	@ 0.5' - Silty SAND: light gray, dry, charcoal pieces, medium dense, mixed gravel, disturbed appearance			G-1		
		@ 2.5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)	Qyf		G-2, B-5		
	C	@ 2.5' - Silty SAND: gray, dry to slightly moist (moisture increases with depth), medium dense					
				SP	G-3		
	D	@ 6' - SAND: gray sand transitioning into 6" thick layer of finer sand which is oxidized along the bottom, this grades back into the coarser gray sand, layer is friable, with visible moisture darkening material at 10' and the 6" finer sand layer					

GRAPHICAL REPRESENTATION BELOW: **Elevation : 672 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10.5'
Groundwater: None
Backfilled: 5/25/2021

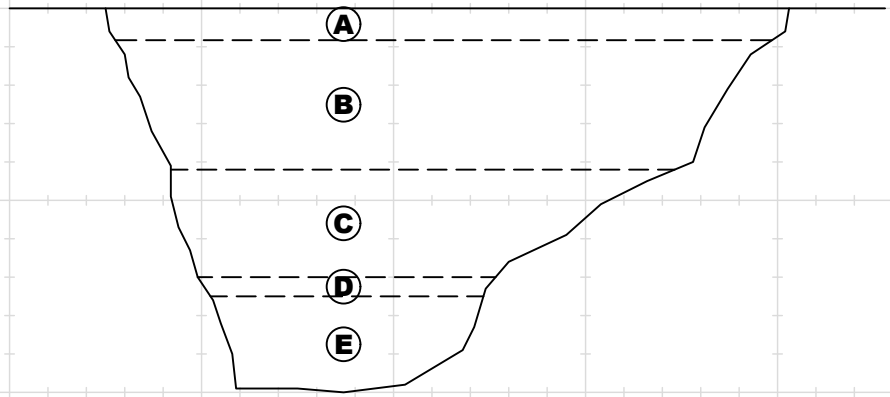
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-7	
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 4.2' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light brown, gray, dry, loose, dead vegetation and roots	Afu	SM			
	B	@ 0.83' - SILT: white to gray, dry, slightly indurated, porous (~5%), rootlets		ML	G-1, B-1		
		@ 4.2' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)	Qyf		G-2		
	C	@ 4.2' - SILT: olive gray, few pores, roots, dry, medium dense					
	D	@ 7' - 6" thick clay seam - dark gray, slightly moist, low plasticity, medium dense		CL	G-3		
	E	@ 7.5' - Silty SAND: olive gray, slightly moist, less dense than previous layers		SM	G-4		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 671 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

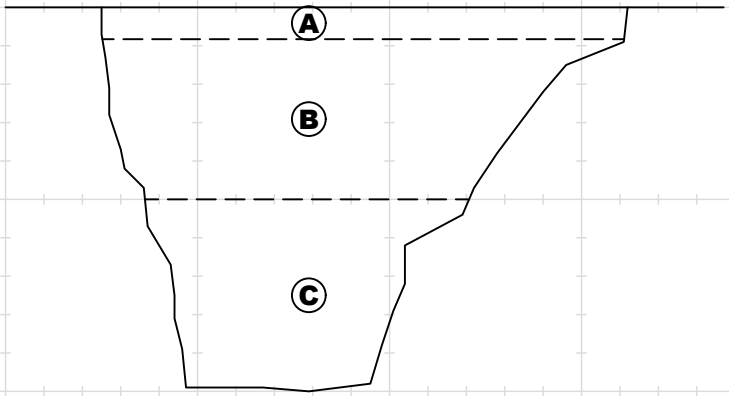
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-8	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 0.83' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light gray, dry, dead vegetation, rootlets	Afu				
		@ 0.83' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	B	@ 0.83' - SILT: gray, roots, mildly porous, dry, medium dense, grades into "C"	Qyf	ML	G-1		
	C	@ 5' - SAND: light gray, loose, dry, some caving, coarse grained with tightly packed layers of 3" rocks, rounded to subangular		SP	G-2, G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 666 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

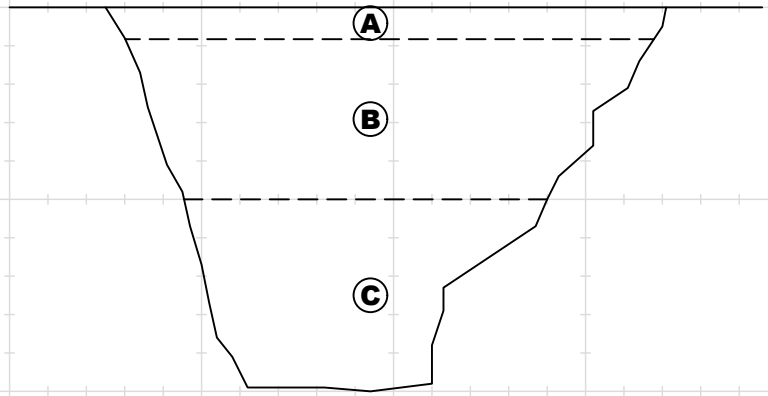
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-9	LGC Geotechnical, Inc.
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 5' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - Silty SAND: light gray, dead vegetation, dry, loose	Afu	SM			
	B	@ 0.83' - SILT: light gray to brown, porous (~5-10%), charcoal pieces, rootlets, 10" concrete pipe filled with mud runs north to south through trench			G-1, G-2		
		@ 5' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	C	@ 5' - SILT: olive gray, slightly moist, dense to medium dense	Qyf	ML	G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 662 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

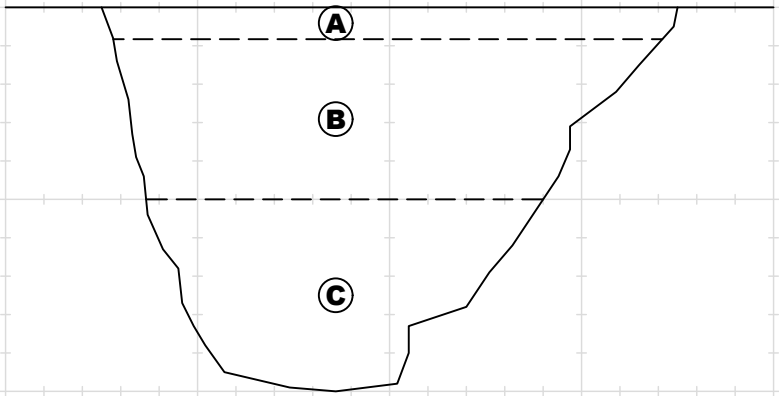
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: TP-10	
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:	
Equipment: Backhoe	Location: See Geotechnical Map		

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' to 0.83' - Artificial Fill - Undocumented (Afu)					
	A	@ 0' - SILT: light gray, dry, cracked, dead vegetation and roots, loose	Afu	ML			
		@ 0.83' to T.D. - Quaternary Young Alluvial Fan deposits (Qyf)					
	B	@ 0.83' - SILT: light gray, dry, slightly porous, minor rootlets, dense to medium dense, some mottled white mineralization & oxidation stains @ contact with "C"	Qyf		G-1, B-1		
	C	@ 5' - SILT - olive gray, light gray, dry to slightly moist, decrease in density from "B" iron oxide.			G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 662 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 10'
Groundwater: None
Backfilled: 5/26/2021

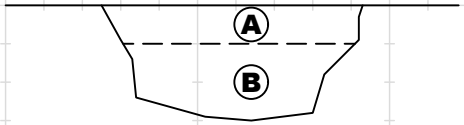
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-1
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Sandy SILT: dry, gray brown, loose, rootlets, sand is fine grained	Afu	SM	G1		
	B	@ 1' - SILT: white, dry, medium dense to dense, minor rootlets		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 665 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

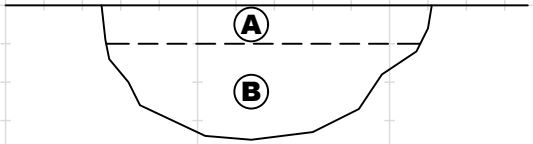
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-2
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

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Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM	G-1		
	B	@ 1' - Silt: light gray, medium dense, dry		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 664 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/21/2021

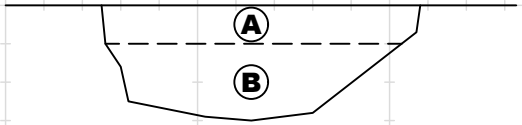
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-3
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Silty SAND: light brown, loose, dry @ 1' - SILT: gray, medium dense, white mottle, minor rootlets, dry	Afu	SM ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 669 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

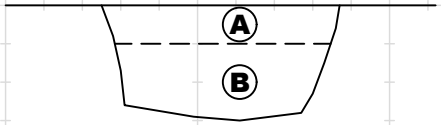
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-4
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

LGC Geotechnical, Inc.

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM	G-1		
	B	@ 1' - SILT: gray, dry, medium dense, slightly porous (<5%)	Qyf	ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

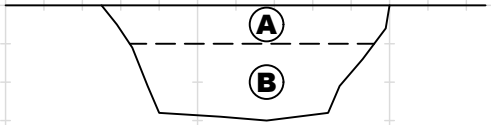
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-5
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: light brown, dry, loose, rootlets	Afu	SM	G-1		
	B	@ 1' - SILT: light gray, slightly moist, medium dense	Qyf	ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 672 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

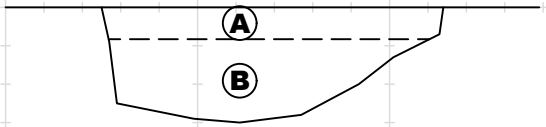
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-6
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silty SAND: brown to gray, dry, loose	Afu	SM	G-1		
	B	@ 0.83' - Silty SAND: light gray brown, dry to slightly moist		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 679 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/21/2021

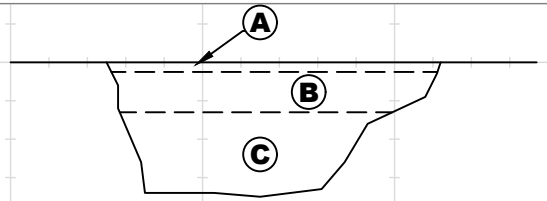
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-7
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B C	@ 0' - Asphalt section @ 0.25' - Compacted base @ 1.3' - SILT: moist, gray, dense	Afu	ML	G-1		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 682 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/21/2021

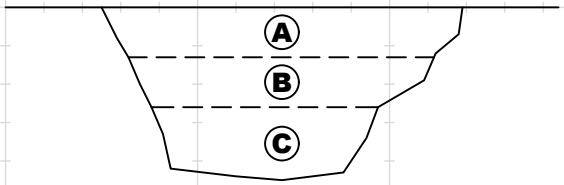
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-8
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Cow Dung					
	B	@ 1.3' - Silty SAND: olive gray, slightly moist, some white mineralization	Afu	SM	G-1, G-2		
	C	@ 2.6' - SAND with gravel: olive gray, slightly moist, medium dense	Qyf	SP	G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 676 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/21/2021

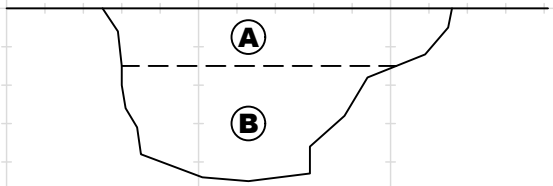
scale : 1 in = 5 ft

Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-9
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1.5' - SILT: olive gray, slightly moist, trace of gravel at bottom of trench	Afu	ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 680 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

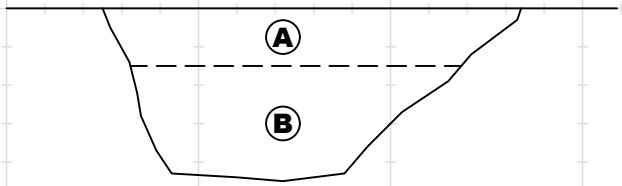
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-10
Project Number : 21116-01	Date : 5/21/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

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Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1.5' - Silty SAND: olive brown, dry to slightly moist, slight gravel presence, medium dense to dense	Afu	ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: N 80 E**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/21/2021

scale : 1 in = 5 ft

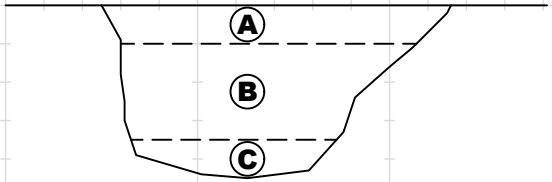
Last Edited: 6/9/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-11
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

LGC Geotechnical, Inc.

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Cow Dung					
	B	@ 1' - SILT: olive gray, slightly moist, medium dense to dense	Afu	ML	G-1		
	C	@ 3.5' - SAND: gray, loose, slightly moist, gravel	Qyf	SP	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 679 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/25/2021

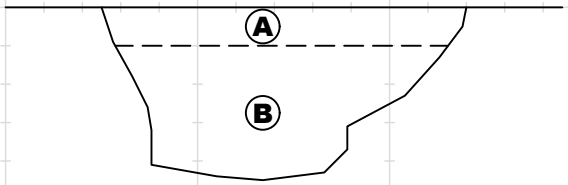
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-12
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Silty SAND: brown, dry, loose, rootlets @ 1' - SILT: dry, medium dense to dense, some gravel, slightly disturbed appearance	Afu	SM ML	G-1 G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4.5'
Groundwater: None
Backfilled: 5/25/2021

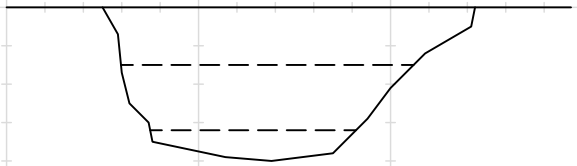
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-13
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
		@ 0' - Silty SAND: light brown, dry, loose, dead vegetation and rootlets		SM	G-1		
		@ 1.5' - Silty SAND: olive gray, dry, medium dense, some minor rootlets			G-2		
		@ 3.2' - SILT: gray, dry, medium dense	Qyf	ML	G-3		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/25/2021

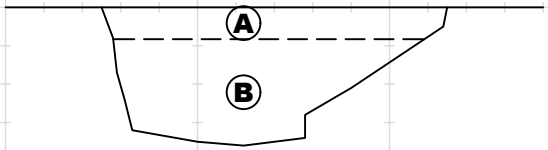
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-14
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - SILT: light brown, dry, loose, rootlets, dead vegetation	Afu	ML			
	B	@ 0.83' - SILT: olive gray, dry to slightly moist, medium dense, roots to total depth, minor gravel presence			G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 673 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.6'
Groundwater: None
Backfilled: 5/25/2021

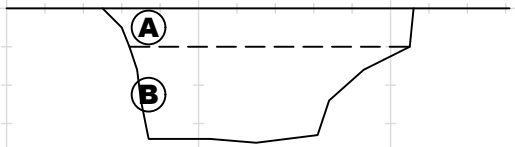
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-15
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Silt: light gray, dry to loose, roots/dead vegetation, grades into "B"	Afu	ML	G-1		
	B	@ 1' - SILT: light gray, dry, medium dense to dense, slightly porous, some random gravel fragments, bottom 10" grades into olive gray silt			G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/25/2021

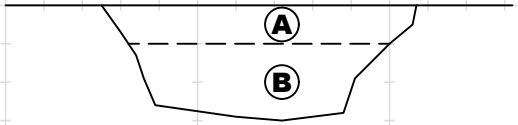
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-16
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - Cow Dung	Afu		G-1		
	B	@ 1' - SILT: olive gray, slightly moist, dense		ML	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/25/2021

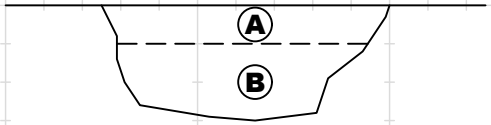
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-17
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1' - SILT: olive gray, slightly moist, trace gravel, slightly porous	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 675 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/25/2021

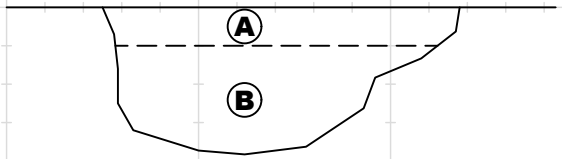
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-18
Project Number : 21116-01	Date : 5/25/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - Cow Dung @ 1' - SILT: olive gray, medium dense, slightly moist, upper 3' is disturbed, lower 10" appears undisturbed and free of debris	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 676 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.83'
Groundwater: None
Backfilled: 5/25/2021

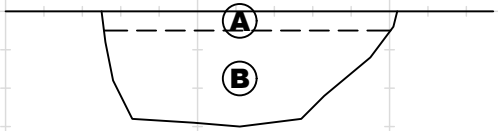
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-19
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, dry, loose, rootlets @ 0.5' - SILT: light gray, dry, medium dense to dense, slightly porous (5-10%)	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 670 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

scale : 1 in = 5 ft

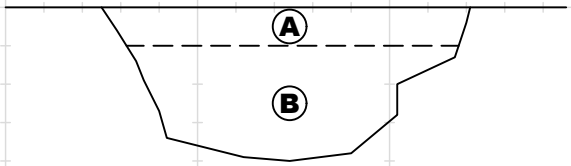
Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-20
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

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Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' SILT: light gray, dry, loose, rootlets @ 1' SILT: light gray, dry, dense, slightly porous	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 668 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/26/2021

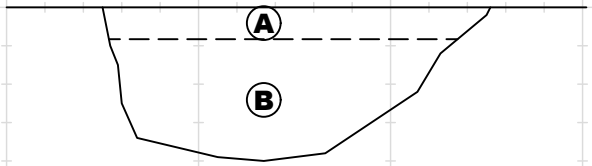
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-21
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - SILT: light brown to gray, dry, loose, dead vegetation	Afu				
	B	@ 0.83' - SILT: gray to light gray, dry, medium dense, slightly porous (~10%) looks disturbed, rootlets		ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 667 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/26/2021

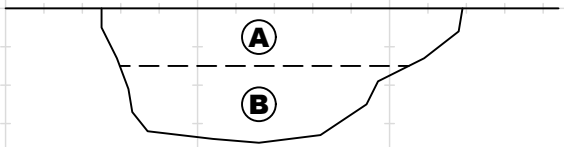
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-22
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A	@ 0' - SILT: light brown to gray, dry, loose, dead vegetation, roots	Afu		G-1		
	B	@ 1.5' - SILT: light gray, slightly moist, porous (5-10%)		SM	G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 661 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3.5'
Groundwater: None
Backfilled: 5/26/2021

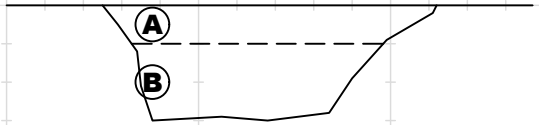
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-23
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, loose, dead grass, dry @ 1'- SILT: light gray, dry, dense, roots, porous (~10%)	Afu	SM	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 659 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

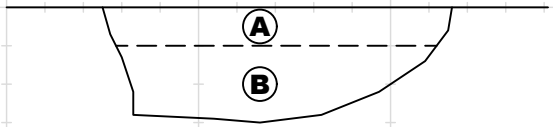
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-24
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, dry, loose, cracked, roots @ 1' - SILT: light gray, dry, medium dense looks disturbed, porous (~5-10%), transitions to olive gray silt at 2' which is slightly moist.	Afu	SM	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 660 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

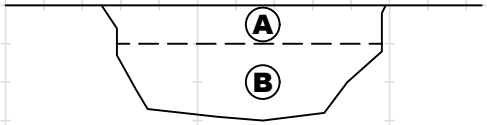
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-25
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: light gray, dry, cracked, loose @ 1' - SILT: light gray, dry, dense, slightly disturbed from 1'-2', past 2' begins to transition to an undisturbed olive gray silt which persists to the bottom of the trench.	Afu	ML	G-1, G-2		

GRAPHICAL REPRESENTATION BELOW: **Elevation : 666 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 3'
Groundwater: None
Backfilled: 5/26/2021

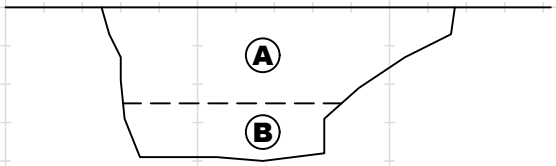
scale : 1 in = 5 ft

Last Edited: 6/10/2021

Project Name: TNHC - Eastvale	Logged By: MJG	Trench No: OTP-26
Project Number : 21116-01	Date : 5/26/2021	Engineering Properties:
Equipment: Backhoe	Location: See Geotechnical Map	

Geologic Attitudes	Unit	SOIL DESCRIPTION:	GEOLOGIC UNIT	USCS	SAMPLE No	MOISTURE (%)	DRY DENSITY (PCF)
	A B	@ 0' - SILT: dry, gray, loose @ 2.5' - Cow Dung, farmer stated there is a stockpile of cow dung 15' deep beyond this point	Afu	ML			

GRAPHICAL REPRESENTATION BELOW: **Elevation : 674 ' MSL** **Surface Slope: 0 deg.** **Trend: E-W**



Total Depth: 4'
Groundwater: None
Backfilled: 5/26/2021

scale : 1 in = 5 ft

Last Edited: 6/10/2021

Appendix C
Laboratory Test Results

APPENDIX C

Laboratory Test Results

The laboratory testing program was directed towards providing quantitative data relating to the relevant engineering properties of the site soils. Samples considered representative of site conditions were tested in general accordance with American Society for Testing and Materials (ASTM) procedure and/or California Test Methods (CTM), where applicable. The following summary is a brief outline of the test type and a table summarizing the test results.

Moisture and Density Determination Tests: Moisture content (ASTM D2216) and dry density determinations (ASTM D2937) were performed on driven samples obtained from the test borings. The results of these tests are presented in the boring logs. Where applicable, only moisture content was determined from undisturbed or disturbed samples.

Grain Size Distribution/Fines Content: Representative samples were dried, weighed, and soaked in water until individual soil particles were separated (per ASTM D421) and then washed on a No. 200 sieve (ASTM D1140). Where applicable, the portion retained on the No. 200 sieve was dried and then sieved on a U.S. Standard brass sieve set in accordance with ASTM D6913 (sieve).

Sample Location	Description	% Passing # 200 Sieve
I-2	Clay with Sand	83

Atterberg Limits: The liquid and plastic limits ("Atterberg Limits") were determined per ASTM D4318 for engineering classification of fine-grained material and presented in the table below. The USCS soil classification indicated in the table below is based on the portion of sample passing the No. 40 sieve and may not necessarily be representative of the entire sample. The plot is provided in this Appendix.

Sample Location	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	USCS Soil Classification
HS-8 @ 7.5 ft	32	21	11	CL

Consolidation: One consolidation test was performed per ASTM D2435. A sample (2.4 inches in diameter and 1-inch in height) was placed in a consolidometer and increasing loads were applied. The sample was allowed to consolidate under "double drainage" and total deformation for each loading step were recorded. The percent consolidation for each load step was recorded as the ratio of the amount of vertical compression to the original sample height. The consolidation pressure curve is provided in this Appendix.

Collapse/Swell Potential: One collapse test was performed per ASTM D4546. A sample (2.4 inches in diameter and 1-inch in height) was placed in a consolidometer and loaded to the approximate in-situ effective stress. The curve is presented in this Appendix.

Maximum Density Tests: The maximum dry density and optimum moisture content of a typical material was determined in accordance with ASTM D1557. The result of this test is presented in the table below:

Sample Location	Sample Description	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
HS-3 @ 0-5 ft	Brown Silty Sand	125.0	8.5

Expansion Index: The expansion potential of selected representative samples was evaluated by the Expansion Index Test per ASTM D4829.

Sample Location	Expansion Index	Expansion Potential*
HS-2 @ 0-5 ft	11	Very Low

* Per ASTM D4829

Soluble Sulfates: The soluble sulfate content of a select sample was determined by standard geochemical methods (CTM 417). The test result is presented in the table below.

Sample Location	Sulfate Content, ppm
HS-1 @ 0-5 ft	78

Chloride Content: Chloride content was tested per CTM 422. The results are presented below.

Sample Location	Chloride Content, ppm
HS-1 @ 0-5 ft	100

Organic Matter Content of Soils: Organic matter content tests were performed in general accordance with ASTM D 2974 (Test Methods A & C). The results are presented in this Table 6.

TP-1	
Depth (ft)	% Organics
6'-9'	0.3

TP-2	
Depth (ft)	% Organics
4'-5.17'	0.2

TP-5	
Depth (ft)	% Organics
0.5'-1.5'	16.3
1.5'-2'	0.9
3'-5'	0.8

TP-9	
Depth (ft)	% Organics
1'-2'	1.4
3'-4'	0.5
7'-8'	0.4

OTP-1	
Depth (ft)	% Organics
0'-1'	6.5
1'-3'	0.4

OTP-2	
Depth (ft)	% Organics
0'-1'	12.9
1'-3'	0.5

OTP-3	
Depth (ft)	% Organics
0'-1'	7.0
1'-3'	0.7

OTP-4	
Depth (ft)	% Organics
0'-0.5'	15.8
0.5'-3'	0.4

OTP-5	
Depth (ft)	% Organics
0'-1'	8.2
1'-3'	0.7

OTP-6	
Depth (ft)	% Organics
0'-0.83'	8.8
0.83'-3'	0.8

OTP-7	
Depth (ft)	% Organics
3.5'	0.8

OTP-8*	
Depth (ft)	% Organics
0'-1'	>10
1.5'	2.3
2'-2.6'	0.5
3'-4.5'	0.2

OTP-9	
Depth (ft)	% Organics
0'-1'	1.5
1'-3'	0.6

OTP-10*	
Depth (ft)	% Organics
0'-1'	>10
1.5'-2'	1.2
2'-4.5'	0.5

OTP-11*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	0.9
3.5'-4.5'	0.1

OTP-12	
Depth (ft)	% Organics
0'-1'	10.0
1'-3.5'	0.9

OTP-13	
Depth (ft)	% Organics
0'-1'	8.7
1'-3'	0.6
4'	0.5

OTP-14*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	0.6
2'-3'	0.5

OTP-15	
Depth (ft)	% Organics
0'-1'	3.0
1'-3.5'	0.6

OTP-16	
Depth (ft)	% Organics
0'-1'	33.2
1'-3'	1.2

OTP-17*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.2
2'-3'	1.3

OTP-18*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.2
3'-3.5'	0.8

OTP-19	
Depth (ft)	% Organics
1'-2'	1.4
2'-3'	0.9

OTP-20	
Depth (ft)	% Organics
1'-2'	0.9
2'-4'	0.6

OTP-21*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.0
2'-4'	0.5

OTP-22*	
Depth (ft)	% Organics
0'-1'	>10
1'-1.5'	2.8
2'-3'	0.7

OTP-23*	
Depth (ft)	% Organics
0'-1'	>10
1'-2'	1.1
2'-3'	0.8

OTP-24	
Depth (ft)	% Organics
1'-2'	0.8
2'-3'	0.4

OTP-25	
Depth (ft)	% Organics
1'-2'	0.8
2'-3'	0.9

Legend

> 5%	Recommended for Offsite Removal
2 to 5%	Recommended for Mixing/Blending with "Clean" Soils
< 2%	"Clean" Soils

Note: * Indicates Soil Visually Confirmed to Have greater than 10% Organics at 0'-1'

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Table 6
Summary of Measured Organic Content vs Depth of Sample

Project Name	TNHC - Eastvale
Project Number	21116-01
ENG./GEOL.	BJE/BPG
Date	Jun-21

Appendix D
Infiltration Test Data

Infiltration Test Data Sheet

LGC Geotechnical, Inc

131 Calle Iglesia Suite 200, San Clemente, CA 92672 tel. (949) 369-6141

Project Name: Eastvale

Project Number: 21116-01

Date: 5/25/2021

Boring Number: I-1

Test hole dimensions (if circular)	
Boring Depth (feet)*:	10
Boring Diameter (inches):	8
Pipe Diameter (inches):	3

*measured at time of test

Test pit dimensions (if rectangular)	
Pit Depth (feet):	
Pit Length (feet):	
Pit Breadth (feet):	

*Pre-Test (Sandy Soil Criteria)**

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval (min)	Initial Depth to Water (feet)	Final Depth to Water (feet)	Total Change in Water Level (feet)	Greater Than or Equal to 0.5 feet (yes/no)
1	9:14	9:39	25.0	7.53	9.10	1.57	Yes
2	9:40	10:05	25.0	7.65	9.33	1.68	Yes

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight, and then obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25 inches

Main Test Data

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval, Δt (min)	Initial Depth to Water, D_o (feet)	Final Depth to Water, D_f (feet)	Change in Water Level, ΔD (feet)	Observed Infiltration Rate(in/hr)
1	10:06	10:16	10.0	7.90	8.45	0.55	3.3
2	10:17	10:27	10.0	7.82	8.33	0.51	2.9
3	10:28	10:38	10.0	8.11	8.67	0.56	3.8
4	10:39	10:49	10.0	8.00	8.53	0.53	3.3
5	10:50	11:00	10.0	7.85	8.47	0.62	3.7
6	11:01	11:11	10.0	7.91	8.52	0.61	3.8

Observed Infiltration Rate (Does Not Include Any Factor of Safety) **3.8**

Sketch:

Notes:

LGC Geotechnical, Inc.

Infiltration Test Data Sheet

LGC Geotechnical, Inc
131 Calle Iglesia Suite 200, San Clemente, CA 92672 tel. (949) 369-6141

Project Name: Eastvale
Project Number: 21116-01
Date: 5/25/2021
Boring Number: I-2

Test hole dimensions (if circular)	
Boring Depth (feet)*:	10
Boring Diameter (inches):	8
Pipe Diameter (inches):	3

*measured at time of test

Test pit dimensions (if rectangular)	
Pit Depth (feet):	
Pit Length (feet):	
Pit Breadth (feet):	

*Pre-Test (Sandy Soil Criteria)**

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval (min)	Initial Depth to Water (feet)	Final Depth to Water (feet)	Total Change in Water Level (feet)	Greater Than or Equal to 0.5 feet (yes/no)
1	7:03	7:28	25.0	7.56	7.82	0.26	No
2	7:29	7:54	25.0	7.63	7.89	0.26	No

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Otherwise, pre-soak (fill) overnight, and then obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25 inches

Main Test Data

Trial No.	Start Time (24:HR)	Stop Time (24:HR)	Time Interval, Δt (min)	Initial Depth to Water, D_o (feet)	Final Depth to Water, D_f (feet)	Change in Water Level, ΔD (feet)	Observed Infiltration Rate(in/hr)
1	8:50	9:20	30.0	7.60	7.99	0.39	0.7
2	9:21	9:51	30.0	7.63	8.00	0.37	0.6
3	9:52	10:22	30.0	7.59	7.91	0.32	0.5
4	10:23	10:53	30.0	7.61	7.95	0.34	0.6
5	10:54	11:24	30.0	7.65	7.93	0.28	0.5
6	11:25	11:55	30.0	7.60	7.93	0.33	0.5
7	11:56	12:26	30.0	7.64	7.95	0.31	0.5
8	12:27	12:57	30.0	7.65	7.94	0.29	0.5
9	12:58	13:28	30.0	7.61	7.96	0.35	0.6
10	13:29	13:59	30.0	7.58	7.89	0.31	0.5
11	14:00	14:30	30.0	7.58	7.91	0.33	0.5
12	14:31	15:01	30.0	7.62	7.95	0.33	0.6

Observed Infiltration Rate (Does Not Include Any Factor of Safety) **0.6**

Sketch:

Notes:

LGC Geotechnical, Inc.

Appendix E
General Earthwork and Grading Specifications for Rough Grading

General Earthwork and Grading Specifications for Rough Grading

1.0 General

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ a qualified Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to confirm that the attained level of compaction is being accomplished as specified. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the project plans and specifications. The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of “equipment” of work and the estimated quantities of daily earthwork

contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the
Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate personnel will be available for observation and testing. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified. It is the contractor's sole responsibility to provide proper fill compaction.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed. The contractor is responsible for all hazardous waste relating to his work. The Geotechnical Consultant does not have expertise in this area. If hazardous waste is a concern, then the Client should acquire the services of a qualified environmental assessor.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be over-excavated as specified in the following section. Scarification shall continue until soils are broken down and free of oversize material and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Over-excavation

In addition to removals and over-excavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be over-excavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise over-excavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of the geotechnical consultant. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than
5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 The Contractor shall follow all OHSA and Cal/OSHA requirements for safety of trench excavations.

7.2 All bedding and backfill of utility trenches shall be done in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over

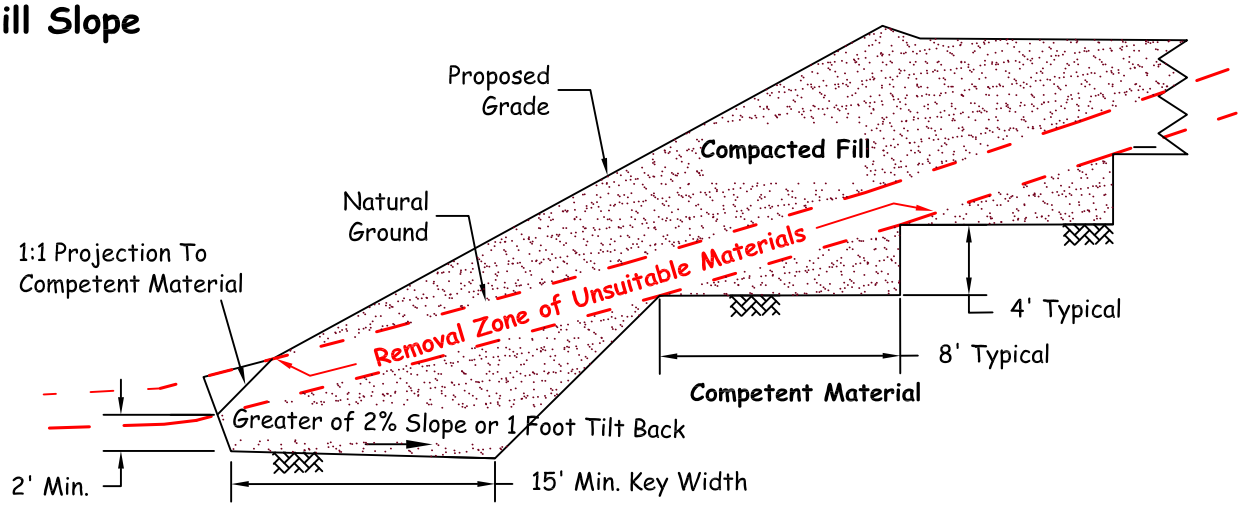
the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of maximum from 1 foot above the top of the conduit to the surface.

7.3 The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

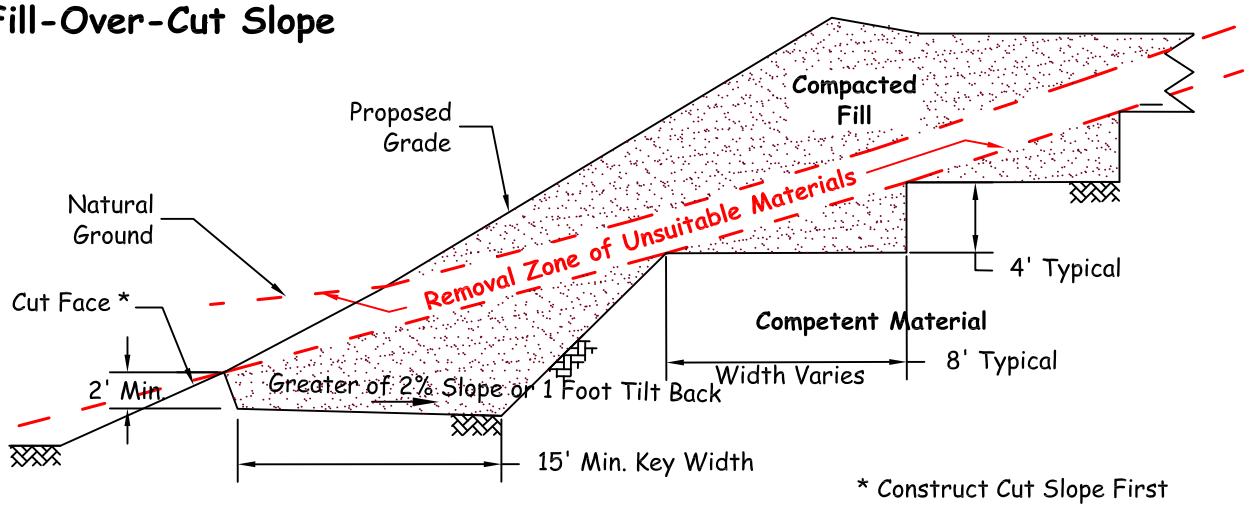
7.4 The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

7.5 Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

Fill Slope

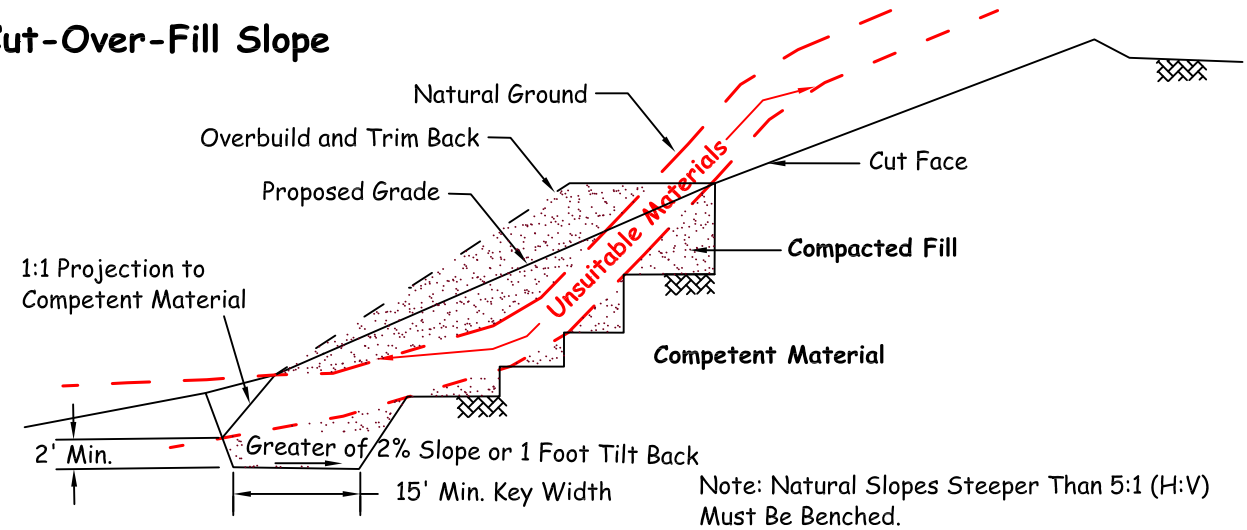


Fill-Over-Cut Slope



* Construct Cut Slope First

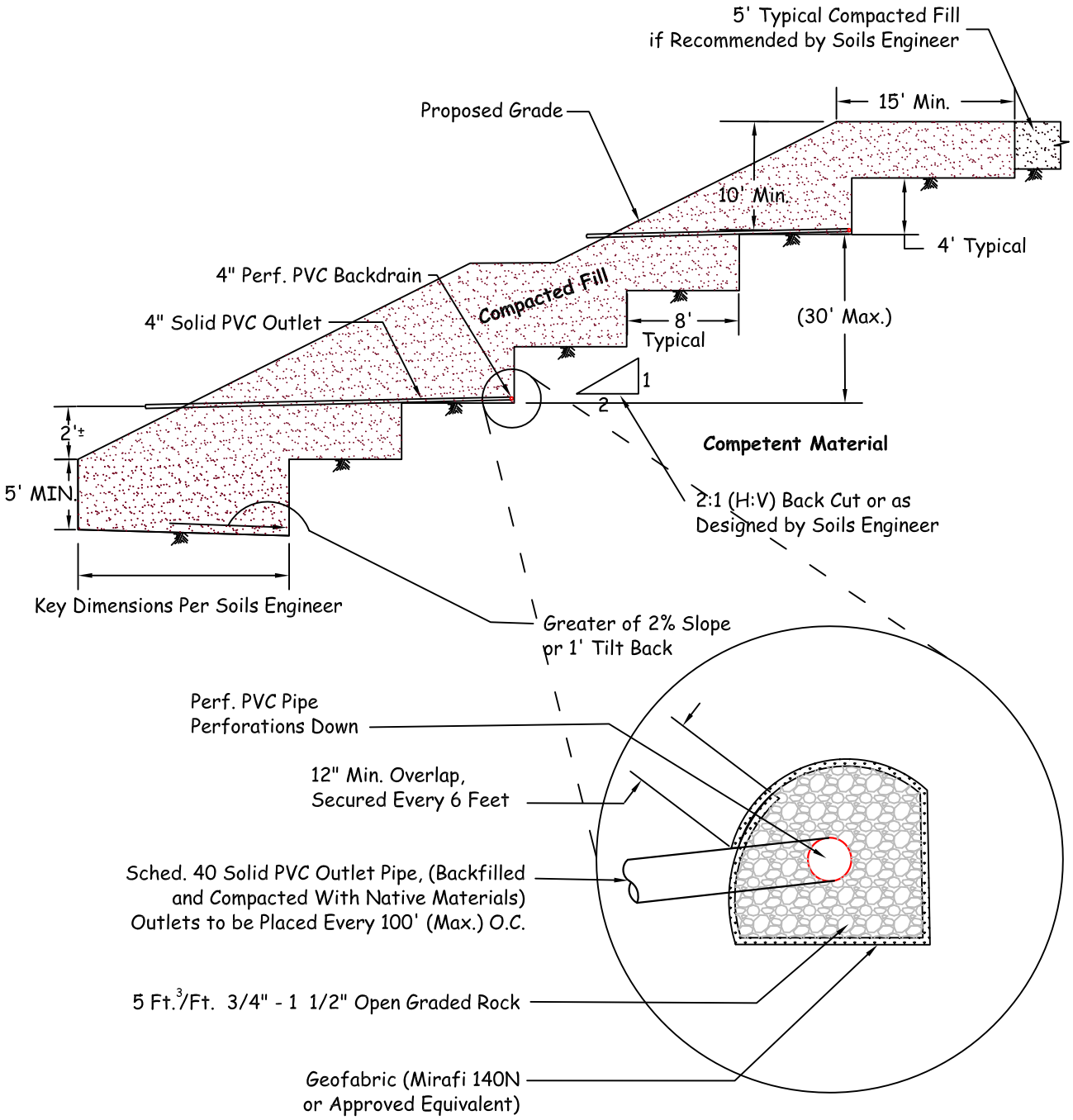
Cut-Over-Fill Slope



Note: Natural Slopes Steeper Than 5:1 (H:V) Must Be Benched.

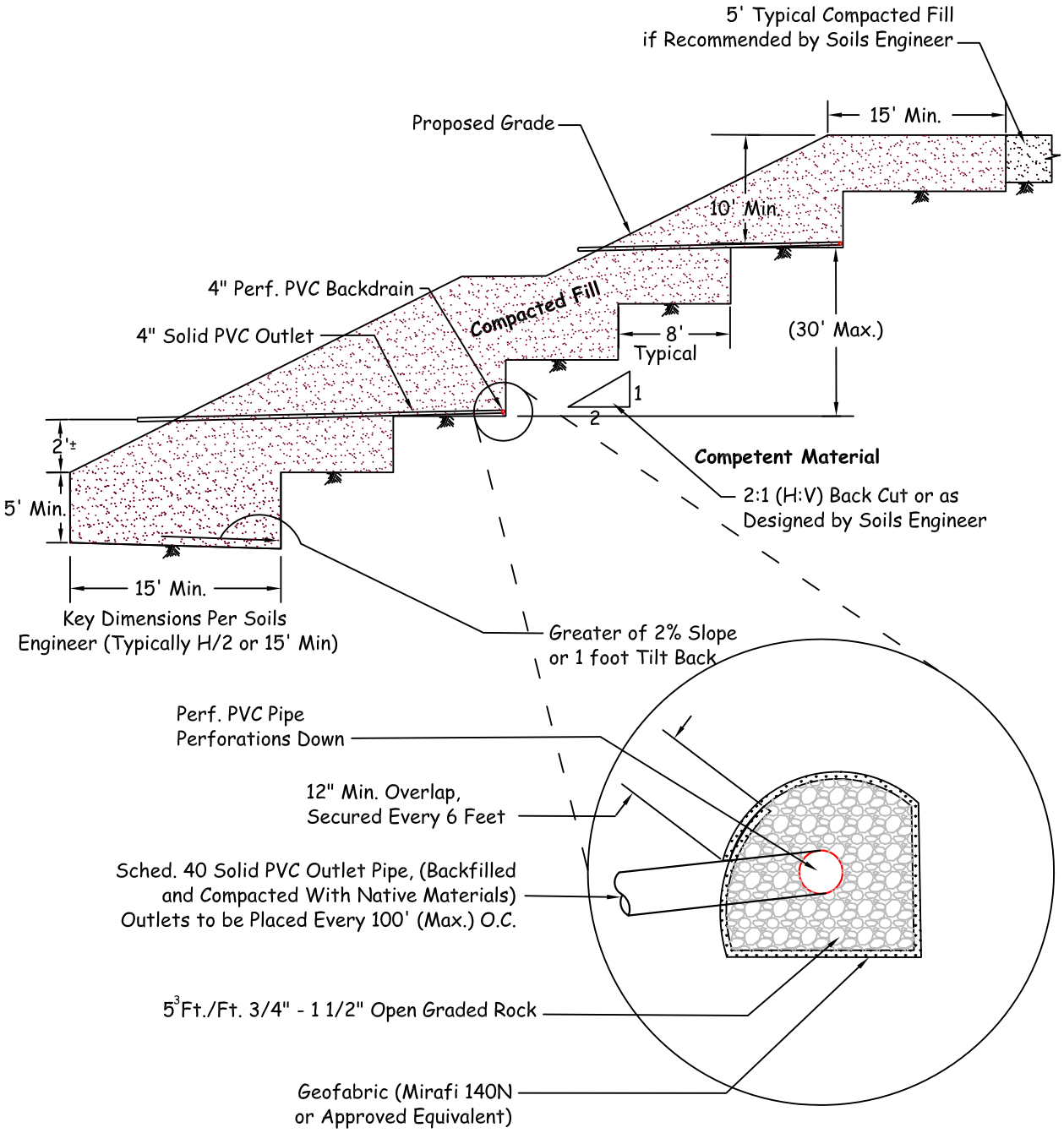
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KEYING AND BENCHING



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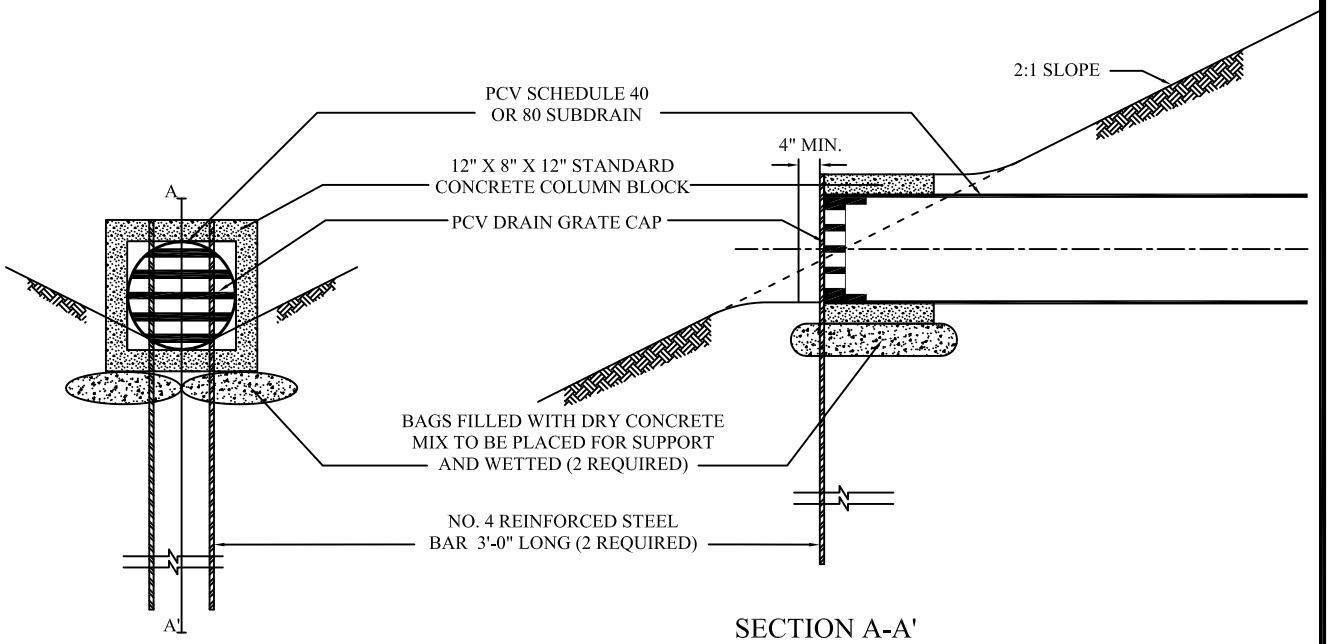
TYPICAL BUTTRESS DETAIL



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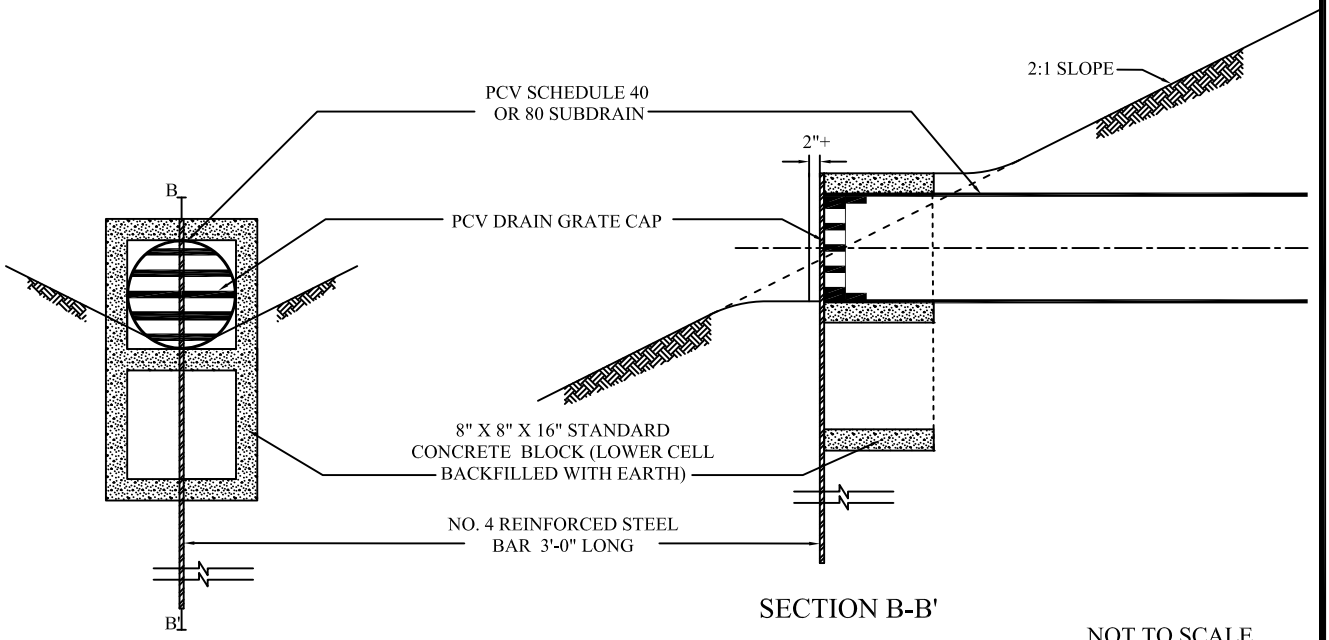
TYPICAL STABILIZATION FILL DETAIL

SUBDRAIN OUTLET MARKER -6" & 8" PIPE



SECTION A-A'

SUBDRAIN OUTLET MARKER -4" PIPE



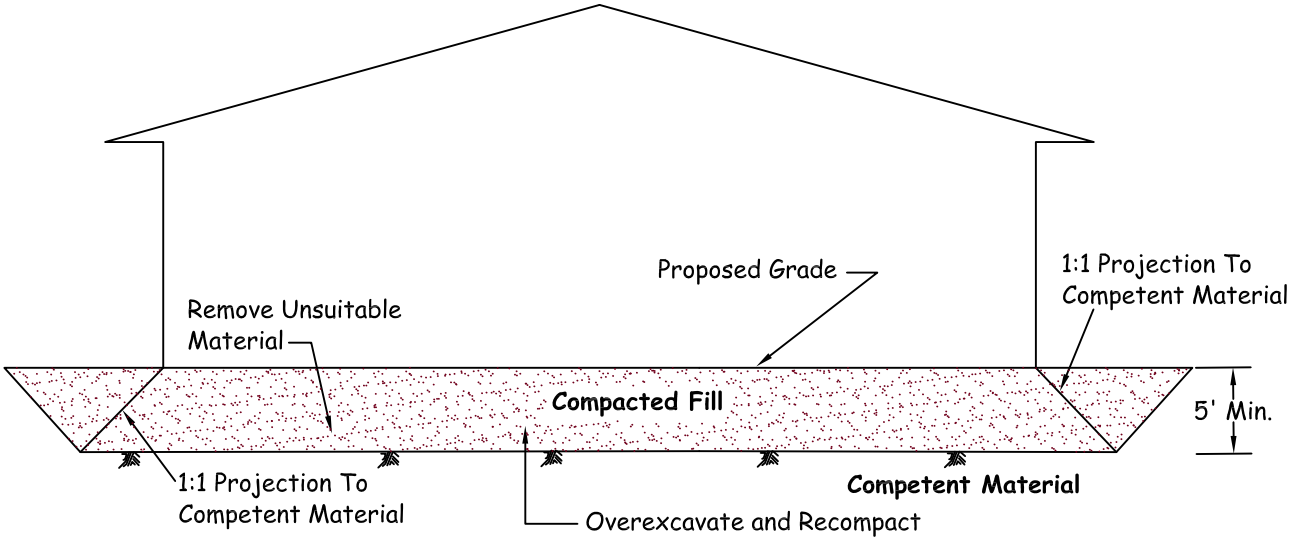
SECTION B-B'

NOT TO SCALE

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SUBDRAIN OUTLET MARKER DETAIL

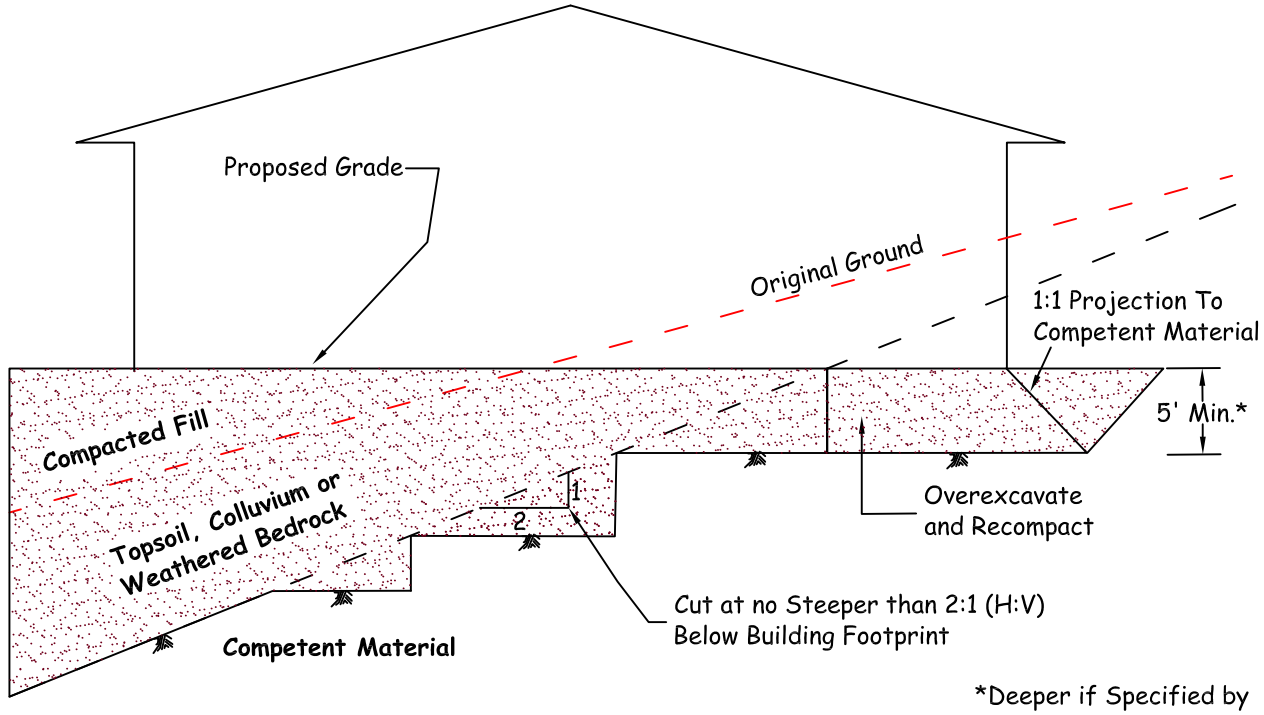
Cut Lot
(Exposing Unsuitable Soils at Design Grade)



Note 1: Removal Bottom Should be Graded With Minimum 2% Fall Towards Street or Other Suitable Area (as Determined by Soils Engineer) to Avoid Ponding Below Building

Note 2: Where Design Cut Lots are Excavated Entirely Into Competent Material, Overexcavation May Still be Required for Hard-Rock Conditions or for Materials With Variable Expansion Characteristics.

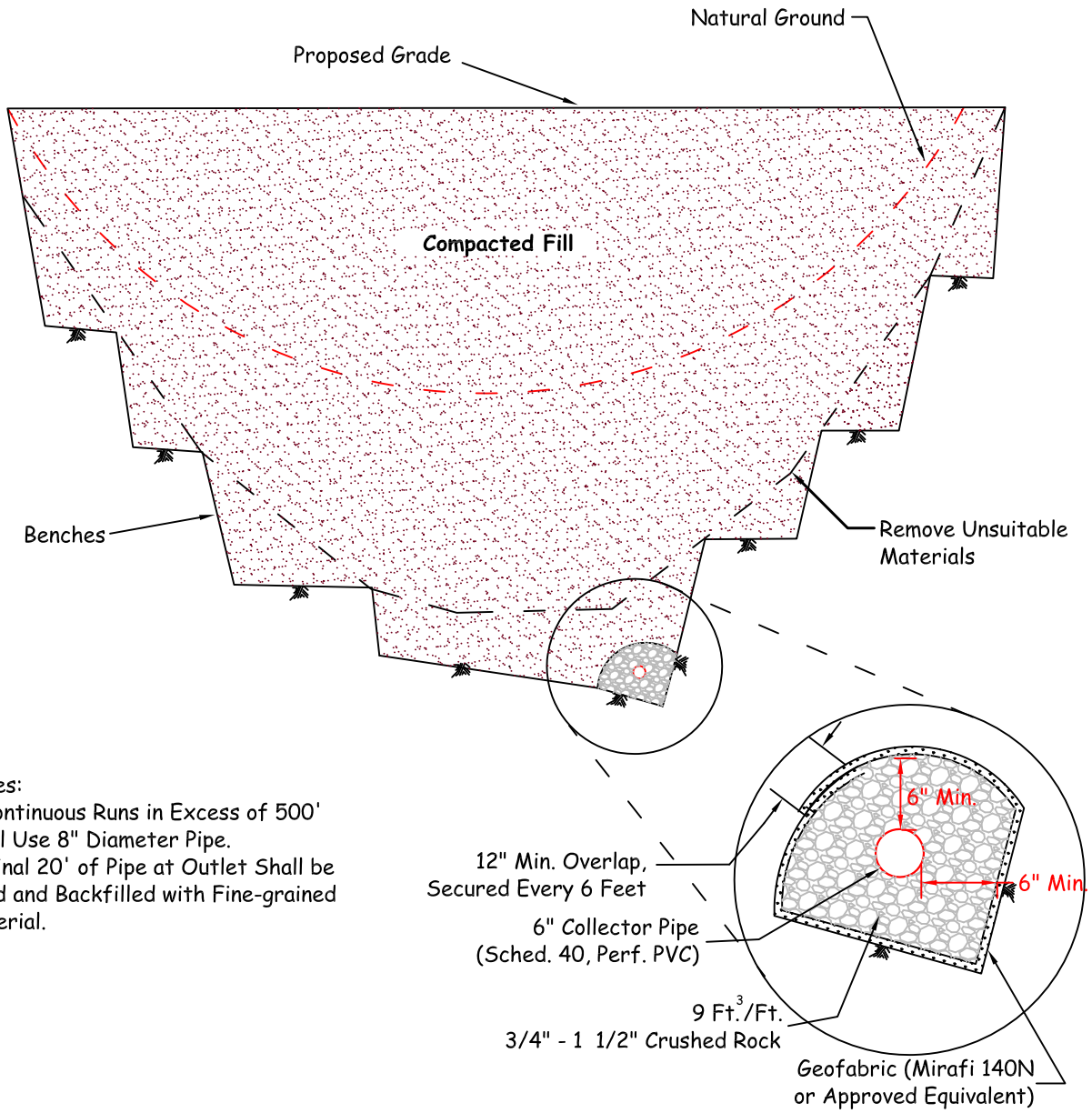
Cut/Fill Transition Lot



*Deeper if Specified by Soils Engineer

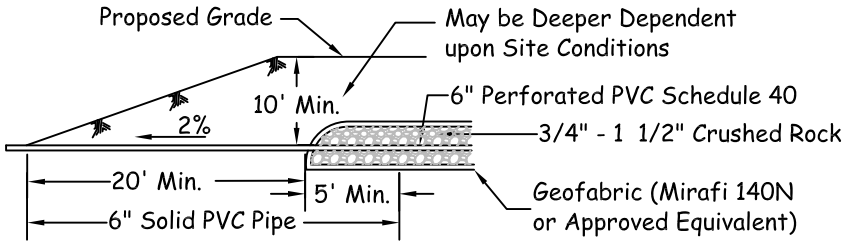
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CUT AND TRANSITION LOT OVEREXCAVATION DETAIL



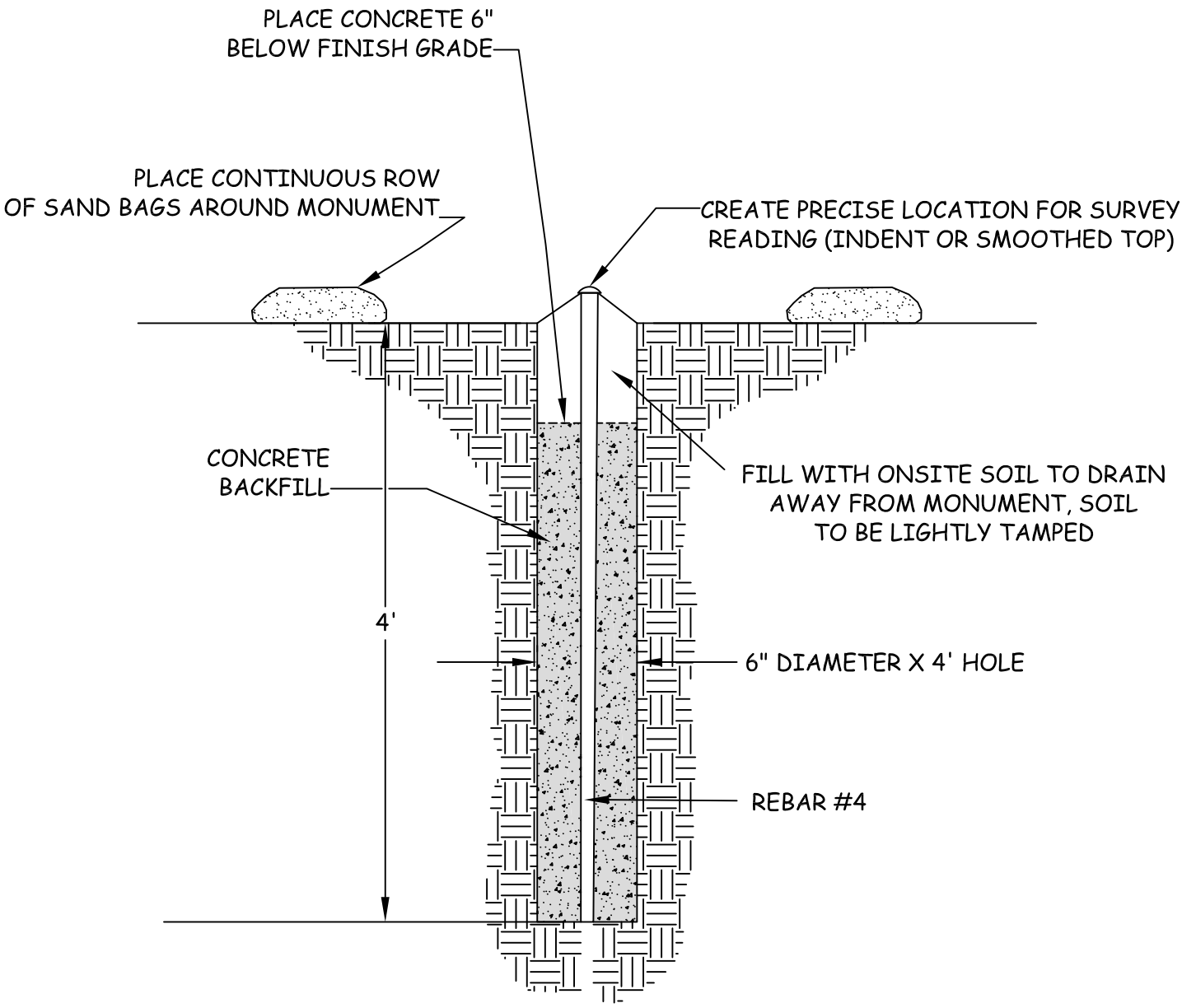
Notes:
1) Continuous Runs in Excess of 500' Shall Use 8" Diameter Pipe.
2) Final 20' of Pipe at Outlet Shall be Solid and Backfilled with Fine-grained Material.

Proposed Outlet Detail



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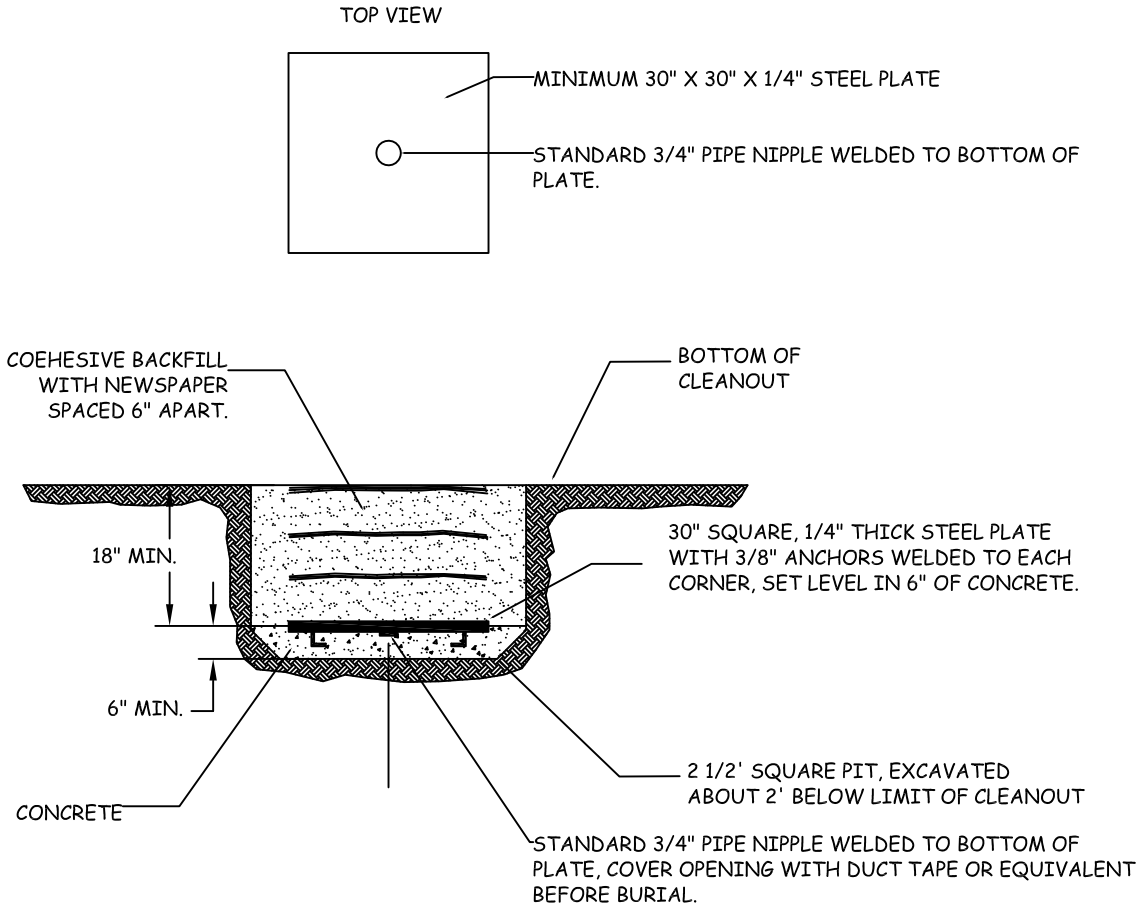
CANYON SUBDRAINS



NO CONSTRUCTION EQUIPMENT WITHIN 25 FEET
OF ANY INSTALLED SETTLEMENT MONUMENTS

LGC Geotechnical, Inc.

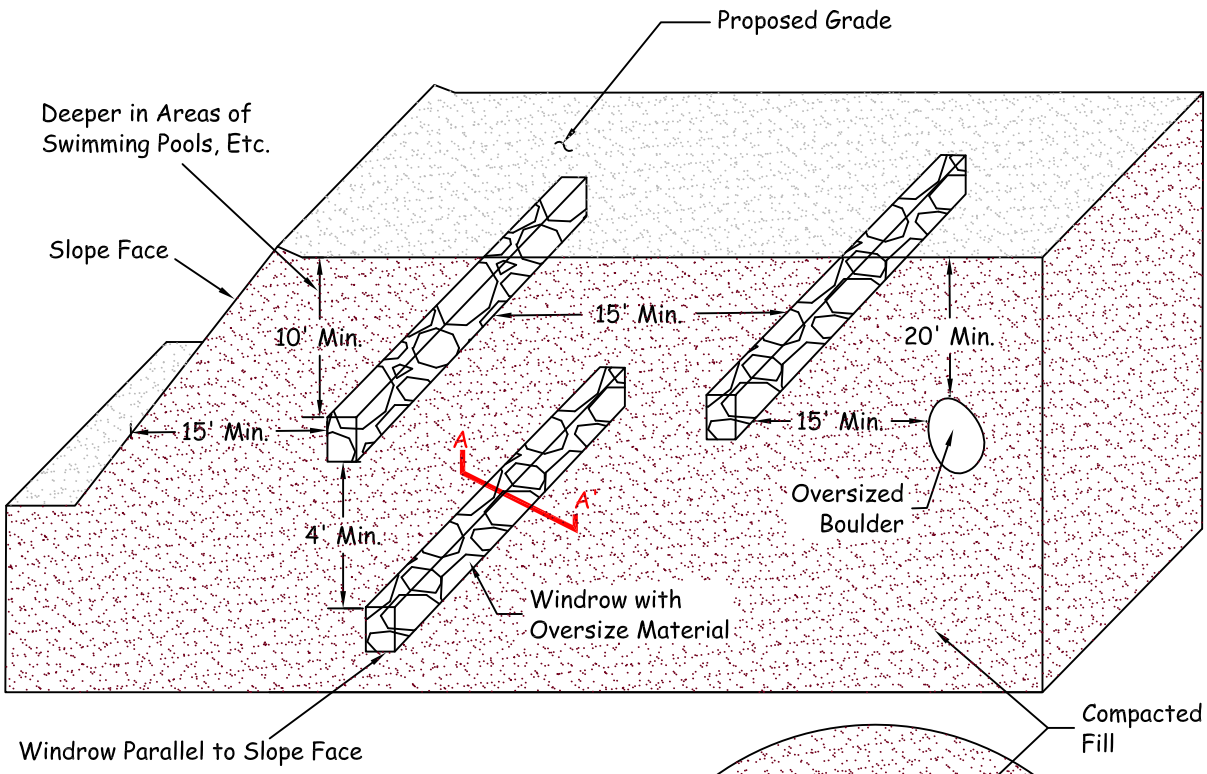
TYPICAL SURFACE SETTLEMENT MONUMENT

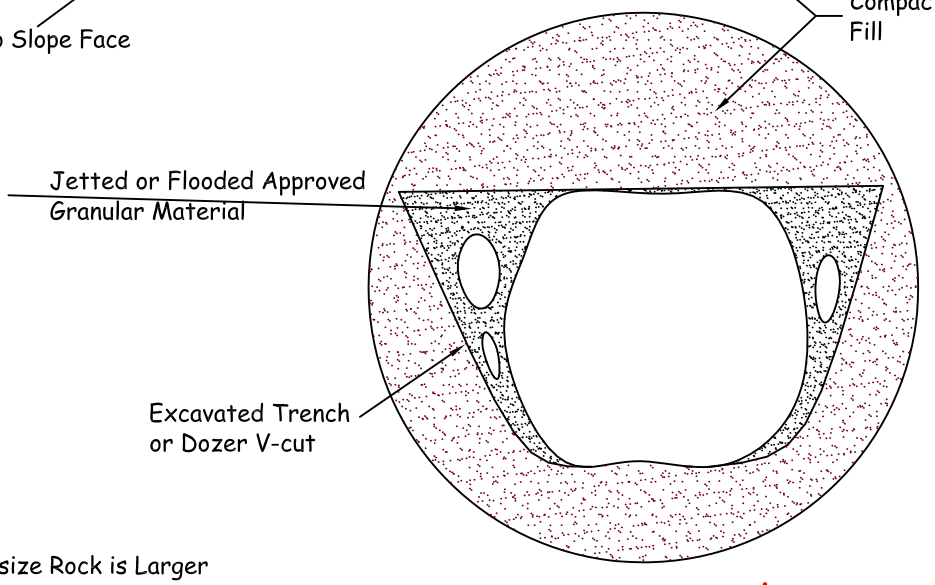


1. SURVEY FOR HORIZONTAL AND VERTICAL LOCATION TO NEAREST .01 INCH PRIOR TO BACKFILL USING KNOW LOCATIONS THAT WILL REMAIN INTACT DURING THE DURATION OF THE MONITORING PROGRAM. KNOW POINTS EXPLICITELY NOT ALLOWED ARE THOSE LOCATED ON FILL OR THAT WILL BE DESTROYED DURING GRADING.
2. IN THE EVENT OF DAMAGE TO SETTLEMENT PLATE DURING GRADING, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE GEOTECHNICAL ENGINEER AND SHALL BE RESPONSIBLE FOR RESTORING THE SETTLEMENT PLATES TO WORKING ORDER.
3. DRILL TO RECOVER AND ATTACH RISER PIPE.

LGC Geotechnical, Inc.

TYPICAL SETTLEMENT PLATE AND RISER





Note: Oversize Rock is Larger
than 8" in Maximum Dimension.

Section A-A'

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OVERSIZE ROCK DISPOSAL DETAIL

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

- On File with City

- N/A. Project is able to meet LID BMP requirements onsite.

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name: Hunsaker & Associates Irvine, Inc. | Date: 11/29/2021

Designed by: Tommy Hsu | Case No: TBD

Company Project Number/Name: Leal Ranch

BMP Identification

BMP NAME / ID: DMAS 1 THROUGH 17

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.86 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
1A	*2002660*	*Mixed Surface Types*	*0.8*	*0.60*	*1200186.1*			
1B	*723208*	*Mixed Surface Types*	*0.8*	*0.60*	*433415.7*			
1C	*668544*	*Mixed Surface Types*	*0.8*	*0.60*	*400655.7*			
1D	*1287889*	*Mixed Surface Types*	*0.8*	*0.60*	*771826.7*			
1E	*558821*	*Mixed Surface Types*	*0.8*	*0.60*	*334899.2*			
1F	*322031*	*Mixed Surface Types*	*0.8*	*0.60*	*192991.9*			
2	*571177*	*Mixed Surface Types*	*0.8*	*0.60*	*342304.1*			
3	*20004*	*Mixed Surface Types*	*0.8*	*0.60*	*11988.3*			
4	*27082*	*Mixed Surface Types*	*0.8*	*0.60*	*16230.1*			
5	*37514*	*Mixed Surface Types*	*0.8*	*0.60*	*22482*			
6	*32384*	*Mixed Surface Types*	*0.8*	*0.60*	*19407.6*			
7	*91523*	*Mixed Surface Types*	*0.8*	*0.60*	*54849.4*			
8	*93166*	*Mixed Surface Types*	*0.8*	*0.60*	*55834*			
9	*52777*	*Mixed Surface Types*	*0.8*	*0.60*	*31629*			
10	*72452*	*Mixed Surface Types*	*0.8*	*0.60*	*43420.2*			
11	*17237*	*Mixed Surface Types*	*0.8*	*0.60*	*10330.1*			
12	*81864*	*Mixed Surface Types*	*0.8*	*0.60*	*49060.8*			
13	*20030*	*Mixed Surface Types*	*0.8*	*0.60*	*12003.9*			
14	*40079*	*Mixed Surface Types*	*0.8*	*0.60*	*24019.2*			
15	*57984*	*Mixed Surface Types*	*0.8*	*0.60*	*34749.6*			
16	*95700*	*Mixed Surface Types*	*0.8*	*0.60*	*57352.6*			
17	*97608*	*Mixed Surface Types*	*0.8*	*0.60*	*58496.1*			
	6971734	***Total***			**4178132.3**	**0.86**	***298736.5***	***TBD***

Notes:

Santa Ana Watershed - BMP Design Flow Rate, Q_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

*(Note this worksheet shall **only** be used in conjunction with BMP designs from the **LID BMP Design Handbook**)*

Company Name	Hunsaker & Associates	Date	11/29/2021
Designed by	Tommy Hsu	Case No	TBD
Company Project Number/Name	Leal Ranch		

BMP Identification

BMP NAME / ID: DMAS 1 THROUGH 17

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

Design Rainfall Intensity: I = 0.20 in/hr

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

	DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type (use pull-down menu)	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Design Rainfall Intensity (in/hr)*	*Design Flow Rate (cfs)*	*Proposed Flow Rate (cfs)*
DMAs	1A	2002660	Mixed Surface Types	0.8	0.60	1200186.1			
	1B	723208	Mixed Surface Types	0.8	0.599296	433415.7			
	1C	668544	Mixed Surface Types	0.8	0.599296	400655.7			
	1D	1287889	Mixed Surface Types	0.8	0.599296	771826.7			
	1E	558821	Mixed Surface Types	0.8	0.599296	334899.2			
	1F	322031	Mixed Surface Types	0.8	0.599296	192991.9			
	2	571177	Mixed Surface Types	0.8	0.599296	342304.1			
	3	20004	Mixed Surface Types	0.8	0.599296	11988.3			
	4	27082	Mixed Surface Types	0.8	0.599296	16230.1			
	5	37514	Mixed Surface Types	0.8	0.599296	22482			
	6	32384	Mixed Surface Types	0.8	0.599296	19407.6			
	7	91523	Mixed Surface Types	0.8	0.599296	54849.4			
	8	93166	Mixed Surface Types	0.8	0.599296	55834			
	9	52777	Mixed Surface Types	0.8	0.599296	31629			
	10	72452	Mixed Surface Types	0.8	0.599296	43420.2			
	11	17237	Mixed Surface Types	0.8	0.599296	10330.1			
	12	81864	Mixed Surface Types	0.8	0.599296	49060.8			
	13	20030	Mixed Surface Types	0.8	0.599296	12003.9			
	14	40079	Mixed Surface Types	0.8	0.599296	24019.2			
	15	57984	Mixed Surface Types	0.8	0.599296	34749.6			
	16	95700	Mixed Surface Types	0.8	0.599296	57352.6			
	17	97608	Mixed Surface Types	0.8	0.599296	58496.1			
		6971734		***Total***		**4178132.3**	**0.20**	***19.2***	***TBD***

Notes:

3.5 Bioretention Facility

Type of BMP	LID – Bioretention
Treatment Mechanisms	Infiltration, Evapotranspiration, Evaporation, Biofiltration
Maximum Drainage Area	This BMP is intended to be integrated into a project's landscaped area in a distributed manner. Typically, contributing drainage areas to Bioretention Facilities range from less than 1 acre to a maximum of around 10 acres.
Other Names	Rain Garden, Bioretention Cell, Bioretention Basin, Biofiltration Basin, Landscaped Filter Basin, Porous Landscape Detention

Description

Bioretention Facilities are shallow, vegetated basins underlain by an engineered soil media. Healthy plant and biological activity in the root zone maintain and renew the macro-pore space in the soil and maximize plant uptake of pollutants and runoff. This keeps the Best Management Practice (BMP) from becoming clogged and allows more of the soil column to function as both a sponge (retaining water) and a highly effective and self-maintaining biofilter. In most cases, the bottom of a Bioretention Facility is unlined, which also provides an opportunity for infiltration to the extent the underlying onsite soil can accommodate. When the infiltration rate of the underlying soil is exceeded, fully biotreated flows are discharged via underdrains. Bioretention Facilities therefore will inherently achieve the maximum feasible level of infiltration and evapotranspiration and achieve the minimum feasible (but highly biotreated) discharge to the storm drain system.

Siting Considerations

These facilities work best when they are designed in a relatively level area. Unlike other BMPs, Bioretention Facilities can be used in smaller landscaped spaces on the site, such as:

- ✓ Parking islands
- ✓ Medians
- ✓ Site entrances

Landscaped areas on the site (such as may otherwise be required through minimum landscaping ordinances), can often be designed as Bioretention Facilities. This can be accomplished by:

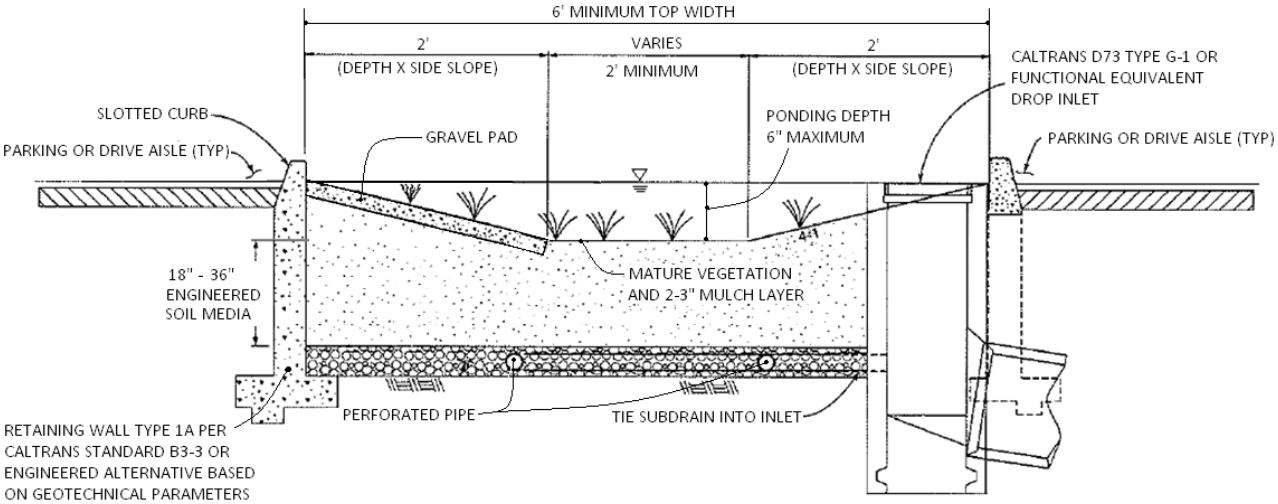
- *Depressing* landscaped areas below adjacent impervious surfaces, rather than elevating those areas
- Grading the site to direct runoff from those impervious surfaces *into* the Bioretention Facility, rather than away from the landscaping
- Sizing and designing the depressed landscaped area as a Bioretention Facility as described in this Fact Sheet

Bioretention Facilities should however not be used downstream of areas where large amounts of sediment can clog the system. Placing a Bioretention Facility at the toe of a steep slope should also be avoided due to the potential for clogging the engineered soil media with erosion from the slope, as well as the potential for damaging the vegetation.

Design and Sizing Criteria

The recommended cross section necessary for a Bioretention Facility includes:

- Vegetated area
- 18' minimum depth of engineered soil media
- 12' minimum gravel layer depth with 6' perforated pipes (added flow control features such as orifice plates may be required to mitigate for HCOC conditions)



While the 18-inch minimum engineered soil media depth can be used in some cases, it is recommended to use 24 inches or a preferred 36 inches to provide an adequate root zone for the chosen plant palate. Such a design also provides for improved removal effectiveness for nutrients. The recommended ponding depth inside of a Bioretention Facility is 6 inches; measured from the flat bottom surface to the top of the water surface as shown in Figure 1.

Because this BMP is filled with an engineered soil media, pore space in the soil and gravel layer is assumed to provide storage volume. However, several considerations must be noted:

- Surcharge storage above the soil surface (6 inches) is important to assure that design flows do not bypass the BMP when runoff exceeds the soil's absorption rate.
- In cases where the Bioretention Facility contains engineered soil media deeper than 36 inches, the pore space within the engineered soil media can only be counted to the 36-inch depth.
- A maximum of 30 percent pore space can be used for the soil media whereas a maximum of 40 percent pore space can be use for the gravel layer.

Figure 1: Standard Layout for a Bioretention Facility

Engineered Soil Media Requirements

The engineered soil media shall be comprised of 85 percent mineral component and 15 percent organic component, by volume, drum mixed prior to placement. The mineral component shall be a Class A sandy loam topsoil that meets the range specified in Table 1 below. The organic component shall be nitrogen stabilized compost[1], such that nitrogen does not leach from the media.

Table 1: Mineral Component Range Requirements

Percent Range	Component
70-80	Sand
15-20	Silt
5-10	Clay

The trip ticket, or certificate of compliance, shall be made available to the inspector to prove the engineered mix meets this specification.

Vegetation Requirements

Vegetative cover is important to minimize erosion and ensure that treatment occurs in the Bioretention Facility. The area should be designed for at least 70 percent mature coverage throughout the Bioretention Facility. To prevent the BMP from being used as walkways, Bioretention Facilities shall be planted with a combination of small trees, densely planted shrubs, and natural grasses. Grasses shall be native or ornamental; preferably ones that do not need to be mowed. The application of fertilizers and pesticides should be minimal. To maintain oxygen levels for the vegetation and promote biodegradation, it is important that vegetation not be completely submerged for any extended period of time. Therefore, a maximum of 6 inches of ponded water shall be used in the design to ensure that plants within the Bioretention Facility remain healthy.

A 2 to 3-inch layer of standard shredded aged hardwood mulch shall be placed as the top layer inside the Bioretention Facility. The 6-inch ponding depth shown in Figure 1 above shall be measured from the top surface of the 2 to 3-inch mulch layer.

Curb Cuts

To allow water to flow into the Bioretention Facility, 1-foot-wide (minimum) curb cuts should be placed approximately every 10 feet around the perimeter of the Bioretention Facility. Figure 2 shows a curb cut in a Bioretention Facility. Curb cut flow lines must be at or above the V_{BMP} water surface level.

[1] For more information on compost, visit the US Composting Council website at: http://compostingcouncil.org/



Figure 2: Curb Cut located in a Bioretention Facility

To reduce erosion, a gravel pad shall be placed at each inlet point to the Bioretention Facility. The gravel should be 1- to 1.5-inch diameter in size. The gravel should overlap the curb cut opening a minimum of 6 inches. The gravel pad inside the Bioretention Facility should be flush with the finished surface at the curb cut and extend to the bottom of the slope.

In addition, place an apron of stone or concrete, a foot square or larger, inside each inlet to prevent vegetation from growing up and blocking the inlet. See Figure 3.

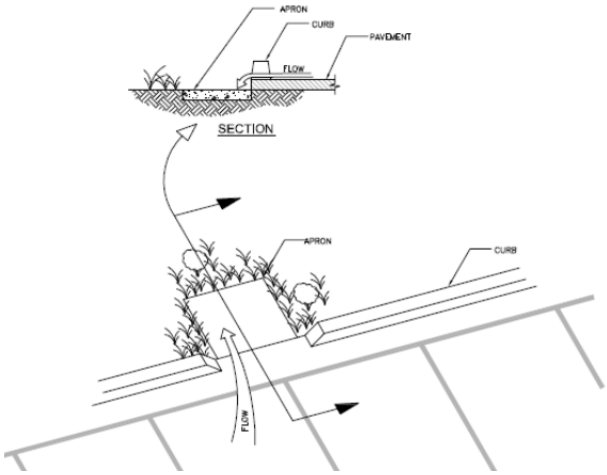


Figure 3: Apron located in a Bioretention Facility

Terracing the Landscaped Filter Basin

It is recommended that Bioretention Facilities be level. In the event the facility site slopes and lacks proper design, water would fill the lowest point of the BMP and then discharge from the basin without being treated. To ensure that the water will be held within the Bioretention Facility on sloped sites, the BMP must be terraced with nonporous check dams to provide the required storage and treatment capacity.

The terraced version of this BMP shall be used on non-flat sites with no more than a 3 percent slope. The surcharge depth cannot exceed 0.5 feet, and side slopes shall not exceed 4:1. Table 2 below shows the spacing of the check dams, and slopes shall be rounded up (i.e., 2.5 percent slope shall use 10' spacing for check dams).

Table 2: Check Dam Spacing

6" Check Dam Spacing	
Slope	**Spacing**
1%	*25'*
2%	*15'*
3%	*10'*

Roof Runoff

Roof downspouts may be directed towards Bioretention Facilities. However, the downspouts must discharge onto a concrete splash block to protect the Bioretention Facility from erosion.

Retaining Walls

It is recommended that Retaining Wall Type 1A, per Caltrans Standard B3-3 or equivalent, be constructed around the entire perimeter of the Bioretention Facility. This practice will protect the sides of the Bioretention Facility from collapsing during construction and maintenance or from high service loads adjacent to the BMP. Where such service loads would not exist adjacent to the BMP, an engineered alternative may be used if signed by a licensed civil engineer.

Side Slope Requirements

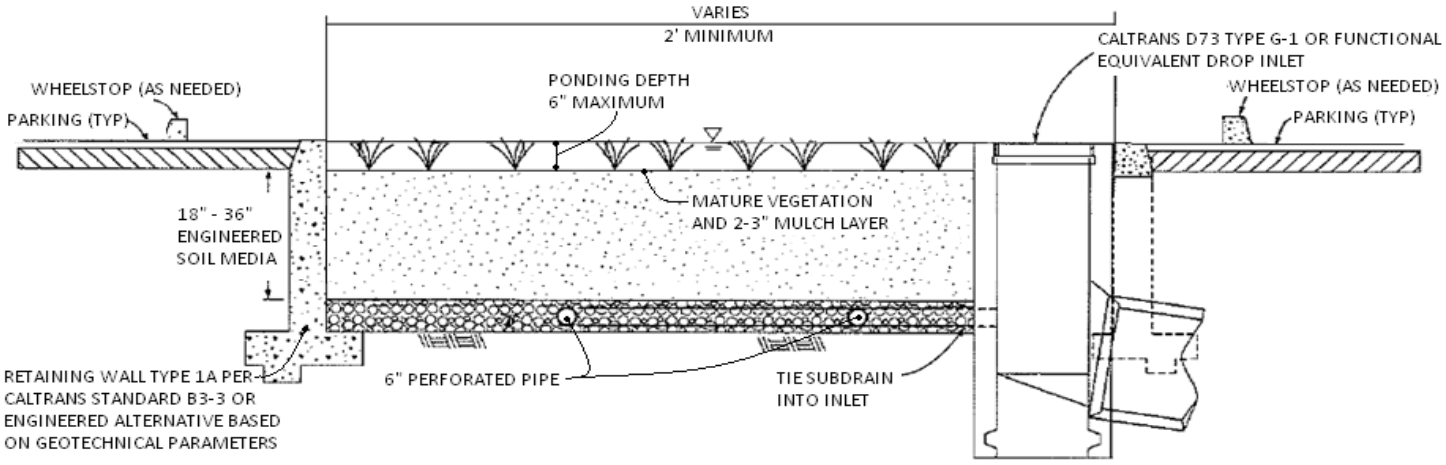
Bioretention Facilities Requiring Side Slopes

The design should assure that the Bioretention Facility does not present a tripping hazard. Bioretention Facilities proposed near pedestrian areas, such as areas parallel to parking spaces or along a walkway, must have a gentle slope to the bottom of the facility. Side slopes inside of a Bioretention Facility shall be 4:1. A typical cross section for the Bioretention Facility is shown in Figure 1.

Bioretention Facilities Not Requiring Side Slopes

Where cars park perpendicular to the Bioretention Facility, side slopes are not required. A 6-inch maximum drop may be used, and the Bioretention Facility must be planted with trees and shrubs to prevent pedestrian access. In this case, a curb is not placed around the Bioretention Facility,

but wheel stops shall be used to prevent vehicles from entering the Bioretention Facility, as shown in Figure 4.



Planter Boxes

Bioretention Facilities can also be placed above ground as planter boxes. Planter boxes must have a minimum width of 2 feet, a maximum surcharge depth of 6 inches, and no side slopes are necessary. Planter boxes must be constructed so as to ensure that the top surface of the engineered soil media will remain level. This option may be constructed of concrete, brick, stone or other stable materials that will not warp or bend. Chemically treated wood or galvanized steel, which has the ability to contaminate stormwater, should not be used. Planter boxes must be lined with an impermeable liner on all sides, including the bottom. Due to the impermeable liner, the inside bottom of the planter box shall be designed and constructed with a cross fall, directing treated flows within the subdrain layer toward the point where subdrain exits the planter box, and subdrains shall be oriented with drain holes oriented down. These provisions will help avoid excessive stagnant water within the gravel underdrain layer. Similar to the in-ground Bioretention Facility versions, this BMP benefits from healthy plants and biological activity in the root zone. Planter boxes should be planted with appropriately selected vegetation.



Figure 5: Planter Box
Source: LA Team Effort

Overflow

An overflow route is needed in the Bioretention Facility design to bypass stored runoff from storm events larger than V_{BMP} or in the event of facility or subdrain clogging. Overflow systems must connect to an acceptable discharge point, such as a downstream conveyance system as shown in Figure 1 and Figure 4. The inlet to the overflow structure shall be elevated inside the Bioretention Facility to be flush with the ponding surface for the design capture volume (V_{BMP}) as shown in Figure 4. This will allow the design capture volume to be fully treated by the Bioretention Facility, and for larger events to safely be conveyed to downstream systems. The overflow inlet shall **not** be located in the entrance of a Bioretention Facility, as shown in Figure 6.

Underdrain Gravel and Pipes

An underdrain gravel layer and pipes shall be provided in accordance with Appendix B – Underdrains.



Figure 6: Incorrect Placement of an Overflow Inlet.

Inspection and Maintenance Schedule

The Bioretention Facility area shall be inspected for erosion, dead vegetation, soggy soils, or standing water. The use of fertilizers and pesticides on the plants inside the Bioretention Facility should be minimized.

Schedule	Activity
Ongoing	• Keep adjacent landscape areas maintained. Remove clippings from landscape maintenance activities. • Remove trash and debris • Replace damaged grass and/or plants • Replace surface mulch layer as needed to maintain a 2-3 inch soil cover.
After storm events	• Inspect areas for ponding
Annually	• Inspect/clean inlets and outlets

Bioretention Facility Design Procedure

1) Enter the area tributary, A_T, to the Bioretention Facility.

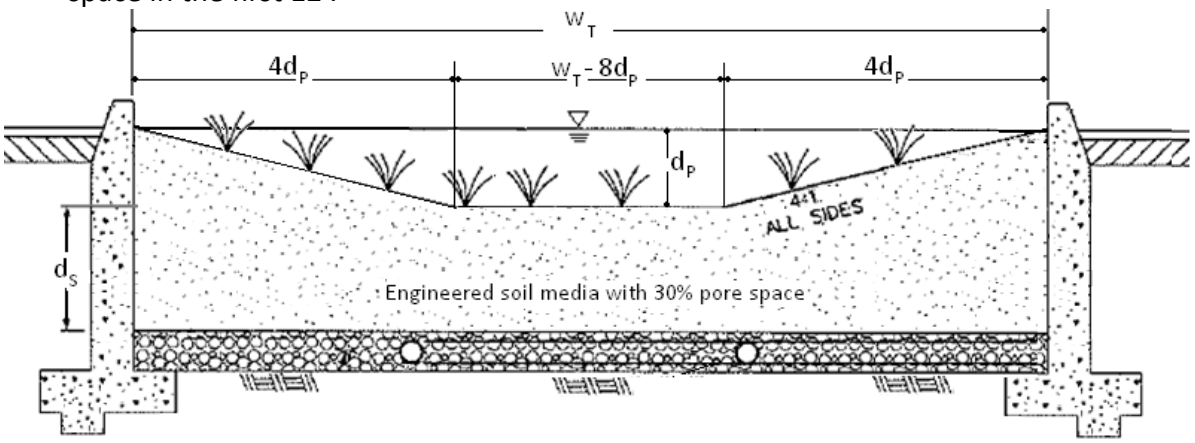
2) Enter the Design Volume, V_{BMP}, determined from Section 2.1 of this Handbook.

3) Select the type of design used. There are two types of Bioretention Facility designs: the standard design used for most project sites that include side slopes, and the modified design used when the BMP is located perpendicular to the parking spaces or with planter boxes that do not use side slopes.

4) Enter the depth of the engineered soil media, d_S. The minimum depth for the engineered soil media can be 18' in limited cases, but it is recommended to use 24' or a preferred 36' to provide an adequate root zone for the chosen plant palette. Engineered soil media deeper than 36' will only get credit for the pore space in the first 36'.

5) Enter the top width of the Bioretention Facility.

6) Calculate the total effective depth, d_E, within the Bioretention Facility. The maximum allowable pore space of the soil media is 30% while the maximum allowable pore space for the gravel layer is 40%. Gravel layer deeper than 12' will only get credit for the pore space in the first 12'.



a. For the design with side slopes the following equation shall be used to determine the total effective depth. Where, d_P is the depth of ponding within the basin.

$$d_E(\text{ft}) = \frac{0.3 \times \left[\left(w_T(\text{ft}) \times d_S(\text{ft})\right) + 4\left(d_P(\text{ft})\right)^2\right] + 0.4 \times 1(\text{ft}) + d_P(\text{ft})\left[4d_P(\text{ft}) + \left(w_T(\text{ft}) - 8d_P(\text{ft})\right)\right]}{w_T(\text{ft})}$$

This above equation can be simplified if the maximum ponding depth of 0.5' is used. The equation below is used on the worksheet to find the minimum area required for the Bioretention Facility:

$$d_E(\text{ft}) = (0.3 \times d_S(\text{ft}) + 0.4 \text{ x } 1(\text{ft})) - \left(\frac{0.7\ (\text{ft}^2)}{w_T(\text{ft})}\right) + 0.5(\text{ft})$$

b. For the design without side slopes the following equation shall be used to determine the total effective depth:

$$d_E(\text{ft}) = d_P(\text{ft}) + [(0.3) \times d_S(\text{ft}) + (0.4) \times 1(\text{ft})]$$

The equation below, using the maximum ponding depth of 0.5', is used on the worksheet to find the minimum area required for the Bioretention Facility:

$$d_E(\text{ft}) = 0.5\ (\text{ft}) + [(0.3) \times d_S(\text{ft}) + (0.4) \times 1(\text{ft})]$$

7) Calculate the minimum surface area, A_M, required for the Bioretention Facility. This does not include the curb surrounding the Bioretention Facility or side slopes.

$$A_M(\text{ft}^2) = \frac{V_{BMP}(\text{ft}^3)}{d_E\ (\text{ft})}$$

8) Enter the proposed surface area. This area shall not be less than the minimum required surface area.

9) Verify that side slopes are no steeper than 4:1 in the standard design, and are not required in the modified design.

10) Provide the diameter, minimum 6 inches, of the perforated underdrain used in the Bioretention Facility. See Appendix B for specific information regarding perforated pipes.

11) Provide the slope of the site around the Bioretention Facility, if used. The maximum slope is 3 percent for a standard design.

12) Provide the check dam spacing, if the site around the Bioretention Facility is sloped.

13) Describe the vegetation used within the Bioretention Facility.

References Used to Develop this Fact Sheet

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Kim, Hunho, Eric A. Seagren and Allen P. Davis. "Engineered Bioretention for Removal of Nitrate from Stormwater Runoff." Water Environment Research 75.4 (2003): 355-366.

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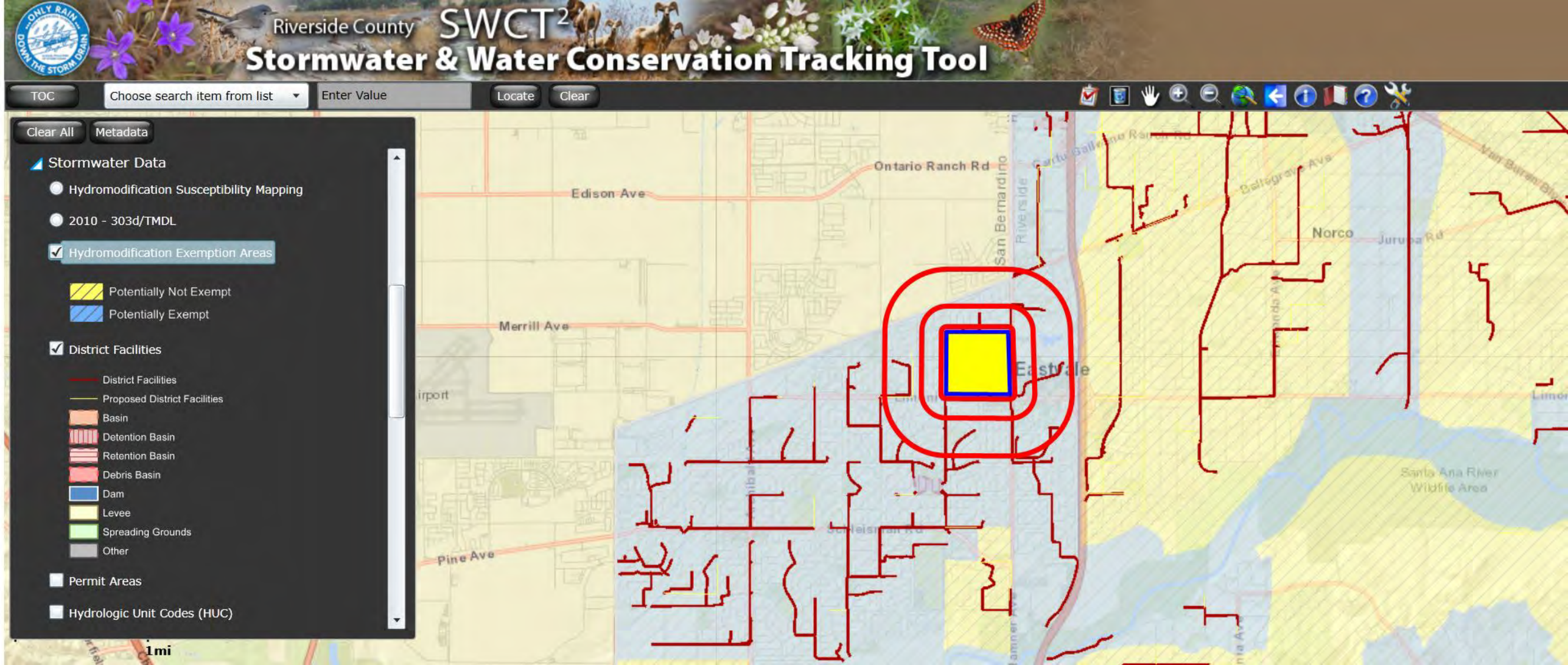
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United States Environmental Protection Agency. Storm Water Technology Fact Sheet Bioretention. Washington D.C, 1999.

Urban Drainage and Flood Control District. Urban Storm Drainage Criteria Manual Volume 3 - Best Management Practices. Vol. 3. Denver, 2008. 3 vols.

Urbonas, Ben R. Stormwater Sand Filter Sizing and Design: A Unit Operations Approach. Denver: Urban Drainage and Flood Control District, 2002.

- Project does not have HCOCs for downstream areas.


Riverside County SWCT²
Stormwater & Water Conservation Tracking Tool
TOC
Choose search item from list
Enter Value
Locate
Clear
Clear All
Metadata
Stormwater Data
Hydromodification Susceptibility Mapping
2010 - 303d/TMDL
Hydromodification Exemption Areas
Potentially Not Exempt
Potentially Exempt
District Facilities
District Facilities
Proposed District Facilities
Basin
Detention Basin
Retention Basin
Debris Basin
Dam
Levee
Spreading Grounds
Other
Permit Areas
Hydrologic Unit Codes (HUC)
Ontario Ranch Rd
Edison Ave
Merrill Ave
Pine Ave
San Bernardino
Riverside
Norco
Eastvale
Santa Ana River Wildlife Area
1mi

WQMP Project Report

County of Riverside Stormwater Program

Santa Ana River Watershed Geodatabase

Saturday, October 23, 2021

Note: The information provided in this report and on the Stormwater Geodatabase for the County of Riverside Stormwater Program is intended to provide basic guidance in the preparation of the applicantï¿½s Water Quality Management Plan (WQMP) and should not be relied upon without independent verification.

Project Site Parcel Number(s):	164030014, 164030010, 164030013, 164030012, RW, 164030025, 164030024
Latitude/Longitude:	33.9791, -117.5627
Thomas Brothers Page:	
Project Site Acreage:	145.48
Watershed(s):	SANTA ANA
This Project Site Resides in the following Hydrologic Unit(s) (HUC):	**HUC Name** - HUC Number **Lower Cucamonga Creek** - 180702030705
The HUCs Contribute stormwater to the following 303d listed water bodies and TMDLs which may include drainage from your proposed Project Site:	**WBID Name** - WBID Number **Cucamonga Creek Reach 1 (Valley Reach)** - CAR8012100019990211101136 **Santa Ana River, Reach 3** - CAR8012100019990211140353
These 303d listed Water bodies and TMDLs have the following Pollutants of Concern (POC):	**Bacterial Indicators** - Coliform Bacteria, Pathogens **Metals/Metalloids** - Cadmium, Copper, Lead, Zinc
Is the Site subject to Hydromodification:	No
Limitations on Infiltration:	**Project Site Onsite Soils Group(s)** - A, C **Known Groundwater Contamination Plumes within 1000'** - No **Adjacent Water Supply Wells(s)** - No information available please contact your local water agency for more information. Your local contact agency is JURUPA C.S.D.. Your local wholesaler contact agency is METROPOLITAN WATER DISTRICT.
Environmentally Sensitive Areas within 200'(Fish and Wildlife Habitat/Species):	None
Environmentally Sensitive Areas within 200'(CVMSHCP):	None

Environmentally Sensitive Areas within 200'(WRMSHCP):	Narrow Endemic Plants Survey Req. - NAP,Burrowing Owl Survey Required Area,Narrow Endemic Plants Survey Req. - Area 7
Groundwater elevation from Mean Sea Level:	552
85th Percentile Design Storm Depth (in):	0.858
Groundwater Basin:	Chino-North
MSHCP/CVMSHCP Criteria Cell (s):	No Data
Retention Ordinance Information:	No Data
Studies and Reports Related to Project Site:	IBI Scores - Southern Cal bulletin118_4-sc water_fact_3_7.11 8039-SAR-Hydromodification final UWMP 051011 JCSD Master Water Plan 2005 Comprehensive Bacteria Reduction Plan Eastvale MDP 34th Annual Report Chino Basin Watermaster 2012 Annual Report of Santa Ana River Eastvale ADP Map Eastvale ADP Report

Appendix 8: Source Control

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on WQMP Drawings**	**3** **Permanent Controls—List in WQMP Table and Narrative**	**4** **Operational BMPs—Include in WQMP Table and Narrative**
☑ **A.** On-site storm drain inlets	☐ Locations of inlets.	☐ Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	☐ Maintain and periodically repaint or replace inlet markings. ☐ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☐ See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☐ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
☑ **B.** Interior floor drains and elevator shaft sump pumps		☐ State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☑ **C.** Interior parking garages		☐ State that parking garage floor drains will be plumbed to the sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
☑ **D1.** Need for future indoor & structural pest control		☐ Note building design features that discourage entry of pests.	☐ Provide Integrated Pest Management information to owners, lessees, and operators.
☑ **D2.** Landscape/ Outdoor Pesticide Use	☐ Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. ☐ Show self-retaining landscape areas, if any. ☐ Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	State that final landscape plans will accomplish all of the following. ☐ Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. ☐ Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ☐ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ☐ Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	☐ Maintain landscaping using minimum or no pesticides. ☐ See applicable operational BMPs in **"What you should know for…..Landscape and Gardening"** at http://rcflood.org/stormwater/**Error! Hyperlink reference not valid.** ☐ Provide IPM information to new owners, lessees and operators.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on WQMP Drawings**	**3** **Permanent Controls—List in WQMP Table and Narrative**	**4** **Operational BMPs—Include in WQMP Table and Narrative**
☑ **E.** Pools, spas, ponds, decorative fountains, and other water features.	☐ Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	☐ See applicable operational BMPs in "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
☑ **F.** Food service	☐ For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. ☐ On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	☐ Describe the location and features of the designated cleaning area. ☐ Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	☐ See the brochure, "The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ Provide this brochure to new site owners, lessees, and operators.
☑ **G.** Refuse areas	☐ Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. ☐ If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. ☐ Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	☐ State how site refuse will be handled and provide supporting detail to what is shown on plans. ☐ State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	☐ State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **H.** Industrial processes.	❑ Show process area.	❑ **If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."**	❑ **See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com** See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **I.** Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	❑ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ❑ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ❑ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	❑ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **J.** Vehicle and Equipment Cleaning	❑ Show on drawings as appropriate: **(1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses.** **(2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use).** **(3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer.** **(4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.**	❑ **If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.**	**Describe operational measures to implement the following (if applicable):** ❑ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system.** Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ❑**Car dealerships and similar may rinse cars with water only.**

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **K.** Vehicle/Equipment Repair and Maintenance	❑ **Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater.** ❑ **Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas.** ❑ **Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.**	❑ **State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area.** ❑ **State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.** ❑ **State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.**	**In the Stormwater Control Plan, note that all of the following restrictions apply to use the site:** ❑ **No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains.** ❑ **No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately.** ❑ **No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.** Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **L.** Fuel Dispensing Areas	❑ Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. ❑ Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.		❑ The property owner shall dry sweep the fueling area routinely. ❑ See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

[6] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Show on WQMP Drawings	3 Permanent Controls—List in WQMP Table and Narrative	4 Operational BMPs—Include in WQMP Table and Narrative
❑ **M.** Loading Docks	❑ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. ❑ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ❑ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		❑ Move loaded and unloaded items indoors as soon as possible. ❑ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE …	… THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
☑ **N.** Fire Sprinkler Test Water		☐ Provide a means to drain fire sprinkler test water to the sanitary sewer.	☐ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
O. Miscellaneous Drain or Wash Water or Other Sources ☐ Boiler drain lines ☐ Condensate drain lines ☐ Rooftop equipment ☐ Drainage sumps ☐ Roofing, gutters, and trim. ☐ Other sources		☐ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☐ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ☐ Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ☐ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☐ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. Include controls for other sources as specified by local reviewer.	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

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☑ **P.** Plazas, sidewalks, and parking lots.			☐ Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanism

- Provided in Final WQMP.

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

- Provided in Final WQMP.

Appendix I

LEAL MASTER PLAN AMENDMENT PROJECT
NOISE IMPACT STUDY
City of Eastvale



LEAL MASTER PLAN AMENDMENT
NOISE IMPACT STUDY
City of EASTVALE, California

Prepared for:

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April 8, 2022

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1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

The purpose of this report is to evaluate the potential noise impacts from the proposed LEAL Master Plan Amendment (project) and provide recommendations, if necessary, to minimize any project noise impacts. The assessment was conducted within the context of the California Environmental Quality Act (CEQA) and utilizes the noise standards set forth by the applicable Federal, State, and local agencies.

The following is provided in this report:

- A description of the study area and the proposed project
- Information regarding the fundamentals of noise
- Identification of the regulatory setting and applicable noise standards
- Analysis of the existing noise environment
- Analysis of the project's operational noise impact to adjacent receptors
- Analysis of the project's construction noise and vibration impact to adjacent receptors
- Summary of recommended project design features to reduce noise level impacts.

This analysis also reviews changes in noise levels that would occur as a result of the proposed project in comparison to the previously approved project described in the Leal Master Plan Draft Environmental Impact Report, prepared by Michael Baker International, July 2015 (hereinafter referred to as 2015 EIR).

1.2 Site Location

The proposed project site is located near the northwest corner (NWC) of Hamner Avenue and Limonite Avenue, in the City of Eastvale. The project site is bound by 58th Street to the north, Limonite Avenue to the south, Hamner Avenue to the east, and Scholar Avenue to the west. The project site is located approximately 666 feet above sea level and generally slopes from north to south.

The project site location map is provided in Exhibit A.

The project site is currently vacant and zoned for Leal Master Plan in the City of Eastvale Zoning Map. The City of Eastvale General Plan land use map designates the project site as Leal Policy Area.

Several noise sensitive land use areas are present surrounding the project site, including;

- Existing residential uses located to the north, approximately 50 feet from the project site, across 58th Street.

- Existing residential uses located to the south, approximately 120 feet from the project site, across Limonite Avenue.

- Existing residential uses located to the east, approximately 170 feet from the project site, across Hamner Avenue.

- Existing residential uses located to the west, approximately 75 feet from the project site, across Scholar Way.

1.3 Project Description

The project consists of amending the Leal Master Plan to allow for the construction and operation of a total of 2,500 residential dwelling units, a 1.6 acre community recreational center, 12.5 acres of community park, and 28.17 acres of mixed use development (including a new civic center, retail/commercial and residential uses).

The total gross site area is approximately 158.6 acres.

The buildout of the project will also include approximately 22.9 acres of roadway improvement to 58th Street, Limonite Avenue, Hamner Avenue and Scholar Way, along with new internal street improvements.

The site plan used for this analysis, provided by the HUNSAKER & ASSOCIATES, is illustrated in Exhibit B. Table 1 summarizes the land use assumptions used for this analysis.

Table 1
Land Use Summary

Land Use	CalEEMod Use	Quantity	Metric[1]	Acre
Single Family Residential	Single Family Detached	400	DU	47.148
Multifamily Residential	Townhomes/Condos	1,000	DU	35.277
	Apartments	1,100	DU	28.169
Retail	Regional Shopping Center	390.0	TSF	
General Office	General Office	65.0	TSF	
Medical Office	Medical Office Building	65.0	TSF	
Civic Center	Government (Civic Center)	40.0	TSF	11.019
Fire Station		12.2	TSF	
Police		10.0	TSF	
Library	Library	25.0	TSF	
Parking	Parking Structure	2,820.0	Spaces	
Parking	Parking Lot	978.0	Spaces	
Recreational Center	City Park	1.6	Acre	1.584
Park	City Park	12.5	Acre	12.478
On-site / Off-site Street Improvements	Parking Lot	22.9	Acre	22.917
Total				**158.592**

[1] D.U. – Dwelling units; T.S.F. – Thousand Square Feet

This report analyzes short-term noise impacts associated with construction activities and long-term noise impacts associated with the day-to-day operation of the project. The primary sources of long-term noise impacts would increase in vehicular traffic along surrounding roadways, on-site circulation and parking lot noise, HVAC units, and outdoor recreational noise.

1.4 Summary of Analysis Results

Based on the result of this analysis, the project is not expected to result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The amendment project is expected to generate 27,764 fewer trips compared to the previously approved 2015 EIR. As a result, the project's traffic noise contribution to the surrounding roadways would be less than previously estimated in the 2015 EIR, and the project would not cause a significant increase in the ambient roadway noise levels in the vicinity of the site. The amendment project has reduced the amount of commercial land use in favor of a greater amount of residential use; which is generally considered a more compatible land use with the surrounding community from a noise standpoint.

Several standard construction best practices and project design features have been recommended to help ensure noise levels do not significantly impact the surrounding community.

1.5 Recommended Project Design Features

The following recommended project design features include standard rules and requirements, best practices and recognized design guidelines for reducing noise levels. Design features are assumed to be part of the conditions of the project and integrated into its design. Design features are not typically considered mitigation under CEQA.

Operational Design Features

DF-1 Prior to the issuance of building permits, the project shall demonstrate that building construction will achieve the minimum interior noise standard of 45 dBA CNEL for all residential units located along arterial roadways and/or adjacent to commercial uses, per the California Building Standards Code. The following noise control measures may be required for dwelling units located near adjacent roadways:

- Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources.
- Install double-paned or upgraded STC sound rated windows.
- Provide sound insulating exterior walls and roofing systems.
- Locate and/or design attic vents to minimize sound propagation into each home.

- Provide forced-air ventilation systems.

- Provide the necessary setbacks for dwelling units fronting along major roadways.

DF-2 The project shall comply with California Title 24 building insulation requirements for exterior walls, roofs and common separating assemblies (e.g. floor/ceiling assemblies and demising walls).

DF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors should have a positive seal and leaks/cracks must be kept to a minimum.

DF-4 The final building plans shall ensure that HVAC units are not located within an area of the project site that would contribute to a noise level exceedance at any adjacent property line, per the City of Eastvale Municipal Code requirements. To meet the City's noise standards the following measures should be followed:

- All HVAC equipment shall be shielded or enclosed from the line of sight of adjacent residential uses.

- The combined noise level of all units operating simultaneously shall not exceed the City of Eastvale daytime and nighttime exterior standards at the nearest surrounding property lines.

DF-5 Future residents, property management personnel, and commercial tenants will be required to comply with the City of Eastvale Municipal Code Noise Regulations, Chapter 8.52, which specify that no person shall create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness.

To help ensure compliance with the City's Noise Regulations, the following recommendations are provided:

- Deliveries, loading and unloading activities, and trash pick-up hours should be limited to daytime hours only (8 a.m. – 10 p.m.).

- Limit engine idling time for all delivery vehicles and moving trucks to 5 minutes or less.

Construction Design Features

DF-6 Prepare a construction management plan and obtain a construction work permit from the City of Eastvale prior to starting construction. The construction management plan shall ensure all contractors implement construction best management practices to reduce construction noise levels. Examples of best management practices may include the following:

- All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).

- Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible.

- If feasible, electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load.

- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.

- Locate staging area, generators and stationary construction equipment as far from the adjacent residential homes as feasible.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

- Provide notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator.

- Construction activities shall not take place between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. to 7:00 a.m. during the months of October through May.

DF-7 No impact pile driving or blasting activities shall be permitted on the project site during construction. If impact pile driving or blasting is required, a follow-up noise and vibration impact assessment shall be conducted prior to start of any activity.

2.0 Fundamentals of Noise

This section of the report provides basic information about noise and vibration and presents some of the terms used in the report.

2.1 Sound, Noise, and Acoustics

The sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. The sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases, as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square inch meter (N/m2), also called micro-Pascal (μPa). One μPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels and abbreviated as dB.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two (2) sounds of equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3dB increase.

If two (2) sounds differ by approximately 10 dB the higher sound level is the predominant sound.

2.5 Human Response to Changes in Noise Levels[1]

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, (A-weighted scale) and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighing is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in the noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway), would result in a barely perceptible change in sound level.

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels. Following are the most commonly used noise descriptors along with brief definitions.

A-Weighted Sound Level

The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level

The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

[1] Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

Community Noise Equivalent Level (CNEL)

The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB)

A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A)

A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ)

The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

Habitable Room

Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

L(n)

The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90, and L99, etc.

Noise

Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Percent Noise Levels

See L(n).

Sound Level (Noise Level)

The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter

An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL)

The dBA level which, if it lasted for one (1) second, would produce the same A-weighted sound energy as the actual event.

2.7 Sound Propagation[2]

As sound propagates from a source it spreads geometrically. The sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

[2] Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

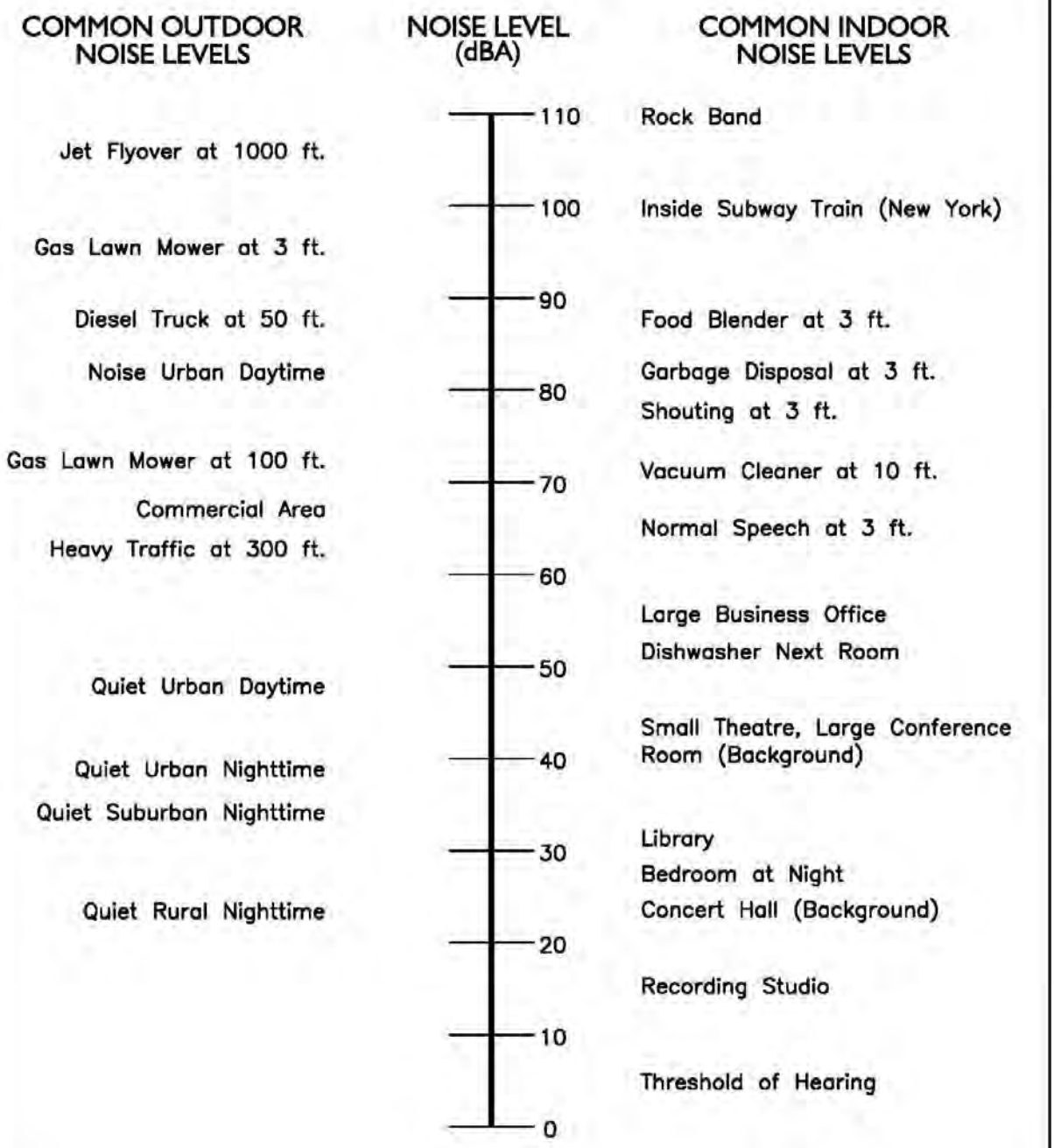
As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use the hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at an additional rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 6.0 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet and greater from a noise source. Wind, temperature, air humidity, and turbulence can further impact how far sound can travel.

Figure 1 shows typical sound levels from indoor and outdoor noise sources.

Figure 1[3]

TYPICAL SOUND LEVELS FROM
INDOOR AND OUTDOOR NOISE SOURCES



[3] Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013.

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2.8 Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude.

PPV

Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

RMS

Known as the root mean squared (RMS) can be used to denote vibration amplitude.

VdB

A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

2.9 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts.

2.10 Vibration Propagation

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wavefront, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wavefront. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wavefront. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

3.0 Regulatory Setting

The proposed project is located in the City of Eastvale and noise regulations are addressed through the various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

3.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three (3) purposes:

- Publicize noise emission standards for interstate commerce
- Assist state and local abatement efforts
- Promote noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was originally tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible to regulate noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible to regulate noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The Federal government and the State advocate that local jurisdiction use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being constructed adjacent to a highway or, or alternatively that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the Federal government and the State have preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

3.2 State Regulations

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix." The matrix allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

The State of California has established noise insulation standards as outlined in Title 24 of the Building Standards Code which in some cases requires acoustical analyses to outline exterior noise levels and to ensure interior noise levels do not exceed the interior threshold. The State mandates that the legislative body of each county and city adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

Noise insulation design standards for residences are identified in Section 1206 Sound Transmission of the 2019 California Building Standards Code. The City is required by the State Housing Law to adopt these State codes as minimum performance standards. The City may enact stricter noise standards throughout the city or on a case-by-case basis if deemed necessary. In brief, the Title 24 noise standards require the following for multi-family dwellings:

1. Party wall and floor-ceiling assembly designs must provide a minimum STC of 50, based on lab tests. Field tested assemblies must provide a minimum noise isolation class (NIC) of 45.

2. Floor-ceiling assembly designs must provide for a minimum impact insulation class (IIC) of 50, based on lab tests. Field tested assemblies must provide a minimum FIIC of 45.

3. Entry doors from interior corridors must provide an STC of 26 or more.

4. Penetrations or openings in sound rated assemblies must be treated to maintain required ratings.

5. Interior noise levels due to exterior sources must not exceed a community noise equivalent level (CNEL) or a day-night level (LDN) of 45 dBA, in any habitable room.

Thus, the interior limit is 45 dBA CNEL between dwelling units and from exterior noise sources to interior living spaces.

3.3 City of Eastvale Noise Regulations

The project is required to comply with the noise standards and thresholds established within the City of Eastvale Municipal Code Chapter 8.52 Noise Regulation. The noise standards from the Municipal code and the General Plan are provided in Appendix A.

3.3.1 City of Eastvale Municipal Code Noise Standards

The City of Eastvale Municipal Code Chapter 8.52 Noise Regulation, requires that a project shall not create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness. Noise standards are defined in Table 1 of the Chapter 8.52 Noise Regulation of the Municipal Code and are applicable to the project site and surrounding noise sensitive uses.

Table 2 shows the exterior noise standards from the City of Eastvale Municipal Code Chapter 8.52 Noise Regulation Exterior Noise Standards for the project site and surrounding residential land uses.

Table 2
City of Eastvale Municipal Code
Exterior Noise Level Standards

Land Use	Time Period	Maximum Decibel Level (dBA)
Specific Plan – Residential	7:00 AM – 10:00 PM	55
	10:00 PM – 7:00 AM	45
Specific Plan – Commercial	7:00 AM – 10:00 PM	65
	10:00 PM – 7:00 AM	55
Open Space (Recreational Use)	7:00 AM – 10:00 PM	45
	10:00 PM – 7:00 AM	45

[1] Source: City of Eastvale Municipal Code, Chapter 8.52 – Noise Regulation.

Construction Noise Regulations

Chapter 8.52 Noise Regulations, Section 8.52.020 Exemptions of the City's municipal code exempts the construction noise activities, provided;

- Private construction projects located one-quarter of a mile or more from an inhabited dwelling;
- Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that construction does not occur between the hours of:

  i. 6:00 p.m. and 6:00 a.m. during the months of June through September;

  ii. 6:00 p.m. and 7:00 a.m. during the months of October through May;

3.3.2 City of Eastvale General Plan Noise Standards

The City of Eastvale General Plan Noise Element addresses noise goals and policies, implementation programs, compatibility guidelines and roadway noise levels. Goals and policies that apply to the proposed project include:

POLICY N-1: Protect noise-sensitive land uses from high levels of noise by restricting noise producing land uses from these areas.

POLICY N-3: Consider the following uses to be sensitive to noise and vibration, and discourage these uses in areas where existing or projected future noise levels would be in excess of 65 CNEL and/or vibration would be more than 0.0787 Peak Particle Velocity (inches/second):

- Schools;
- Hospitals;
- Rest Homes;
- Long Term Care Facilities;
- Mental Care Facilities;
- Residential Uses;
- Libraries;
- Passive Recreation Uses; and
- Places of worship

POLICY N-4: Require noise sensitive land uses proposed in areas where existing or projected future noise levels would be in excess of 65 CNEL to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.

POLICY N-5: Require that exterior noise forecasts use the appropriate Level of Service for the adjacent roadways, or a 20-year projection of traffic volumes (whichever is greater) for future noise forecasts.

4.0 Study Method and Procedures

The following section describes the noise modeling procedures and assumptions used in the noise analysis.

4.1 Traffic Noise Modeling

Traffic noise from vehicular traffic was projected using a version of the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). The FHWA model arrives at the predicted noise level through a series of adjustments to the key input parameters. The following outlines the key adjustments made to the computer model for the roadway inputs:

- Roadway classification – (e.g. freeway, major arterial, arterial, secondary, collector, etc),
- Roadway Active Width – (distance between the center of the outer most travel lanes on each side of the roadway)
- Average Daily Traffic (ADT) Volumes, Travel Speeds, Percentages of automobiles, medium trucks, and heavy trucks
- Roadway grade and angle of view
- Site Conditions (e.g. soft vs. hard)
- Percentage of total ADT which flows each hour throughout a 24-hour period

The following outlines key adjustments to the computer model for the project site parameter inputs:

- Vertical and horizontal distances (Sensitive receptor distance from noise source)
- Noise barrier vertical and horizontal distances (Noise barrier distance from sound source and receptor).
- Traffic noise source spectra
- Topography

Table 3 and Table 4 indicates the roadway parameters utilized for this study.

Table 3
Roadway Parameters[1]

Roadway	Segment	Class.	Lanes	Speed Limit	Site
Limonite Avenue	Archibald Avenue to Harrison Avenue	Urban Arterial	6	50	Hard
Limonite Avenue	Harrison Avenue to Scholar Way	Urban Arterial	6	50	Hard
Limonite Avenue	Scholar Way to Hamner Avenue	Urban Arterial	5	45	Hard
Limonite Avenue	Hamner Avenue to I-15 Ramps	Urban Arterial	6	45	Hard
Limonite Avenue	I-15 Ramps to Wineville Avenue	Urban Arterial	6	50	Hard
Hamner Avenue	Citrus Street to Schleisman Road	Urban Arterial	6	50	Hard
Hamner Avenue	Schleisman Road to 68th Street	Urban Arterial	6	45	Hard
Hamner Avenue	68th Street to 58th Street	Urban Arterial	6	45	Hard
Hamner Avenue	Limonite Avenue to 58th Street	Urban Arterial	5	45	Hard
Hamner Avenue	58th Street to Bellgrave Avenue	Urban Arterial	6	45	Hard
Scholar Way	Limonite Avenue to 68th Street	Secondary Collector	2	35	Hard
Scholar Way	Bellgrave Avenue to Limonite Avenue	Secondary Collector	4	35	Hard

[1] Source: LEAL Masterplan Amendment Project, Traffic Impact Study, Eastvale, RK Engineering, November 2021.

Table 4
Roadway Average Daily Traffic (ADT)[1]

Roadway	Segment	Existing ADT	Existing Plus Project ADT	Long Range	Long Range Plus Project
Limonite Avenue	Archibald Avenue to Harrison Avenue	18,497	22,162	44,000	47,665
Limonite Avenue	Harrison Avenue to Scholar Way	26,192	29,857	50,780	54,445
Limonite Avenue	Scholar Way to Hamner Avenue	29,548	47,874	48,960	67,286
Limonite Avenue	Hamner Avenue to I-15 Ramps	44,312	60,805	69,110	85,603
Limonite Avenue	I-15 Ramps to Wineville Avenue	33,855	37,520	65,010	68,675
Hamner Avenue	Citrus Street to Schleisman Road	20,619	24,284	25,400	29,065
Hamner Avenue	Schleisman Road to 68th Street	11,831	15,496	15,030	18,695
Hamner Avenue	68th Street to 58th Street	20,186	22,019	22,730	24,563
Hamner Avenue	Limonite Avenue to 58th Street	15,649	32,142	31,890	48,383
Hamner Avenue	58th Street to Bellgrave Avenue	15,649	32,142	31,890	48,383
Scholar Way	Limonite Avenue to 68th Street	4,912	6,745	6,860	8,693
Scholar Way	Bellgrave Avenue to Limonite Avenue	2,240	4,073	2,810	4,643

[1] LEAL Masterplan Amendment Project, Traffic Impact Study, Eastvale, RK Engineering, November 2021.

Table 5 and Table 6 indicates the vehicle distribution and truck mix utilized for all roadways in this study area.

Table 5
Vehicle Distribution (Truck Mix) for Arterial Roadways[1]

Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	69.5	12.9	9.6	92
Medium Trucks	1.44	0.06	1.5	3
Heavy Trucks	2.4	0.1	2.5	5

[1] Vehicle percentages are based on County of Riverside Department of Environmental Health.

Table 6
Vehicle Distribution (Truck Mix) for Collector Roadways[1]

Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	73.6	13.6	10.22	97.42
Medium Trucks	0.9	0.04	0.9	1.84
Heavy Trucks	0.35	0.04	0.35	0.74

[1] Vehicle percentages are based on County of Riverside Department of Environmental Health.

4.2 Construction Noise Modeling

The construction noise analysis utilizes the Federal Highway Administration (FHWA) Roadway Construction Noise Model, together with several key construction parameters. Key inputs include distance to the sensitive receiver, equipment usage, and baseline parameters for the project site. This study evaluates the potential exterior noise impacts during each phase of construction.

Demolition activities are expected to occur at approximately 50 feet from the nearest existing residential uses to the north. Therefore, noise levels from demolition activities are analyzed at 50 feet. Noise levels from all other construction activities are conservatively estimated from 200 feet, whereas, in reality, the degree of construction noise will vary depending on the type of construction activity taking place and the location of the activity relative to the surrounding properties. Noise levels were projected for equipment operating over an 1-hour period from to the nearest sensitive receptor property line.

- Construction phasing and equipment usage assumptions are referenced from the LEAL Master Plan AQ & GHG and Energy Impact Study, by RK Engineering, November 2021.

4.3 Construction Vibration Modeling

The construction vibration assessment is based on the methodology set-forth within the Caltrans Transportation and Construction Vibration Guidance Manual, April 2020. The vibration impacts from vibratory rollers and compactors, heavy truck loading and bulldozer activity is analyzed. All vibratory activity is analyzed as a continuous and/or frequent event and is required to comply with the applicable guidance thresholds criteria. It is expected

that vibration levels will be highest during paving phase. No impact pile driving is expected as part of this project.

Vibratory impacts were calculated from the site area property line to the closest sensitive receptors and structures using the reference vibration levels, soil conditions and the reference equation *PPV= PPV ref (25/D)^n (in/sec)* (from Caltrans Manual) where:

PPV = reference measurement at 25 feet from vibration source
D = distance from equipment to property line
n= vibration attenuation rate through ground (n=1.1 was utilized for this study)

5.0 Existing Noise Environment

The existing noise environment for the project site and surrounding area has been established based on the modeled existing traffic noise levels by RK.

5.1 Existing Traffic Noise Levels

Table 7 shows the modeled existing traffic noise levels calculated at 100 feet from the centerline of roadway segments surrounding the site. The distances to the 55, 60, 65, and 70 dBA CNEL noise contours are also shown. The noise levels were calculated using traffic volumes from the *LEAL Masterplan Amendment Traffic Impact Study, RK Engineering Group, November 2021.*

The traffic noise levels does not takes into account of the effect of any noise barriers or topography that may reduce traffic noise levels.

The roadway noise calculation worksheets are provided in Appendix B.

Table 7
Existing Traffic Noise Levels

Roadway[1]	Segment	CNEL at 100ft. (dBA)	Distance to Contour (Ft)[2]			
			70 dBA CNEL	65 dBA CNEL	60 dBA CNEL	55 dBA CNEL
Limonite Avenue	Archibald Ave to Harrison Ave	68.2	66	210	664	2,100
Limonite Avenue	Harrison Avenue to Scholar Way	69.7	94	297	940	2,973
Limonite Avenue	Scholar Way to Hamner Avenue	69.0	80	254	803	2,538
Limonite Avenue	Hamner Avenue to I-15 Ramps	70.8	120	381	1,204	3,806
Limonite Avenue	I-15 Ramps to Wineville Avenue	70.8	122	384	1,215	3,843
Hamner Avenue	Citrus Street to Schleisman Road	68.7	74	234	740	2,341
Hamner Avenue	Schleisman Road to 68th Street	65.1	32	102	321	1,016
Hamner Avenue	68th Street to 58th Street	67.4	55	173	548	1,734
Hamner Avenue	Limonite Avenue to 58th Street	66.3	43	134	425	1,344
Hamner Avenue	58th Street to Bellgrave Avenue	66.3	43	134	425	1,344
Scholar Way	Limonite Avenue to 68th Street	57.8	6	19	60	191
Scholar Way	Bellgrave Ave to Limonite Ave	54.4	3	9	28	87

[1] Noise levels calculated at 100 feet from the centerline of subject roadway.

[2] Refer to Appendix B for projected noise level calculations.

6.0 Operational Noise Impacts

This assessment analyzes the anticipated noise levels generated by the project and impacts caused by changes to the ambient environment. The main sources of noise generated by the project would include vehicular traffic noise along the adjacent roadways. Noise level impacts are compared to the City of Eastvale noise standards.

The project must demonstrate that noise levels generated by the project site would not result in a permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

6.1 Traffic Source Noise

The potential off-site noise impacts caused by the increase in vehicular traffic from the operation of the proposed project on the nearby roadways were calculated for direct and cumulative project conditions.

6.1.1 Existing Conditions

The direct impact of project traffic added to the surrounding roadway network is shown in Table 8 for the existing year conditions. Roadway noise calculation worksheets are provided in Appendix B.

The FHWA Highway Traffic Noise Analysis and Abatement Policy and Guidance indicates that a change in noise level of 3 dBA is considered barely perceptible and a change in noise level of 5 dBA is considered readily perceptible to the human ear. Therefore, for purposes of this analysis, and consistent with common practice in the County of Riverside, an increase of 5 dBA or more above ambient conditions would be considered the threshold of significance for causing a substantial permanent increase in noise.

Table 8
Roadway Noise Impact Analysis (dBA CNEL)[1]
Existing Year Conditions

Roadway[2]	Segment	CNEL at the Nearest Façade			Significant Impact?[3]
		Existing Without Project	Existing with Project	Change as a Result of Project	
Limonite Avenue	Archibald Ave to Harrison Ave	68.2	69.0	0.8	NO
Limonite Avenue	Harrison Avenue to Scholar Way	69.7	70.3	0.6	NO
Limonite Avenue	Scholar Way to Hamner Avenue	69.0	71.3	2.3	NO
Limonite Avenue	Hamner Avenue to I-15 Ramps	70.8	72.2	1.4	NO
Limonite Avenue	I-15 Ramps to Wineville Avenue	70.8	71.3	0.5	NO
Hamner Avenue	Citrus Street to Schleisman Rd	68.7	69.4	0.7	NO
Hamner Avenue	Schleisman Road to 68th Street	65.1	66.2	1.1	NO
Hamner Avenue	68th Street to 58th Street	67.4	67.8	0.4	NO
Hamner Avenue	Limonite Avenue to 58th Street	66.3	69.4	3.1	NO
Hamner Avenue	58th Street to Bellgrave Avenue	66.3	69.4	3.1	NO
Scholar Way	Limonite Avenue to 58th Street	57.8	59.2	1.4	NO
Scholar Way[5]	58th Street to Bellgrave Avenue	54.4	57.0	2.6	NO

[1] Exterior noise levels are calculated at 5 feet above ground level.
[2] Noise levels are calculated approximately 100 feet from the centerline of the subject roadway.
[3] A significant noise impact would occur when project operational activities cause an increase in ambient noise levels of 5 dBA or more and the resulting noise level exceeds 60 dBA CNEL/Ldn.

Table 8 shows that the project would not result in a significant traffic noise level increase for all study area roadway segments.

6.1.2 Long Range Year Conditions

The cumulative impact of project traffic added to the surrounding roadway network with the addition of other potential cumulative development projects and area-wide growth is shown in Table 9 for Long Range Year conditions.

The FHWA Highway Traffic Noise Analysis and Abatement Policy and Guidance indicates that a change in noise level of 3 dBA is considered barely perceptible and a change in noise

level of 5 dBA is considered readily perceptible to the human ear. Therefore, for purposes of this analysis, and consistent with common practice in the County of Riverside, an increase of 5 dBA or more above ambient conditions would be considered the threshold of significance for causing a substantial permanent increase in noise.

Table 9
Roadway Noise Impact Analysis (dBA CNEL)[1]
Long Range Conditions

Roadway[2]	Segment	CNEL at the Nearest Façade			Significant Impact? [3]
		Long Range Without Project	Long Range with Project	Change as a Result of Project	
Limonite Avenue	Archibald Ave to Harrison Ave	72.0	72.3	0.3	NO
Limonite Avenue	Harrison Avenue to Scholar Way	72.6	72.9	0.3	NO
Limonite Avenue	Scholar Way to Hamner Avenue	71.2	72.6	1.4	NO
Limonite Avenue	Hamner Avenue to I-15 Ramps	72.7	73.7	1.0	NO
Limonite Avenue	I-15 Ramps to Wineville Avenue	73.7	73.9	0.2	NO
Hamner Avenue	Citrus Street to Schleisman Rd	69.6	70.2	0.6	NO
Hamner Avenue	Schleisman Road to 68th Street	66.1	67.1	1.0	NO
Hamner Avenue	68th Street to 58th Street	67.9	68.2	0.3	NO
Hamner Avenue	Limonite Avenue to 58th Street	69.4	71.2	1.8	NO
Hamner Avenue	58th Street to Bellgrave Avenue	69.4	71.2	1.8	NO
Scholar Way	Limonite Avenue to 58th Street	59.3	60.3	1.0	NO
Scholar Way[5]	58th Street to Bellgrave Avenue	55.4	57.6	2.2	NO

[1] Exterior noise levels are calculated at 5 feet above ground level.
[2] Noise levels are calculated approximately 100 feet from the centerline of the subject roadway.
[3] A significant noise impact would occur when project operational activities cause an increase in ambient noise levels of 5 dBA or more and the resulting noise level exceeds 60 dBA CNEL/Ldn.

Tables 9 shows that the project would not result in a significant traffic noise level increase for all study area roadway segments. The roadway noise calculation worksheets are provided in Appendix B.

6.2 Stationary Source Noise Impacts

Potential noise increases associated with each of the potential land uses in the proposed project are discussed below. Noise impacts were qualitatively assessed based on the potential land uses within the Master Plan area.

6.2.1 Residential Land Use

The proposed project allows for the future development of various residential land uses including medium- and high-density residential development and mixed-use development. The typical sources of stationary noise from residential land uses would include on-site circulation and parking lot noise, mechanical pool/spa equipment, HVAC units, and outdoor recreational noise.

Noise from residential land uses are typically considered compatible with other adjacent residential uses and would not typically be categorized as loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness. In particular, social activities and vehicular related noise are generally substantially less during the noise sensitive nighttime hours.

Several project design features are provided to help ensure stationary noise from the residential land uses do not adversely affect the surrounding community.

6.2.2 Parks, Trails, and Open Space Land Uses

The proposed project allows for the development of several community features including gathering places, parks, open spaces, and trails.

The main sources of potential stationary noise impacts from the proposed land uses would include noise from children's play areas and playgrounds, outdoor gathering and events, and/or vehicle parking areas.

Parks and open space are typically considered compatible land uses with other adjacent residential uses and would not typically generate loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness. Additionally, the parks will be closed during nighttime hours to help further reduce any potential noise impacts.

6.2.3 Commercial and Civic Land Uses

The proposed project allows for the future development of various nonresidential land uses, including standard and mixed-use retail, commercial office, and civic center uses. The main sources of potential stationary noise impacts from the proposed commercial and civic center use would mainly include on-site circulation and parking lot noise, HVAC units, on-site truck operations, vehicle/equipment backup alarms, decompression of trailer truck brakes, and loading dock operations.

Based on the current Masterplan layout, commercial and civic land uses are generally expected to be located on the southeast corner of the project site, with the exception of the fire station which is proposed to be located at the northwest corner of the site. Fire and emergency services are exempt from the noise standards in the Eastvale Municipal Code; however, several design features will help reduce noise levels as much as possible.

Land uses surrounding the proposed commercial and civic land uses near the southwest portion of the site include, commercial uses to the east and south. The proposed land uses would typically be compatible with other adjacent off-site surrounding land uses. Several project design features and construction practices are provided to help ensure operational noise levels from the commercial and civic center uses do not adversely affect the surrounding community.

6.3 Preliminary Interior Noise Analysis

Traffic noise levels along the adjacent roadways are the primary source of ambient noise impacting the project site. This section of the analysis does not necessarily apply to CEQA, as recent court rulings have indicated that CEQA is primarily concerned with the project's impact of the environment, not the environment's impact on a project.

Future traffic noise levels along the roadway segments surrounding the project site represents the noise levels at 100 feet from the centerline of each roadway segment and do not consider future noise barrier walls along the project property lines. The future roadway noise levels along the surrounding roadways are expected to range from 72.2 dBA CNEL along Limonite Avenue, 70.7 dBA CNEL along Hamner Avenue and 59.9 dBA CNEL along Scholarly Way.

Prior to issuance of building permits, the project proponent should demonstrate to the City building department that the proposed building shell and window assemblies will achieve

exterior to interior noise reduction necessary to meet the State of California and City of Eastvale requirements.

Furthermore, the project shall comply with California Title 24 insulation building requirements for commercial, multi-family dwelling units for common separating assemblies (e.g., floor/ceiling assemblies and demising walls).

6.4 Recommended Operational Design Features

The following recommended project design features include standard rules and requirements, best practices and recognized design guidelines for reducing noise levels. Design features are assumed to be part of the conditions of the project and integrated into its design. Design features are not typically considered mitigation under CEQA.

DF-1 Prior to the issuance of building permits, the project shall demonstrate that building construction will achieve the minimum interior noise standard of 45 dBA CNEL for all residential units located along arterial roadways and/or adjacent to commercial uses, per the California Building Standards Code. The following noise control measures may be required for dwelling units located near adjacent roadways:

- Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources.
- Install double-paned or upgraded STC sound rated windows.
- Provide sound insulating exterior walls and roofing systems.
- Locate and/or design attic vents to minimize sound propagation into each home.
- Provide forced-air ventilation systems.
- Provide the necessary setbacks for dwelling units fronting along major roadways.

DF-2 The project shall comply with California Title 24 building insulation requirements for exterior walls, roofs and common separating assemblies (e.g. floor/ceiling assemblies and demising walls).

DF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors should have a positive seal and leaks/cracks must be kept to a minimum.

DF-4 The final building plans shall ensure that HVAC units are not located within an area of the project site that would contribute to a noise level exceedance at any adjacent property line, per the City of Eastvale Municipal Code requirements. To meet the City's noise standards the following measures should be followed:

- All HVAC equipment shall be shielded or enclosed from the line of sight of adjacent residential uses.

- The combined noise level of all units operating simultaneously shall not exceed the City of Eastvale daytime and nighttime exterior standards at the nearest surrounding property lines.

DF-5 Future residents, property management personnel, and commercial tenants will be required to comply with the City of Eastvale Municipal Code Noise Regulations, Chapter 8.52, which specify that no person shall create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness.

To help ensure compliance with the City's Noise Regulations, the following recommendations are provided:

- Deliveries, loading and unloading activities, and trash pick-up hours should be limited to daytime hours only (8 a.m. – 10 p.m.).

- Limit engine idling time for all delivery vehicles and moving trucks to 5 minutes or less.

7.0 Construction Noise and Vibration Impacts

Temporary construction noise and vibration impacts have been assessed from the project site to the surrounding adjacent land uses.

Chapter 8.52 Noise Regulations, Section 8.52.020 – Exemptions, of the City's municipal code exempts the construction noise activities, provided;

- Private construction projects located one-quarter of a mile or more from an inhabited dwelling;
- Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that construction does not occur between the hours of:
  - i. 6:00 p.m. and 6:00 a.m. during the months of June through September;
  - ii. 6:00 p.m. and 7:00 a.m. during the months of October through May;

Although construction activity may be exempt from the noise standards in the City's Municipal Code, CEQA requires that potential noise impacts still be evaluated for significance. The City of Eastvale CEQA Significance Thresholds Guide does not have established criteria for construction noise impacts. Therefore, for purposes of this analysis, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018) criteria is referenced as an informational guide for the construction noise impact analysis[4]. The FTA provides reasonable criteria for assessing construction noise impacts based on the potential for adverse community reaction.

Construction phasing and equipment usage assumptions are referenced from:

- *LEAL Master Plan Amendment Project AQ & GHG and Energy Impact Study, by RK Engineering Group, November 2021.*

7.1 Typical Construction Noise Levels

Table 10 shows typical construction noise levels compiled by the Environmental Protection Agency (EPA) for common type construction equipment. Typical construction noise levels are used to estimate potential project construction noise levels at the adjacent sensitive receptors.

[4] Federal Transit Administration. Transit Noise and Vibration Impact Assessment Manual. Section 7. September 2018.

Table 10
Typical Construction Noise Levels[1]

Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86
Impact Equipment	
Pneumatic Wrenches	82 - 87
Jack Hammers, Rock Drills	80 - 99
Pile Drivers (Peak)	95-105
Other	
Vibrators	68 - 82
Saws	71 - 82

[1] Referenced Noise Levels from the Environmental Protection Agency (EPA)

7.2 Construction Noise Impact Analysis

This assessment analyzes potential noise impacts during all expected phases of construction, including; demolition, site preparation, grading, building construction, paving, and architectural coating. Noise levels are calculated based on an average distance of equipment over an 1-hour period to the nearest adjacent property. The project's estimated construction noise levels have been calculated using the Federal Highway Administration Roadway Construction Noise Model Version 1.1.

Demolition activities are expected to occur at approximately 50 feet from the nearest existing residential uses to the north. Therefore, noise levels from demolition activities are analyzed at 50 feet. Noise levels from all other construction activities are conservatively estimated from 200 feet, whereas, in reality, the degree of construction noise will vary depending on the type of construction activity taking place and the location of the activity relative to the surrounding properties.

Tables 11 shows the noise level impacts to the residential property lines to the east and south. Construction noise calculation worksheets are provided in Appendix C.

Table 11
Project Construction Noise Levels

Phase	Equipment	Quantity	Equipment Noise Level (dBA Leq)	Combined Noise Level (dBA Leq)
Demolition[2]	Concrete/Industrial Saw	1	74.8	84.6
	Excavators	3	76.7	
	Rubber Tired Dozers	2	77.7	
Site Preparation[1]	Rubber Tired Dozers	3	65.6	75.6
	Tractors/Loaders/Backhoes	4	68.0	
Grading[1]	Excavators	2	64.7	76.2
	Graders	1	69.0	
	Rubber Tired Dozers	1	65.6	
	Scrapers	2	67.6	
	Tractors/Loaders/Backhoes	2	68.0	
Building Construction[1]	Cranes	1	60.6	74.2
	Forklifts	3	59.0	
	Generator Sets	1	65.6	
	Tractors/Loaders/Backhoes	3	68.0	
	Welders	1	58.0	
Paving[1]	Pavers	1	62.2	67.3
	Paving Equipment	1	61.0	
	Rollers	2	61.0	
Architectural Coating[1]	Air Compressors	1	61.6	61.6
Worst Case Construction Phase Noise Level – Leq (dBA)				84.6
FTA Construction Noise Criteria (General Assessment)				90.0
Noise level exceeds FTA criteria?				**NO**

[1] Construction Noise Levels are analyzed at 200 feet

[2] Demolition noise levels are conservatively analyzed at 50 feet. Noise level does not take into account of existing six (6) foot wall along residential uses to the north.

As shown in Table 11, project construction noise levels are expected to be below the recommended 1-hour general assessment construction noise threshold provided by the FTA for adverse community reaction at the adjacent residential uses.

7.3 Construction Vibration

To determine the vibratory impacts during construction, reference construction equipment vibration levels were utilized and then extrapolated to the façade of the nearest adjacent structures. All structures surrounding the project site are "new residential structures". No historical or fragile buildings are known to be located within the vicinity of the site.

The construction of the proposed project is not expected to require the use of substantial vibration inducing equipment or activities, such as pile drivers or blasting. The main sources of vibration impacts during construction of the project would be the operation of equipment such as bulldozer activity during demolition, loading trucks during grading and excavation, and vibratory rollers during paving.

The construction vibration assessment utilizes the referenced vibration levels and methodology set-forth within the Caltrans Transportation and Construction Vibration Guidance Manual, April 2020. Table 12 shows the referenced vibration levels.

Table 12
Typical Construction Vibration Levels[1]

Equipment	Peak Particle Velocity (PPV) (inches/second) at 25 feet	Approximate Vibration Level (LV) at 25 feet
Piledriver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Piledriver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

[1] Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.

Table 13 shows the project's construction-related vibration analysis at the nearest structures to the project construction area. Construction impacts are assessed from the general closest area on the project site to the nearest adjacent structure.

Table 13
Construction Vibration Impact Analysis

Construction Activity	Distance to Nearest Structure (ft)	Duration	Calculated Vibration Level - PPV (in/sec)	City of Eastvale Vibration Threshold- PPV (in/sec)	Significant Impact
Large Bulldozer	100	Continuous/Frequent	0.019	0.0787	NO
Vibratory Roller	100	Continuous/Frequent	0.046		NO
Loaded Trucks	100	Continuous/Frequent	0.017		NO
Caisson Drilling	100	Continuous/Frequent	0.019		NO

As shown in Table 13, project related construction activity is not expected to cause any potential damage to the nearest structures and is expected to be below the City of Eastvale 0.0787 PPV (in/sec) threshold.

Construction vibration calculation worksheets are shown in Appendix C.

7.4 Construction Design Features

The following recommended mitigation measures are provided to help ensure the project's noise levels do not adversely impact the adjacent noise sensitive land uses:

DF-6 Prepare a construction management plan and obtain a construction work permit from the City of Eastvale prior to starting construction. The construction management plan shall ensure all contractors implement construction best management practices to reduce construction noise levels. Examples of best management practices may include the following:

- All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).

- Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible.

- If feasible, electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load.

- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.

- Locate staging area, generators and stationary construction equipment as far from the adjacent residential homes as feasible.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes.

- Provide notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator.

- Construction activities shall not take place between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. to 7:00 a.m. during the months of October through May.

DF-7 No impact pile driving or blasting activities shall be permitted on the project site during construction. If impact pile driving or blasting is required, a follow-up noise and vibration impact assessment shall be conducted prior to start of any activity.

Exhibits

Location Map



Legend:

✳ = Project Site

N

Exhibit B
Site Plan



N

Appendices

Appendix A

City of Eastvale
Noise Standard

CHAPTER 8.52. - NOISE REGULATION

Sec. 8.52.010. - Reserved.

Sec. 8.52.020. - Exemptions.

Sound emanating from the following sources is exempt from the provisions of this chapter:

(1) Facilities owned or operated by or for a governmental agency;

(2) Capital improvement projects of a governmental agency;

(3) The maintenance or repair of public properties;

(4) Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile;

(5) Public or private schools and school-sponsored activities;

(6) Agricultural operations on land designated agriculture in the city general plan, or land zoned A-l (light agriculture), A-P (light agriculture with poultry), A-2 (heavy agriculture), A-D (agriculture-dairy) or C/V (citrus/vineyard), provided such operations are carried out in a manner consistent with accepted industry standards. This exemption includes, without limitation, sound emanating from all equipment used during such operations, whether stationary or mobile;

(7) Wind energy conversion systems (WECS), provided such systems comply with the WECS noise provisions of county Ordinance No. 348;

(8) Private construction projects located one-quarter of a mile or more from an inhabited dwelling;

(9) Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that construction does not occur between the hours of:

a. 6:00 p.m. and 6:00 a.m. during the months of June through September; and

b. 6:00 p.m. and 7:00 a.m. during the months of October through May;

(10) Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.;

(11) Motor vehicles, other than off-highway vehicles. This exemption does not include sound emanating from motor vehicle sound systems;

(12) Heating and air conditioning equipment;

(13) Safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety and welfare;

(14) The discharge of firearms consistent with all state laws.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.030. - Definitions.

The following words, terms and phrases, when used in this chapter, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Audio equipment means a television, stereo, radio, tape player, compact disc player, mp3 player, I-POD or other similar device.

Decibel (dB) means a unit for measuring the relative amplitude of a sound equal approximately to the smallest difference normally detectable by the human ear, the range of which includes approximately 130 decibels on a scale beginning with zero decibels for the faintest detectable sound. Decibels are measured with a sound level meter using different methodologies defined as follows:

(1) The term, "A-weighting (dBA)" means the standard A-weighted frequency response of a sound level meter, which de-emphasizes low and high frequencies of sound in a manner similar to the human ear for moderate sounds.

(2) The term "maximum sound level (Lmax)" means the maximum sound level measured on a sound level meter.

Governmental agency means the United States, the state, the county, any city within the county, any special district within the county or any combination of these agencies.

Land use permit means a discretionary permit issued by the city pursuant to title 120 (planning and zoning) of this Code.

Motor vehicle means a vehicle that is self-propelled.

Motor vehicle sound system means a stereo, radio, tape player, compact disc player, mp3 player, I-POD or other similar device in a motor vehicle.

Noise means any loud, discordant or disagreeable sound.

Occupied property means property upon which is located a residence, business or industrial or manufacturing use.

Off-highway vehicle means a motor vehicle designed to travel over any terrain.

Public or private school means an institution conducting academic instruction at the preschool, elementary school, junior high school, high school or college level.

Public property means property owned by a governmental agency or held open to the public, including, but not limited to, parks, streets, sidewalks, and alleys.

Sensitive receptor means a land use that is identified as sensitive to noise in the noise element of the city general plan, including, but not limited to, residences, schools, hospitals, churches, rest homes, cemeteries or public libraries.

Sound-amplifying equipment means a loudspeaker, microphone, megaphone or other similar device.

Sound level meter means an instrument meeting the standards of the American National Standards Institute for type 1 or type 2 sound level meters or an instrument that provides equivalent data.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.040. - General sound level standards.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in the following table:

TABLE 1. SOUND LEVEL STANDARDS (dB Lmax)

General Plan Foundation Component				Maximum Decibel Level	
Land Use Designation General Plan		Land Use Designation Name	Density	7:00 a.m. — 10:00 p.m.	10:00 p.m.— 7:00 a.m.
Community development					
	EDR	Estate density residential	2 acres	55	45
	VLDR	Very low-density residential	1 acre	55	45
	LDR	Low-density residential	½ acre	55	45
	MDR	Medium-density residential	2—5	55	45

	MHDR	Medium high-density residential	5—8	55	45
	HDR	High-density residential	8—14	55	45
	VHDR	Very high-density residential	14—20	55	45
	H'TDR	Highest density residential	20+	55	45
	CR	Retail commercial		65	55
	CO	Office commercial		65	55
	CT	Tourist commercial		65	55
	CC	Community center		65	55
	LI	Light industrial		75	55
	HI	Heavy industrial		75	75
	BP	Business park		65	45
	PF	Public facility		65	45
	SP	Specific plan-residential		55	45
		Specific plan-commercial		65	55
		Specific plan-light industrial		75	55
		Specific plan-heavy industrial		75	75
Rural community					
	EDR	Estate density residential	2 acres	55	45

	VLDR	Very low-density residential	1 acre	55	45
	LDR	Low-density residential	½ acre	55	45
Rural					
	RR	Rural residential	5 acres	45	45
	RM	Rural mountainous	10 acres	45	45
	RD	Rural desert	10 acres	45	45
Agriculture					
	AG	Agriculture	10 acres	45	45
Open space					
	C	Conservation		45	45
	CH	Conservation habitat		45	45
	REC	Recreation		45	45
	RUR	Rural	20 acres	45	45
	W	Watershed		45	45
	MR	Mineral resources		75	45

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.050. - Sound level measurement methodology.

Sound level measurements may be made anywhere within the boundaries of an occupied property. The actual location of a sound level measurement shall be at the discretion of the enforcement officials identified in section 8.52.080. Sound level measurements shall be made with a sound level meter. Immediately before a measurement is made, the sound level meter shall be calibrated utilizing an acoustical calibrator meeting the standards of the American National Standards Institute. Following a sound level measurement, the calibration of the sound level meter shall be reverified. Sound level meters and calibration equipment shall be certified annually.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.060. - Special sound sources standards.

The general sound level standards set forth in section 8.52.040 apply to sound emanating from all sources, including the special sound sources set forth in this section, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards, the failure to comply with which constitutes separate violations of this chapter:

(1) *Motor vehicles.*

a. *Off-highway vehicles.*

1. No person shall operate an off-highway vehicle unless it is equipped with a USDA-qualified spark arrester and a constantly operating and properly maintained muffler. A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.
2. No person shall operate an off-highway vehicle unless the noise emitted by the vehicle is not more than 96 dBA if the vehicle was manufactured on or after January 1, 1986, or is not more than 101 dBA if the vehicle was manufactured before January 1, 1986. For purposes of this subsection, emitted noise shall be measured a distance of 20 inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.

b. *Sound systems.* No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of 10:00 p.m. and 8:00 a.m., such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than 100 feet from the vehicle.

(2) *Power tools and equipment.* No person shall operate any power tools or equipment between the hours of 10:00 p.m. and 8:00 a.m. such that the power tools or equipment are audible to

the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools or equipment are audible to the human ear at a distance greater than 100 feet from the power tools or equipment.

(3) *Audio equipment.* No person shall operate any audio equipment, whether portable or not, between the hours of 10:00 p.m. and 8:00 a.m. such that the equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the equipment may be located. No person shall operate any audio equipment, whether portable or not, at any other time such that the equipment is audible to the human ear at a distance greater than 100 feet from the equipment.

(4) *Sound-amplifying equipment and live music.* No person shall install, use or operate sound-amplifying equipment, or perform, or allow to be performed, live music unless such activities comply with the following requirements. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control:

a. Sound-amplifying equipment or live music is prohibited between the hours of 10:00 p.m. and 8:00 a.m.

b. Sound emanating from sound-amplifying equipment or live music at any other time shall not be audible to the human ear at a distance greater than 200 feet from the equipment or music.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.070. - Exceptions.

Exceptions may be requested from the standards set forth in section 8.52.040 or 8.52.060 and may be characterized as construction-related, single-event or continuous event exceptions.

(1) *Application and processing.*

a. *Construction-related exceptions.* An application for a construction-related exception shall be made to and considered by the city on forms provided by the city and shall be accompanied by the appropriate filing fee. No public hearing is required.

b. *Single-event exceptions.* An application for a single-event exception shall be made to and considered by the city on forms provided by the planning department and shall be accompanied by the appropriate filing fee. No public hearing is required.

c. *Continuous-event exceptions.* An application for a continuous-event exception shall be made to the city on forms provided by the planning department and shall be accompanied by the appropriate filing fee. Upon receipt of an application for a

continuous-event exception, the city shall set the matter for public hearing before the planning commission, notice of which shall be given as provided in the Eastvale Municipal Code. Notwithstanding the exceptions set forth in this section, an application for a continuous-event exception that is associated with an application for a land use permit shall be processed concurrently with the land use permit in the same manner that the land use permit is required to be processed.

(2) *Requirements for approval.* The appropriate decision making body or officer shall not approve an exception application unless the applicant demonstrates that the activities described in the application would not be detrimental to the health, safety or general welfare of the community. In determining whether activities are detrimental to the health, safety or general welfare of the community, the appropriate decision-making body or officer shall consider such factors as the proposed duration of the activities and their location in relation to sensitive receptors. If an exception application is approved, reasonable conditions may be imposed to minimize the public detriment, including, but not limited to, restrictions on sound level, sound duration and operating hours.

(3) *Appeals.* The city's decision on an application for a construction-related exception is considered final. The city's decision on an application for a single-event exception is considered final. After making a decision on an application for a continuous-event exception, the appropriate decision-making body or officer shall mail notice of the decision to the applicant. Within ten calendar days after the mailing of such notice, the applicant or an interested person may appeal the decision to the city council. Upon receipt of an appeal and payment of the appropriate appeal fee, the city clerk shall set the matter for hearing not less than five days nor more than 30 days thereafter and shall give written notice of the hearing in the same manner as notice of the hearing was given by the appropriate hearing officer or body. The city council shall render its decision within 30 days after the appeal hearing is closed.

(4) *Effect of a pending continuous-event exception application.* For a period of 180 days from the effective date of the ordinance from which this chapter is derived, no person creating any sound prohibited by this chapter shall be considered in violation of this chapter if the sound is related to a use that is operating pursuant to an approved land use permit, if an application for a continuous-event exception has been filed to sanction the sound and if a decision on the application is pending.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.080. - Enforcement.

The chief of police and planning director shall have the primary responsibility for enforcing this chapter; provided, however, the chief of police and planning director may be assisted by the public health department. Violations shall be prosecuted as described in section 8.52.100, but nothing in this chapter shall prevent the chief of police, planning director or the department of public health from engaging in efforts to obtain voluntary compliance by means of warnings, notices or educational programs.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.090. - Duty to cooperate.

No person shall refuse to cooperate with, or obstruct, the enforcement officials identified in section 8.52.080 when they are engaged in the process of enforcing the provisions of this chapter. This duty to cooperate may require a person to extinguish a sound source so that it can be determined whether sound emanating from the source violates the provisions of this chapter.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

Sec. 8.52.100. - Violations and penalties.

Any person who violates any provision of this chapter once or twice within a 180-day period shall be guilty of an infraction. Any person who violates any provision of this chapter more than twice within a 180-day period shall be guilty of a misdemeanor. Each day a violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such. Penalties shall not exceed the following amounts:

(1) For the first violation within a 180-day period, the minimum mandatory fine shall be $500.00.

(2) For the second violation within a 180-day period, the minimum mandatory fine shall be $750.00.

(3) For any further violations within a 180-day period, the minimum mandatory fine shall be $1,000.00 or imprisonment in the county jail for a period not exceeding six months, or both.

(Ord. No. 2011-04, §§ 1, 2, 1-26-2011)

INTRODUCTION

"Noise" is unwanted sound. Sound can be measured in a variety of ways, but the determination of whether the *sound* is in fact *noise* is subjective. For example children playing may be wonderful sound to some, but not to others. And of course the sounds of playing during the early afternoon may be perceived differently than late in the evening. Laughter at 2 PM is charming; the same laughter at 2 AM can be annoying and disruptive to sleep.



Managing noise is both a quality of life issue and an important means of encouraging commerce. If noise standards are too stringent, businesses may have a difficult time locating in Eastvale, and mitigation from traffic noise or other sources may make it difficult to build new homes. If the noise standards are too lenient, the quality of life in the community may suffer. This chapter of the General Plan attempts to balance these issues and separate sound from noise in the context of the City of Eastvale.

SETTING

Eastvale has a relatively quiet noise environment. The primary sources of noise in the city are transportation-related. Interstate 15 and the other major transportation corridors in the community accommodate local and regional traffic; that creates noise. Sound generated by vehicle traffic along roadways can be expressed in terms of sound levels at a given distance from the roadway. Other noise sources in the City include outdoor speakers and alarms, air-conditioning, heating, generators, sirens, car and home stereos, etc. In the industrial area of Eastvale, outdoor equipment may create noise, although this is expected in an industrial setting and does not affect residential areas.

TERMS AND DEFINITIONS

The science of noise analysis has its own terminology that makes a straightforward discussion difficult. The terms shown in the definition block (*see text* box) are used to measure sound. The various sound levels are then used to develop or establish policy that affects noise generation and attenuation.

Ambient Noise: The normal or existing level of environmental noise at a given location.

CNEL (Community Noise Equivalent Level): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening (from 7:00 p.m. to 10:00 p.m.) and after the addition of 10 decibels to sound levels in the night (from 10:00 p.m. to 7:00 a.m.).

dBA (A-weighted decibel): The A-weighted decibel scale discriminates upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale is based on a reference pressure level of 20 micropascals.

Leq (Equivalent energy level): The average acoustic energy content of noise during the time it lasts. The City uses a 10- minute Leq measurement.

Ldn (Day-Night Average Level): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night (from 10:00 p.m. to 7:00 a.m.).

NOISE SENSITIVE LAND USES

A series of land uses have been deemed "sensitive" by the State of California. These land uses require an attention to noise to ensure that they can operate as designed. Sensitive uses typically include schools, hospitals, rest homes, long term care facilities, mental care facilities, homes, places of worship, libraries, and passive recreation areas. Activities conducted in proximity to these sensitive uses must consider their sound output, and ensure that they don't create unacceptable noise levels.

Similarly, noise generating uses need to be protected from encroachment by noise sensitive uses. Existing agricultural operations, industrial and commercial activity that generates noise should not be required to curtail their activity because of a newly constructed housing project or other noise-sensitive use.

Most communities handle noise issues by taking care to put compatible uses near each other and avoid placing noisy uses next to homes and other noise-sensitive uses.

The table and maps on the following pages illustrate future noise conditions that will need to be addressed as the City makes land use decisions.

Table N-1 provides information on projected noise levels along major roadways in the City—specifically, what the future noise level could be at a given distance from the centerline of the roadway. This information is useful to residents seeking information on neighborhoods and to planners who want to ensure that noise impacts are properly addressed when new development proposals are reviewed. The noise information is expressed in A-weighted decibels (dBA) and divided into bands or contours ranging from 55 to 70 dBA in 5 dBA increments. The contours are used in ordinances and policy statements.

Noise created by stationary sources (i.e., outdoor mechanical equipment) is difficult to predict, and will need to be addressed on a case-by-case basis.

TABLE N-1: DISTANCE TO NOISE LEVELS BY MAJOR ROADWAY DESIGNATION[1]

Roadway Classification	70 dBA	65 dBA	60 dBA	55 dBA
Urban Arterial – 6 Lanes	141	297	638	1,373
Urban Arterial – 4 Lanes	106	227	487	1,048
Major Highway	91	190	407	879
Secondary Highway	65	135	288	620
Collector Street	27	59	126	272

Source: Appendix I: Noise Element Data, Riverside County General Plan

How Loud Is It?

Sound Levels for Common Noise Sources

Activity	Noise Level in Decibels
Limit of Hearing	0 dB
Normal Breathing	10 dB
Soft Whisper	30 dB
Library	40 dB
Refrigerator	50 dB
Rainfall	50 dB
Washing Machine	50-75 dB
Normal Conversation	60 dB
Hair Dryer	60-95 dB
Alarm Clock	65-80 dB
Power Mower	65-95 dB
Dumpster Pickup (@ 50')	80 dB
Garbage Disposal	80-95 dB
Noisy Restaurant	85 dB
Train Approaching (Engines)	85-90 dB
Tractor	90 dB
Shouting in Ear	110 dB
Loud Rock Concert	120 dB
Jet Engine at Takeoff	150 dB

These are typical noise levels. Distance from the source will reduce the noise level. A 10 dB increase doubles perceived loudness. Continued exposure to noise above 85 dB can cause hearing loss; the maximum exposure to 85 dB noise in the workplace is eight hours. A single exposure to 140 dB noise can cause some hearing loss. Source: National Institute for Occupational Safety and Health.

[1] *Distance is measured from the centerline.*

NOISE MITIGATION STRATEGIES

When an existing or proposed land use emits sound that exceeds the City determined acceptable level, the sound is characterized as noise and subject to regulation. There are a number of methods of reducing noise from both the source and at the sensitive use. When design or regulatory methods are used to reduce noise, the methods attenuate or mitigate the noise. There are both indoor and outdoor standards for this type of mitigation. Policies included in this chapter provide a number of methods for mitigation; however, with changing technology and advances in design, this list is not comprehensive, and new methods should be considered. Note too that the responsibility for mitigation is dependent upon the planned land use and existing uses on and near a site.

Table N-3 provides several categories for noise compatibility that equate to standard development processing. As noted in the table, *completely compatible* uses are typically those that would be allowed by right in the zoning code. Tentatively compatible uses are those that would be conditional uses. The remaining two columns, *normally incompatible* and *completely incompatible,* represent land uses where intensive study or even project denial might occur because of existing or projected noise levels.

NOISE SOURCES

AGRICULTURE

The City has adopted the Riverside County Right-to-Farm Ordinance which conserves, protects, and encourages the development, improvement, and continued viability of agricultural land and industries for the long-term production of food and other agricultural products, and for the economic well-being of the County's residents. The Right-to-Farm Ordinance also attempts to balance the rights of farmers to produce food and other agricultural products with the rights of non-farmers who own, occupy, or use land within or adjacent to agricultural areas. The City continues to support agriculture by limiting the circumstances under which agricultural operations may be deemed a nuisance.

STATIONARY NOISE

A stationary noise source is any entity in a fixed location that emits noise. Stationary noise sources are common in many noise-sensitive areas. Motors, appliances, air conditioners, lawn and garden equipment, power tools, and generators are often found in residential neighborhoods, as well as on or near the properties of schools, hospitals, and parks. These structures are often a permanent fixture and are required for the particular land use. Industrial and manufacturing facilities are also stationary noise producers that may affect adjacent sensitive land uses. The emitted noise from the noise source can be mitigated to acceptable levels either at the source or on the adjacent property through the use of proper planning, setbacks, noise walls, acoustic-rated windows, dense landscaping, or by other noise control measures.

TRANSPORTATION

The most common mobile noise sources in the City are transportation-related. Motor vehicle noise is characterized by the number of vehicles generating engine and tire noise on local roads and freeways, which often creates a higher sustained noise level in proximity to areas sensitive to noise exposure. Rail and aircraft operations, though less frequent, may generate extremely high noise levels that can be disruptive to daily activities in residential areas and noise sensitive uses. Transit associated with bus service in the City is part of the transportation noise consideration.

Airports

Aircraft flyovers are audible in Eastvale, as a result of aircraft approaching and departing from Chino Airport and Ontario International Airport. A substantial portion of the City underlies the general traffic patter envelope of Chino as clearly depicted in the most recently adopted version of the Chino land Use Compatibility Plan, available at www.rclaus.org. However, the noise is transient and not considered a major noise source unless they occur during the late evening and morning hours. According to the 2008 Airport Land Use Compatibility Plan, only about 10% of flights at Chino Airport occur between 7:00 p.m. and 7:00 a.m. Helicopters and heliports are also potential sources of noise, but due to the relatively low frequency and short duration of their operation in most circumstances, these operations do not significantly affect average noise levels within the City.

NOISE ATTENUATION

One of the most effective means of reducing noise in a sensitive area is to construct and design buildings in such a way that the noise is deflected, absorbed or mitigated so as not to affect the occupants. If the building has already been constructed, then landscaping, physical barriers, sound dampening technology and other design techniques can be used to absorb the noise. These building and design techniques should serve two purposes; to mitigate noise to acceptable indoor and outdoor levels, and to enhance the community character rather than detract from its surroundings.

VIBRATION

Another community annoyance related to noise is vibration. Vibration can be described by both its amplitude and frequency, where amplitude is characterized by displacement, velocity, and/or acceleration. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration.

Vibration can be felt outdoors, but the perceived intensity of vibration impacts are greater indoors, due to the shaking of the structure. Some of the most common sources of vibration come from trains and/or transit vehicles, construction

equipment, airplanes, and large vehicles. Several land uses are especially sensitive to vibration, and, therefore, have a lower vibration threshold. These uses include, but are not limited to, concert halls, hospitals, libraries, vibration-sensitive research operations, residential areas, schools, and offices.

Table N-2, Human Reaction to Typical Vibration Levels, presents the human reaction to various levels of peak particle velocity. Typical construction vibrations fall in the 10 to 30 Hertz (Hz) range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies. However, due to their suspension systems, buses often generate frequencies around 30 Hz at high speeds. It is more uncommon, but possible, to measure traffic frequencies above 30 Hz.

TABLE N-2: HUMAN REACTION TO TYPICAL VIBRATION LEVELS

Peak Particle Velocity (inches/second)	Human Reaction
0.0059-0.0188	Threshold of perception, possibility of intrusion
0.0787	Vibrations readily perceptible
0.0984	Continuous vibration begins to annoy people
0.1968	Vibrations annoying to people in buildings
0.3937-0.5905	Vibrations considered unpleasant when continuously subjected and unacceptable by some walking on bridges.

Source: Caltrans, 1992

ISSUES FOR FUTURE PLANNING

As population and development increase in Eastvale, the noise levels in the community will likely also increase. Methods of addressing the increase in noise can be evaluated before noise levels reach an annoyance level. Noise attenuation will be important for noise sensitive uses located along major roadways or in the vicinity of industrial or heavy commercial activities. The City may also need to address noise during the planning of special events such as street fairs and concerts.

NOISE GOALS AND POLICIES

GOAL N-1: Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Eastvale.

GOAL N-2: Locate noise-tolerant land uses within areas irrevocably committed to land uses that are noise-producing, such as transportation corridors.

GOAL N-3: Ensure that noise sensitive uses do not encroach into areas needed by noise generating uses.

GOAL N-4: Locate noise sources away from existing noise sensitive land uses unless appropriate noise control measures are provided.

POLICIES

Policies are provided below in the following topical areas:

- General Noise Policies (page 10-7)
- Noise Mitigation Strategies (page 10-8)
- Noise Sources (page 10-12)
- Building and Design (page 10-13)
- Building and Design Techniques (page 10-14)

GENERAL NOISE POLICIES

POLICY N-1: **Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.**

POLICY N-2: **Continue to work with other agencies such as Caltrans and school districts to ensure that newly proposed facilities do not negatively affect existing noise sensitive land uses.**

POLICY N-3: **Consider the following uses to be sensitive to noise and vibration, and discourage these uses in areas where existing or projected future noise levels would be in excess of 65 CNEL and/or vibration would be more than 0.0787 Peak Particle Velocity (inches/second):**

- **Schools;**
- **Hospitals;**
- **Rest Homes;**
- **Long Term Care Facilities;**
- **Mental Care Facilities;**
- **Residential Uses;**
- **Libraries;**
- **Passive Recreation Uses; and**
- **Places of worship**

POLICY N-4: **Require noise sensitive land uses proposed in areas where existing or projected future noise levels would be in excess of 65 CNEL to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.**

POLICY N-5: **Require that exterior noise forecasts use the appropriate Level of Service for the adjacent roadways, or a 20-year projection of traffic volumes (whichever is greater) for future noise forecasts.**

NOISE MITIGATION STRATEGIES

POLICY N-6: **Mitigate exterior noise to the levels shown in Table N-3 to the extent feasible.**

TABLE N-3: NOISE COMPATIBILITY BY LAND USE DESIGNATION[1]

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA
All Non-Residential (Commercial, Industrial & Institutional)	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	(2)
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA

(1) All noise levels shown in this table are designated CNEL.
(2) To be determined as part of the project review process.

POLICY N-7: **Table N-4 provides the City's standards for maximum exterior non-transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day. Where existing ambient noise levels exceed these standards, the ambient noise level shall be highest allowable noise level as measured in dBA Leq (30 minutes).**

Note to the Reader: Public schools are not regulated by the City; therefore, no noise standards for public schools are included in this Chapter.

ACTION N-7.1: Establish acceptable standards for residential noise sources such as, but not limited to, leaf blowers, mobile vendors, mobile stereos and stationary noise sources such as home appliances, air conditioners, and swimming pool equipment.

ACTION N-7.2: Evaluate noise producers for the possibility of pure-tone producing noises. Mitigate any pure tones that may be emitted from a noise source.

TABLE N-4: EXTERIOR NOISE LEVEL STANDARDS FOR NON-TRANSPORTATION NOISE, MEASURED AS DBA LEQ (30 MINUTES)[2]

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units Per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

POLICY N-8: **The noise levels specified in Policy N-7 shall be lowered by 5 dB for simple tonal noises (such as humming sounds), noises consisting primarily of speech or music, or for recurring impulsive noises (such as pile drivers, punch presses, and similar machinery). Example: the Single Family/Duplex standard from 10 p.m. to 7 a.m. for these types of noises is 45 dBA.**

POLICY N-9: **The City may impose exterior noise standards which are less restrictive than those specified in Table N-4, provided that:**

1) **The noise impact on the residential or other noise-sensitive use is addressed in an environmental analysis and at least one outdoor area meets the standard; and**

2) **A finding is made by the approving body specifying why the exception would not be detrimental to the public health, safety and general welfare; and**

3) **The exception would not adversely affect the character of the surrounding development.**

4) **The exception would not be injurious to adjacent uses, property and improvements; and,**

5) **Alternatives have been considered but none are technologically feasible for the proposal; and,**

[2] *Leq (Equivalent Sound Level) is the average noise level during the time period of the sample.*

6) **Interior noise levels resulting from an external source will be no more than 45dBA CNEL from 7 a.m. to 10 p.m.; and,**

7) **Residents of noise sensitive uses are informed of the proposal during the review stage and prior to approval.**

POLICY N-10: **Table N-5: Maximum Acceptable Interior Noise Levels Created by Exterior Noise Sources provides the City's standards for acceptable indoor noise levels for various types of land uses. These standards should receive special attention when projects are considered in "Tentatively Compatible" or "Normally Incompatible" areas.**

- **Noise created inside a use listed below shall not count toward the acceptable noise levels to be maintained in accordance with this policy.**

TABLE N-5: MAXIMUM ACCEPTABLE INTERIOR NOISE LEVELS CREATED BY EXTERIOR NOISE SOURCES

Land Use Type	Acceptable Noise Level (dBA CNEL)
Residential Living and Sleeping Areas	45 dBA
Residential Living and Sleeping Areas where the dwelling unit is subject to noise from railroad tracks, aircraft overflights, or similar sources which produce clearly identifiable, discrete noise events (such as the passing of a train as opposed to relatively steady or constant noise sources such as roadways)	40 dBA
Private & Semi Private School Classrooms(1)	55 dBA
All Places of Work Other than School Classrooms	Conform with applicable state and federal workplace safety standards

(1) Standards for public schools are set and enforced by the State of California and are not regulated by the City of Eastvale.

POLICY N-11: **Developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise that exceeds the "completely compatible" guidelines in Table N-3: Noise Compatibility by Land Use Designation shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.**

POLICY N-12: **The City's preferences for providing noise mitigation are, in order of preference (#1 is most preferred; #5 is the least):**

1) **Reduce noise at the source.**
2) **If #1 is not practical, designate land uses which are compatible with projected noise levels.**
3) **If #1 or #2 are not practical, use distance from the source to reduce noise to acceptable levels.**
4) **If #1, #2, or #3 are not practical, use buildings, berms, or landscaping or a combination of these to reduce exterior noise to acceptable levels. Use construction techniques (sound-reducing windows, insulation, etc.) to reduce interior noise to acceptable levels.**
5) **The last measure which should be considered is the use of a sound wall to reduce noise to acceptable levels.**

NOISE SOURCES

POLICY N-13: **Protect existing agricultural resources from noise complaints that may result from routine farming practices, through continued support of the Right-to-Farm Ordinance.**

POLICY N-14: **Ensure compatibility between industrial and commercial development and adjacent land uses. To achieve compatibility, industrial and commercial development projects may be required to include noise mitigation measures to avoid or minimize project impacts on adjacent uses.**

POLICY N-15: **Encourage noise-tolerant land uses such as commercial or industrial development, to locate in areas already committed to land uses that are noise-producing.**

POLICY N-16: **Require that parking structures, terminals, and loading docks of commercial or industrial land uses be designed to minimize potential noise impacts on adjacent noise sensitive land uses.**

POLICY N-17: **If noise levels in Table N-4 exceed, or are projected to be exceeded as a result of the proposed commercial or industrial loading dock or delivery area, require delivery hours be limited when adjacent to noise-sensitive land uses.**

ACTION N-17.1: Enforce all noise sections of the State Motor Vehicle Code.

POLICY N-18: **Natural buffers, setbacks or other noise attenuation shall be established between freeways and urban arterial roadways and adjoining noise-sensitive areas.**

ACTION N-18.1: Employ noise mitigation practices when designing all future streets and highways, and when improvements occur along existing highway segments.

POLICY N-19: **Encourage local and regional public transit providers to ensure that the equipment they operate and purchase is state-of-the-art and does not generate excessive noise impacts on the community.**

POLICY N-20: **Encourage the development and use of alternative transportation modes, including bicycle paths and pedestrian walkways, to minimize vehicular noise in residential and other noise-sensitive areas.**

POLICY N-21: **Actively participate in the development of noise abatement plans for freeways.**

BUILDING AND DESIGN

POLICY N-22: **Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.**

POLICY N-23: **Condition subdivision and other land development approval adjacent to developed/occupied noise-sensitive land uses to require the developer to submit a construction-related noise mitigation plan to the City for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and specify how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:**

a) Temporary noise attenuation fences;

b) Preferential location of equipment;

c) Length of equipment use and idling time; and,

d) Use of current noise suppression technology and equipment.

POLICY N-24: Require that all construction equipment be kept properly tuned and use noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

BUILDING AND DESIGN TECHNIQUES

POLICY N-25: Development should use natural barriers such as berms, setbacks and/or dense vegetation to assist in noise reduction.

POLICY N-26: Continue to develop effective strategies and mitigation measures for the abatement of noise reflecting effective site design approaches and state-of-the-art building technologies.

POLICY N-27: Noise reduction measures shall be included in the design of new development through measures which may include:

- Separation of noise-sensitive buildings from noise-generating sources;
- Use of natural topography and intervening structures to shield noise-sensitive land uses; and
- Adequate sound proofing of noise sources or receptor structures to maintain desired interior noise levels.

POLICY N-28: Require that commercial and residential mixed-use structures minimize the transfer or transmission of noise and vibration from the commercial land use to the residential land use through appropriate building technologies.

Appendix B

Roadway Noise Analysis Results

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT: LEAL Masterplan Amendment
Condition: Existing Conditions
JOB #: 2610-2021-03
ROADWAY: Limonite Avenue (Archibald Ave to Harrison Ave)
DATE: 30-Nov-21
LOCATION: 100 Feet from the Centerline of the Roadway
ENGINEER: D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	18,497
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	1,850

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.4	66.0	64.7	58.6	67.1	67.7
MEDIUM TRUCKS	61.2	42.0	34.2	43.4	49.5	49.6
HEAVY TRUCKS	67.6	50.6	42.8	52.0	58.2	58.2
NOISE LEVELS (dBA)	71.4	66.1	64.7	59.6	67.7	68.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.4	66.0	64.7	58.6	67.1	67.7
MEDIUM TRUCKS	61.2	42.0	34.2	43.4	49.5	49.6
HEAVY TRUCKS	67.6	50.6	42.8	52.0	58.2	58.2
NOISE LEVELS (dBA)	71.4	66.1	64.7	59.6	67.7	68.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	66	210	664	2100
LDN	58	185	584	1846

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Archibald Ave to Harrison Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,162	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,216	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.1	66.8	65.5	59.4	67.9	68.5
MEDIUM TRUCKS	61.9	42.7	35.0	44.2	50.3	50.4
HEAVY TRUCKS	68.4	51.4	43.6	52.8	59.0	59.0
NOISE LEVELS (dBA)	72.2	66.9	65.5	60.4	68.4	69.0

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.1	66.8	65.5	59.4	67.9	68.5
MEDIUM TRUCKS	61.9	42.7	35.0	44.2	50.3	50.4
HEAVY TRUCKS	68.4	51.4	43.6	52.8	59.0	59.0
NOISE LEVELS (dBA)	72.2	66.9	65.5	60.4	68.4	69.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	80	252	796	2516
LDN	70	221	700	2212

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Archibald Ave to Harrison Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	44,000	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	4,400	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.1	69.7	68.5	62.4	70.8	71.5
MEDIUM TRUCKS	64.9	45.7	37.9	47.1	53.3	53.3
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	75.2	69.9	68.5	63.4	71.4	72.0

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.1	69.7	68.5	62.4	70.8	71.5
MEDIUM TRUCKS	64.9	45.7	37.9	47.1	53.3	53.3
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	75.2	69.9	68.5	63.4	71.4	72.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	158	499	1579	4995
LDN	139	439	1389	4392

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Archibald Ave to Harrison Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	47,665	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	4,767	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.5	70.1	68.8	62.7	71.2	71.8
MEDIUM TRUCKS	65.3	46.1	38.3	47.5	53.6	53.7
HEAVY TRUCKS	71.7	54.7	46.9	56.2	62.3	62.3
NOISE LEVELS (dBA)	75.5	70.2	68.8	63.7	71.8	72.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.5	70.1	68.8	62.7	71.2	71.8
MEDIUM TRUCKS	65.3	46.1	38.3	47.5	53.6	53.7
HEAVY TRUCKS	71.7	54.7	46.9	56.2	62.3	62.3
NOISE LEVELS (dBA)	75.5	70.2	68.8	63.7	71.8	72.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	171	541	1711	5411
LDN	150	476	1504	4758

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Harrison Ave to Scholar Way)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	26,192	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,619	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.9	67.5	66.2	60.1	68.6	69.2
MEDIUM TRUCKS	62.7	43.5	35.7	44.9	51.0	51.1
HEAVY TRUCKS	69.1	52.1	44.3	53.6	59.7	59.7
NOISE LEVELS (dBA)	72.9	67.6	66.2	61.1	69.2	69.7

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.9	67.5	66.2	60.1	68.6	69.2
MEDIUM TRUCKS	62.7	43.5	35.7	44.9	51.0	51.1
HEAVY TRUCKS	69.1	52.1	44.3	53.6	59.7	59.7
NOISE LEVELS (dBA)	72.9	67.6	66.2	61.1	69.2	69.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	94	297	940	2973
LDN	83	261	827	2614

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Archibald Ave to Harrison Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	29,857	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,986	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.4	68.1	66.8	60.7	69.1	69.8
MEDIUM TRUCKS	63.2	44.0	36.3	45.5	51.6	51.6
HEAVY TRUCKS	69.7	52.7	44.9	54.1	60.3	60.3
NOISE LEVELS (dBA)	73.5	68.2	66.8	61.7	69.7	70.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.4	68.1	66.8	60.7	69.1	69.8
MEDIUM TRUCKS	63.2	44.0	36.3	45.5	51.6	51.6
HEAVY TRUCKS	69.7	52.7	44.9	54.1	60.3	60.3
NOISE LEVELS (dBA)	73.5	68.2	66.8	61.7	69.7	70.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	107	339	1072	3389
LDN	94	298	942	2980

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT: LEAL Masterplan Amendment
Condition: Long Range Condition
JOB #: 2610-2021-03
ROADWAY: Limonite Avenue (Archibald Ave to Harrison Ave)
DATE: 30-Nov-21
LOCATION: 100 Feet from the Centerline of the Roadway
ENGINEER: D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	50,780
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	5,078

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.7	70.4	69.1	63.0	71.5	72.1
MEDIUM TRUCKS	65.5	46.3	38.6	47.8	53.9	54.0
HEAVY TRUCKS	72.0	55.0	47.2	56.4	62.6	62.6
NOISE LEVELS (dBA)	75.8	70.5	69.1	64.0	72.0	72.6

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.7	70.4	69.1	63.0	71.5	72.1
MEDIUM TRUCKS	65.5	46.3	38.6	47.8	53.9	54.0
HEAVY TRUCKS	72.0	55.0	47.2	56.4	62.6	62.6
NOISE LEVELS (dBA)	75.8	70.5	69.1	64.0	72.0	72.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	182	576	1823	5764
LDN	160	507	1603	5068

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Archibald Ave to Harrison Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	54,445	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	5,445	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.0	70.7	69.4	63.3	71.8	72.4
MEDIUM TRUCKS	65.9	46.6	38.9	48.1	54.2	54.3
HEAVY TRUCKS	72.3	55.3	47.5	56.7	62.9	62.9
NOISE LEVELS (dBA)	76.1	70.8	69.4	64.3	72.4	72.9

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.0	70.7	69.4	63.3	71.8	72.4
MEDIUM TRUCKS	65.9	46.6	38.9	48.1	54.2	54.3
HEAVY TRUCKS	72.3	55.3	47.5	56.7	62.9	62.9
NOISE LEVELS (dBA)	76.1	70.8	69.4	64.3	72.4	72.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	195	618	1954	6180
LDN	172	543	1718	5434

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Scholar Way to Hamner Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	29,548	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,955	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.1	66.7	65.4	59.4	67.8	68.4
MEDIUM TRUCKS	62.5	43.3	35.5	44.7	50.9	50.9
HEAVY TRUCKS	69.2	52.2	44.4	53.7	59.8	59.8
NOISE LEVELS (dBA)	72.6	66.9	65.4	60.5	68.5	69.0

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.1	66.7	65.4	59.4	67.8	68.4
MEDIUM TRUCKS	62.5	43.3	35.5	44.7	50.9	50.9
HEAVY TRUCKS	69.2	52.2	44.4	53.7	59.8	59.8
NOISE LEVELS (dBA)	72.6	66.9	65.4	60.5	68.5	69.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	80	254	803	2538
LDN	71	224	708	2239

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Scholar Way to Hamner Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	47,874	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	4,787	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	68.8	67.5	61.4	69.9	70.5
MEDIUM TRUCKS	64.6	45.4	37.6	46.8	53.0	53.0
HEAVY TRUCKS	71.3	54.3	46.5	55.8	61.9	61.9
NOISE LEVELS (dBA)	74.7	69.0	67.5	62.6	70.6	71.1

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	68.8	67.5	61.4	69.9	70.5
MEDIUM TRUCKS	64.6	45.4	37.6	46.8	53.0	53.0
HEAVY TRUCKS	71.3	54.3	46.5	55.8	61.9	61.9
NOISE LEVELS (dBA)	74.7	69.0	67.5	62.6	70.6	71.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	130	411	1300	4112
LDN	115	363	1147	3627

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Scholar Way to Hamner Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	48,960	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	4,896	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.3	68.9	67.6	61.5	70.0	70.6
MEDIUM TRUCKS	64.7	45.5	37.7	46.9	53.0	53.1
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	74.8	69.1	67.6	62.7	70.7	71.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.3	68.9	67.6	61.5	70.0	70.6
MEDIUM TRUCKS	64.7	45.5	37.7	46.9	53.0	53.1
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	74.8	69.1	67.6	62.7	70.7	71.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	133	421	1330	4206
LDN	117	371	1173	3710

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Scholar Way to Hamner Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	67,286	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	6,729	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.6	70.3	69.0	62.9	71.4	72.0
MEDIUM TRUCKS	66.1	46.8	39.1	48.3	54.4	54.5
HEAVY TRUCKS	72.8	55.8	48.0	57.2	63.4	63.4
NOISE LEVELS (dBA)	76.2	70.4	69.0	64.1	72.1	72.6

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.6	70.3	69.0	62.9	71.4	72.0
MEDIUM TRUCKS	66.1	46.8	39.1	48.3	54.4	54.5
HEAVY TRUCKS	72.8	55.8	48.0	57.2	63.4	63.4
NOISE LEVELS (dBA)	76.2	70.4	69.0	64.1	72.1	72.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	183	578	1828	5780
LDN	161	510	1612	5098

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Hamner Ave to I-15 Ramps)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	44,312	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	4,431	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.8	68.5	67.2	61.1	69.5	70.2
MEDIUM TRUCKS	64.2	45.0	37.3	46.5	52.6	52.6
HEAVY TRUCKS	71.0	54.0	46.2	55.4	61.6	61.6
NOISE LEVELS (dBA)	74.4	68.6	67.2	62.3	70.3	70.8

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.8	68.5	67.2	61.1	69.5	70.2
MEDIUM TRUCKS	64.2	45.0	37.3	46.5	52.6	52.6
HEAVY TRUCKS	71.0	54.0	46.2	55.4	61.6	61.6
NOISE LEVELS (dBA)	74.4	68.6	67.2	62.3	70.3	70.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	120	381	1204	3806
LDN	106	336	1062	3357

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Hamner Ave to I-15 Ramps)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	60,805	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	6,081	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.2	69.8	68.5	62.5	70.9	71.5
MEDIUM TRUCKS	65.6	46.4	38.6	47.8	54.0	54.0
HEAVY TRUCKS	72.4	55.4	47.6	56.8	62.9	63.0
NOISE LEVELS (dBA)	75.7	70.0	68.6	63.6	71.6	72.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.2	69.8	68.5	62.5	70.9	71.5
MEDIUM TRUCKS	65.6	46.4	38.6	47.8	54.0	54.0
HEAVY TRUCKS	72.4	55.4	47.6	56.8	62.9	63.0
NOISE LEVELS (dBA)	75.7	70.0	68.6	63.6	71.6	72.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	165	522	1652	5223
LDN	146	461	1457	4607

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Hamner Ave to I-15 Ramps)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	69,110	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	6,911	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.8	70.4	69.1	63.0	71.5	72.1
MEDIUM TRUCKS	66.2	47.0	39.2	48.4	54.5	54.6
HEAVY TRUCKS	72.9	55.9	48.1	57.3	63.5	63.5
NOISE LEVELS (dBA)	76.3	70.6	69.1	64.2	72.2	72.7

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	72.8	70.4	69.1	63.0	71.5	72.1
MEDIUM TRUCKS	66.2	47.0	39.2	48.4	54.5	54.6
HEAVY TRUCKS	72.9	55.9	48.1	57.3	63.5	63.5
NOISE LEVELS (dBA)	76.3	70.6	69.1	64.2	72.2	72.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	188	594	1877	5937
LDN	166	524	1656	5236

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (Hamner Ave to I-15 Ramps)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	85,603	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	8,560	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.7	71.3	70.0	64.0	72.4	73.0
MEDIUM TRUCKS	67.1	47.9	40.1	49.3	55.5	55.5
HEAVY TRUCKS	73.8	56.8	49.1	58.3	64.4	64.5
NOISE LEVELS (dBA)	77.2	71.5	70.1	65.1	73.1	73.7

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.7	71.3	70.0	64.0	72.4	73.0
MEDIUM TRUCKS	67.1	47.9	40.1	49.3	55.5	55.5
HEAVY TRUCKS	73.8	56.8	49.1	58.3	64.4	64.5
NOISE LEVELS (dBA)	77.2	71.5	70.1	65.1	73.1	73.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	233	735	2325	7353
LDN	205	649	2051	6486

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (I-15 Ramps to Wineville Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	33,855
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	3,386

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.0	68.6	67.3	61.3	69.7	70.3
MEDIUM TRUCKS	63.8	44.6	36.8	46.0	52.2	52.2
HEAVY TRUCKS	70.2	53.2	45.5	54.7	60.8	60.9
NOISE LEVELS (dBA)	74.1	68.7	67.3	62.2	70.3	70.8

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.0	68.6	67.3	61.3	69.7	70.3
MEDIUM TRUCKS	63.8	44.6	36.8	46.0	52.2	52.2
HEAVY TRUCKS	70.2	53.2	45.5	54.7	60.8	60.9
NOISE LEVELS (dBA)	74.1	68.7	67.3	62.2	70.3	70.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	122	384	1215	3843
LDN	107	338	1069	3379

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (I-15 Ramps to Wineville Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	37,520	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	3,752	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.4	69.1	67.8	61.7	70.1	70.8
MEDIUM TRUCKS	64.2	45.0	37.2	46.5	52.6	52.6
HEAVY TRUCKS	70.7	53.7	45.9	55.1	61.3	61.3
NOISE LEVELS (dBA)	74.5	69.2	67.8	62.7	70.7	71.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.4	69.1	67.8	61.7	70.1	70.8
MEDIUM TRUCKS	64.2	45.0	37.2	46.5	52.6	52.6
HEAVY TRUCKS	70.7	53.7	45.9	55.1	61.3	61.3
NOISE LEVELS (dBA)	74.5	69.2	67.8	62.7	70.7	71.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	135	426	1347	4259
LDN	118	374	1184	3745

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (I-15 Ramps to Wineville Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	65,010	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	6,501	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.8	71.4	70.1	64.1	72.5	73.2
MEDIUM TRUCKS	66.6	47.4	39.6	48.8	55.0	55.0
HEAVY TRUCKS	73.1	56.1	48.3	57.5	63.7	63.7
NOISE LEVELS (dBA)	76.9	71.6	70.2	65.1	73.1	73.7

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.8	71.4	70.1	64.1	72.5	73.2
MEDIUM TRUCKS	66.6	47.4	39.6	48.8	55.0	55.0
HEAVY TRUCKS	73.1	56.1	48.3	57.5	63.7	63.7
NOISE LEVELS (dBA)	76.9	71.6	70.2	65.1	73.1	73.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	233	738	2334	7380
LDN	205	649	2052	6489

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Limonite Avenue (I-15 Ramps to Wineville Ave)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	68,675
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	6,868

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.1	71.7	70.4	64.3	72.8	73.4
MEDIUM TRUCKS	66.9	47.7	39.9	49.1	55.2	55.3
HEAVY TRUCKS	73.3	56.3	48.5	57.7	63.9	63.9
NOISE LEVELS (dBA)	77.1	71.8	70.4	65.3	73.4	73.9

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.1	71.7	70.4	64.3	72.8	73.4
MEDIUM TRUCKS	66.9	47.7	39.9	49.1	55.2	55.3
HEAVY TRUCKS	73.3	56.3	48.5	57.7	63.9	63.9
NOISE LEVELS (dBA)	77.1	71.8	70.4	65.3	73.4	73.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	247	780	2465	7796
LDN	217	685	2168	6855

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Citrus Street to Schleisman Road)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	20,619
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	2,062

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0
AMBIENT=	0.0
BARRIER =	0 (0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.8	66.5	65.2	59.1	67.5	68.2
MEDIUM TRUCKS	61.6	42.4	34.6	43.9	50.0	50.0
HEAVY TRUCKS	68.1	51.1	43.3	52.5	58.7	58.7
NOISE LEVELS (dBA)	71.9	66.6	65.2	60.1	68.1	68.7

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.8	66.5	65.2	59.1	67.5	68.2
MEDIUM TRUCKS	61.6	42.4	34.6	43.9	50.0	50.0
HEAVY TRUCKS	68.1	51.1	43.3	52.5	58.7	58.7
NOISE LEVELS (dBA)	71.9	66.6	65.2	60.1	68.1	68.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	74	234	740	2341
LDN	65	206	651	2058

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Citrus Street to Schleisman Road)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	24,284	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,428	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.5	67.2	65.9	59.8	68.2	68.9
MEDIUM TRUCKS	62.3	43.1	35.4	44.6	50.7	50.8
HEAVY TRUCKS	68.8	51.8	44.0	53.2	59.4	59.4
NOISE LEVELS (dBA)	72.6	67.3	65.9	60.8	68.8	69.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.5	67.2	65.9	59.8	68.2	68.9
MEDIUM TRUCKS	62.3	43.1	35.4	44.6	50.7	50.8
HEAVY TRUCKS	68.8	51.8	44.0	53.2	59.4	59.4
NOISE LEVELS (dBA)	72.6	67.3	65.9	60.8	68.8	69.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	87	276	872	2757
LDN	77	242	766	2424

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Citrus Street to Schleisman Road)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	25,400
SPEED =	50
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	2,540

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.7	67.4	66.1	60.0	68.4	69.1
MEDIUM TRUCKS	62.5	43.3	35.6	44.8	50.9	50.9
HEAVY TRUCKS	69.0	52.0	44.2	53.4	59.6	59.6
NOISE LEVELS (dBA)	72.8	67.5	66.1	61.0	69.0	69.6

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.7	67.4	66.1	60.0	68.4	69.1
MEDIUM TRUCKS	62.5	43.3	35.6	44.8	50.9	50.9
HEAVY TRUCKS	69.0	52.0	44.2	53.4	59.6	59.6
NOISE LEVELS (dBA)	72.8	67.5	66.1	61.0	69.0	69.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	91	288	912	2883
LDN	80	254	802	2535

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Citrus Street to Schleisman Road)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	29,065	
SPEED =	50	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,907	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.3	67.9	66.7	60.6	69.0	69.7
MEDIUM TRUCKS	63.1	43.9	36.1	45.3	51.5	51.5
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.2	60.2
NOISE LEVELS (dBA)	73.4	68.1	66.7	61.6	69.6	70.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.3	67.9	66.7	60.6	69.0	69.7
MEDIUM TRUCKS	63.1	43.9	36.1	45.3	51.5	51.5
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.2	60.2
NOISE LEVELS (dBA)	73.4	68.1	66.7	61.6	69.6	70.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	104	330	1043	3299
LDN	92	290	917	2901

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Schleisman Road to 68th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	11,831
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	1,183

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.1	62.7	61.4	55.4	63.8	64.4
MEDIUM TRUCKS	58.5	39.3	31.5	40.7	46.9	46.9
HEAVY TRUCKS	65.2	48.3	40.5	49.7	55.8	55.9
NOISE LEVELS (dBA)	68.6	62.9	61.5	56.5	64.5	65.1

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.1	62.7	61.4	55.4	63.8	64.4
MEDIUM TRUCKS	58.5	39.3	31.5	40.7	46.9	46.9
HEAVY TRUCKS	65.2	48.3	40.5	49.7	55.8	55.9
NOISE LEVELS (dBA)	68.6	62.9	61.5	56.5	64.5	65.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	32	102	321	1016
LDN	28	90	283	896

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Schleisman Road to 68th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	15,496	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	1,550	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.3	63.9	62.6	56.5	65.0	65.6
MEDIUM TRUCKS	59.7	40.5	32.7	41.9	48.1	48.1
HEAVY TRUCKS	66.4	49.4	41.6	50.9	57.0	57.0
NOISE LEVELS (dBA)	69.8	64.1	62.6	57.7	65.7	66.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.3	63.9	62.6	56.5	65.0	65.6
MEDIUM TRUCKS	59.7	40.5	32.7	41.9	48.1	48.1
HEAVY TRUCKS	66.4	49.4	41.6	50.9	57.0	57.0
NOISE LEVELS (dBA)	69.8	64.1	62.6	57.7	65.7	66.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	42	133	421	1331
LDN	37	117	371	1174

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Schleisman Road to 68th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	15,030	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	1,503	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.1	63.8	62.5	56.4	64.8	65.5
MEDIUM TRUCKS	59.5	40.3	32.6	41.8	47.9	48.0
HEAVY TRUCKS	66.3	49.3	41.5	50.7	56.9	56.9
NOISE LEVELS (dBA)	69.7	63.9	62.5	57.6	65.6	66.1

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.1	63.8	62.5	56.4	64.8	65.5
MEDIUM TRUCKS	59.5	40.3	32.6	41.8	47.9	48.0
HEAVY TRUCKS	66.3	49.3	41.5	50.7	56.9	56.9
NOISE LEVELS (dBA)	69.7	63.9	62.5	57.6	65.6	66.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	41	129	408	1291
LDN	36	114	360	1139

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Schleisman Road to 68th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	18,695
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	1,870

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.1	64.7	63.4	57.4	65.8	66.4
MEDIUM TRUCKS	60.5	41.3	33.5	42.7	48.9	48.9
HEAVY TRUCKS	67.2	50.2	42.5	51.7	57.8	57.9
NOISE LEVELS (dBA)	70.6	64.9	63.5	58.5	66.5	67.1

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.1	64.7	63.4	57.4	65.8	66.4
MEDIUM TRUCKS	60.5	41.3	33.5	42.7	48.9	48.9
HEAVY TRUCKS	67.2	50.2	42.5	51.7	57.8	57.9
NOISE LEVELS (dBA)	70.6	64.9	63.5	58.5	66.5	67.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	51	161	508	1606
LDN	45	142	448	1417

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (68th Street to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	20,186	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,019	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.4	65.0	63.8	57.7	66.1	66.8
MEDIUM TRUCKS	60.8	41.6	33.8	43.0	49.2	49.2
HEAVY TRUCKS	67.6	50.6	42.8	52.0	58.2	58.2
NOISE LEVELS (dBA)	70.9	65.2	63.8	58.8	66.8	67.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.4	65.0	63.8	57.7	66.1	66.8
MEDIUM TRUCKS	60.8	41.6	33.8	43.0	49.2	49.2
HEAVY TRUCKS	67.6	50.6	42.8	52.0	58.2	58.2
NOISE LEVELS (dBA)	70.9	65.2	63.8	58.8	66.8	67.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	55	173	548	1734
LDN	48	153	484	1529

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (68th Street to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,019	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	2,202	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.8	65.4	64.1	58.1	66.5	67.1
MEDIUM TRUCKS	61.2	42.0	34.2	43.4	49.6	49.6
HEAVY TRUCKS	67.9	51.0	43.2	52.4	58.5	58.6
NOISE LEVELS (dBA)	71.3	65.6	64.2	59.2	67.2	67.8

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.8	65.4	64.1	58.1	66.5	67.1
MEDIUM TRUCKS	61.2	42.0	34.2	43.4	49.6	49.6
HEAVY TRUCKS	67.9	51.0	43.2	52.4	58.5	58.6
NOISE LEVELS (dBA)	71.3	65.6	64.2	59.2	67.2	67.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	60	189	598	1891
LDN	53	167	528	1668

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (68th Street to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	22,730
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	2,273

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.9	65.6	64.3	58.2	66.6	67.3
MEDIUM TRUCKS	61.3	42.1	34.4	43.6	49.7	49.8
HEAVY TRUCKS	68.1	51.1	43.3	52.5	58.7	58.7
NOISE LEVELS (dBA)	71.5	65.7	64.3	59.4	67.4	67.9

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.9	65.6	64.3	58.2	66.6	67.3
MEDIUM TRUCKS	61.3	42.1	34.4	43.6	49.7	49.8
HEAVY TRUCKS	68.1	51.1	43.3	52.5	58.7	58.7
NOISE LEVELS (dBA)	71.5	65.7	64.3	59.4	67.4	67.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	62	195	617	1953
LDN	54	172	545	1722

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (68th Street to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	24,563
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	2,456

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0
AMBIENT=	0.0
BARRIER =	0 (0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.3	65.9	64.6	58.5	67.0	67.6
MEDIUM TRUCKS	61.7	42.5	34.7	43.9	50.1	50.1
HEAVY TRUCKS	68.4	51.4	43.6	52.9	59.0	59.0
NOISE LEVELS (dBA)	71.8	66.1	64.6	59.7	67.7	68.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.3	65.9	64.6	58.5	67.0	67.6
MEDIUM TRUCKS	61.7	42.5	34.7	43.9	50.1	50.1
HEAVY TRUCKS	68.4	51.4	43.6	52.9	59.0	59.0
NOISE LEVELS (dBA)	71.8	66.1	64.6	59.7	67.7	68.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	67	211	667	2110
LDN	59	186	589	1861

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Limonite Avenue to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	15,649	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	1,565	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.3	63.9	62.6	56.6	65.0	65.7
MEDIUM TRUCKS	59.7	40.5	32.7	41.9	48.1	48.1
HEAVY TRUCKS	66.5	49.5	41.7	50.9	57.0	57.1
NOISE LEVELS (dBA)	69.8	64.1	62.7	57.7	65.7	66.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.3	63.9	62.6	56.6	65.0	65.7
MEDIUM TRUCKS	59.7	40.5	32.7	41.9	48.1	48.1
HEAVY TRUCKS	66.5	49.5	41.7	50.9	57.0	57.1
NOISE LEVELS (dBA)	69.8	64.1	62.7	57.7	65.7	66.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	43	134	425	1344
LDN	37	119	375	1186

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Limonite Avenue to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	32,142	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	3,214	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.1	65.8	59.7	68.1	68.8
MEDIUM TRUCKS	62.8	43.6	35.9	45.1	51.2	51.3
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.2	60.2
NOISE LEVELS (dBA)	73.0	67.2	65.8	60.9	68.9	69.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.1	65.8	59.7	68.1	68.8
MEDIUM TRUCKS	62.8	43.6	35.9	45.1	51.2	51.3
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.2	60.2
NOISE LEVELS (dBA)	73.0	67.2	65.8	60.9	68.9	69.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	87	276	873	2761
LDN	77	244	770	2435

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Limonite Avenue to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	31,890	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	3,189	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.0	65.7	59.7	68.1	68.7
MEDIUM TRUCKS	62.8	43.6	35.8	45.0	51.2	51.2
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.1	60.2
NOISE LEVELS (dBA)	72.9	67.2	65.8	60.8	68.8	69.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.0	65.7	59.7	68.1	68.7
MEDIUM TRUCKS	62.8	43.6	35.8	45.0	51.2	51.2
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.1	60.2
NOISE LEVELS (dBA)	72.9	67.2	65.8	60.8	68.8	69.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	87	274	866	2739
LDN	76	242	764	2416

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (Limonite Avenue to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	48,383	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	4,838	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	68.8	67.5	61.5	69.9	70.6
MEDIUM TRUCKS	64.6	45.4	37.6	46.8	53.0	53.0
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	74.7	69.0	67.6	62.6	70.6	71.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	68.8	67.5	61.5	69.9	70.6
MEDIUM TRUCKS	64.6	45.4	37.6	46.8	53.0	53.0
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	74.7	69.0	67.6	62.6	70.6	71.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	131	416	1314	4156
LDN	116	367	1159	3666

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT: LEAL Masterplan Amendment
Condition: Existing Conditions
JOB #: 2610-2021-03
ROADWAY: Hamner Avenue (58th Street to Bellgrave Avenue)
DATE: 30-Nov-21
LOCATION: 100 Feet from the Centerline of the Roadway
ENGINEER: D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	15,649
SPEED =	45
PK HR % =	10
NEAR LANE/FAR LANE DIST	72
ROAD ELEVATION =	0.0
GRADE =	0.0 %
PK HR VOL =	1,565

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0
AMBIENT=	0.0
BARRIER =	0 (0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.3	63.9	62.6	56.6	65.0	65.7
MEDIUM TRUCKS	59.7	40.5	32.7	41.9	48.1	48.1
HEAVY TRUCKS	66.5	49.5	41.7	50.9	57.0	57.1
NOISE LEVELS (dBA)	69.8	64.1	62.7	57.7	65.7	66.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.3	63.9	62.6	56.6	65.0	65.7
MEDIUM TRUCKS	59.7	40.5	32.7	41.9	48.1	48.1
HEAVY TRUCKS	66.5	49.5	41.7	50.9	57.0	57.1
NOISE LEVELS (dBA)	69.8	64.1	62.7	57.7	65.7	66.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	43	134	425	1344
LDN	37	119	375	1186

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (58th Street to Bellgrave Avenue)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	32,142	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	3,214	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.1	65.8	59.7	68.1	68.8
MEDIUM TRUCKS	62.8	43.6	35.9	45.1	51.2	51.3
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.2	60.2
NOISE LEVELS (dBA)	73.0	67.2	65.8	60.9	68.9	69.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.1	65.8	59.7	68.1	68.8
MEDIUM TRUCKS	62.8	43.6	35.9	45.1	51.2	51.3
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.2	60.2
NOISE LEVELS (dBA)	73.0	67.2	65.8	60.9	68.9	69.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	87	276	873	2761
LDN	77	244	770	2435

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Condition	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (58th Street to Bellgrave Avenue)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	31,890	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	3,189	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.0	65.7	59.7	68.1	68.7
MEDIUM TRUCKS	62.8	43.6	35.8	45.0	51.2	51.2
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.1	60.2
NOISE LEVELS (dBA)	72.9	67.2	65.8	60.8	68.8	69.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	69.4	67.0	65.7	59.7	68.1	68.7
MEDIUM TRUCKS	62.8	43.6	35.8	45.0	51.2	51.2
HEAVY TRUCKS	69.6	52.6	44.8	54.0	60.1	60.2
NOISE LEVELS (dBA)	72.9	67.2	65.8	60.8	68.8	69.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	87	274	866	2739
LDN	76	242	764	2416

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Hamner Avenue (58th Street to Bellgrave Avenue)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	48,383	
SPEED =	45	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	72	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	4,838	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.695	0.129	0.096	0.9200
MEDIUM TRUCKS	0.014	0.001	0.015	0.0300
HEAVY TRUCKS	0.024	0.001	0.025	0.0500

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	93.34	- -
MEDIUM TRUCKS	4.0	93.30	- -
HEAVY TRUCKS	8.0	93.34	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	68.8	67.5	61.5	69.9	70.6
MEDIUM TRUCKS	64.6	45.4	37.6	46.8	53.0	53.0
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	74.7	69.0	67.6	62.6	70.6	71.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.2	68.8	67.5	61.5	69.9	70.6
MEDIUM TRUCKS	64.6	45.4	37.6	46.8	53.0	53.0
HEAVY TRUCKS	71.4	54.4	46.6	55.8	62.0	62.0
NOISE LEVELS (dBA)	74.7	69.0	67.6	62.6	70.6	71.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	131	416	1314	4156
LDN	116	367	1159	3666

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	4,912	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	491	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.2	56.0	54.7	48.7	57.1	57.8
MEDIUM TRUCKS	50.6	29.4	21.9	30.6	36.8	36.8
HEAVY TRUCKS	51.9	26.5	23.1	27.8	34.0	34.1
NOISE LEVELS (dBA)	59.7	56.0	54.7	48.8	57.2	57.8

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.2	56.0	54.7	48.7	57.1	57.8
MEDIUM TRUCKS	50.6	29.4	21.9	30.6	36.8	36.8
HEAVY TRUCKS	51.9	26.5	23.1	27.8	34.0	34.1
NOISE LEVELS (dBA)	59.7	56.0	54.7	48.8	57.2	57.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	6	19	60	191
LDN	5	17	52	165

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,745	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	675	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.5	57.4	56.1	50.1	58.5	59.1
MEDIUM TRUCKS	52.0	30.8	23.3	32.0	38.2	38.2
HEAVY TRUCKS	53.3	27.9	24.5	29.2	35.4	35.5
NOISE LEVELS (dBA)	61.0	57.4	56.1	50.2	58.6	59.2

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.5	57.4	56.1	50.1	58.5	59.1
MEDIUM TRUCKS	52.0	30.8	23.3	32.0	38.2	38.2
HEAVY TRUCKS	53.3	27.9	24.5	29.2	35.4	35.5
NOISE LEVELS (dBA)	61.0	57.4	56.1	50.2	58.6	59.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	26	83	262
LDN	7	23	72	227

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Conditions	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	6,860	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	686	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.6	57.5	56.2	50.2	58.6	59.2
MEDIUM TRUCKS	52.1	30.8	23.3	32.1	38.3	38.3
HEAVY TRUCKS	53.3	28.0	24.6	29.2	35.4	35.5
NOISE LEVELS (dBA)	61.1	57.5	56.2	50.3	58.6	59.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.6	57.5	56.2	50.2	58.6	59.2
MEDIUM TRUCKS	52.1	30.8	23.3	32.1	38.3	38.3
HEAVY TRUCKS	53.3	28.0	24.6	29.2	35.4	35.5
NOISE LEVELS (dBA)	61.1	57.5	56.2	50.3	58.6	59.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	27	84	266
LDN	7	23	73	231

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	8,693	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	869	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.6	58.5	57.2	51.2	59.6	60.2
MEDIUM TRUCKS	53.1	31.9	24.4	33.1	39.3	39.3
HEAVY TRUCKS	54.4	29.0	25.6	30.3	36.5	36.6
NOISE LEVELS (dBA)	62.1	58.5	57.2	51.3	59.7	60.3

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.6	58.5	57.2	51.2	59.6	60.2
MEDIUM TRUCKS	53.1	31.9	24.4	33.1	39.3	39.3
HEAVY TRUCKS	54.4	29.0	25.6	30.3	36.5	36.6
NOISE LEVELS (dBA)	62.1	58.5	57.2	51.3	59.7	60.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	11	34	107	338
LDN	9	29	93	293

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Conditions	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	2,240	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	224	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.7	52.6	51.3	45.3	53.7	54.3
MEDIUM TRUCKS	47.2	26.0	18.5	27.2	33.4	33.4
HEAVY TRUCKS	48.5	23.1	19.7	24.4	30.6	30.7
NOISE LEVELS (dBA)	56.2	52.6	51.3	45.4	53.8	54.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.7	52.6	51.3	45.3	53.7	54.3
MEDIUM TRUCKS	47.2	26.0	18.5	27.2	33.4	33.4
HEAVY TRUCKS	48.5	23.1	19.7	24.4	30.6	30.7
NOISE LEVELS (dBA)	56.2	52.6	51.3	45.4	53.8	54.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	3	9	28	87
LDN	2	8	24	75

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Existing Plus Project Conditions	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	4,073	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	407	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.3	55.2	53.9	47.9	56.3	56.9
MEDIUM TRUCKS	49.8	28.6	21.1	29.8	36.0	36.0
HEAVY TRUCKS	51.1	25.7	22.3	27.0	33.2	33.3
NOISE LEVELS (dBA)	58.8	55.2	53.9	48.0	56.4	57.0

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.3	55.2	53.9	47.9	56.3	56.9
MEDIUM TRUCKS	49.8	28.6	21.1	29.8	36.0	36.0
HEAVY TRUCKS	51.1	25.7	22.3	27.0	33.2	33.3
NOISE LEVELS (dBA)	58.8	55.2	53.9	48.0	56.4	57.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	5	16	50	158
LDN	4	14	43	137

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Conditions	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	2,810	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	281	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	
MEDIUM TRUCKS =	10	(10 = HARD SITE, 15 = SOFT SITE)
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.7	53.6	52.3	46.3	54.7	55.3
MEDIUM TRUCKS	48.2	27.0	19.5	28.2	34.4	34.4
HEAVY TRUCKS	49.5	24.1	20.7	25.4	31.6	31.7
NOISE LEVELS (dBA)	57.2	53.6	52.3	46.4	54.8	55.4

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.7	53.6	52.3	46.3	54.7	55.3
MEDIUM TRUCKS	48.2	27.0	19.5	28.2	34.4	34.4
HEAVY TRUCKS	49.5	24.1	20.7	25.4	31.6	31.7
NOISE LEVELS (dBA)	57.2	53.6	52.3	46.4	54.8	55.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	3	11	35	109
LDN	3	9	30	95

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO)

PROJECT:	LEAL Masterplan Amendment	Condition:	Long Range Plus Project	JOB #:	2610-2021-03
ROADWAY:	Scholar Way (Limonite Ave to 58th Street)			DATE:	30-Nov-21
LOCATION:	100 Feet from the Centerline of the Roadway			ENGINEER:	D. Shivaiah

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT =	4,643	
SPEED =	35	
PK HR % =	10	
NEAR LANE/FAR LANE DIST	36	
ROAD ELEVATION =	0.0	
GRADE =	0.0	%
PK HR VOL =	464	

RECEIVER INPUT DATA

RECEIVER DISTANCE =		100
DIST C/L TO WALL =		100
RECEIVER HEIGHT =		5.0
WALL DISTANCE FROM RECEIVER =		0
PAD ELEVATION =		0.0
ROADWAY VIEW:	LF ANGLE=	-90
	RT ANGLE=	90
	DF ANGLE=	180

SITE CONDITIONS

AUTOMOBILES =	10	(10 = HARD SITE, 15 = SOFT SITE)
MEDIUM TRUCKS =	10	
HEAVY TRUCKS =	10	

WALL INFORMATION

HTH WALL=	0.0	
AMBIENT=	0.0	
BARRIER =	0	(0 = WALL, 1 = BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVENING	NIGHT	DAILY
AUTOMOBILES	0.736	0.136	0.102	0.9742
MEDIUM TRUCKS	0.009	0.000	0.009	0.0184
HEAVY TRUCKS	0.004	0.000	0.004	0.0074

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES	2.0	98.41	- -
MEDIUM TRUCKS	4.0	98.37	- -
HEAVY TRUCKS	8.0	98.41	0.00

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.9	55.8	54.5	48.5	56.9	57.5
MEDIUM TRUCKS	50.4	29.1	21.6	30.4	36.6	36.6
HEAVY TRUCKS	51.7	26.3	22.9	27.5	33.7	33.8
NOISE LEVELS (dBA)	59.4	55.8	54.5	48.6	56.9	57.6

NOISE IMPACTS (WITH TOPO AND BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.9	55.8	54.5	48.5	56.9	57.5
MEDIUM TRUCKS	50.4	29.1	21.6	30.4	36.6	36.6
HEAVY TRUCKS	51.7	26.3	22.9	27.5	33.7	33.8
NOISE LEVELS (dBA)	59.4	55.8	54.5	48.6	56.9	57.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	6	18	57	180
LDN	5	16	49	156

Appendix C

Construction Noise and Vibration
Analysis Results

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/24/2021
Case Description: LEAL Master Plan Amendment Project

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Demolition	Residential	80	80	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Mixer Truck	No	40		78.8	50	0
Excavator	No	40		80.7	50	0
Dozer	No	40		81.7	50	0
Excavator	No	40				
Excavator	No	40				
Dozer	No	40				

		Calculated (dBA)	
Equipment		*Lmax	Leq
Concrete Mixer Truck		78.8	74.8
Excavator		80.7	76.7
Dozer		81.7	77.7
Excavator		80.7	76.7
Excavator		80.7	76.7
Dozer		81.7	77.7
	Total	81.7	84.6

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/24/2021
Case Description: LEAL Master Plan Amendment Project

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
Site Preparation	Residential	80	80	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	200	0
Dozer	No	40		81.7	200	0
Dozer	No	40		81.7	200	0
Tractor	No	40				
Tractor	No	40				
Tractor	No	40				
Tractor	No	40				

Calculated (dBA)

Equipment		*Lmax	Leq
Dozer		69.6	65.6
Dozer		69.6	65.6
Dozer		69.6	65.6
Tractor		72	68
Tractor		72	68
Tractor		72	68
Tractor		72	68
	Total	72	75.6

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/24/2021
Case Description: LEAL Master Plan Amendment Project

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
Grading	Residential	80	80	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	200	0
Grader	No	40	85		200	0
Dozer	No	40		81.7	200	0
Scraper	No	40				
Tractor	No	40				
Excavator	No	40				
Tractor	No	40				
Scraper	No	40				

Calculated (dBA)

Equipment		*Lmax	Leq
Excavator		68.7	64.7
Grader		73	69
Dozer		69.6	65.6
Scraper		71.5	67.6
Tractor		72	68
Excavator		68.7	64.7
Tractor		72	68
Scraper		71.5	67.6
	Total	73	76.2

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/24/2021
Case Description: LEAL Master Plan Amendment Project

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Building Construction	Residential	80	80	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	200	0
Pickup Truck	No	40		75	200	0
Generator	No	50		80.6	200	0
Tractor	No	40				
Welder / Torch	No	40				
Pickup Truck	No	40				
Pickup Truck	No	40				
Tractor	No	40				
Tractor	No	40				

Calculated (dBA)

Equipment	*Lmax	Leq
Crane	68.5	60.6
Pickup Truck	63	59
Generator	68.6	65.6
Tractor	72	68
Welder / Torch	62	58
Pickup Truck	63	59
Pickup Truck	63	59
Tractor	72	68
Tractor	72	68
Total	72	74.2

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/24/2021
Case Description: LEAL Master Plan Amendment Project

				---- Receptor #1 ----
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Paving	Residential	80	80	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	200	0
Roller	No	20		80	200	0
Roller	No	20		80	200	0
Roller	No	20				

		Calculated (dBA)	
Equipment		*Lmax	Leq
Paver		65.2	62.2
Roller		68	61
Roller		68	61
Roller		68	61
	Total	68	67.3

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/24/2021
Case Description: LEAL Master Plan Amendment Project

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
Architectural Coating	Residential	80	80	45

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	200	0

Results

Calculated (dBA)

Equipment		*Lmax	Leq
Compressor (air)		65.6	61.6
	Total	65.6	61.6

*Calculated Lmax is the Loudest value.

VIBRATION IMPACTS FROM CONSTRUCTION AND OPERATIONS

PROJECT:	LEAL Master Plan Amendment Project	JOB #:	2610-2021-03
ACTIVITY:	Large Bulldozer	DATE:	24-Nov-21
LOCATION:	At 100 Feet	ENGINEER:	D. Shivaiah

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.019 in/sec**

Equipment Type =	2	Large Bulldozer
PPV_{ref} =	0.089	Reference PPV at 25 ft.
D =	100.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV at 25 ft. (in/sec)
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400

VIBRATION IMPACTS FROM CONSTRUCTION AND OPERATIONS

PROJECT:	LEAL Master Plan Amendment Project	JOB #:	2610-2021-03
ACTIVITY:	Vibratory Roller	DATE:	24-Nov-21
LOCATION:	At 100 Feet	ENGINEER:	D. Shivaiah

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.046 in/sec**

Equipment Type =	1	Vibratory Roller
PPV_{ref} =	0.210	Reference PPV at 25 ft.
D =	100.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV at 25 ft. (in/sec)
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400

VIBRATION IMPACTS FROM CONSTRUCTION AND OPERATIONS

PROJECT:	LEAL Master Plan Amendment Project	JOB #:	2610-2021-03
ACTIVITY:	Loaded Truck	DATE:	24-Nov-21
LOCATION:	At 100 Feet	ENGINEER:	D. Shivaiah

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.017 in/sec**

Equipment Type =	4	Loaded Trucks
PPV_{ref} =	0.076	Reference PPV at 25 ft.
D =	100.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV at 25 ft. (in/sec)
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400

VIBRATION IMPACTS FROM CONSTRUCTION AND OPERATIONS

PROJECT:	LEAL Master Plan Amendment Project	JOB #:	2610-2021-03
ACTIVITY:	Caisson Drilling	DATE:	24-Nov-21
LOCATION:	At 100 Feet	ENGINEER:	D. Shivaiah

VIBRATION INPUT/OUTPUT DATA

OTHER CONSTRUCTION EQUIPMENT

$$PPV = PPV_{ref}(25/D)^{n} \text{ (in/sec)}$$

PPV =	**0.019 in/sec**

Equipment Type =	3	Caisson Drilling
PPV_{ref} =	0.089	Reference PPV at 25 ft.
D =	100.00	Distance from Equipment to receiver in ft.
n =	1.10	Vibration attenuation rate through the ground

EQUIPMENT PPV REFERENCE LEVELS

Type	Equipment	Reference PPV at 25 ft. (in/sec)
1	Vibratory Roller	0.210
2	Large Bulldozer	0.089
3	Caisson Drilling	0.089
4	Loaded Trucks	0.076
5	Jackhammer	0.035
6	Small Bulldozer	0.003
7	Crack and Seat	2.400

Appendix J

LEAL MASTERPLAN AMENDMENT PROJECT
TRAFFIC STUDY
City of Eastvale, California

Prepared for:

THE NEW HOME COMPANY
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Prepared by:

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April 8, 2021

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1.0 Introduction

1.1 Purpose of Report and Study Objectives

The purpose of this traffic impact analysis is to evaluate The Leal Masterplan Amendment Project (hereinafter referred to as "modified project") from a traffic and circulation standpoint.

The *Leal Master Plan Draft Environmental Impact Report (DEIR), Michael Baker International, July 2015*, and the *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015)* have been previously prepared for the original project. Since then, modifications to the development plan have been proposed. RK has been requested to review the modified project and identify whether any new impacts or increase in severity of impacts may occur as a result of the modified project.

This analysis has been prepared to be consistent with the previous 2015 TIA and the 2015 DEIR prepared for the project. A copy of the *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015)* is contained as an attachment to this report.

The modified project is forecast to generate 27,764 fewer daily trips than what was previously estimated in the 2015 TIA and DEIR.[1] This is a substantial reduction in traffic, and as a result, the modified project would not result in additional transportation impacts other than those previously identified in the 2015 DEIR.

To help further demonstrate the reduced impact from the modified project, this report provides a detailed assessment of level of service impacts from the modified project to the local transportation system. In an effort to be consistent with the 2015 TIA and DEIR, and to provide a fair comparison of potential changes to previously identified project impacts, most of the same analysis assumptions and traffic forecasting scenarios from the 2015 TIA are used in this report.

1.2 Site Location

The proposed modified project site is bound by 58th Street to the north, Limonite Avenue to the south, Hamner Avenue to the east, and Scholar Way to the west, in the City of

[1] See Section 4.0 for more details regarding changes to project trip generation.

Eastvale. The project site is currently vacant and undeveloped. The project site location map is shown on Exhibit A. The project site plan is shown in Exhibit B.

1.3 Project Description

The previously approved 2015 TIA evaluated the following land uses for the original project:

- 660 dwelling units of multi-family residential;
- 1,525,000 square feet of retail;
- 460,000 square feet of general office;
- 460,000 square feet of medical office;
- 100,000 square feet of civic center; and
- 450 rooms of hotel.

The modified land use assumptions are summarized below.

- 400 dwelling units of single family detached residential;
- 2,100 dwelling units of multi-family residential;
- 390,000 square feet of commercial and retail;
- 65,000 square feet of general office;
- 65,000 square feet of medical office;
- 40,000 square feet of civic center use;
- 25,000 square feet of library use;
- 10,000 square feet of police station use; and
- 12,200 square feet of fire station use.

Table 1-1 summarizes the land uses evaluated in the previously approved 2015 TIA and the Modified Project land use assumptions.

Table 1-1
Project Land Uses

Land Use	Units	Previously Approved 2015 Project & traffic Study	Modified Project
Single Family Detached Residential	Dwelling Units	0	400
Multi-family Residential	Dwelling Units	660	2,100
Retail	Square Feet	1,525,000	390,000
General Office	Square Feet	460,000	65,000
Medical Office	Square Feet	460,000	65,000
Civic Center	Square Feet	100,000	40,000
Library	Square Feet	0	25,000
Police	Square Feet	0	10,000
Fire Station	Square Feet	0	12,200
Hotel	Rooms	450	0

2.0 Study Area & Analysis Methodology

This section of the report presents the analysis study area and the methodologies used to perform the traffic analyses summarized in this report in accordance with the City of Eastvale requirements. This section also discusses the agency-established applicable performance criteria and thresholds for the study facilities.

Although VMT is now the appropriate metric for determining transportation impacts, General Plan Policy C-10 of the Eastvale General Plan requires that the City maintain a LOS C on all City maintained roadways, and a LOS D in employment and commercial areas. Therefore, a discussion relative to project consistency with Policy C-10 has been included.

2.1 Study Area

The study area included in this analysis has been determined based upon the previously prepared and approved traffic study for the proposed modified project.

Consistent with the previously approved 2015 traffic study for the proposed project, this analysis evaluates the daily capacity and level of service (LOS) at the following eighteen (18) study roadway segments:

1. **Limonite Avenue:** Archibald Avenue to Harrison Avenue;
2. **Limonite Avenue:** Harrison Avenue to Scholar Way;
3. **Limonite Avenue:** Scholar Way to Hamner Avenue;
4. **Limonite Avenue:** Hamner Avenue to I-15 Ramps;
5. **Limonite Avenue:** I-15 Ramps to Wineville Avenue;
6. **Hamner Avenue:** Citrus Street to Schleisman Road;
7. **Hamner Avenue:** Schleisman Road to 68th Street;
8. **Hamner Avenue:** 68th Street to Limonite Avenue;

9. **Hamner Avenue:** Limonite Avenue to 58th Street;

10. **Hamner Avenue:** 58th Street to Bellegrave Avenue;

11. **Scholar Way:** Limonite Avenue to 68th Street;

12. **I-15 Freeway:** South of Limonite Avenue;

13. **I-15 Freeway:** Limonite Avenue to Cantu-Galleano Ranch Road;

14. **I-15 Freeway:** North of SR-60 Freeway;

15. **Scholar Way:** Bellegrave Avenue to Limonite Avenue;

16. **SR-60 Freeway:** West of I-15 Freeway;

17. **SR-60 Freeway:** East of I-15 Freeway; and

18. **Cantu-Galleano Ranch Road:** I-15 Ramps to Hamner Avenue.

Consistent with the previously approved 2015 traffic study for the proposed project, this analysis evaluates traffic conditions for the following study scenarios:

- Existing Conditions;
- Existing Plus Project Conditions;
- Cumulative (Long-Range) No Project Conditions; and
- Cumulative (Long-Range) Plus Project Conditions.

2.2 Volume to Capacity (V/C)) Methodology

The volume to capacity (V/C) ratio methodology is commonly utilized as the appropriate methodology for analyzing level of service (LOS) of roadway segments. This methodology is consistent with the methodology utilized in the previously prepared and approved 2015 traffic study for the proposed project.

To calculate the level of service, the daily volume of traffic using the roadway segment is compared with the daily capacity of the roadway segment; this is referred to as the volume-to-capacity (V/C) ratio. The V/C ratio represents the portion of the total daily capacity of the roadway being utilized by the daily volume of traffic.

Table 2-1 below shows the LOS criteria based on the V/C ratio of the roadway segment.

Table 2-1
Roadway Segment LOS - Volume to Capacity (V/C)

Level of Service (LOS)	Critical V/C Ratio
A	0.00 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
E	0.91 - 1.00
F	>1.00

The daily capacity of the roadway segment is determined based on the roadway classification and the number of travel lanes as shown in Table 2-2.

Table 2-2
Roadway Segment Daily Volume Capacity based on Classification

Roadway Classification	Number of Lanes (Both Directions of Travel)	Daily Capacity for LOS E (V/C = 1.00)
Freeway	10	200,600
Freeway	8	160,500
Freeway	6	117,500
Urban Arterial	6	53,900
Urban Arterial	4	35,900
Secondary Collector	2	13,000

Source: City of Eastvale General Plan

2.3 Study Roadway Segment Performance Criteria

The acceptable LOS (target LOS) for roadway segments in the City of Eastvale is LOS C or better. A roadway segment operating at LOS D, E or F is considered deficient.

3.0 Existing Traffic Volumes & Circulation System

This section provides a discussion of existing study area conditions and traffic volumes.

3.1 Existing Study Roadway Segment Classifications & Daily Capacity

Table 3-1 identifies the existing roadway segment classifications and daily capacity for the study area.

Table 3-1
Study Roadway Segments
Existing Daily Volume Capacity & Classification

#	Study Roadway Segment	Limits	Classification	No. of Lanes	Daily Capacity for LOS E (V/C = 1.00)
1	Limonite Ave	Archibald Ave to Harrison Ave	Urban Arterial	4	35,900
2	Limonite Ave	Harrison Ave to Scholar Way	Urban Arterial	4	35,900
3	Limonite Ave	Scholar Way to Hamner Ave	Urban Arterial	5	44,875
4	Limonite Ave	Hamner Ave to I-15 Ramps	Urban Arterial	6	53,900
5	Limonite Ave	I-15 Ramps to Wineville Ave	Urban Arterial	4	35,900
6	Hamner Ave	Citrus St to Schleisman Rd	Urban Arterial	4	35,900
7	Hamner Ave	Schleisman Rd to 68th St	Urban Arterial	6	53,900
8	Hamner Ave	68th St to Limonite Ave	Urban Arterial	6	53,900
9	Hamner Ave	Limonite Ave to 58th St	Urban Arterial	5	44,875
10	Hamner Ave	58th St to Bellegrave Ave	Urban Arterial	6	53,900
11	Scholar Way	Limonite Ave to 68th St	Secondary Collector	2	13,000
12	I-15 Freeway	South of Limonite Ave	Freeway	6	117,500
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	Freeway	6	117,500
14	I-15 Freeway	North of State Route 60	Freeway	8	160,500
15	Scholar Way	Bellgrave Ave to Limonite Ave	Secondary Collector	4	13,000
16	State Route 60	West of I-15 Freeway	Freeway	10	200,600
17	State Route 60	East of I-15 Freeway	Freeway	8	160,500
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	Urban Arterial	4	35,900

3.2 Existing Traffic Volumes

Existing traffic volumes at the study intersections are based upon the existing traffic volumes utilized in the previously prepared and approved *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015).*

Existing (2021) traffic volumes for the study area are derived by applying an annual growth rate of one percent (1%) per year to the 2015 traffic volumes over a six (6) year period. Existing (2021) traffic volumes within the study area are shown on Exhibit C and summarized in Table 3-2.

Table 3-2
Existing (2021) Traffic Volumes

#	Study Roadway Segment	Limits	Existing Daily Traffic Volume
1	Limonite Ave	Archibald Ave to Harrison Ave	18,497
2	Limonite Ave	Harrison Ave to Scholar Way	26,192
3	Limonite Ave	Scholar Way to Hamner Ave	29,548
4	Limonite Ave	Hamner Ave to I-15 Ramps	44,312
5	Limonite Ave	I-15 Ramps to Wineville Ave	33,855
6	Hamner Ave	Citrus St to Schleisman Rd	20,619
7	Hamner Ave	Schleisman Rd to 68th St	11,831
8	Hamner Ave	68th St to Limonite Ave	20,186
9	Hamner Ave	Limonite Ave to 58th St	15,649
10	Hamner Ave	58th St to Bellegrave Ave	15,649
11	Scholar Way	Limonite Ave to 68th St	4,912
12	I-15 Freeway	South of Limonite Ave	80,622
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	83,345
14	I-15 Freeway	North of State Route 60	115,671
15	Scholar Way	Bellgrave Ave to Limonite Ave	2,240
16	State Route 60	West of I-15 Freeway	69,076
17	State Route 60	East of I-15 Freeway	81,438
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	13,094

4.0 Projected & Future Traffic Volumes

This section of the report provides a discussion on methodologies utilized to derive future traffic volumes for the study area.

4.1 Project Traffic Conditions

Trip generation represents the amount of traffic that is attracted and produced by a development. The trip generation for the project is based upon the specific land uses that have been planned for this development.

Trip generation is typically estimated based on the trip generation rates from the latest *Institute of Transportation Engineers (ITE) Trip Generation Manual*. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

4.1.1 Trip Generation of Previously Approved Project

Table 4-1A shows the ITE (9th Edition, 2012) trip generation rates utilized for the trip generation analysis of the previously approved project and its land uses.

Table 4-1A
ITE 9th Edition (2012) Trip Generation Rates
Utilized in the Previously Approved Traffic Study
from Leal Specific Plan TIA (Fehr & Peers, May 12, 2015)

#	Land Use	ITE Code	Units	AM			PM			Daily
				In	Out	Total	In	Out	Total	
1	Apartment	220	DU	0.10	0.41	0.51	0.40	0.22	0.62	6.65
2	Hotel	310	Rooms	0.31	0.22	0.53	0.31	0.29	0.60	8.17
3	General Office	710	TSF	Ln(T)=0.8 x LN(X) + 1.57			0.25	1.24	1.49	Ln(T)=0.76 x LN(X) + 3.68
4	Medical / Dental Office	720	TSF	1.89	0.50	2.39	1.00	2.57	3.57	36.13
5	Government Office Complex	733	TSF	1.97	0.24	2.21	0.88	1.97	2.85	27.92
6	Shopping Center	820	TSF	Ln(T)=0.61 x LN(X) + 2.24			Ln(T)=0.67 x LN(X) + 3.31			Ln(T)=0.65 x LN(X) + 5.83

Source: 2012 ITE Trip Generation Manual (9th Edition)

DU = Dwelling Units

TSF = Thousand Square Feet

Utilizing the trip generation rates from Table 4-1A, Table 4-1B summarizes the daily and peak hour trip generation for the previously approved project.

Table 4-1B
Trip Generation of Previously Approved Project & Traffic Study from Leal Specific Plan TIA (Fehr & Peers, May 12, 2015)

#	Land Use	ITE Code	Units	Quantity	AM			PM			Daily
					In	Out	Total	In	Out	Total	
1	Apartment	220	DU	660	67	269	336	266	143	409	4,389
2	Hotel	310	Rooms	450	141	98	239	138	132	270	3,677
3	General Office	710	TSF	460.000	571	78	649	117	569	686	4,187
4	Medical / Dental Office	720	TSF	460.000	869	231	1,100	460	1,182	1,642	16,620
5	Government Office Complex	733	TSF	100.000	197	24	221	88	197	285	2,792
6	Shopping Center	820	TSF	1,525.000	510	312	822	1,785	1,933	3,718	39,908
Internal Capture (10%)					*-236*	*-101*	*-337*	*-285*	*-416*	*-701*	*-7,157*
Total Trip Generation					**2,120**	**911**	**3,030**	**2,569**	**3,740**	**6,309**	**64,416**

Source: 2012 ITE Trip Generation Manual (9th Edition); Leal Specific Plan TIA (Fehr & Peers, May 12, 2015).

DU = Dwelling Units

TSF = Thousand Square Feet

As shown in Table 4-1B, assuming a 10 percent internal capture consistent with the previously approved traffic study, based on the ITE trip generation rates, the previously approved project was forecast to generate approximately 64,416 daily trips which include approximately 3,030 AM peak hour trips and approximately 6,309 PM peak hour trips.

4.1.2 Trip Generation of Modified Project

Table 4-2 shows the ITE (10th Edition, 2017) trip generation rates utilized for the trip generation analysis of the modified project and its land uses.

Table 4-2A
ITE 10th Edition (2017) Trip Generation Rates
Utilized for Modified Project

#	Land Use	ITE Code	Units	AM			PM			Daily
				In	Out	Total	In	Out	Total	
1	Single Family Homes	210	DU	0.19	0.56	0.74	0.62	0.37	0.99	9.44
2	Multifamily Housing (Low-Rise)	220	DU	0.11	0.35	0.46	0.35	0.21	0.56	7.32
3	Fire & Rescue Station	575	TSF	0.14	0.34	0.48	0.14	0.34	0.48	4.80
4	Library	590	TSF	0.71	0.29	1.00	3.92	4.24	8.16	72.05
5	General Office	710	TSF	1.00	0.16	1.16	Ln(T)=0.95 x LN(X) + 0.36			Ln(T)=0.97 x LN(X) + 2.5
6	Medical / Dental Office	720	TSF	2.17	0.61	2.78	0.97	2.49	3.46	34.80
7	Government Office Building	730	TSF	2.51	0.84	3.34	0.43	1.28	1.71	22.59
8	Government Office Complex	733	TSF	1.90	0.23	2.13	0.87	1.95	2.82	33.98
9	Shopping Center	820	TSF	0.58	0.36	0.94	Ln(T)=0.74 x LN(X) + 2.89			Ln(T)=0.68 x LN(X) + 5.57

Source: 2017 ITE Trip Generation Manual (10th Edition)

DU = Dwelling Units

TSF = Thousand Square Feet

Utilizing the trip generation rates from Table 4-2A, Table 4-2B summarizes the daily and peak hour trip generation for the modified project.

Table 4-2B
Trip Generation of Modified Project

#	Land Use	ITE Code	Units	Quantity	AM			PM			Daily
					In	Out	Total	In	Out	Total	
1	Single Family Homes	210	DU	400	74	222	296	249	147	396	3,776
2	Multifamily Housing (Low-Rise)	220	DU	2,100	222	744	966	741	435	1,176	15,372
3	Fire & Rescue Station	575	TSF	12.200	2	4	6	2	4	6	60
4	Library	590	TSF	25.000	18	7	25	98	106	204	1,801
5	General Office	710	TSF	65.000	65	11	76	12	64	76	699
6	Medical / Dental Office	720	TSF	65.000	141	40	181	63	162	225	2,262
7	Government Office Building	730	TSF	10.000	25	8	33	4	13	17	226
8	Government Office Complex	733	TSF	40.000	76	9	85	35	78	113	1,359
9	Shopping Center	820	TSF	390.000	227	139	366	714	774	1,488	15,169
Internal Capture (10%)					*-85*	*-118*	*-203*	*-192*	*-178*	*-370*	*-4,072*
Total Trip Generation					**765**	**1,066**	**1,831**	**1,726**	**1,605**	**3,331**	**36,652**

Source: 2017 ITE Trip Generation Manual (10th Edition).

DU = Dwelling Units

TSF = Thousand Square Feet

As shown in Table 4-2B, assuming a 10 percent internal capture consistent with the previously approved traffic study, based on the ITE trip generation rates, the modified project is forecast to generate approximately 36,652 daily trips which include approximately 1,831 AM peak hour trips and approximately 3,331 PM peak hour trips.

4.1.3 Trip Generation Comparison of Previously Approved Project & Modified Project

Table 4-3 shows the trip generation comparison between the previously approved project and the modified project.

Table 4-3
Modified Project Net Trip Generation
Compared to Leal Specific Plan TIA (Fehr & Peers, May 12, 2015)

Land Use	AM			PM			Daily
	In	Out	Total	In	Out	Total	
Modified Project	765	1,066	1,831	1,726	1,605	3,331	36,652
Leal Specific Plan TIA (Fehr & Peers, May 12, 2015)	2,120	911	3,030	2,569	3,740	6,309	64,416
Net Difference	**-1,355**	**155**	**-1,200**	**-842**	**-2,136**	**-2,978**	**-27,764**

As shown in Table 4-3, when compared to the previously approved project, the modified project is forecast to generate approximately 27,764 net fewer daily trips which include approximately 1,200 net fewer AM peak hour trips and approximately 2,978 net fewer PM peak hour trips compared to the original project.

Based upon the preliminary trip generation analysis, the modified project is expected to generate fewer trips than were analyzed in the 2015 TIA and DEIR. Hence, additional traffic impacts are not expected.

4.2 Trip Distribution

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of retail, employment, and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and land uses and highways within the study area.

The project trip distribution is assumed to be the same as what was evaluated in the previously approved traffic study and the *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015).*

Table 4-4 shows the project trip distribution and traffic assignment on the study roadway segments. Project traffic volumes are also shown in Exhibit D.

Table 4-4
Project Trip Distribution & Trip Assignment on Study Roadway Segments

#	Study Roadway Segment	Limits	Distribution (Percent of Project Total Trips)	Project Total Daily Trip Generation	Project Daily Trip Assignment
1	Limonite Ave	Archibald Ave to Harrison Ave	10%	36,652	3,665
2	Limonite Ave	Harrison Ave to Scholar Way	10%	36,652	3,665
3	Limonite Ave	Scholar Way to Hamner Ave	50%	36,652	18,326
4	Limonite Ave	Hamner Ave to I-15 Ramps	45%	36,652	16,493
5	Limonite Ave	I-15 Ramps to Wineville Ave	10%	36,652	3,665
6	Hamner Ave	Citrus St to Schleisman Rd	10%	36,652	3,665
7	Hamner Ave	Schleisman Rd to 68th St	10%	36,652	3,665
8	Hamner Ave	68th St to Limonite Ave	5%	36,652	1,833
9	Hamner Ave	Limonite Ave to 58th St	45%	36,652	16,493
10	Hamner Ave	58th St to Bellegrave Ave	45%	36,652	16,493
11	Scholar Way	Limonite Ave to 68th St	5%	36,652	1,833
12	I-15 Freeway	South of Limonite Ave	20%	36,652	7,330
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	15%	36,652	5,498
14	I-15 Freeway	North of State Route 60	15%	36,652	5,498
15	Scholar Way	Bellgrave Ave to Limonite Ave	5%	36,652	1,833
16	State Route 60	West of I-15 Freeway	15%	36,652	5,498
17	State Route 60	East of I-15 Freeway	15%	36,652	5,498
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	10%	36,652	3,665

4.3 Existing Plus Project Conditions Traffic Volumes

Existing Plus Project Conditions traffic volumes consist of the summation of the existing traffic volumes and the project traffic volumes.

Existing Plus Project Conditions traffic volumes are shown on Exhibit E and summarized in Table 4-5.

Table 4-5
Existing Plus Project Conditions Traffic Volumes

#	Study Roadway Segment	Limits	Existing Daily Traffic Volume	Project Daily Traffic Volume	Existing Plus Project Conditions Daily Traffic Volume
1	Limonite Ave	Archibald Ave to Harrison Ave	18,497	3,665	**22,162**
2	Limonite Ave	Harrison Ave to Scholar Way	26,192	3,665	**29,857**
3	Limonite Ave	Scholar Way to Hamner Ave	29,548	18,326	**47,874**
4	Limonite Ave	Hamner Ave to I-15 Ramps	44,312	16,493	**60,805**
5	Limonite Ave	I-15 Ramps to Wineville Ave	33,855	3,665	**37,520**
6	Hamner Ave	Citrus St to Schleisman Rd	20,619	3,665	**24,284**
7	Hamner Ave	Schleisman Rd to 68th St	11,831	3,665	**15,496**
8	Hamner Ave	68th St to Limonite Ave	20,186	1,833	**22,019**
9	Hamner Ave	Limonite Ave to 58th St	15,649	16,493	**32,142**
10	Hamner Ave	58th St to Bellegrave Ave	15,649	16,493	**32,142**
11	Scholar Way	Limonite Ave to 68th St	4,912	1,833	**6,745**
12	I-15 Freeway	South of Limonite Ave	80,622	7,330	**87,952**
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	83,345	5,498	**88,843**
14	I-15 Freeway	North of State Route 60	115,671	5,498	**121,169**
15	Scholar Way	Bellgrave Ave to Limonite Ave	2,240	1,833	**4,073**
16	State Route 60	West of I-15 Freeway	69,076	5,498	**74,574**
17	State Route 60	East of I-15 Freeway	81,438	5,498	**86,936**
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	13,094	3,665	**16,759**

4.4 Cumulative (Long-Range) Without Project Conditions Traffic Volumes

Cumulative (Long-Range) Without Project Conditions traffic volumes have been obtained from the previously approved traffic study as contained in the *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015).*

Long-Range Without Project Conditions traffic volumes as shown in Exhibit F and summarized in Table 4-6.

Table 4-6
Cumulative (Long-Range) Without Project Conditions
Traffic Volumes

#	Study Roadway Segment	Limits	Cumulative Without Project Daily Traffic Volume
1	Limonite Ave	Archibald Ave to Harrison Ave	44,000
2	Limonite Ave	Harrison Ave to Scholar Way	50,780
3	Limonite Ave	Scholar Way to Hamner Ave	48,960
4	Limonite Ave	Hamner Ave to I-15 Ramps	69,110
5	Limonite Ave	I-15 Ramps to Wineville Ave	65,010
6	Hamner Ave	Citrus St to Schleisman Rd	25,400
7	Hamner Ave	Schleisman Rd to 68th St	15,030
8	Hamner Ave	68th St to Limonite Ave	22,730
9	Hamner Ave	Limonite Ave to 58th St	31,890
10	Hamner Ave	58th St to Bellegrave Ave	31,890
11	Scholar Way	Limonite Ave to 68th St	6,860
12	I-15 Freeway	South of Limonite Ave	81,750
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	86,170
14	I-15 Freeway	North of State Route 60	127,570
15	Scholar Way	Bellgrave Ave to Limonite Ave	2,810
16	State Route 60	West of I-15 Freeway	78,910
17	State Route 60	East of I-15 Freeway	83,360
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	23,980

Source: Leal Specific Plan TIA (Fehr & Peers, May 12, 2015).

4.5 Cumulative (Long-Range) With Project Conditions Traffic Volumes

Cumulative (Long-Range) With Project Conditions traffic volumes are derived by adding the project-generated traffic to the Cumulative (Long-Range) With Project Conditions traffic volumes.

Long-Range Without Project traffic volumes as shown in Exhibit G and summarized in Table 4-7.

Table 4-7
Cumulative (Long-Range) With Project Conditions Traffic Volumes

#	Study Roadway Segment	Limits	Cumulative Without Project Daily Traffic Volume	Project Daily Traffic Volume	Cumulative With Project Daily Traffic Volume
1	Limonite Ave	Archibald Ave to Harrison Ave	44,000	3,665	**47,665**
2	Limonite Ave	Harrison Ave to Scholar Way	50,780	3,665	**54,445**
3	Limonite Ave	Scholar Way to Hamner Ave	48,960	18,326	**67,286**
4	Limonite Ave	Hamner Ave to I-15 Ramps	69,110	16,493	**85,603**
5	Limonite Ave	I-15 Ramps to Wineville Ave	65,010	3,665	**68,675**
6	Hamner Ave	Citrus St to Schleisman Rd	25,400	3,665	**29,065**
7	Hamner Ave	Schleisman Rd to 68th St	15,030	3,665	**18,695**
8	Hamner Ave	68th St to Limonite Ave	22,730	1,833	**24,563**
9	Hamner Ave	Limonite Ave to 58th St	31,890	16,493	**48,383**
10	Hamner Ave	58th St to Bellegrave Ave	31,890	16,493	**48,383**
11	Scholar Way	Limonite Ave to 68th St	6,860	1,833	**8,693**
12	I-15 Freeway	South of Limonite Ave	81,750	7,330	**89,080**
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	86,170	5,498	**91,668**
14	I-15 Freeway	North of State Route 60	127,570	5,498	**133,068**
15	Scholar Way	Bellgrave Ave to Limonite Ave	2,810	1,833	**4,643**
16	State Route 60	West of I-15 Freeway	78,910	5,498	**84,408**
17	State Route 60	East of I-15 Freeway	83,360	5,498	**88,858**
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	23,980	3,665	**27,645**

5.0 Study Roadway Segment LOS Analysis

This section of the report provides a discussion on the study roadway segment LOS analysis and findings.

5.1 Existing Conditions LOS

Existing Conditions LOS calculations for the study roadway segment are shown in Table 5-1 and are based upon the existing (2021) traffic volumes shown on Exhibit C and Table 3-2, and the existing roadway geometry and classifications shown in Table 3-1.

Table 5-1
Existing Conditions
Study Roadway Segment LOS Analysis Summary

#	Study Roadway Segment	Limits	Classification	No. of Lanes	Daily Capacity for LOS E (V/C = 1.00)	Traffic Volume	V/C Ratio	LOS
1	Limonite Ave	Archibald Ave to Harrison Ave	Urban Arterial	4	35,900	18,497	0.52	A
2	Limonite Ave	Harrison Ave to Scholar Way	Urban Arterial	4	35,900	26,192	0.73	C
3	Limonite Ave	Scholar Way to Hamner Ave	Urban Arterial	5	44,875	29,548	0.66	B
4	Limonite Ave	Hamner Ave to I-15 Ramps	Urban Arterial	6	53,900	44,312	**0.82**	**D**
5	Limonite Ave	I-15 Ramps to Wineville Ave	Urban Arterial	4	35,900	33,855	**0.94**	**E**
6	Hamner Ave	Citrus St to Schleisman Rd	Urban Arterial	4	35,900	20,619	0.57	A
7	Hamner Ave	Schleisman Rd to 68th St	Urban Arterial	6	53,900	11,831	0.22	A
8	Hamner Ave	68th St to Limonite Ave	Urban Arterial	6	53,900	20,186	0.37	A
9	Hamner Ave	Limonite Ave to 58th St	Urban Arterial	5	44,875	15,649	0.35	A
10	Hamner Ave	58th St to Bellgrave Ave	Urban Arterial	6	53,900	15,649	0.29	A
11	Scholar Way	Limonite Ave to 68th St	Secondary Collector	2	13,000	4,912	0.38	A
12	I-15 Freeway	South of Limonite Ave	Freeway	6	117,500	80,622	0.69	B
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	Freeway	6	117,500	83,345	0.71	C
14	I-15 Freeway	North of State Route 60	Freeway	8	160,500	115,671	0.72	C
15	Scholar Way	Bellgrave Ave to Limonite Ave	Secondary Collector	4	13,000	2,240	0.17	A
16	State Route 60	West of I-15 Freeway	Freeway	10	200,600	69,076	0.34	A
17	State Route 60	East of I-15 Freeway	Freeway	8	160,500	81,438	0.51	A
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	Urban Arterial	4	35,900	13,094	0.36	A

Deficient operation shown in **bold**.

As shown in Table 5-1, all study roadway segment are currently operating at an acceptable LOS (LOS C or better) for Existing Conditions with the exception of the following roadway segments which are currently operating at a deficient LOS (LOS D, E, or F):

4. **Limonite Avenue:** Hamner Avenue to I-15 Ramps; and

5. **Limonite Avenue:** I-15 Ramps to Wineville Avenue.

5.2 Existing Plus Project Conditions LOS

Existing Plus Project Conditions LOS calculations for the study roadway segment are shown in Table 5-2 and are based upon the Existing Plus Project traffic volumes shown on Exhibit E and Table 4-5, and the existing roadway geometry and classifications shown in Table 3-1.

Table 5-2
Existing Plus Project Conditions - Study Roadway Segment LOS Analysis Summary

#	Study Roadway Segment	Limits	Classification	No. of Lanes	Daily Capacity for LOS E (V/C = 1.00)	Existing Conditions			Existing Plus Project Conditions		
						Traffic Volume	V/C Ratio	LOS	Traffic Volume	V/C Ratio	LOS
1	Limonite Ave	Archibald Ave to Harrison Ave	Urban Arterial	4	35,900	18,497	0.52	A	22,162	0.62	B
2	Limonite Ave	Harrison Ave to Scholar Way	Urban Arterial	4	35,900	26,192	0.73	C	29,857	**0.83**	**D**
3	Limonite Ave	Scholar Way to Hamner Ave	Urban Arterial	5	44,875	29,548	0.66	B	47,874	**1.07**	**F**
4	Limonite Ave	Hamner Ave to I-15 Ramps	Urban Arterial	6	53,900	44,312	**0.82**	**D**	60,805	**1.13**	**F**
5	Limonite Ave	I-15 Ramps to Wineville Ave	Urban Arterial	4	35,900	33,855	**0.94**	**E**	37,520	**1.05**	**F**
6	Hamner Ave	Citrus St to Schleisman Rd	Urban Arterial	4	35,900	20,619	0.57	A	24,284	0.68	B
7	Hamner Ave	Schleisman Rd to 68th St	Urban Arterial	6	53,900	11,831	0.22	A	15,496	0.29	A
8	Hamner Ave	68th St to Limonite Ave	Urban Arterial	6	53,900	20,186	0.37	A	22,019	0.41	A
9	Hamner Ave	Limonite Ave to 58th St	Urban Arterial	5	44,875	15,649	0.35	A	32,142	0.72	C
10	Hamner Ave	58th St to Bellegrave Ave	Urban Arterial	6	53,900	15,649	0.29	A	32,142	0.60	A
11	Scholar Way	Limonite Ave to 68th St	Secondary Collector	2	13,000	4,912	0.38	A	6,745	0.52	A
12	I-15 Freeway	South of Limonite Ave	Freeway	6	117,500	80,622	0.69	B	87,952	0.75	C
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	Freeway	6	117,500	83,345	0.71	C	88,843	0.76	C
14	I-15 Freeway	North of State Route 60	Freeway	8	160,500	115,671	0.72	C	121,169	0.75	C
15	Scholar Way	Bellgrave Ave to Limonite Ave	Secondary Collector	4	13,000	2,240	0.17	A	4,073	0.31	A
16	State Route 60	West of I-15 Freeway	Freeway	10	200,600	69,076	0.34	A	74,574	0.37	A
17	State Route 60	East of I-15 Freeway	Freeway	8	160,500	81,438	0.51	A	86,936	0.54	A
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	Urban Arterial	4	35,900	13,094	0.36	A	16,759	0.47	A

Deficient operation shown in **bold**.

As shown in Table 5-2, all study roadway segment are forecast to operate at an acceptable LOS (LOS C or better) for Existing Plus Project Conditions with the exception of the following roadway segments which are forecast to operate at a deficient LOS (LOS D, E, or F):

2. **Limonite Avenue:** Harrison Avenue to Scholar Way;

3. **Limonite Avenue:** Scholar Way to Hamner Avenue;

4. **Limonite Avenue:** Hamner Avenue to I-15 Ramps; and

5. **Limonite Avenue:** I-15 Ramps to Wineville Avenue.

5.3 Cumulative (Long-Range) Without Project Conditions LOS

Cumulative (Long-Range) Without Project Conditions LOS calculations for the study roadway segment are shown in Table 5-3 and are based upon the Cumulative (Long-Range) Without Project traffic volumes shown on Exhibit F and Table 4-6, and the geometry and classifications as proposed by the project for Cumulative (Long-Range) conditions.

Table 5-3
Cumulative (Long-range) Without Project Conditions
Study Roadway Segment LOS Analysis Summary

#	Study Roadway Segment	Limits	Classification	No. of Lanes	Daily Capacity for LOS E (V/C = 1.00)	Traffic Volume	V/C Ratio	LOS
1	Limonite Ave	Archibald Ave to Harrison Ave	Urban Arterial	6	53,900	44,000	**0.82**	**D**
2	Limonite Ave	Harrison Ave to Scholar Way	Urban Arterial	6	53,900	50,780	**0.94**	**E**
3	Limonite Ave	Scholar Way to Hamner Ave	Urban Arterial *	5 + 1	45,366	48,960	**1.08**	**F**
4	Limonite Ave	Hamner Ave to I-15 Ramps	Urban Arterial	6	53,900	69,110	**1.28**	**F**
5	Limonite Ave	I-15 Ramps to Wineville Ave	Urban Arterial	6	53,900	65,010	**1.21**	**F**
6	Hamner Ave	Citrus St to Schleisman Rd	Urban Arterial	6	53,900	25,400	0.47	A
7	Hamner Ave	Schleisman Rd to 68th St	Urban Arterial	6	53,900	15,030	0.28	A
8	Hamner Ave	68th St to Limonite Ave	Urban Arterial	6	53,900	22,730	0.42	A
9	Hamner Ave	Limonite Ave to 58th St	Urban Arterial *	5 +1	45,366	31,890	0.70	B
10	Hamner Ave	58th St to Bellegrave Ave	Urban Arterial	6	53,900	31,890	0.59	A
11	Scholar Way	Limonite Ave to 68th St	Secondary Collector	2	13,000	6,860	0.53	A
12	I-15 Freeway	South of Limonite Ave	Freeway	6	117,500	81,750	0.70	B
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	Freeway	6	117,500	86,170	0.73	C
14	I-15 Freeway	North of State Route 60	Freeway	8	160,500	127,570	0.79	C
15	Scholar Way	Bellgrave Ave to Limonite Ave	Secondary Collector	4	13,000	2,810	0.22	A
16	State Route 60	West of I-15 Freeway	Freeway	10	200,600	78,910	0.39	A
17	State Route 60	East of I-15 Freeway	Freeway	8	160,500	83,360	0.52	A
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	Urban Arterial	4	35,900	23,980	0.67	B

Deficient operation shown in **bold**.

* = Consists of five lanes plus one frontage lane. This analysis assumes the segment has a daily capacity equivalent to five full lanes plus a sixth (frontage) lane with 5 percent of the capacity of a single lane.

As shown in Table 5-3, all study roadway segment are forecast to operate at an acceptable LOS (LOS C or better) for Cumulative (Long-Range) Without Project Conditions with the exception of the following roadway segments which are forecast to operate at a deficient LOS (LOS D, E, or F):

1. **Limonite Avenue:** Archibald Avenue to Harrison Avenue;

2. **Limonite Avenue:** Harrison Avenue to Scholar Way;

3. **Limonite Avenue:** Scholar Way to Hamner Avenue;

4. **Limonite Avenue:** Hamner Avenue to I-15 Ramps; and

5. **Limonite Avenue:** I-15 Ramps to Wineville Avenue.

5.4 Cumulative (Long-Range) With Project Conditions LOS Existing Plus Project Conditions LOS

Cumulative (Long-Range) With Project Conditions LOS calculations for the study roadway segment are shown in Table 5-4 and are based upon the Cumulative (Long-Range) With Project traffic volumes shown on Exhibit G and Table 4-7, and the geometry and classifications as proposed by the project for Cumulative (Long-Range) conditions.

Table 5-4
Cumulative (Long-range) With Project Conditions – Study Roadway Segment LOS Analysis Summary

#	Study Roadway Segment	Limits	Classification	No. of Lanes	Daily Capacity for LOS E (V/C = 1.00)	Cumulative (Long-Range) Without Project Conditions			Cumulative (Long-Range) With Project Conditions		
						Traffic Volume	V/C Ratio	LOS	Traffic Volume	V/C Ratio	LOS
1	Limonite Ave	Archibald Ave to Harrison Ave	Urban Arterial	6	53,900	44,000	**0.82**	**D**	47,665	**0.88**	**D**
2	Limonite Ave	Harrison Ave to Scholar Way	Urban Arterial	6	53,900	50,780	**0.94**	**E**	54,445	**1.01**	**F**
3	Limonite Ave	Scholar Way to Hamner Ave	Urban Arterial *	5 + 1	45,366	48,960	**1.08**	**F**	67,286	**1.48**	**F**
4	Limonite Ave	Hamner Ave to I-15 Ramps	Urban Arterial	6	53,900	69,110	**1.28**	**F**	85,603	**1.59**	**F**
5	Limonite Ave	I-15 Ramps to Wineville Ave	Urban Arterial	6	53,900	65,010	**1.21**	**F**	68,675	**1.27**	**F**
6	Hamner Ave	Citrus St to Schleisman Rd	Urban Arterial	6	53,900	25,400	0.47	A	29,065	0.54	A
7	Hamner Ave	Schleisman Rd to 68th St	Urban Arterial	6	53,900	15,030	0.28	A	18,695	0.35	A
8	Hamner Ave	68th St to Limonite Ave	Urban Arterial	6	53,900	22,730	0.42	A	24,563	0.46	A
9	Hamner Ave	Limonite Ave to 58th St	Urban Arterial *	5 + 1	45,366	31,890	0.70	B	48,383	**1.07**	**F**
10	Hamner Ave	58th St to Bellegrave Ave	Urban Arterial	6	53,900	31,890	0.59	A	48,383	**0.90**	**D**
11	Scholar Way	Limonite Ave to 68th St	Secondary Collector	2	13,000	6,860	0.53	A	8,693	0.67	B
12	I-15 Freeway	South of Limonite Ave	Freeway	6	117,500	81,750	0.70	B	89,080	0.76	C
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	Freeway	6	117,500	86,170	0.73	C	91,668	0.78	C
14	I-15 Freeway	North of State Route 60	Freeway	8	160,500	127,570	0.79	C	133,068	**0.83**	**D**
15	Scholar Way	Bellgrave Ave to Limonite Ave	Secondary Collector	4	13,000	2,810	0.22	A	4,643	0.36	A
16	State Route 60	West of I-15 Freeway	Freeway	10	200,600	78,910	0.39	A	84,408	0.42	A
17	State Route 60	East of I-15 Freeway	Freeway	8	160,500	83,360	0.52	A	88,858	0.55	A
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	Urban Arterial	4	35,900	23,980	0.67	B	27,645	0.77	C

Deficient operation shown in **bold**.

* = Consists of five lanes plus one frontage lane. This analysis assumes the segment has a daily capacity equivalent to five full lanes plus a sixth (frontage) lane with 5 percent of the capacity of a single lane.

As shown in Table 5-4, all study roadway segment are forecast to operate at an acceptable LOS (LOS C or better) for Cumulative (Long-Range) With Project Conditions with the exception of the following roadway segments which are forecast to operate at a deficient LOS (LOS D, E, or F):

As shown in Table 5-2, all study roadway segment are forecast to operate at an acceptable LOS (LOS C or better) for Existing Plus Project Conditions with the exception of the following roadway segments which are forecast to operate at a deficient LOS (LOS D, E, or F):

1. **Limonite Avenue:** Archibald Avenue to Harrison Avenue;

2. **Limonite Avenue:** Harrison Avenue to Scholar Way;

3. **Limonite Avenue:** Scholar Way to Hamner Avenue;

4. **Limonite Avenue:** Hamner Avenue to I-15 Ramps;

5. **Limonite Avenue:** I-15 Ramps to Wineville Avenue;

9. **Hamner Avenue:** Limonite Avenue to 58th Street;

10. **Hamner Avenue:** 58th Street to Bellegrave Avenue; and

14. **I-15 Freeway:** North of SR-60 Freeway.

6.0 Previously Approved Project & Modified Project LOS Comparison

A comparison of the level of service operations and deficiencies has been prepared between the previously approved project as document in the *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015* and the Modified project as currently proposed.

Table 6-1 shows the LOS and deficiency comparison for Existing Plus Project Conditions.

Table 6-2 shows the LOS and deficiency comparison for Cumulative (Long-Range) With Project Conditions.

As shown in Table 6-1 and 6-2, the Modified project results in the same or less LOS deficiencies and impacts when compared to the previously approved project for the analysis scenarios evaluated as part of this report.

Table 6-1
Previously Approved Project vs. Modified Project
Existing Plus Project Conditions
Study Roadway Segment LOS Analysis Comparison

#	Study Roadway Segment	Limits	Previously Approved Project *			Modified Project			Difference	
			Traffic Volume	V/C Ratio	LOS	Traffic Volume	V/C Ratio	LOS	Traffic Volume	V/C Ratio
1	Limonite Ave	Archibald Ave to Harrison Ave	23,725	0.66	B	22,162	0.62	B	-1,563	-0.04
2	Limonite Ave	Harrison Ave to Scholar Way	30,974	**0.86**	**D**	29,857	**0.83**	**D**	-1,117	-0.03
3	Limonite Ave	Scholar Way to Hamner Ave	59,336	**1.65**	**F**	47,874	**1.07**	**F**	-11,462	-0.58
4	Limonite Ave	Hamner Ave to I-15 Ramps	70,094	**1.30**	**F**	60,805	**1.13**	**F**	-9,289	-0.17
5	Limonite Ave	I-15 Ramps to Wineville Ave	38,193	**1.06**	**F**	37,520	**1.05**	**F**	-673	-0.01
6	Hamner Ave	Citrus St to Schleisman Rd	25,724	0.72	C	24,284	0.68	B	-1,440	-0.04
7	Hamner Ave	Schleisman Rd to 68th St	17,445	0.32	A	15,496	0.29	A	-1,949	-0.03
8	Hamner Ave	68th St to Limonite Ave	22,166	0.41	A	22,019	0.41	A	-147	0.00
9	Hamner Ave	Limonite Ave to 58th St	43,092	**1.20**	**F**	32,142	0.72	C	-10,950	-0.48
10	Hamner Ave	58th St to Bellegrave Ave	43,092	**1.20**	**F**	32,142	0.60	A	-10,950	-0.60
11	Scholar Way	Limonite Ave to 68th St	7,777	0.60	A	6,745	0.52	A	-1,032	-0.08
12	I-15 Freeway	South of Limonite Ave	88,550	0.75	C	87,952	0.75	C	-598	0.00
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	87,965	0.75	C	88,843	0.76	C	878	0.01
14	I-15 Freeway	North of State Route 60	118,417	0.74	C	121,169	0.75	C	2,752	0.01
15	Scholar Way	Bellgrave Ave to Limonite Ave	5,260	0.40	A	4,073	0.31	A	-1,187	-0.09
16	State Route 60	West of I-15 Freeway	74,523	0.37	A	74,574	0.37	A	51	0.00
17	State Route 60	East of I-15 Freeway	86,168	0.54	A	86,936	0.54	A	768	0.00
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	18,635	0.52	A	16,759	0.47	A	-1,876	-0.05

* Source: *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015)*

Table 6-2
Previously Approved Project vs. Modified Project
Cumulative (Long-Range) With Project Conditions
Study Roadway Segment LOS Analysis Comparison

#	Study Roadway Segment	Limits	Previously Approved Project *			Modified Project			Difference	
			Traffic Volume	V/C Ratio	LOS	Traffic Volume	V/C Ratio	LOS	Traffic Volume	V/C Ratio
1	Limonite Ave	Archibald Ave to Harrison Ave	50,300	**0.93**	**E**	47,665	**0.88**	**D**	-2,635	-0.05
2	Limonite Ave	Harrison Ave to Scholar Way	57,080	**1.06**	**F**	54,445	**1.01**	**F**	-2,635	-0.05
3	Limonite Ave	Scholar Way to Hamner Ave	80,460	**1.49**	**F**	67,286	**1.48**	**F**	-13,174	-0.01
4	Limonite Ave	Hamner Ave to I-15 Ramps	97,460	**1.81**	**F**	85,603	**1.59**	**F**	-11,857	-0.22
5	Limonite Ave	I-15 Ramps to Wineville Ave	71,310	**1.32**	**F**	68,675	**1.27**	**F**	-2,635	-0.05
6	Hamner Ave	Citrus St to Schleisman Rd	31,700	0.59	A	29,065	0.54	A	-2,635	-0.05
7	Hamner Ave	Schleisman Rd to 68th St	21,330	0.40	A	18,695	0.35	A	-2,635	-0.05
8	Hamner Ave	68th St to Limonite Ave	25,880	0.48	A	24,563	0.46	A	-1,317	-0.02
9	Hamner Ave	Limonite Ave to 58th St	60,240	**1.12**	**F**	48,383	**1.07**	**F**	-11,857	-0.05
10	Hamner Ave	58th St to Bellegrave Ave	60,240	**1.12**	**F**	48,383	**0.90**	**D**	-11,857	-0.22
11	Scholar Way	Limonite Ave to 68th St	10,010	0.77	C	8,693	0.67	B	-1,317	-0.10
12	I-15 Freeway	South of Limonite Ave	94,350	0.80	C	89,080	0.76	C	-5,270	-0.04
13	I-15 Freeway	Limonite Ave to Cantu-Galleano Ranch Rd	90,790	0.77	C	91,668	0.78	C	878	0.01
14	I-15 Freeway	North of State Route 60	137,020	**0.85**	**D**	133,068	**0.83**	**D**	-3,952	-0.02
15	Scholar Way	Bellgrave Ave to Limonite Ave	5,960	0.46	A	4,643	0.36	A	-1,317	-0.10
16	State Route 60	West of I-15 Freeway	88,360	0.44	A	84,408	0.42	A	-3,952	-0.02
17	State Route 60	East of I-15 Freeway	92,810	0.58	A	88,858	0.55	A	-3,952	-0.03
18	Cantu-Galleano Ranch Rd	I-15 Ramps to Hamner Ave	30,280	**0.84**	**D**	27,645	0.77	C	-2,635	-0.07

* Source: *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015)*

RK engineering group, inc.
rkengineer.com

7.0 Vehicle Miles Traveled (VMT) Evaluation

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact.

On June 24, 2020, the City of Eastvale adopted Resolution No. 20-44, which establishes VMT impact thresholds for assessing consistency with CEQA Guidelines Section 15064.3, subdivision (b).

Land use projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary.

Utilizing the latest Riverside County Transportation Model (RIVCOM) and the Western Riverside County Council of Governments (WRCOG) Web Screening Tool, it has been determined that the project site is located within a low-VMT generating zone based on residential home-based VMT and home-based work VMT for both base model year (2018) and future model year (2045).

Utilizing the base model data for VMT screening is appropriate. RIVCOM assumes there will be 2,501 households and 2,107 employees in the project's traffic analysis zone (TAZ) under year 2045 conditions. The project would consist of similar land uses and demographics as estimated in the base model and is expected to exhibit similar VMT patterns.

As a result, the proposed Modified project is exempt from further VMT assessment and may be presumed to have a less than significant impact absent substantial evidence to the contrary.

The WRCOG tool output for the proposed project is provided Attachment A.

8.0 Findings & Conclusions

The purpose of this traffic impact analysis is to evaluate The Leal Masterplan Amendment Project (hereinafter referred to as "modified project") from a traffic and circulation standpoint.

The *Leal Master Plan Draft Environmental Impact Report (DEIR), Michael Baker International, July 2015*, and the *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015)* have been previously prepared for the original project. Since then, modifications to the development plan have been proposed. RK has been requested to review the modified project and identify whether any new impacts or increase in severity of impacts may occur as a result of the modified project.

This analysis has been prepared to be consistent with the previous 2015 TIA and the 2015 DEIR prepared for the project. A copy of the *Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015)* is contained as an attachment to this report.

The proposed modified project site is bound by 58th Street to the north, Limonite Avenue to the south, Hamner Avenue to the east, and Scholar Way to the west, in the City of Eastvale. The project site is currently vacant and undeveloped. The project site location map is shown on Exhibit A. The project site plan is shown in Exhibit B.

The previously approved 2015 TIA evaluated the following land uses for the original project:

- 660 dwelling units of multi-family residential;
- 1,525,000 square feet of retail;
- 460,000 square feet of general office;
- 460,000 square feet of medical office;
- 100,000 square feet of civic center; and
- 450 rooms of hotel.

The modified land use assumptions are summarized below.

- 400 dwelling units of single family detached residential;

- 2,100 dwelling units of multi-family residential;
- 390,000 square feet of commercial and retail;
- 65,000 square feet of general office;
- 65,000 square feet of medical office;
- 40,000 square feet of civic center use;
- 25,000 square feet of library use;
- 10,000 square feet of police station use; and
- 12,200 square feet of fire station use.

The Table below summarizes the land uses evaluated in the previously approved 2015 TIA and the Modified Project land use assumptions.

Project Land Uses

Land Use	Units	Previously Approved 2015 Project & traffic Study	Modified Project
Single Family Detached Residential	Dwelling Units	0	400
Multi-family Residential	Dwelling Units	660	2,100
Retail	Square Feet	1,525,000	390,000
General Office	Square Feet	460,000	65,000
Medical Office	Square Feet	460,000	65,000
Civic Center	Square Feet	100,000	40,000
Library	Square Feet	0	25,000
Police	Square Feet	0	10,000
Fire Station	Square Feet	0	12,200
Hotel	Rooms	450	0

Study Area & Analysis Scenarios:

Consistent with the previously approved 2015 traffic study for the proposed project, this analysis evaluates the daily capacity and level of service (LOS) at the following eighteen (18) study roadway segments:

1. **Limonite Avenue:** Archibald Avenue to Harrison Avenue;
2. **Limonite Avenue:** Harrison Avenue to Scholar Way;
3. **Limonite Avenue:** Scholar Way to Hamner Avenue;
4. **Limonite Avenue:** Hamner Avenue to I-15 Ramps;
5. **Limonite Avenue:** I-15 Ramps to Wineville Avenue;
6. **Hamner Avenue:** Citrus Street to Schleisman Road;
7. **Hamner Avenue:** Schleisman Road to 68th Street;
8. **Hamner Avenue:** 68th Street to Limonite Avenue;
9. **Hamner Avenue:** Limonite Avenue to 58th Street;
10. **Hamner Avenue:** 58th Street to Bellegrave Avenue;
11. **Scholar Way:** Limonite Avenue to 68th Street;
12. **I-15 Freeway:** South of Limonite Avenue;
13. **I-15 Freeway:** Limonite Avenue to Cantu-Galleano Ranch Road;
14. **I-15 Freeway:** North of SR-60 Freeway;
15. **Scholar Way:** Bellegrave Avenue to Limonite Avenue;
16. **SR-60 Freeway:** West of I-15 Freeway;

17. **SR-60 Freeway:** East of I-15 Freeway; and

18. **Cantu-Galleano Ranch Road:** I-15 Ramps to Hamner Avenue.

Consistent with the previously approved 2015 traffic study for the proposed project, this analysis evaluates traffic conditions for the following study scenarios:

- Existing Conditions;
- Existing Plus Project Conditions;
- Cumulative (Long-Range) No Project Conditions; and
- Cumulative (Long-Range) Plus Project Conditions.

Project Trip Generation:

The previously approved project was forecast to generate approximately 64,416 daily trips which include approximately 3,030 AM peak hour trips and approximately 6,309 PM peak hour trips.

Based on the ITE trip generation rates, the modified project is forecast to generate approximately 36,652 daily trips which include approximately 1,831 AM peak hour trips and approximately 3,331 PM peak hour trips

When compared to the previously approved project, the modified project is forecast to generate approximately 27,764 net fewer daily trips which include approximately 1,200 net fewer AM peak hour trips and approximately 2,978 net fewer PM peak hour trips compared to the original project.

Based upon the preliminary trip generation analysis, the modified project is expected to generate fewer trips than were analyzed in the 2015 TIA and DEIR. Hence, additional traffic impacts are not expected.

LOS Analysis Findings:

Based on the LOS analysis conducted, the Modified project results in the same or less LOS deficiencies and impacts when compared to the previously approved project for the analysis scenarios evaluated as part of this report.

VMT Analysis Findings:

Utilizing the Western Riverside County Council of Governments (WRCOG) Screening Tool, the modified project site is located within a low-VMT generating zone based on residential home-based VMT and home-based work VMT.

As a result, the proposed Modified project is exempt from further VMT assessment and may be presumed to have a less than significant impact absent substantial evidence to the contrary.

The WRCOG tool output for the proposed project is provided Attachment A.

Exhibits

Exhibit A

Location Map

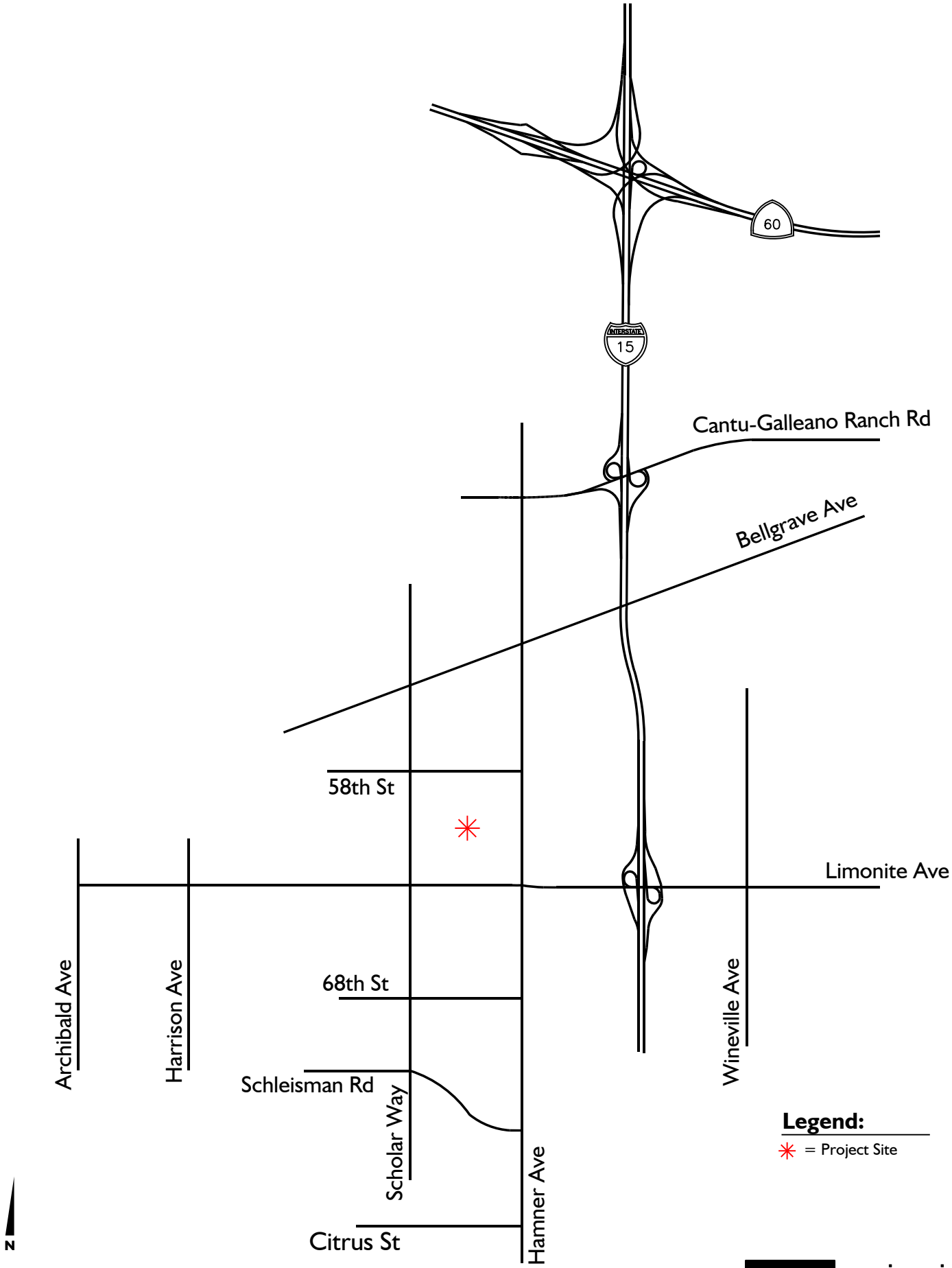


Exhibit B
Site Plan



N

Exhibit C

Existing Traffic Volumes

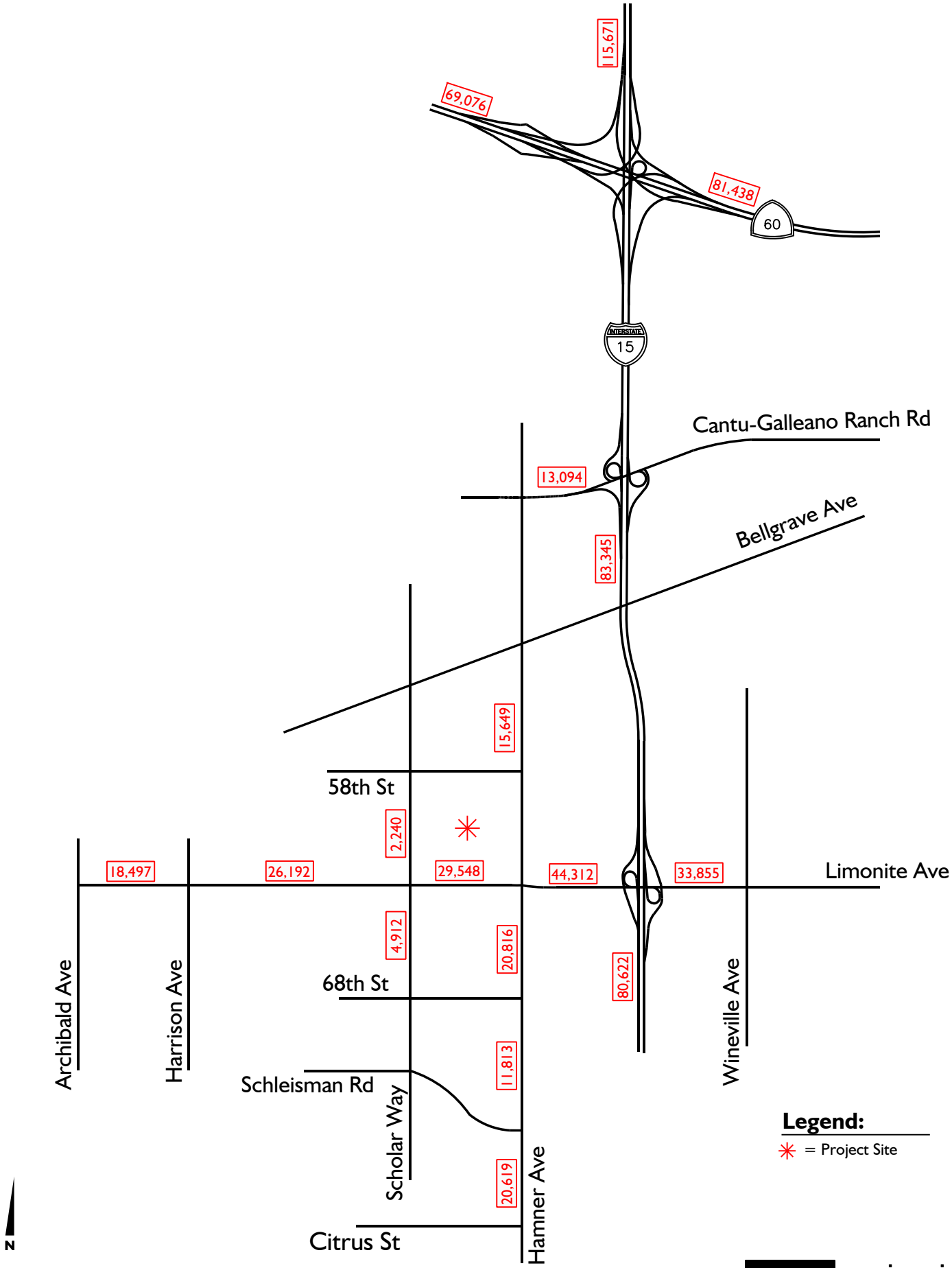


Exhibit D

Project Traffic Volumes

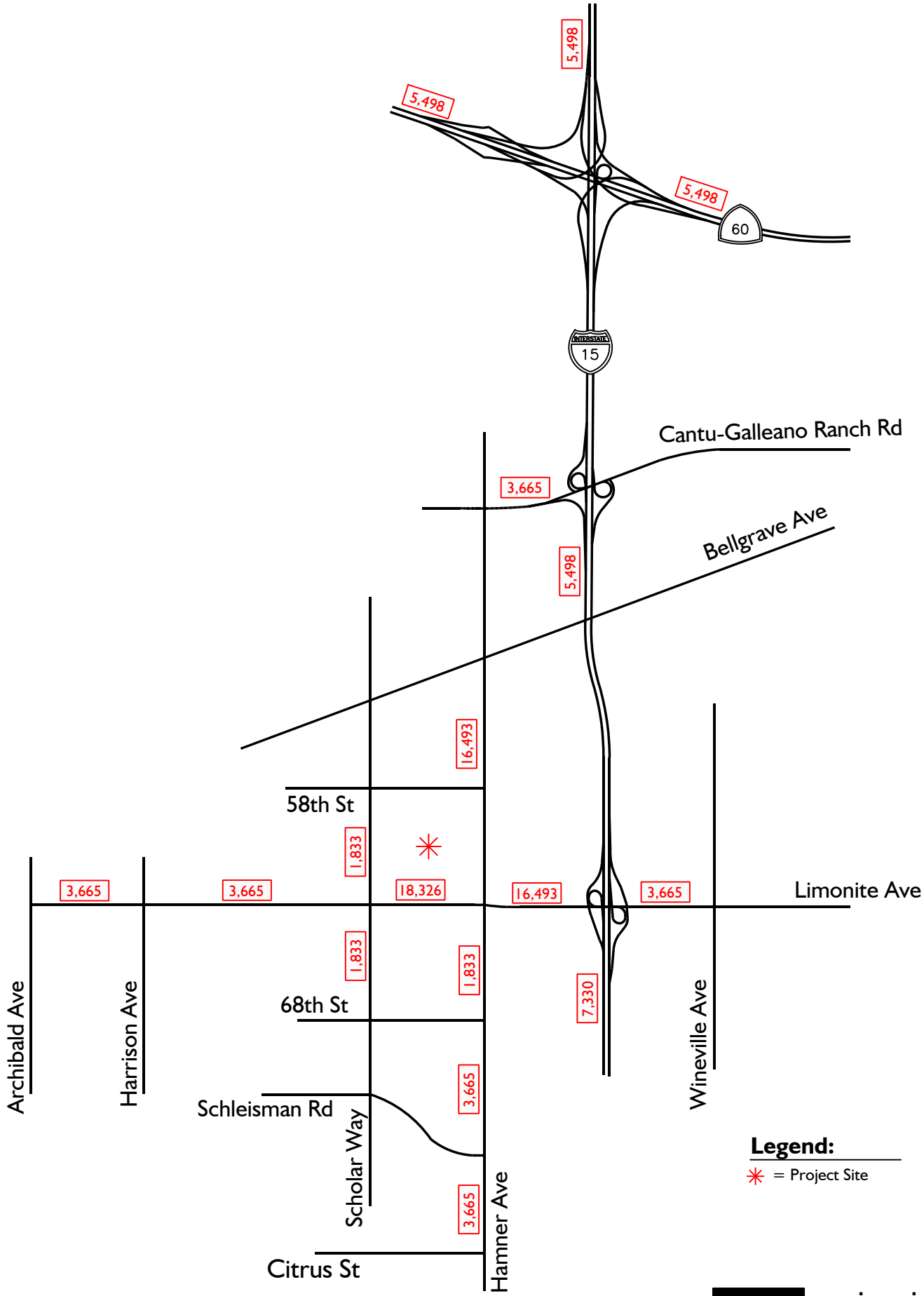


Exhibit E

Existing Plus Project Traffic Volumes

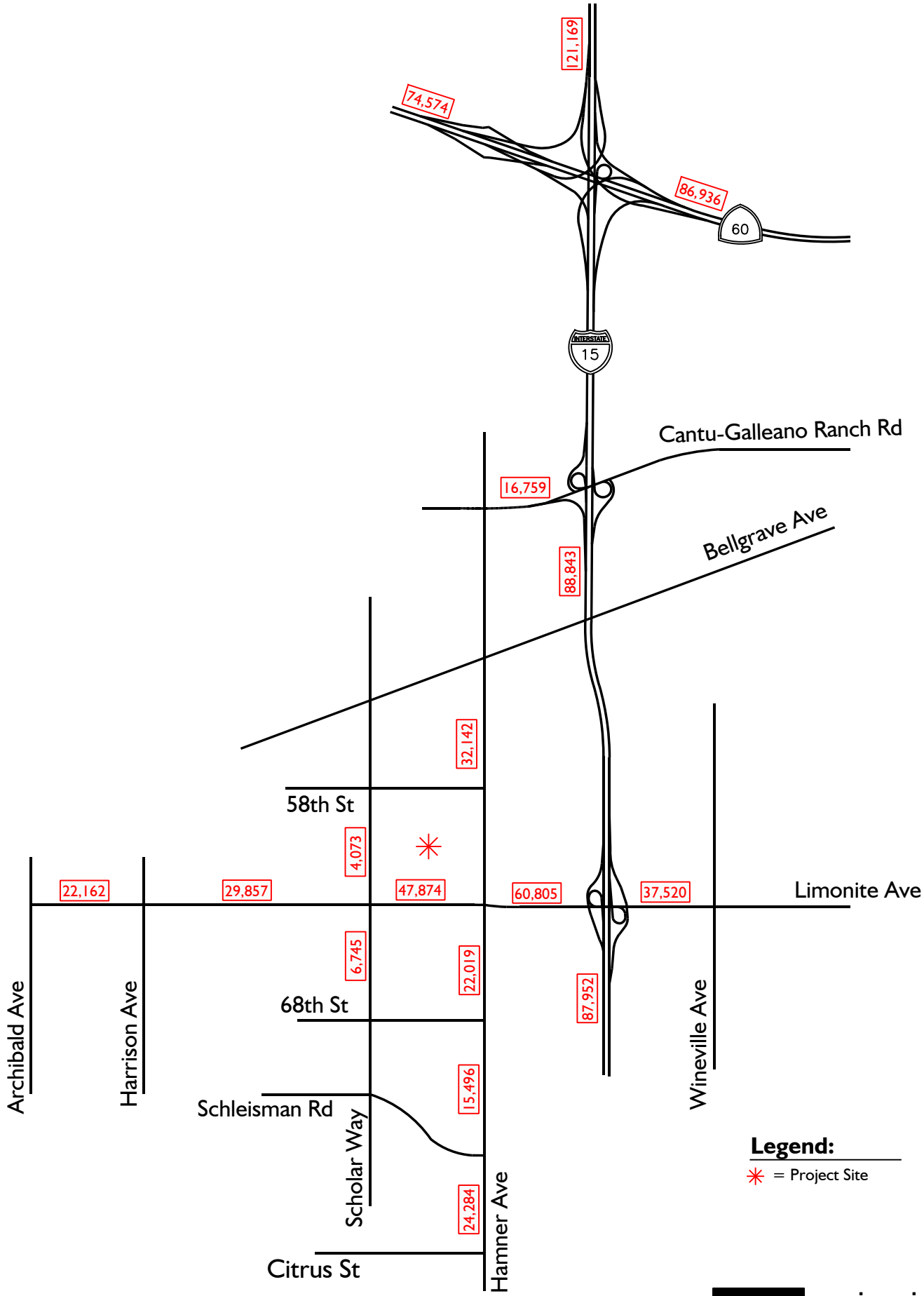


Exhibit F

Horizon Year Without Project Traffic Volumes

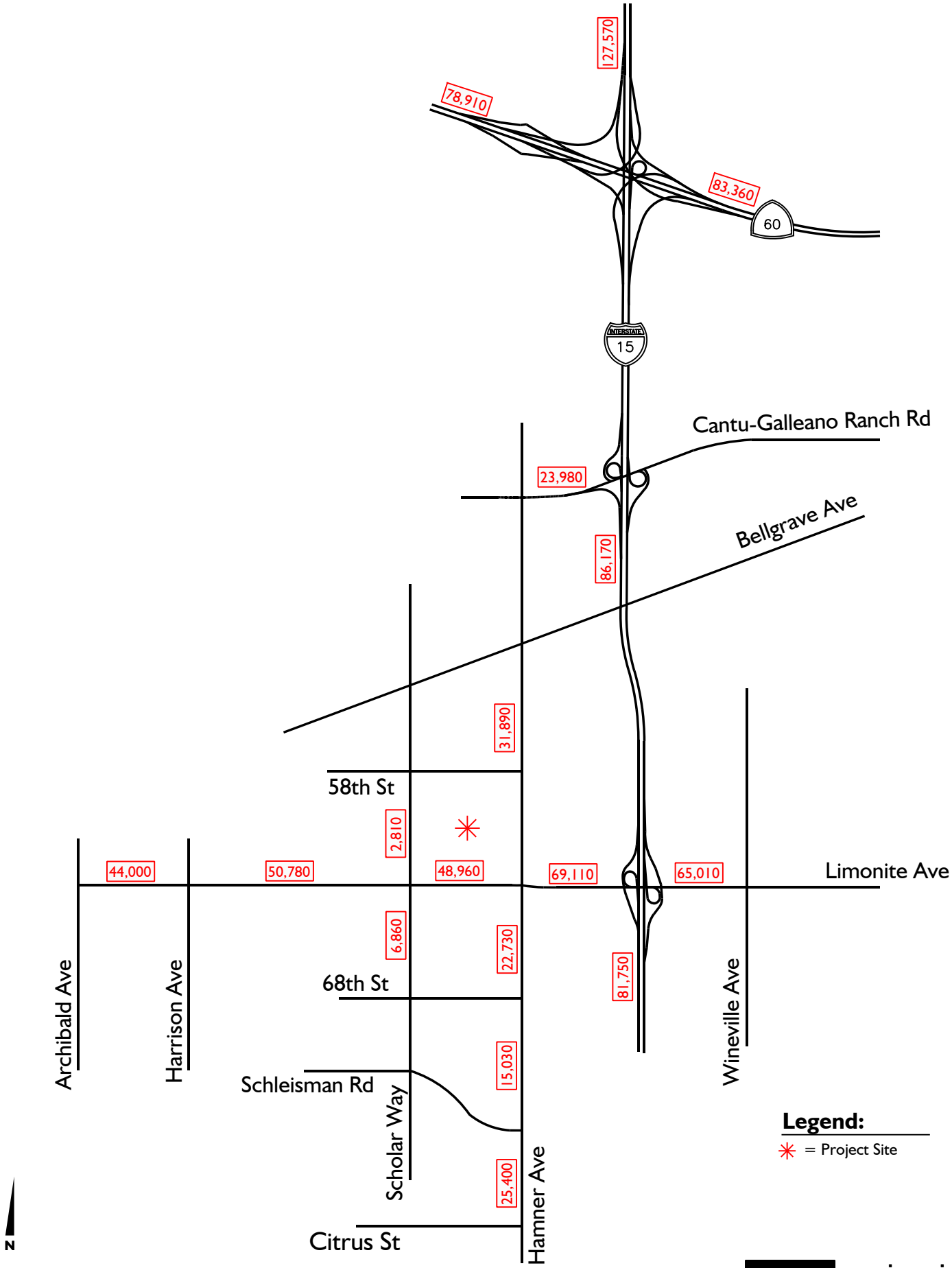
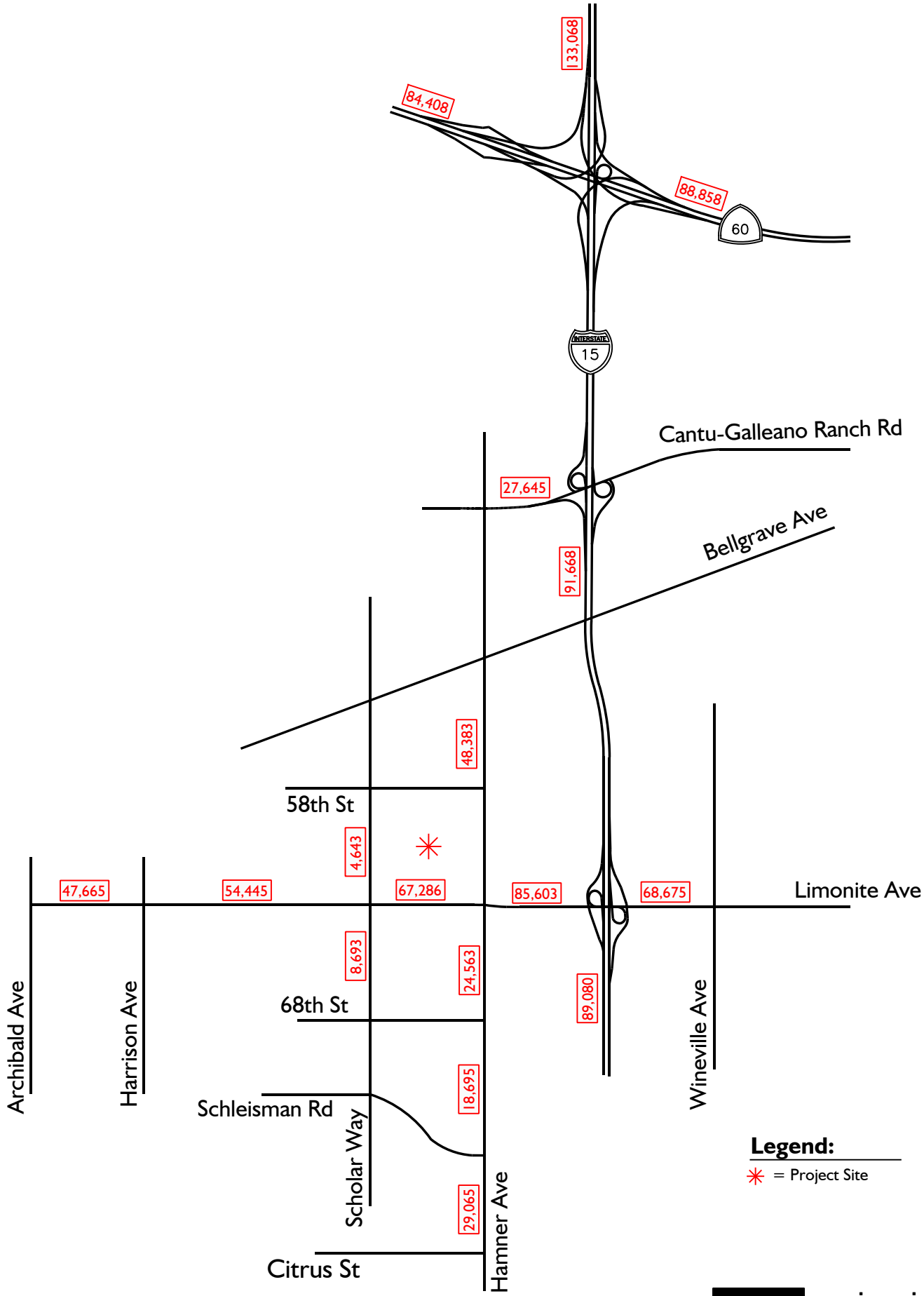


Exhibit G

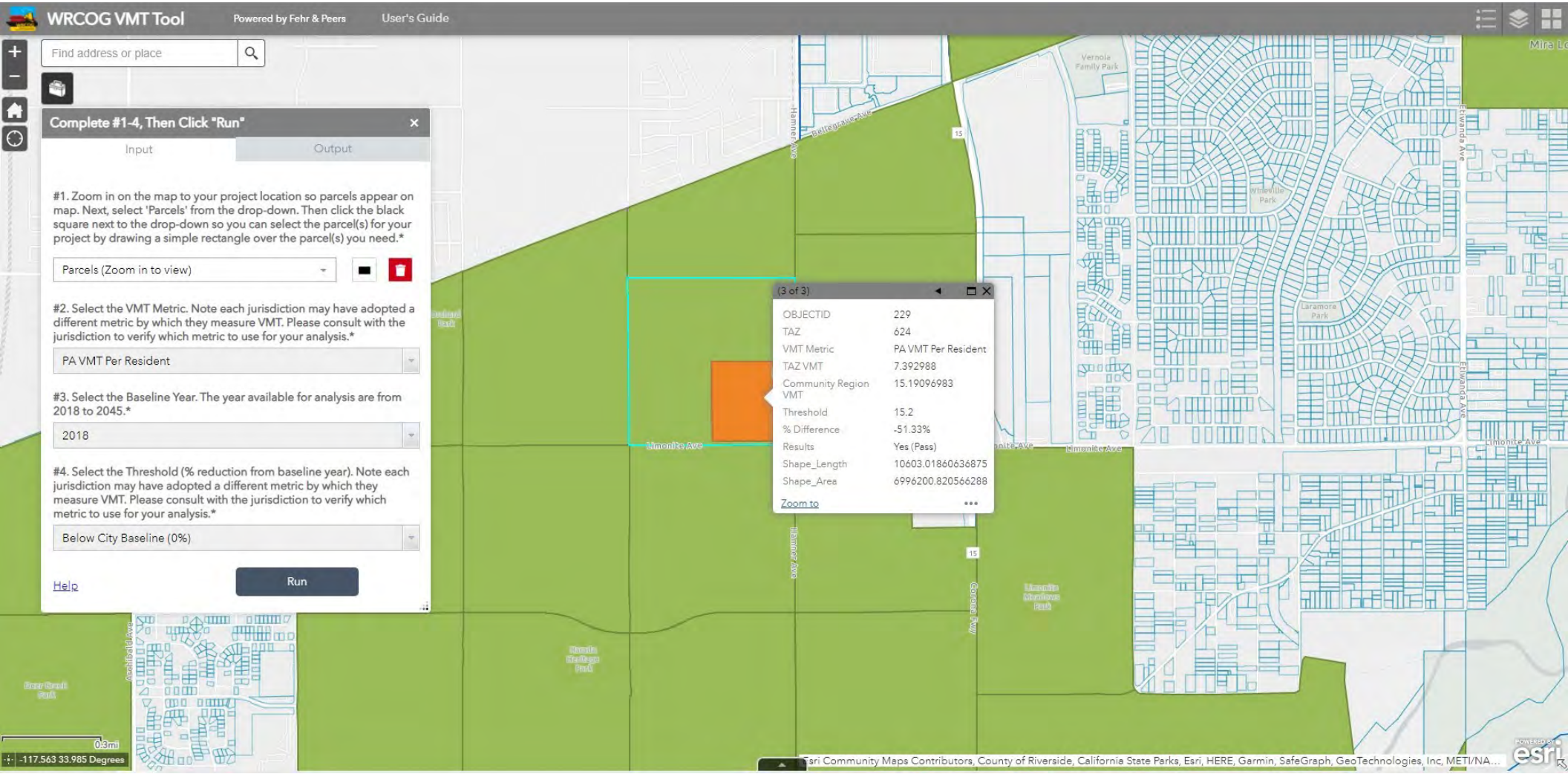
Horizon Year With Project Traffic Volumes

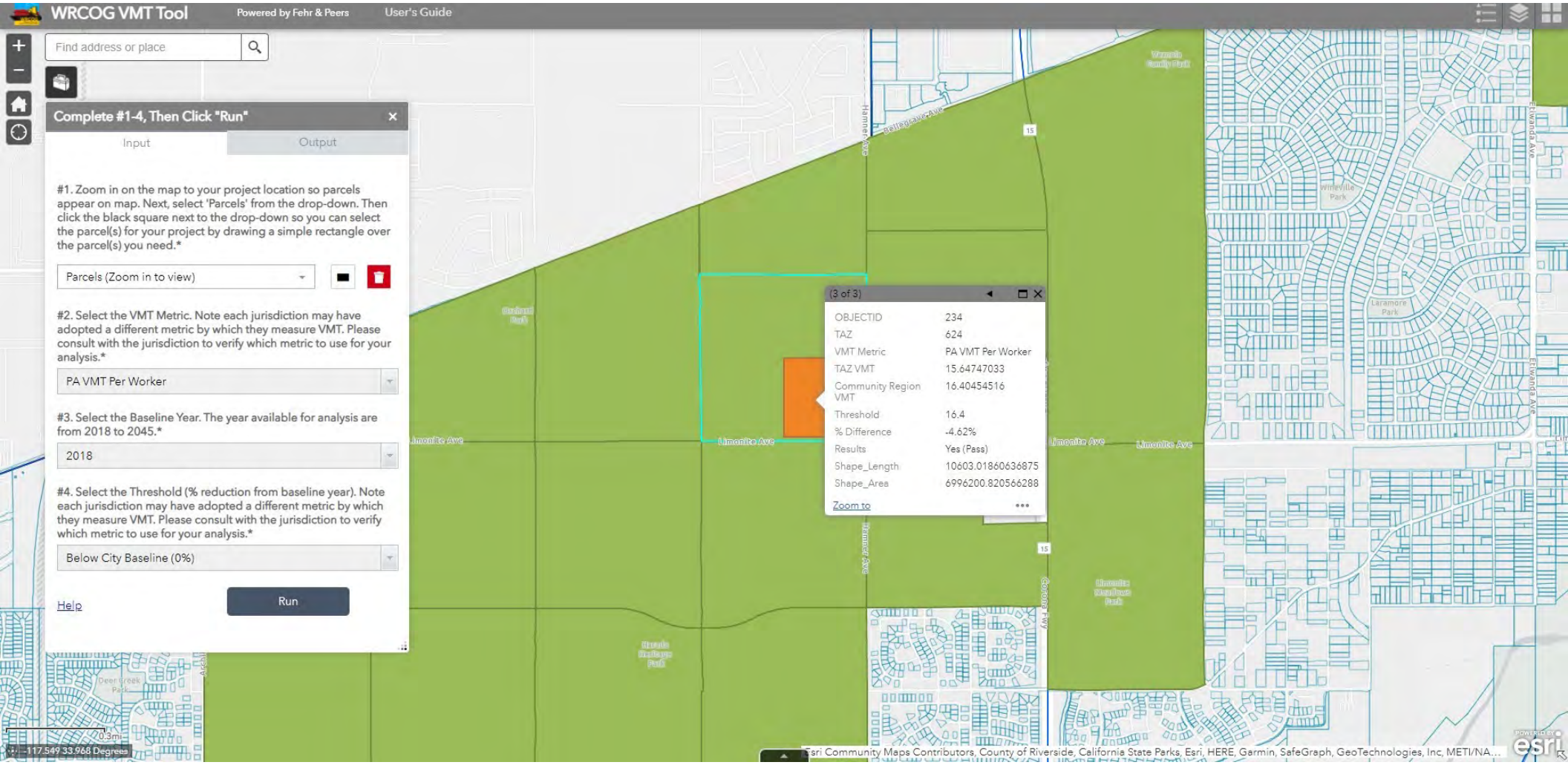


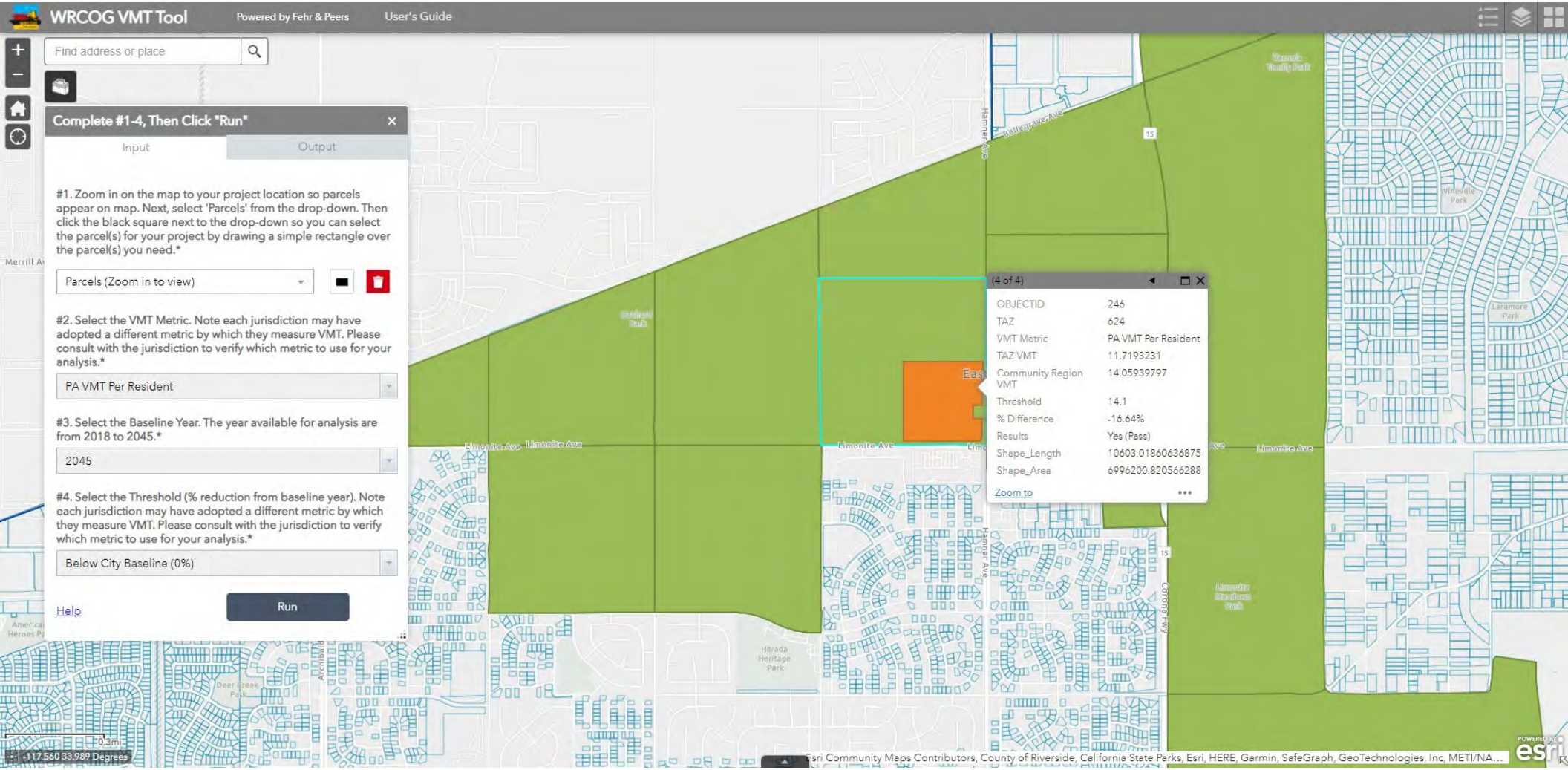
Attachments

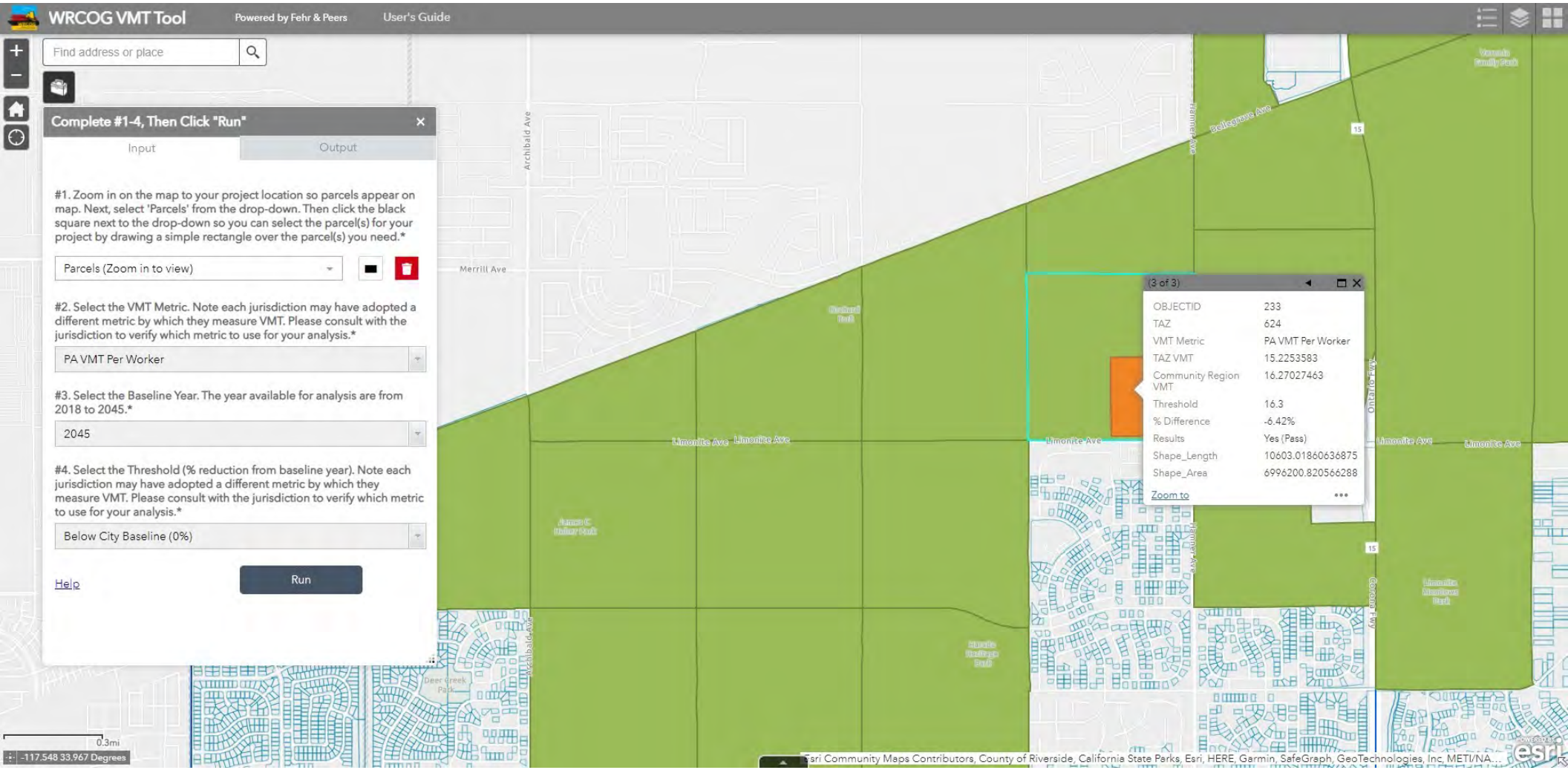
Attachment A

WRCOG VMT Sheets


WRCOG VMT Tool
Powered by Fehr & Peers
User's Guide
Find address or place
Complete #1-4, Then Click "Run"
Input
Output
#1. Zoom in on the map to your project location so parcels appear on map. Next, select 'Parcels' from the drop-down. Then click the black square next to the drop-down so you can select the parcel(s) for your project by drawing a simple rectangle over the parcel(s) you need.*
Parcels (Zoom in to view)
#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
PA VMT Per Resident
#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*
2018
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below City Baseline (0%)
Help
Run
(3 of 3)
OBJECTID 229
TAZ 624
VMT Metric PA VMT Per Resident
TAZ VMT 7.392988
Community Region VMT 15.19096983
Threshold 15.2
% Difference -51.33%
Results Yes (Pass)
Shape_Length 10603.01860636875
Shape_Area 6996200.820566288
Zoom to
Limonite Ave
Hamner Ave
Bellegrave Ave
Archibald Ave
Vernola Family Park
Wineville Park
Laramore Park
Limonite Meadows Park
Esri Community Maps Contributors, County of Riverside, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NA...
0.3mi
-117.563 33.985 Degrees


WRCOG VMT Tool
Powered by Fehr & Peers
User's Guide
Find address or place
Complete #1-4, Then Click "Run"
Input
Output
#1. Zoom in on the map to your project location so parcels appear on map. Next, select 'Parcels' from the drop-down. Then click the black square next to the drop-down so you can select the parcel(s) for your project by drawing a simple rectangle over the parcel(s) you need.*
Parcels (Zoom in to view)
#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
PA VMT Per Worker
#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*
2018
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below City Baseline (0%)
Help
Run
(3 of 3)
OBJECTID 234
TAZ 624
VMT Metric PA VMT Per Worker
TAZ VMT 15.64747033
Community Region VMT 16.40454516
Threshold 16.4
% Difference -4.62%
Results Yes (Pass)
Shape_Length 10603.01860636875
Shape_Area 6996200.820566288
Zoom to
Limonite Ave
Hamner Ave
Bellegrave Ave
Etiwanda Ave
Esri Community Maps Contributors, County of Riverside, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NA...


WRCOG VMT Tool
Powered by Fehr & Peers
User's Guide
Find address or place
Complete #1-4, Then Click "Run"
Input
Output
#1. Zoom in on the map to your project location so parcels appear on map. Next, select 'Parcels' from the drop-down. Then click the black square next to the drop-down so you can select the parcel(s) for your project by drawing a simple rectangle over the parcel(s) you need.*
Parcels (Zoom in to view)
#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
PA VMT Per Resident
#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*
2045
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below City Baseline (0%)
Help
Run
(4 of 4)
OBJECTID 246
TAZ 624
VMT Metric PA VMT Per Resident
TAZ VMT 11.7193231
Community Region VMT 14.05939797
Threshold 14.1
% Difference -16.64%
Results Yes (Pass)
Shape_Length 10603.01860636875
Shape_Area 6996200.820566288
Zoom to
Limonite Ave
Hamner Ave
Bellegrave Ave
Harada Heritage Park
Deer Creek Park
Laramore Park
Winevile Park
Limonite Meadows Park
0.3mi
-117.560 33.989 Degrees
Esri Community Maps Contributors, County of Riverside, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NA...
esri


WRCOG VMT Tool
Powered by Fehr & Peers
User's Guide
Find address or place
Complete #1-4, Then Click "Run"
Input
Output
#1. Zoom in on the map to your project location so parcels appear on map. Next, select 'Parcels' from the drop-down. Then click the black square next to the drop-down so you can select the parcel(s) for your project by drawing a simple rectangle over the parcel(s) you need.*
Parcels (Zoom in to view)
#2. Select the VMT Metric. Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
PA VMT Per Worker
#3. Select the Baseline Year. The year available for analysis are from 2018 to 2045.*
2045
#4. Select the Threshold (% reduction from baseline year). Note each jurisdiction may have adopted a different metric by which they measure VMT. Please consult with the jurisdiction to verify which metric to use for your analysis.*
Below City Baseline (0%)
Help
Run
(3 of 3)
OBJECTID 233
TAZ 624
VMT Metric PA VMT Per Worker
TAZ VMT 15.2253583
Community Region VMT 16.27027463
Threshold 16.3
% Difference -6.42%
Results Yes (Pass)
Shape_Length 10603.01860636875
Shape_Area 6996200.820566288
Zoom to
Archibald Ave
Merrill Ave
Limonite Ave
Ontario Fwy
0.3mi
-117.548 33.967 Degrees
Esri Community Maps Contributors, County of Riverside, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NA...

Attachment B

Leal Specific Plan Traffic Impact Analysis (TIA), Fehr & Peers, May 2015)

Leal Specific Plan

Prepared for:
Michael Baker International
And
The City of Eastvale

May 12, 2015

OC14-0341

FEHR PEERS

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1.0 SUMMARY OF IMPACTS AND MITIGATION MEASURES

The purpose of this report is to analyze the projected impact of traffic generated by the proposed Leal Specific Plan on the area surrounding the project site. This report will begin with a summary of impacts in the area due to the proposed project. Mitigation measures for these impacts will then be discussed. This information is presented first to provide decision makers with an up-front summary of the impacts and mitigation measures for the project.

The following chapters summarize the remaining components of this assessment, including the methodology used for the analysis in this project and a detailed description of the environmental setting.

TRANSPORTATION IMPACT ASSESSMENT

According to the California Environmental Quality Act (CEQA) guidelines, a project results in a significant impact from a transportation perspective if the project:

- Conflicts with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit
    - In the City of Eastvale, the performance standards that are identified in the City's General Plan and in this specific plan include:
        - Maintaining Level of Service (LOS) C on local roadways.
            - This specific plan does identify the need to modify the "acceptable" LOS threshold in the study area, particularly on Limonite Avenue, as it will operate at LOS F into the future
            - For Caltrans facilities, LOS C was identified as the minimum acceptable operating level per their guidelines, which state that the threshold between LOS C and LOS D should apply
- Conflicts with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- Substantially increases hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Results in inadequate emergency access

- Conflicts with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

CEQA also requires the project to be evaluated for its impacts to the existing setting and the cumulative impacts of the project. As such, this transportation assessment evaluates the following scenarios from a transportation perspective:

1. Existing Conditions
2. Existing plus Project Conditions
3. Cumulative No Project Conditions
4. Cumulative plus Project Conditions

IMPACTS

The proposed project and the analysis results were compared to the significance criteria described above to identify project impacts. The results are summarized below.

a) Does the proposed project conflict with an applicable plan, ordinance or policy?

Determination: Significant impacts with mitigation measures

The proposed project is consistent with adopted plans and policies related to non-motorized travel in the area. In fact, the project includes facilities to support bicycles and pedestrians on site. Additionally, the land use plan allows for a mix of uses that will increase project trip internalization and potential land use densities on the project site will support transit use in the study area.

To evaluate motorized facilities, the significance criteria from applicable jurisdictions summarized above were applied to the analysis results to identify significant impacts. The results are summarized in Table 1-1.

All locations where significant project impacts occur are subject to mitigation, if feasible, which is described later in this chapter.

Existing Plus Project impacts are projected to be:

- Limonite Avenue: Between Harrison Avenue & Scholar Way - The addition of project traffic degrades traffic operations from LOS C to LOS D
- Limonite Avenue: Between Scholar Way & Hamner Avenue- The addition of project traffic degrades operations from LOS C to LOS F
- Limonite Avenue: Between Hamner Avenue & I-15 SB Ramp - The addition of project traffic degrades operations from LOS C to LOS F

Table 1-1

Roadway Level of Service

Roadway Segment	Lanes (Existing/ Cumulative)	Existing Conditions			Existing Plus Project Conditions			Cumulative Conditions			Cumulative Plus Project Conditions		
		Volume	V/C[1]	LOS	Volume	V/C[1]	LOS	Volume	V/C[1]	LOS	Volume	V/C[1]	LOS
1. Limonite Avenue: Archibald Avenue to Harrison Avenue	4 / 6	17,425	0.49	C	23,725	0.66	C	44,000	0.82	D	50,300	0.93	E
2. Limonite Avenue: Harrison Avenue to Scholar Way	4 / 6	24,674	0.69	C	30,974	0.86	D	50,780	0.94	E	57080	1.06	F
3. Limonite Avenue: Scholar Way to Hamner Avenue	4 / 6	27,836	0.78	C	59,336	1.65	F	48,960	0.91	E	80,460	1.49	F
4. Limonite Avenue: Hamner Avenue to I-15 Ramps	6	41,744	0.77	C	70,094	1.30	F	69,110	1.28	F	97,460	1.81	F
5. Limonite Avenue: I-15 Ramps to Wineville Avenue	4 / 6	31,893	0.89	D	38,193	1.06	F	65,010	1.21	F	71,310	1.32	F
6. Hamner Avenue: Citrus Street to Schleisman Road	4 / 6	19,424	0.54	C	25,724	0.72	C	25,400	0.47	C	31,700	0.59	C
7. Hamner Avenue: Schleisman Road to 68th Street	6	11,145	0.21	C	17,445	0.32	C	15,030	0.28	C	21,330	0.40	C
8. Hamner Avenue: 68th Street to Limonite Avenue	6	19,016	0.35	C	22,166	0.41	C	22,730	0.42	C	25,880	0.48	C
9. Hamner Avenue: Limonite Avenue to Bellgrave Avenue	4 / 6	14,742	0.41	C	43,092	1.20	F	31,890	0.59	C	60,240	1.12	F
10. Scholar Way: Limonite Avenue to 68th	2	4,627	0.36	C	7,777	0.60	C	6,860	0.53	C	10,010	0.77	C

Table 1-1

Roadway Level of Service

Roadway Segment	Lanes (Existing/ Cumulative)	Existing Conditions			Existing Plus Project Conditions			Cumulative Conditions			Cumulative Plus Project Conditions		
		Volume	V/C[1]	LOS	Volume	V/C[1]	LOS	Volume	V/C[1]	LOS	Volume	V/C[1]	LOS
11. I-15: South of Limonite Avenue	6	75,950	0.65	C	88,550	0.75	C	81,750	0.70	C	94,350	0.80	D
12. I-15: Limonite Avenue to Cantu-Galleano Ranch Road	6	78,515	0.67	C	87,965	0.75	C	81,340	0.69	C	90,790	0.77	C
13. I-15: North of SR-60	8	108,967	0.68	C	118,417	0.74	C	127,570	0.79	C	137,020	0.85	D
14. Cleveland Avenue: Bellgrave Avenue to Limonite Avenue	4	2,110	0.16	C	5,260	0.40	C	2,810	0.22	C	5,960	0.46	C
15. SR-60: West of I-15	10	65,073	0.32	C	74,523	0.37	C	78,910	0.39	C	88,360	0.44	C
16. SR-60: East of I-15	8	76,718	0.48	C	86,168	0.54	C	83,360	0.52	C	92,810	0.58	C
17. Cantu-Galleano Ranch Rd: I-15 Ramps to Hamner Avenue	4	12,335	0.34	C	18,635	0.52	C	23,980	0.67	C	30,280	0.84	D

Notes:

Shading indicates unacceptable operations.

1. Volume to capacity ratio (V/C) measures the actual volume of vehicles observed or counted on any street segment in relation to the throughput capacity of the facility. Any measure higher than about 0.80 indicates some level of congestion. The number can exceed 1.00, indicating an overloaded situation with stop and go traffic.
2. The proposed I-15 Toll Lanes are assumed but are not incorporated in this volume-to-capacity assessment (e.g. the assessment only evaluates the general purpose lanes).

Source: Fehr & Peers, 2015

- Limonite Avenue: Between NB I-15 Ramp & Wineville Avenue - The addition of project traffic degrades operations from LOS D to LOS F
- Hamner Avenue: Between Limonite Avenue & Bellgrave Avenue- The addition of project traffic degrades operations from LOS C to LOS F

Cumulative impacts are projected to be:

- Limonite Anenue: Between Archibald Avenue and Harrison Avenue – The addition of project traffic degrades operations from LOS D to LOS E
- Limonite Avenue: Between Harrison Avenue & Scholar Way – The addition of project traffic degrades operations from LOS E to LOS F
- Limonite Avenue: Between Scholar Way & Hamner Avenue – The addition of project traffic degrades operations from LOS E to LOS F
- Limonite Avenue: Between Hamner Avenue & I-15 SB Ramp – The project adds traffic to a segment already operating at LOS F
- Limonite Avenue: Between I-15 Northbound Ramps & Wineville Avenue – The project adds traffic to a segment already operating at LOS F
- Hamner Avenue: Between Limonite Avenue & Bellgrave Avenue- The addition of project traffic degrades operations from LOS C to LOS F
- I-15 South of Limonite – The addition of project traffic degrades operations from LOS C to LOS D
- Cantu-Galleano Ranch Road: Between I-15 Ramps & Hamner Avenue – The addition of project traffic degrades operations from LOS C to LOS D.

b) Would the project conflict with an applicable congestion management program (CMP), including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Determination: Less than significant

The Riverside County CMP does not require any specific analysis methodology or analysis requirements be addressed in a transportation impact analysis for a development project. Therefore, Part B of the significance thresholds does not apply to analysis of the project.

c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Determination: Less than significant

The project does not include any characteristics that would change air traffic in the study area nor is the site within an airport land use influence area. Therefore, the impacts of the project are considered less-than-significant.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Determination: Less than significant with mitigation

Given that specific tract maps have not been completed for the project, it is unknown whether project driveways and internal circulation would have specific design features that would potentially increase hazards in the study area. Given the potential that increased hazards could occur due to a design feature, this impact is considered potentially significant.

e) Would the project result in inadequate emergency access?

Determination: Less than significant with mitigation

The project includes a series of connectivity that will provide for servicing emergency personnel. However, since tentative tract maps have not been completed yet, not every development building could be assessed, nor could internal neighborhood roadways be reviewed to assess emergency accessibility. Therefore, this impact is considered ***potentially significant***.

f) Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Determination: Less than significant

The mixed use nature of the Specific Plan supports use of alternative modes of travel. As such, this impact is considered ***less-than-significant***.

MITIGATION MEASURES

For potentially significant impacts described above, the project is responsible for implementing feasible mitigation measures as described below.

Mitigation 1 – Improvements to Roadway Segments

Improvements to the roadway segments identified below would provide acceptable operations. Additionally, the project will be required to contribute its fair share funding for many regional impacts

through the County's Transportation Uniform Mitigation Fee (TUMF) program, which is the regional funding source for many facilities in Riverside County, and any local transportation fees.

Additionally, future development within the project shall be required to prepare a focused traffic study that will assess the following to ensure consistency with the assessment prepared for this project:

- Parking assessment
- Site access and on-site circulation assessment
- Interaction of driveways with adjacent intersections (if appropriate)
- Impact assessment of local intersections
- Impacts to pedestrian, transit, and bicycle facilities
- Trip generation monitoring study to ensure that, as land develops in the Leal specific plan area, the total development generates traffic at or below those assumed in this EIR

The locational improvements described below were developed to mitigate potentially significant impacts of the project at the study locations. Fehr & Peers also identified the amount of development that can occur from the project prior to triggering the identified impact. This is anticipated to assist the City in identifying levels of development that can occur prior to the impact occurring.

Existing plus Project Mitigation Measures

Limonite Avenue: Between Harrison Avenue & Scholar Way

The addition of project traffic degrades operations from LOS C to LOS D under Existing plus Project Conditions. To mitigate this impact, the roadway would need to be widened to six lanes. Since the regional TUMF program will widen this segment to six lanes, the project shall be responsible to pay its fair share of this improvement through the TUMF program. With this mitigation and implementation of the planned TUMF improvements, the impact would be mitigated to a ***less-than-significant level.***

Limonite Avenue: Between Scholar Way & Hamner Avenue

The addition of project traffic degrades operations from LOS C to LOS F under Existing plus Project Conditions. To mitigate this impact, the roadway would need to be widened to eight lanes. It should be noted that the project shall be responsible for a fair share payment toward the TUMF program, which is responsible for widening this facility to six lanes. However, widening beyond six lanes is inconsistent with the City's General Plan.

Given that the project identifies the need to widen this segment beyond six lanes, the City shall be responsible implementing the proposed general plan policy amendment to change the level of service threshold for acceptability from LOS C to LOS F on Limonite Avenue. With this policy change, although there will be congestion on this segment with the project, it would operate acceptably and the impact would be ***less-than-significant.***

Limonite Avenue: Between Hamner Avenue & I-15 Ramps

The addition of project traffic degrades operations from LOS C to LOS F under Existing plus Project Conditions. To mitigate this impact, the roadway would need to be widened beyond eight lanes which would be inconsistent with the City's General Plan.

Given that the roadway would need to be widened beyond six lanes, the City shall be responsible implementing the proposed general plan policy amendment to change the level of service threshold for acceptability from LOS C to LOS F on Limonite Avenue. With this policy change, although there will be congestion on this segment with the project, it would operate acceptably and the impact would be ***less-than-significant.***

Limonite Avenue: Between I-15 Ramps & Wineville Avenue

The addition of project traffic degrades operations from LOS D to LOS F under Existing plus Project Conditions. To mitigate this impact, the roadway would need to be widened to six lanes. The project shall be responsible to implement this improvement. It should be noted that this segment is a TUMF-designated facility; however, the TUMF program will only widen the roadway to its current cross-section. Additionally, this segment is outside the City of Eastvale and, as such, neither the City nor any developer can guarantee implementation of the mitigation measure. As such, this impact is considered ***significant-and-unavoidable.***

Hamner Avenue: Between Limonite Avenue & Bellgrave Avenue

The addition of project traffic degrades operations from LOS C to LOS F under Existing plus Project Conditions. To mitigate this impact, the roadway would need to be widened to six lanes. The project shall be responsible to implement this improvement. With implementation of the mitigation measure, the impact would be mitigated to a ***less-than-significant level.***

Cumulative plus Project Impacts

Limonite Avenue: Between Archibald Avenue & Harrison Avenue

The addition of project traffic degrades cumulative operations from LOS D to LOS E under Cumulative plus Project Conditions. To mitigate this impact, the roadway would need to be widened beyond six lanes. With this improvement, the roadway segment would operate at an acceptable level of service. However, this widening would be inconsistent with the City's General Plan roadway designation for this facility and the ultimate planned improvements through the regional TUMF program.

Given that the roadway would need to be widened beyond six lanes, the City shall be responsible implementing the proposed general plan policy amendment to change the level of service threshold for acceptability from LOS C to LOS F on Limonite Avenue. With this policy change, although there will be congestion on this segment with the project, it would operate acceptably and the impact would be ***less-than-significant.***

Limonite Avenue: Between Harrison Avenue & Scholar Way

The addition of project traffic degrades cumulative operations from LOS E to LOS F under Cumulative plus Project Conditions. To mitigate this impact, the roadway would need to be widened beyond six lanes. With this improvement, the roadway segment would operate at an acceptable level of service. However, this widening would be inconsistent with the City's General Plan roadway designation for this facility and the ultimate planned improvements through the regional TUMF program.

Given that the roadway would need to be widened beyond six lanes, the City shall be responsible implementing the proposed general plan policy amendment to change the level of service threshold for acceptability from LOS C to LOS F on Limonite Avenue. With this policy change, although there will be congestion on this segment with the project, it would operate acceptably and the impact would be ***less-than-significant.***

Limonite Avenue: Between Scholar Way & Hamner Avenue

The addition of project traffic degrades cumulative operations from LOS E to LOS F under Cumulative plus Project Conditions. To mitigate this impact, the roadway would need to be widened beyond six lanes. With this improvement, the roadway segment would operate at an acceptable level of service. However, this widening would be inconsistent with the City's General Plan roadway designation for this facility and the ultimate planned improvements through the regional TUMF program.

Given that the roadway would need to be widened beyond six lanes, the City shall be responsible implementing the proposed general plan policy amendment to change the level of service threshold for acceptability from LOS C to LOS F on Limonite Avenue. With this policy change, although there will be congestion on this segment with the project, it would operate acceptably and the impact would be ***less-than-significant.***

Limonite Avenue: Between Hamner Avenue & I-15

The project adds traffic to a segment already operating at LOS F under Cumulative plus Project Conditions. To mitigate this impact, the roadway would need to be widened beyond six lanes. However, this widening would be inconsistent with the City's General Plan roadway designation for this facility and the ultimate planned improvements through the regional TUMF program.

Given that the roadway would need to be widened beyond six lanes, the City shall be responsible implementing the proposed general plan policy amendment to change the level of service threshold for acceptability from LOS C to LOS F on Limonite Avenue. With this policy change, although there will be congestion on this segment with the project, it would operate acceptably and the impact would be ***less-than-significant.***

Limonite Avenue: Between I-15 Ramps & Wineville Avenue

The project adds traffic to a roadway segment already projected to operate at LOS F. To mitigate this impact, the roadway would need to be widened beyond six lanes and the project would be responsible to contribute a fair share payment through the TUMF program as it is a TUMF designated facility. It should be noted that the TUMF program will only widen the roadway to its current cross-section. Additionally,

this segment is outside the City of Eastvale and, as such, neither the City nor any developer can guarantee implementation of the mitigation measure. As such, this impact is considered ***significant-and-unavoidable.***

Hamner Avenue: Between Limonite Avenue & Bellgrave Avenue

The addition of project traffic degrades operations from LOS C to LOS F under Cumulative plus Project Conditions. To mitigate this impact, the roadway would need to be widened beyond the six lanes that are planned for in the City's General Plan. The project shall be responsible to for a fair share contribution toward this improvement.

Given that the roadway would need to be widened beyond six lanes (which would be inconsistent with the City's General Plan) the City shall be responsible implementing a proposed general plan policy amendment to change the level of service threshold for acceptability from LOS C to LOS F on this roadway segment. With this policy change, although there will be congestion on this segment with the project, it would operate acceptably and the impact would be ***less-than-significant.***

I-15: South of Limonite

The project is expected to degrade operations on this roadway segment from LOS C to LOS D. To mitigate this impact, the project would be responsible for a fair share contribution toward additional freeway capacity beyond that already planned for along the segment. Additionally, this segment is outside the City of Eastvale and, as such, neither the City nor any developer can guarantee implementation of the mitigation measure. As such, this impact is considered ***significant-and-unavoidable.***

I-15: North of SR-60

The project is expected to degrade operations on this roadway segment from LOS C to LOS D. To mitigate this impact, the project would be responsible for a fair share contribution toward additional freeway capacity beyond that already planned for along the segment. Additionally, this segment is outside the City of Eastvale and, as such, neither the City nor any developer can guarantee implementation of the mitigation measure. As such, this impact is considered ***significant-and-unavoidable.***

Cantu-Galleano Ranch Road: Between the I-15 Ramps & Hamner Avenue

The project is expected to degrade operations on this roadway segment from LOS C to LOS D. To mitigate this impact, the project would be responsible for a fair share contribution toward widening this segment from four lanes to six lanes through the City's development impact fee program. With this improvement, the impacts would be mitigated and the impact would be less-than-significant.

Transportation Impact 2 - Potential Increase in Hazards Due to a Design Feature

The following policy/mitigation measure shall be added to the Leal specific plan to address the impact identified above:

All future improvements in the Leal area shall be consistent with design standards set forth by the City or Leal Specific Plan. All designs, including site access points, shall be reviewed to determine that designs are consistent with appropriate design standards. Implementation of this policy/mitigation measure will reduce this impact to a ***less-than-significant*** level and no further mitigation is required.

Transportation Impact 3 - Potential Inadequate Emergency Access

The following policy/mitigation measure shall be added to the leal specific plan to address the impact identified above:

- All proposed development in the Leal area shall be reviewed by appropriate emergency services personnel to ensure adequate emergency access is provided. Implementation of this policy/mitigation measure will reduce this impact to a ***less-than-significant*** level and no further mitigation is required.

2.0 METHODOLOGY

This section of the report describes the methodologies used to complete this programmatic assessment.

TRAFFIC OPERATIONS

The analysis methodology used to analyze roadway segments is described below. The operations of roadway facilities are described with the term *level of service*. Level of service (LOS) is a qualitative description of traffic flow from the perspective of motorists based on factors such as speed, travel time, delay, freedom to maneuver, traffic volume, and the capacity of the roadway. Six levels are defined from LOS A, as the least congested operating conditions, to LOS F, or the most congested operating conditions. LOS E represents "at-capacity" operations. When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F.

Roadway segments were analyzed by comparing the average daily traffic (ADT) volume to daily volume thresholds. Table 2-1, Roadway Segment Daily Volume Thresholds**,** displays the daily volume thresholds for various facility types. These thresholds are used as guidelines to identify the need for new or upgraded facilities.

TABLE 2-1

ROADWAY SEGMENT DAILY VOLUME THRESHOLDS[1]

Facility Type	Max Two-Way Traffic Volume		
	LOS C	LOS D	LOS E
Secondary Collector	10,400	11,700	13,000
Urban Arterial (4 Lanes)	28,700	32,300	35,900
Urban Arterial (6 Lanes)	43,100	48,500	53,900
Freeway (6 Lanes)	9,4000	105,800	117,500
Freeway (8 Lanes)	128,400	144,500	160,500
Freeway (10 Lanes)	160,500	180,500	200,600

Notes:

1. All volume thresholds are approximate and assume ideal roadway characteristics. Actual thresholds for each LOS listed above may vary depending on a variety of factors including (but not limited to) roadway curvature and grade, intersection or interchange spacing, driveway spacing, percentage of trucks and other heavy vehicles, lane widths, signal timing, on-street parking, volume of cross traffic and pedestrians, etc.

Source: Highway Capacity Manual, Transportation Research Board, 2000. & City of Eastvale General Plan

TRIP GENERATION AND INTERNALIZATION

This study utilized the 9th Edition of the Institute *of Transportation Engineers* (ITE) Trip Generation rates to determine daily trips generated by the proposed land use. Internalization rates were determined based on Mixed Use Development trip generation methodology (MXD). This methodology evaluates numerous components of a project and identifies the projects' potential to internalize traffic. The MXD model's methodology was developed based on 239 mixed-use sites across the United States, including sites in San Diego and Sacramento. Because of this the MXD model provides the most statistically valid and reliable way to estimate trip internalization for mixed-use development.

Because the specific plan allows for a range of development potential, a "worst case" assumption was made for the specific plan land uses. Our assumptions are summarized below:

- 660 multi-family homes (apartments)
- 1,525,000 sq. ft. of general retail (shopping center)
- 460,000 sq. ft. of general office
- 460,000 sq. ft. of medical office
- 450 hotel rooms
- 100,000 sq. ft. civic center

Utilizing the ITE trip generation and MXD trip internalization estimates, the project is expected to result in the following trip generation:

- 69,900 Gross Daily Trips
- 10% Trip Internalization (e.g. trips that stay within the specific plan area based on the land use information provided above (plus the project's proximity to transit, assumed intersection density, and other factors that affect trip internalization)
- 63,000 Net Daily Trips after accounting for trip internalization

The project trips were distributed to the surrounding roadway system using existing travel patterns in the area and the locations of complementary land uses in the area. The trip distribution information is summarized below:

- Limonite Avenue between Archibald Avenue & Scholar Way will see 10% of the total project trips.
- Limonite Avenue between Scholar Way & Hamner Avenue will see 50% of the total project trips.
- Limonite Avenue between Hamner Avenue & Southbound I-15 Ramps will see 45% of the total project trips.

- Limonite Avenue between the Northbound I-15 Ramps & Wineville Avenue will see 10% of the total project trips.
- Hamner Avenue between Citrus Avenue and 68th Street will see 10% of the total project trips.
- Hamner Avenue between 68th Street & Limonite Avenue, as well as Scholar Way between 68th Street & Limonite Avenue will see 5% of the total project trips.
- Hamner Avenue between Limonite Avenue & Bellgrave Avenue will see 45% of the total project trips.
- Hamner Avenue north of SR-60 will see 5% of total project trips.
- Cleveland Avenue between 58th Street & Limonite Avenue will see 5% of the total project trips.
- I-15 south of Limonite Avenue will see 20% of the total project trips.
- I-15 between Limonite Avenue & Cantu-Galleano Ranch Road will see 15% of the total project trips.
- I-15 north of SR-60 will see 15% of the total project trips.
- Cantu-Galleano Ranch Road will see 10% of the total project trips.
- SR-60 west of I-15 will see 15% of the total project trips.
- SR-60 east of I-15 will see 15% of the total project trips.

TRAVEL DEMAND FORECASTING

The Riverside Traffic Analysis Model (RIVTAM) was used for developing cumulative forecasts in the study area. This model incorporates land use information and roadway network characteristics (roadway alignments, roadway capacities, speeds) to forecast existing and future volumes on area roadways in Riverside County. This model also accounts for projected growth and land use changes within the county allowing for a more accurate forecast of future conditions.

Before the model could be used for this study, the land use and socio-economic components of the model were modified. These modifications are refinements to the model, and are intended to enable the model to more accurately reflect the proposed land use in the Leal Specific Plan study area.

One modification that was made was an update to the socio-economic data within the model to incorporate approved and pending projects in the study area. The approved and pending projects were converted from square feet of development to numbers of employees using conversion factors from the County of Riverside General Plan and were incorporated into the travel demand model. The model was also modified to delete any assumed land use in the Leal specific plan area as that land use was manually added to the "no project" forecasts.

APPROVED/PENDING PROJECTS

The resulting RIVTAM model incorporates several large scale developments in the City of Eastvale. Major land use projects included in the forecasts are listed in Table 2-2 below.

TABLE 2-2

APPROVED/PENDING PROJECTS

Project Name	Location	Description	Year	Source
Estancia by Lennar Homes	Citrus Avenue. between Sumner Avenue & Scholar Way	197 Single Family Homes	2013	City of Eastvale
The Trails at Eastvale	Corner of Archibald Avenue . & 65th Street	224 Single Family Homes	2013	City of Eastvale
Copper Sky	Schleisman Road & Scholar Way	224 Condominium Units	2007	City of Eastvale
Cleveland Square	Scholar Way & Limonite Avenue	350 Condominium Units	2009	City of Eastvale
Eastvale Business Park	North of 65th Street, East of Cucamonga Creek & West of Archibald Avenue	694,770 SF Industrial, 33,600 SF Office, 10,600 SF Retail	2014	City of Eastvale
Eastvale San Antonio Medical Plaza	Eastvale Gateway South	69,562 SF Medical Buildings	2013	City of Eastvale
Arco Gas Station	SE Corner of Hamner Avenue & Riverside Dr.	5,670 SF Gas Station	2014	City of Eastvale
Marketplace at The Enclave	SW Corner of Archibald Avenue & Schleisman Rd	Additional Retail Space	2014	City of Eastvale
Eastvale Gateway I & II	NE Corner of Hamner Avenue & Limonite Avenue	6,000 SF Retail	2014	City of Eastvale
Eastvale Gateway South	SE Corner of Hamner Avenue & Limonite Avenue	11,000 SF Retail	2014	City of Eastvale

Source: City of Eastvale- Development Projects in The City of Eastvale

3.0 REGULATORY CONTEXT

Existing transportation policies, laws, and regulations that would apply to the proposed project are summarized below. This information provides a context for the input discussion related to the project's consistency with applicable regulatory conditions.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)

Caltrans policies are applicable to I-15, and SR-60 are summarized in the Caltrans' *Guide for the Preparation of Traffic Impact* Studies (State of California Department of Transportation, December 2002). These guidelines identify when a traffic impact study is required, what should be included in the study, analysis scenarios, and guidance on acceptable analysis methodologies.

Caltrans endeavors to maintain a target service level of LOS C on State highway facilities. However, this may not always be feasible and it is recommended that the lead agency consult with Caltrans to determine the appropriate target LOS. For the purposes of this study, LOS C is considered the minimum acceptable operating level for Caltrans' controlled facilities (SR-60 roadway segments, I-15 roadway segments).

CITY OF EASTVALE GENERAL PLAN

The City of Eastvale provides the following policies regarding traffic and circulation issues such as LOS Standards, roadway funding, growth impacts, road standards, transit, and access:

- **Policy C-3:** The cumulative and indirect traffic impacts of development may be mitigated through the payment of impact mitigation fees.

- **Policy C-10:** Seek to maintain the following target levels of service: "C" along all City-maintained roads. A peak hour level of service of "D" may be allowed in commercial and employment areas, and at intersections of any combination of major highways, urban arterials, secondary highways, or freeway ramp intersections.

- **Policy C-11:** Alternative levels of service may be allowed on intersections in planned development or similar identified mixed-use areas that demonstrate links to transit, trails, and alternative transportation and comfortable walking distance to goods and services.

- **Policy C-13:** Construct and improve traffic signals at appropriate intersections. Traffic signals should be spaced and operated as part of coordinated systems to optimize traffic operation.

RIVERSIDE COUNTY CONGESTION MANAGEMENT PROGRAM

The Riverside County Congestion Management Program provides the following policies regarding LOS and Transportation Demand Management for SR-60, I-15, and Limonite Avenue:

- Minimum LOS threshold is LOS "E". Therefore when a CMP street or highway falls to "F" a deficiency plan is required.

It should be noted that the CMP does not require any specific assessment for development projects. As such, no specific analysis is required to show consistency with the CMP.

4.0 ENVIRONMENTAL SETTING

EXISTING TRANSPORTATION SYSTEM

The proposed Leal Specific Plan project is located in the City of Eastvale in the northeast portion of Riverside County. The site is located east of Cleveland Avenue, west of Hamner Avenue, and north of Limonite Avenue. The site is located approximately 0.5 miles west of Interstate 15 (I-15) which provides the major north-south regional access to the area.

Primary access to the project site is provided by Limonite Avenue, Hamner Avenue, and Cleveland Avenue.

The area surrounding the site is primarily residential. There is retail existing to the east and south of the project site. Automobiles are the primary mode of travel. Limited bus transit service and bicycle and pedestrian facilities exist in the immediate vicinity of the project site. The existing transportation facilities are described in detail below.

ROADWAY NETWORK

Regional access to the project site is provided by I-15 and State Route 60 (SR-60) in the area. Access to the project site from I-15 is provided by the interchange with Cantu-Galleano Ranch Road, and by the interchange at Limonite Avenue. SR-60 provides access to the project site through the I-15 interchange and Hamner Avenue. Local access to the project site is provided by Cleveland Avenue/Scholar Way to the west of the project site, Limonite Avenue to the south, and Hamner Avenue to the east. See Figure 4-1, Project Location for the existing roadway network within the project area. A brief description of the key roadway facilities in the vicinity of the proposed project is provided below.

- Interstate 15 (I-15) is the main north-south facility through Riverside County. It extends the entire length of Riverside County, from its southern border with San Diego County to its northern border with San Bernardino County. I-15 is a six-lane divided freeway from the San Diego County line to the San Bernardino County line. Near the project site, it is a six-lane freeway with interchanges at 6th Street, Cantu-Galleano Ranch Road, and SR-60.
- State Route 60 (SR-60) is a major east-west ten-lane divided freeway, which intersects I-15 in the City of Eastvale. Interchanges near the project site include Archibald Avenue, Haven Avenue to the east, and the I-15 interchange, and Mission Boulevard to the west.

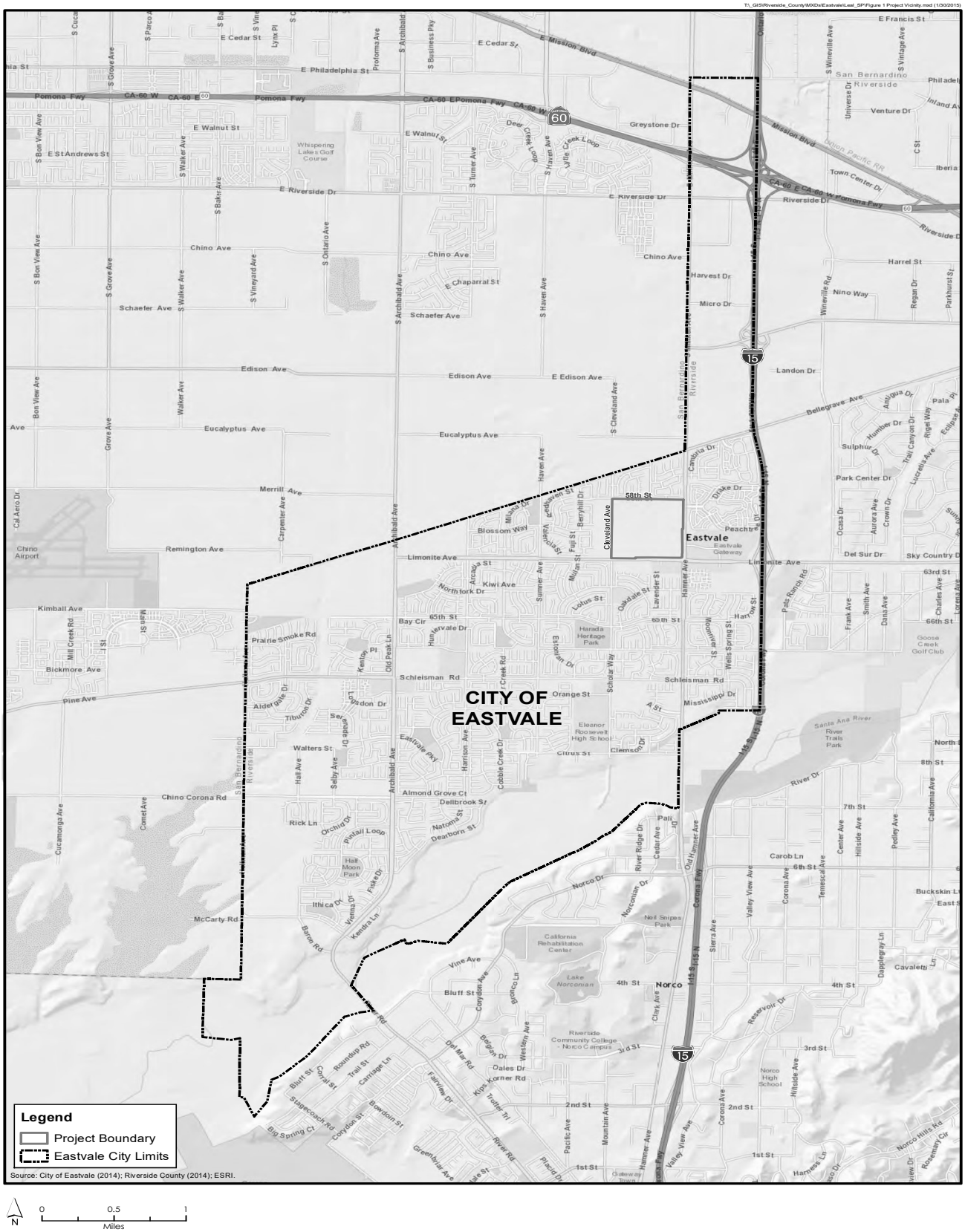


Figure 4-1
Project Location

- Hamner Avenue is a major thoroughfare running north-south through the City of Eastavle. Hamner operates as a four-lane roadway throughout most of the City with two-lanes in some areas, and as many as six lanes in some parts of the city. Hamner provides direct access to the project site from the west, and has two lanes of northbound traffic, and one lane of southbound traffic.
- Cleveland Avenue/Scholar Way is a four-lane roadway running from Citrus Street to Bellgrave Avenue. The roadway is designated as Cleveland Avenue north of Limonite, and Scholar Way south of Limonite in the city. It provides direct access to the project site from the east.
- Limonite Avenue is a major thoroughfare in the City of Eastvale running in the east-west direction. Limonite allows for two-lanes of traffic in each direction, and up to three-lanes in each direction in parts of the city. Limonite provides direct access to the project site from the south.

TRANSIT SYSTEM

Public transportation within Riverside County is provided by Riverside Transit Agency (RTA), which offers both fixed route and Dial-A-Ride service to the City of Eastvale. RTA currently operates two fixed routes to the City, Route 3 and Route 29. Route 3 operates seven days a week with weekday headways of thirty minutes, and weekend headways of one hour. Route 29 operates seven days a week with one hour headways. Route 3 provides access to the project site with stops at Hamner and Swan Lake Estates, and at Limonite and Hamner. Route 29 provides access to the project site with a stop at Limonite and Hamner.

RAIL SYSTEM

Riverside County is served by the Metrolink Riverside Line, which transports commuters from Riverside County to Union Station in Downton Los Angeles. The City of Eastvale has no stations providing service to this line but nearby Jurupa Valley provides riders access to the line.

BIKEWAY SYSTEM

The City of Eastvale does not currently provide an extensive bikeway system. The City identifies three classes of bikeways as:

- Class I: Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians
- Class II: Provides a striped lane for one-way bike travel on a street or highway
- Class III: Provides for shared use with pedestrian or motor vehicle traffic
- Class IV: This is a new classification that has just been created. Class IV bike facilities are called protected bike lanes or cycle tracks – these facilities are a hybrid between a Class I bicycle facility

and a Class II bicycle facility. They can be either on-street or off-street and are protected by some type of barrier from the adjacent travel lanes.

There are currently no bikeways serving the project site, but the City has an on-going Bicycle Master Plan.

TRAFFIC STUDY AREA

The following study locations were included in our assessment.

Roadway Segments (daily operations)

1. Limonite Avenue: Archibald Avenue to Harrison Avenue
2. Limonite Avenue: Harrison Avenue to Scholar Way
3. Limonite Avenue: Scholar Way to Hamner Avenue
4. Limonite Avenue: Hamner Avenue to I-15 Ramps
5. Limonite Avenue: I-15 Ramps to Wineville Avenue
6. Hamner Avenue: Citrus Street to Schleisman Road
7. Hamner Avenue: Schleisman Road to 68th Street
8. Hamner Avenue: 68th Street to Limonite Avenue
9. Hamner Avenue: Limonite Avenue to Bellgrave Avenue
10. Scholar Way: Limonite Avenue to 68th Street
11. Interstate 15: South of Limonite Avenue
12. Interstate 15: Limonite Avenue to Cantu-Galleano
13. Interstate 15: North of State Route 60
14. Cleveland Avenue: Bellgrave Avenueto Limonite Avenue
15. State Route 60: West of Interstate 15
16. State Route 60: East of Interstate 15
17. Cantu-Galleano Ranch Rd: Interstate 15 Ramps to Hamner Avenue

EXISTING TRAFFIC VOLUMES

Fehr & Peers obtained existing daily traffic counts from the Caltrans District 8 Caltrans Performance Measurement System database for the freeway system and traffic counts conducted by Fehr & Peers on April 14th through April 16th 2015 for local roadways. The average of these three days was used to determine existing volumes. These volumes can be found in Table 4-1.

TABLE 4-1

ROADWAY LEVEL OF SERVICE (LOS) – EXISTING CONDITIONS

ROADWAY SEGMENT	EXISTING CONDITIONS			
	LANES	VOLUME1	V/C2	LOS
LIMONITE AVENUE: ARCHIBALD AVENUE TO HARRISON AVENUE	4	17,425	0.49	C
LIMONITE AVENUE: HARRISON AVENUE TO SCHOLAR WAY	4	24,674	0.69	C
LIMONITE AVENUE: SCHOLAR WAY TO HAMNER AVENUE	4	27,836	0.78	C
LIMONITE AVENUE: HAMNER AVENUE TO I-15 RAMPS	6	41,744	0.77	C
LIMONITE AVENUE: I-15 RAMPS TO WINEVILLE AVENUE	4	31,893	0.89	D
HAMNER AVENUE: CITRUS STREET TO SCHLEISMAN ROAD	4	19,424	0.54	C
HAMNER AVENUE: SCHLEISMAN ROAD TO 68TH STREET	6	11,145	0.21	C
HAMNER AVENUE: 68TH STREET TO LIMONITE AVENUE	6	19,016	0.35	C
HAMNER AVENUE: LIMONITE AVENUE TO BELLGRAVEAVENUE	4	14,742	0.41	C
SCHOLAR WAY: LIMONITE AVENUE TO 68TH STREET	2	4,627	0.36	C
I-15: SOUTH OF LIMONITE AVENUE	6	75,950	0.65	C
I-15: LIMONITE AVENUE TO CANTU-GALLEANO RANCH ROAD	6	78,515	0.67	C
I-15: NORTH OF SR-60	8	108,967	0.68	C
CLEVELAND AVENUE: BELLGRAVE AVENUETO LIMONITE AVENUE	4	2,110	0.16	C
SR 60: WEST OF I-15	10	65,073	0.32	C
SR-60: EAST OF I-15	8	76,718	0.48	C
CANTU-GALLEANO RANCH ROAD: I-15 RAMPS TO HAMNER AVENUE	4	12,335	0.34	C

NOTES:

1.EXISITING 2015 TRAFFIC COUNTS

2. VOLUME TO CAPACITY RATIO (V/C) MEASURES THE ACTUAL VOLUME OF VEHICLES OBSERVED OR COUNTED ON ANY STREET SEGMENT IN RELATION TO THE THROUGHPUT CAPACITY OF THE FACILITY. ANY MEASURE HIGHER THAN ABOUT 0.80 INDICATES CONGESTION. THE NUMBER CAN EXCEED 1.00, INDICATING AN OVERLOADED SITUATION WITH STOP AND GO TRAFFIC.

SOURCE: FEHR & PEERS, 2015

EXISTING TRAFFIC CONDITIONS

Fehr & Peers conducted a detailed analysis of the study roadway segments. Areas identified as operating unacceptably are based on the level of service (LOS) policies published in the jurisdictions planning documents. For purposes of this study, the "acceptable" operating level is identified as LOS C, consistent with those thresholds identified in the Riverside County General Plan (which the City of Jurupa Valley operates under), the City of Eastvale General Plan, and the Caltrans Guidelines for Traffic Impact Assessment.

Table 4-1, Roadway Level of Service-Existing Conditions, presents the existing conditions analysis for roadway segments. Currently only one segment, Limonite Avenue from the I-15 Northbound Ramp to Wineville Avenue is operating below the acceptable LOS C.

5.0 EXISTING PLUS PROJECT CONDITIONS

Fehr & Peers added the "with project" forecasts developed for the project to the existing traffic counts to develop Existing Plus Project Traffic Volumes. These volumes are summarized on Figure 5-1 and are presented in Table 5-1.

As shown in Table 5-1, the project is expected to result in a significant impact to the following locations:

- Limonite Avenue: Harrison Avenue to Scholar Way
- Limonite Avenue: Scholar Way to Hamner Avenue
- Limonite Avenue: Hamner Avenue to I-15 Ramps
- Limonite Avenue: I-15 Ramps to Wineville Avenue
- Hamner Avenue: Limonite Avenue to Bellgrave Avenue

Measures to mitigate project impacts are summarized in Chapter 1.

TABLE 5-1

ROADWAY LEVEL OF SERVICE – EXISTING VS. EXISTING PLUS PROJECT CONDITIONS

ROADWAY SEGMENT	LANES	EXISTING NO PROJECT			EXISTING PLUS PROJECT		
		VOLUME[1]	V/C[2]	LOS	VOLUME[1]	V/C[2]	LOS
Limonite Avenue: Archibald Avenue to Harrison Avenue	4	17,425	0.49	C	23,725	0.66	C
Limonite Avenue: Harrison Avenue to Scholar Way	4	24,674	0.69	C	30,974	0.86	D
Limonite Avenue: Scholar Way to Hamner Avenue	4	27,836	0.78	C	59,336	1.65	F
Limonite Avenue: Hamner Avenue to I-15 Ramps	6	41,744	0.77	C	70,094	1.30	F
Limonite Avenue: I-15 Ramps to Wineville Avenue	4	31,893	0.89	D	38,193	1.06	F
Hamner Avenue: Citrus Street to Schleisman Road	4	19,424	0.54	C	25,724	0.72	C
Hamner Avenue: Schleisman Road to 68th Street	6	11,145	0.21	C	17,445	0.32	C
Hamner Avenue: 68th Street to Limonite Avenue	6	19,016	0.35	C	22,166	0.41	C

TABLE 5-1

ROADWAY LEVEL OF SERVICE – EXISTING VS. EXISTING PLUS PROJECT CONDITIONS

Hamner Avenue: Limonite Avenue to Bellgrave Avenue	4	14,742	0.41	C	43,092	1.20	F
Scholar Way: Limonite Avenue to 68th Street	2	4,627	0.36	C	7,777	0.60	C
I-15: South of Limonite Avenue	6	75,950	0.65	C	88,550	0.75	C
I-15: Limonite Avenue to Cantu-Galleano Ranch Road	6	78,515	0.67	C	87,965	0.75	C
I-15: North of SR-60	8	108,967	0.68	C	118,417	0.74	C
Cleveland Avenue: Bellgrave Avenue to Limonite Avenue	4	2,110	0.16	C	5,260	0.40	C
SR-60: West of I-15	10	65,073	0.32	C	74,523	0.37	C
SR-60: East of I-15	8	76,718	0.48	C	86,168	0.54	C
Cantu Galleano Ranch Road: I-15 Ramps to Hamner Avenue	4	12,335	0.34	C	18,635	0.52	C

Notes:

1.Exisiting 2015 Traffic Counts

2. Volume to capacity ratio (V/C) measures the actual volume of vehicles observed or counted on any street segment in relation to the throughput capacity of the facility. Any measure higher than about 0.80 indicates congestion. The number can exceed 1.00, indicating an overloaded situation with stop and go traffic.

Source: Fehr & Peers, 2015

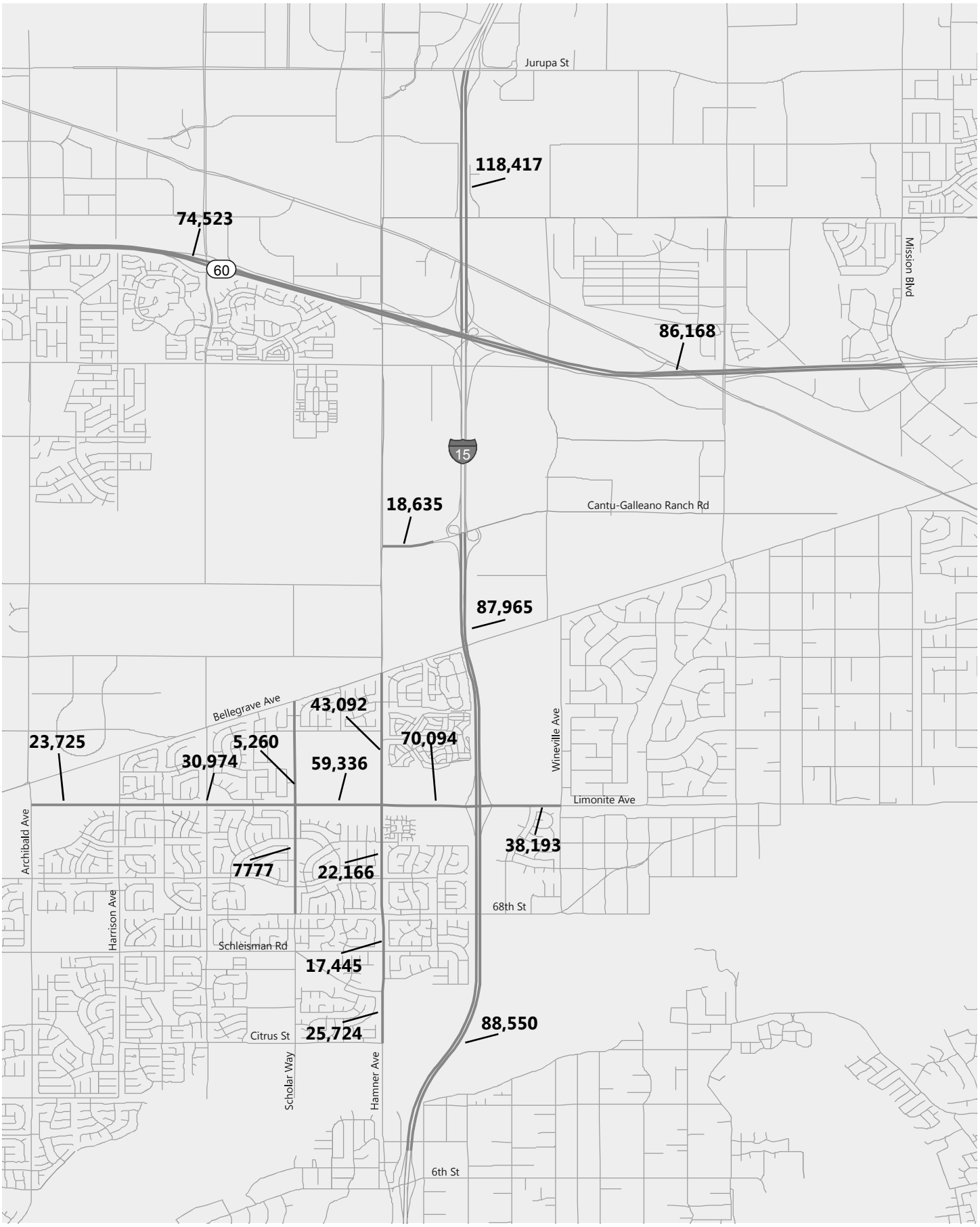


Figure 5-1

Existing (2015) Plus Project Conditions

Daily Volumes

6.0 CUMULATIVE CONDITIONS

As noted previously, cumulative traffic volumes were developed using the RIVTAM travel demand forecasting model after updating the land use information to incorporate approved and pending projects in the study area that were not included in the travel demand model assumptions.

In addition to the modeling modifications, it is assumed that the following roadways improvements would occur by year 2035 and these improvements are included in the forecasting and analysis assumptions:

- Limonite will be widened to six lanes
- Two express lanes each direction will be implemented on I-15 (please note that the reported traffic volumes on I-15 and the assumed capacity in the technical analysis is for the general purpose lanes only)
- Hamner Avenue will be widened to six lanes

Table 6-1 summarizes the results of the Cumulative No Project assessment. The Cumulative No Project traffic volumes are summarized on Figure 6-1.

As shown in Table 6-1, the following roadway segments are expected to operate unacceptably under the Cumulative No Project Condition:

- Limonite Avenue: Archibald Avenue to Harrison Avenue
- Limonite Avenue: Harrison Avenue to Scholar Way
- Limonite Avenue: Scholar Way to Hamner Avenue
- Limonite Avenue: Hamner Avenue to I-15 Ramps
- Limonite Avenue: I-15 Ramps to Wineville Avenue

TABLE 6-1

ROADWAY LEVEL OF SERVICE – CUMULATIVE NO PROJECT CONDITIONS

ROADWAY SEGMENT	LANES	CUMULATIVE NO PROJECT		
		VOLUME	V/C[1]	LOS
LIMONITE AVENUE: ARCHIBALD AVENUE TO HARRISON AVENUE	6	44,000	0.82	D
LIMONITE AVENUE: HARRISON AVENUE TO SCHOLAR WAY	6	50,780	0.94	E
LIMONITE AVENUE: SCHOLAR WAY TO HAMNER AVENUE	6	48,960	0.91	E
LIMONITE AVENUE: HAMNER AVENUE TO I-15 RAMPS	6	69,110	1.28	F
LIMONITE AVENUE: I-15 RAMPS TO WINEVILLE AVENUE	6	65,010	1.21	F
HAMNER AVENUE: CITRUS STREET TO SCHLEISMAN ROAD	6	25,400	0.47	C
HAMNER AVENUE: SCHLEISMAN ROAD TO 68TH STREET	6	15,030	0.28	C
HAMNER AVENUE: 68TH STREET TO LIMONITE AVENUE	6	22,730	0.42	C
HAMNER AVENUE: LIMONITE AVENUE TO BELLGRAVE AVENUE	6	31,890	0.59	C
SCHOLAR WAY: LIMONITE AVENUE TO 68TH STREET	2	6,860	0.53	C
I-15: SOUTH OF LIMONITE AVENUE	6	81,750	0.70	C
I-15: LIMONITE AVENUE TO CANTU-GALLEANO RANCH ROAD	6	81,340	0.69	C
I-15: NORTH OF SR-60	8	127,570	0.79	C
CLEVELAND AVENUE: BELLGRAVE AVENUE TO LIMONITE AVENUE	4	2,810	0.22	C
SR-60: WEST OF I-15	10	78,910	0.39	C
SR-60: EAST OF I-15	8	83,360	0.52	C
CANTU GALLEANO RANCH ROAD: I-15 RAMPS TO HAMNER AVENUE	4	23,980	0.67	C

SHADING INDICATES UNACCEPTABLE OPERATIONS.

1. VOLUME TO CAPACITY RATIO (V/C) MEASURES THE ACTUAL VOLUME OF VEHICLES OBSERVED OR COUNTED ON ANY STREET SEGMENT IN RELATION TO THE THROUGHPUT CAPACITY OF THE FACILITY. ANY MEASURE HIGHER THAN ABOUT 0.80 INDICATES CONGESTION. THE NUMBER CAN EXCEED 1.00, INDICATING AN OVERLOADED SITUATION WITH STOP AND GO TRAFFIC.

SOURCE: FEHR & PEERS, 2015

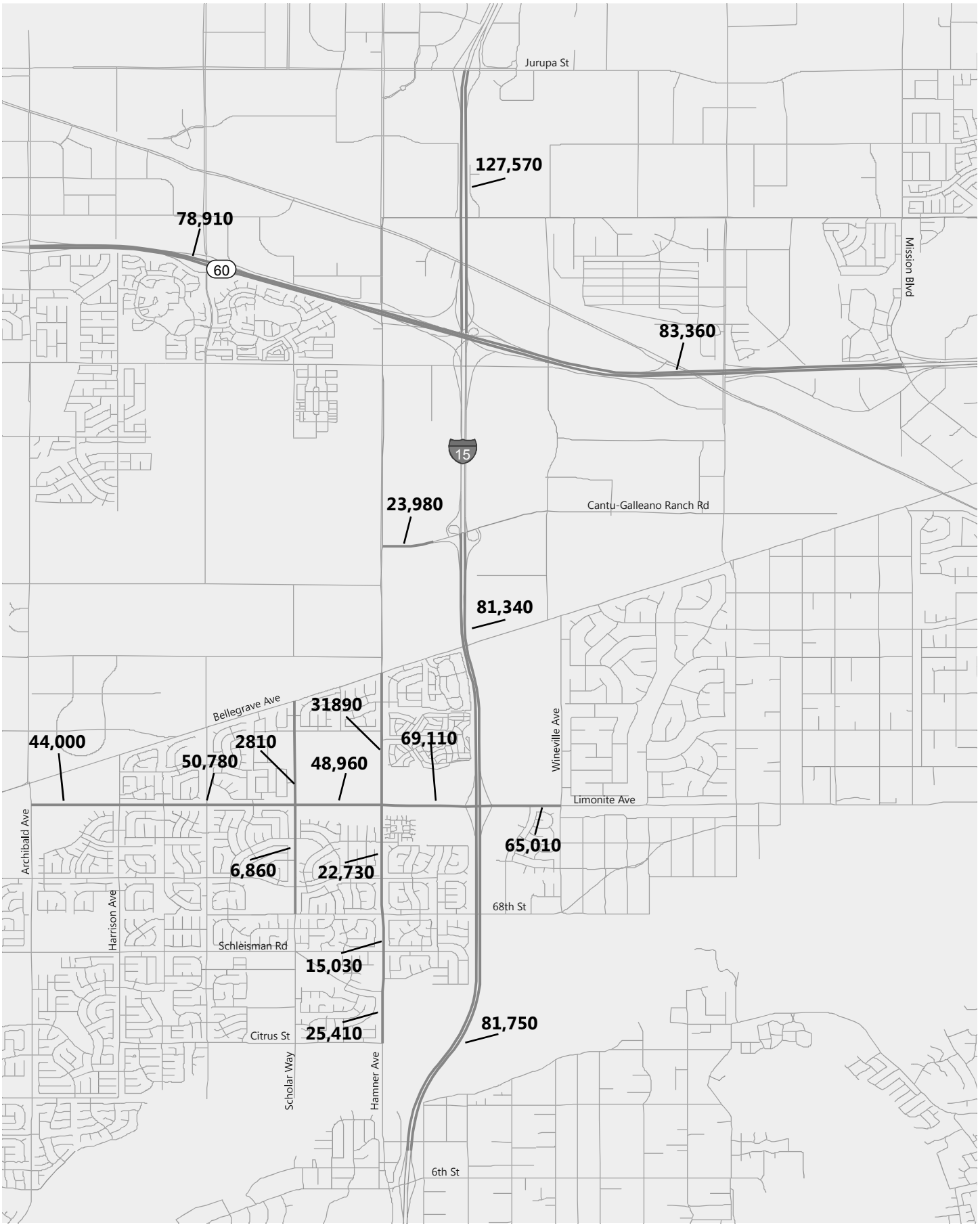


Figure 6-1

Cumulative (2035) No Project Conditions

Daily Volumes

7.0 CUMULATIVE PLUS PROJECT CONDITIONS

Project trips were added to the Cumulative No Project traffic volumes to develop Cumulative Plus Project traffic volumes. These volumes are summarized in Table 7-1 and are shown on Figure 7-1.

As shown in Table 7-1, the following locations are projected to operate at an unacceptable level under the Cumulative Plus Project Condition:

- Limonite Avenue: Archibald Avenue to Harrison Avenue
- Limonite Avenue: Harrison Avenue to Scholar Way
- Limonite Avenue: Scholar Way to Hamner Avenue
- Limonite Avenue: Hamner Avenue to I-15 Ramps
- Limonite Avenue: I-15 Ramps to Wineville Avenue
- Hamner Avenue: Limonite Avenue to Bellgrave Avenue
- I-15: South of Limonite Avenue
- I-15: North of SR-60
- Cantu Galleano Ranch Road: I-15 Ramps to Hamner Avenue

Measures to mitigate cumulative impacts are summarized in Chapter 1.

TABLE 7-1

ROADWAY LEVEL OF SERVICE – CUMULATIVE NO PROJECT VS. CUMULATIVE PLUS PROJECT CONDITIONS

Roadway Segment	Lanes	Cumulative No Project			Cumulative Plus Project		
		Volume	V/C[1]	LOS	Volume	V/C[1]	LOS
1. Limonite Avenue: Archibald Avenue to Harrison Avenue	6	44,000	0.82	D	50,300	0.93	E
2. Limonite Avenue: Harrison Avenue to Scholar Way	6	50,780	0.94	E	57080	1.06	F
3. Limonite Avenue: Scholar Way to Hamner Avenue	6	48,960	0.91	E	80,460	1.49	F
4. Limonite Avenue: Hamner Avenue to I-15 Ramps	6	69,110	1.28	F	97,460	1.81	F
5. Limonite Avenue: I-15 Ramps to Wineville Avenue	6	65,010	1.21	F	71,310	1.32	F
6. Hamner Avenue: Citrus Street to Schleisman Road	6	25,400	0.47	C	31,700	0.59	C
7. Hamner Avenue: Schleisman Road to 68th Street	6	15,030	0.28	C	21,330	0.40	C
8. Hamner Avenue: 68th Street to Limonite Avenue	6	22,730	0.42	C	25,880	0.48	C
9. Hamner Avenue: Limonite Avenue to Bellgrave Avenue	6	31,890	0.59	C	60,240	1.12	F
10. Scholar Way: Limonite Avenue to 68th Street	2	6,860	0.53	C	10,010	0.77	C
11. I-15: South of Limonite Avenue	6	81,750	0.70	C	94,350	0.80	D
12. I-15: Limonite Avenue to Cantu-Galleano Ranch Road	6	81,340	0.69	C	90,790	0.77	C
13. I-15: North of SR-60	8	127,570	0.79	C	137,020	0.85	D
14. Cleveland Avenue: Bellgrave Avenue to Limonite Avenue	4	2,810	0.22	C	5,960	0.46	C
15. SR-60: West of I-15	10	78,910	0.39	C	88,360	0.44	C
16. SR-60: East of I-15	8	83,360	0.52	C	92,810	0.58	C
17. Cantu Galleano Ranch Road: I-15 Ramps to Hamner Avenue	4	23,980	0.67	C	30,280	0.84	D

Shading indicates unacceptable operations.

1. Volume to capacity ratio (V/C) measures the actual volume of vehicles observed or counted on any street segment in relation to the throughput capacity of the facility. Any measure higher than about 0.80 indicates congestion. The number can exceed 1.00, indicating an overloaded situation with stop and go traffic.

Source: Fehr & Peers, 2015

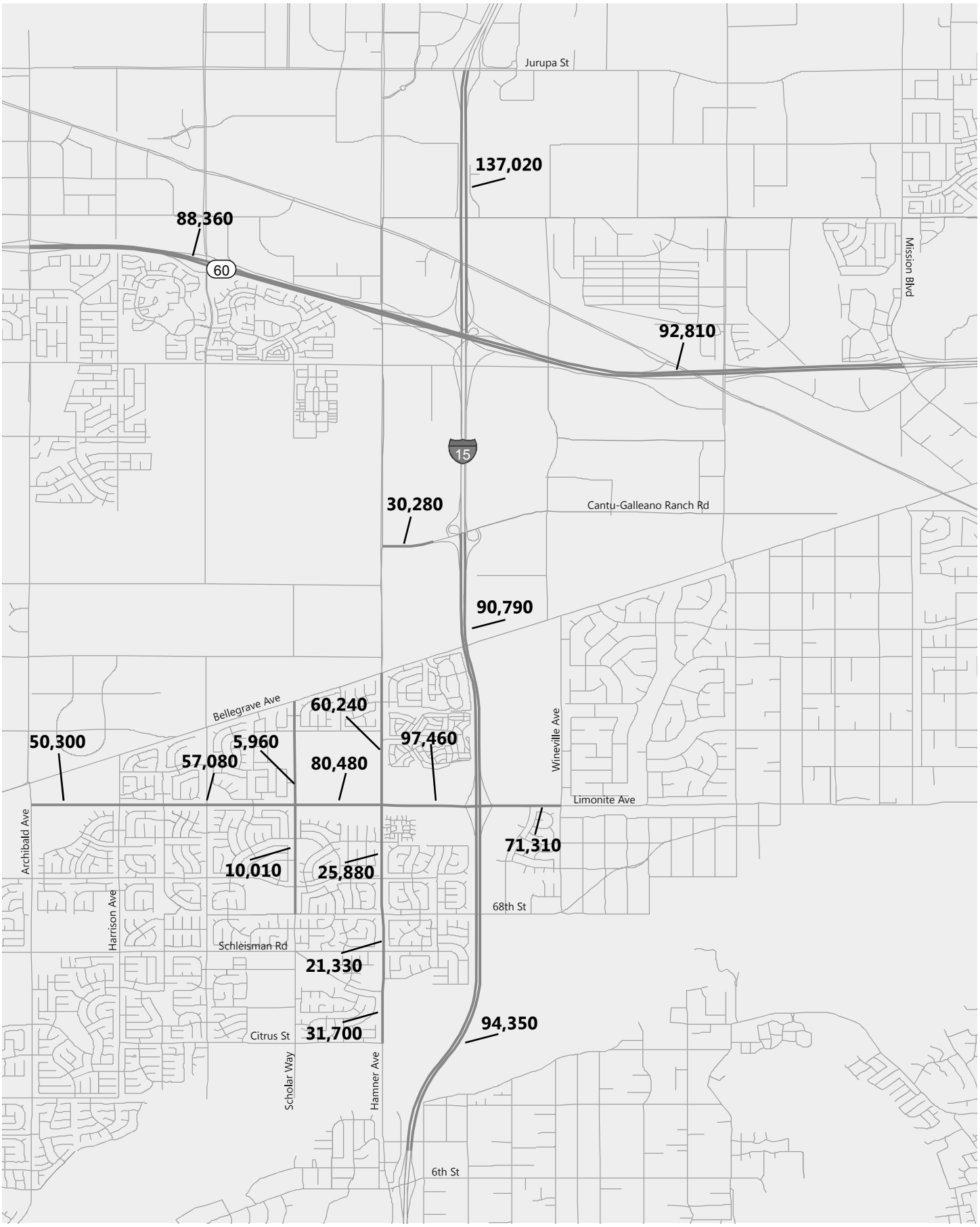


Figure 7-1

Cumulative (2035) Plus Project Conditions

Daily Volumes

APPENDIX A: DATA COUNT SHEETS



Prepared by NDS/ATD

VOLUME

Cantu-Galleano Ranch Rd Bet. I-15 Ramps & Hamner Ave

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_017

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,921	6,407	12,328

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			16		18		34		12:00			79		77		156	
00:15			17		12		29		12:15			82		73		155	
00:30			11		14		25		12:30			106		98		204	
00:45			7	51	9	53	16	104	12:45			74	341	81	329	155	670
01:00			10		12		22		13:00			68		86		154	
01:15			8		9		17		13:15			77		86		163	
01:30			6		8		14		13:30			90		100		190	
01:45			8	32	8	37	16	69	13:45			84	319	95	367	179	686
02:00			9		8		17		14:00			84		82		166	
02:15			7		5		12		14:15			84		100		184	
02:30			7		16		23		14:30			128		119		247	
02:45			12	35	24	53	36	88	14:45			82	378	102	403	184	781
03:00			8		13		21		15:00			113		83		196	
03:15			9		21		30		15:15			103		107		210	
03:30			10		22		32		15:30			135		139		274	
03:45			15	42	51	107	66	149	15:45			113	464	165	494	278	958
04:00			18		11		29		16:00			111		156		267	
04:15			25		19		44		16:15			110		124		234	
04:30			33		29		62		16:30			101		154		255	
04:45			29	105	69	128	98	233	16:45			117	439	146	580	263	1019
05:00			33		50		83		17:00			116		145		261	
05:15			22		65		87		17:15			104		151		255	
05:30			55		64		119		17:30			100		147		247	
05:45			38	148	100	279	138	427	17:45			83	403	123	566	206	969
06:00			47		66		113		18:00			74		105		179	
06:15			91		52		143		18:15			71		82		153	
06:30			128		70		198		18:30			92		86		178	
06:45			144	410	88	276	232	686	18:45			38	275	77	350	115	625
07:00			133		77		210		19:00			45		73		118	
07:15			155		70		225		19:15			45		85		130	
07:30			170		75		245		19:30			42		66		108	
07:45			158	616	92	314	250	930	19:45			42	174	70	294	112	468
08:00			110		94		204		20:00			26		70		96	
08:15			117		75		192		20:15			30		67		97	
08:30			124		70		194		20:30			34		62		96	
08:45			93	444	75	314	168	758	20:45			28	118	64	263	92	381
09:00			89		60		149		21:00			34		50		84	
09:15			80		59		139		21:15			35		55		90	
09:30			80		60		140		21:30			32		57		89	
09:45			46	295	66	245	112	540	21:45			22	123	62	224	84	347
10:00			66		47		113		22:00			29		50		79	
10:15			57		49		106		22:15			23		51		74	
10:30			59		54		113		22:30			32		46		78	
10:45			72	254	61	211	133	465	22:45			19	103	34	181	53	284
11:00			53		44		97		23:00			27		24		51	
11:15			67		65		132		23:15			12		27		39	
11:30			70		57		127		23:30			21		23		44	
11:45			89	279	74	240	163	519	23:45			13	73	25	99	38	172
TOTALS				2711		2257		4968	TOTALS				3210		4150		7360
SPLIT %				54.6%		45.4%		40.3%	SPLIT %				43.6%		56.4%		59.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,921	6,407	12,328

AM Peak Hour			07:00	07:30	07:00	PM Peak Hour			15:30	15:45	15:30
AM Pk Volume			616	336	930	PM Pk Volume			469	599	1053
Pk Hr Factor			0.906	0.894	0.930	Pk Hr Factor			0.869	0.908	0.947
7 - 9 Volume	0	0	1060	628	1688	4 - 6 Volume	0	0	842	1146	1988
7 - 9 Peak Hour			07:00	07:30	07:00	4 - 6 Peak Hour			16:15	16:30	16:30
7 - 9 Pk Volume	0	0	616	336	930	4 - 6 Pk Volume	0	0	444	596	1034
Pk Hr Factor	0.000	0.000	0.906	0.894	0.930	Pk Hr Factor	0.000	0.000	0.949	0.968	0.983

Prepared by NDS/ATD

VOLUME

Cantu-Galleano Ranch Rd Bet. I-15 Ramps & Hamner Ave

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_017

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	6,031	6,481	12,512

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			15		12		27		12:00			65		59		124	
00:15			13		17		30		12:15			85		68		153	
00:30			17		11		28		12:30			121		78		199	
00:45			16	61	10	50	26	111	12:45			61	332	91	296	152	628
01:00			12		10		22		13:00			70		78		148	
01:15			14		7		21		13:15			78		84		162	
01:30			11		11		22		13:30			93		113		206	
01:45			14	51	8	36	22	87	13:45			90	331	87	362	177	693
02:00			5		6		11		14:00			86		93		179	
02:15			9		9		18		14:15			90		103		193	
02:30			15		13		28		14:30			117		86		203	
02:45			11	40	19	47	30	87	14:45			98	391	119	401	217	792
03:00			7		16		23		15:00			99		81		180	
03:15			8		18		26		15:15			101		103		204	
03:30			10		23		33		15:30			155		104		259	
03:45			18	43	46	103	64	146	15:45			105	460	110	398	215	858
04:00			17		20		37		16:00			92		138		230	
04:15			33		13		46		16:15			126		145		271	
04:30			43		35		78		16:30			134		157		291	
04:45			37	130	62	130	99	260	16:45			90	442	124	564	214	1006
05:00			32		56		88		17:00			95		129		224	
05:15			29		62		91		17:15			97		124		221	
05:30			47		66		113		17:30			116		116		232	
05:45			45	153	92	276	137	429	17:45			91	399	137	506	228	905
06:00			45		75		120		18:00			92		115		207	
06:15			68		74		142		18:15			92		95		187	
06:30			129		87		216		18:30			64		77		141	
06:45			133	375	85	321	218	696	18:45			58	306	76	363	134	669
07:00			129		75		204		19:00			59		95		154	
07:15			154		133		287		19:15			48		86		134	
07:30			171		153		324		19:30			54		71		125	
07:45			170	624	137	498	307	1122	19:45			26	187	59	311	85	498
08:00			110		102		212		20:00			36		62		98	
08:15			131		99		230		20:15			39		79		118	
08:30			130		84		214		20:30			29		56		85	
08:45			97	468	84	369	181	837	20:45			33	137	72	269	105	406
09:00			79		54		133		21:00			30		53		83	
09:15			69		44		113		21:15			23		68		91	
09:30			66		58		124		21:30			25		56		81	
09:45			57	271	78	234	135	505	21:45			28	106	68	245	96	351
10:00			71		56		127		22:00			20		45		65	
10:15			64		65		129		22:15			19		30		49	
10:30			66		49		115		22:30			29		40		69	
10:45			62	263	55	225	117	488	22:45			30	98	37	152	67	250
11:00			48		52		100		23:00			20		32		52	
11:15			74		61		135		23:15			28		22		50	
11:30			75		50		125		23:30			34		24		58	
11:45			69	266	66	229	135	495	23:45			15	97	18	96	33	193
TOTALS				2745		2518		5263	TOTALS				3286		3963		7249
SPLIT %				52.2%		47.8%		42.1%	SPLIT %				45.3%		54.7%		57.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	6,031	6,481	12,512

AM Peak Hour			07:00	07:15	07:15	PM Peak Hour			15:30	16:00	15:45
AM Pk Volume			624	525	1130	PM Pk Volume			478	564	1007
Pk Hr Factor			0.912	0.858	0.872	Pk Hr Factor			0.771	0.898	0.865
7 - 9 Volume	0	0	1092	867	1959	4 - 6 Volume	0	0	841	1070	1911
7 - 9 Peak Hour			07:00	07:15	07:15	4 - 6 Peak Hour			16:15	16:00	16:00
7 - 9 Pk Volume	0	0	624	525	1130	4 - 6 Pk Volume	0	0	445	564	1006
Pk Hr Factor	0.000	0.000	0.912	0.858	0.872	Pk Hr Factor	0.000	0.000	0.830	0.898	0.864

Prepared by NDS/ATD

VOLUME

Cantu-Galleano Ranch Rd Bet. I-15 Ramps & Hamner Ave

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_017

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,955	6,208	12,163

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			9		15		24		12:00			68		63		131	
00:15			15		18		33		12:15			74		79		153	
00:30			12		17		29		12:30			95		77		172	
00:45			4	40	14	64	18	104	12:45			80	317	86	305	166	622
01:00			5		4		9		13:00			74		97		171	
01:15			11		6		17		13:15			72		88		160	
01:30			11		13		24		13:30			97		82		179	
01:45			8	35	8	31	16	66	13:45			69	312	96	363	165	675
02:00			8		6		14		14:00			99		93		192	
02:15			8		4		12		14:15			75		102		177	
02:30			7		9		16		14:30			129		98		227	
02:45			13	36	28	47	41	83	14:45			112	415	83	376	195	791
03:00			16		16		32		15:00			98		72		170	
03:15			10		11		21		15:15			114		100		214	
03:30			14		24		38		15:30			127		104		231	
03:45			22	62	40	91	62	153	15:45			112	451	117	393	229	844
04:00			21		18		39		16:00			117		121		238	
04:15			28		22		50		16:15			112		144		256	
04:30			36		23		59		16:30			106		134		240	
04:45			29	114	60	123	89	237	16:45			95	430	155	554	250	984
05:00			26		50		76		17:00			95		136		231	
05:15			33		64		97		17:15			116		134		250	
05:30			46		81		127		17:30			122		161		283	
05:45			46	151	98	293	144	444	17:45			83	416	129	560	212	976
06:00			52		65		117		18:00			82		105		187	
06:15			83		61		144		18:15			82		125		207	
06:30			115		73		188		18:30			97		82		179	
06:45			136	386	83	282	219	668	18:45			56	317	99	411	155	728
07:00			138		70		208		19:00			59		65		124	
07:15			148		60		208		19:15			38		72		110	
07:30			163		70		233		19:30			54		52		106	
07:45			149	598	93	293	242	891	19:45			46	197	61	250	107	447
08:00			114		96		210		20:00			40		65		105	
08:15			104		83		187		20:15			30		53		83	
08:30			98		85		183		20:30			38		54		92	
08:45			91	407	73	337	164	744	20:45			38	146	70	242	108	388
09:00			86		80		166		21:00			27		58		85	
09:15			67		52		119		21:15			30		67		97	
09:30			67		56		123		21:30			32		56		88	
09:45			57	277	71	259	128	536	21:45			33	122	64	245	97	367
10:00			64		63		127		22:00			26		51		77	
10:15			69		40		109		22:15			16		38		54	
10:30			56		51		107		22:30			30		38		68	
10:45			61	250	46	200	107	450	22:45			28	100	25	152	53	252
11:00			58		69		127		23:00			16		22		38	
11:15			74		53		127		23:15			26		19		45	
11:30			67		66		133		23:30			34		20		54	
11:45			80	279	63	251	143	530	23:45			21	97	25	86	46	183
TOTALS				2635		2271		4906	TOTALS				3320		3937		7257
SPLIT %				53.7%		46.3%		40.3%	SPLIT %				45.7%		54.3%		59.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	5,955	6,208	12,163

AM Peak Hour			07:00	07:45	07:15	PM Peak Hour			15:15	16:45	16:45
AM Pk Volume			598	357	893	PM Pk Volume			470	586	1014
Pk Hr Factor			0.917	0.930	0.923	Pk Hr Factor			0.925	0.910	0.896
7 - 9 Volume	0	0	1005	630	1635	4 - 6 Volume	0	0	846	1114	1960
7 - 9 Peak Hour			07:00	07:45	07:15	4 - 6 Peak Hour			16:00	16:45	16:45
7 - 9 Pk Volume	0	0	598	357	893	4 - 6 Pk Volume	0	0	430	586	1014
Pk Hr Factor	0.000	0.000	0.917	0.930	0.923	Pk Hr Factor	0.000	0.000	0.919	0.910	0.896

Prepared by NDS/ATD

VOLUME

Cleveland Ave Bet. Bellgrave St & Limonite Ave

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_014

DAILY TOTALS	NB	SB	EB	WB	Total
	1,016	1,086	0	0	2,102

AM Period	NB		SB		EB		WB		TOTAL	
00:00	0		2						2	
00:15	1		1						2	
00:30	1		0						1	
00:45	1	3	0	3					1	6
01:00	0		1						1	
01:15	0		0						0	
01:30	1		0						1	
01:45	1	2	0	1					1	3
02:00	0		1						1	
02:15	0		1						1	
02:30	0		1						1	
02:45	0		0	3					0	3
03:00	0		0						0	
03:15	1		0						1	
03:30	0		0						0	
03:45	0	1	0						0	1
04:00	0		1						1	
04:15	0		3						3	
04:30	3		3						6	
04:45	2	5	1	8					3	13
05:00	3		7						10	
05:15	0		2						2	
05:30	0		4						4	
05:45	4	7	6	19					10	26
06:00	5		8						13	
06:15	6		6						12	
06:30	17		17						34	
06:45	22	50	27	58					49	108
07:00	19		23						42	
07:15	35		43						78	
07:30	33		26						59	
07:45	32	119	26	118					58	237
08:00	25		58						83	
08:15	31		26						57	
08:30	29		12						41	
08:45	11	96	13	109					24	205
09:00	9		8						17	
09:15	9		16						25	
09:30	5		7						12	
09:45	7	30	10	41					17	71
10:00	15		15						30	
10:15	8		7						15	
10:30	3		5						8	
10:45	10	36	8	35					18	71
11:00	9		3						12	
11:15	6		6						12	
11:30	10		10						20	
11:45	6	31	15	34					21	65
TOTALS		380		429						809
SPLIT %		47.0%		53.0%						38.5%

PM Period	NB		SB		EB		WB		TOTAL	
12:00	8		10						18	
12:15	8		10						18	
12:30	11		5						16	
12:45	5	32	9	34					14	66
13:00	8		7						15	
13:15	6		8						14	
13:30	10		7						17	
13:45	8	32	9	31					17	63
14:00	6		14						20	
14:15	7		16						23	
14:30	10		36						46	
14:45	19	42	42	108					61	150
15:00	46		25						71	
15:15	39		21						60	
15:30	41		25						66	
15:45	13	139	27	98					40	237
16:00	20		19						39	
16:15	22		15						37	
16:30	21		21						42	
16:45	17	80	16	71					33	151
17:00	20		27						47	
17:15	22		22						44	
17:30	19		31						50	
17:45	15	76	24	104					39	180
18:00	25		25						50	
18:15	15		22						37	
18:30	20		14						34	
18:45	10	70	14	75					24	145
19:00	16		14						30	
19:15	18		18						36	
19:30	16		12						28	
19:45	18	68	11	55					29	123
20:00	16		11						27	
20:15	9		6						15	
20:30	5		9						14	
20:45	14	44	5	31					19	75
21:00	11		9						20	
21:15	12		4						16	
21:30	8		4						12	
21:45	1	32	7	24					8	56
22:00	5		8						13	
22:15	5		2						7	
22:30	6		5						11	
22:45	1	17	4	19					5	36
23:00	1		0						1	
23:15	2		3						5	
23:30	1		2						3	
23:45	0	4	2	7					2	11
TOTALS		636		657						1293
SPLIT %		49.2%		50.8%						61.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,016	1,086	0	0	2,102

AM Peak Hour	07:15	07:15			07:15	PM Peak Hour	14:45	14:30			14:45
AM Pk Volume	125	153			278	PM Pk Volume	145	124			258
Pk Hr Factor	0.893	0.659			0.837	Pk Hr Factor	0.788	0.738			0.908
7 - 9 Volume	215	227	0	0	442	4 - 6 Volume	156	175	0	0	331
7 - 9 Peak Hour	07:15	07:15			07:15	4 - 6 Peak Hour	16:00	17:00			17:00
7 - 9 Pk Volume	125	153	0	0	278	4 - 6 Pk Volume	80	104	0	0	180
Pk Hr Factor	0.893	0.659	0.000	0.000	0.837	Pk Hr Factor	0.909	0.839	0.000	0.000	0.900

Prepared by NDS/ATD

VOLUME

Cleveland Ave Bet. Bellgrave St & Limonite Ave

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_014

DAILY TOTALS	NB	SB	EB	WB	Total
	1,056	1,123	0	0	2,179

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		1				1		12:00	8		10				18	
00:15	2		2				4		12:15	10		6				16	
00:30	0		1				1		12:30	10		6				16	
00:45	2	4	1	5			3	9	12:45	11	39	8	30			19	69
01:00	1		0				1		13:00	7		11				18	
01:15	1		2				3		13:15	9		19				28	
01:30	1		0				1		13:30	17		26				43	
01:45	0	3	1	3			1	6	13:45	12	45	33	89			45	134
02:00	0		0				0		14:00	30		20				50	
02:15	0		1				1		14:15	25		21				46	
02:30	0		0				0		14:30	16		14				30	
02:45	1	1	0	1			1	2	14:45	14	85	22	77			36	162
03:00	1		0				1		15:00	33		17				50	
03:15	0		2				2		15:15	24		23				47	
03:30	0		1				1		15:30	27		17				44	
03:45	1	2	0	3			1	5	15:45	19	103	14	71			33	174
04:00	0		0				0		16:00	13		17				30	
04:15	1		3				4		16:15	18		21				39	
04:30	2		1				3		16:30	12		25				37	
04:45	2	5	4	8			6	13	16:45	18	61	24	87			42	148
05:00	2		3				5		17:00	17		21				38	
05:15	1		3				4		17:15	19		27				46	
05:30	3		7				10		17:30	18		27				45	
05:45	4	10	4	17			8	27	17:45	27	81	27	102			54	183
06:00	4		16				20		18:00	25		19				44	
06:15	12		11				23		18:15	10		20				30	
06:30	13		16				29		18:30	19		19				38	
06:45	19	48	13	56			32	104	18:45	20	74	19	77			39	151
07:00	14		19				33		19:00	32		29				61	
07:15	19		18				37		19:15	17		13				30	
07:30	20		24				44		19:30	12		13				25	
07:45	27	80	44	105			71	185	19:45	14	75	12	67			26	142
08:00	26		72				98		20:00	19		10				29	
08:15	34		30				64		20:15	11		14				25	
08:30	34		22				56		20:30	9		10				19	
08:45	17	111	18	142			35	253	20:45	9	48	6	40			15	88
09:00	13		11				24		21:00	10		8				18	
09:15	8		9				17		21:15	15		9				24	
09:30	9		6				15		21:30	16		10				26	
09:45	5	35	7	33			12	68	21:45	6	47	2	29			8	76
10:00	7		6				13		22:00	5		8				13	
10:15	6		5				11		22:15	3		2				5	
10:30	11		5				16		22:30	7		5				12	
10:45	6	30	9	25			15	55	22:45	3	18	2	17			5	35
11:00	11		12				23		23:00	2		3				5	
11:15	14		6				20		23:15	3		1				4	
11:30	9		9				18		23:30	0		3				3	
11:45	9	43	5	32			14	75	23:45	3	8	0	7			3	15
TOTALS		372		430				802	TOTALS		684		693				1377
SPLIT %		46.4%		53.6%				36.8%	SPLIT %		49.7%		50.3%				63.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,056	1,123	0	0	2,179

AM Peak Hour	07:45	07:30			07:45	PM Peak Hour	15:00	17:00			17:15
AM Pk Volume	121	170			289	PM Pk Volume	103	102			189
Pk Hr Factor	0.890	0.590			0.737	Pk Hr Factor	0.780	0.944			0.875
7 - 9 Volume	191	247	0	0	438	4 - 6 Volume	142	189	0	0	331
7 - 9 Peak Hour	07:45	07:30			07:45	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	121	170	0	0	289	4 - 6 Pk Volume	81	102	0	0	183
Pk Hr Factor	0.890	0.590	0.000	0.000	0.737	Pk Hr Factor	0.750	0.944	0.000	0.000	0.847

Prepared by NDS/ATD

VOLUME

Cleveland Ave Bet. Bellgrave St & Limonite Ave

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_014

DAILY TOTALS	NB	SB	EB	WB	Total
	969	1,078	0	0	2,047

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	2		1				3		12:00	14		17				31	
00:15	0		2				2		12:15	16		9				25	
00:30	4		0				4		12:30	11		6				17	
00:45	2	8	2	5			4	13	12:45	7	48	4	36			11	84
01:00	1		1				2		13:00	7		9				16	
01:15	1		0				1		13:15	11		6				17	
01:30	2		1				3		13:30	7		8				15	
01:45	0	4	0	2			0	6	13:45	7	32	12	35			19	67
02:00	0		0				0		14:00	6		16				22	
02:15	0		0				0		14:15	10		16				26	
02:30	1		0				1		14:30	15		34				49	
02:45	1	2	0				1	2	14:45	28	59	39	105			67	164
03:00	0		1				1		15:00	49		36				85	
03:15	0		0				0		15:15	36		20				56	
03:30	0		0				0		15:30	38		27				65	
03:45	1	1	1	2			2	3	15:45	13	136	29	112			42	248
04:00	2		0				2		16:00	26		19				45	
04:15	1		4				5		16:15	12		15				27	
04:30	3		1				4		16:30	23		27				50	
04:45	2	8	3	8			5	16	16:45	11	72	31	92			42	164
05:00	4		1				5		17:00	11		20				31	
05:15	1		4				5		17:15	13		19				32	
05:30	3		9				12		17:30	13		22				35	
05:45	3	11	4	18			7	29	17:45	14	51	15	76			29	127
06:00	1		12				13		18:00	18		22				40	
06:15	10		13				23		18:15	21		15				36	
06:30	19		12				31		18:30	13		11				24	
06:45	16	46	14	51			30	97	18:45	11	63	13	61			24	124
07:00	30		26				56		19:00	14		17				31	
07:15	26		36				62		19:15	11		13				24	
07:30	31		26				57		19:30	12		11				23	
07:45	36	123	26	114			62	237	19:45	9	46	10	51			19	97
08:00	18		71				89		20:00	10		12				22	
08:15	35		28				63		20:15	5		4				9	
08:30	24		17				41		20:30	7		9				16	
08:45	13	90	9	125			22	215	20:45	8	30	8	33			16	63
09:00	9		10				19		21:00	8		6				14	
09:15	6		10				16		21:15	13		12				25	
09:30	10		12				22		21:30	3		0				3	
09:45	7	32	7	39			14	71	21:45	6	30	5	23			11	53
10:00	8		7				15		22:00	3		2				5	
10:15	3		11				14		22:15	1		6				7	
10:30	9		5				14		22:30	3		1				4	
10:45	9	29	10	33			19	62	22:45	0	7	3	12			3	19
11:00	9		11				20		23:00	2		3				5	
11:15	10		4				14		23:15	1		3				4	
11:30	7		10				17		23:30	2		0				2	
11:45	9	35	13	38			22	73	23:45	1	6	1	7			2	13
TOTALS		389		435				824	TOTALS		580		643				1223
SPLIT %		47.2%		52.8%				40.3%	SPLIT %		47.4%		52.6%				59.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	969	1,078	0	0	2,047

AM Peak Hour	07:00	07:15			07:30	PM Peak Hour	14:45	14:30			14:45
AM Pk Volume	123	159			271	PM Pk Volume	151	129			273
Pk Hr Factor	0.854	0.560			0.761	Pk Hr Factor	0.770	0.827			0.803
7 - 9 Volume	213	239	0	0	452	4 - 6 Volume	123	168	0	0	291
7 - 9 Peak Hour	07:00	07:15			07:30	4 - 6 Peak Hour	16:00	16:30			16:00
7 - 9 Pk Volume	123	159	0	0	271	4 - 6 Pk Volume	72	97	0	0	164
Pk Hr Factor	0.854	0.560	0.000	0.000	0.761	Pk Hr Factor	0.692	0.782	0.000	0.000	0.820

Prepared by NDS/ATD

VOLUME

Scholar Wy Bet. 68th St & Limonite Ave

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_010

DAILY TOTALS	NB	SB	EB	WB	Total
	2,051	2,713	0	0	4,764

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	5		5				10		12:00	13		43				56	
00:15	3		5				8		12:15	24		32				56	
00:30	2		1				3		12:30	22		22				44	
00:45	2	12	2	13			4	25	12:45	18	77	34	131			52	208
01:00	1		0				1		13:00	25		33				58	
01:15	3		4				7		13:15	24		33				57	
01:30	1		2				3		13:30	21		23				44	
01:45	2	7	0	6			2	13	13:45	28	98	32	121			60	219
02:00	1		1				2		14:00	20		19				39	
02:15	3		1				4		14:15	30		27				57	
02:30	1		2				3		14:30	44		59				103	
02:45	0	5	2	6			2	11	14:45	69	163	61	166			130	329
03:00	0		6				6		15:00	57		68				125	
03:15	0		1				1		15:15	47		81				128	
03:30	1		1				2		15:30	45		61				106	
03:45	1	2	2	10			3	12	15:45	36	185	45	255			81	440
04:00	2		1				3		16:00	40		55				95	
04:15	1		1				2		16:15	39		34				73	
04:30	2		7				9		16:30	34		41				75	
04:45	2	7	6	15			8	22	16:45	40	153	36	166			76	319
05:00	4		6				10		17:00	41		60				101	
05:15	6		7				13		17:15	44		41				85	
05:30	3		8				11		17:30	57		33				90	
05:45	3	16	10	31			13	47	17:45	49	191	41	175			90	366
06:00	10		14				24		18:00	49		56				105	
06:15	10		15				25		18:15	59		64				123	
06:30	23		45				68		18:30	46		61				107	
06:45	20	63	35	109			55	172	18:45	51	205	40	221			91	426
07:00	40		36				76		19:00	46		53				99	
07:15	61		65				126		19:15	36		47				83	
07:30	40		87				127		19:30	36		38				74	
07:45	26	167	77	265			103	432	19:45	33	151	28	166			61	317
08:00	27		91				118		20:00	23		38				61	
08:15	45		86				131		20:15	24		32				56	
08:30	20		67				87		20:30	21		29				50	
08:45	14	106	26	270			40	376	20:45	17	85	34	133			51	218
09:00	19		36				55		21:00	35		27				62	
09:15	17		23				40		21:15	14		29				43	
09:30	19		24				43		21:30	23		28				51	
09:45	18	73	31	114			49	187	21:45	17	89	11	95			28	184
10:00	12		24				36		22:00	12		10				22	
10:15	18		22				40		22:15	10		9				19	
10:30	13		23				36		22:30	13		8				21	
10:45	20	63	25	94			45	157	22:45	6	41	2	29			8	70
11:00	16		27				43		23:00	3		4				7	
11:15	18		26				44		23:15	4		3				7	
11:30	20		29				49		23:30	9		0				9	
11:45	17	71	30	112			47	183	23:45	5	21	3	10			8	31
TOTALS		592		1045				1637	TOTALS		1459		1668				3127
SPLIT %		36.2%		63.8%				34.4%	SPLIT %		46.7%		53.3%				65.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,051	2,713	0	0	4,764

AM Peak Hour	07:00	07:30			07:30	PM Peak Hour	14:45	14:45			14:45
AM Pk Volume	167	341			479	PM Pk Volume	218	271			489
Pk Hr Factor	0.684	0.937			0.914	Pk Hr Factor	0.790	0.836			0.940
7 - 9 Volume	273	535	0	0	808	4 - 6 Volume	344	341	0	0	685
7 - 9 Peak Hour	07:00	07:30			07:30	4 - 6 Peak Hour	17:00	16:30			17:00
7 - 9 Pk Volume	167	341	0	0	479	4 - 6 Pk Volume	191	178	0	0	366
Pk Hr Factor	0.684	0.937	0.000	0.000	0.914	Pk Hr Factor	0.838	0.742	0.000	0.000	0.906

Prepared by NDS/ATD

VOLUME

Scholar Wy Bet. 68th St & Limonite Ave

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_010

DAILY TOTALS	NB	SB	EB	WB	Total
	1,960	2,709	0	0	4,669

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		5				8		12:00	15		15				30	
00:15	4		2				6		12:15	10		24				34	
00:30	2		4				6		12:30	16		25				41	
00:45	1	10	1	12			2	22	12:45	16	57	21	85			37	142
01:00	1		2				3		13:00	22		29				51	
01:15	0		1				1		13:15	30		28				58	
01:30	2		3				5		13:30	33		76				109	
01:45	2	5	1	7			3	12	13:45	43	128	62	195			105	323
02:00	2		1				3		14:00	41		44				85	
02:15	1		1				2		14:15	45		65				110	
02:30	0		3				3		14:30	31		48				79	
02:45	0	3	2	7			2	10	14:45	51	168	30	187			81	355
03:00	0		5				5		15:00	37		65				102	
03:15	1		2				3		15:15	36		50				86	
03:30	2		1				3		15:30	39		44				83	
03:45	3	6	2	10			5	16	15:45	36	148	40	199			76	347
04:00	0		2				2		16:00	19		36				55	
04:15	0		3				3		16:15	32		38				70	
04:30	3		9				12		16:30	30		40				70	
04:45	2	5	7	21			9	26	16:45	38	119	41	155			79	274
05:00	1		7				8		17:00	39		38				77	
05:15	4		8				12		17:15	31		49				80	
05:30	2		6				8		17:30	62		48				110	
05:45	1	8	10	31			11	39	17:45	54	186	34	169			88	355
06:00	10		15				25		18:00	59		46				105	
06:15	8		20				28		18:15	37		47				84	
06:30	15		35				50		18:30	37		44				81	
06:45	11	44	28	98			39	142	18:45	44	177	50	187			94	364
07:00	23		28				51		19:00	47		73				120	
07:15	31		39				70		19:15	33		38				71	
07:30	21		58				79		19:30	37		37				74	
07:45	35	110	70	195			105	305	19:45	32	149	45	193			77	342
08:00	40		87				127		20:00	35		48				83	
08:15	55		84				139		20:15	34		32				66	
08:30	42		68				110		20:30	34		30				64	
08:45	44	181	64	303			108	484	20:45	15	118	18	128			33	246
09:00	17		48				65		21:00	21		36				57	
09:15	29		23				52		21:15	20		33				53	
09:30	16		26				42		21:30	12		16				28	
09:45	11	73	23	120			34	193	21:45	10	63	22	107			32	170
10:00	13		23				36		22:00	10		23				33	
10:15	12		36				48		22:15	14		11				25	
10:30	12		27				39		22:30	8		8				16	
10:45	16	53	32	118			48	171	22:45	7	39	11	53			18	92
11:00	23		41				64		23:00	9		6				15	
11:15	25		29				54		23:15	7		3				10	
11:30	25		22				47		23:30	5		1				6	
11:45	15	88	23	115			38	203	23:45	1	22	4	14			5	36
TOTALS		586		1037				1623	TOTALS		1374		1672				3046
SPLIT %		36.1%		63.9%				34.8%	SPLIT %		45.1%		54.9%				65.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,960	2,709	0	0	4,669

AM Peak Hour	08:00	07:45			08:00	PM Peak Hour	17:30	13:30			13:30
AM Pk Volume	181	309			484	PM Pk Volume	212	247			409
Pk Hr Factor	0.823	0.888			0.871	Pk Hr Factor	0.855	0.813			0.930
7 - 9 Volume	291	498	0	0	789	4 - 6 Volume	305	324	0	0	629
7 - 9 Peak Hour	08:00	07:45			08:00	4 - 6 Peak Hour	17:00	16:45			17:00
7 - 9 Pk Volume	181	309	0	0	484	4 - 6 Pk Volume	186	176	0	0	355
Pk Hr Factor	0.823	0.888	0.000	0.000	0.871	Pk Hr Factor	0.750	0.898	0.000	0.000	0.807

Prepared by NDS/ATD

VOLUME

Scholar Wy Bet. 68th St & Limonite Ave

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_010

DAILY TOTALS	NB	SB	EB	WB	Total
	1,888	2,558	0	0	4,446

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	2		2						4		12:00	22		43						65	
00:15	4		1						5		12:15	19		29						48	
00:30	2		2						4		12:30	16		22						38	
00:45	4	12	2	7					6	19	12:45	21	78	25	119					46	197
01:00	2		1						3		13:00	22		17						39	
01:15	0		0						0		13:15	17		23						40	
01:30	2		1						3		13:30	17		13						30	
01:45	3	7	2	4					5	11	13:45	14	70	20	73					34	143
02:00	1		0						1		14:00	17		22						39	
02:15	1		1						2		14:15	27		31						58	
02:30	0		2						2		14:30	31		60						91	
02:45	0	2	3	6					3	8	14:45	69	144	73	186					142	330
03:00	0		3						3		15:00	67		61						128	
03:15	0		2						2		15:15	43		81						124	
03:30	1		0						1		15:30	48		63						111	
03:45	2	3	3	8					5	11	15:45	46	204	49	254					95	458
04:00	0		0						0		16:00	35		56						91	
04:15	0		3						3		16:15	43		40						83	
04:30	1		12						13		16:30	36		44						80	
04:45	4	5	7	22					11	27	16:45	43	157	39	179					82	336
05:00	1		6						7		17:00	40		28						68	
05:15	3		6						9		17:15	40		43						83	
05:30	5		11						16		17:30	49		50						99	
05:45	5	14	7	30					12	44	17:45	49	178	49	170					98	348
06:00	5		13						18		18:00	37		40						77	
06:15	8		19						27		18:15	37		48						85	
06:30	21		34						55		18:30	32		57						89	
06:45	19	53	36	102					55	155	18:45	35	141	36	181					71	322
07:00	45		45						90		19:00	33		51						84	
07:15	63		52						115		19:15	25		50						75	
07:30	34		88						122		19:30	37		41						78	
07:45	31	173	68	253					99	426	19:45	38	133	31	173					69	306
08:00	28		83						111		20:00	29		29						58	
08:15	39		89						128		20:15	13		25						38	
08:30	23		59						82		20:30	18		17						35	
08:45	19	109	41	272					60	381	20:45	21	81	24	95					45	176
09:00	12		31						43		21:00	32		22						54	
09:15	12		28						40		21:15	22		19						41	
09:30	16		25						41		21:30	11		22						33	
09:45	15	55	22	106					37	161	21:45	17	82	15	78					32	160
10:00	14		21						35		22:00	9		8						17	
10:15	15		32						47		22:15	6		6						12	
10:30	9		21						30		22:30	3		11						14	
10:45	14	52	24	98					38	150	22:45	6	24	5	30					11	54
11:00	17		24						41		23:00	3		5						8	
11:15	26		23						49		23:15	7		4						11	
11:30	19		30						49		23:30	3		5						8	
11:45	31	93	21	98					52	191	23:45	5	18	0	14					5	32
TOTALS		578		1006						1584	TOTALS		1310		1552						2862
SPLIT %		36.5%		63.5%						35.6%	SPLIT %		45.8%		54.2%						64.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	1,888	2,558	0	0	4,446

AM Peak Hour	07:00	07:30			07:30	PM Peak Hour	14:45	14:45			14:45
AM Pk Volume	173	328			460	PM Pk Volume	227	278			505
Pk Hr Factor	0.687	0.921			0.898	Pk Hr Factor	0.822	0.858			0.889
7 - 9 Volume	282	525	0	0	807	4 - 6 Volume	335	349	0	0	684
7 - 9 Peak Hour	07:00	07:30			07:30	4 - 6 Peak Hour	17:00	16:00			17:00
7 - 9 Pk Volume	173	328	0	0	460	4 - 6 Pk Volume	178	179	0	0	348
Pk Hr Factor	0.687	0.921	0.000	0.000	0.898	Pk Hr Factor	0.908	0.799	0.000	0.000	0.879

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Limonite Ave & Bellgrave St

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_009

DAILY TOTALS	NB	SB	EB	WB	Total
	7,510	7,480	0	0	14,990

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	7		17				24		12:00	86		121				207	
00:15	3		9				12		12:15	105		113				218	
00:30	6		13				19		12:30	108		103				211	
00:45	6	22	9	48			15	70	12:45	97	396	99	436			196	832
01:00	8		6				14		13:00	138		106				244	
01:15	3		7				10		13:15	95		75				170	
01:30	3		9				12		13:30	116		84				200	
01:45	11	25	5	27			16	52	13:45	127	476	97	362			224	838
02:00	2		10				12		14:00	96		105				201	
02:15	3		1				4		14:15	105		137				242	
02:30	4		8				12		14:30	117		126				243	
02:45	9	18	4	23			13	41	14:45	123	441	182	550			305	991
03:00	14		9				23		15:00	157		139				296	
03:15	5		6				11		15:15	125		143				268	
03:30	8		9				17		15:30	128		167				295	
03:45	17	44	9	33			26	77	15:45	147	557	216	665			363	1222
04:00	13		7				20		16:00	106		198				304	
04:15	21		10				31		16:15	137		183				320	
04:30	32		12				44		16:30	141		231				372	
04:45	38	104	14	43			52	147	16:45	115	499	220	832			335	1331
05:00	25		12				37		17:00	96		200				296	
05:15	42		26				68		17:15	151		211				362	
05:30	44		26				70		17:30	115		209				324	
05:45	56	167	17	81			73	248	17:45	119	481	184	804			303	1285
06:00	55		27				82		18:00	113		161				274	
06:15	79		38				117		18:15	94		153				247	
06:30	111		43				154		18:30	132		132				264	
06:45	127	372	70	178			197	550	18:45	88	427	117	563			205	990
07:00	154		71				225		19:00	108		125				233	
07:15	171		66				237		19:15	112		130				242	
07:30	184		71				255		19:30	94		112				206	
07:45	167	676	79	287			246	963	19:45	94	408	98	465			192	873
08:00	140		89				229		20:00	77		97				174	
08:15	151		66				217		20:15	103		95				198	
08:30	136		70				206		20:30	86		78				164	
08:45	102	529	63	288			165	817	20:45	100	366	81	351			181	717
09:00	85		66				151		21:00	67		57				124	
09:15	96		65				161		21:15	67		74				141	
09:30	95		76				171		21:30	52		49				101	
09:45	79	355	80	287			159	642	21:45	57	243	44	224			101	467
10:00	49		84				133		22:00	35		42				77	
10:15	77		75				152		22:15	21		38				59	
10:30	98		79				177		22:30	34		44				78	
10:45	90	314	76	314			166	628	22:45	30	120	42	166			72	286
11:00	94		90				184		23:00	17		28				45	
11:15	104		89				193		23:15	10		19				29	
11:30	104		93				197		23:30	19		27				46	
11:45	113	415	85	357			198	772	23:45	9	55	22	96			31	151
TOTALS		3041		1966				5007	TOTALS		4469		5514				9983
SPLIT %		60.7%		39.3%				33.4%	SPLIT %		44.8%		55.2%				66.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	7,510	7,480	0	0	14,990

AM Peak Hour	07:00	11:45			07:15	PM Peak Hour	15:00	16:30			16:30
AM Pk Volume	676	422			967	PM Pk Volume	557	862			1365
Pk Hr Factor	0.918	0.872			0.948	Pk Hr Factor	0.887	0.933			0.917
7 - 9 Volume	1205	575	0	0	1780	4 - 6 Volume	980	1636	0	0	2616
7 - 9 Peak Hour	07:00	07:15			07:15	4 - 6 Peak Hour	16:30	16:30			16:30
7 - 9 Pk Volume	676	305	0	0	967	4 - 6 Pk Volume	503	862	0	0	1365
Pk Hr Factor	0.918	0.857	0.000	0.000	0.948	Pk Hr Factor	0.833	0.933	0.000	0.000	0.917

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Limonite Ave & Bellgrave St

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_009

DAILY TOTALS	NB	SB	EB	WB	Total
	7,660	7,079	0	0	14,739

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	9		18				27		12:00	89		94				183	
00:15	11		13				24		12:15	104		92				196	
00:30	8		12				20		12:30	112		105				217	
00:45	5	33	7	50			12	83	12:45	104	409	96	387			200	796
01:00	3		9				12		13:00	107		107				214	
01:15	2		7				9		13:15	127		102				229	
01:30	2		7				9		13:30	121		105				226	
01:45	6	13	5	28			11	41	13:45	116	471	104	418			220	889
02:00	1		1				2		14:00	132		84				216	
02:15	3		5				8		14:15	130		109				239	
02:30	7		4				11		14:30	130		129				259	
02:45	7	18	3	13			10	31	14:45	100	492	118	440			218	932
03:00	7		3				10		15:00	108		124				232	
03:15	7		6				13		15:15	108		114				222	
03:30	9		2				11		15:30	127		137				264	
03:45	14	37	4	15			18	52	15:45	122	465	135	510			257	975
04:00	13		7				20		16:00	121		152				273	
04:15	22		9				31		16:15	103		201				304	
04:30	34		14				48		16:30	155		178				333	
04:45	39	108	13	43			52	151	16:45	102	481	190	721			292	1202
05:00	30		16				46		17:00	118		225				343	
05:15	39		17				56		17:15	136		191				327	
05:30	43		27				70		17:30	131		208				339	
05:45	47	159	17	77			64	236	17:45	107	492	194	818			301	1310
06:00	47		26				73		18:00	115		160				275	
06:15	83		35				118		18:15	107		150				257	
06:30	103		55				158		18:30	104		124				228	
06:45	152	385	51	167			203	552	18:45	86	412	139	573			225	985
07:00	150		58				208		19:00	93		123				216	
07:15	176		70				246		19:15	93		106				199	
07:30	216		81				297		19:30	117		112				229	
07:45	235	777	112	321			347	1098	19:45	86	389	95	436			181	825
08:00	239		108				347		20:00	71		83				154	
08:15	236		88				324		20:15	87		91				178	
08:30	176		90				266		20:30	78		73				151	
08:45	121	772	70	356			191	1128	20:45	62	298	56	303			118	601
09:00	88		64				152		21:00	61		65				126	
09:15	85		60				145		21:15	71		61				132	
09:30	84		82				166		21:30	54		56				110	
09:45	70	327	66	272			136	599	21:45	45	231	39	221			84	452
10:00	84		69				153		22:00	35		41				76	
10:15	80		74				154		22:15	33		37				70	
10:30	96		84				180		22:30	25		35				60	
10:45	93	353	54	281			147	634	22:45	27	120	27	140			54	260
11:00	93		101				194		23:00	18		19				37	
11:15	78		100				178		23:15	14		25				39	
11:30	85		97				182		23:30	16		37				53	
11:45	102	358	89	387			191	745	23:45	12	60	21	102			33	162
TOTALS		3340		2010				5350	TOTALS		4320		5069				9389
SPLIT %		62.4%		37.6%				36.3%	SPLIT %		46.0%		54.0%				63.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	7,660	7,079	0	0	14,739

AM Peak Hour	07:30	07:45			07:30	PM Peak Hour	16:30	17:00			17:00
AM Pk Volume	926	398			1315	PM Pk Volume	511	818			1310
Pk Hr Factor	0.969	0.888			0.947	Pk Hr Factor	0.824	0.909			0.955
7 - 9 Volume	1549	677	0	0	2226	4 - 6 Volume	973	1539	0	0	2512
7 - 9 Peak Hour	07:30	07:45			07:30	4 - 6 Peak Hour	16:30	17:00			17:00
7 - 9 Pk Volume	926	398	0	0	1315	4 - 6 Pk Volume	511	818	0	0	1310
Pk Hr Factor	0.969	0.888	0.000	0.000	0.947	Pk Hr Factor	0.824	0.909	0.000	0.000	0.955

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Limonite Ave & Bellgrave St

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_009

DAILY TOTALS	NB	SB	EB	WB	Total
	7,394	7,101	0	0	14,495

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	6		12						18		12:00	124		123						247	
00:15	5		17						22		12:15	108		100						208	
00:30	7		12						19		12:30	96		100						196	
00:45	2	20	5	46					7	66	12:45	109	437	97	420					206	857
01:00	8		5						13		13:00	110		97						207	
01:15	3		5						8		13:15	99		111						210	
01:30	4		4						8		13:30	112		103						215	
01:45	5	20	6	20					11	40	13:45	122	443	99	410					221	853
02:00	1		4						5		14:00	123		102						225	
02:15	5		5						10		14:15	117		108						225	
02:30	8		3						11		14:30	103		149						252	
02:45	10	24	4	16					14	40	14:45	98	441	161	520					259	961
03:00	5		4						9		15:00	137		113						250	
03:15	8		6						14		15:15	142		141						283	
03:30	8		5						13		15:30	126		157						283	
03:45	13	34	3	18					16	52	15:45	131	536	154	565					285	1101
04:00	12		8						20		16:00	118		178						296	
04:15	25		3						28		16:15	129		191						320	
04:30	33		7						40		16:30	105		191						296	
04:45	32	102	17	35					49	137	16:45	100	452	198	758					298	1210
05:00	28		14						42		17:00	112		183						295	
05:15	37		23						60		17:15	130		181						311	
05:30	47		19						66		17:30	140		201						341	
05:45	50	162	25	81					75	243	17:45	113	495	201	766					314	1261
06:00	64		29						93		18:00	123		162						285	
06:15	86		34						120		18:15	108		149						257	
06:30	106		51						157		18:30	121		118						239	
06:45	126	382	54	168					180	550	18:45	100	452	120	549					220	1001
07:00	143		54						197		19:00	116		147						263	
07:15	160		60						220		19:15	102		106						208	
07:30	188		62						250		19:30	103		99						202	
07:45	172	663	79	255					251	918	19:45	89	410	90	442					179	852
08:00	168		99						267		20:00	78		95						173	
08:15	155		82						237		20:15	72		74						146	
08:30	130		64						194		20:30	72		66						138	
08:45	134	587	76	321					210	908	20:45	76	298	87	322					163	620
09:00	100		74						174		21:00	66		43						109	
09:15	107		73						180		21:15	51		57						108	
09:30	86		60						146		21:30	43		46						89	
09:45	77	370	57	264					134	634	21:45	35	195	44	190					79	385
10:00	90		76						166		22:00	36		47						83	
10:15	84		82						166		22:15	24		45						69	
10:30	82		61						143		22:30	34		44						78	
10:45	72	328	80	299					152	627	22:45	24	118	30	166					54	284
11:00	97		84						181		23:00	13		27						40	
11:15	95		109						204		23:15	18		12						30	
11:30	81		103						184		23:30	17		19						36	
11:45	95	368	95	391					190	759	23:45	9	57	21	79					30	136
TOTALS		3060		1914						4974	TOTALS		4334		5187						9521
SPLIT %		61.5%		38.5%						34.3%	SPLIT %		45.5%		54.5%						65.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	7,394	7,101	0	0	14,495

AM Peak Hour	07:15	11:15			07:30	PM Peak Hour	15:00	17:00			17:00
AM Pk Volume	688	430			1005	PM Pk Volume	536	766			1261
Pk Hr Factor	0.915	0.874			0.941	Pk Hr Factor	0.944	0.953			0.924
7 - 9 Volume	1250	576	0	0	1826	4 - 6 Volume	947	1524	0	0	2471
7 - 9 Peak Hour	07:15	07:45			07:30	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	688	324	0	0	1005	4 - 6 Pk Volume	495	766	0	0	1261
Pk Hr Factor	0.915	0.818	0.000	0.000	0.941	Pk Hr Factor	0.884	0.953	0.000	0.000	0.924

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. 68th St & Limonite Ave

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_008

DAILY TOTALS	NB	SB	EB	WB	Total
	10,193	8,928	0	0	19,121

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	17		15				32		12:00	146		98				244	
00:15	10		18				28		12:15	144		139				283	
00:30	9		10				19		12:30	144		122				266	
00:45	6	42	3	46			9	88	12:45	141	575	156	515			297	1090
01:00	3		8				11		13:00	116		131				247	
01:15	13		10				23		13:15	136		120				256	
01:30	4		4				8		13:30	160		155				315	
01:45	6	26	7	29			13	55	13:45	153	565	117	523			270	1088
02:00	8		3				11		14:00	157		115				272	
02:15	10		2				12		14:15	163		153				316	
02:30	5		2				7		14:30	155		173				328	
02:45	9	32	3	10			12	42	14:45	160	635	166	607			326	1242
03:00	9		2				11		15:00	234		164				398	
03:15	4		5				9		15:15	206		166				372	
03:30	13		5				18		15:30	221		161				382	
03:45	26	52	4	16			30	68	15:45	133	794	144	635			277	1429
04:00	17		6				23		16:00	158		139				297	
04:15	28		5				33		16:15	149		199				348	
04:30	33		11				44		16:30	177		209				386	
04:45	37	115	17	39			54	154	16:45	148	632	170	717			318	1349
05:00	48		23				71		17:00	161		167				328	
05:15	40		15				55		17:15	167		182				349	
05:30	69		31				100		17:30	176		212				388	
05:45	44	201	22	91			66	292	17:45	153	657	190	751			343	1408
06:00	54		46				100		18:00	202		177				379	
06:15	83		56				139		18:15	177		170				347	
06:30	125		58				183		18:30	188		166				354	
06:45	166	428	68	228			234	656	18:45	151	718	191	704			342	1422
07:00	170		103				273		19:00	161		185				346	
07:15	192		161				353		19:15	167		164				331	
07:30	294		127				421		19:30	120		160				280	
07:45	222	878	110	501			332	1379	19:45	137	585	133	642			270	1227
08:00	167		106				273		20:00	106		141				247	
08:15	189		131				320		20:15	129		113				242	
08:30	186		91				277		20:30	86		118				204	
08:45	155	697	70	398			225	1095	20:45	80	401	119	491			199	892
09:00	146		79				225		21:00	101		136				237	
09:15	145		83				228		21:15	95		91				186	
09:30	117		107				224		21:30	69		99				168	
09:45	108	516	80	349			188	865	21:45	55	320	87	413			142	733
10:00	113		101				214		22:00	56		73				129	
10:15	140		98				238		22:15	45		66				111	
10:30	126		87				213		22:30	38		55				93	
10:45	132	511	105	391			237	902	22:45	28	167	43	237			71	404
11:00	137		106				243		23:00	22		47				69	
11:15	117		103				220		23:15	13		28				41	
11:30	168		119				287		23:30	11		23				34	
11:45	160	582	151	479			311	1061	23:45	18	64	18	116			36	180
TOTALS		4080		2577				6657	TOTALS		6113		6351				12464
SPLIT %		61.3%		38.7%				34.8%	SPLIT %		49.0%		51.0%				65.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	10,193	8,928	0	0	19,121

AM Peak Hour	07:00	11:45				07:00	PM Peak Hour	14:45	17:15				14:45
AM Pk Volume	878	510				1379	PM Pk Volume	821	761				1478
Pk Hr Factor	0.747	0.844				0.819	Pk Hr Factor	0.877	0.897				0.928
7 - 9 Volume	1575	899	0	0		2474	4 - 6 Volume	1289	1468	0	0		2757
7 - 9 Peak Hour	07:00	07:15				07:00	4 - 6 Peak Hour	17:00	17:00				17:00
7 - 9 Pk Volume	878	504	0	0		1379	4 - 6 Pk Volume	657	751	0	0		1408
Pk Hr Factor	0.747	0.783	0.000	0.000		0.819	Pk Hr Factor	0.933	0.886	0.000	0.000		0.907

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. 68th St & Limonite Ave

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_008

DAILY TOTALS	NB	SB	EB	WB	Total
	10,243	9,038	0	0	19,281

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	12		11						23		12:00	138		130						268	
00:15	8		16						24		12:15	153		107						260	
00:30	12		15						27		12:30	122		122						244	
00:45	5	37	13	55					18	92	12:45	141	554	128	487					269	1041
01:00	7		11						18		13:00	118		136						254	
01:15	4		6						10		13:15	145		158						303	
01:30	4		11						15		13:30	154		126						280	
01:45	4	19	10	38					14	57	13:45	144	561	149	569					293	1130
02:00	3		6						9		14:00	193		122						315	
02:15	12		9						21		14:15	184		130						314	
02:30	6		2						8		14:30	155		139						294	
02:45	8	29	10	27					18	56	14:45	132	664	152	543					284	1207
03:00	4		2						6		15:00	232		152						384	
03:15	9		8						17		15:15	166		178						344	
03:30	7		5						12		15:30	182		198						380	
03:45	23	43	6	21					29	64	15:45	153	733	174	702					327	1435
04:00	23		9						32		16:00	150		139						289	
04:15	23		9						32		16:15	156		166						322	
04:30	33		11						44		16:30	179		179						358	
04:45	44	123	14	43					58	166	16:45	141	626	166	650					307	1276
05:00	48		16						64		17:00	162		184						346	
05:15	52		23						75		17:15	183		171						354	
05:30	69		18						87		17:30	168		177						345	
05:45	57	226	24	81					81	307	17:45	156	669	202	734					358	1403
06:00	53		40						93		18:00	178		164						342	
06:15	107		48						155		18:15	165		168						333	
06:30	114		67						181		18:30	157		169						326	
06:45	133	407	80	235					213	642	18:45	152	652	192	693					344	1345
07:00	183		101						284		19:00	192		180						372	
07:15	172		118						290		19:15	145		148						293	
07:30	216		111						327		19:30	111		164						275	
07:45	222	793	128	458					350	1251	19:45	120	568	130	622					250	1190
08:00	289		99						388		20:00	124		146						270	
08:15	208		153						361		20:15	144		137						281	
08:30	229		169						398		20:30	108		141						249	
08:45	223	949	108	529					331	1478	20:45	127	503	124	548					251	1051
09:00	169		96						265		21:00	106		130						236	
09:15	117		89						206		21:15	94		114						208	
09:30	117		102						219		21:30	57		108						165	
09:45	116	519	89	376					205	895	21:45	41	298	78	430					119	728
10:00	122		93						215		22:00	49		68						117	
10:15	111		100						211		22:15	38		70						108	
10:30	123		96						219		22:30	41		55						96	
10:45	149	505	99	388					248	893	22:45	32	160	47	240					79	400
11:00	135		110						245		23:00	25		33						58	
11:15	140		126						266		23:15	13		27						40	
11:30	152		120						272		23:30	20		23						43	
11:45	112	539	118	474					230	1013	23:45	8	66	12	95					20	161
TOTALS		4189		2725						6914	TOTALS		6054		6313						12367
SPLIT %		60.6%		39.4%						35.9%	SPLIT %		49.0%		51.0%						64.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	10,243	9,038	0	0	19,281

AM Peak Hour	08:00	07:45			07:45	PM Peak Hour	15:00	17:00			15:00
AM Pk Volume	949	549			1497	PM Pk Volume	733	734			1435
Pk Hr Factor	0.821	0.812			0.940	Pk Hr Factor	0.790	0.908			0.934
7 - 9 Volume	1742	987	0	0	2729	4 - 6 Volume	1295	1384	0	0	2679
7 - 9 Peak Hour	08:00	07:45			07:45	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	949	549	0	0	1497	4 - 6 Pk Volume	669	734	0	0	1403
Pk Hr Factor	0.821	0.812	0.000	0.000	0.940	Pk Hr Factor	0.914	0.908	0.000	0.000	0.980

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. 68th St & Limonite Ave

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_008

DAILY TOTALS	NB	SB	EB	WB	Total
	9,765	8,879	0	0	18,644

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	16		19				35		12:00	159		115				274	
00:15	15		20				35		12:15	124		131				255	
00:30	7		12				19		12:30	132		111				243	
00:45	9	47	9	60			18	107	12:45	152	567	135	492			287	1059
01:00	7		9				16		13:00	108		129				237	
01:15	5		5				10		13:15	114		132				246	
01:30	4		7				11		13:30	139		142				281	
01:45	6	22	12	33			18	55	13:45	125	486	136	539			261	1025
02:00	8		4				12		14:00	106		129				235	
02:15	4		3				7		14:15	142		132				274	
02:30	7		6				13		14:30	134		160				294	
02:45	12	31	4	17			16	48	14:45	182	564	149	570			331	1134
03:00	10		4				14		15:00	219		177				396	
03:15	13		9				22		15:15	208		191				399	
03:30	13		8				21		15:30	176		174				350	
03:45	20	56	5	26			25	82	15:45	161	764	151	693			312	1457
04:00	15		7				22		16:00	138		152				290	
04:15	22		6				28		16:15	132		174				306	
04:30	32		11				43		16:30	159		198				357	
04:45	40	109	15	39			55	148	16:45	153	582	176	700			329	1282
05:00	47		23				70		17:00	136		175				311	
05:15	60		19				79		17:15	186		195				381	
05:30	58		25				83		17:30	170		196				366	
05:45	47	212	24	91			71	303	17:45	159	651	214	780			373	1431
06:00	63		43				106		18:00	165		185				350	
06:15	72		58				130		18:15	149		176				325	
06:30	113		68				181		18:30	168		173				341	
06:45	159	407	70	239			229	646	18:45	172	654	181	715			353	1369
07:00	159		111				270		19:00	175		164				339	
07:15	189		149				338		19:15	148		152				300	
07:30	254		120				374		19:30	135		156				291	
07:45	220	822	100	480			320	1302	19:45	112	570	123	595			235	1165
08:00	190		92				282		20:00	122		155				277	
08:15	175		122				297		20:15	126		118				244	
08:30	175		106				281		20:30	97		134				231	
08:45	153	693	74	394			227	1087	20:45	94	439	128	535			222	974
09:00	132		75				207		21:00	96		121				217	
09:15	155		82				237		21:15	71		102				173	
09:30	128		95				223		21:30	68		98				166	
09:45	111	526	84	336			195	862	21:45	52	287	81	402			133	689
10:00	139		96				235		22:00	40		70				110	
10:15	123		90				213		22:15	45		61				106	
10:30	129		82				211		22:30	33		49				82	
10:45	125	516	116	384			241	900	22:45	37	155	50	230			87	385
11:00	121		92				213		23:00	21		37				58	
11:15	129		94				223		23:15	25		24				49	
11:30	153		108				261		23:30	14		28				42	
11:45	129	532	131	425			260	957	23:45	13	73	15	104			28	177
TOTALS		3973		2524				6497	TOTALS		5792		6355				12147
SPLIT %		61.2%		38.8%				34.8%	SPLIT %		47.7%		52.3%				65.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	9,765	8,879	0	0	18,644

AM Peak Hour	07:15	11:45			07:15	PM Peak Hour	14:45	17:15			14:45
AM Pk Volume	853	488			1314	PM Pk Volume	785	790			1476
Pk Hr Factor	0.840	0.931			0.878	Pk Hr Factor	0.896	0.923			0.925
7 - 9 Volume	1515	874	0	0	2389	4 - 6 Volume	1233	1480	0	0	2713
7 - 9 Peak Hour	07:15	07:00			07:15	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	853	480	0	0	1314	4 - 6 Pk Volume	651	780	0	0	1431
Pk Hr Factor	0.840	0.805	0.000	0.000	0.878	Pk Hr Factor	0.875	0.911	0.000	0.000	0.939

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Schleisman Rd & 68th St

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_007

DAILY TOTALS	NB	SB	EB	WB	Total
	5,948	5,135	0	0	11,083

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	9		12				21		12:00	97		62				159	
00:15	5		7				12		12:15	98		86				184	
00:30	4		6				10		12:30	95		88				183	
00:45	1	19	6	31			7	50	12:45	82	372	81	317			163	689
01:00	3		4				7		13:00	75		77				152	
01:15	3		6				9		13:15	81		75				156	
01:30	0		6				6		13:30	92		82				174	
01:45	3	9	3	19			6	28	13:45	97	345	62	296			159	641
02:00	3		3				6		14:00	118		68				186	
02:15	3		2				5		14:15	97		80				177	
02:30	4		1				5		14:30	99		101				200	
02:45	3	13	8	14			11	27	14:45	123	437	114	363			237	800
03:00	2		0				2		15:00	194		129				323	
03:15	3		1				4		15:15	159		105				264	
03:30	4		2				6		15:30	156		88				244	
03:45	9	18	5	8			14	26	15:45	118	627	107	429			225	1056
04:00	3		8				11		16:00	103		87				190	
04:15	9		5				14		16:15	112		86				198	
04:30	10		7				17		16:30	125		97				222	
04:45	9	31	13	33			22	64	16:45	109	449	93	363			202	812
05:00	12		6				18		17:00	104		90				194	
05:15	13		17				30		17:15	104		108				212	
05:30	16		11				27		17:30	128		92				220	
05:45	13	54	9	43			22	97	17:45	89	425	131	421			220	846
06:00	19		23				42		18:00	98		86				184	
06:15	25		21				46		18:15	102		84				186	
06:30	56		36				92		18:30	102		102				204	
06:45	69	169	38	118			107	287	18:45	73	375	83	355			156	730
07:00	78		89				167		19:00	111		91				202	
07:15	123		145				268		19:15	85		71				156	
07:30	179		91				270		19:30	70		72				142	
07:45	110	490	84	409			194	899	19:45	69	335	70	304			139	639
08:00	95		73				168		20:00	50		60				110	
08:15	102		64				166		20:15	59		69				128	
08:30	76		63				139		20:30	56		60				116	
08:45	89	362	41	241			130	603	20:45	45	210	55	244			100	454
09:00	78		57				135		21:00	45		55				100	
09:15	78		51				129		21:15	49		60				109	
09:30	63		60				123		21:30	37		42				79	
09:45	51	270	60	228			111	498	21:45	21	152	28	185			49	337
10:00	66		70				136		22:00	21		33				54	
10:15	74		62				136		22:15	25		34				59	
10:30	75		62				137		22:30	10		22				32	
10:45	86	301	79	273			165	574	22:45	17	73	11	100			28	173
11:00	98		75				173		23:00	11		19				30	
11:15	78		63				141		23:15	10		13				23	
11:30	104		76				180		23:30	7		11				18	
11:45	98	378	71	285			169	663	23:45	6	34	13	56			19	90
TOTALS		2114		1702				3816	TOTALS		3834		3433				7267
SPLIT %		55.4%		44.6%				34.4%	SPLIT %		52.8%		47.2%				65.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	5,948	5,135	0	0	11,083

AM Peak Hour	07:15	07:00			07:15	PM Peak Hour	14:45	14:30			14:45
AM Pk Volume	507	409			900	PM Pk Volume	632	449			1068
Pk Hr Factor	0.708	0.705			0.833	Pk Hr Factor	0.814	0.870			0.827
7 - 9 Volume	852	650	0	0	1502	4 - 6 Volume	874	784	0	0	1658
7 - 9 Peak Hour	07:15	07:00			07:15	4 - 6 Peak Hour	16:15	17:00			17:00
7 - 9 Pk Volume	507	409	0	0	900	4 - 6 Pk Volume	450	421	0	0	846
Pk Hr Factor	0.708	0.705	0.000	0.000	0.833	Pk Hr Factor	0.900	0.803	0.000	0.000	0.961

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Schleisman Rd & 68th St

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_007

DAILY TOTALS	NB	SB	EB	WB	Total
	6,189	5,052	0	0	11,241

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	3		2						5		12:00	100		71						171	
00:15	4		6						10		12:15	103		51						154	
00:30	2		5						7		12:30	88		82						170	
00:45	5	14	5	18					10	32	12:45	100	391	76	280					176	671
01:00	3		6						9		13:00	106		75						181	
01:15	1		1						2		13:15	89		105						194	
01:30	2		4						6		13:30	111		85						196	
01:45	1	7	3	14					4	21	13:45	97	403	85	350					182	753
02:00	0		2						2		14:00	135		112						247	
02:15	6		4						10		14:15	143		88						231	
02:30	3		1						4		14:30	117		105						222	
02:45	2	11	4	11					6	22	14:45	126	521	118	423					244	944
03:00	1		1						2		15:00	194		98						292	
03:15	1		1						2		15:15	132		94						226	
03:30	3		4						7		15:30	143		103						246	
03:45	9	14	5	11					14	25	15:45	131	600	88	383					219	983
04:00	9		1						10		16:00	127		99						226	
04:15	7		5						12		16:15	131		82						213	
04:30	8		9						17		16:30	124		104						228	
04:45	11	35	11	26					22	61	16:45	110	492	93	378					203	870
05:00	17		11						28		17:00	112		104						216	
05:15	12		9						21		17:15	121		94						215	
05:30	14		4						18		17:30	114		100						214	
05:45	15	58	18	42					33	100	17:45	122	469	111	409					233	878
06:00	10		20						30		18:00	121		102						223	
06:15	38		28						66		18:15	103		79						182	
06:30	48		32						80		18:30	81		93						174	
06:45	59	155	47	127					106	282	18:45	80	385	85	359					165	744
07:00	80		57						137		19:00	108		77						185	
07:15	76		53						129		19:15	83		79						162	
07:30	114		50						164		19:30	68		66						134	
07:45	112	382	70	230					182	612	19:45	66	325	64	286					130	611
08:00	131		66						197		20:00	76		71						147	
08:15	101		128						229		20:15	78		77						155	
08:30	122		121						243		20:30	68		57						125	
08:45	152	506	76	391					228	897	20:45	61	283	42	247					103	530
09:00	93		61						154		21:00	50		41						91	
09:15	49		59						108		21:15	45		43						88	
09:30	67		77						144		21:30	27		36						63	
09:45	54	263	57	254					111	517	21:45	28	150	38	158					66	308
10:00	69		56						125		22:00	24		21						45	
10:15	59		59						118		22:15	16		21						37	
10:30	65		50						115		22:30	19		20						39	
10:45	83	276	59	224					142	500	22:45	18	77	14	76					32	153
11:00	83		74						157		23:00	14		17						31	
11:15	89		74						163		23:15	11		19						30	
11:30	95		67						162		23:30	10		13						23	
11:45	65	332	81	296					146	628	23:45	5	40	10	59					15	99
TOTALS		2053		1644						3697	TOTALS		4136		3408						7544
SPLIT %		55.5%		44.5%						32.9%	SPLIT %		54.8%		45.2%						67.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	6,189	5,052	0	0	11,241

AM Peak Hour	08:00	08:00			08:00	PM Peak Hour	15:00	14:00			14:45
AM Pk Volume	506	391			897	PM Pk Volume	600	423			1008
Pk Hr Factor	0.832	0.764			0.923	Pk Hr Factor	0.773	0.896			0.863
7 - 9 Volume	888	621	0	0	1509	4 - 6 Volume	961	787	0	0	1748
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:00	17:00			17:00
7 - 9 Pk Volume	506	391	0	0	897	4 - 6 Pk Volume	492	409	0	0	878
Pk Hr Factor	0.832	0.764	0.000	0.000	0.923	Pk Hr Factor	0.939	0.921	0.000	0.000	0.942

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Schleisman Rd & 68th St

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_007

DAILY TOTALS	NB	SB	EB	WB	Total
	6,067	5,044	0	0	11,111

AM Period	NB		SB		EB		WB		TOTAL	
00:00	8		9						17	
00:15	5		9						14	
00:30	5		5						10	
00:45	4	22	2	25					6	47
01:00	4		6						10	
01:15	2		7						9	
01:30	3		3						6	
01:45	1	10	2	18					3	28
02:00	1		1						2	
02:15	2		1						3	
02:30	2		4						6	
02:45	3	8	2	8					5	16
03:00	2		1						3	
03:15	6		2						8	
03:30	5		2						7	
03:45	5	18	11	16					16	34
04:00	4		1						5	
04:15	7		5						12	
04:30	13		12						25	
04:45	14	38	8	26					22	64
05:00	13		14						27	
05:15	22		10						32	
05:30	16		10						26	
05:45	14	65	17	51					31	116
06:00	17		26						43	
06:15	32		31						63	
06:30	47		49						96	
06:45	62	158	38	144					100	302
07:00	80		73						153	
07:15	133		154						287	
07:30	182		105						287	
07:45	126	521	73	405					199	926
08:00	111		73						184	
08:15	86		68						154	
08:30	89		67						156	
08:45	94	380	64	272					158	652
09:00	91		49						140	
09:15	75		46						121	
09:30	59		53						112	
09:45	85	310	53	201					138	511
10:00	84		78						162	
10:15	78		59						137	
10:30	86		67						153	
10:45	75	323	90	294					165	617
11:00	77		69						146	
11:15	93		60						153	
11:30	97		77						174	
11:45	86	353	81	287					167	640
TOTALS		2206		1747						3953
SPLIT %		55.8%		44.2%						35.6%

PM Period	NB		SB		EB		WB		TOTAL	
12:00	96		77						173	
12:15	104		76						180	
12:30	106		81						187	
12:45	96	402	87	321					183	723
13:00	81		81						162	
13:15	81		97						178	
13:30	90		93						183	
13:45	98	350	77	348					175	698
14:00	95		64						159	
14:15	87		75						162	
14:30	82		94						176	
14:45	153	417	100	333					253	750
15:00	166		119						285	
15:15	163		95						258	
15:30	139		86						225	
15:45	139	607	88	388					227	995
16:00	102		92						194	
16:15	96		75						171	
16:30	100		79						179	
16:45	101	399	100	346					201	745
17:00	94		90						184	
17:15	115		97						212	
17:30	107		88						195	
17:45	106	422	96	371					202	793
18:00	100		93						193	
18:15	80		87						167	
18:30	114		81						195	
18:45	99	393	94	355					193	748
19:00	104		71						175	
19:15	88		76						164	
19:30	83		68						151	
19:45	75	350	60	275					135	625
20:00	72		65						137	
20:15	81		56						137	
20:30	52		54						106	
20:45	49	254	58	233					107	487
21:00	56		49						105	
21:15	42		54						96	
21:30	35		43						78	
21:45	30	163	32	178					62	341
22:00	20		32						52	
22:15	25		24						49	
22:30	9		23						32	
22:45	19	73	22	101					41	174
23:00	8		16						24	
23:15	10		7						17	
23:30	7		17						24	
23:45	6	31	8	48					14	79
TOTALS		3861		3297						7158
SPLIT %		53.9%		46.1%						64.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	6,067	5,044	0	0	11,111

AM Peak Hour	07:15	07:00			07:15
AM Pk Volume	552	405			957
Pk Hr Factor	0.758	0.657			0.834
7 - 9 Volume	901	677	0	0	1578
7 - 9 Peak Hour	07:15	07:00			07:15
7 - 9 Pk Volume	552	405	0	0	957
Pk Hr Factor	0.758	0.657	0.000	0.000	0.834

PM Peak Hour	14:45	14:30			14:45
PM Pk Volume	621	408			1021
Pk Hr Factor	0.935	0.857			0.896
4 - 6 Volume	821	717	0	0	1538
4 - 6 Peak Hour	17:00	16:45			17:00
4 - 6 Pk Volume	422	375	0	0	793
Pk Hr Factor	0.917	0.938	0.000	0.000	0.935

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Citrus St & Schleisman Rd

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_006

DAILY TOTALS	NB	SB	EB	WB	Total
	10,239	9,217	0	0	19,456

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	18		15						33		12:00	150		138						288	
00:15	11		12						23		12:15	142		128						270	
00:30	14		7						21		12:30	145		143						288	
00:45	6	49	12	46					18	95	12:45	126	563	144	553					270	1116
01:00	7		4						11		13:00	121		141						262	
01:15	10		3						13		13:15	135		124						259	
01:30	3		5						8		13:30	136		157						293	
01:45	4	24	5	17					9	41	13:45	146	538	128	550					274	1088
02:00	7		2						9		14:00	168		129						297	
02:15	6		3						9		14:15	156		158						314	
02:30	8		4						12		14:30	173		171						344	
02:45	4	25	4	13					8	38	14:45	187	684	182	640					369	1324
03:00	3		4						7		15:00	262		177						439	
03:15	2		3						5		15:15	231		178						409	
03:30	7		6						13		15:30	192		179						371	
03:45	12	24	13	26					25	50	15:45	174	859	154	688					328	1547
04:00	9		20						29		16:00	160		180						340	
04:15	10		20						30		16:15	194		150						344	
04:30	16		26						42		16:30	185		184						369	
04:45	15	50	23	89					38	139	16:45	202	741	176	690					378	1431
05:00	24		23						47		17:00	175		153						328	
05:15	26		32						58		17:15	217		182						399	
05:30	44		29						73		17:30	205		221						426	
05:45	42	136	36	120					78	256	17:45	180	777	201	757					381	1534
06:00	45		58						103		18:00	206		179						385	
06:15	71		61						132		18:15	173		159						332	
06:30	124		95						219		18:30	175		145						320	
06:45	137	377	129	343					266	720	18:45	153	707	139	622					292	1329
07:00	176		192						368		19:00	194		124						318	
07:15	231		241						472		19:15	154		94						248	
07:30	263		220						483		19:30	147		104						251	
07:45	173	843	169	822					342	1665	19:45	131	626	93	415					224	1041
08:00	175		147						322		20:00	139		90						229	
08:15	147		158						305		20:15	148		83						231	
08:30	141		141						282		20:30	101		72						173	
08:45	149	612	133	579					282	1191	20:45	90	478	74	319					164	797
09:00	132		142						274		21:00	100		51						151	
09:15	128		121						249		21:15	96		71						167	
09:30	121		130						251		21:30	68		48						116	
09:45	84	465	142	535					226	1000	21:45	62	326	36	206					98	532
10:00	118		125						243		22:00	51		45						96	
10:15	98		118						216		22:15	51		31						82	
10:30	117		127						244		22:30	30		25						55	
10:45	134	467	124	494					258	961	22:45	25	157	23	124					48	281
11:00	155		123						278		23:00	39		19						58	
11:15	131		126						257		23:15	21		19						40	
11:30	185		129						314		23:30	16		12						28	
11:45	150	621	132	510					282	1131	23:45	14	90	9	59					23	149
TOTALS		3693		3594						7287	TOTALS		6546		5623						12169
SPLIT %		50.7%		49.3%						37.5%	SPLIT %		53.8%		46.2%						62.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	10,239	9,217	0	0	19,456

AM Peak Hour	07:00	07:00			07:00	PM Peak Hour	14:45	17:15			17:15
AM Pk Volume	843	822			1665	PM Pk Volume	872	783			1591
Pk Hr Factor	0.801	0.853			0.862	Pk Hr Factor	0.832	0.886			0.934
7 - 9 Volume	1455	1401	0	0	2856	4 - 6 Volume	1518	1447	0	0	2965
7 - 9 Peak Hour	07:00	07:00			07:00	4 - 6 Peak Hour	16:45	17:00			17:00
7 - 9 Pk Volume	843	822	0	0	1665	4 - 6 Pk Volume	799	757	0	0	1534
Pk Hr Factor	0.801	0.853	0.000	0.000	0.862	Pk Hr Factor	0.921	0.856	0.000	0.000	0.900

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Citrus St & Schleisman Rd

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_006

DAILY TOTALS	NB	SB	EB	WB	Total
	10,566	9,062	0	0	19,628

AM Period	NB		SB		EB		WB		TOTAL	
00:00	11		5						16	
00:15	7		10						17	
00:30	8		8						16	
00:45	12	38	8	31					20	69
01:00	5		5						10	
01:15	2		4						6	
01:30	7		6						13	
01:45	5	19	6	21					11	40
02:00	3		6						9	
02:15	10		4						14	
02:30	7		1						8	
02:45	1	21	7	18					8	39
03:00	5		5						10	
03:15	5		9						14	
03:30	3		9						12	
03:45	12	25	15	38					27	63
04:00	12		15						27	
04:15	10		20						30	
04:30	13		22						35	
04:45	26	61	23	80					49	141
05:00	23		24						47	
05:15	29		31						60	
05:30	41		35						76	
05:45	36	129	43	133					79	262
06:00	49		45						94	
06:15	89		64						153	
06:30	88		91						179	
06:45	119	345	123	323					242	668
07:00	167		141						308	
07:15	172		150						322	
07:30	226		159						385	
07:45	239	804	147	597					386	1401
08:00	241		154						395	
08:15	163		213						376	
08:30	207		253						460	
08:45	244	855	156	776					400	1631
09:00	157		119						276	
09:15	93		122						215	
09:30	106		129						235	
09:45	100	456	110	480					210	936
10:00	109		118						227	
10:15	91		116						207	
10:30	118		111						229	
10:45	127	445	111	456					238	901
11:00	127		111						238	
11:15	143		148						291	
11:30	140		131						271	
11:45	122	532	136	526					258	1058
TOTALS		3730		3479						7209
SPLIT %		51.7%		48.3%						36.7%

PM Period	NB		SB		EB		WB		TOTAL	
12:00	132		129						261	
12:15	152		121						273	
12:30	146		127						273	
12:45	142	572	130	507					272	1079
13:00	139		126						265	
13:15	161		139						300	
13:30	164		141						305	
13:45	133	597	142	548					275	1145
14:00	175		181						356	
14:15	183		154						337	
14:30	159		173						332	
14:45	205	722	177	685					382	1407
15:00	241		156						397	
15:15	195		167						362	
15:30	207		170						377	
15:45	183	826	156	649					339	1475
16:00	179		188						367	
16:15	204		154						358	
16:30	191		162						353	
16:45	173	747	192	696					365	1443
17:00	201		197						398	
17:15	209		182						391	
17:30	224		201						425	
17:45	192	826	213	793					405	1619
18:00	233		170						403	
18:15	186		138						324	
18:30	149		158						307	
18:45	171	739	156	622					327	1361
19:00	227		131						358	
19:15	150		102						252	
19:30	133		82						215	
19:45	125	635	82	397					207	1032
20:00	162		90						252	
20:15	144		94						238	
20:30	132		78						210	
20:45	126	564	70	332					196	896
21:00	110		56						166	
21:15	119		50						169	
21:30	73		45						118	
21:45	49	351	44	195					93	546
22:00	48		30						78	
22:15	45		28						73	
22:30	44		22						66	
22:45	33	170	22	102					55	272
23:00	29		20						49	
23:15	20		10						30	
23:30	18		12						30	
23:45	20	87	15	57					35	144
TOTALS		6836		5583						12419
SPLIT %		55.0%		45.0%						63.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	10,566	9,062	0	0	19,628

AM Peak Hour	07:15	08:00			08:00
AM Pk Volume	878	776			1631
Pk Hr Factor	0.911	0.767			0.886
7 - 9 Volume	1659	1373	0	0	3032
7 - 9 Peak Hour	07:15	08:00			08:00
7 - 9 Pk Volume	878	776	0	0	1631
Pk Hr Factor	0.911	0.767	0.000	0.000	0.886

PM Peak Hour	17:15	17:00			17:15
PM Pk Volume	858	793			1624
Pk Hr Factor	0.921	0.931			0.955
4 - 6 Volume	1573	1489	0	0	3062
4 - 6 Peak Hour	17:00	17:00			17:00
4 - 6 Pk Volume	826	793	0	0	1619
Pk Hr Factor	0.922	0.931	0.000	0.000	0.952

Prepared by NDS/ATD

VOLUME

Miliken Ave/Hamner Ave Bet. Citrus St & Schleisman Rd

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_006

DAILY TOTALS	NB	SB	EB	WB	Total
	10,162	9,026	0	0	19,188

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	13		10						23		12:00	156		124						280	
00:15	12		7						19		12:15	148		138						286	
00:30	12		8						20		12:30	164		135						299	
00:45	10	47	4	29					14	76	12:45	127	595	122	519					249	1114
01:00	7		7						14		13:00	131		144						275	
01:15	6		4						10		13:15	122		123						245	
01:30	3		5						8		13:30	135		163						298	
01:45	3	19	3	19					6	38	13:45	130	518	129	559					259	1077
02:00	3		5						8		14:00	170		122						292	
02:15	8		4						12		14:15	125		140						265	
02:30	5		5						10		14:30	140		141						281	
02:45	7	23	3	17					10	40	14:45	226	661	175	578					401	1239
03:00	5		0						5		15:00	228		181						409	
03:15	5		5						10		15:15	196		147						343	
03:30	7		6						13		15:30	219		183						402	
03:45	5	22	14	25					19	47	15:45	207	850	150	661					357	1511
04:00	9		12						21		16:00	188		161						349	
04:15	9		18						27		16:15	172		163						335	
04:30	19		30						49		16:30	174		181						355	
04:45	22	59	19	79					41	138	16:45	173	707	157	662					330	1369
05:00	21		27						48		17:00	165		158						323	
05:15	39		27						66		17:15	200		171						371	
05:30	39		37						76		17:30	210		185						395	
05:45	35	134	41	132					76	266	17:45	192	767	174	688					366	1455
06:00	57		56						113		18:00	193		170						363	
06:15	75		62						137		18:15	176		141						317	
06:30	97		103						200		18:30	193		139						332	
06:45	126	355	113	334					239	689	18:45	177	739	162	612					339	1351
07:00	156		168						324		19:00	194		115						309	
07:15	211		256						467		19:15	151		109						260	
07:30	264		231						495		19:30	128		95						223	
07:45	218	849	163	818					381	1667	19:45	113	586	77	396					190	982
08:00	177		153						330		20:00	119		70						189	
08:15	147		155						302		20:15	149		80						229	
08:30	147		163						310		20:30	134		79						213	
08:45	170	641	138	609					308	1250	20:45	95	497	65	294					160	791
09:00	132		141						273		21:00	100		64						164	
09:15	141		127						268		21:15	80		56						136	
09:30	117		129						246		21:30	75		49						124	
09:45	111	501	138	535					249	1036	21:45	63	318	36	205					99	523
10:00	117		141						258		22:00	34		38						72	
10:15	117		122						239		22:15	34		29						63	
10:30	122		124						246		22:30	16		32						48	
10:45	130	486	151	538					281	1024	22:45	23	107	16	115					39	222
11:00	131		139						270		23:00	28		16						44	
11:15	158		129						287		23:15	20		11						31	
11:30	160		126						286		23:30	14		14						28	
11:45	151	600	158	552					309	1152	23:45	19	81	9	50					28	131
TOTALS		3736		3687						7423	TOTALS		6426		5339						11765
SPLIT %		50.3%		49.7%						38.7%	SPLIT %		54.6%		45.4%						61.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	10,162	9,026	0	0	19,188

AM Peak Hour	07:15	07:00			07:15	PM Peak Hour	14:45	17:15			14:45
AM Pk Volume	870	818			1673	PM Pk Volume	869	700			1555
Pk Hr Factor	0.824	0.799			0.845	Pk Hr Factor	0.953	0.946			0.950
7 - 9 Volume	1490	1427	0	0	2917	4 - 6 Volume	1474	1350	0	0	2824
7 - 9 Peak Hour	07:15	07:00			07:15	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	870	818	0	0	1673	4 - 6 Pk Volume	767	688	0	0	1455
Pk Hr Factor	0.824	0.799	0.000	0.000	0.845	Pk Hr Factor	0.913	0.930	0.000	0.000	0.921

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. I-15 Entrance/Exit Ramps & Wineville Ave

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	15,282	17,182	32,464

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			37		17		54		12:00			206		226		432	
00:15			44		19		63		12:15			199		249		448	
00:30			27		13		40		12:30			245		261		506	
00:45			24	132	11	60	35	192	12:45			236	886	251	987	487	1873
01:00			22		15		37		13:00			236		246		482	
01:15			23		8		31		13:15			237		260		497	
01:30			20		18		38		13:30			242		230		472	
01:45			20	85	12	53	32	138	13:45			270	985	262	998	532	1983
02:00			9		9		18		14:00			263		243		506	
02:15			18		9		27		14:15			271		272		543	
02:30			18		19		37		14:30			238		268		506	
02:45			14	59	17	54	31	113	14:45			276	1048	198	981	474	2029
03:00			16		16		32		15:00			283		270		553	
03:15			13		27		40		15:15			299		246		545	
03:30			24		50		74		15:30			255		286		541	
03:45			15	68	61	154	76	222	15:45			277	1114	260	1062	537	2176
04:00			26		75		101		16:00			296		230		526	
04:15			31		118		149		16:15			264		274		538	
04:30			43		174		217		16:30			292		285		577	
04:45			43	143	201	568	244	711	16:45			303	1155	272	1061	575	2216
05:00			38		176		214		17:00			291		252		543	
05:15			46		240		286		17:15			310		260		570	
05:30			47		254		301		17:30			282		252		534	
05:45			82	213	182	852	264	1065	17:45			276	1159	224	988	500	2147
06:00			98		232		330		18:00			297		276		573	
06:15			99		241		340		18:15			268		252		520	
06:30			115		226		341		18:30			265		279		544	
06:45			145	457	265	964	410	1421	18:45			247	1077	223	1030	470	2107
07:00			144		268		412		19:00			241		199		440	
07:15			171		308		479		19:15			227		236		463	
07:30			184		285		469		19:30			217		203		420	
07:45			174	673	267	1128	441	1801	19:45			221	906	186	824	407	1730
08:00			159		240		399		20:00			216		229		445	
08:15			185		252		437		20:15			211		197		408	
08:30			192		273		465		20:30			190		156		346	
08:45			165	701	221	986	386	1687	20:45			207	824	147	729	354	1553
09:00			149		215		364		21:00			214		120		334	
09:15			169		243		412		21:15			157		116		273	
09:30			174		218		392		21:30			172		127		299	
09:45			162	654	222	898	384	1552	21:45			144	687	108	471	252	1158
10:00			174		239		413		22:00			118		104		222	
10:15			182		209		391		22:15			111		74		185	
10:30			204		249		453		22:30			100		70		170	
10:45			209	769	245	942	454	1711	22:45			116	445	49	297	165	742
11:00			200		236		436		23:00			79		43		122	
11:15			200		249		449		23:15			56		35		91	
11:30			194		241		435		23:30			51		35		86	
11:45			227	821	231	957	458	1778	23:45			35	221	25	138	60	359
TOTALS				4775		7616		12391	TOTALS				10507		9566		20073
SPLIT %				38.5%		61.5%		38.2%	SPLIT %				52.3%		47.7%		61.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	15,282	17,182	32,464

AM Peak Hour			11:45	07:00	11:45	PM Peak Hour	16:30	16:15	16:30
AM Pk Volume			877	1128	1844	PM Pk Volume	1196	1083	2265
Pk Hr Factor			0.895	0.916	0.911	Pk Hr Factor	0.965	0.950	0.981
7 - 9 Volume	0	0	1374	2114	3488	4 - 6 Volume	2314	2049	4363
7 - 9 Peak Hour			07:45	07:00	07:00	4 - 6 Peak Hour	16:30	16:15	16:30
7 - 9 Pk Volume	0	0	710	1128	1801	4 - 6 Pk Volume	1196	1083	2265
Pk Hr Factor	0.000	0.000	0.924	0.916	0.940	Pk Hr Factor	0.965	0.950	0.981

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. I-15 Entrance/Exit Ramps & Wineville Ave

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	15,277	16,608	31,885

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			25		14		39		12:00			201		252		453	
00:15			35		12		47		12:15			244		235		479	
00:30			29		16		45		12:30			210		245		455	
00:45			25	114	8	50	33	164	12:45			233	888	246	978	479	1866
01:00			23		15		38		13:00			247		277		524	
01:15			25		6		31		13:15			243		282		525	
01:30			14		18		32		13:30			222		253		475	
01:45			15	77	8	47	23	124	13:45			239	951	237	1049	476	2000
02:00			10		15		25		14:00			280		231		511	
02:15			14		6		20		14:15			241		263		504	
02:30			17		17		34		14:30			238		222		460	
02:45			14	55	20	58	34	113	14:45			275	1034	228	944	503	1978
03:00			18		20		38		15:00			268		257		525	
03:15			14		26		40		15:15			256		265		521	
03:30			15		47		62		15:30			290		294		584	
03:45			17	64	59	152	76	216	15:45			271	1085	253	1069	524	2154
04:00			15		81		96		16:00			306		257		563	
04:15			26		109		135		16:15			299		253		552	
04:30			36		179		215		16:30			300		199		499	
04:45			35	112	169	538	204	650	16:45			289	1194	254	963	543	2157
05:00			40		198		238		17:00			272		261		533	
05:15			52		209		261		17:15			317		259		576	
05:30			45		224		269		17:30			273		271		544	
05:45			74	211	224	855	298	1066	17:45			325	1187	260	1051	585	2238
06:00			100		200		300		18:00			316		253		569	
06:15			104		237		341		18:15			296		253		549	
06:30			120		248		368		18:30			283		227		510	
06:45			123	447	258	943	381	1390	18:45			235	1130	216	949	451	2079
07:00			171		269		440		19:00			232		241		473	
07:15			168		314		482		19:15			224		201		425	
07:30			257		285		542		19:30			199		182		381	
07:45			209	805	241	1109	450	1914	19:45			226	881	188	812	414	1693
08:00			219		261		480		20:00			205		215		420	
08:15			176		265		441		20:15			190		174		364	
08:30			157		245		402		20:30			207		147		354	
08:45			188	740	212	983	400	1723	20:45			224	826	128	664	352	1490
09:00			166		219		385		21:00			187		124		311	
09:15			152		195		347		21:15			191		127		318	
09:30			187		207		394		21:30			148		93		241	
09:45			170	675	213	834	383	1509	21:45			123	649	89	433	212	1082
10:00			161		228		389		22:00			141		69		210	
10:15			182		218		400		22:15			104		60		164	
10:30			193		219		412		22:30			87		50		137	
10:45			195	731	189	854	384	1585	22:45			100	432	39	218	139	650
11:00			165		234		399		23:00			75		49		124	
11:15			201		214		415		23:15			61		36		97	
11:30			184		219		403		23:30			54		32		86	
11:45			199	749	244	911	443	1660	23:45			50	240	27	144	77	384
TOTALS				4780		7334		12114	TOTALS				10497		9274		19771
SPLIT %				39.5%		60.5%		38.0%	SPLIT %				53.1%		46.9%		62.0%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	15,277	16,608	31,885

AM Peak Hour			07:30	06:45	07:15	PM Peak Hour			17:15	15:00	17:15
AM Pk Volume			861	1126	1954	PM Pk Volume			1231	1069	2274
Pk Hr Factor			0.838	0.896	0.901	Pk Hr Factor			0.947	0.909	0.972
7 - 9 Volume	0	0	1545	2092	3637	4 - 6 Volume	0	0	2381	2014	4395
7 - 9 Peak Hour			07:30	07:00	07:15	4 - 6 Peak Hour			16:00	17:00	17:00
7 - 9 Pk Volume	0	0	861	1109	1954	4 - 6 Pk Volume	0	0	1194	1051	2238
Pk Hr Factor	0.000	0.000	0.838	0.883	0.901	Pk Hr Factor	0.000	0.000	0.975	0.970	0.956

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. I-15 Entrance/Exit Ramps & Wineville Ave

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_005

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,700	16,629	31,329

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			39		18		57		12:00			209		220		429	
00:15			29		9		38		12:15			196		235		431	
00:30			22		17		39		12:30			225		217		442	
00:45			26	116	10	54	36	170	12:45			205	835	245	917	450	1752
01:00			22		8		30		13:00			237		211		448	
01:15			16		9		25		13:15			232		243		475	
01:30			21		10		31		13:30			242		231		473	
01:45			24	83	11	38	35	121	13:45			229	940	258	943	487	1883
02:00			13		14		27		14:00			232		249		481	
02:15			17		13		30		14:15			240		295		535	
02:30			8		21		29		14:30			211		261		472	
02:45			15	53	15	63	30	116	14:45			296	979	276	1081	572	2060
03:00			9		14		23		15:00			254		244		498	
03:15			19		32		51		15:15			273		281		554	
03:30			18		41		59		15:30			263		274		537	
03:45			11	57	67	154	78	211	15:45			314	1104	267	1066	581	2170
04:00			12		71		83		16:00			302		276		578	
04:15			27		134		161		16:15			289		237		526	
04:30			29		192		221		16:30			313		243		556	
04:45			45	113	195	592	240	705	16:45			279	1183	261	1017	540	2200
05:00			53		200		253		17:00			234		285		519	
05:15			59		208		267		17:15			318		307		625	
05:30			64		245		309		17:30			305		266		571	
05:45			81	257	236	889	317	1146	17:45			312	1169	253	1111	565	2280
06:00			73		205		278		18:00			318		252		570	
06:15			110		260		370		18:15			285		237		522	
06:30			107		267		374		18:30			266		263		529	
06:45			147	437	257	989	404	1426	18:45			244	1113	242	994	486	2107
07:00			145		260		405		19:00			257		215		472	
07:15			194		311		505		19:15			214		211		425	
07:30			175		273		448		19:30			227		206		433	
07:45			182	696	242	1086	424	1782	19:45			243	941	193	825	436	1766
08:00			166		214		380		20:00			206		203		409	
08:15			158		234		392		20:15			195		173		368	
08:30			149		237		386		20:30			208		145		353	
08:45			168	641	187	872	355	1513	20:45			199	808	107	628	306	1436
09:00			158		231		389		21:00			188		138		326	
09:15			142		211		353		21:15			164		103		267	
09:30			153		208		361		21:30			144		90		234	
09:45			136	589	211	861	347	1450	21:45			122	618	88	419	210	1037
10:00			172		215		387		22:00			108		61		169	
10:15			179		185		364		22:15			98		77		175	
10:30			149		227		376		22:30			83		49		132	
10:45			179	679	207	834	386	1513	22:45			82	371	37	224	119	595
11:00			156		206		362		23:00			80		44		124	
11:15			181		208		389		23:15			65		33		98	
11:30			174		191		365		23:30			60		27		87	
11:45			165	676	239	844	404	1520	23:45			37	242	24	128	61	370
TOTALS				4397		7276		11673	TOTALS				10303		9353		19656
SPLIT %				37.7%		62.3%		37.3%	SPLIT %				52.4%		47.6%		62.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,700	16,629	31,329

AM Peak Hour			11:45	06:45	07:00	PM Peak Hour	17:15	16:45	17:15
AM Pk Volume			795	1101	1782	PM Pk Volume	1253	1119	2331
Pk Hr Factor			0.883	0.885	0.882	Pk Hr Factor	0.985	0.911	0.932
7 - 9 Volume	0	0	1337	1958	3295	4 - 6 Volume	2352	2128	4480
7 - 9 Peak Hour			07:15	07:00	07:00	4 - 6 Peak Hour	16:00	16:45	17:00
7 - 9 Pk Volume	0	0	717	1086	1782	4 - 6 Pk Volume	1183	1119	2280
Pk Hr Factor	0.000	0.000	0.924	0.873	0.882	Pk Hr Factor	0.945	0.911	0.912

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Hamner Ave & I-15 Entrance/Exit Ramps

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	22,246	19,709	41,955

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			58		48		106		12:00			349		284		633	
00:15			68		58		126		12:15			320		280		600	
00:30			38		35		73		12:30			337		298		635	
00:45			40	204	33	174	73	378	12:45			331	1337	272	1134	603	2471
01:00			31		43		74		13:00			360		274		634	
01:15			34		22		56		13:15			366		305		671	
01:30			29		29		58		13:30			380		296		676	
01:45			13	107	29	123	42	230	13:45			372	1478	250	1125	622	2603
02:00			24		27		51		14:00			377		264		641	
02:15			24		23		47		14:15			372		288		660	
02:30			20		24		44		14:30			377		276		653	
02:45			29	97	25	99	54	196	14:45			349	1475	302	1130	651	2605
03:00			29		16		45		15:00			399		300		699	
03:15			37		30		67		15:15			384		288		672	
03:30			42		37		79		15:30			353		239		592	
03:45			46	154	51	134	97	288	15:45			360	1496	278	1105	638	2601
04:00			64		40		104		16:00			387		244		631	
04:15			68		47		115		16:15			356		273		629	
04:30			101		90		191		16:30			351		250		601	
04:45			100	333	116	293	216	626	16:45			321	1415	288	1055	609	2470
05:00			101		148		249		17:00			317		328		645	
05:15			115		220		335		17:15			349		332		681	
05:30			165		252		417		17:30			373		350		723	
05:45			153	534	212	832	365	1366	17:45			332	1371	312	1322	644	2693
06:00			177		254		431		18:00			333		359		692	
06:15			260		260		520		18:15			311		302		613	
06:30			283		266		549		18:30			341		320		661	
06:45			246	966	234	1014	480	1980	18:45			307	1292	301	1282	608	2574
07:00			331		272		603		19:00			298		284		582	
07:15			387		235		622		19:15			327		318		645	
07:30			355		226		581		19:30			284		280		564	
07:45			290	1363	228	961	518	2324	19:45			270	1179	281	1163	551	2342
08:00			280		239		519		20:00			249		276		525	
08:15			325		266		591		20:15			270		301		571	
08:30			332		240		572		20:30			248		246		494	
08:45			293	1230	259	1004	552	2234	20:45			198	965	248	1071	446	2036
09:00			279		231		510		21:00			255		236		491	
09:15			308		226		534		21:15			199		215		414	
09:30			292		222		514		21:30			216		239		455	
09:45			283	1162	236	915	519	2077	21:45			193	863	203	893	396	1756
10:00			270		213		483		22:00			179		172		351	
10:15			299		235		534		22:15			126		157		283	
10:30			319		229		548		22:30			104		128		232	
10:45			295	1183	262	939	557	2122	22:45			100	509	110	567	210	1076
11:00			294		253		547		23:00			117		117		234	
11:15			294		245		539		23:15			75		83		158	
11:30			333		259		592		23:30			58		72		130	
11:45			289	1210	287	1044	576	2254	23:45			73	323	58	330	131	653
TOTALS				8543		7532		16075	TOTALS				13703		12177		25880
SPLIT %				53.1%		46.9%		38.3%	SPLIT %				52.9%		47.1%		61.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	22,246	19,709	41,955

AM Peak Hour			07:00	11:45	11:45	PM Peak Hour		14:30	17:15	17:15
AM Pk Volume			1363	1149	2444	PM Pk Volume		1509	1353	2740
Pk Hr Factor			0.880	0.964	0.962	Pk Hr Factor		0.945	0.942	0.947
7 - 9 Volume	0	0	2593	1965	4558	4 - 6 Volume	0	2786	2377	5163
7 - 9 Peak Hour			07:00	08:00	07:00	4 - 6 Peak Hour		16:00	17:00	17:00
7 - 9 Pk Volume	0	0	1363	1004	2324	4 - 6 Pk Volume	0	1415	1322	2693
Pk Hr Factor	0.000	0.000	0.880	0.944	0.934	Pk Hr Factor	0.000	0.914	0.944	0.931

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Hamner Ave & I-15 Entrance/Exit Ramps

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	22,394	19,828	42,222

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			56		60		116		12:00			359		282		641	
00:15			41		42		83		12:15			348		298		646	
00:30			34		44		78		12:30			321		251		572	
00:45			47	178	42	188	89	366	12:45			343	1371	316	1147	659	2518
01:00			34		40		74		13:00			329		313		642	
01:15			28		19		47		13:15			338		310		648	
01:30			31		21		52		13:30			345		330		675	
01:45			20	113	26	106	46	219	13:45			340	1352	281	1234	621	2586
02:00			27		26		53		14:00			383		246		629	
02:15			23		32		55		14:15			407		284		691	
02:30			31		20		51		14:30			368		263		631	
02:45			23	104	28	106	51	210	14:45			385	1543	279	1072	664	2615
03:00			36		33		69		15:00			336		275		611	
03:15			31		25		56		15:15			394		308		702	
03:30			31		31		62		15:30			364		278		642	
03:45			56	154	53	142	109	296	15:45			387	1481	293	1154	680	2635
04:00			74		62		136		16:00			378		290		668	
04:15			82		54		136		16:15			367		281		648	
04:30			98		109		207		16:30			338		257		595	
04:45			96	350	115	340	211	690	16:45			324	1407	273	1101	597	2508
05:00			131		184		315		17:00			325		319		644	
05:15			128		205		333		17:15			371		305		676	
05:30			164		256		420		17:30			348		302		650	
05:45			139	562	238	883	377	1445	17:45			347	1391	337	1263	684	2654
06:00			181		233		414		18:00			323		365		688	
06:15			243		275		518		18:15			331		353		684	
06:30			300		285		585		18:30			337		302		639	
06:45			279	1003	256	1049	535	2052	18:45			305	1296	306	1326	611	2622
07:00			333		225		558		19:00			303		278		581	
07:15			348		235		583		19:15			299		288		587	
07:30			369		235		604		19:30			290		264		554	
07:45			288	1338	250	945	538	2283	19:45			277	1169	268	1098	545	2267
08:00			284		255		539		20:00			279		247		526	
08:15			276		282		558		20:15			262		287		549	
08:30			308		263		571		20:30			271		237		508	
08:45			322	1190	284	1084	606	2274	20:45			234	1046	221	992	455	2038
09:00			309		235		544		21:00			233		232		465	
09:15			269		260		529		21:15			257		229		486	
09:30			284		233		517		21:30			211		201		412	
09:45			288	1150	229	957	517	2107	21:45			167	868	161	823	328	1691
10:00			271		221		492		22:00			199		154		353	
10:15			297		243		540		22:15			180		115		295	
10:30			299		238		537		22:30			130		132		262	
10:45			291	1158	239	941	530	2099	22:45			124	633	97	498	221	1131
11:00			283		251		534		23:00			96		93		189	
11:15			313		266		579		23:15			76		72		148	
11:30			323		234		557		23:30			91		95		186	
11:45			284	1203	316	1067	600	2270	23:45			71	334	52	312	123	646
TOTALS				8503		7808		16311	TOTALS				13891		12020		25911
SPLIT %				52.1%		47.9%		38.6%	SPLIT %				53.6%		46.4%		61.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	22,394	19,828	42,222

AM Peak Hour			07:00	11:45	11:45	PM Peak Hour		14:00	17:30	17:30
AM Pk Volume			1338	1147	2459	PM Pk Volume		1543	1357	2706
Pk Hr Factor			0.907	0.907	0.952	Pk Hr Factor		0.948	0.929	0.983
7 - 9 Volume	0	0	2528	2029	4557	4 - 6 Volume	0	2798	2364	5162
7 - 9 Peak Hour			07:00	08:00	07:00	4 - 6 Peak Hour		16:00	17:00	17:00
7 - 9 Pk Volume	0	0	1338	1084	2283	4 - 6 Pk Volume	0	1407	1263	2654
Pk Hr Factor	0.000	0.000	0.907	0.954	0.945	Pk Hr Factor	0.000	0.931	0.937	0.970

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Hamner Ave & I-15 Entrance/Exit Ramps

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_004

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	21,559	19,496	41,055

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			59		44		103		12:00			295		276		571	
00:15			50		49		99		12:15			328		261		589	
00:30			42		40		82		12:30			330		253		583	
00:45			40	191	40	173	80	364	12:45			300	1253	268	1058	568	2311
01:00			38		27		65		13:00			347		268		615	
01:15			27		22		49		13:15			338		281		619	
01:30			29		29		58		13:30			334		245		579	
01:45			20	114	27	105	47	219	13:45			316	1335	301	1095	617	2430
02:00			23		21		44		14:00			334		274		608	
02:15			20		21		41		14:15			387		297		684	
02:30			14		23		37		14:30			325		274		599	
02:45			28	85	29	94	57	179	14:45			374	1420	302	1147	676	2567
03:00			16		20		36		15:00			385		324		709	
03:15			39		29		68		15:15			364		330		694	
03:30			37		32		69		15:30			383		298		681	
03:45			43	135	51	132	94	267	15:45			365	1497	293	1245	658	2742
04:00			45		51		96		16:00			367		306		673	
04:15			77		45		122		16:15			341		319		660	
04:30			109		90		199		16:30			362		279		641	
04:45			87	318	133	319	220	637	16:45			296	1366	282	1186	578	2552
05:00			114		156		270		17:00			335		322		657	
05:15			122		212		334		17:15			384		347		731	
05:30			171		235		406		17:30			348		328		676	
05:45			151	558	231	834	382	1392	17:45			325	1392	349	1346	674	2738
06:00			153		256		409		18:00			349		324		673	
06:15			244		289		533		18:15			329		368		697	
06:30			280		267		547		18:30			313		336		649	
06:45			280	957	239	1051	519	2008	18:45			325	1316	327	1355	652	2671
07:00			326		247		573		19:00			303		295		598	
07:15			352		258		610		19:15			283		293		576	
07:30			328		223		551		19:30			307		273		580	
07:45			309	1315	227	955	536	2270	19:45			292	1185	280	1141	572	2326
08:00			275		213		488		20:00			283		263		546	
08:15			325		230		555		20:15			253		257		510	
08:30			313		253		566		20:30			258		222		480	
08:45			249	1162	210	906	459	2068	20:45			238	1032	209	951	447	1983
09:00			229		230		459		21:00			228		200		428	
09:15			275		235		510		21:15			210		228		438	
09:30			304		234		538		21:30			174		196		370	
09:45			253	1061	235	934	488	1995	21:45			148	760	178	802	326	1562
10:00			288		206		494		22:00			160		165		325	
10:15			275		222		497		22:15			161		148		309	
10:30			269		216		485		22:30			126		102		228	
10:45			304	1136	232	876	536	2012	22:45			100	547	109	524	209	1071
11:00			240		211		451		23:00			101		91		192	
11:15			306		223		529		23:15			82		80		162	
11:30			268		254		522		23:30			61		67		128	
11:45			315	1129	277	965	592	2094	23:45			51	295	64	302	115	597
TOTALS				8161		7344		15505	TOTALS				13398		12152		25550
SPLIT %				52.6%		47.4%		37.8%	SPLIT %				52.4%		47.6%		62.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	21,559	19,496	41,055

AM Peak Hour			07:00	11:30	11:45	PM Peak Hour			14:45	17:45	14:45
AM Pk Volume			1315	1068	2335	PM Pk Volume			1506	1377	2760
Pk Hr Factor			0.934	0.964	0.986	Pk Hr Factor			0.978	0.935	0.973
7 - 9 Volume	0	0	2477	1861	4338	4 - 6 Volume	0	0	2758	2532	5290
7 - 9 Peak Hour			07:00	07:00	07:00	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	1315	955	2270	4 - 6 Pk Volume	0	0	1392	1346	2738
Pk Hr Factor	0.000	0.000	0.934	0.925	0.930	Pk Hr Factor	0.000	0.000	0.906	0.964	0.936

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Scholar Wy & Hamner Ave

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,719	13,414	28,133

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			22		35		57		12:00			214		165		379	
00:15			19		33		52		12:15			219		173		392	
00:30			19		25		44		12:30			217		163		380	
00:45			16	76	27	120	43	196	12:45			201	851	164	665	365	1516
01:00			9		30		39		13:00			194		169		363	
01:15			13		21		34		13:15			203		193		396	
01:30			15		17		32		13:30			192		196		388	
01:45			5	42	26	94	31	136	13:45			215	804	184	742	399	1546
02:00			9		13		22		14:00			250		183		433	
02:15			8		15		23		14:15			254		200		454	
02:30			10		12		22		14:30			288		187		475	
02:45			17	44	10	50	27	94	14:45			233	1025	187	757	420	1782
03:00			18		13		31		15:00			285		186		471	
03:15			17		12		29		15:15			301		220		521	
03:30			18		21		39		15:30			294		194		488	
03:45			23	76	8	54	31	130	15:45			279	1159	210	810	489	1969
04:00			26		19		45		16:00			308		175		483	
04:15			37		28		65		16:15			243		198		441	
04:30			59		60		119		16:30			258		183		441	
04:45			57	179	80	187	137	366	16:45			246	1055	222	778	468	1833
05:00			54		102		156		17:00			248		248		496	
05:15			63		165		228		17:15			271		215		486	
05:30			105		231		336		17:30			283		231		514	
05:45			103	325	150	648	253	973	17:45			230	1032	214	908	444	1940
06:00			122		179		301		18:00			268		245		513	
06:15			166		218		384		18:15			261		225		486	
06:30			177		202		379		18:30			254		206		460	
06:45			154	619	162	761	316	1380	18:45			194	977	236	912	430	1889
07:00			211		180		391		19:00			223		207		430	
07:15			284		160		444		19:15			202		205		407	
07:30			218		159		377		19:30			209		223		432	
07:45			210	923	150	649	360	1572	19:45			194	828	201	836	395	1664
08:00			210		159		369		20:00			198		196		394	
08:15			239		158		397		20:15			174		208		382	
08:30			214		128		342		20:30			140		205		345	
08:45			236	899	152	597	388	1496	20:45			123	635	203	812	326	1447
09:00			201		128		329		21:00			125		220		345	
09:15			208		122		330		21:15			110		180		290	
09:30			196		112		308		21:30			113		155		268	
09:45			181	786	126	488	307	1274	21:45			85	433	161	716	246	1149
10:00			186		158		344		22:00			100		119		219	
10:15			199		139		338		22:15			77		121		198	
10:30			203		135		338		22:30			49		88		137	
10:45			170	758	164	596	334	1354	22:45			61	287	77	405	138	692
11:00			180		149		329		23:00			37		65		102	
11:15			202		161		363		23:15			24		55		79	
11:30			217		148		365		23:30			26		53		79	
11:45			192	791	151	609	343	1400	23:45			28	115	47	220	75	335
TOTALS				5518		4853		10371	TOTALS				9201		8561		17762
SPLIT %				53.2%		46.8%		36.9%	SPLIT %				51.8%		48.2%		63.1%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,719	13,414	28,133

AM Peak Hour			07:00	05:30	07:00	PM Peak Hour		15:15	16:45	15:15
AM Pk Volume			923	778	1572	PM Pk Volume		1182	916	1981
Pk Hr Factor			0.813	0.842	0.885	Pk Hr Factor		0.959	0.923	0.951
7 - 9 Volume	0	0	1822	1246	3068	4 - 6 Volume	0	2087	1686	3773
7 - 9 Peak Hour			07:00	07:00	07:00	4 - 6 Peak Hour		16:00	16:45	16:45
7 - 9 Pk Volume	0	0	923	649	1572	4 - 6 Pk Volume	0	1055	916	1964
Pk Hr Factor	0.000	0.000	0.813	0.901	0.885	Pk Hr Factor	0.000	0.856	0.923	0.955

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Scholar Wy & Hamner Ave

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,624	13,205	27,829

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			27		47		74		12:00			206		151		357	
00:15			14		25		39		12:15			191		175		366	
00:30			6		28		34		12:30			198		169		367	
00:45			19	66	23	123	42	189	12:45			186	781	209	704	395	1485
01:00			17		28		45		13:00			199		190		389	
01:15			11		17		28		13:15			181		184		365	
01:30			6		18		24		13:30			208		216		424	
01:45			16	50	16	79	32	129	13:45			221	809	173	763	394	1572
02:00			18		20		38		14:00			254		176		430	
02:15			10		12		22		14:15			269		181		450	
02:30			14		14		28		14:30			237		180		417	
02:45			9	51	15	61	24	112	14:45			244	1004	170	707	414	1711
03:00			26		21		47		15:00			243		195		438	
03:15			12		13		25		15:15			269		197		466	
03:30			21		18		39		15:30			270		175		445	
03:45			29	88	21	73	50	161	15:45			300	1082	184	751	484	1833
04:00			30		40		70		16:00			273		182		455	
04:15			41		25		66		16:15			267		189		456	
04:30			62		70		132		16:30			206		191		397	
04:45			53	186	80	215	133	401	16:45			292	1038	194	756	486	1794
05:00			68		130		198		17:00			249		221		470	
05:15			79		167		246		17:15			254		227		481	
05:30			90		213		303		17:30			288		197		485	
05:45			97	334	186	696	283	1030	17:45			233	1024	229	874	462	1898
06:00			119		155		274		18:00			267		224		491	
06:15			166		239		405		18:15			231		206		437	
06:30			181		229		410		18:30			229		186		415	
06:45			181	647	188	811	369	1458	18:45			200	927	195	811	395	1738
07:00			247		169		416		19:00			206		185		391	
07:15			253		167		420		19:15			215		219		434	
07:30			268		158		426		19:30			192		199		391	
07:45			228	996	191	685	419	1681	19:45			195	808	217	820	412	1628
08:00			208		158		366		20:00			172		207		379	
08:15			244		179		423		20:15			155		219		374	
08:30			230		146		376		20:30			150		188		338	
08:45			225	907	169	652	394	1559	20:45			123	600	153	767	276	1367
09:00			207		116		323		21:00			122		150		272	
09:15			198		164		362		21:15			123		184		307	
09:30			204		124		328		21:30			100		151		251	
09:45			181	790	125	529	306	1319	21:45			94	439	100	585	194	1024
10:00			173		111		284		22:00			102		106		208	
10:15			220		145		365		22:15			85		95		180	
10:30			172		142		314		22:30			58		80		138	
10:45			196	761	166	564	362	1325	22:45			64	309	71	352	135	661
11:00			201		145		346		23:00			38		57		95	
11:15			201		181		382		23:15			28		64		92	
11:30			203		133		336		23:30			31		56		87	
11:45			200	805	151	610	351	1415	23:45			25	122	40	217	65	339
TOTALS				5681		5098		10779	TOTALS				8943		8107		17050
SPLIT %				52.7%		47.3%		38.7%	SPLIT %				52.5%		47.5%		61.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,624	13,205	27,829

AM Peak Hour			07:00	06:15	07:00	PM Peak Hour			15:15	17:15	16:45
AM Pk Volume			996	825	1681	PM Pk Volume			1112	877	1922
Pk Hr Factor			0.929	0.863	0.987	Pk Hr Factor			0.927	0.957	0.989
7 - 9 Volume	0	0	1903	1337	3240	4 - 6 Volume	0	0	2062	1630	3692
7 - 9 Peak Hour			07:00	07:30	07:00	4 - 6 Peak Hour			16:45	17:00	16:45
7 - 9 Pk Volume	0	0	996	686	1681	4 - 6 Pk Volume	0	0	1083	874	1922
Pk Hr Factor	0.000	0.000	0.929	0.898	0.987	Pk Hr Factor	0.000	0.000	0.927	0.954	0.989

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Scholar Wy & Hamner Ave

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_003

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,401	13,143	27,544

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			34		32		66		12:00			211		164		375	
00:15			20		32		52		12:15			218		158		376	
00:30			22		28		50		12:30			213		159		372	
00:45			18	94	33	125	51	219	12:45			213	855	176	657	389	1512
01:00			11		19		30		13:00			190		172		362	
01:15			17		13		30		13:15			224		178		402	
01:30			17		18		35		13:30			194		159		353	
01:45			7	52	16	66	23	118	13:45			189	797	171	680	360	1477
02:00			12		13		25		14:00			247		179		426	
02:15			9		8		17		14:15			235		182		417	
02:30			7		13		20		14:30			235		174		409	
02:45			20	48	11	45	31	93	14:45			266	983	200	735	466	1718
03:00			8		12		20		15:00			260		220		480	
03:15			22		10		32		15:15			277		180		457	
03:30			14		21		35		15:30			243		197		440	
03:45			20	64	20	63	40	127	15:45			268	1048	183	780	451	1828
04:00			21		27		48		16:00			286		187		473	
04:15			44		24		68		16:15			229		208		437	
04:30			60		56		116		16:30			210		222		432	
04:45			46	171	90	197	136	368	16:45			237	962	201	818	438	1780
05:00			54		113		167		17:00			264		201		465	
05:15			71		163		234		17:15			288		210		498	
05:30			113		208		321		17:30			278		227		505	
05:45			104	342	174	658	278	1000	17:45			270	1100	225	863	495	1963
06:00			106		183		289		18:00			248		238		486	
06:15			175		206		381		18:15			246		244		490	
06:30			177		236		413		18:30			246		228		474	
06:45			199	657	168	793	367	1450	18:45			212	952	220	930	432	1882
07:00			205		177		382		19:00			230		231		461	
07:15			254		188		442		19:15			220		201		421	
07:30			254		172		426		19:30			204		201		405	
07:45			216	929	151	688	367	1617	19:45			171	825	203	836	374	1661
08:00			211		132		343		20:00			169		190		359	
08:15			247		147		394		20:15			161		198		359	
08:30			212		154		366		20:30			124		177		301	
08:45			204	874	128	561	332	1435	20:45			141	595	169	734	310	1329
09:00			207		126		333		21:00			114		179		293	
09:15			173		145		318		21:15			111		160		271	
09:30			200		140		340		21:30			83		148		231	
09:45			203	783	127	538	330	1321	21:45			78	386	141	628	219	1014
10:00			195		118		313		22:00			91		134		225	
10:15			196		124		320		22:15			99		99		198	
10:30			163		155		318		22:30			68		80		148	
10:45			170	724	140	537	310	1261	22:45			45	303	71	384	116	687
11:00			181		136		317		23:00			33		58		91	
11:15			189		141		330		23:15			30		63		93	
11:30			177		147		324		23:30			24		64		88	
11:45			207	754	171	595	378	1349	23:45			16	103	47	232	63	335
TOTALS				5492		4866		10358	TOTALS				8909		8277		17186
SPLIT %				53.0%		47.0%		37.6%	SPLIT %				51.8%		48.2%		62.4%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	14,401	13,143	27,544

AM Peak Hour			07:15	05:45	06:45	PM Peak Hour			17:00	17:45	17:15
AM Pk Volume			935	799	1617	PM Pk Volume			1100	935	1984
Pk Hr Factor			0.920	0.846	0.915	Pk Hr Factor			0.955	0.958	0.982
7 - 9 Volume	0	0	1803	1249	3052	4 - 6 Volume	0	0	2062	1681	3743
7 - 9 Peak Hour			07:15	07:00	07:00	4 - 6 Peak Hour			17:00	17:00	17:00
7 - 9 Pk Volume	0	0	935	688	1617	4 - 6 Pk Volume	0	0	1100	863	1963
Pk Hr Factor	0.000	0.000	0.920	0.915	0.915	Pk Hr Factor	0.000	0.000	0.955	0.950	0.972

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Harrison Ave & Scholar Wy

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,706	12,166	24,872

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			18		32		50		12:00			186		155		341	
00:15			19		28		47		12:15			177		148		325	
00:30			12		17		29		12:30			180		151		331	
00:45			11	60	26	103	37	163	12:45			149	692	149	603	298	1295
01:00			7		24		31		13:00			144		147		291	
01:15			10		18		28		13:15			157		163		320	
01:30			10		14		24		13:30			152		172		324	
01:45			3	30	24	80	27	110	13:45			185	638	150	632	335	1270
02:00			10		9		19		14:00			200		154		354	
02:15			10		12		22		14:15			233		158		391	
02:30			8		13		21		14:30			266		149		415	
02:45			14	42	8	42	22	84	14:45			224	923	159	620	383	1543
03:00			14		14		28		15:00			274		173		447	
03:15			15		10		25		15:15			282		196		478	
03:30			19		19		38		15:30			273		190		463	
03:45			19	67	8	51	27	118	15:45			260	1089	178	737	438	1826
04:00			25		18		43		16:00			264		156		420	
04:15			26		27		53		16:15			250		188		438	
04:30			48		54		102		16:30			246		171		417	
04:45			42	141	79	178	121	319	16:45			223	983	192	707	415	1690
05:00			46		96		142		17:00			238		197		435	
05:15			49		168		217		17:15			246		201		447	
05:30			85		234		319		17:30			246		220		466	
05:45			82	262	176	674	258	936	17:45			220	950	171	789	391	1739
06:00			103		174		277		18:00			206		214		420	
06:15			141		209		350		18:15			243		207		450	
06:30			148		193		341		18:30			221		173		394	
06:45			139	531	182	758	321	1289	18:45			160	830	207	801	367	1631
07:00			192		171		363		19:00			180		188		368	
07:15			228		163		391		19:15			172		186		358	
07:30			202		163		365		19:30			183		197		380	
07:45			200	822	166	663	366	1485	19:45			171	706	185	756	356	1462
08:00			217		158		375		20:00			153		173		326	
08:15			211		160		371		20:15			151		177		328	
08:30			181		135		316		20:30			100		173		273	
08:45			223	832	146	599	369	1431	20:45			104	508	177	700	281	1208
09:00			169		129		298		21:00			97		179		276	
09:15			160		116		276		21:15			90		176		266	
09:30			194		108		302		21:30			93		133		226	
09:45			140	663	116	469	256	1132	21:45			67	347	142	630	209	977
10:00			144		125		269		22:00			93		103		196	
10:15			151		134		285		22:15			68		114		182	
10:30			176		116		292		22:30			36		76		112	
10:45			142	613	121	496	263	1109	22:45			48	245	77	370	125	615
11:00			148		131		279		23:00			30		59		89	
11:15			163		133		296		23:15			30		47		77	
11:30			163		126		289		23:30			19		44		63	
11:45			158	632	130	520	288	1152	23:45			21	100	38	188	59	288
TOTALS				4695		4633		9328	TOTALS				8011		7533		15544
SPLIT %				50.3%		49.7%		37.5%	SPLIT %				51.5%		48.5%		62.5%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,706	12,166	24,872

AM Peak Hour			07:15	05:30	07:15	PM Peak Hour			15:00	17:30	15:00
AM Pk Volume			847	793	1497	PM Pk Volume			1089	812	1826
Pk Hr Factor			0.929	0.847	0.957	Pk Hr Factor			0.965	0.923	0.955
7 - 9 Volume	0	0	1654	1262	2916	4 - 6 Volume	0	0	1933	1496	3429
7 - 9 Peak Hour			07:15	07:00	07:15	4 - 6 Peak Hour			16:00	16:45	16:45
7 - 9 Pk Volume	0	0	847	663	1497	4 - 6 Pk Volume	0	0	983	810	1763
Pk Hr Factor	0.000	0.000	0.929	0.969	0.957	Pk Hr Factor	0.000	0.000	0.931	0.920	0.946

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Harrison Ave & Scholar Wy

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,535	12,095	24,630

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			17		38		55		12:00			167		134		301	
00:15			11		22		33		12:15			160		169		329	
00:30			4		21		25		12:30			152		170		322	
00:45			12	44	21	102	33	146	12:45			141	620	172	645	313	1265
01:00			12		22		34		13:00			158		182		340	
01:15			6		15		21		13:15			147		161		308	
01:30			6		12		18		13:30			190		166		356	
01:45			14	38	11	60	25	98	13:45			189	684	163	672	352	1356
02:00			14		15		29		14:00			219		154		373	
02:15			9		16		25		14:15			212		165		377	
02:30			12		15		27		14:30			183		158		341	
02:45			8	43	13	59	21	102	14:45			236	850	142	619	378	1469
03:00			18		19		37		15:00			224		174		398	
03:15			8		15		23		15:15			246		170		416	
03:30			19		14		33		15:30			257		156		413	
03:45			27	72	15	63	42	135	15:45			284	1011	175	675	459	1686
04:00			20		33		53		16:00			256		162		418	
04:15			31		21		52		16:15			258		187		445	
04:30			54		69		123		16:30			198		186		384	
04:45			42	147	86	209	128	356	16:45			241	953	156	691	397	1644
05:00			53		123		176		17:00			245		184		429	
05:15			66		168		234		17:15			225		190		415	
05:30			83		226		309		17:30			243		202		445	
05:45			80	282	198	715	278	997	17:45			235	948	182	758	417	1706
06:00			109		166		275		18:00			249		211		460	
06:15			119		242		361		18:15			218		185		403	
06:30			152		238		390		18:30			197		185		382	
06:45			156	536	193	839	349	1375	18:45			165	829	171	752	336	1581
07:00			218		165		383		19:00			194		153		347	
07:15			222		176		398		19:15			182		188		370	
07:30			213		173		386		19:30			168		165		333	
07:45			209	862	165	679	374	1541	19:45			160	704	201	707	361	1411
08:00			218		178		396		20:00			144		193		337	
08:15			217		182		399		20:15			125		190		315	
08:30			213		139		352		20:30			116		160		276	
08:45			174	822	156	655	330	1477	20:45			101	486	132	675	233	1161
09:00			150		124		274		21:00			89		138		227	
09:15			160		148		308		21:15			90		154		244	
09:30			165		109		274		21:30			84		146		230	
09:45			150	625	108	489	258	1114	21:45			74	337	91	529	165	866
10:00			142		104		246		22:00			77		102		179	
10:15			182		121		303		22:15			65		74		139	
10:30			141		142		283		22:30			50		67		117	
10:45			159	624	128	495	287	1119	22:45			56	248	64	307	120	555
11:00			168		114		282		23:00			32		46		78	
11:15			158		136		294		23:15			28		57		85	
11:30			164		135		299		23:30			26		51		77	
11:45			172	662	126	511	298	1173	23:45			22	108	35	189	57	297
TOTALS				4757		4876		9633	TOTALS				7778		7219		14997
SPLIT %				49.4%		50.6%		39.1%	SPLIT %				51.9%		48.1%		60.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,535	12,095	24,630

AM Peak Hour			07:00	05:45	07:30	PM Peak Hour			15:30	17:15	17:15
AM Pk Volume			862	844	1555	PM Pk Volume			1055	785	1737
Pk Hr Factor			0.971	0.872	0.974	Pk Hr Factor			0.929	0.930	0.944
7 - 9 Volume	0	0	1684	1334	3018	4 - 6 Volume	0	0	1901	1449	3350
7 - 9 Peak Hour			07:00	07:30	07:30	4 - 6 Peak Hour			16:45	17:00	17:00
7 - 9 Pk Volume	0	0	862	698	1555	4 - 6 Pk Volume	0	0	954	758	1706
Pk Hr Factor	0.000	0.000	0.971	0.959	0.974	Pk Hr Factor	0.000	0.000	0.973	0.938	0.958

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Harrison Ave & Scholar Wy

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,445	12,073	24,518

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			26		29		55		12:00			163		146		309	
00:15			15		27		42		12:15			204		145		349	
00:30			16		22		38		12:30			172		136		308	
00:45			13	70	28	106	41	176	12:45			145	684	154	581	299	1265
01:00			11		20		31		13:00			184		164		348	
01:15			15		13		28		13:15			169		142		311	
01:30			17		16		33		13:30			164		137		301	
01:45			4	47	9	58	13	105	13:45			156	673	155	598	311	1271
02:00			13		9		22		14:00			192		160		352	
02:15			5		9		14		14:15			214		151		365	
02:30			7		9		16		14:30			223		149		372	
02:45			13	38	12	39	25	77	14:45			230	859	180	640	410	1499
03:00			5		15		20		15:00			257		194		451	
03:15			18		9		27		15:15			219		168		387	
03:30			13		17		30		15:30			238		178		416	
03:45			14	50	15	56	29	106	15:45			243	957	146	686	389	1643
04:00			25		21		46		16:00			248		169		417	
04:15			34		25		59		16:15			232		188		420	
04:30			44		53		97		16:30			208		194		402	
04:45			34	137	93	192	127	329	16:45			233	921	181	732	414	1653
05:00			45		115		160		17:00			238		168		406	
05:15			69		161		230		17:15			274		194		468	
05:30			87		211		298		17:30			235		196		431	
05:45			89	290	190	677	279	967	17:45			248	995	215	773	463	1768
06:00			85		177		262		18:00			232		216		448	
06:15			157		222		379		18:15			225		214		439	
06:30			140		227		367		18:30			207		220		427	
06:45			173	555	187	813	360	1368	18:45			189	853	195	845	384	1698
07:00			194		182		376		19:00			187		204		391	
07:15			226		184		410		19:15			196		193		389	
07:30			210		162		372		19:30			175		183		358	
07:45			226	856	155	683	381	1539	19:45			150	708	184	764	334	1472
08:00			193		142		335		20:00			129		165		294	
08:15			207		140		347		20:15			129		187		316	
08:30			186		158		344		20:30			110		156		266	
08:45			161	747	143	583	304	1330	20:45			117	485	147	655	264	1140
09:00			172		127		299		21:00			98		146		244	
09:15			141		142		283		21:15			87		147		234	
09:30			165		127		292		21:30			55		134		189	
09:45			170	648	113	509	283	1157	21:45			58	298	117	544	175	842
10:00			156		109		265		22:00			86		112		198	
10:15			163		112		275		22:15			81		101		182	
10:30			124		145		269		22:30			48		74		122	
10:45			143	586	108	474	251	1060	22:45			39	254	58	345	97	599
11:00			149		114		263		23:00			27		58		85	
11:15			157		133		290		23:15			30		56		86	
11:30			158		118		276		23:30			21		49		70	
11:45			175	639	152	517	327	1156	23:45			17	95	40	203	57	298
TOTALS				4663		4707		9370	TOTALS				7782		7366		15148
SPLIT %				49.8%		50.2%		38.2%	SPLIT %				51.4%		48.6%		61.8%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,445	12,073	24,518

AM Peak Hour			07:00	06:15	07:00	PM Peak Hour		17:00	17:45	17:15
AM Pk Volume			856	818	1539	PM Pk Volume		995	865	1810
Pk Hr Factor			0.947	0.901	0.938	Pk Hr Factor		0.908	0.983	0.967
7 - 9 Volume	0	0	1603	1266	2869	4 - 6 Volume	0	1916	1505	3421
7 - 9 Peak Hour			07:00	07:00	07:00	4 - 6 Peak Hour		17:00	17:00	17:00
7 - 9 Pk Volume	0	0	856	683	1539	4 - 6 Pk Volume	0	995	773	1768
Pk Hr Factor	0.000	0.000	0.947	0.928	0.938	Pk Hr Factor	0.000	0.908	0.899	0.944

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Archibald Ave & Harrison Ave

Day: Thursday
Date: 4/23/2015

City: Eastvale
Project #: CA15_6063_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,897	9,365	17,262

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			16		17		33		12:00			93		115		208	
00:15			20		14		34		12:15			93		99		192	
00:30			10		10		20		12:30			99		100		199	
00:45			8	54	17	58	25	112	12:45			94	379	110	424	204	803
01:00			11		15		26		13:00			91		107		198	
01:15			6		11		17		13:15			89		107		196	
01:30			4		8		12		13:30			100		108		208	
01:45			5	26	12	46	17	72	13:45			113	393	98	420	211	813
02:00			12		10		22		14:00			142		110		252	
02:15			6		9		15		14:15			179		95		274	
02:30			12		9		21		14:30			157		87		244	
02:45			8	38	4	32	12	70	14:45			160	638	86	378	246	1016
03:00			8		12		20		15:00			194		115		309	
03:15			10		15		25		15:15			173		128		301	
03:30			6		32		38		15:30			196		117		313	
03:45			9	33	19	78	28	111	15:45			215	778	129	489	344	1267
04:00			16		23		39		16:00			193		138		331	
04:15			8		33		41		16:15			193		124		317	
04:30			17		89		106		16:30			178		121		299	
04:45			17	58	118	263	135	321	16:45			194	758	117	500	311	1258
05:00			21		138		159		17:00			166		130		296	
05:15			29		189		218		17:15			208		129		337	
05:30			37		291		328		17:30			200		122		322	
05:45			42	129	217	835	259	964	17:45			193	767	117	498	310	1265
06:00			62		206		268		18:00			170		126		296	
06:15			60		235		295		18:15			197		107		304	
06:30			68		236		304		18:30			139		125		264	
06:45			61	251	227	904	288	1155	18:45			123	629	127	485	250	1114
07:00			70		211		281		19:00			123		102		225	
07:15			99		183		282		19:15			118		88		206	
07:30			98		202		300		19:30			111		101		212	
07:45			85	352	193	789	278	1141	19:45			109	461	100	391	209	852
08:00			92		195		287		20:00			84		76		160	
08:15			103		158		261		20:15			93		86		179	
08:30			94		151		245		20:30			70		95		165	
08:45			90	379	170	674	260	1053	20:45			65	312	72	329	137	641
09:00			81		121		202		21:00			68		93		161	
09:15			68		111		179		21:15			44		74		118	
09:30			94		108		202		21:30			77		80		157	
09:45			77	320	97	437	174	757	21:45			54	243	80	327	134	570
10:00			67		102		169		22:00			68		51		119	
10:15			78		93		171		22:15			44		41		85	
10:30			87		120		207		22:30			42		40		82	
10:45			54	286	79	394	133	680	22:45			33	187	35	167	68	354
11:00			88		82		170		23:00			17		34		51	
11:15			82		76		158		23:15			21		24		45	
11:30			90		102		192		23:30			25		21		46	
11:45			87	347	87	347	174	694	23:45			16	79	21	100	37	179
TOTALS				2273		4857		7130	TOTALS				5624		4508		10132
SPLIT %				31.9%		68.1%		41.3%	SPLIT %				55.5%		44.5%		58.7%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,897	9,365	17,262

AM Peak Hour			08:00	05:30	06:15	PM Peak Hour			15:30	15:15	15:30
AM Pk Volume			379	949	1168	PM Pk Volume			797	512	1305
Pk Hr Factor			0.920	0.815	0.961	Pk Hr Factor			0.927	0.928	0.948
7 - 9 Volume	0	0	731	1463	2194	4 - 6 Volume	0	0	1525	998	2523
7 - 9 Peak Hour			08:00	07:00	07:15	4 - 6 Peak Hour			16:45	16:00	16:45
7 - 9 Pk Volume	0	0	379	789	1147	4 - 6 Pk Volume	0	0	768	500	1266
Pk Hr Factor	0.000	0.000	0.920	0.935	0.956	Pk Hr Factor	0.000	0.000	0.923	0.906	0.939

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Archibald Ave & Harrison Ave

Day: Wednesday
Date: 4/22/2015

City: Eastvale
Project #: CA15_6063_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	8,151	9,658	17,809

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			12		17		29		12:00			88		87		175	
00:15			13		11		24		12:15			97		105		202	
00:30			7		10		17		12:30			90		121		211	
00:45			7	39	11	49	18	88	12:45			83	358	119	432	202	790
01:00			5		13		18		13:00			76		113		189	
01:15			5		5		10		13:15			93		111		204	
01:30			6		4		10		13:30			101		117		218	
01:45			15	31	12	34	27	65	13:45			118	388	104	445	222	833
02:00			8		14		22		14:00			128		103		231	
02:15			9		11		20		14:15			162		120		282	
02:30			11		13		24		14:30			141		106		247	
02:45			9	37	14	52	23	89	14:45			164	595	102	431	266	1026
03:00			8		23		31		15:00			148		128		276	
03:15			4		18		22		15:15			198		125		323	
03:30			8		20		28		15:30			211		119		330	
03:45			16	36	26	87	42	123	15:45			225	782	100	472	325	1254
04:00			15		35		50		16:00			218		118		336	
04:15			16		31		47		16:15			216		106		322	
04:30			27		109		136		16:30			209		134		343	
04:45			20	78	113	288	133	366	16:45			207	850	126	484	333	1334
05:00			22		155		177		17:00			212		118		330	
05:15			34		197		231		17:15			184		126		310	
05:30			29		275		304		17:30			223		118		341	
05:45			42	127	242	869	284	996	17:45			185	804	142	504	327	1308
06:00			55		196		251		18:00			192		114		306	
06:15			57		279		336		18:15			164		134		298	
06:30			84		252		336		18:30			151		118		269	
06:45			87	283	247	974	334	1257	18:45			136	643	106	472	242	1115
07:00			97		200		297		19:00			154		77		231	
07:15			100		198		298		19:15			114		107		221	
07:30			77		207		284		19:30			116		98		214	
07:45			109	383	190	795	299	1178	19:45			107	491	112	394	219	885
08:00			85		215		300		20:00			98		99		197	
08:15			117		168		285		20:15			95		98		193	
08:30			121		161		282		20:30			68		72		140	
08:45			79	402	194	738	273	1140	20:45			73	334	68	337	141	671
09:00			70		132		202		21:00			55		64		119	
09:15			70		128		198		21:15			81		77		158	
09:30			79		129		208		21:30			64		70		134	
09:45			70	289	116	505	186	794	21:45			56	256	45	256	101	512
10:00			80		87		167		22:00			61		46		107	
10:15			81		106		187		22:15			45		39		84	
10:30			68		94		162		22:30			36		32		68	
10:45			73	302	124	411	197	713	22:45			49	191	39	156	88	347
11:00			86		82		168		23:00			33		18		51	
11:15			69		93		162		23:15			27		28		55	
11:30			86		110		196		23:30			23		32		55	
11:45			108	349	95	380	203	729	23:45			20	103	15	93	35	196
TOTALS				2356		5182		**7538**	**TOTALS**				5795		4476		**10271**
SPLIT %				31.3%		68.7%		**42.3%**	**SPLIT %**				56.4%		43.6%		**57.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	8,151	9,658	17,809

AM Peak Hour			07:45	05:30	**06:15**	**PM Peak Hour**			15:30	17:30	**16:00**
AM Pk Volume			432	992	**1303**	**PM Pk Volume**			870	508	**1334**
Pk Hr Factor			0.893	0.889	**0.969**	**Pk Hr Factor**			0.967	0.894	**0.972**
7 - 9 Volume	0	0	785	1533	**2318**	**4 - 6 Volume**	0	0	1654	988	**2642**
7 - 9 Peak Hour			07:45	07:15	**07:15**	**4 - 6 Peak Hour**			16:00	16:30	**16:00**
7 - 9 Pk Volume	0	0	432	810	**1181**	**4 - 6 Pk Volume**	0	0	850	504	**1334**
Pk Hr Factor	0.000	0.000	0.893	0.942	**0.984**	**Pk Hr Factor**	0.000	0.000	0.975	0.940	**0.972**

Prepared by NDS/ATD

VOLUME

Limonite Ave Bet. Archibald Ave & Harrison Ave

Day: Tuesday
Date: 4/21/2015

City: Eastvale
Project #: CA15_6063_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,857	9,345	17,202

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			17		15		32		12:00			101		84		185	
00:15			14		13		27		12:15			113		103		216	
00:30			14		12		26		12:30			106		112		218	
00:45			8	53	10	50	18	103	12:45			91	411	102	401	193	812
01:00			10		8		18		13:00			120		121		241	
01:15			13		7		20		13:15			108		98		206	
01:30			8		7		15		13:30			97		109		206	
01:45			6	37	8	30	14	67	13:45			112	437	105	433	217	870
02:00			8		6		14		14:00			126		98		224	
02:15			6		7		13		14:15			148		93		241	
02:30			9		5		14		14:30			169		99		268	
02:45			4	27	9	27	13	54	14:45			192	635	110	400	302	1035
03:00			3		15		18		15:00			170		117		287	
03:15			10		15		25		15:15			167		120		287	
03:30			4		21		25		15:30			165		107		272	
03:45			8	25	27	78	35	103	15:45			211	713	105	449	316	1162
04:00			13		26		39		16:00			201		117		318	
04:15			13		48		61		16:15			178		132		310	
04:30			19		87		106		16:30			173		113		286	
04:45			13	58	110	271	123	329	16:45			185	737	117	479	302	1216
05:00			10		157		167		17:00			181		117		298	
05:15			31		185		216		17:15			203		130		333	
05:30			41		249		290		17:30			211		111		322	
05:45			35	117	228	819	263	936	17:45			164	759	119	477	283	1236
06:00			47		215		262		18:00			197		129		326	
06:15			77		251		328		18:15			178		123		301	
06:30			74		274		348		18:30			153		118		271	
06:45			86	284	233	973	319	1257	18:45			139	667	99	469	238	1136
07:00			72		200		272		19:00			115		122		237	
07:15			91		220		311		19:15			99		96		195	
07:30			86		226		312		19:30			111		75		186	
07:45			104	353	175	821	279	1174	19:45			92	417	83	376	175	793
08:00			78		158		236		20:00			85		88		173	
08:15			81		167		248		20:15			83		97		180	
08:30			88		163		251		20:30			94		76		170	
08:45			79	326	166	654	245	980	20:45			68	330	76	337	144	667
09:00			85		138		223		21:00			65		70		135	
09:15			76		141		217		21:15			72		71		143	
09:30			84		126		210		21:30			42		72		114	
09:45			79	324	110	515	189	839	21:45			53	232	62	275	115	507
10:00			90		102		192		22:00			61		58		119	
10:15			75		89		164		22:15			53		39		92	
10:30			73		115		188		22:30			44		37		81	
10:45			65	303	90	396	155	699	22:45			36	194	29	163	65	357
11:00			85		73		158		23:00			25		30		55	
11:15			77		103		180		23:15			27		25		52	
11:30			88		90		178		23:30			12		20		32	
11:45			86	336	95	361	181	697	23:45			18	82	16	91	34	173
TOTALS				2243		4995		7238	TOTALS				5614		4350		9964
SPLIT %				31.0%		69.0%		42.1%	SPLIT %				56.3%		43.7%		57.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	7,857	9,345	17,202

AM Peak Hour			11:45	06:00	06:15	PM Peak Hour	16:45	17:15	17:15
AM Pk Volume			406	973	1267	PM Pk Volume	780	489	1264
Pk Hr Factor			0.898	0.888	0.910	Pk Hr Factor	0.924	0.940	0.949
7 - 9 Volume	0	0	679	1475	2154	4 - 6 Volume	1496	956	2452
7 - 9 Peak Hour			07:15	07:00	07:00	4 - 6 Peak Hour	16:45	16:00	16:45
7 - 9 Pk Volume	0	0	359	821	1174	4 - 6 Pk Volume	780	479	1255
Pk Hr Factor	0.000	0.000	0.863	0.908	0.941	Pk Hr Factor	0.924	0.907	0.942

Appendix K

HUNSAKER
& ASSOCIATES
IRVINE, INC.

PLANNING
ENGINEERING
SURVEYING
GOVERNMENT RELATIONS

IRVINE
LOS ANGELES
RIVERSIDE
SAN DIEGO

Sewer System Development Analysis

Date: December 6, 2021

For: Peter Carlson
Carlson Strategic Land Solutions

By: Katie O'Connor, P.E.
Hunsaker & Associates Irvine, Inc.

Project: **Leal Ranch Development Area**

Hunsaker & Associates Irvine, Inc. (H&A) is pleased to submit the Sewer System Development Analysis for the Leal Ranch Development Area. This analysis has been prepared to describe the proposed sewer points of connections for the aforementioned development project in the City of Eastvale. The project lies within the jurisdiction of the Jurupa Community Services District (JCSD) and their standards have been used for this report.

FOUNDING PARTNERS:
RICHARD HUNSAKER
TOM R. McGANNON
JOHN A. MICHLER
DOUGLAS G. SNYDER

This evaluation is based on existing and known conditions and should be re-evaluated if these conditions change or new information becomes available. Any interpretation of the information presented in this report should be referred to H&A to ensure the integrity of the results.

Project Location

The Leal Ranch Development Area is located in the City of Eastvale west of Hamner Avenue, north of Limonite Avenue, east of Scholar Way and south of 58th Street.

PRINCIPALS:
FRED GRAYLEE
BRADLEY HAY
PAUL HUDDLESTON
KAMAL H. KARAM
DOUGLAS L. STALEY
KRIS WEBER
JOSEPH E. WIGHTMAN

Project Description

The Leal Ranch Development Area is master planned development that will include residential, mixed use commercial, recreation, and community facilities.

Summary of Findings

SANITARY SEWER

JCSD provided preliminary hydraulic analysis (performed by Webb and Associates, August 2021) of the existing sewer system that would be impacted by the proposed Leal Ranch Development Area. The purpose of this analysis was to determine the maximum average daily sewer generation from Leal Ranch Development without causing downstream sewer capacity issues in the existing system. JCSD determined that the maximum allowed average daily flows from the Leal Ranch development would be 555,000 GPD. Attached is the exhibit provided by JCSD depicting the sewer loading points for the project and the impact that flow has on the existing system.

The project is designed in such a way that the sewer points of connection will all be provided from the existing sewer in Limonite. There will be no points of connection to the existing sewer in Hamner Ave. The current Leal Ranch development land

Three Hughes
Irvine, California
92618-2021
(949) 583-1010 PH
(949) 583-0759 FX
www.hunsaker.com

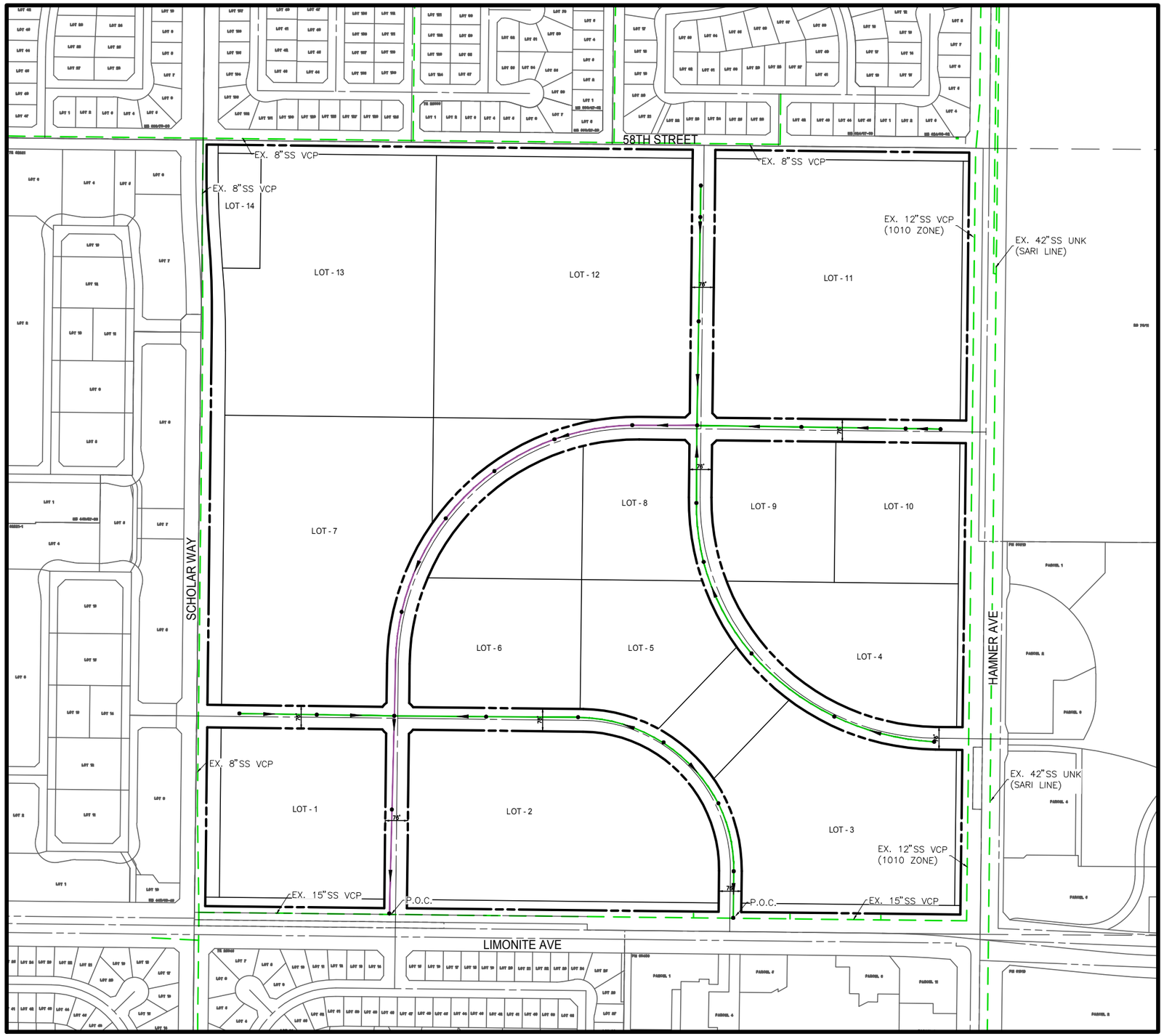
uses and densities produce average sewer flows of 544,710 GPD. The proposed project is 1.85% less than the maximum allowed average sewer flows from the site. Please see the attached summary comparing current design sewer generation flows with maximum acceptable sewer generation flows.

We sincerely trust these calculations will provide sufficient insight to the proposed and existing facilities that will serve the Leal Ranch Development Area. Please contact me at (949) 458-5437 with any questions.

KO:klo
Enclosures

W.O. 2749-44
(F:\0736\Planning\SY_WS STUDIES\H&A LETTERHEAD_Leal Ranch Summary.doc)

SEWER EXHIBIT
LEAL RANCH
CITY OF EASTVALE, CA



LEGEND

PROPOSED 8" SEWER LINE

PROPOSED 12" SEWER LINE

EXISTING SEWER LINE

NOTE:

✳ ALL PIPE SIZES ARE PRELIMINARY

0 200 400 800

SCALE: 1" = 400'

PREPARED BY

HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

DATE PREPARED: September 15, 2021

W.O.: 2749-44X

PLOT DATE: November 29, 2021

DATE: Nov. 29, 2021 10:44:19 AM FILE: H:\00750\Planning\Project Exhibits\Utility Exhibit\Leal Ranch– Utility Exhibit.dwg

Appendix L

EASTVALE LEAL PROPERTY

Water Supply Assessment

DECEMBER 2021 | FINAL

Prepared By:

Kimley»Horn

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Section 1. Introduction

Purpose

This document prepared for the New Home Company is a Water Supply Assessment (WSA) intended to meet the requirements of Senate Bill (SB) 610. The water demand for the Eastvale Leal Property ("proposed project") is calculated and the adequacy of water supplies to meet the proposed project is evaluated.

SB 610 established the primary legal standards for assessing the sufficiency of water supplies for new development projects. These statutes require as part of the environmental review conducted for a qualifying project pursuant to the California Environmental Quality Act (CEQA), the public water supplier or land use agency – in this case Jurupa Community Services District – must prepare a "water supply assessment" of the reliability of water supplies for the project, considering normal, single dry, and multiple dry years over a 20-year horizon. The basic requirement is that a WSA must "include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the water system's existing and planned future uses, including agricultural and manufacturing uses."[1]

References used in preparing this document include the following:

- JCSD 2020 Urban Water Management Plan (UWMP)
- JCSD Draft 2020 Water Master Plan
- Chino Basin Desalter Authority 2015 UWMP

This Assessment follows the report outline suggested by the DWR Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001.

Project Description

The Eastvale Leal Property project is located within the City of Eastvale, California. The site is known as the Leal property located at 58th Street, Hamner Avenue, Limonite Avenue and Scholar Way and is approximately 160 acres. The proposed project will include mixed uses including mixed-use retail, office, housing, and civic development including police and fire stations and community center as well as a hotel and community spaces. Jurupa Community Services District (JCSD) is the water supplier for the Project site. Site location is shown in **Figure 1-1**, and a land use plan is provided in **Figure 1-2**.

For the purposes of this WSA, it is assumed that only potable water will be available to meet the project's water demand.

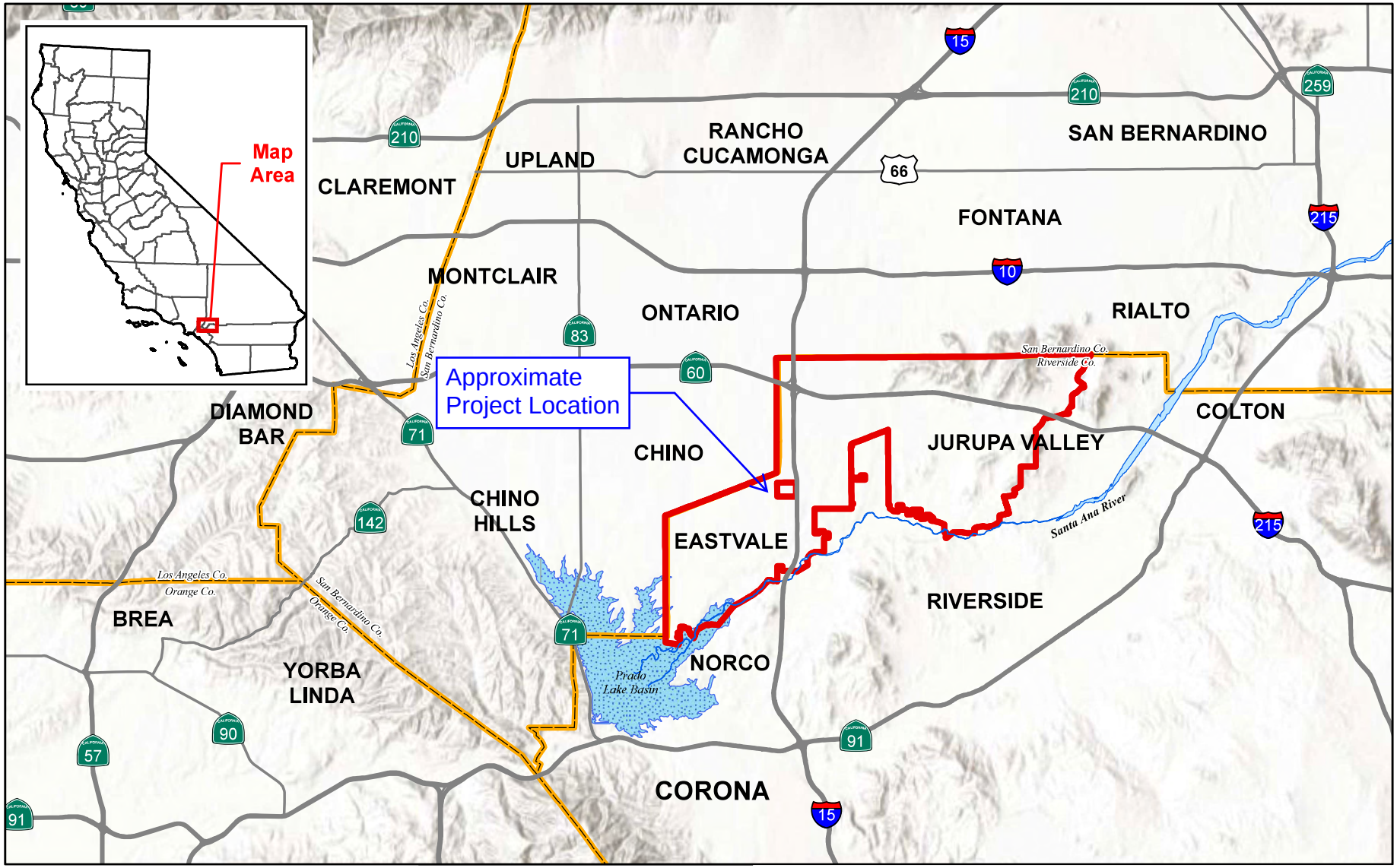
Project Relation to Urban Water Management Plan

JCSD is the water supplier for the Project and has prepared a 2020 UWMP, a copy of which is provided in **Appendix A**. The 2020 UWMP was adopted by JCSD Board of Directors on June 28, 2021 and reviewed by the state Department of Water Resources (DWR). The 2020 UWMP assumptions on growth projections within the service area were derived from an analysis of the additional water demand from the land uses assigned to vacant parcels by City-approved General Plans that could be developed in the future. As part

[1] California Water Code Section 10910(c)(3).

of this Assessment, it is assumed that there have been no substantial changes to the water supply portfolio as described in the 2020 UWMP.

As discussed further in Section 3 – Water Supply Analysis, JCSD is a member agency of the Chino Basin Desalter Authority (CDA), a Joint Exercise of Powers Agency from which JCSD purchases treated groundwater from the Chino Groundwater Basin. CDA has prepared a 2015 UWMP which is provided in **Appendix B**.



Source: JCSD Urban Water Management Plan 2020

Figure 1-1: Regional Location and Project Vicinity

0 5 10 Miles

jurupa COMMUNITY SERVICES DISTRICT

Kimley»Horn



Source: The New Home Company

Figure 1-2: Proposed Site Location and Land Use Plan

Kimley»Horn

Section 2. Water Demand Analysis

The purpose of this section is to evaluate whether the proposed project was considered in the water supplier's planning for water demand. This section will: 1) show the calculated water demand of the proposed Project, 2) identify the various water use sectors, 3) identify water demand by those sectors for the next twenty years, and 4) compare the calculated water demand of the proposed Project to the water demand assumed in the most recent Urban Water Management Plan (UWMP) for the same property.

Project Water Demand

In the 2020 UWMP, the Project site was assumed to be half high-density residential (HDR) and half commercial-retail (CR). Water demand projections in the UWMP were based on developed properties and their underlying General Plan designations.

To calculate individual project water demands, JCSD currently uses the "Unit Values of Applied Water" from **Table 5-1 of JCSD's 2020 Draft Master Water Plan** (dated March 2021). Based on this table, JCSD uses a unit water demand factor of 3,600 gpd/ac for high density residential and 2,000 gpd/ac for commercial-retail and parks. As determined by the land use summary of the 158-acres for the proposed Project (**Table 2-1**), the Project water demand is estimated to be 461 AFY, as shown in **Table 2-2**.

Table 2-1. Project Land Use Summary

Lot	Land Use Category	Area (ac)
1	Residential	7.33
2	Mixed Use[a]	12.79
3	Commercial	9.80
4	Mixed Use[a]	6.45
5	Mixed Use[a]	4.66
6	Residential	5.61
7	Residential	14.13
8	Residential	3.94
9	Residential	4.39
10	Mixed Use[a]	4.52
11	Residential	16.49
12	Residential	17.20
13	Residential	13.15
14	Commercial[b]	1.22
A – I	Roadway	25.61
J – L	Open Space Recreation	7.16
M - V	Roadway	4.15
	Total Area	**158.58**

(a) Mixed use area was split 50-50 between residential and commercial
(b) Lot 14 is designated for a fire station, but was considered commercial land usage

Table 2-2. Project Water Demand

Land Use Category	Duty Factor (gpd/ac)	Area (ac)	Demand (gpd)	Demand (AFY)
Residential	3,600	82.23	296,021	331.59
Mixed Use (Residential)	3,600	14.21	51,151	57.30
Mixed Use (Commercial)	2,000	14.21	51,151	57.30
Commercial Retail	2,000	11.02	22,040	24.69
Open Space Recreation	2,000	7.16	14,312	16.03
Roadway	0	29.76	0	0
Total	**--**	**158.58**	**411,940**	**461.43**

In the 2020 UWMP, the Eastvale Leal Property was assumed to be 50% high density residential and 50% commercial retail, for a total demand of 450,800 gpd or 505 AFY.

Demographic Factors

A variety of demographic factors may affect water use. The Urban Water Management Planning Act lists several demographic factors to be detailed in UWMP's including climate, current and projected population, density, and the mix of customer types. As suggested by DWR, these data are provided herein and are taken generally from the Jurupa Community Services District's latest UWMP.

Climate

JCSD's service area is located within the greater Chino Basin valley, which is generally semi-arid and warm. Summers are dry with average temperatures as high as 95ºF and maximum daily temperatures that sometimes exceed 100ºF. Winters are cool with average temperatures as low as 40ºF. As shown in the UWMP, average annual rainfall between 2001-2019 was approximately 8 inches per year, whereas the historical average rainfall from 1908-1988 was approximately 13 inches per year. Recent rainfall measured from 2016 to 2019 at U.C. Riverside had an annual average of 9 inches per year. The elevations within the service area range from 560 feet to 2,230 feet above mean sea level.

Population

The City of Eastvale and approximately 65 percent of the City of Jurupa Valley make up the JCSD service area. Each year the JCSD Board of Directors adopts a population estimate for the District service area; in 2020, the estimated population is 130,546 persons, which includes the Swan Lake Mobile Home Park (not yet within the service area) in Eastvale. Population projections from the UWMP are shown in **Table 2-3**. Based on each City's General Plans and anticipated development patterns, JCSD service area population at buildout in 2040 is estimated at 171,300 persons.

Table 2-3. Service Area Population, 2020-2045

	2020	2025	2030	2035	2040[a]	2045
Service Area Population	130,546	140,735	150,923	161,112	171,300	171,300

Source: 2020 UWMP, Table 3-1, p. 3-19.
(a) Service area buildout is estimated to happen by 2040.

JCSD actively tracks the status of properties within their service area as they develop (e.g. whether residential or non-residential; vacant, proceeding through development process, or under construction; undeveloped or inactive) for the primary purpose of forecasting future water demand.

JCSD Water Demand

JCSD's most recently reported water demand data was for calendar year (CY) 2020. As of 2020, JCSD delivered to its customers approximately 28,505 acre-feet (AF) of potable water and 767 AF of non-potable water for a total of approximately 29,272 AF. The recorded and projected water demands by customer type for the JCSD service area are provided in **Table 2-4**. The recorded data is for 2016-2019, and the data from 2020 to 2040 is from the 2020 Urban Water Management Plan.

Table 2-4. Recorded and Future Water Demand (AFY)

Description	2016	2017	2018	2019	2020	2025	2030	2035	2040
Single Family Residential[a]	15,173	15,737	16,869	15,280	17,300	18,551	20,082	21,174	22,375
Multifamily Residential	1,237	1,311	1,400	1,375	1,323	1,606	1,731	1,821	1,919
Commercial[b]	2,174	2,289	2,505	2,253	2,282	2,251	2,451	2,595	2,752
Industrial	631	649	631	607	675	722	782	825	872
Landscape	2,203	2,390	2,812	2,470	2,945	3,007	3,758	3,437	3,634
Other[d]	297	280	272	251	190	210	228	241	254
Total Urban Retail Demand	**21,714**	**22,655**	**24,489**	**22,236**	**24,715**	**26,347**	**29,032**	**30,093**	**31,806**
Sales, transfers, and exchanges	1,353	1,487	1,517	1,468	1,658	1,624	1,759	1,856	1,962
Losses[e]	901	2,064	1,229	1,530	2,133	2,255	2,444	2,578	2,726
Other (Non-Potable)	654	693	815	876	627	500	500	500	500
Losses (Non-Potable)	--	--	--	--	140	140	140	140	140
Total Demand	**24,621**	**26,899**	**28,050**	**26,110**	**29,272**	**30,865**	**33,375**	**35,165**	**37,135**

Source: 2020 UWMP
(a) Includes water-only customers that do not have sewer service with JCSD.
(b) Includes governmental/institutional and non-billing meters for commercial landscape irrigation.
(d) Includes fire hydrants for fire suppression, dust control, and construction. Includes line breaks.
(e) From 2020-2040, includes non-potable losses with potable losses.
AFY = acre-feet per year

The water demand projections in the UWMP are based on site development information tracked by the District that includes the underlying or known land use designations and the where the project (if any) is in the development process with the respective city. Specifically, the assigned land use designations of undeveloped properties. These assumptions projected an increase of 9,460 AFY of potable water consumption for the service area by buildout (i.e. 2040).

The City of Eastvale makes up 30 percent of the JCSD service area and Eastvale is nearly built-out. JCSD anticipates buildout of the City of Eastvale within the next 10 years, and buildout of JCSD's service area within the City of Jurupa Valley is projected to be between 2040 and the year 2060.

JCSD is currently working on developing a recycled water plan for its customers within selected areas of the City Tang Amendment 4. JCSD has applied for grants and loans from the State Water Resources Control Board and other public agencies for the non-potable water system. The 2020 UWMP plans for 500 AFY of recycled water being available for landscape irrigation (excluding golf courses) from 2025 to 2040.

This WSA is required by the Water Code to address demand from existing and planned future uses, including agricultural and manufacturing uses. Agricultural activities have decreased in the JCSD service area as a result of planned urbanization according to approved city land use plans. JCSD expects water use for agricultural activities to continue declining and potentially replaced with non-potable sources. As shown in **Table 2-4**, JCSD expects an increase in the water demands from commercial and industrial properties combined, consistent with known projects and approved city land use plans.

Summary

The land use types for the Project site that were used in the 2020 UWMP water demand projections are similar to the land use types which are proposed by the subject Project. The 2020 UWMP projected a water demand of 505 AFY for the Eastvale Leal Property. Based on the District's current unit water demand factors, the Project will generate a potable water demand of approximately 461 AFY (**Table 2-3**). Therefore, the Project's water demands were accounted for in the most recent UWMP.

Section 3. Water Supply Analysis

This section identifies the sources of potable water utilized and available to Jurupa Community Services District (JCSD or District), which is the water supplier for the proposed Eastvale Leal Property (Project), The purpose of this section is to evaluate the water supplies that could be utilized by the proposed Project during normal, single-dry and multiple-dry water years during a 20-year projection.

Wholesale Water Supplies

Many retail water suppliers in California, including JCSD, receive supplies from one or more water wholesalers. SB 610 requires this Assessment to document wholesale supplies received, by: i) describing the quantities of water received from each wholesaler in prior years; ii) identifying existing entitlements, water rights, and/or water service contracts held by the District for the wholesale supply; iii) provide proof of entitlements, water rights, service contracts, relevant capital outlay programs, and construction permits for necessary infrastructure to deliver wholesale supplies, if any; and iv) regulatory approvals required to convey or deliver the wholesale supply.

Wholesale Supplies Received

JCSD is a member of the Chino Basin Desalter Authority (CDA), a Joint Exercise of Powers Agency, along with Santa Ana River Water Company, Inland Empire Utilities Agency (wholesaler), and the Cities of Chino, Chino Hills, Ontario, and Norco (UWMP, p. 6-2). CDA is a wholesale water supplier and its 2015 UWMP is provided in **Appendix B**. Each of the retail members of CDA have contractual "take or pay" commitments to purchase water produced by CDA (CDA, p. ES-2).

JCSD is currently entitled to 11,733 AFY of potable water from CDA. As of calendar year 2020, JCSD received 11,414 AF from CDA and the District projected CDA supplies is 11,733 AFY. Quantities of water received by JCSD in prior years from CDA are provided in **Table 3-1**.

Table 3-1. Recorded CDA Wholesale Deliveries

	2016	2017	2018	2019	2020
Volume (AF)	8,073	8,164	8,971	9,574	11,414

Note: From JCSD 2020 UWMP, Table 6A, p. 6-2.
AF = acre-feet

CDA provides high-quality drinking water from two desalters (salt removers) that was anticipated to treat approximately 35,200 AFY of Chino Basin groundwater in 2020 and thereafter. The Chino I Desalter, located at 6905 Kimball Avenue in Chino, was completed in 2000 and expanded in August 2005 to its current rated capacity of 15,906 AFY (14.2 mgd). However, the Chino I Desalter cannot provide this rated capacity due to the high total dissolved solids in the raw water supply. The Chino II Desalter was completed in 2006 and is located at 11202 Harrel Street in the City of Jurupa Valley. The current rated capacity is 11,201 AFY (10 mgd) and permitted capacity is 16,802 AFY (15 mgd), including 5,600 AFY (5 mgd) raw water bypass. As of March 2021, Plant 1 produced 11.97 MGD. Although Chino Desalter I capacity will not be increased, additional raw water capacity will be provided by five new wells in the Chino Creek Well Field. All five wells have been drilled and equipped. The Chino II Desalter is in the process of achieving their permitted capacity as a result of the construction of the South Archibald Plume Cleanup project. CDA is currently expanding the Chino II Desalter to a rated capacity of 25,427 AFY (22.7 mgd). As of March 2021, Plant 2 produced 20.3 mgd.

As stated in CDA's 2015 UWMP:

> Its primary authority is to desalinate brackish groundwater for its member agencies. The supply is 100 percent reliable under all water year types because pumping is in response to the OBMP [Optimum Basin Management Plan] to remove salts and nitrates from the basin and prevent highly saline groundwater from reaching the Santa Ana River. No water shortages are anticipated due to the mandate to continually pump 40,000 AFY from the basin. (CDA 2016, p. ES-2)

During calendar year 2020, JCSD negotiated the purchase of WMWD's CDA supply totaling 3,445 AF. JCSD is currently in negotiations with WMWD to purchase Mills Gravity Pipeline water supply in addition to WMWD's CDA supply. In addition, JCSD is in negotiations with Cucamonga Valley Water District to purchase imported and groundwater from them. A Preliminary Design Report has been prepared for JCSD's proposed Etiwanda Pipeline to CVWD.

Dry Year Yield Storage Program

The Dry Year Yield (DYY) storage program is a cooperative Conjunctive Use Program Agreement (No. 49960) between The Metropolitan Water District of Southern California (MWD), Inland Empire Utilities Agency (IEUA), Chino Basin Watermaster, Three Valleys Municipal Water District, and the Chino Basin groundwater producers (**Appendix D**). Under the DYY Program, MWD can store up to 100,000 AFY of imported water in the Chino Basin during wet years when surplus water is available, and to reduce imported water deliveries up to 33,000 AFY in dry, drought, or emergency periods, but not to exceed the amount of water in the MWD storage account. The DYY program provides MWD the right to store groundwater in the basin, in exchange for paying the costs of developing the facilities that deliver that water.

DYY funds were used by JCSD for the construction of the Roger D. Teagarden Ion-Exchange Facility. When MWD makes a call for its stored water, JCSD can operate this facility and utilize water from the CDA to meet the District's water supply obligation.

Through a Local Agency Agreement with the City of Ontario, JCSD can purchase Ontario's portion of CDA water during years when MWD is not making a call for the stored water (i.e. "wet" or "non-call" years) (**Appendix E**). Up to 2,000 AF over 12 months is anticipated. During dry or "call" years, JCSD will stop receiving Ontario's portion of CDA water and return to District well supply. (UWMP, p. 6-31)

Water deliveries received from the DYY Program from calendar year (CY) 2015 to 2020 are provided in **Table 3-2**.

Table 3-2. Recorded DYY Program Deliveries

	2015	2016	2017	2018	2019	2020
Volume (AF)	1,667	2,031	2,002	1,805	0	1,446
Note: From JCSD Staff, Water Supply History. AF = acre-feet						

Water Supplies

Water within the JCSD service area is entirely from groundwater production. The majority of that comes from the Chino Basin, which is supplemented with groundwater produced from the Riverside-Arlington Basin (aka Riverside South Basin). Water is obtained by way of District-owned wells and agreements with

neighboring agencies. JCSD does not directly rely on imported water, surface water, stormwater, or recycled water to supplement the water supply. However, these sources can, and are, being used by other agencies in the Chino Basin to recharge the basin supply. (UWMP, p. 6-1)

Wholesale water from CDA and DYY Program deliveries are described previously in Section 3.1. The following is a description of the supplies produced and projected supplies reasonably available to JCSD.

JCSD Wells in Chino Basin

The Chino Basin covers approximately 240 square miles and is one of the largest groundwater basins in Southern California. There is an estimated five million AF of water in storage, and an unused storage capacity of approximately one million AF (UWMP, p. 6-8). The Chino Basin has been adjudicated, and pumping activities are closely monitored by the court-appointed Chino Basin Watermaster. A copy of the 1978 Chino Basin Judgment is provided in **Appendix F**. This is discussed in detail in Section 4.0 – Groundwater Analysis.

JCSD currently operates 18 potable water wells in the Chino Basin that have a theoretical maximum production rate of 33,090 gallons per minute (gpm). However, JCSD does not operate its wells at maximum capacity, but rather they fluctuate on and off as demand changes (UWMP, p. 6-7). The ultimate well production capacity is estimated at 43,315 gpm (JCSD 2020). JCSD's current production (2019-2020) right to this source is 19,547.9 AF, as recorded in the Watermaster's (2019/2020) annual report. During 2020, JCSD produced 11,051.8 AF from its potable wells in the Chino Basin (JCSD 2020). JCSD has assumed in the UWMP that the future pumped volumes from its potable well field, within JCSD service area in the Chino Basin, will peak at 14,000 AFY, beginning in 2030. This level of production aims to minimize a decline in the groundwater table in the vicinity of JCSD's well field.

Two new potable wells are expected to be operational within the next five years (Wells 29 and 30). They will each contribute an additional 2,500 AFY. With the additional two wells, the total maximum day groundwater production capacity will be approximately 54.8 MGD (38,000 GPM). (UWMP, p. 6-7)

JCSD operates five non-potable wells within the Chino Basin. In 2020, the District produced 275.881 AF from this supply source to serve local park landscape irrigation-only accounts, and future production is estimated at 310 AFY (UWMP, p. 6-33).

The District operates two ion-exchange plants to denitrify water from several wells. The first is the Roger D. Teagarden Ion Exchange Facility which removes nitrates from seven potable wells. The other plant is the Well 17/18 Ion Exchange Facility that removes nitrates from JCSD Well Nos. 17 and 18. (UWMP, p. 6-7)

JCSD Wells in Riverside South Basin

The Riverside South Basin is the Riverside County portion of the larger Riverside-Arlington Basin. This basin has been adjudicated by the 1969 Orange County Judgment located in **Appendix G**, and basin pumping rights are further defined in the 1969 Western-San Bernardino Judgment located in **Appendix H**. JCSD operates two non-potable wells within the Riverside South Basin. Water from these wells is used to irrigate Oak Quarry Golf Club located at 7151 Sierra Avenue in Jurupa Valley. During CY 2020, JCSD pumped 490.774 AF from this source. JCSD expects future production from this source will be approximately 450 AFY. (UWMP, p. 6-8)

Rubidoux Community Services District

Since 2000, JCSD has purchased water extracted from the Riverside South Basin from Rubidoux Community Services District (RCSD). Through an agreement established in 2014, JCSD can pump potable water from RCSD's system into the District's 1,110 Pressure Zone through the Jewel Street Booster Station (**Appendix I**). As shown in **Table 3-3**, no supply was received by JCSD from this source since CY 2018 (JCSD Staff). JCSD anticipates future annual purchases of approximately 2,000 AF from RCSD. (UWMP, p. 6-2)

Table 3-3. Recorded Rubidoux Community Services District Deliveries

	2016	2017	2018	2019	2020
Volume (AF)	2,029	2,322	0	0	0
Note: From JCSD 2020 UWMP, Table 6B, p. 6-3. AF = acre-feet					

The current water supplies reasonably available to JCSD are summarized in **Table 3-4**, including the mechanism by which the District can use the water (e.g. water supply entitlement, water right, or water service contract), pursuant to SB 610 guidance.

Table 3-4. Current Water Supplies

Supply Type	Supply Method	Water Quality	Form of Right	Supply (AFY)
Groundwater	JCSD Wells[a]	Potable	Right	19,550
Wholesaler	CDA	potable	Contract	11,733
Groundwater	RCSD	Potable	Contract	2,000
Groundwater	DYY Program	Potable	Contract	2,000
Groundwater	JCSD Wells[b]	Non-potable	Right	450
			Total	**35,733**
Note: From District staff, Jan. 17, 2020. (a) Annual production rights in the Chino Basin (Production Year 2019-2020). (b) Within Riverside South Basin. AFY = acre-feet per year				

The water supply used by the District is only that which is required to meet actual demand. JCSD can extract, from the Chino Groundwater Basin, above their annual production rights, which is permitted with payment of appropriate fees to the Chino Watermaster.

According to information reasonably available to JCSD during preparation of the 2020 UWMP, **Table 3-5** provides the recorded and projected water supply sources for the District. This includes three sources that have not yet been used by JCSD: imported water from WMWD, Cucamonga Valley Water District, and recycled water from the WRCRWA Plant through a pending grant project authorization from the State Water Resources Control Board.

Table 3-5. Actual and Projected Water Supplies

Supply Type	Source	Water Quality	Ever Used?	Past (AF)						Current (AF)	Reasonably Available Future Volume (AF)			
				2011	2012	2013	2014	2015	2018	2020	2025	2030	2035	2040
Groundwater	JCSD Wells[a]	Potable	Yes	15,174	12,599	16,724	16,249	8,993	14,829	11,052	14,000	18,000	18,000	18,000
Purchased	CDA[b]	Potable	Yes	8,088	8,032	8,642	8,690	8,616	8,972	11,414	11,733	11,733	11,733	11,733
Purchased	WMWD and/or CVWD	Potable	Yes	--	--	--	--	--	--	3,446	10,000	10,000	10,000	10,000
Purchased	ECSD	Potable	Yes	808	702	774	1,062	2,250	--	--	2,000	2,000	2,000	2,000
Other	DYY Program	Potable	Yes	--	--	--	457	1,677	1,805	1,446	2,000	--	--	--
Recycled Water	WRCRWA Plant	Non-Potable	No	--	--	--	--	--	--	--	660	660	660	660
Transfers	CDA	Potable	Yes								1,200	1,200	1,200	1,200
Groundwater	JCSD Wells[c]	Non-Potable	Yes	509	532	511	484	464	516	491	500	500	500	500
Groundwater	JCSD Wells[a]	Non-Potable	Yes	324	330	295	343	266	304	276	-	-	-	-
			Total[1]	**24,903**	**22,195**	**26,963**	**26,963**	**22,381**	**26,426**	**28,124**	**42,093**	**44,093**	**44,093**	**42,093**

Note: From JCSD 2020 UWMP, p. 6-28, p. 6-29.
(a) Located within Chino Basin.
(b) Wholesale agency. No project has been determined; wholesaler supplier subject to change.
(c) Located within Riverside South Basin.
AF = acre-feet
(1) Due to rounding, sum of the individual items may not equal the total value.

As shown in **Table 3-5**, recycled water from WRCRWA has not been used by JCSD but grants and loans are currently being pursued by JCSD. Pursuant to SB 610 guidance, availability must be demonstrated for supply sources that have never been used by the water supplier. This can be done by identifying other water suppliers or contract holders that receive and have rights, entitlements, or contracts to the same source.

Western Municipal Water District

JCSD is one of 14 local retail agencies within the WMWD service area, and as such, JCSD can receive water from WMWD. WMWD is a member agency of MWD with responsibility to provide wholesale imported water to the retail agencies within its service area (CDA 2016, p. ES-1). This includes imported water supplies from the State Water Project obtained through WMWD's membership with MWD. WMWD provides supplemental water and/or water resources management to the cities of Norco, Corona, and Riverside and the water agencies of JCSD, SARWC, Box Springs Mutual, Eagle Valley Mutual, Elsinore Valley, Lee Lake, and Rancho California, and unincorporated areas of El Sobrante, Eagle Valley, Temescal Creek, Woodcrest, Lake Mathews, and March Air Reserve Base (CDA 2016, p. 2-2).

WMWD noted in their 2015 UWMP that JCSD may purchase water from them in the future (WMWD, p. 3-6). Further, WMWD's demand projections in the 2015 UWMP include 5,000 AFY to JCSD starting in 2020, increasing to 7,500 in 2025, then 10,000 from 2030 to 2040, which is consistent with the District's projection in **Table 3-5** (ibid, p. 4-7). Future water supply projects between JCSD and WMWD would directly connect imported supplies to JCSD; however, no project has yet been determined (UWMP, p. 6-32). Because of the assurance from MWD to its member agencies, WMWD's accounting for potential future demand from JCSD in their UWMP, and WMWD's ability to meet the demands of its other member agencies, the availability of future supply from WMWD is demonstrated.

Western Riverside County Regional Wastewater Authority

WRCRWA is a Joint Powers Authority consisting of the cities of Norco, Corona, JCSD, Home Gardens Sanitary District, and WMWD. The WRCRWA treatment plant is a tertiary treatment facility with an ultimate capacity of 32 mgd (WMWD, p. 6-11). JCSD is entitled to the recycled water generated from the District's share of sewage flow into the treatment plant. In 2020, approximately 5,120 AF of wastewater from the JCSD service area was sent to the WRCRWA Plant for treatment2. Currently, the effluent from the WRCRWA facility is discharged directly to the Santa Ana River immediately upstream of Prado Dam (IEUA, p. 6).

WRCRWA is in the final planning stages of providing recycled water to the City of Norco. As of 2015, seven miles of recycled water pipeline, a small reservoir, and a pump station have been installed. Norco is anticipated to take delivery of up to 895 AFY of recycled water. Western Riverside County Regional Wastewater Authority obtained an order approving a change of use permit (February 5, 2018) that would allow the WRCRWA member agencies to use recycled water from the treatment plant. (WMWD, p. 6-12).

JCSD is in the process of developing a recycled water system that will deliver irrigation water to parks and playgrounds utilizing a portion of the recycled water that they are entitled to from the WRCRWA facility. To further conserve local water supplies, JCSD would like to deliver the remaining portion of its recycled water entitlement to IEUA for reuse and replenishment of the Chino Basin (IEUA, p. 1). Therefore, IEUA and JCSD have partnered on a grant application to the State Water Resources Control Board under Prop. 1 and the Clean Water State Revolving Fund (CWSRF) Loan program for a joint regional recycled water intertie project (CWSRF No. 8167-110). The availability of this water supply source is demonstrated through the District's right to its share of sewer flow, the successful distribution of recycled water to the

City of Norco and ongoing efforts to distribute recycled water to other member agencies, and the District's ongoing efforts to create a distribution network.

Etiwanda Intervalley Pipeline

Jurupa Community Services District (JCSD) and Cucamonga Valley Water District (CVWD) are collaborating to develop a domestic water supply and conveyance project that will benefit both Districts by increasing water supply, improving water quality, enhancing infrastructure resiliency, and promoting sustainability. By working together, both Districts will benefit financially and operationally due to facilities that can be utilized by either or both Districts depending on needs and availability of the various water supplies. The total Etiwanda Water Quality and Water Resiliency Project is a model for how independent water purveyors can work together to benefit their stakeholders and provide increased reliability regarding water quality, availability, and sustainability.

JCSD's ultimate average daily demand for potable water is projected to be approximately 36,340 acre-feet per year (AF/YR) by about the year 2040. This demand will be supplied from a portfolio of sources including existing groundwater wells, Chino Basin Desalter Authority, and imported supply.

In order to meet ultimate demand of 36,340 AF/YR, JCSD needs to secure additional water supply of approximately 10,800 AF/YR. The Etiwanda lntervalley Water Quality and Water Resiliency Project will be the water supply and conveyance mechanism to satisfy the long-term water supply deficit. Water will be supplied from one of CVWD's surface water treatment plants and new wells to be drilled in the upper portion of the Chino Basin. CVWD owns and operates two surface water treatment plants that are fed water from the Rialto Feeder. The Rialto Feeder is a large diameter pipeline owned by The Metropolitan Water District of Southern California (MWD) that delivers raw water from the State Water Project (SWP) to local water purveyors who treat and deliver SWP water to their customers. CVWD currently operates the Lloyd Michael Water Treatment Plant (LMWTP), which has a permitted capacity of 30 MGD. CVWD also owns the Royer Nesbit Water Treatment Plant (RNWTP), which was permitted at 11.5 MGD but has been taken out of service and not currently operational. It has not been determined yet whether the LMWTP or the RNWTP will be the point of connection on the north end of the project but the southern connection will be at JCSD's 1110 and 980 pressure zone facilities near the Jurupa Hills along Country Village Road. The backbone conveyance portion of this project is called the Etiwanda Pipeline and it will be utilized to move water south into JCSD's service area and/or north into CVWD's service area. This project will be able to deliver the required imported water and allow JCSD to complete its water portfolio.

CVWD's long-term water supply will be provided through a combination of SWP water coming though the Rialto Feeder, local surface water captured in the local watershed, and groundwater wells in the Chino and Cucamonga Basins. It is anticipated that these sources are adequate to satisfy CVWD's demands. CVWD will benefit from this project through the development of additional groundwater wells, recharge of the aquifer during times of excess water on the SWP, additional storage facilities, enhanced ability to transfer water to multiple pressure zones, and to generate electricity to offset operating costs.

In general, the Etiwanda Intervalley Water Quality and Water Resiliency Project includes the following components:

- Etiwanda Pipeline (63,070 LF in 3 Phases)
- Storage reservoir(s) totaling approximately 10 million gallons
- Pressure reducing / flow control station(s)

- Upgrade existing pumping facilities to deliver water from CVWD's Reservoir 2C to their upper pressure zones
- Five (5) new wells, to be constructed in the northern portion of the Chino Groundwater Basin, including aquifer storage recharge (ASR) capabilities on two of the wells
- Upgrade/Expansion of either the LMWTP or the RNWTP
- Groundwater treatment of existing JCSD groundwater wells
- Hydroelectric generating facilities on the diversion from the Rialto Feeder to the LMWTP and Etiwanda Pipeline near the JCSD 1110 and 980 pressure zone tanks

Descriptions of All Water Supply Projects

JCSD has budgeted $10,875,000 for water source development in fiscal year (FY) 2021-2022, and a total of $192,616,900 from FY 21/22 to beyond 2024-25, as shown in **Table 3-6**.

Normal, Single-Dry, and Multiple-Dry Year Conditions

JCSD has various sources of water supplies available to meet demands during, normal, single-dry, and multiple-dry years. In the 2010 and 2015 UWMPs, JCSD assumed 2004 as its Normal Year and 1977 as the Single Dry Year. The Multiple-Dry Year period was established at 2012-2015 for the recent UWMP.

JCSD expects 100 percent of its supply to be available in all year types because the District's supply source is groundwater, and in particular the Chino Basin has five million AF in storage. Therefore, production of water would be a function of cost and not a lack of supply. Because JCSD does not operate its wells at full capacity, it can be assumed that groundwater pumping could increase to meet demand if drought conditions persisted or worsened.

A normal water year is a year, or an average of years, that most closely represents the average water supply available to the agency. The normal year water supplies available to JCSD and the normal year water demand projections are compared in **Table 3-7**. The District has determined with the addition of an imported water source, it will have sufficient supply and groundwater pumping capacity to meet maximum day water demands through 2040 (UWMP, p. 7-5)

As shown previously in **Table 3-5**, the projected supply from an imported water source is 7,500 AFY in 2025, and 10,000 AFY beginning in 2030. Also, the projected recycled water supply from WRCRWA is 500 AFY beginning in 2020. If both supply sources were subtracted from the total supply in **Table 3-7**, then a potential shortfall would not appear until sometime between 2025 and 2030.

The single dry year is the year that represents the lowest water supply available to the District. JCSD established in the 2010 UWMP that this is best represented by the dry year in 1977 (UWMP, p. 7-3). As shown in **Table 3-8**, JCSD has assumed the same water supply and demand as the Normal Year scenario shown in **Table 3-7**.

JCSD expects by 2025 that recycled water will meet some of the irrigation water demand, thus making available several hundred acre-feet of potable groundwater potentially available for urban use.

JCSD has observed in recent years reductions in water demand due to significant water conservation efforts on behalf of customers. Current and future drought regulations could further decrease water demands and ensure that existing supplies meet future demands during single or multiple dry years. (UWMP, p. 7-3)

The multiple dry year period is the range of years representing the lowest average water supply available to the District for a consecutive multiple year period (three years or more). This was established as 2012 to 2015 in the UWMP. Notably, JCSD had sufficient supplies to meet demands during the drought period from 2011-2017.

Because the District's supply source is groundwater, and specifically the Chino Basin has five million AF of water in storage, the District's ability to provide water during drought conditions would result in increased pumping costs but not the ability to produce water.

The multiple dry year supply and demand comparisons are shown in **Table 3-9**. Demand is expected to gradually decrease in response to drought regulations and water conservation. During the first dry year, JCSD assumes no change in projected water demand. During the second, third, and fourth dry years, JCSD assumes a decrease in water use of 5, 10, and 20 percent, respectively (as measured from the first-year baseline). This demonstrates the expected time-lag between the first dry year until water conservation efforts start to show an impact in water use. A multiple dry year decrease in demand of 20 percent has been demonstrated by JCSD, which reduced water production by 23 percent from 2013 to 2015. (UWMP, p. 7-5)

Table 3-6. Normal Year Supply and Demand (AFY)

	2025	**2030**	**2035**	**2040**	**2045**
Supply Totals	42,093	44,093	44,093	44,093	44,093
Demand Totals	31,525	34,035	35,825	37,795	37,795
Difference	**10,568**	**10,058**	**8,268**	**6,298**	**6,298**
Note: From JCSD 2020 UWMP, Table 7-2. AFY = acre-feet per year					

Table 3-7. Single-Dry Year Supply and Demand (AFY)

	2025	**2030**	**2035**	**2040**	**2045**
Supply Totals	42,303	44,534	44,446	44,402	44,313
Demand Totals	31,714	34,477	36,506	38,740	39,004
Difference	**10,589**	**10,057**	**7,940**	**5,662**	**5,309**
Note: From JCSD 2020 UWMP, Table 7-3. AFY = acre-feet per year					

Table 3-8. Multiple-Dry Year Supply and Demand (AFY)

		2025	2030	2035	2040	2045
First Year	Supply Totals	41,883	43,608	43,432	43,255	43,079
	Demand Totals	31,462	34,443	36,470	38,702	38,928
	Difference	**10,420**	**9,165**	**6,962**	**4,554**	**4,150**
Second Year	Supply Totals	41,883	43,608	43,432	43,255	43,079
	Demand Totals	28,316	30,999	32,823	34,832	35,036
	Difference	**13,567**	**12,609**	**10,609**	**8,424**	**8,043**
Third Year	Supply Totals	41,883	43,608	43,432	43,255	43,079
	Demand Totals	25,170	27,554	29,176	30,961	31,143
	Difference	**16,713**	**15,054**	**14,256**	**12,294**	**11,936**
Fourth Year	Supply Totals	41,883	43,608	43,432	43,255	43,079
	Demand Totals	22,024	24,110	25,529	27,091	27,250
	Difference	**19,859**	**19,498**	**17,903**	**16,164**	**15,829**
Fifth Year	Supply Totals	41,883	43,608	43,432	43,255	43,079
	Demand Totals	18,877	20,666	21,882	23,221	23,357
	Difference	**23,005**	**22,942**	**21,550**	**20,034**	**19,722**

Note: From JCSD 2020 UWMP, Table 7-4.
AFY = acre-feet per year

As shown in Tables 3-6, 3-7, and 3-8 above, JCSD expects to have adequate water supplies to meet future planned water demands during normal, single-dry, and multiple-dry years through the 20-year planning period.

Summary

As described in Section 2, the projected annual potable water demand for the proposed Eastvale Leal Property is estimated at 461 AFY. Based on the information provided in the 2020 UWMP, the District has sufficient water supplies to meet the water demands of the Project by purchasing water from CDA that is within their contractual rights and by using existing groundwater supplies and pumping capacities that are more than adequate to meet the additional water demand of the proposed Project during normal, single-dry, and multiple-dry water years. With the ongoing water conservation efforts, JCSD will further ensure its ability to provide sufficient supply for the proposed Project. Section 4 will discuss the District's water rights in light of this water supply and capacity analysis.

Section 4. Groundwater Analysis

SB 610 requires specific groundwater information to be included in the WSA if groundwater will be a source of water for the proposed project. As discussed in Section 3, groundwater is a source of supply for the proposed Eastvale Leal Property Project.

Review of Urban Water Management Plan

The 2020 Urban Water Management Plan (UWMP), prepared by Albert A. Webb Associates (WEBB) on behalf of the Jurupa Community Services District (JCSD or District) was adopted by the Board of Directors on June 28, 2021 (**Appendix A**). The UWMP includes information relevant to the identified water supply for the proposed Project and is incorporated herein. Relevant information includes: 1) current and projected water demands through year 2040; 2) a description of the Chino Groundwater Basin; 3) the reliability of the water supply, projected supply and demand comparisons, and water shortage contingency plans; and 4) water demand management efforts.

Groundwater Basin Descriptions

As discussed in Section 3, the Chino Groundwater Basin (Chino Basin) is the direct source of groundwater for JCSD. The use of groundwater from the Riverside South Basin is limited to non-potable wells used for irrigation purposes. **Figure 4-1**, Groundwater Basin Map shows the JCSD service area in relation to underlying groundwater basins.

Chino Basin Description

The Chino Basin covers approximately 240 square miles in the upper Santa Ana River Watershed, and underlies parts of Los Angeles, San Bernardino, and Riverside Counties. The state Department of Water Resources (DWR) identifies the Chino Basin as No. 8-002.01, a sub-basin of the Upper Santa Ana Valley (Bulletin 118). While still considered a single basin for hydrologic purposes, the Chino Basin is divided into five management zones based on similar hydrologic conditions, and shown in **Figure 4-2**, Groundwater Management Zones.

It is estimated the Chino Basin has approximately 5 million acre-feet (AF) of water in storage, and an estimated 1 million AF of additional unused storage capacity (UWMP, p. 6-8). Geographically speaking, JCSD's service area covers the southeast corner of the Chino Basin.

Legal Right to Pump from the Chino Basin

Water rights to the Chino Basin were adjudicated by the Superior Court of the State of California for the County of San Bernardino in 1978 (a copy of the Judgment is provided in **Appendix F**). The Judgment created the Chino Basin Watermaster (Watermaster) which is comprised of three stakeholder committees (or "pools"): Overlying Agricultural Pool Committee (representing dairymen, farmers, and the State of California); Overlying Non-Agricultural Pool Committee (representing businesses and industries); and Appropriative Pool Committee (representing local cities, public water districts and private water companies). The Watermaster carries out the provisions of the Judgment including monitoring of the basin and files an annual report on pumping and replenishment.

JCSD is a member of the Appropriative Pool and therefore has adjudicated production rights to the basin. The Judgment established the total Appropriative Right for the Appropriative Pool at 78,763.82 AF. The District's portion of the Appropriative Right is 2,960.60 AF, which does not change from year to year.

The court's original Judgment declared the safe yield of the Chino Basin at 140,000 AFY. The Watermaster may determine that the operating safe yield (OSY) can be higher from year-to-year depending on factors including favorable precipitation and management efforts that maximize the beneficial use of the groundwater Basin. On July 31, 2020, the Court ordered that the safe yield be set at 131,000 AFY for the period of July 1, 2020 to June 30, 2030. The Judgment does not limit a Party's groundwater production to its share of safe yield.

As of June 30, 2020, the Judgment allocated an OSY of 44,834 AFY to the Appropriative Pool. Because JCSD has rights to 3.759 percent of the OSY, the District's current share of the OSY is 1,685.31 AF. This amount will change from year to year as directed by the Watermaster.

JCSD also gains water rights through agricultural land use conversions. Since 2000, JCSD has been credited two AF per acre per year of water rights for every acre converted to non-agricultural use within the JCSD service area. As of fiscal year 2019/2020, total land use conversion rights claimed by JCSD is 15,051 AF. Annual adjustments to this right may be made by the Watermaster as part of their "Reallocation of Agricultural Pool Safe Yield" calculations.

The Judgment allocates safe yield of the Chino Basin according to the three pools. There is a clear expectation that parties, including JCSD, would produce water in excess of their adjudicated production rights. The injunction in Paragraph 13 of the Judgment should thus be interpreted to mean that parties are enjoined from producing water in excess of their adjudicated rights except to the extent that they will pay a replenishment assessment.

The ability to produce water from the Chino Basin is accordingly not a matter of availability, as contemplated and sanctioned by the Judgment for the reasons discussed above, but rather a matter of cost. Water produced in excess of production rights will cost more than water produced within a party's production rights. Thus, the quantity and reliability of groundwater supplies under the Judgment for purposes of this Assessment is a matter of cost of the water produced from the Basin rather than limitations on production which may otherwise operate to reduce the sufficiency of the groundwater supply.

In addition to the Appropriative Pool water rights, the contract obligations in the Dry Year Yield (DYY) Program, purchases from RCSD and CDA as described in Section 3, the District has groundwater rights held in the Chino Basin as described below:

> **Annual Early Transfers**. The Watermaster can approve an "Early Transfer" of water to the Appropriative Pool equal to the quantity of water not produced by the Overlying Agricultural Pool that is remaining after all land use conversions are satisfied, pursuant to the Peace Agreement. The Early Transfer Water is annually allocated among the Appropriative Pool members in accordance with their pro-rata share of the initial Safe Yield. For JCSD, this is 3.759 percent of the amount transferred and therefore changes from year to year. In FY 2019/2020, JCSD was allocated 938.3 AF as its share of the Early Transfer.
>
> **Groundwater Storage Accounts**. JCSD has rights to store water in the Chino Basin. Currently (Production Year 2019-2020), there is a total of 31,861.3 AF in storage as recorded by the Watermaster (**Table 4-1**). As such, this is enough water in the District's storage accounts to meet at least one year of total demands, should its other water supply sources be unavailable.

Table 4-1. Groundwater Rights Summary

Description	Fiscal Year 2019/2020
Appropriative Right	2,960.60 AFY
Percent of OSY	3.759%
Carryover Beginning Balance	1,685.3 AFY
Assigned Share of OSY	1,685.3 AFY
Net Ag Pool Reallocation[a]	16,177.2 AFY
Total Annual Production Right in Acre-Feet Per Year	19,547.9
Groundwater Storage Accounts[b]	27,795 AF (Beginning Balance)
	(19.5) (Storage Loss)
	(1,535.2) (Transfer To/From)
	5,621 (From Under Production)
Storage Account Subtotal In Acre-Feet	31,861.3

Note: From CBWM 2020.
(a) For Production Year 2019-2020 (CBWM pp. N-12)
(b) Ending balances for production year 2019-2020 (CBWM, pp. N-13, N-14, N-15).
OSY = operating safe yield, AFY = acre-feet per year.

Recorded Use of Groundwater

JCSD currently operates 18 potable water wells in the Chino Basin that have a current production rate of 33,090 gallons per minute (gpm), and ultimate capacity is estimated at 43,315 gpm (JCSD 2020). JCSD does not operate its wells at maximum capacity, but rather they fluctuate on and off as demand changes. JCSD also operates seven non-potable wells in the Chino and Riverside South basins. Recorded groundwater production of potable and non-potable JCSD wells are listed in **Table 4-2**.

Table 4-2. Recorded Groundwater Production

Year	Potable (AFY)	Non-Potable (AFY)
2020	16,695	51
2005	18,913	--
2010	13,688	591
2015	8,993	845
2016	10,716	712
2017	12,906	795
2018	14,829	750
2020	11,052	767

Note:
2000, 2005, 2010 from DWR Public Water Systems Statistics (PWSS) reports.
2015 from UWMP, p. 6-4.
2016-2018 from JCSD Staff, Water Supply History.
Values are rounded to nearest whole number.

Projected Use of Groundwater

Projected groundwater use by JCSD is dependent upon the cost of extracting, treating, and transporting the water to customers. Groundwater from the Chino Basin will be utilized by JCSD either directly by pumping into its distribution system or by obtaining groundwater through the CDA, RCSD, and/or through the DYY program.

Table 4-3. Projected Use of Groundwater

Supply Type	Source	Water Quality	Projected Use (AFY)				
			2020	2025	2030	2035	2040
Groundwater	JCSD Wells[a]	Potable	11,029	14,000	18,000	18,000	18,000
Purchased	CDA[b]	Potable	11,414	11,733	11,733	11,733	11,733
Purchased	RCSD	Potable	--	2,000	2,000	2,000	2,000
Other	DYY Program	Potable	1,446	2,000	--	--	--
Transfers	CDA (for SARWC)	Potable	1,170	1,200	1,200	1,200	1,200
Potable Sub-Total			**25,059**	**30,933**	**32,933**	**32,933**	**32,933**
Recycled Water	WRCRWA Plant	Non-Potable	--	660	660	660	660
Groundwater	JCSD Wells[c]	Non-Potable	491	500	500	500	500
Groundwater	JCSD Wells[a]	Non-Potable	276	--	--	--	--
Non-Potable Sub-Total			**767**	**1,160**	**1,160**	**1,160**	**1,160**
Total			**25,826**	**32,093**	**34,093**	**34,093**	**34,093**

Note: See Table 3-5 of this report. From JCSD 2020 UWMP, p. 6-28, p. 6-29.
(a) Located within Chino Basin.
(b) Wholesale agency. No project has been determined; wholesaler supplier subject to change.
(c) Located within Riverside South Basin.
AF = acre-feet
(1) Due to rounding, sum of the individual items may not equal the total value.

The amount of water that JCSD plans to produce from the Chino Basin as shown in **Table 4-3** is well within their rights pursuant to the Chino Basin Judgment (**Appendix F**). Further, projections of groundwater obtained by JCSD from the other sources listed in **Table 4-3** are also within the District's rights and agreements. Therefore, the projected supplies needed to meet future demands are met from the various sources discussed in this report.

Sufficiency of Groundwater Basin

JCSD's legal right to pump water in an amount necessary to meet all demands as sanctioned and protected by the Judgment as discussed above, is buttressed by several programs and projects directed at ensuring the sufficiency of groundwater supplies from the Basin, particularly during dry years. An adjudicated water right has perhaps the most substantial indicia of reliability of any water right that currently exists in California. An adjudicated right is based upon long-term studies whose purpose it is to protect the long-term functionality of the water source. These rights are coordinated in an established and binding manner with all the other users of the Basin and are overseen by Watermaster which has the authority to mandate and proscribe activities whose purpose is to protect the water source and maximize its long-term beneficial use.

All Watermaster processes are governed by Rules and Regulations and receive active oversight from the Court which, as noted above, retains continuing jurisdiction over the administration of the Judgment. Consequently, the sufficiency of the groundwater is not only directed by rigorous Watermaster management processes but validated and ensured by continuing Court oversight.

The Optimum Basin Management Program (OBMP) for the Chino Basin has guided the Chino Basin Watermaster's activities since its adoption in 1998. Watermaster-led basin management activities to ensure the maximization of safe yield and OSY of the Chino Basin include objectives, projects, and programs identified in the Peace Agreement and the OBMP. Progress is reported in annual reports, biennial and triennial reports.

As stated, the referenced elements of the OBMP collectively comprise a comprehensive regimen directed to ensuring and maximizing the long-term beneficial use of water in the Chino Basin. In particular, and specific to the location of current and future groundwater production facilities upon which JCSD relies or will rely to provide water to meet water demands within its service area, OBMP Program Element No. 3, "Develop and Implement Water Supply Plan for the Impaired Areas of the Basin" and Program Element No. 5, "Develop and Implement Regional Supplemental Water Program", address the sufficiency of groundwater from the Basin. Fundamentally, the goal of Program Elements 3 and 5 is to develop a regional, long range, cost-effective, equitable, water supply plan for producers in the Chino Basin that incorporates sound basin management.

The JCSD service area overlies groundwater supplies in the southern part of the Chino Basin which must be pumped for purposes of meeting new demands, maintaining safe yield, and to protect water quality in the Santa Ana River. The JCSD service area overlies groundwater supplies in the southern part of the Chino Basin which must be pumped for purposes of meeting new demands, maintaining safe yield, and to protect water quality in the Santa Ana River. As agricultural production in the southern part of the Chino Basin declines, it will be necessary for these reasons to increase production for municipal uses. This is being achieved through the Chino I and Chino II Desalters, of which the JCSD has a contractual right to purchase 8,200 AFY pursuant to the original agreement, and 11,733 AFY as a result of subsequent amendments and expanded treatment facilities (**Appendix C**). Thus, not only was increased Chino Basin water production by JCSD foreseen in the OBMP but sanctioned and encouraged for purposes of achieving OBMP objectives.

The sufficiency of the groundwater supply that is available to JCSD is assured due to the abundance of groundwater in the central and southern portion of the Chino Basin, OBMP objectives that prioritize and assure production from the southern Chino Basin coupled with desalting and ion-exchange treatment facilities that enable the use of this abundant supply for municipal (potable) purposes. As indicated in the quoted text of the OBMP, southern basin production, where JCSD is partially located, is the linchpin of several critical OBMP objectives. Thus, the sufficiency of groundwater is heightened and prioritized by the necessity of continued pumping from the southern Chino Basin under the OBMP which is administered by the Watermaster and ultimately enforced by continuing Court jurisdiction over the Judgment.

The other referenced OBMP Program Elements are collectively directed to ensuring the sufficiency of Chino Basin groundwater supplies, particularly during dry years, and comprehensively address water quality and quantity, thus maximizing beneficial use over the long-term. Sufficiency of groundwater from the Chino Basin is further assured for the following reasons:

- Inland Empire Utilities Agency (IEUA) is a member agency of MWD, which provides imported water from the State Water Project for direct use by parties to the Judgment in the Chino Basin

and for Chino Basin recharge purposes (when supplies are available). IEUA has also reviewed the sufficiency of supplies for its service territory that includes the Chino Basin in connection with its 2015 UWMP (**Appendix J**).

- IEUA's UWMP is consistent with, and reiterative of, OBMP projects and programs (see Section 7.4 of **Appendix J**). IEUA anticipates increased limitations for imported water for direct and recharge use while noting reductions during dry years (due to increased reliance on groundwater from the Basin) and in the higher amount otherwise required in the absence of OBMP projects and programs. The UWMP also analyzes the sufficiency of water supplies for single and multiple year drought scenarios and concludes the region is expected to meet 100 percent of its dry year demand under every scenario. Key assumptions included:

    - Reliance on assurances provided by MWD in its 2015 UWMP (**Appendix K**) that it could meet 100 percent of projected supplemental full-service water supply demands through 2040;

    - Implementation of MWD's Chino Basin DYY Storage Program consistent with the contractual shift obligations of the participating agencies of up to 33,000 AF in a twelve-month period; and

    - Sustain per capita water use reductions of 10 percent by 2015 and 20 percent by 2020.

IEUA concluded in its 2015 UWMP that the projected available water supply will meet projected water demand due to diversified water supply and water conservation measures. Based on IEUA water supply projections, there are sufficient water supplies to meet normal year water demands and single dry year demands. However, in the multiple dry year scenario a local supply gap of 283 AF is projected for 2040. IEUA and retail agencies plan to close the supply gap through utilizing local supplemental water supply opportunities and securing additional imported water as needed to accommodate for the variability in supply from the State Water Project (**Appendix J**, p. 3-16).

CWC section 10631(j) provides that urban water suppliers, that rely upon a wholesale agency for a source of water may rely upon water supply information provided by the wholesale agency in fulfilling UWMP informational requirements.

IEUA's independent analysis of contemporary regional water conditions in conjunction with MWD's most recent report, provide additional and reliable assurances concerning the sufficiency of imported water supplies that comprise a portion of overall Chino Basin supply sufficiency. As stated in the above-quoted OBMP text, however, "expanded use of imported water in the northern part of the Chino Basin will have a lower priority than maintaining groundwater production in the southern part of the Chino Basin."

JCSD's participation in the DYY Storage Program described in Section 3, along with future water storage and recovery projects will drought-proof the Chino Basin and all other appropriative pool members from imported water shortages. This program is consistent with OBMP Program Element No. 9, "Develop and Implement Storage and Recovery Program." Benefits to the Chino Basin associated with this program include the construction of facilities to enhance imported water deliveries and the production of water from the Chino Basin. Further demonstrating the sufficiency of Chino Basin groundwater is MWD's program to use the Chino Basin for dry year supply purposes, thus underscoring that sufficient Chino Basin groundwater is available during dry years not only for local use by agencies like JCSD but also in connection with MWD's regional reliability programs.

In conclusion, the sufficiency of groundwater supplies available to JCSD is assured because of the OBMP programs overseen by the Chino Basin Watermaster and conducted under the auspices of continuing Court jurisdiction that specifically direct and assure the long-term production of water pursuant to the District's legal rights to produce such water necessary to meet ultimate water demands.

Summary

As discussed in Section 2, the proposed Project's annual water demand is estimated at 461 AFY. The proposed land use types are similar to the 2020 UWMP, which estimated an annual demand of 505 AFY. For the purposes of this analysis potable water is assumed. District-wide potable water consumption in CY 2020 was 27,357 AF (JCSD 2020). With passage of recent statewide water conservation standards, unit water consumption of potable water is anticipated to decline.

As discussed in Section 3, the water supply portfolio available to serve the Project includes local potable water from District wells, CDA, RCSD, and the DYY Program. The District also maintains water storage accounts through the Chino Basin Watermaster. As of 2020, the potable water supplies utilized by JCSD totaled approximately 27,357 AF, which is commensurate with the District-wide potable demand during the same time period (JCSD 2020).

As of CY 2020, the potable groundwater production by JCSD was approximately 11,502 AF, which is less than the District's projected peak groundwater production of potable ground water (**Table 4-2**). Further, the District currently uses their total rights to potable water available from the CDA (**Table 4-3**).

Currently, JCSD's annual production right in the Chino Basin as calculated by the Watermaster totals 19,547.9 AF, with an additional 31,861.3 AF in storage (**Table 4-1**).

Although annual fluctuations to rights and storage accounts will occur, the District's rights are projected to increase over the next 20 years due to more land use conversions.

In conclusion, the water supplies available to JCSD currently meet and exceed water demands. Groundwater production by JCSD is currently less than their existing rights and within their groundwater well production capacity. Regardless, JCSD has the means and right to exceed their groundwater allocation in the Chino Basin when required to meet demand pursuant to the Judgment. Further, JCSD has rights to water held in storage that would supply customer demands for more than one year. On the other hand, JCSD also can supply water to the Project purchased from CDA that is within their existing entitlements and capacities. Therefore, the District can meet the planned water demand of the proposed Project by utilizing JCSD's existing water supply.

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Figure 4-1. Groundwater Basin Map

Figure 4-2. Chino Basin Management Zones

Section 5. Conclusions

Jurupa Community Services District (JCSD) has been identified as the water supplier for the proposed Eastvale Leal Property ("Project"). JCSD prepared an Urban Water Management Plan (UWMP) in 2020.

The Project is in the City of Eastvale and consists of 158 acres of proposed development. The proposed project will include mixed uses including mixed-use retail, office, housing, and civic development including police and fire stations and community center as well as a hotel and community spaces.

The estimated potable water demand for the Project is 461 acre-feet per year (AFY) (**Table 2-3**). No recycled water is assumed available to serve this Project at this time. The Project site was accounted for in the 2020 UWMP, which estimated a demand of 505 AFY for the Project site. Thus the Project was accounted for in the water demand projections of the most recent UWMP.

JCSD produced 11,051.8 AF of groundwater for potable use in CY 2020. JCSD has water production rights in the Chino Groundwater Basin that currently total 19,547.9 AF, as well as groundwater storage accounts that total 31,861.3 AF (**Table 4-1**).

JCSD holds a contractual commitment as a member of the Chino Basin Desalter Authority (CDA) for potable supplies in the amount of 11,733 AFY, and an agreement to purchase potable water from Rubidoux Community Services District (RCSD) in the amount of approximately 2,000 AFY. During dry years, JCSD can also purchase the City of Ontario's share of CDA water in the amount of approximately 2,000 AF through the DYY Program. In CY 2020, JCSD received 11,414 AF from CDA and 1,446 AF through the DYY Program. No supply was received from RCSD in CY 2020 (**Table 3-5**). In addition, JCSD obtained WMWD's CDA's supply of 3,445.5 AF of WMWD's CDA supply in CY 2020.

JCSD has forecasted excess water supplies will be available to meet customer demand during single-dry and multiple dry water years over the next 20 years (**Tables 3-8** and **3-9**), assuming a new water supply source is brought online around 2025. Current projects and supply sources include Western Municipal Water District and Cucamonga Valley Water District (**Table 3-6**). The District currently has an application before the State Water Resources Control Board to obtain grant funding and a low interest rate loan for a recycled water system.

Potable water demand in the JCSD service area was 27,357.3 AF as of CY 2020. By 2040, ultimate potable water demands are estimated at 36,289 AFY (**Table 2-2**). The current groundwater pumping capacity (33,090 gpm) will be increased ultimately to 43,315 gpm to meet customer demands under buildout conditions.

Based on the evidence provided herein, the total projected water supplies available to JCSD during normal, single dry, and multiple dry water years over a 20-year projection will be sufficient to meet the projected water demand associated with the proposed Project in addition to the water supplier's existing and planned future uses, including agricultural and manufacturing uses. State mandated conservation efforts will reduce demand in the future.

References

1. Jurupa Community Services District, 2020 Urban Water Management Plan.
2. Jurupa Community Services District, 2020 Draft Water Master Plan. March 2021.
3. Chino Basin Desalter Authority, 2015 Urban Water Management Plan. June 2016.
4. Western Municipal Water District 2015 Urban Water Management Plan Update, Final Report. June 2016.
5. The Metropolitan Water District of Southern California, 2015 Urban Water Management Plan. June 2016.
6. Chino Basin Watermaster, Fiscal Year 2019-20, 43rd Annual Report.
7. Amendment No. 8 to Groundwater Storage Program Funding Agreement No. 49960 By and Among The Metropolitan Water District of Southern California and Inland Empire Utilities Agency and Chino Basin Watermaster. September 17, 2014.
8. Judgment, Chino Basin Municipal Water District v. City of Chino, et al., San Bernardino Ct. No. 164327 (filed Jan. 30, 1978). Includes amendments thereto.
9. Agreement by and between the City of Ontario and Jurupa Community Services District establishing an operational plan for Metropolitan Water District/Chino Basin Groundwater Storage Program, Providing for Water Supply to Ontario's New Model Colony and Interconnection to Increase Water Supply Reliability. November 21, 2014.
10. Judgment, Orange County Water District v. City of Chino, et al., Superior Court for the State of California for the County of Orange No. 117628 (filed April 17, 1969).
11. Judgment, Western Municipal Water District, et al. v. East San Bernardino County Water District, et al., Superior Court of the State of California in and for the County of Riverside No. 784726 (filed April 17, 1969).

TENTATIVE TRACT MAP NO. 38594
FOR CONDOMINIUM PURPOSES

BEING ALL OF PARCEL A OF LOT LINE ADJUSTMENT NO. 2022-001, RECORDED AUGUST 24, 2022 AS INSTRUMENT NO, 2022-0370918 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TOGETHER WITH THAT PORTION OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 7 WEST, JURUPA RANCHO, IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY SECTIONALIZED SURVEY OF THE JURUPA RANCHO, AS SHOWN BY MAP ON FILE IN BOOK 9, PAGE 33 OF MAPS, JURUPA RANCHO RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SECTION, 420.00 FEET NORTH OF THE SOUTHEAST CORNER THEREOF; THENCE WEST 208.70 FEET; THENCE NORTH 208.70 FEET; THENCE EAST 208.70 FEET TO A POINT ON THE EAST LINE OF SAID SECTION; THENCE SOUTH ALONG SAID EAST LINE, 208.70 FEET TO THE POINT OF BEGINNING.

EXCEPTING THE EAST 30.00 FEET THEREOF FOR STATE HIGHWAYS DESCRIBED IN A DOCUMENT TO THE STATE OF CALIFORNIA RECORDED JANUARY 8, 1943 IN BOOK 569, PAGE 86, OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.



EXISTING EASEMENTS

(4) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: PUBLIC UTILITIES
RECORDING DATE: APRIL 9, 1953
RECORDING NO.: 17029, BOOK 1459, PAGE 442, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1, 2 AND 6 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
TO BE QUITCLAIMED

EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

(6) GRANTED TO: ARTHUR L. HANSON AND BESSIE L. HANSON
PURPOSE: UTILITIES
RECORDING DATE: JUNE 5, 1953
RECORDING NO.: 27507, BOOK 1479, PAGE 275, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
A PORTION TO BE QUITCLAIMED

(9) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: OCTOBER 25, 1968
RECORDING NO. 71591, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCEL 7 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
A PORTION TO BE QUITCLAIMED

(12) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: DECEMBER 21, 1998
RECORDING NO. 552204, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 3 AND 4 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(20) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2000-025215, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(21) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2000-025216, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(22) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

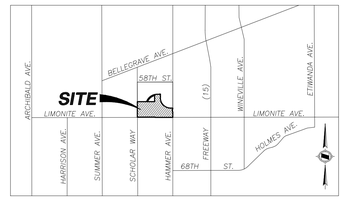
GRANTED TO: JURUPA COMMUNITY SERVICES DISTRICT
PURPOSE: PIPELINES, UTILITIES AND ACCESS
RECORDING DATE: OCTOBER 1, 2003
RECORDING NO. 2000-770719, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID PARCEL 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
PORTION TO BE QUITCLAIMED

(24) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: DRAINAGE
RECORDING DATE: JULY 20, 2007
RECORDING NO. 2000-0474701, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(27) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: CITY OF EASTVALE
PURPOSE: PUBLIC ROAD AND UTILITY
RECORDING DATE: OCTOBER 10, 2013
RECORDING NO. 2013-0488886, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT



VICINITY MAP

NOTES

1. EXISTING LAND USE: VACANT
2. PROPOSED LAND USE: RESIDENTIAL AND COMMERCIAL
3. EXISTING GENERAL PLAN LAND USE DESIGNATION: LEAL POLICY AREA
4. EXISTING ZONING: LEAL MASTER PLAN
5. ASSESSOR PARCEL NUMBERS: 164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024, 164-030-025
6. TOTAL GROSS AREA: 69.84 AC
7. WATER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
8. SEWER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
9. GAS SERVICE PROVIDED BY: SOUTHERN CALIFORNIA GAS COMPANY, 155 S. G STREET, SAN BERNARDINO, CA 92410, (909) 758-8691
10. ELECTRIC SERVICE PROVIDED BY: SOUTHERN CALIFORNIA EDISON, 1351 E. FRANCIS STREET, ONTARIO, CA 91761, (909) 930-8431
11. TELEPHONE SERVICE PROVIDED BY: VERIZON, 1400 E. PHILLIPS BLVD., POMONA, CA 91766, (909)469-2260
12. CABLE PROVIDED BY: AT&T, 1265 N. VAN BUREN STREET, SUITE 180, ANAHEIM, CA 92807, (800) 750-2355
13. REFUSE PROVIDED BY: WASTE MANAGEMENT OF THE INLAND EMPIRE, 800 SOUTH TEMESCAL STREET, CORONA, CA 92876, (951) 280-4500
14. THE PROJECT IS LOCATED WITHIN THE CORONA-NORCO UNIFIED SCHOOL DISTRICT, 2820 CLARK AVENUE, NORCO CA, 92860, (951) 736-5000
15. THE PROJECT SITE IS NOT LOCATED WITHIN A FLOOD ZONE PER FLOOD INSURANCE RATE MAP NUMBERS 06065C0677G & 06065C0681G, EFFECTIVE DATE AUGUST 28, 2008.

EARTHWORK SUMMARY

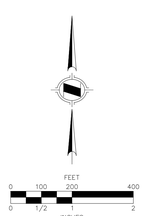
CUT	FILL
1,129,682 CYS	1,152,545 CYS

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
(4) PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

RIGHT OF WAY
LOT LINE
TRACT BOUNDARY
EASEMENT
GRADE BREAK
DAYLIGHT LINE
101 PROPOSED MAJOR CONTOUR
101 PROPOSED MINOR CONTOUR
EXISTING CURB
EXISTING MEDIAN
TOP AND TOE OF SLOPE
RETAINING WALL



NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

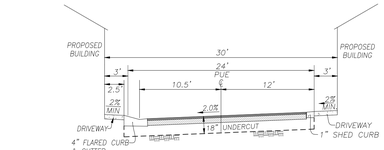
PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

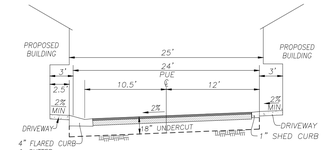
SHEET
1 OF 7

W.O.: 2749-44CC EASTWALK

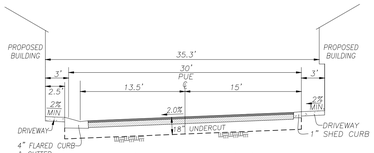
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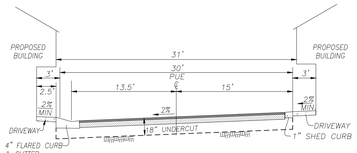
TYPICAL 24' STREET SECTION
PRIVATE DRIVES PA-1 (10 UNIT)
NOT TO SCALE



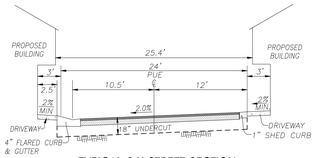
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PRIVATE DRIVES PA-6
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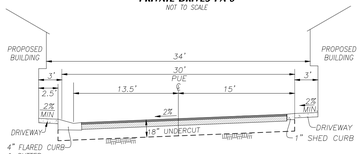
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PRIVATE DRIVES PA-1 (10 UNIT)
NOT TO SCALE



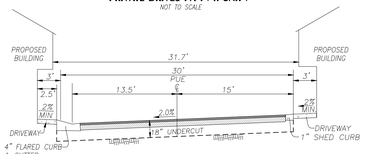
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PRIVATE DRIVES PA-6
NOT TO SCALE



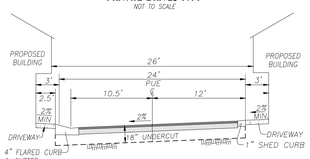
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PRIVATE DRIVES PA-1 (11 UNIT)
NOT TO SCALE



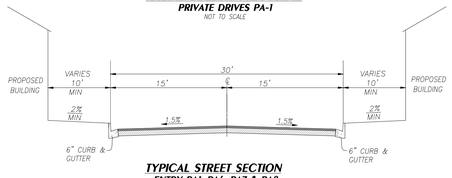
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PRIVATE DRIVES PA-7
NOT TO SCALE



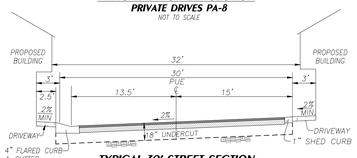
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PRIVATE DRIVES PA-1
NOT TO SCALE



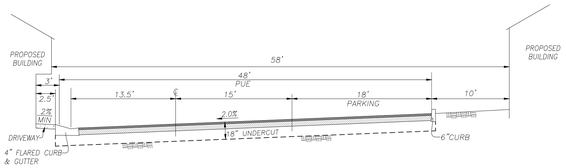
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PRIVATE DRIVES PA-8
NOT TO SCALE



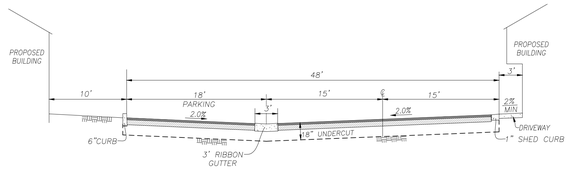
TYPICAL STREET SECTION
ENTRY PA1, PA6, PA7 & PA8
NOT TO SCALE



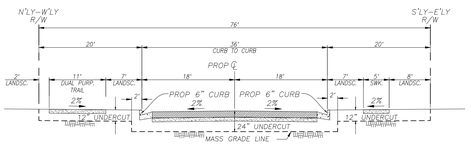
TYPICAL 30' STREET SECTION
PRIVATE DRIVES PA-8
NOT TO SCALE



TYPICAL 30' STREET SECTION W/PARKING
PRIVATE DRIVES PA-1, PA-6, PA-7 & PA-8
NOT TO SCALE

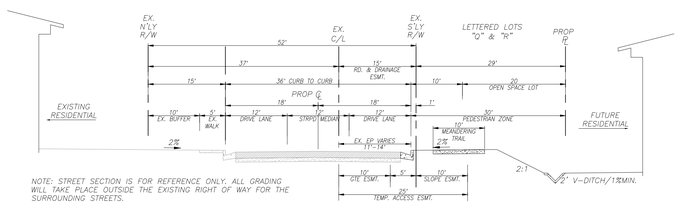


TYPICAL 30' STREET SECTION W/PARKING
PRIVATE DRIVES PA-7
NOT TO SCALE



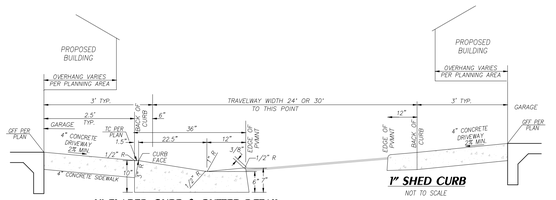
NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
INTERIOR A,B,C STREETS
NOT TO SCALE



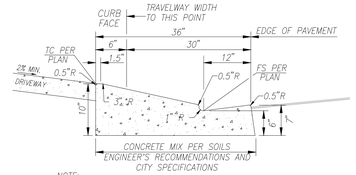
NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
58TH STREET
NOT TO SCALE



4" FLARED CURB & GUTTER DETAIL
NOT TO SCALE

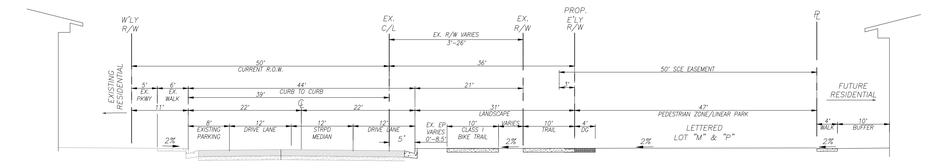
1" SHED CURB
NOT TO SCALE



NOTE:

1. CURB CORES WILL NOT BE ALLOWED. YARD DRAINS MUST CONNECT DIRECTLY TO THE UNDERGROUND STORM DRAIN SYSTEM.
2. ASPHALT CONCRETE PAVEMENT SHALL BE A MAXIMUM 3/8" HIGHER THAN EDGE OF GUTTER.

4" FLARED CURB & GUTTER DETAIL
NOT TO SCALE

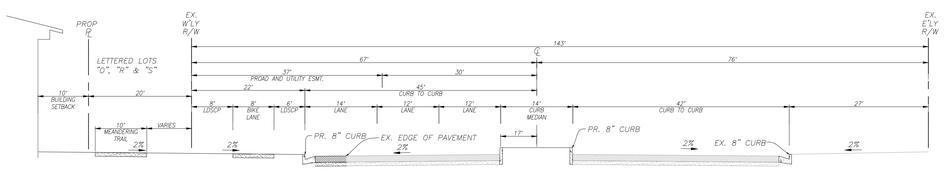


NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
SCHOLAR WAY
NOT TO SCALE

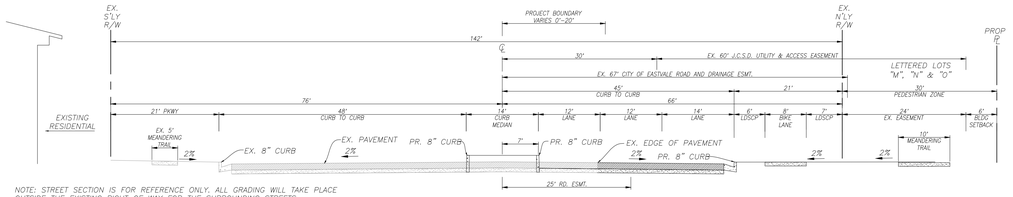
1" SHED CURB
NOT TO SCALE

3' RIBBON GUTTER
NOT TO SCALE



NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
HAMNER AVE
NOT TO SCALE



NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
LIMONITE AVE
NOT TO SCALE



KEY MAP

NUMBERED LOTS

Lot No.	Land Use	S.F	Acres	Lot No.	Land Use	S.F	Acres
1	Residential	10,454	0.24	34	Residential	5,663	0.13
2	Residential	6,534	0.15	35	Residential	10,019	0.23
3	Residential	14,810	0.34	36	Residential	9,148	0.21
4	Residential	11,761	0.27	37	Residential	39,204	0.90
5	Residential	17,424	0.40	38	Residential	12,197	0.28
6	Residential	12,632	0.29	39	Residential	13,068	0.30
7	Residential	16,988	0.39	40	Residential	11,326	0.26
8	Residential	15,682	0.36	41	Residential	14,375	0.33
9	Residential	16,117	0.37	42	Residential	23,522	0.54
10	Residential	4,792	0.11	43	Residential	13,939	0.32
11	Residential	15,246	0.35	44	Residential	11,761	0.27
12	Residential	16,117	0.37	45	Residential	11,761	0.27
13	Residential	18,295	0.42	46	Residential	13,504	0.31
14	Residential	17,860	0.41	47	Residential	23,522	0.54
15	Residential	10,454	0.24	48	Residential	12,197	0.28
16	Residential	13,939	0.32	49	Residential	12,632	0.29
17	Residential	10,454	0.24	50	Residential	13,504	0.31
18	Residential	11,326	0.26	51	Residential	18,295	0.42
19	Residential	10,454	0.24	52	Residential	16,553	0.38
20	Residential	9,148	0.21	53	Residential	16,988	0.39
21	Residential	13,068	0.30	54	Residential	14,810	0.34
22	Residential	25,700	0.59	55	Residential	19,602	0.45
23	Residential	23,958	0.55	56	Residential	15,246	0.35
24	Residential	18,295	0.42	57	Residential	15,246	0.35
25	Residential	20,038	0.46	58	Residential	15,246	0.35
26	Residential	22,651	0.52	59	Residential	21,780	0.50
27	Residential	1,307	0.03	60	Residential	11,326	0.26
28	Residential	23,522	0.54	61	Residential	21,780	0.50
29	Residential	16,553	0.38	62	Residential	453,460	10.41
30	Residential	9,583	0.22	63	Commercial	92,783	2.13
31	Residential	13,504	0.31	64	Commercial	417,305	9.58
32	Residential	10,454	0.24	65	Commercial	198,198	4.55
33	Residential	6,534	0.15				

TOTAL	2,065,615	47.42

LETTERED LOTS

Lot No.	Land Use	S.F	Acres
A	Open Space	45,302	1.04
B	Open Space	26,572	0.61
C	Open Space	19,602	0.45
D	Street Dedication (Public)	37,897	0.87
E	Open Space	13,939	0.32
F	Open Space	30,928	0.71
G	Open Space	30,056	0.69
H	Street Dedication (Public)	162,479	3.73
I	Street Dedication (Public)	34,848	0.8
J	Street (Public)	133,294	3.06
K	Street (Public)	170,755	3.92
L	Street (Public)	44,431	1.02
M	Street (Public)	115,870	2.66
N	Open Space	9,148	0.21
O	Open Space	6,098	0.14
P	Open Space	1,742	0.04
Q	Open Space	1,307	0.03
R	Street (Private)	1,307	0.03
S	Open Space	90,169	2.07

TOTAL	885,575	22.40

LAND USE SUMMARY

Lot No.	Land Use	S.F	Acres
1 TO 62	RESIDENTIAL	1,355,152	31.19
63 - 65	COMMERCIAL	708,286	16.26
A - C, E - G, N-S	OPEN SPACE	276,736	6.33
D, H - I	STREET DEDICATION	235,660	5.40
J - M	STREET	464,350	10.66

TOTAL	3,040,184	69.84

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, LLC.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

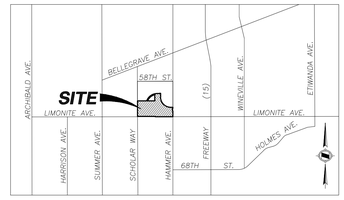
SHEET
2 OF 7

W.O.: 2749-44CX EASTWALK

SEE SHEET 7

SEE SHEET 7





VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET 0 20 40 80
INCHES 0 1/2 1 2

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
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(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
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(951) 515-5419

PREPARED BY:
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IRVINE, INC.
PLANNING ■ ENGINEERING ■ SURVEYING
Three Hughes ■ Irvine, CA 92618 ■ PH: (949) 583-1010 ■ FX: (949) 583-0759

TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
3 OF 7

W.O.: 2749-44CC EASTVALE

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 11:10:07 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_TTM\TTM_38594_Sht-3.dwg

SEE SHEETS 6 & 7

SEE SHEETS 6 & 7

SEE SHEET 3

SEE SHEET 5

LOT 65

LOT S

LOT M

LOT 18

LOT 4

LOT 3

LOT K

LOT 62

LOT 64

LOT 63

LOT M

LOT F

LOT H

PA-2

(TO BE BUILT BY OTHER)

±12.53 Acres

BOUNDARY

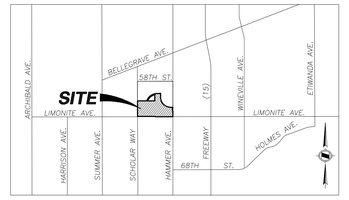
BOUNDARY

MAP MB 426/17-21

PARCEL MAP 36400

SEE SHEET 3

SEE SHEET 5



VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET
0 5 20 40 80
0 1/2 1 2
INCHES

NO.	DATE	REVISIONS	APPROVED

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CHECKED BY: DS

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TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
4 OF 7

W.O. 2749-44421 EASTWALK

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 11:10:47 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_TTM\TTM_38594_Sht-4.dwg

SEE SHEET 6

SEE SHEET 6

SEE SHEET 4

SEE SHEET 4

PARCEL B
LLA 2022-001
N.A.P

PA-3

(TO BE BUILT BY OTHERS)

±16.18 Acres

LOT 65

LOT S

LOT 62

LOT 64

LOT 63

LOT M

LOT F

LOT J

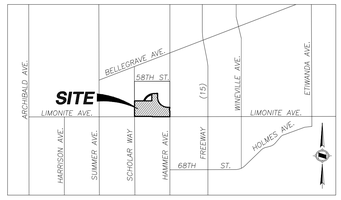
LOT I

LOT G

LOT H

BOUNDARY

1320'



VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET
0 20 40 80
0 1/2 2
INCHES

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

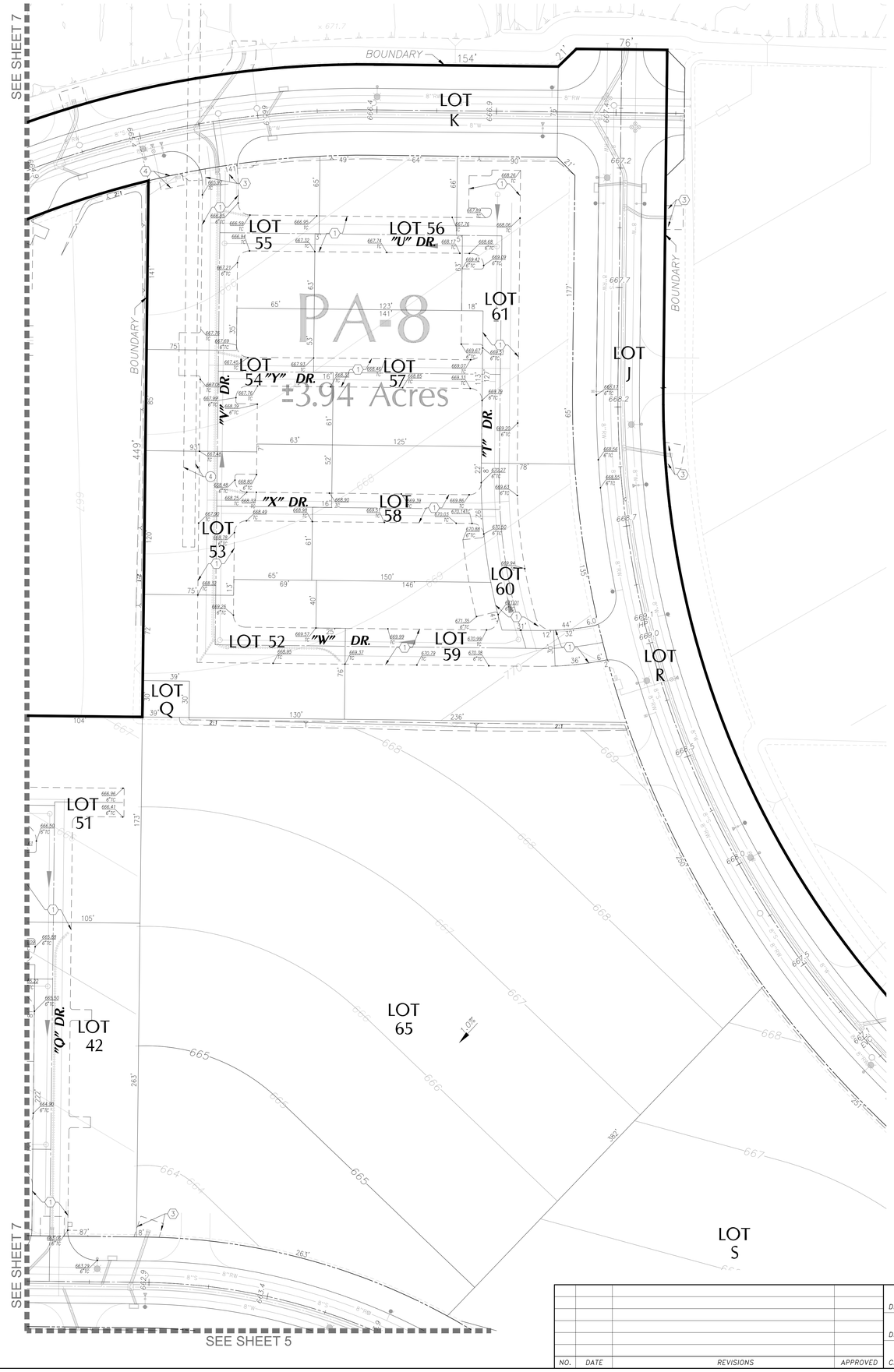
PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

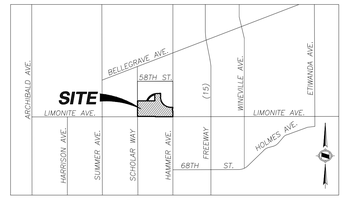
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
5 OF 7

W.O.: 2749-44CX EASTMLK

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 11:11:24 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_TTM\TTM_38594_Sht-5.dwg





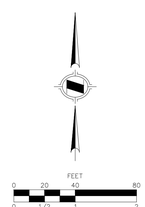
VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN



NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

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15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

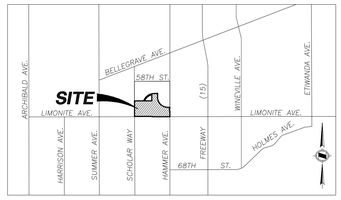
OWNER:
ARROYO CAP III, LLC.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
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TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
6 OF 7

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 11:12:02 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_TTM\TTM_38594_Sht-6.dwg
W.O.: 2749-440X EASTMALK



VICINITY MAP

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

PA-7A ±5.65 Acres

PA-6 ±5.61 Acres

LOT 26 · LOT P · LOT 27 · LOT 28 · LOT 29 · LOT 30 · LOT 31 · LOT 24 · LOT 25 · LOT D · LOT C · LOT 23 · LOT O · LOT 33 · LOT 32 · LOT 34 · LOT 35 · LOT 22 · LOT 21 · LOT 36 · LOT K · LOT 47 · LOT 48 · LOT 49 · LOT 50 · LOT 51 · LOT Q · LOT 46 · LOT 45 · LOT 44 · LOT 43 · LOT 65 · LOT 37 · LOT 42 · LOT 38 · LOT 39 · LOT 40 · LOT 41 · LOT L · LOT M · LOT 5 · LOT 1 · LOT 19 · LOT 18 · LOT 62

"I" DR. · "K" DR. · "L" DR. · "M" DR. · "H" DR. · "I" DR. · "G" DR. · "F" DR. · "A" DR. · "R" DR. · "N" DR. · "P" DR. · "O" DR. · "O" DR. · "H" CT. · "I" CT.

BOUNDARY

SEE SHEET 6

SEE SHEETS 3 & 4

SEE SHEETS 3 & 4

FEET 0 20 40 80 · INCHES 0 1/2 1 2

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

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IRVINE, CA 92618
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OWNER:
ARROYO CAP III, LLC.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

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TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
7 OF 7

W.O.: 2749-44CC EASTWALK

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 11:12:41 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_TTM\TTM_38594_Sht-7.dwg

EASTWALK | EASTVALE

OVERALL - PHASE A
MAJOR DEVELOPMENT PLAN

GENERAL

SHEET	NAME
CS-1	Coversheet/Sheet Index
R-1	PA-1 Site Rendering
R-2	PA-1 Site Rendering
R-3	PA-1 Site Rendering
R-4	PA-6 Site Rendering
R-5	PA-6 Site Rendering
R-6	PA-7 Site Rendering
R-7	PA-7 Site Rendering
R-8	PA-8 Site Rendering
R-9	PA-8 Site Rendering
R-10	Typical Planning Area Entry Rendering
R-11	Typical Planning Area Entry Rendering
SP-1	Overall Illustrative
SP-2	Community Identity
L-401	Conceptual Tree Plant Layout
L-402	Plant Imagery Board
L-403	Plant Imagery Board
L-404	Plant Imagery Board
L-405	Street Enhancement & Linear Park Enlargement at Limonite Ave.
L-406	Linear Park Enlargement at Scholar Way
L-407	Street Planting Vignette and Sections
L-408	Street Planting Vignette and Sections
L-409	Monument Wall Elevations
E-1	Offsite Photometrics Site Plan
E-2	Offsite Photometrics Site Plan
E-1	Backbone Photometrics Site Plan
E-2	Backbone Photometrics Site Plan
E-3	Backbone Photometrics Site Plan
E-4	Backbone Photometrics Site Plan

CIVIL

SHEET	NAME
1 of 14	Site Plan
2 of 14	Site Plan
3 of 14	Site Plan
4 of 14	Site Plan
5 of 14	Site Plan
6 of 14	Site Plan
7 of 14	Site Plan
8 of 14	Grading Plan
9 of 14	Grading Plan
10 of 14	Grading Plan
11 of 14	Grading Plan
12 of 14	Grading Plan
13 of 14	Parking Plan
14 of 14	Trash Plan
1 of 7	Tentative Tract Map
2 of 7	Tentative Tract Map
3 of 7	Tentative Tract Map
4 of 7	Tentative Tract Map
5 of 7	Tentative Tract Map
6 of 7	Tentative Tract Map
7 of 7	Tentative Tract Map

CITY OF EASTVALE

NEW HOME CO. move forward

EASTWALK

HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING ▪ ENGINEERING ▪ SURVEYING

Bassenian | Lagoni ARCHITECTURE ▪ PLANNING ▪ INTERIORS

WHA.

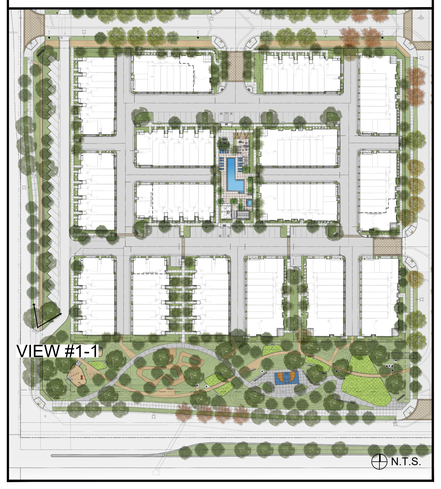
BrightView Design Group

10/03/2023

VIEW #1-1: SOUTH SIDE VIEW OF PASSIVE TRAIL SPACE

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

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EASTWALK
MASTER DEVELOPMENT PLAN

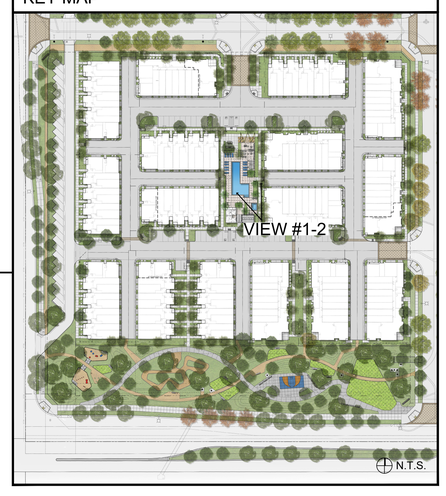
SHEET TITLE
PA-1 SITE RENDERING

SHEET NO.
R-1

VIEW #1-2: SOUTH SIDE VIEW OF POOL

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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SHEET TITLE
PA-1 SITE RENDERING

SHEET NO.
R-2

VIEW #1-3: NORTH SIDE VIEW OF AMENITIES

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA-1 SITE RENDERING

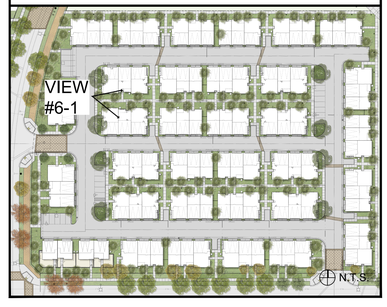
SHEET NO.
R-3



VIEW #6-1: WEST SIDE VIEW OF PASEO

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



Know what's below.
Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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IRVINE, CALIFORNIA 92618
(949) 238-4900

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

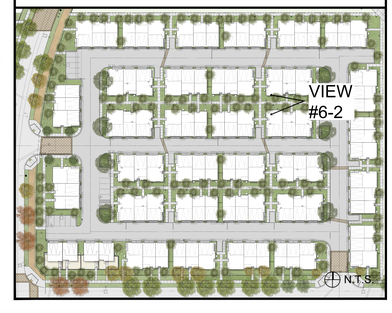
SHEET TITLE
PA-6 SITE RENDERING

SHEET NO.
R-4

VIEW #6-2: INTERIOIR VIEW OF PASEO

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA-6 SITE RENDERING

SHEET NO.
R-5

VIEW #7-1: SOUTH SIDE VIEW OF FLEX SPACE

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA-7 SITE RENDERING

SHEET NO.
R-6

VIEW #7-2: NORTH SIDE VIEW OF PASSIVE TRAIL SPACE

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



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MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA-7 SITE RENDERING

SHEET NO.
R-7

VIEW #8-1: SOUTH EAST SIDE VIEW OF THE LOT

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA-8 SITE RENDERING

SHEET NO.
R-8



VIEW #8-2: EAST SIDE ENTRANCE VIEW

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA-8 SITE RENDERING

SHEET NO.
R-9



VIEW #9-1: PA-1 ENTRY WAY

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP

Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
TYPICAL PLANNING AREA ENTRY RENDERING

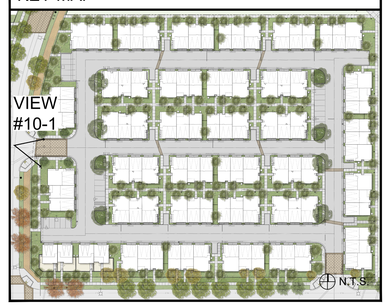
SHEET NO.
R-10



VIEW #10-1: PA-6 ENTRY WAY

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE.

KEY MAP



Know what's below. Call 811 before you dig.

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		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
TYPICAL PLANNING AREA ENTRY RENDERING

SHEET NO.
R-11

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

'A' ROAD

N.A.P

'C' ROAD

SCHOLAR WAY

HAMNER AVE.

PLANNING
AREA 8

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

PHASE A PROJECT BOUNDARY

ENLARGEMENT 'B'. REFER TO
SHEET L-403

ENLARGEMENT 'E'.
REFER TO SHEET
L-404

PLANNING
AREA 7

PLANNING
AREA 6

'B' ROAD

'C' ROAD

ENLARGEMENT 'H'. REFER TO
SHEET L-406

ENLARGEMENT 'G'. REFER TO
SHEET L-406

ENLARGEMENT 'A'. REFER TO
SHEET L-403

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

ENLARGEMENT 'D'.
REFER TO SHEET
L-404

ENLARGEMENT 'F'. REFER TO
SHEET L-405

'A' ROAD

'B' ROAD

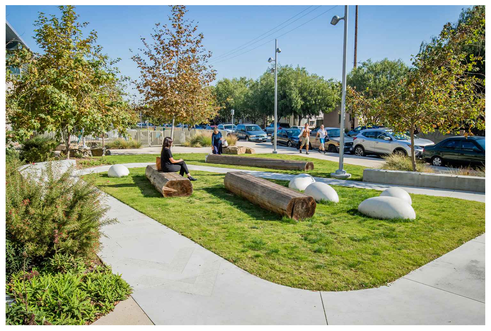
LIMONITE AVE.

ENLARGEMENT 'C'.
REFER TO SHEET L-403

PASSIVE SPACE REFERENCE IMAGERY









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		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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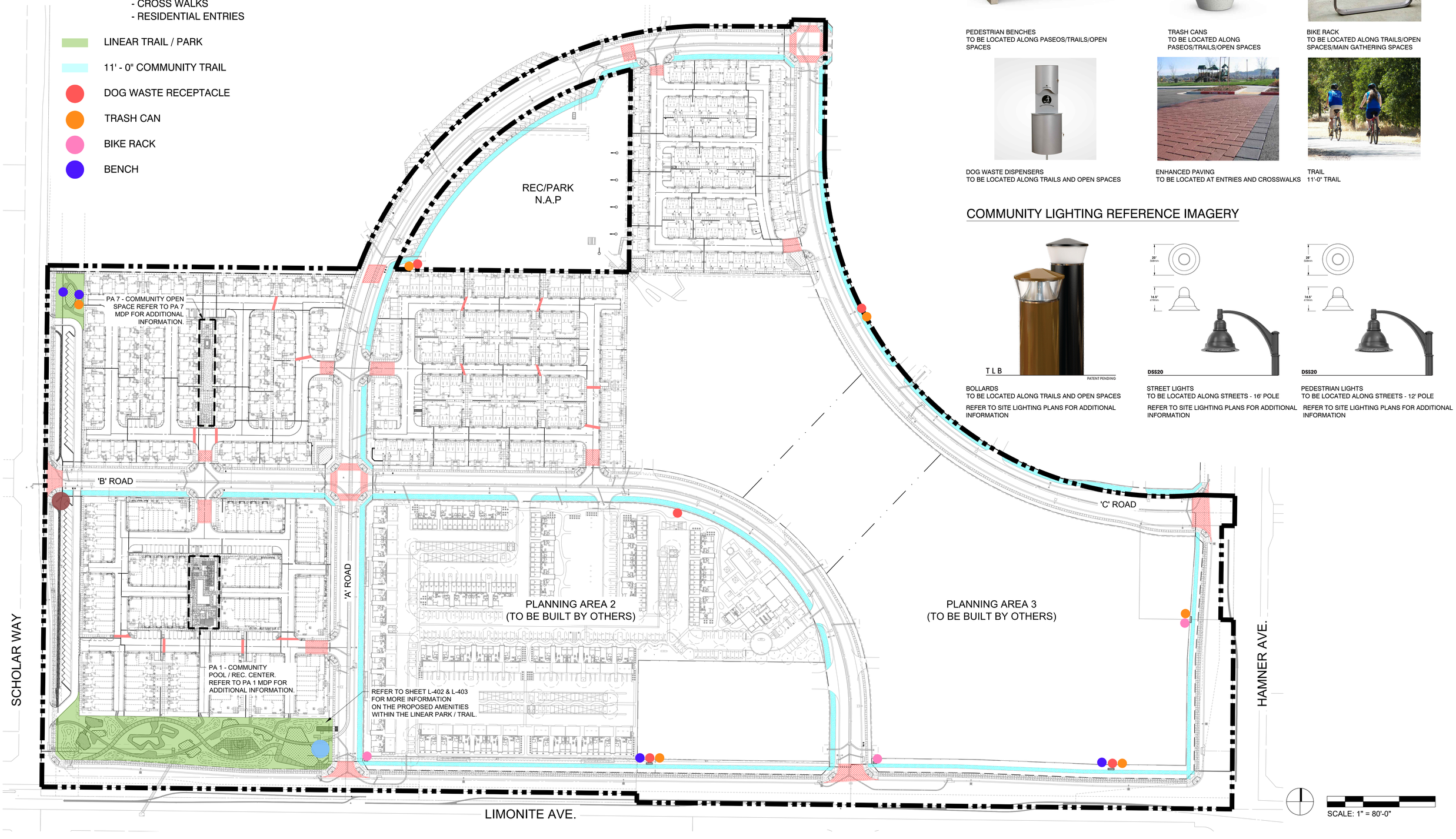
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OVERALL ILLUSTRATIVE

SHEET NO.
SP-1

COMMUNITY IDENTITY LEGEND

- PRIMARY RESIDENTIAL SIGNAGE
- SECONDARY RESIDENTIAL SIGNAGE
- ENHANCED PAVING
  - ENTRIES
  - CROSS WALKS
  - RESIDENTIAL ENTRIES
- LINEAR TRAIL / PARK
- 11' - 0" COMMUNITY TRAIL
- DOG WASTE RECEPTACLE
- TRASH CAN
- BIKE RACK
- BENCH



SCALE: 1" = 80'-0"

REFERENCE IMAGERY



PEDESTRIAN BENCHES
TO BE LOCATED ALONG PASEOS/TRAILS/OPEN SPACES



TRASH CANS
TO BE LOCATED ALONG PASEOS/TRAILS/OPEN SPACES



BIKE RACK
TO BE LOCATED ALONG TRAILS/OPEN SPACES/MAIN GATHERING SPACES

DOG WASTE DISPENSERS
TO BE LOCATED ALONG TRAILS AND OPEN SPACES

ENHANCED PAVING
TO BE LOCATED AT ENTRIES AND CROSSWALKS

TRAIL
11'-0" TRAIL

COMMUNITY LIGHTING REFERENCE IMAGERY

BOLLARDS
TO BE LOCATED ALONG TRAILS AND OPEN SPACES

REFER TO SITE LIGHTING PLANS FOR ADDITIONAL INFORMATION

STREET LIGHTS
TO BE LOCATED ALONG STREETS - 16' POLE

REFER TO SITE LIGHTING PLANS FOR ADDITIONAL INFORMATION

PEDESTRIAN LIGHTS
TO BE LOCATED ALONG STREETS - 12' POLE

REFER TO SITE LIGHTING PLANS FOR ADDITIONAL INFORMATION

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		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITTAL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COMMUNITY IDENTITY

SHEET NO.
SP-2

LANDSCAPE COVERAGE SUMMARY:

OVERALL LANDSCAPE: 213,480 SQ. FT. *

TOTAL DEVELOPED AREA PHASE A: 1,788,270** SQ. FT

PERCENTAGE OF LANDSCAPE AREA: 12%

*DOES NOT INCLUDE IN-TRACT LOTS (PA 1,6,7,&8)
**DOES NOT INCLUDE LOTS 62,63,64,65,S

TREES	BOTANICAL / COMMON NAME	SIZE	WUCOLS
	ACACIA ANEURA MULGA	24" BOX	L
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX - STANDARD TRUNK	L
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX - STANDARD TRUNK	L
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX - STANDARD TRUNK	L
	GINKGO BILOBA 'AUTUMN GOLD' AUTUMN GOLD MAIDENHAIR TREE	24" BOX - STANDARD TRUNK	M
	KOELREUTERIA PANICULATA GOLDEN RAIN TREE	36" BOX - MULTI TRUNK	L
	LOPHOSTEMON CONFERTUS BRISBANE BOX	36" BOX - STANDARD TRUNK	M
	OLEA EUROPAEA 'SWAN HILL' SWAN HILL FRUITLESS OLIVE	24" BOX - STANDARD TRUNK	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX - STANDARD TRUNK	L
	PLATANUS RACEMOSA CALIFORNIA SYCAMORE	24" BOX - STANDARD TRUNK	M
	PLATANUS X ACERIFOLIA LONDON PLANE TREE	24" BOX - STANDARD TRUNK	M
	PROSOPIS CHILENSIS 'THORNLESS' THORNLESS CHILEAN MESQUITE	24" BOX - STANDARD TRUNK	L
	QUERCUS AGRIFOLIA COAST LIVE OAK	36" BOX - STANDARD TRUNK	M
	QUERCUS ILEX HOLLY OAK	48" BOX - STANDARD TRUNK	L

BACKBONE TREE LEGEND

TREES	BOTANICAL / COMMON NAME	SIZE	WUCOLS
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX - STANDARD TRUNK	L
	FRAXINUS OXYCARPA 'RAYWOOD' RAYWOOD ASH	24" BOX - STANDARD TRUNK	M
	GINKGO BILOBA 'AUTUMN GOLD' AUTUMN GOLD MAIDENHAIR TREE	24" BOX - STANDARD TRUNK	M
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX - STANDARD TRUNK	L
	PLATANUS X ACERIFOLIA LONDON PLANE TREE	24" BOX - STANDARD TRUNK	M
	PROSOPIS CHILENSIS 'THORNLESS' THORNLESS CHILEAN MESQUITE	24" BOX - STANDARD TRUNK	L
	QUERCUS ILEX HOLLY OAK	48" BOX - STANDARD TRUNK	L
	RHUS LANCEA AFRICAN SUMAC	24" BOX - STANDARD TRUNK	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX - STANDARD TRUNK	L

NOTE

1. 50% OF ALL TREES SHALL BE 24" BOX,
   30% OF ALL TREES SHALL BE 36" BOX
   20% OF ALL TREES SHALL BE 48" BOX

SCALE: 1" = 80'-0"

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LANDSCAPE ARCHITECT

CITY

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
CONCEPTUAL TREE PLANT LAYOUT

SHEET NO.
L-401

EVERGREEN TREES



ACACIA ANEURA
MULGA



ARBUTUS X 'MARINA'
MARINA STRAWBERRY TREE



CINNAMOMUM CAMPHORA
CAMPHOR TREE



LAURUS NOBILIS 'SARATOGA'
JAPANESE BOTTLEBRUSH



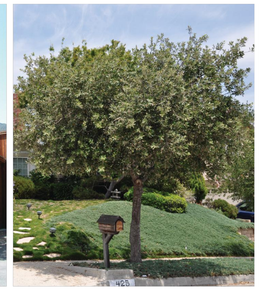
LOPHOSTEMON CONFERTUS
BRISBANE BOX



OLEA EUROPAEA 'SWAN HILL'
FRUITLESS OLIVE



QUERCUS AGRIFOLIA
COAST LIVE OAK



QUERCUS ILEX
HOLLY OAK



RHUS LANCEA
AFRICAN SUMAC

DECIDUOUS TREES



FRAXINUS OXYCARPA 'RAYWOOD'
RAYWOOD ASH



GEIJERA PARVIFLORA
AUSTRALIAN WILLOW



PARKINSONIA X 'DESERT MUSEUM'
DESERT MUSEUM PALO VERDE



PLATANUS ACERIFOLIA
LONDON PLANE TREE



PLATANUS RACEMOSA
CALIFORNIA SYCAMORE



PROSOPIS GLANDULOSA
HONEY MESQUITE



PROSOPIS CHILENSIS
THORNLESS CHILEAN MESQUITE



ULMUS PARVIFOLIA DRAKE
DRAKE CHINESE ELM

ACCENT TREES



ACACIA BAILEYANA 'PURPUREA'
PURPLE FERNLEAF ACACIA



GINKGO BILOBA 'AUTUMN GOLD'
AUTUMN GOLD GINKGO



KOELREUTERIA BIPINATTA 'PANICULATA'
GOLDEN RAIN TREE

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LANDSCAPE ARCHITECT				CITY	

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANT IMAGERY BOARD

SHEET NO.
L-402

BACKGROUND SHRUBS



ABUTILON PALMERI
INDIAN MALLOW



ALYGYNE HUEGELII
BLUE HIBISCUS



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE



ARCTOSTAPHYLOS GLANDULOSA
EASTWOOD MANZANITA



ARTEMISIA CALIFORNICA 'CANYON GREY'
CANYON GREY CALIFORNIA SAGEBRUSH



BACCHARIS PILULARIS
COYOTE BRUSH



ECHIUM FASTUOSUM
PRIDE OF MADEIRA



HETEROMELES ARBUTIFOLIA
TOYON



JUNIPERUS COMMUNIS
COMMON JUNIPER



LEYMUS CONDENSATUS
GIANT WILD RYE



MUHLENBERGIA RIGENS 'PINK MULHY'
PINK MUHLY



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD



RHUS INTEGRIFOLIA
LEMONADE BERRY



RHUS OVATA
SUGAR BUSH



RIBES SANGUINEUM
RED FLOWERING CURRANT



ROMNEYA COULTERI
MATILIJA POPPY



TAGETES LEMONII
COPPER CANYON DAISY



TECOMA X 'ORANGE JUBILEE'
ORANGE JUBILEE YELLOW BELLS

MIDGROUND SHRUBS



AGAVE ATTENUATA
FOXTAIL AGAVE



AGAVE X 'BLUE FLAME'
BLUE FLAME AGAVE



AGAVE X 'BLUE GLOW'
BLUE GLOW AGAVE



ANIGOZANTHOS X 'ORANGE CROSS'
ORANGE CROSS KANGAROO PAW



BERBERIS THUNBERGII
JAPANESE GREENLEAF BARBERRY



CALLISTEMON VIMINALIS 'LITTLE JOHN'
LITTLE JOHN WEEPING BOTTLEBRUSH



CISTUS SALVIIFOLIUS 'PROSTRATUS'
SAGELEAF ROCKROSE



DIANELLA REVOLUTA 'DTNO3'
BABY BLISS FLAX LILY



EUPHORBIA RIGIDA
YELLOW SPURGE



HESPERALOE PARVIFLORA
RED YUCCA



JUNCUS PATENS
CALIFORNIA GRAY RUSH



KALANCHOE THYRSIFLORA
PADDLE PLANT



KNIPHOFIA TRIANGULARIS
DWARF RED HOT POKER



KNIPHOFIA UVARIA
RED HOT POKER



LAVANDULA STOECHAS
SPANISH LAVENDER



LEUCOPHYLLUM CANDIDUM
TEXAS SAGE



LOMANDRA LONGIFOLIA 'BREEZE'
BREEZE MAT RUSH



MELALEUCA NESOPHILA 'LITTLE NESSIE'
LITTLE NESSIE PINK MELALEUCA

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LANDSCAPE ARCHITECT				CITY	

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANT IMAGERY BOARD

SHEET NO.
L-403

MIDGROUND SHRUBS CONT.



NANDINA DOMESTICA 'COMPACTA'
DWARF HEAVENLY BAMBOO



OLEA EUROPAEA 'MONTRA'
LITTLE OLLIE OLIVE



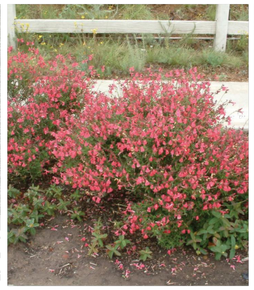
PHLOMIS FRUTICOSA
JERUSALEM SAGE



RHAPHIOLEPIS UMBELLATA 'MINOR'
DWARF INDIAN HAWTHORN



ROSMARINUS OFFICINALIS
ROSEMARY



SALVIA GREGII
AUTUMN SAGE



SALVIA SPATHACEA
HUMMINGBIRD SAGE



TRICHOSTEMA LANATUM
WOOLLY BLUE CURLS



WESTRINGIA FRUTICOSA
COAST ROSEMARY



WESTRINGIA FRUTICOSA 'SMOKEY GREY BO
COAST ROSEMARY

FOREGROUND/GROUNDCOVER



ACACIA REDOLENS 'DESERT CARPET'
SWEET ACACIA



ACHILLEA TOMENTOSA
WOOLLY YARROW



BOUTELOUA GRACILIS
BLUE GRAMA GRASS



CAREX DIVULSA
EUROPEAN GREY SEDGE



CEONOTHUS X 'JOYCE COULTER'
JOYCE COULTER WILD LILAC



ESCHSCHOLZIA CALIFORNICA
CALIFORNIA POPPY



FESTUCA GLAUCA
BLUE FESCUE



LANTANA MONTEVIDENSIS
PURPLE TRAILING LANTANA



LONICERA JAPONICA
JAPANESE HONEYSUCKLE



MYOPORUM PARVIFOLIUM
TRAILING MYOPORUM



ROSMARINUS OFFICINALIS
'HUNTINGTON CARPET'
ROSEMARY



SENECIO CINERARIA
DUSTY MILLER



SENECIO SERPENS
BLUE CHALKSTICKS



TEUCRIUM CHAMAEDRYS
GERMANDER



TEUCRIUM COSONII
CREEPING GERMANDER

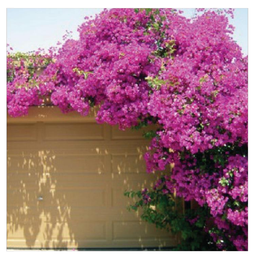


THYMUS X CITRIODORUS
LEMON THYME



TRACHELOSPERMUM JASMINOIDES
CHINESE STAR JASMINE

FOREGROUND/GROUNDCOVER



BOUGAINVILLEA 'ROSENKA'
ROSENKA BOUGAINVILLEA



TRACHELOSPERMUM JASMINOIDES
STAR JASMINE



WISTERIA SINENSIS
CHINESE WISTERIA

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

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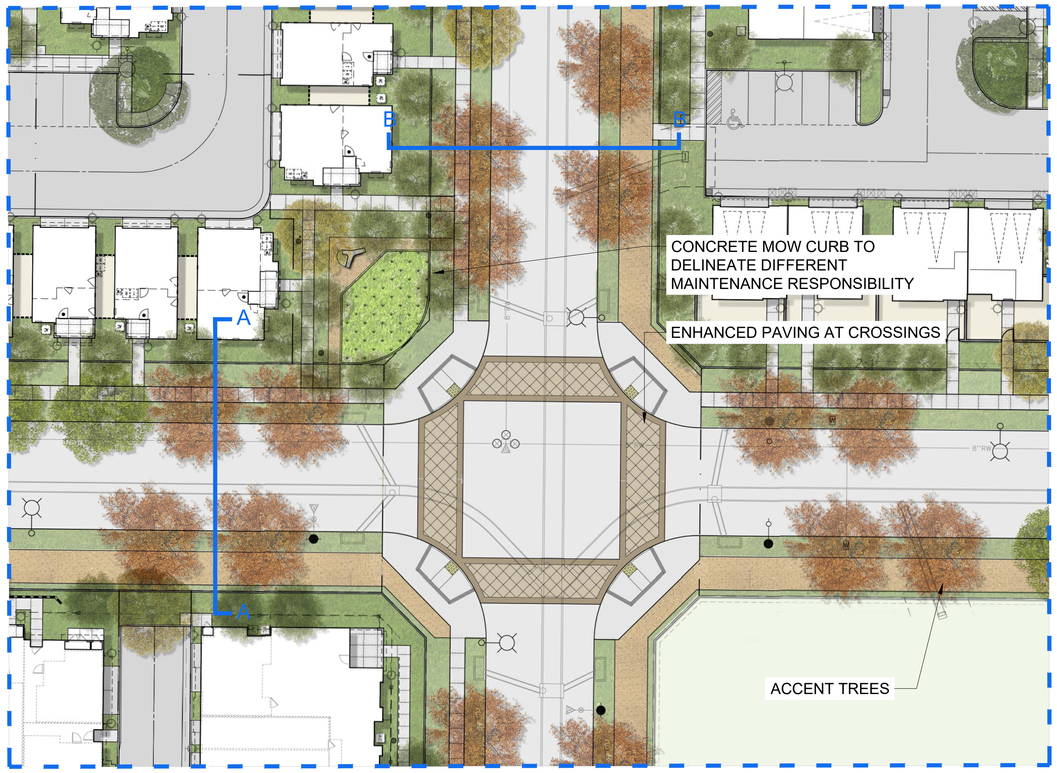
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

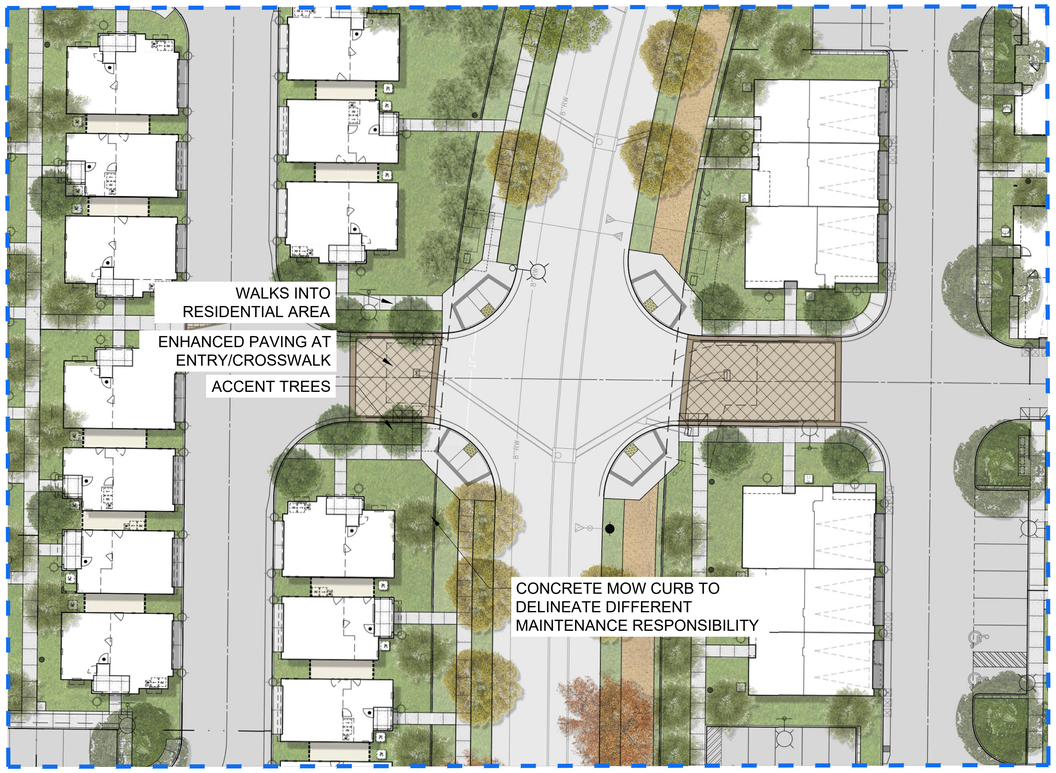
SHEET TITLE
PLANT IMAGERY BOARD

SHEET NO.
L-404



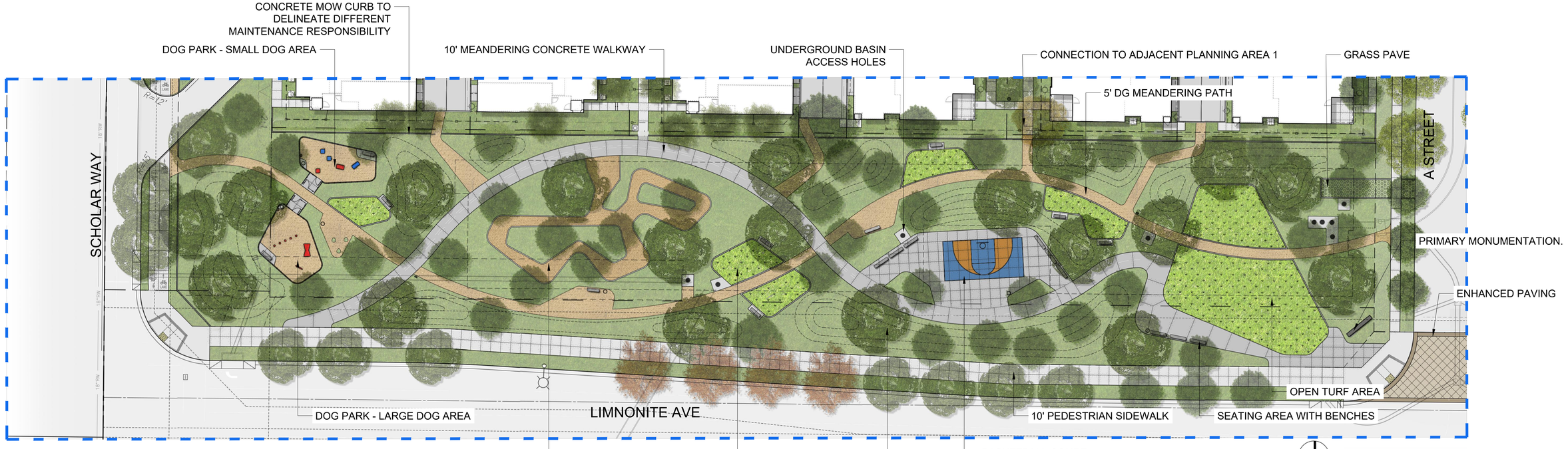
ENLARGEMENT 'A'
TYPICAL INTERSECTION PLAN VIEW

SCALE: 1" = 20'-0"



ENLARGEMENT 'B'
TYPICAL INTERSECTION PLAN VIEW

SCALE: 1" = 20'-0"



ENLARGEMENT 'C'
LINEAR TRAIL PLAN VIEW

SCALE: 1" = 20'-0"

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

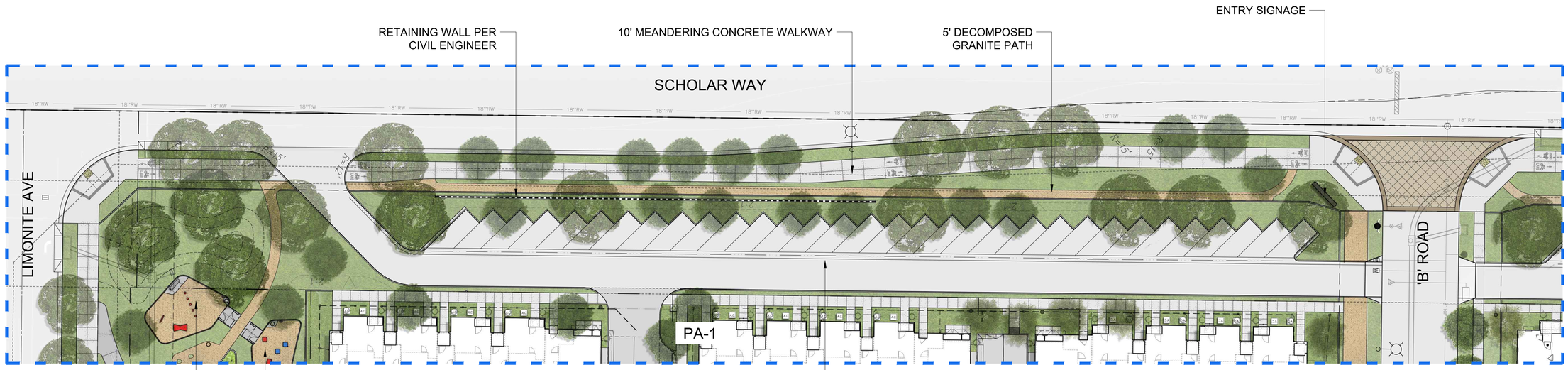
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EASTWALK
MASTER DEVELOPMENT PLAN

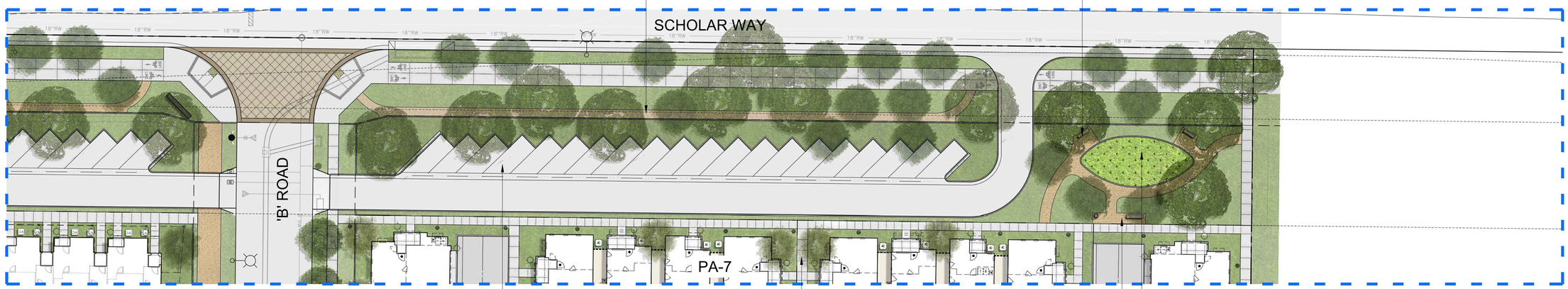
SHEET TITLE
STREET ENHANCEMENT & LINEAR PARK ENLARGMENT AT LIMONITE AVE.

SHEET NO.
L-405



ENLARGEMENT 'D'
PLAN VIEW

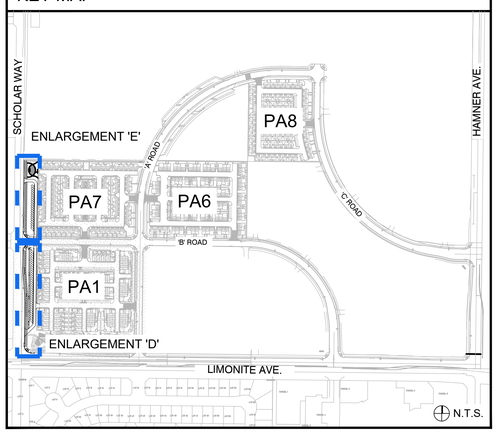
SCALE: 1" = 20'-0"



ENLARGEMENT 'E'
PLAN VIEW

SCALE: 1" = 20'-0"

KEY MAP



Know what's below. Call 811 before you dig.

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LANDSCAPE ARCHITECT				CITY	

CITY OF EASTVALE

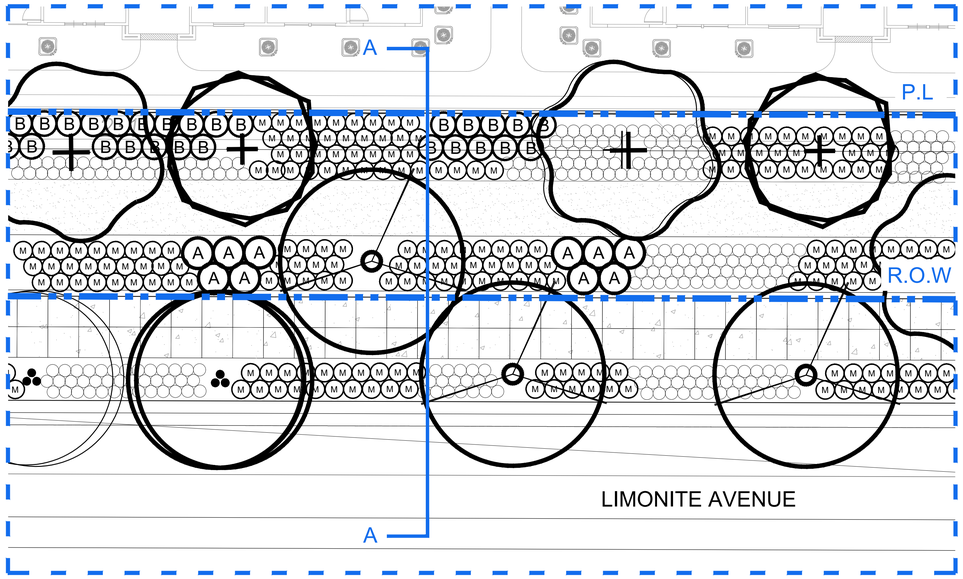
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MASTER DEVELOPMENT PLAN

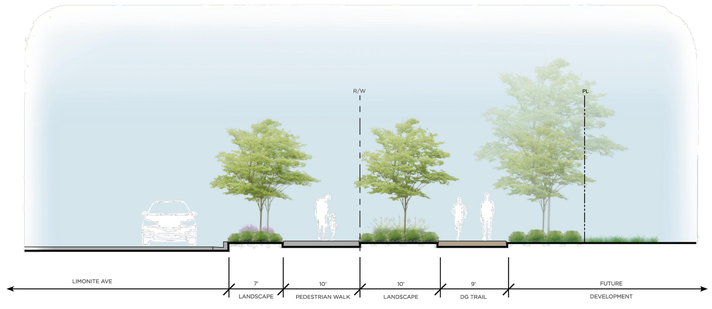
SHEET TITLE
LINEAR PARK ENLARGEMENT AT SCHOLAR WAY

SHEET NO.
L-406



ENLARGEMENT 'F'
PLANTING VIGNETTE ALONG LIMONITE AVE

SCALE: 1" = 10'-0"



SECTION A-A
SCALE: $\frac{1}{8}$" = 1' - 0"

SHRUB LEGEND		
SYMBOL	DESCRIPTION	SIZE
(A)	ACCENTS	15 GAL
(B)	BACKGROUND	5 GAL
(M)	MIDGROUND	5 GAL AND 1 GAL
◯	GROUNDCOVER	1 GAL

NOTES:
1. REFER TO SHEET L-201 FOR FULL SHRUB PLANT PALETTE.
2. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM.
   15 GALLON: 10%
   5 GALLON: 30%
   1 GALLON: 60%

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		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

CITY OF EASTVALE

NEW HOME CO. move forward

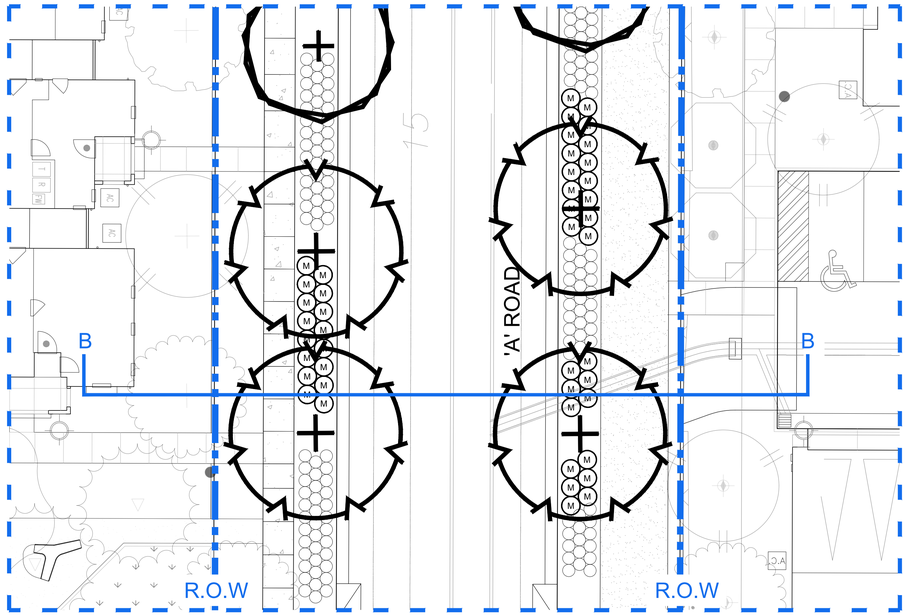
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

PLAN XX

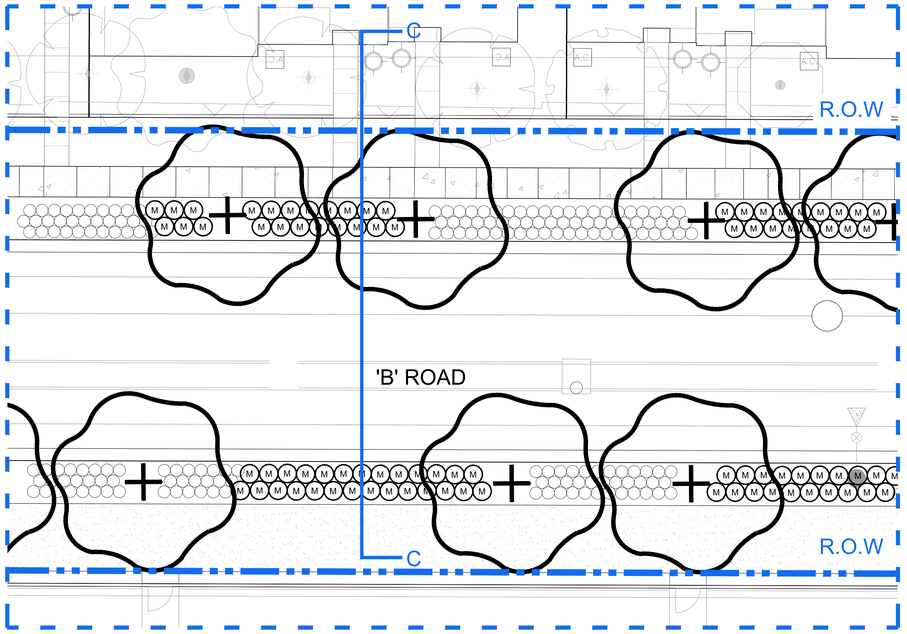
SHEET TITLE
STREET PLANTING VIGNETTE AND SECTIONS

SHEET NO.
L-407



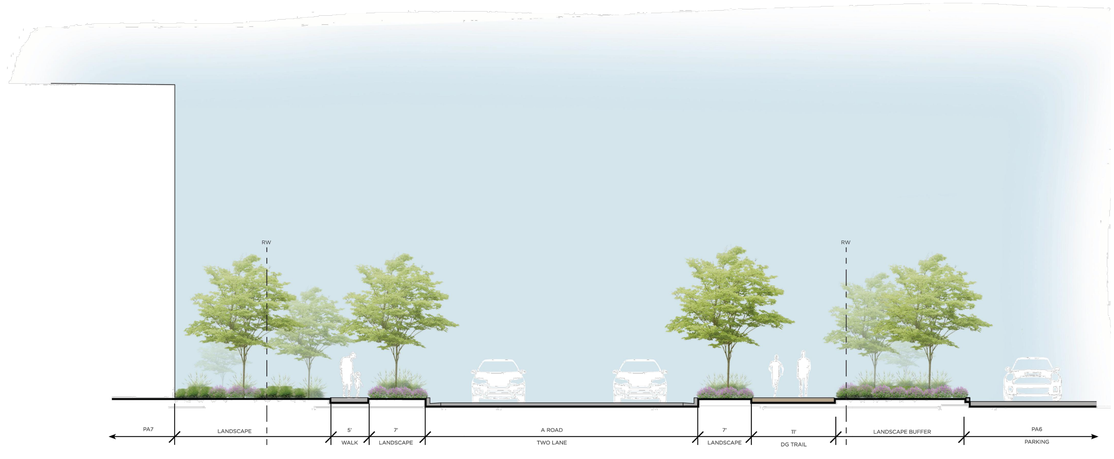
ENLARGEMENT 'G'
PLANTING VIGNETTE ALONG "A" ROAD

SCALE: 1" = 10'-0"

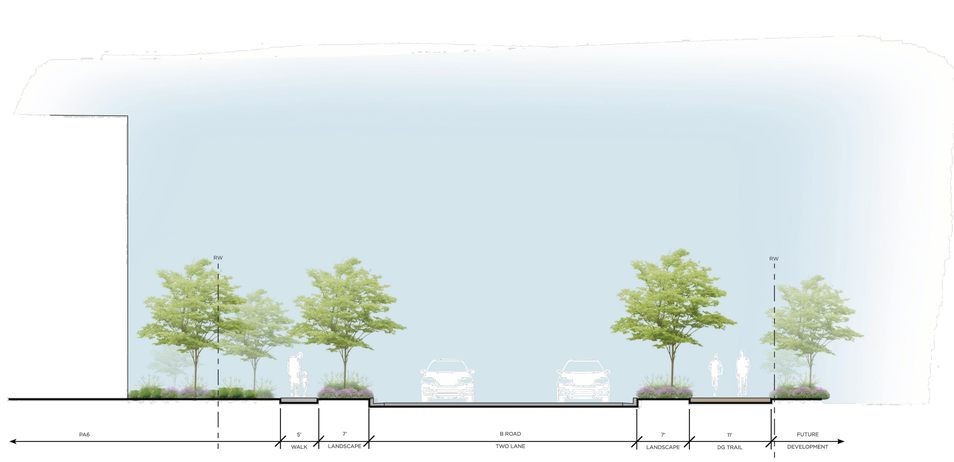


ENLARGEMENT 'H'
PLANTING VIGNETTE ALONG "B" ROAD

SCALE: 1" = 10'-0"



SECTION B-B
SCALE: $\frac{1}{8}$" = 1' - 0"



SECTION C-C
SCALE: $\frac{1}{8}$" = 1' - 0"

SHRUB LEGEND		
SYMBOL	DESCRIPTION	SIZE
A	ACCENTS	15 GAL
B	BACKGROUND	5 GAL
M	MIDGROUND	5 GAL AND 1 GAL
	GROUNDCOVER	1 GAL

NOTES:
1. REFER TO SHEET L-201 FOR FULL SHRUB PLANT PALETTE.
2. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM.
   15 GALLON: 10%
   5 GALLON: 30%
   1 GALLON: 60%

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

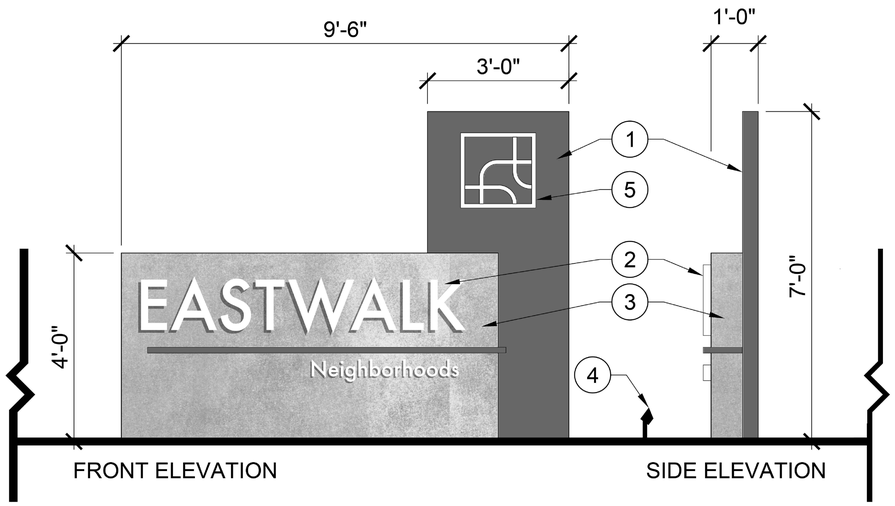
SHEET TITLE
STREET PLANTING VIGNETTE AND SECTIONS

SHEET NO.
L-408

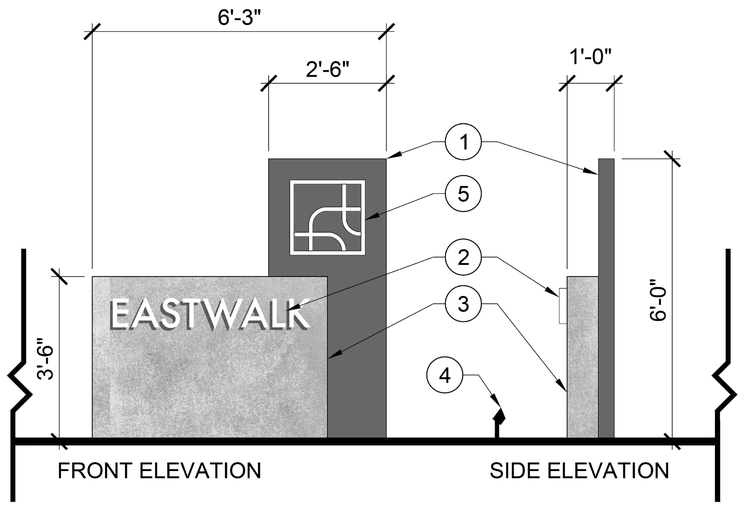
LEGEND

1. GUN METAL GRAY ALUMINUM PANEL
2. COMMUNITY NAME TEXT - OPAQUE ACRYLIC MATERIAL.
3. POUR-IN-PLACE CONCRETE WALL
4. MONUMENT UPLIGHTS
5. COMMUNITY LOGO SIGN - OPAQUE ACRYLIC

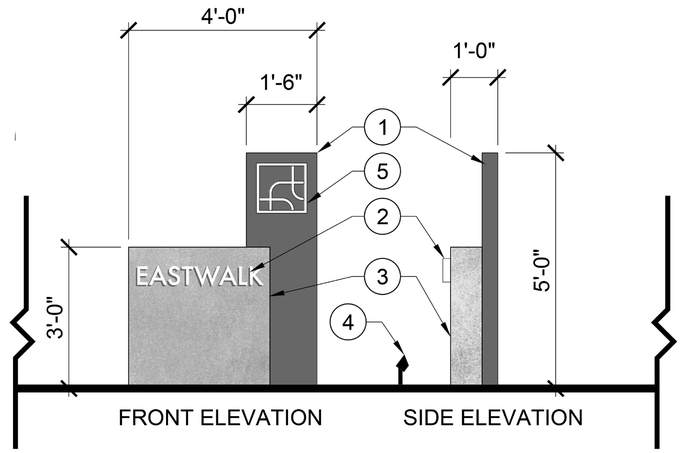
PRIMARY



SECONDARY



TRAIL HEADS / PASEOS



SCALE: N.T.S

Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

CITY OF EASTVALE

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8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
MONUMENT WALL ELEVATIONS

SHEET NO.
L-409

PHOTOMETRIC CALCULATIONS				
DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVE: MIN
BACKBONE STREETS	0.7 FC	5.2 FC	0.0 FC	N/A

FC : FOOT CANDLE

LIGHTING FIXTURE LEGEND

177W. LED STREETLIGHT ON 29FT POLE (31FT-1IN MOUNTING HEIGHT)
WITH AN 8FT ARM. (APPROX. 22,000 LUMENS)
PER COUNTY OF RIVERSIDE STANDARD 1001
GE# ERL2-23-B5-30-G

N

20 0 10 20 40
(IN FEET)
1 inch = 40 ft.

SCHOLAR WAY

LIMONITE AVENUE

MATCHLINE SEE SHEET 2

Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

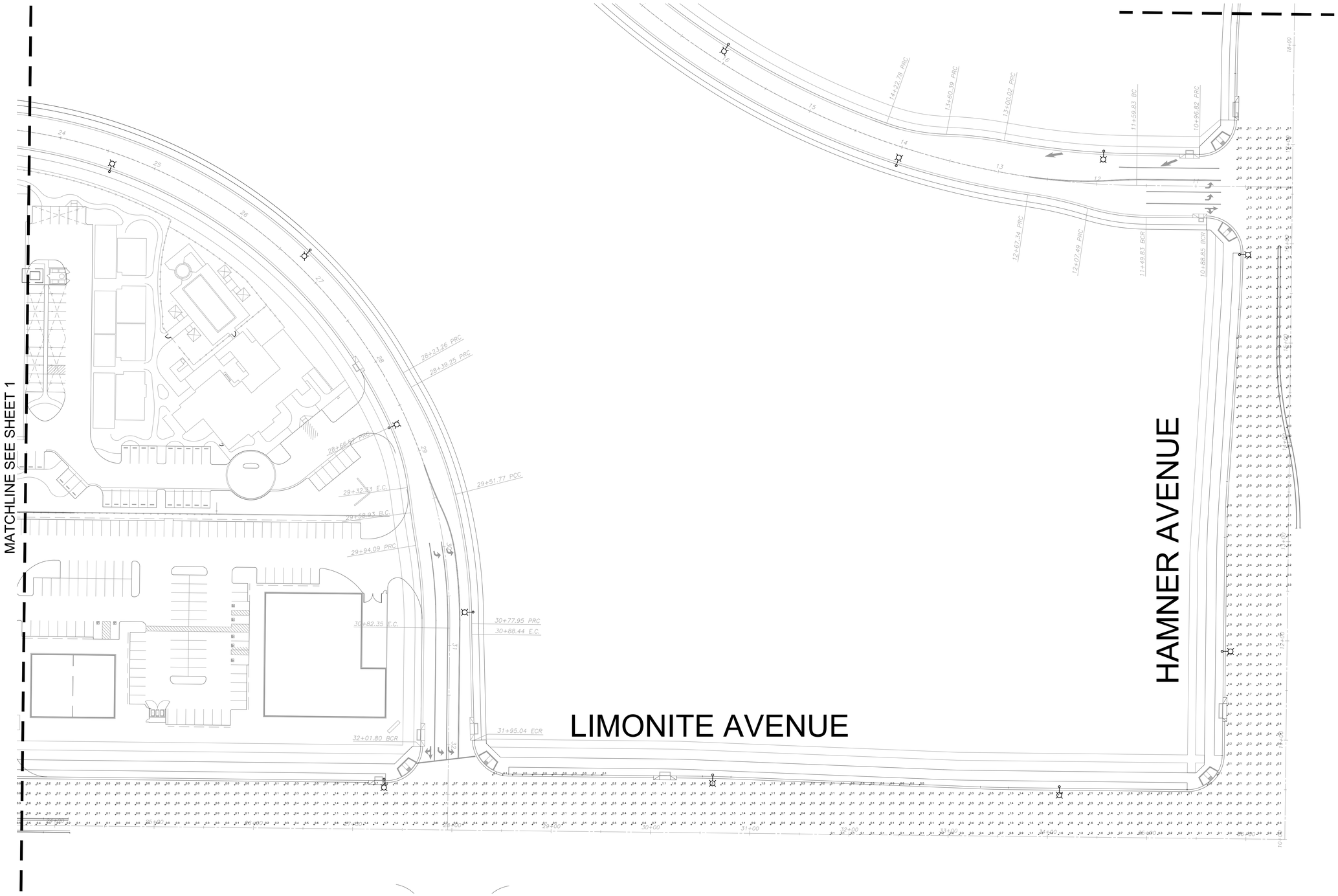
NEW HOME CO. move forward

CANDELA ENGINEERING INCORPORATED
LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph: 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OFFSITE PHOTOMETRICS SITE PLAN

SHEET NO.
E-1



PHOTOMETRIC CALCULATIONS				
DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVE: MIN
BACKBONE STREETS	0.7 FC	5.2 FC	0.0 FC	N/A

FC : FOOT CANDLE

LIGHTING FIXTURE LEGEND

177W. LED STREETLIGHT ON 29FT POLE (31FT-1IN MOUNTING HEIGHT)
WITH AN 8FT ARM. (APPROX: 22,000 LUMENS)
PER COUNTY OF RIVERSIDE STANDARD 1001
GE# ERL2-23-B5-30-G

N

20 0 10 20 40
(IN FEET)
1 inch = 40 ft.

811 Know what's below. Call 811 before you dig.

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		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

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LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph. 949.201.1333
candelaeng@earthlink.net

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OFFSITE PHOTOMETRICS SITE PLAN

SHEET NO.
E-2

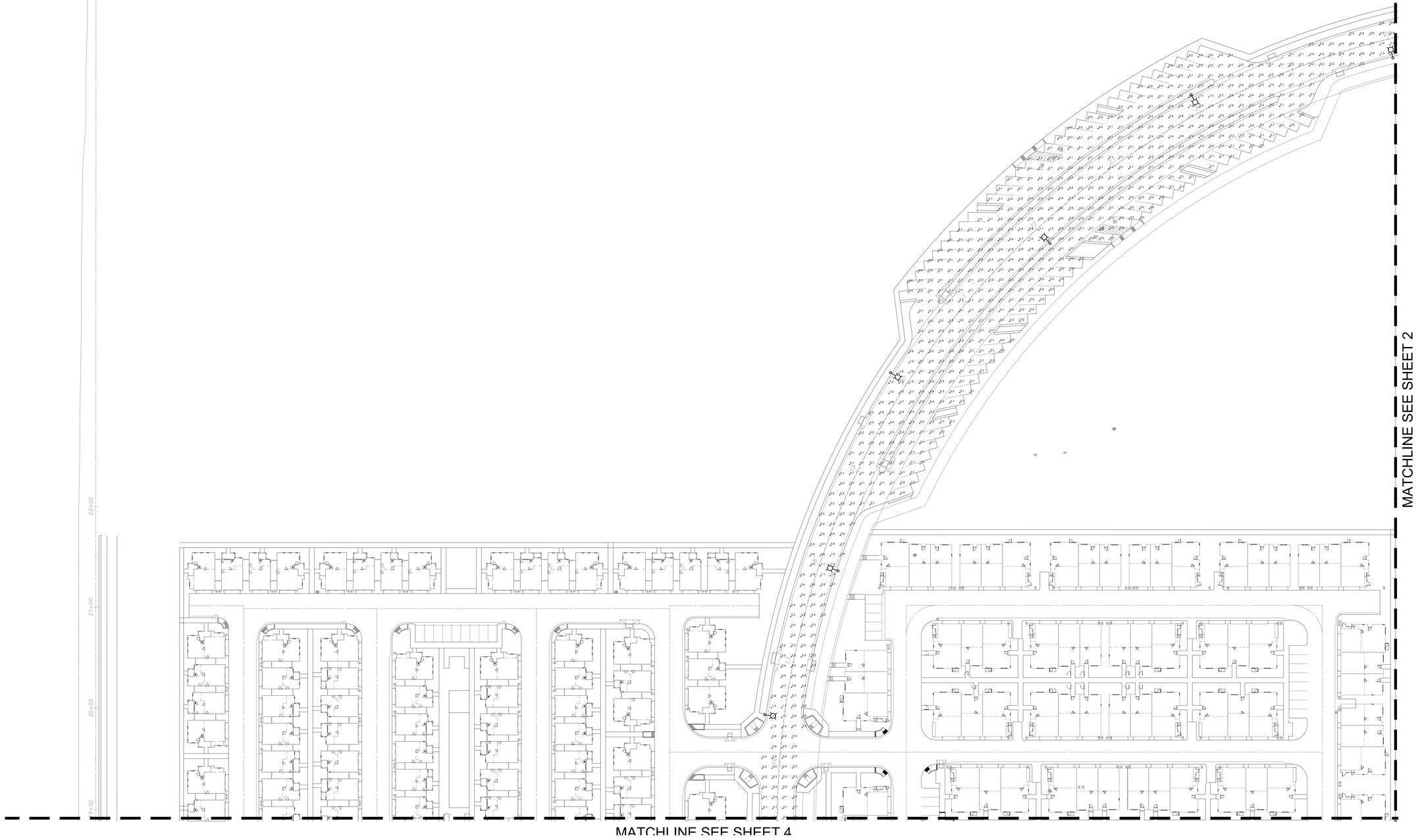
PHOTOMETRIC CALCULATIONS				
DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVE: MIN
BACKBONE STREETS	0.7 FC	3.8 FC	0.0 FC	N/A

FC : FOOT CANDLE

LIGHTING FIXTURE LEGEND

76W. LED STREETLIGHT ON 24FT POLE (26FT-1IN MOUNTING HEIGHT)
WITH AN 8FT ARM. (9,500 LUMENS)
PER COUNTY OF RIVERSIDE STANDARD 1000
GE# ERL1-3-10-B5-30-G

20 0 10 20 40
(IN FEET)
1 inch = 40 ft.



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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO.
move forward

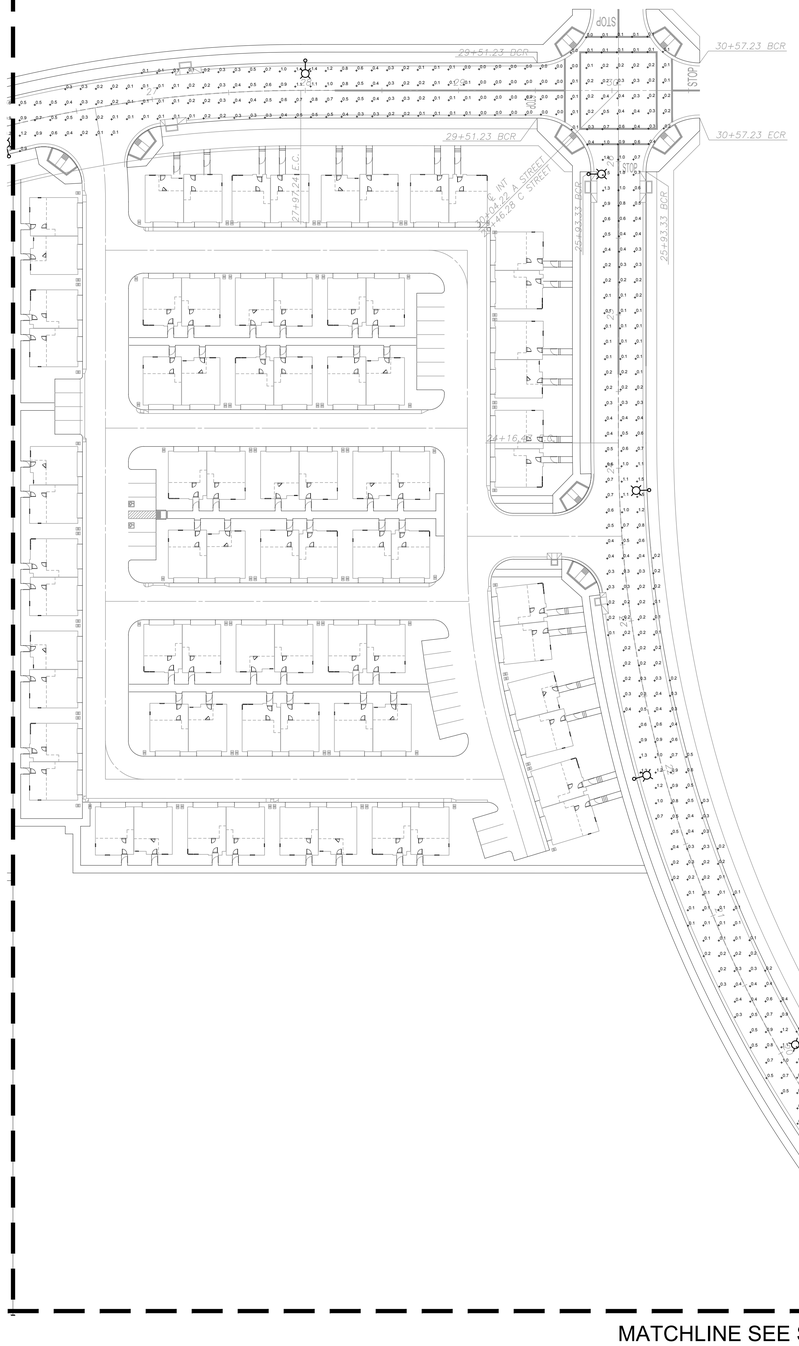
CANDELA ENGINEERING
LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BACKBONE PHOTOMETRICS SITE PLAN

SHEET NO.
E-1

MATCHLINE SEE SHEET 1



MATCHLINE SEE SHEET 3

PHOTOMETRIC CALCULATIONS				
DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVE: MIN
BACKBONE STREETS	0.7 FC	3.8 FC	0.0 FC	N/A

FC : FOOT CANDLE

LIGHTING FIXTURE LEGEND

76W, LED STREETLIGHT ON 24FT POLE (26FT-1IN MOUNTING HEIGHT)
WITH AN 8FT ARM. (9,500 LUMENS).
PER COUNTY OF RIVERSIDE STANDARD 1000
GE# ERL1-3-10-B5-30-G

20 0 10 20 40
(IN FEET)
1 inch = 40 ft.

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

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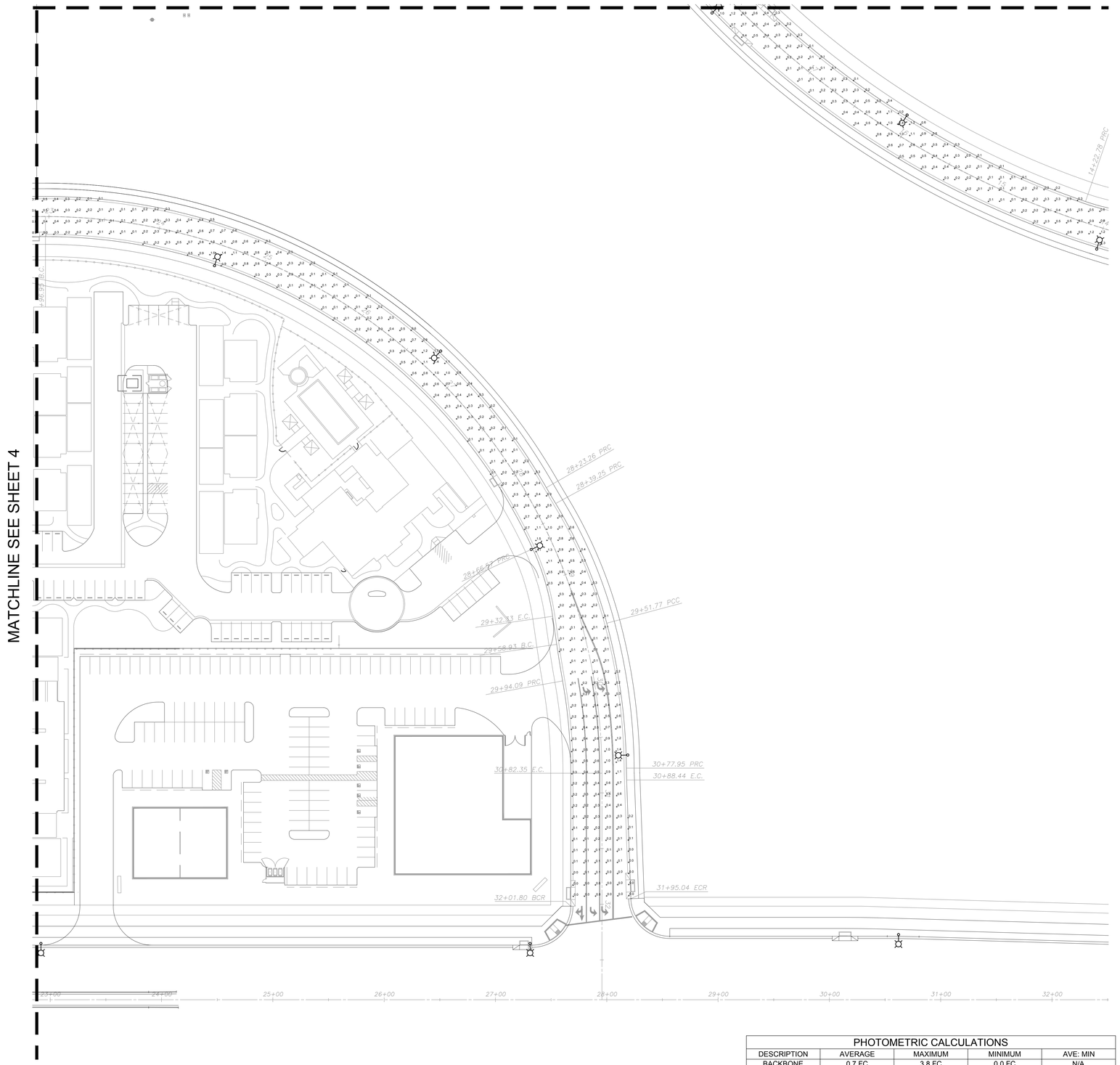
CANDELA ENGINEERING
LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BACKBONE PHOTOMETRICS SITE PLAN

SHEET NO.
E-2

MATCHLINE SEE SHEET 2



PHOTOMETRIC CALCULATIONS				
DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVE: MIN
BACKBONE STREETS	0.7 FC	3.8 FC	0.0 FC	N/A

FC : FOOT CANDLE

LIGHTING FIXTURE LEGEND

76W. LED STREETLIGHT ON 24FT POLE (26FT-1IN MOUNTING HEIGHT)
WITH AN 8FT ARM. (8,500 LUMENS)
PER COUNTY OF RIVERSIDE STANDARD 1000
GE# ERL1-3-10-B5-30-G

N

20 0 10 20 40
(IN FEET)
1 inch = 40 ft.

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

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LIGHTING DESIGN | ELECTRICAL ENGINEERING
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Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BACKBONE PHOTOMETRICS SITE PLAN

SHEET NO.
E-3

MATCHLINE SEE SHEET 1



MATCHLINE SEE SHEET 3

PHOTOMETRIC CALCULATIONS				
DESCRIPTION	AVERAGE	MAXIMUM	MINIMUM	AVE: MIN
BACKBONE STREETS	0.7 FC	3.8 FC	0.0 FC	N/A

FC : FOOT CANDLE

LIGHTING FIXTURE LEGEND

76W. LED STREETLIGHT ON 24FT POLE (26FT-1IN MOUNTING HEIGHT)
WITH AN 8FT ARM. (9,500 LUMENS)
PER COUNTY OF RIVERSIDE STANDARD 1000
GE# ERL1-3-10-B5-30-G

N

20 0 10 20 40
(IN FEET)
1 inch = 40 ft.

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

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LIGHTING DESIGN | ELECTRICAL ENGINEERING
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Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BACKBONE PHOTOMETRICS SITE PLAN

SHEET NO.
E-4

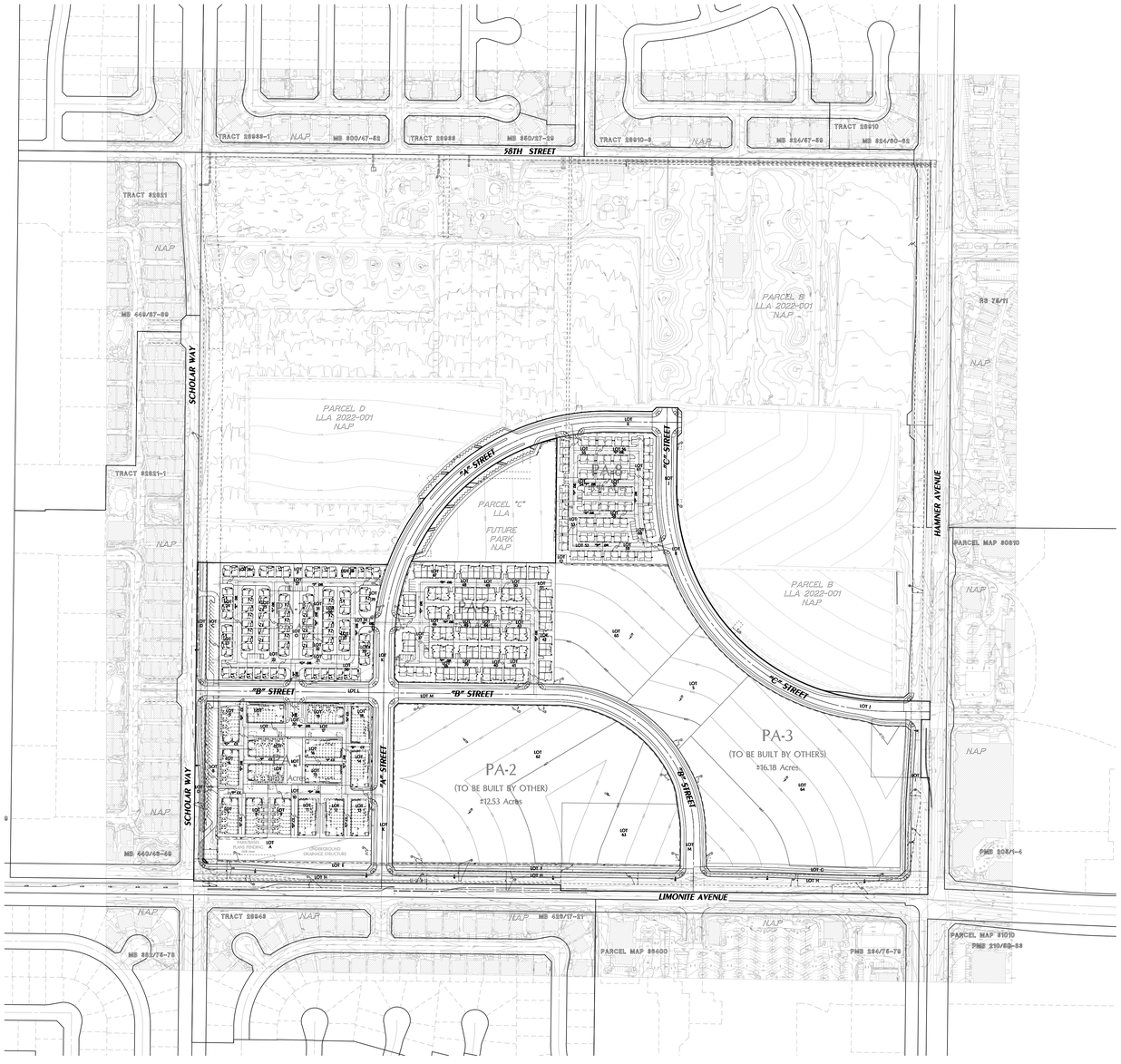
TENTATIVE TRACT MAP NO. 38594

FOR CONDOMINIUM PURPOSES

BEING ALL OF PARCEL A OF LOT LINE ADJUSTMENT NO. 2022-001, RECORDED AUGUST 24, 2022 AS INSTRUMENT NO, 2022-0370918 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TOGETHER WITH THAT PORTION OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY SECTIONALIZED SURVEY OF THE JURUPA RANCHO, AS SHOWN BY MAP ON FILE IN BOOK 9, PAGE 33 OF MAPS, SAN BERNARDINO COUNTY RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SECTION, 420.00 FEET NORTH OF THE SOUTHEAST CORNER THEREOF; THENCE WEST 208.70 FEET; THENCE NORTH 208.70 FEET; THENCE EAST 208.70 FEET TO A POINT ON THE EAST LINE OF SAID SECTION; THENCE SOUTH ALONG SAID EAST LINE, 208.70 FEET TO THE POINT OF BEGINNING.

EXCEPTING THE EAST 30.00 FEET THEREOF FOR STATE HIGHWAYS DESCRIBED IN A DOCUMENT TO THE STATE OF CALIFORNIA RECORDED JANUARY 8, 1943 IN BOOK 569, PAGE 86, OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.



EXISTING EASEMENTS

(4) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: PUBLIC UTILITIES
RECORDING DATE: APRIL 9, 1953
RECORDING NO.: 17029, BOOK 1459, PAGE 442, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1, 2 AND 6 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
TO BE QUITCLAIMED

EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

(6) GRANTED TO: ARTHUR L. HANSON AND BESSIE L. HANSON
PURPOSE: UTILITIES
RECORDING DATE: JUNE 5, 1953
RECORDING NO.: 27507, BOOK 1479, PAGE 275, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
A PORTION TO BE QUITCLAIMED

(9) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: OCTOBER 25, 1968
RECORDING NO. 71591, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCEL 7 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
A PORTION TO BE QUITCLAIMED

(12) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: DECEMBER 21, 1998
RECORDING NO. 552204, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 3 AND 4 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(20) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2000-025215, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(21) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2000-025216, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(22) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

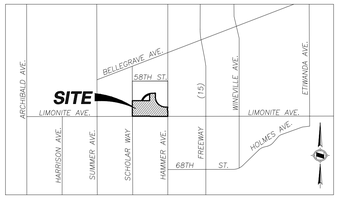
GRANTED TO: JURUPA COMMUNITY SERVICES DISTRICT
PURPOSE: PIPELINES, UTILITIES AND ACCESS
RECORDING DATE: OCTOBER 1, 2003
RECORDING NO. 2000-770719, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID PARCEL 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
PORTION TO BE QUITCLAIMED

(24) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: DRAINAGE
RECORDING DATE: JULY 20, 2007
RECORDING NO. 2000-0474701, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(27) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: CITY OF EASTVALE
PURPOSE: PUBLIC ROAD AND UTILITY
RECORDING DATE: OCTOBER 10, 2013
RECORDING NO. 2013-0488886, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT



VICINITY MAP

NOTES

1. EXISTING LAND USE: VACANT
2. PROPOSED LAND USE: RESIDENTIAL AND COMMERCIAL
3. EXISTING GENERAL PLAN LAND USE DESIGNATION: LEAL POLICY AREA
4. EXISTING ZONING: LEAL MASTER PLAN
5. ASSESSOR PARCEL NUMBERS: 164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024, 164-030-025
6. TOTAL GROSS AREA: 70.1 AC
7. WATER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
8. SEWER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
9. GAS SERVICE PROVIDED BY: SOUTHERN CALIFORNIA GAS COMPANY, 155 S. G STREET, SAN BERNARDINO, CA 92410, (909) 758-8691
10. ELECTRIC SERVICE PROVIDED BY: SOUTHERN CALIFORNIA EDISON, 1351 E. FRANCIS STREET, ONTARIO, CA 91761, (909) 930-8431
11. TELEPHONE SERVICE PROVIDED BY: VERIZON, 1400 E. PHILLIPS BLVD., POMONA, CA 91766, (909)469-2260
12. CABLE PROVIDED BY: AT&T, 1265 N. VAN BUREN STREET, SUITE 180, ANAHEIM, CA 92807, (800) 750-2355
13. REFUSE PROVIDED BY: WASTE MANAGEMENT OF THE INLAND EMPIRE, 800 SOUTH TEMESCAL STREET, CORONA, CA 92876, (951) 280-4500
14. THE PROJECT IS LOCATED WITHIN THE CORONA-NORCO UNIFIED SCHOOL DISTRICT, 2820 CLARK AVENUE, NORCO CA, 92860, (951) 736-5000
15. THE PROJECT SITE IS NOT LOCATED WITHIN A FLOOD ZONE PER FLOOD INSURANCE RATE MAP NUMBERS 06065C0677G & 06065C0681G, EFFECTIVE DATE AUGUST 28, 2008.

EARTHWORK SUMMARY

CUT	FILL
1,129,682 CYS	1,152,545 CYS

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.

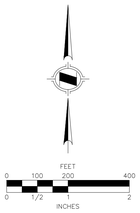
(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES

(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

(4) PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL



NO.	DATE	REVISIONS	APPROVED

DRAWN BY: AM
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

SITE PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
1 OF 14

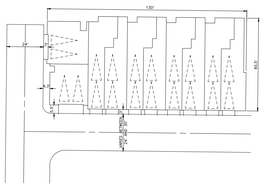
W.O.: 2749-44CT EASTMALK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:28:28 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-1.dwg

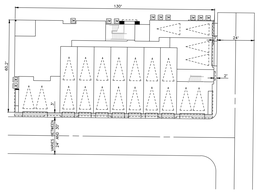
TYPICAL BUILDINGS

SCALE: 1"=40'

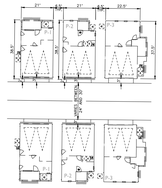
TOWNHOME (10 PLEX) (PA1)



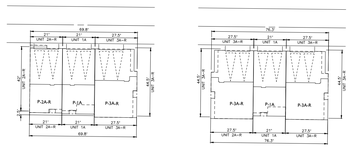
TOWNHOME (11 PLEX) (PA1)



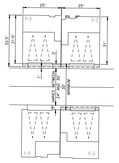
SINGLE FAMILY DETACHED (PA-7A)



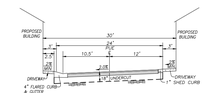
TRIPLEX (PA-6)



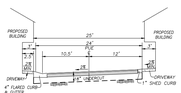
DUPLEX (PA-8)



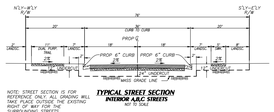
STREET SECTIONS



TYPICAL 24' STREET SECTION
PRIVATE DRIVES PA-1 (10 UNIT)
NOT TO SCALE

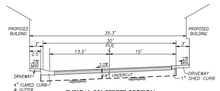


TYPICAL 24' STREET SECTION
PRIVATE DRIVES PA-6
NOT TO SCALE

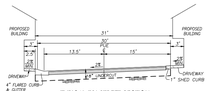


TYPICAL STREET SECTION
INTERIOR A,B,C STREETS
NOT TO SCALE

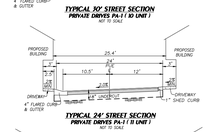
NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.



TYPICAL 30' STREET SECTION
PRIVATE DRIVES PA-1 (10 UNIT)
NOT TO SCALE



TYPICAL 30' STREET SECTION
PRIVATE DRIVES PA-6
NOT TO SCALE



TYPICAL 24' STREET SECTION
PRIVATE DRIVES PA-1 (11 UNIT)
NOT TO SCALE



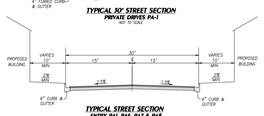
TYPICAL 30' STREET SECTION
PRIVATE DRIVES PA-7
NOT TO SCALE



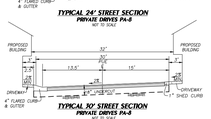
TYPICAL 30' STREET SECTION
PRIVATE DRIVES PA-1
NOT TO SCALE



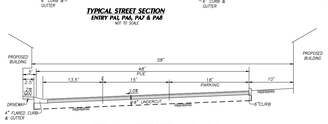
TYPICAL 24' STREET SECTION
PRIVATE DRIVES PA-8
NOT TO SCALE



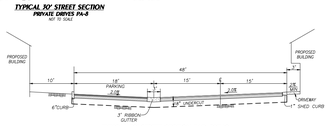
TYPICAL STREET SECTION
ENTRY PA1, PA6, PA7 & PA8
NOT TO SCALE



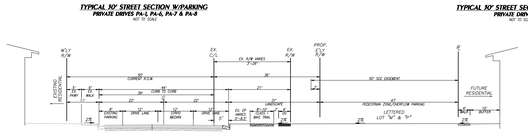
TYPICAL 30' STREET SECTION
PRIVATE DRIVES PA-8
NOT TO SCALE



TYPICAL 30' STREET SECTION W/PARKING
PRIVATE DRIVES PA-1, PA-6, PA-7 & PA-8
NOT TO SCALE

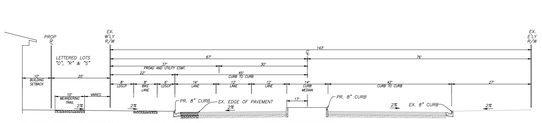


TYPICAL 30' STREET SECTION W/PARKING
PRIVATE DRIVES PA-7
NOT TO SCALE



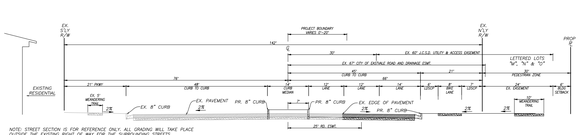
TYPICAL STREET SECTION
SCHOLAR WAY
NOT TO SCALE

NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.



TYPICAL STREET SECTION
HANNER AVE
NOT TO SCALE

NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.



TYPICAL STREET SECTION
LINCREST AVE
NOT TO SCALE

NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

PARKING SUMMARY

PA-1 TOWNHOME (168 UNITS)

ADA PARKING REQUIRED – 6 ADA STALLS
ADA PARKING PROVIDED – 6 ADA STALLS

PA-7A SFD (94 UNITS)

ADA PARKING REQUIRED – 4 ADA STALLS
ADA PARKING PROVIDED – 4 ADA STALLS

PA-6 TOWNHOME (96 UNITS)/DUPLEX (4 UNITS)

ADA PARKING REQUIRED – 5 ADA STALLS
ADA PARKING PROVIDED – 5 ADA STALLS

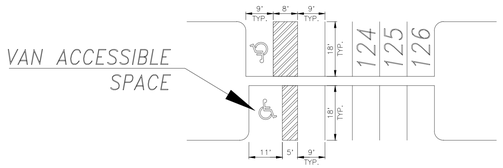
PA-8 DUPLEX (76 UNITS)

ADA PARKING REQUIRED – 3 ADA STALLS
ADA PARKING PROVIDED – 3 ADA STALLS

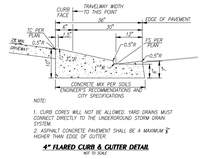
REQUIRED/PROVIDED PARKING SUMMARY:

PLANNING AREA	NO. OF UNITS	TOTAL REQUIRED PARKING	PARKING PROVIDED IN GARAGES	GUEST PARKING	TOTAL PARKING PROVIDED	SURPLUS/ (DEFICIT)
PA 1	168	423	336	63	399	(-24)
PA 6	100	220	200	38	238	18
PA 7A	94	207	188	20	208	1
PA 8	76	168	152	27	179	11
LOT B	NA	NA	NA	32	32	32
LOT C	NA	NA	NA	20	20	20
TOTAL	438	1,018	876	200	1,076	58

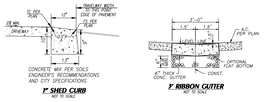
PARKING DIMENSIONS (TYP).



CURB DETAILS

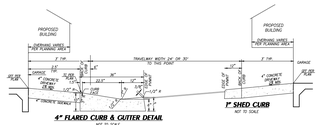


4" FLARED CURB & GUTTER DETAIL
NOT TO SCALE



1" SHED CURB
NOT TO SCALE

3" RIBBON GUTTER
NOT TO SCALE



4" FLARED CURB & GUTTER DETAIL
NOT TO SCALE



KEY MAP

NUMBERED LOTS

Lot No.	Land Use	S.F	Acres	Lot No.	Land Use	S.F	Acres
1	Residential	10,454	0.24	34	Residential	5,663	0.13
2	Residential	6,534	0.15	35	Residential	10,019	0.23
3	Residential	14,810	0.34	36	Residential	9,148	0.21
4	Residential	11,761	0.27	37	Residential	39,204	0.90
5	Residential	17,424	0.40	38	Residential	12,197	0.28
6	Residential	12,632	0.29	39	Residential	13,068	0.30
7	Residential	16,988	0.39	40	Residential	11,326	0.26
8	Residential	15,682	0.36	41	Residential	14,375	0.33
9	Residential	16,117	0.37	42	Residential	23,522	0.54
10	Residential	4,792	0.11	43	Residential	13,939	0.32
11	Residential	15,246	0.35	44	Residential	11,761	0.27
12	Residential	16,117	0.37	45	Residential	11,761	0.27
13	Residential	18,295	0.42	46	Residential	13,504	0.31
14	Residential	17,860	0.41	47	Residential	23,522	0.54
15	Residential	10,454	0.24	48	Residential	12,197	0.28
16	Residential	13,939	0.32	49	Residential	12,632	0.29
17	Residential	10,454	0.24	50	Residential	13,504	0.31
18	Residential	11,326	0.26	51	Residential	18,295	0.42
19	Residential	10,454	0.24	52	Residential	16,553	0.38
20	Residential	9,148	0.21	53	Residential	16,988	0.39
21	Residential	13,068	0.30	54	Residential	14,810	0.34
22	Residential	25,700	0.59	55	Residential	19,602	0.45
23	Residential	23,958	0.55	56	Residential	15,246	0.35
24	Residential	18,295	0.42	57	Residential	15,246	0.35
25	Residential	20,038	0.46	58	Residential	15,246	0.35
26	Residential	22,651	0.52	59	Residential	21,780	0.50
27	Residential	1,307	0.03	60	Residential	11,326	0.26
28	Residential	23,522	0.54	61	Residential	21,780	0.50
29	Residential	16,553	0.38	62	Residential	453,460	10.41
30	Residential	9,583	0.22	63	Commercial	92,783	2.13
31	Residential	13,504	0.31	64	Commercial	417,305	9.58
32	Residential	10,454	0.24	65	Commercial	198,198	4.55
33	Residential	6,534	0.15				

TOTAL	2,065,615	47.42

LETTERED LOTS

Lot No.	Land Use	S.F	Acres
A	Open Space	45,302	1.04
B	Open Space	26,572	0.61
C	Open Space	19,602	0.45
D	Street Dedication (Public)	37,897	0.87
E	Open Space	13,939	0.32
F	Open Space	30,928	0.71
G	Open Space	30,056	0.69
H	Street Dedication (Public)	162,479	3.73
I	Street Dedication (Public)	34,848	0.8
J	Street (Public)	133,294	3.06
K	Street (Public)	170,755	3.92
L	Street (Public)	44,431	1.02
M	Street (Public)	115,870	2.66
N	Open Space	9,148	0.21
O	Open Space	6,098	0.14
P	Open Space	1,742	0.04
Q	Open Space	1,307	0.03
R	Street (Private)	1,307	0.03
S	Open Space	90,169	2.07

TOTAL	885,575	22.40

PRODUCT SUMMARY

PA-1

Plan Type	Buildings	Units
Townhome (10 plex)	8	80
Townhome (11 plex)	8	88
Total	16	168

PA-6

Plan Type	Buildings	Units
Townhome (3 plex)	32	96
Duplex	2	4
Total	34	100

PA-7A

Plan Type	Buildings	Units
SFD	94	94
Total	94	94

PA-8

Plan Type	Buildings	Units
Duplex	38	76
Total	38	76

LAND USE SUMMARY

Lot No.	Land Use	S.F	Acres
1 TO 62	RESIDENTIAL	1,355,152	31.19
63 - 65	COMMERCIAL	708,286	16.26
A - C, E - G, N-S	OPEN SPACE	276,736	6.33
D, H - I	STREET DEDICATION	235,660	5.40
J - M	STREET	464,350	10.66

TOTAL	3,040,184	69.84

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: AM
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
Move forward.
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, LLC.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

SITE PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
2 OF 14

W.O.: 2749-44CX EASTWALK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:27:59 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-2.dwg

SEE SHEET 7

SEE SHEET 7

SEE SHEET 4

SEE SHEET 4

"B" STREET

"A" STREET

SCHOLAR WAY

LIMONITE AVENUE

LOT L

LOT K

LOT A

LOT B

LOT D

LOT E

LOT H

LOT N

LOT 1 BUILDING 1 UNITS 1-17 TT#66439 PM66430

LOT 2

LOT 3 BUILDING 2 UNITS 13-21 TT#66437 PM66480

LOT 4 BUILDING 4 UNITS 32-41 TT#66437 PM66430

LOT 5 BUILDING 3 UNITS 22-31 TT#66437 PM66470

LOT 6 BUILDING 5 UNITS 42-51 TT#66437 PM66450

LOT 7 BUILDING 6 UNITS 52-61 TT#66460 PM66393

LOT 8 BUILDING 7 UNITS 62-71 TT#66437 PM66470

LOT 9 BUILDING 8 UNITS 72-81 TT#66430 PM66283

LOT 10

LOT 11 BUILDING 9 UNITS 82-92 TT#66427 PM66430

LOT 12 BUILDING 10 UNITS 93-103 TT#66387 PM66283

LOT 13 BUILDING 11 UNITS 104-114 TT#66362 PM66100

LOT 14 BUILDING 12 UNITS 115-125 TT#66244 PM66177

LOT 15 BUILDING 13 UNITS 126-136 TT#66387 PM66340

LOT 16 BUILDING 14 UNITS 137-147 TT#66437 PM66270

LOT 17

LOT 18 BUILDING 15 UNITS 148-158 TT#66307 PM66240

LOT 19 BUILDING 16 UNITS 159-169 TT#66307 PM66270

LOT 20

"A" DR.

"B" DR.

"C" DR.

"D" DR.

"E" DR.

"F" DR.

"A" CT.

"B" CT.

"C" CT.

"D" CT.

"E" CT.

"F" CT.

"G" CT.

"H" CT.

"I" CT.

"J" CT.

PARK/BASIN
PLANS PENDING
±1.08 Acres

UNDERGROUND
DRAINAGE STRUCTURE

N.A.P.

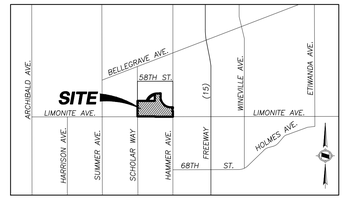
MB 440/46-49

MB 382/75-78

TRACT 28943

BOUNDARY

VICINITY MAP



PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET 0 20 40 80
INCHES 0 1/2 1 2

W.O.: 2749-44CV EASTWALK

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SITE PLAN
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FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
3 OF 14

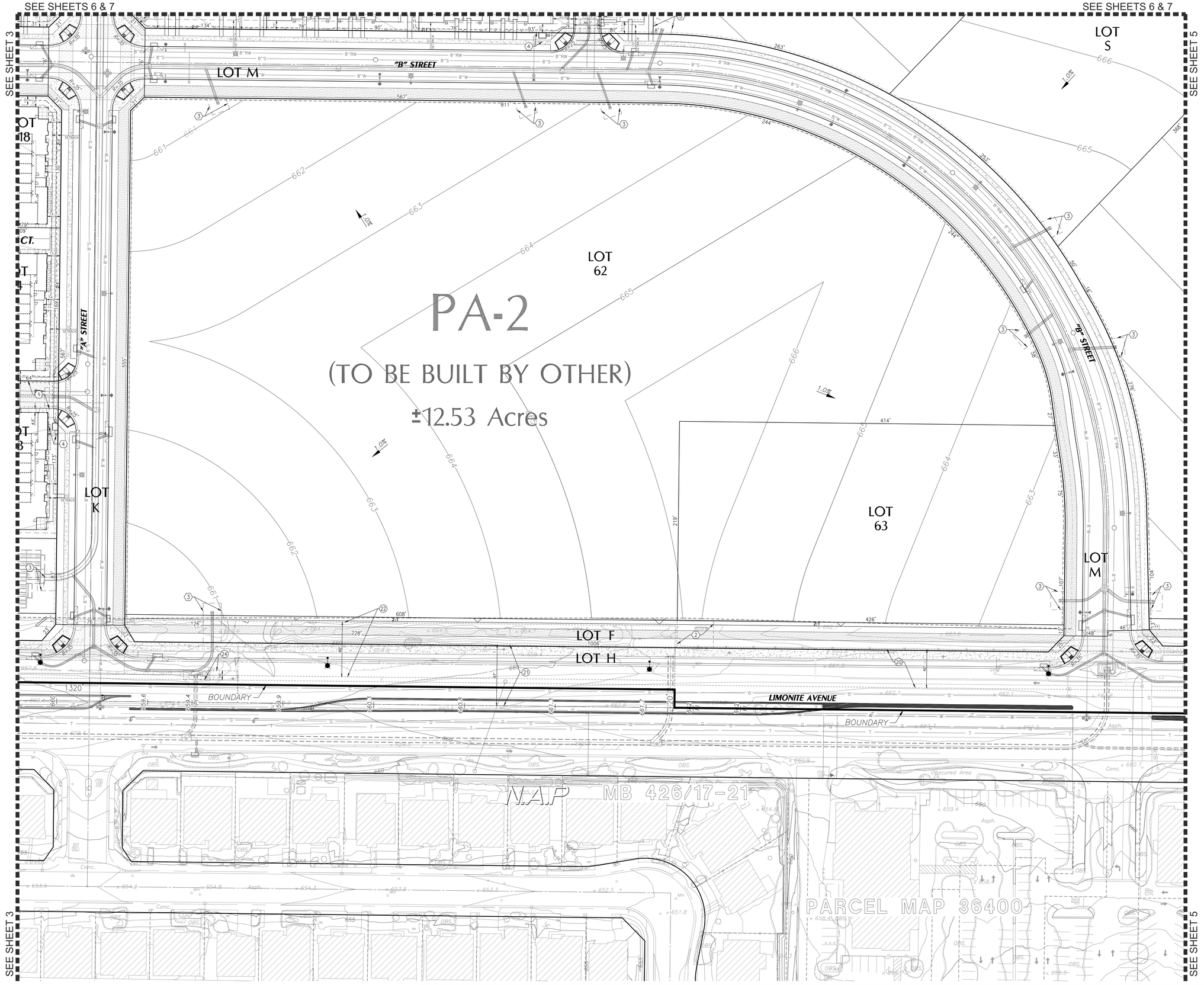
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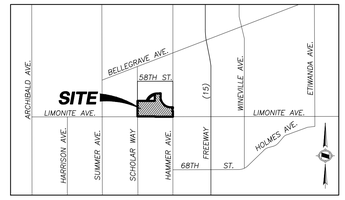
SEE SHEETS 6 & 7

SEE SHEETS 6 & 7

SEE SHEET 3

SEE SHEET 5





VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
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LEGEND

- RIGHT OF WAY
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- PROPOSED MINOR CONTOUR
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- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET
0 20 40 80
0 1/2 1 2
INCHES

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City of Eastvale

SHEET
4 OF 14

W.O.: 2749-44CP EASTWALK

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SEE SHEET 6

SEE SHEET 6

SEE SHEET 4

SEE SHEET 4

LOT 65

LOT S

LOT 64

LOT 63

LOT M

LOT J

LOT I

LOT G

LOT H

"C" STREET

"B" STREET

HAMNER AVENUE

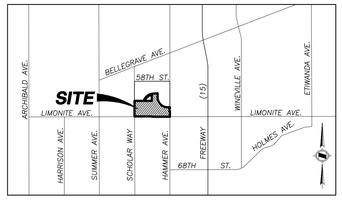
LIMONITE AVENUE

BOUNDARY

PA-3

(TO BE BUILT BY OTHERS)

±16.18 Acres



VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET 0 20 40 80 — 0 1/2 1 2 INCHES

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: AM
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, LLC.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

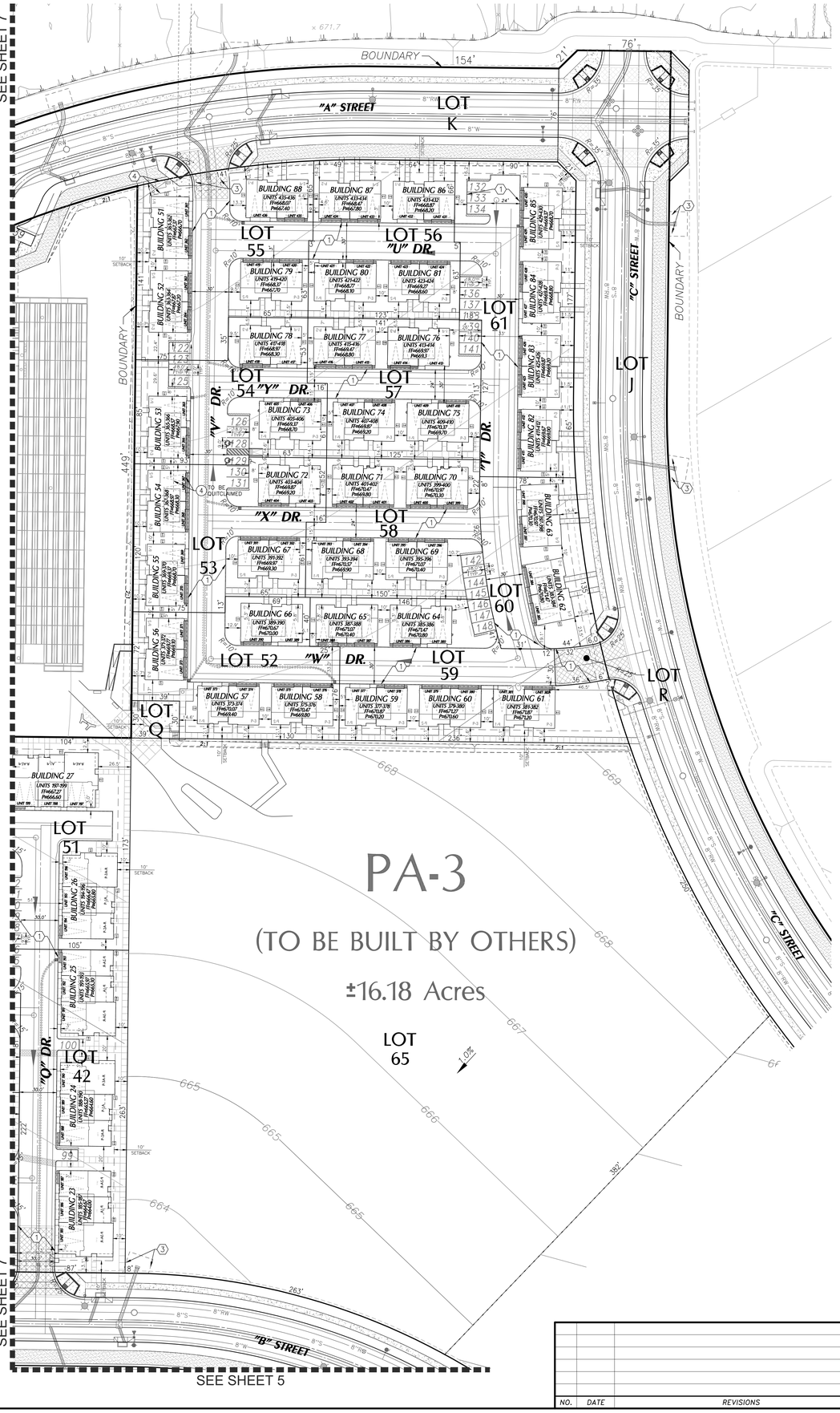
SITE PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
5 OF 14

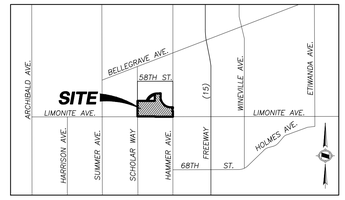
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PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:13:57 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-5.dwg

SEE SHEET 7



SEE SHEET 5



VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET
0 20 40 80
0 1/2 2
INCHES

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OWNER:
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18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

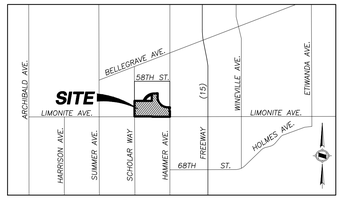
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Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

SITE PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
6 OF 14

W.O.: 2749-44CX EASTWALK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:12:39 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-6.dwg



VICINITY MAP

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.

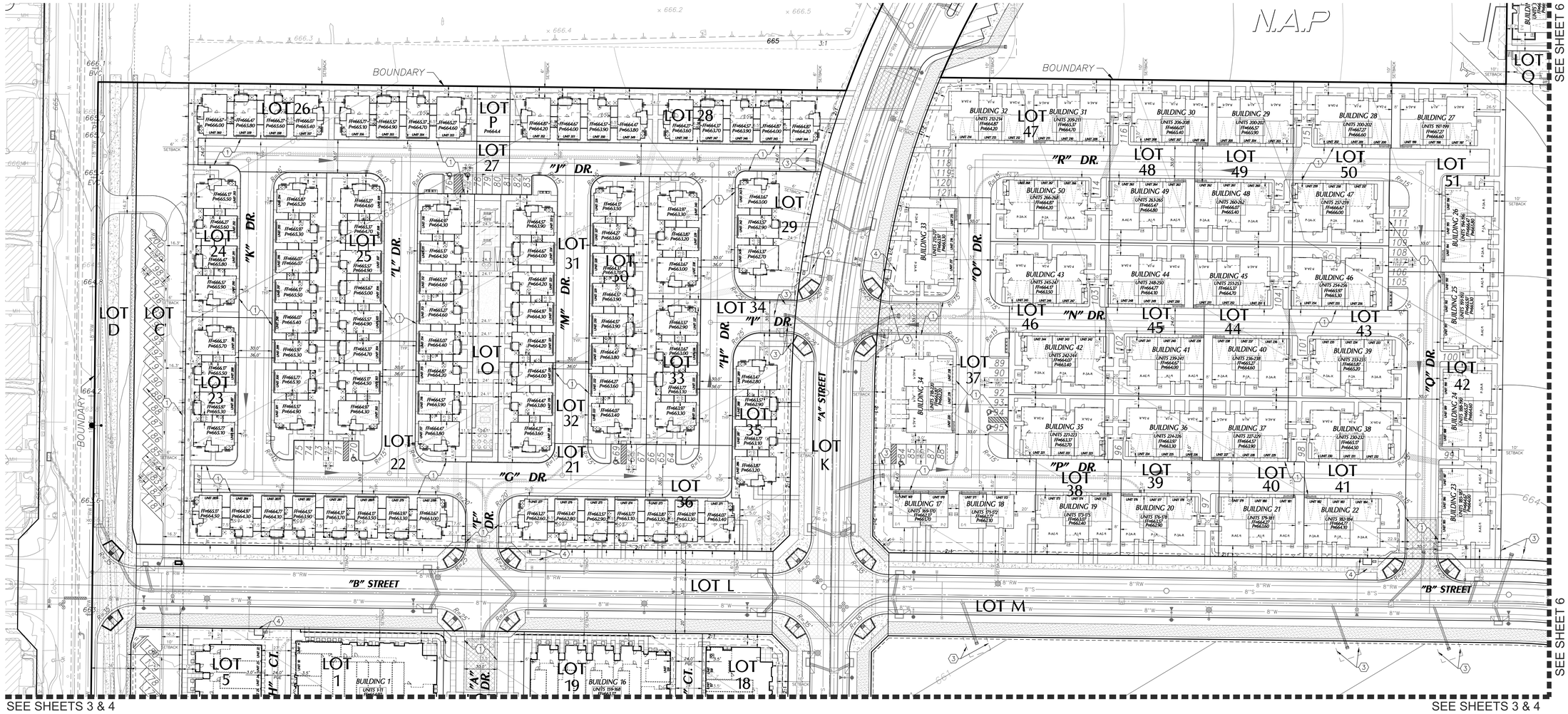
(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES

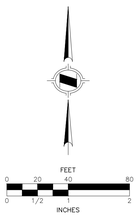
(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

(4) PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING CURB
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- TOP AND TOE OF SLOPE
- RETAINING WALL
- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN





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SITE PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
7 OF 14

W.O.: 2749-44CX EASWALK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:34:14 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-7.dwg

SEE SHEET 12

SEE SHEET 12

SEE SHEET 9

SEE SHEET 9

"B" STREET

"I" DR.

"A" DR.

"A" CT.

"H" CT.

"B" DR.

"C" CT.

"B" CT.

"I" CT.

"J" CT.

"C" DR.

"E" DR.

"A" STREET

"F" CT.

"D" DR.

"E" CT.

"D" CT.

"C" CT.

SCHOLAR WAY

BOUNDARY

LIMONITE AVENUE

LOT L

LOT 1 — BUILDING 1 — UNITS 1-11 — FF=663.50 — P=664.30

LOT 2

LOT 3 — BUILDING 2 — UNITS 12-23 — FF=663.47 — P=664.80

LOT 4 — BUILDING 4 — UNITS 33-41 — FF=663.17 — P=664.50

LOT 5 — BUILDING 3 — UNITS 23-31 — FF=663.37 — P=664.70

LOT 6 — BUILDING 5 — UNITS 42-53 — FF=663.17 — P=664.50

LOT 7 — BUILDING 6 — UNITS 53-61 — P=664.60 — P=663.55

LOT 8 — BUILDING 7 — UNITS 62-71 — FF=664.37 — P=665.70

LOT 9 — BUILDING 8 — UNITS 72-81 — FF=663.30 — P=662.61

LOT 10

LOT 11 — BUILDING 9 — UNITS 82-92 — FF=662.29 — P=663.30

LOT 12 — BUILDING 10 — UNITS 93-103 — FF=661.87 — P=663.20

LOT 13 — BUILDING 11 — UNITS 104-114 — FF=661.67 — P=661.00

LOT 14 — BUILDING 12 — UNITS 115-125 — FF=662.44 — P=661.07

LOT 15 — BUILDING 13 — UNITS 126-136 — FF=663.07 — P=662.40

LOT 16 — BUILDING 14 — UNITS 137-147 — FF=663.37 — P=662.70

LOT 17

LOT 18 — BUILDING 15 — UNITS 148-158 — FF=663.07 — P=662.40

LOT 19 — BUILDING 16 — UNITS 159-169 — FF=663.37 — P=662.70

LOT 20

LOT A — PARK/BASIN PLANS PENDING — ±1.08 Acres

UNDERGROUND DRAINAGE STRUCTURE

LOT B

LOT D

LOT E

LOT H

LOT K

LOT N

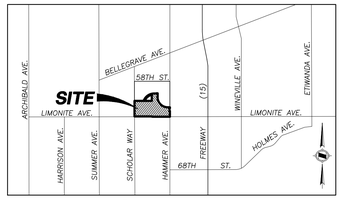
N.A.P

MB 440/46-49

MB 382/75-78

TRACT 28943

VICINITY MAP



LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 — PROPOSED MAJOR CONTOUR
- 101 — PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W — PROPOSED WATER
- W — EXISTING WATER
- RW — PROPOSED RECLAIMED WATER
- RW — EXISTING RECLAIMED WATER
- S — PROPOSED SEWER
- S — EXISTING SEWER
- G — EXISTING GAS
- T — EXISTING TELEFONE
- JT — EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET
0 20 40 80
0 1/2 1 2
INCHES

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PREPARED FOR:
NEW HOME CO.
move forward
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IRVINE, CA 92618
(909) 851-5792

OWNER:
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IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
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Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

GRADING PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
8 OF 14

W.O.: 2749-44CK EASWALK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:32:17 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-8.dwg

SEE SHEETS 11 & 12

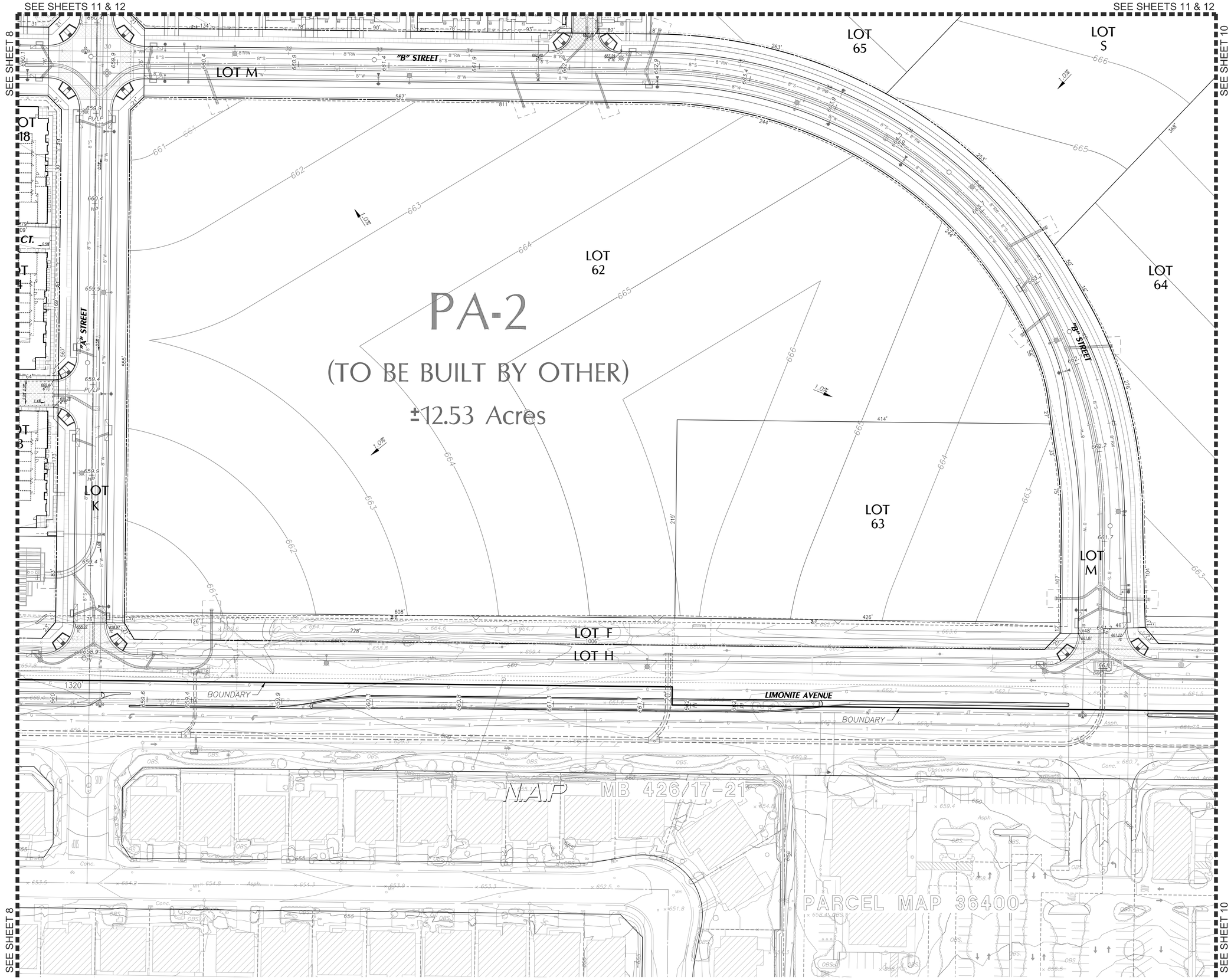
SEE SHEETS 11 & 12

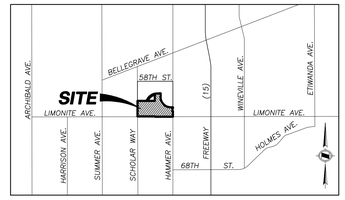
SEE SHEET 8

SEE SHEET 10

SEE SHEET 8

SEE SHEET 10





VICINITY MAP

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
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- PROPOSED WATER
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- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET 0 20 40 80

INCHES 0 1/2 1 2

NO.	DATE	REVISIONS	APPROVED

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DESIGNED BY: JV

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PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
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18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

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GRADING PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
9 OF 14

W.O.: 2749-4401 EASTWALK

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SEE SHEET 11

SEE SHEET 11

SEE SHEET 9

SEE SHEET 9

LOT 65

LOT S

LOT J

LOT I

LOT 64

LOT 63

LOT M

LOT G

LOT H

PA-3

(TO BE BUILT BY OTHERS)

±16.18 Acres

"B" STREET

"C" STREET

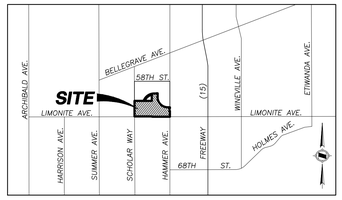
HAMNER AVENUE

LIMONITE AVENUE

BOUNDARY

ROUNDARY

1.0%



VICINITY MAP

LEGEND

- RIGHT OF WAY
- LOT LINE
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- 101 PROPOSED MAJOR CONTOUR
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FEET 0 20 40 80 / 0 1/2 1 2 INCHES

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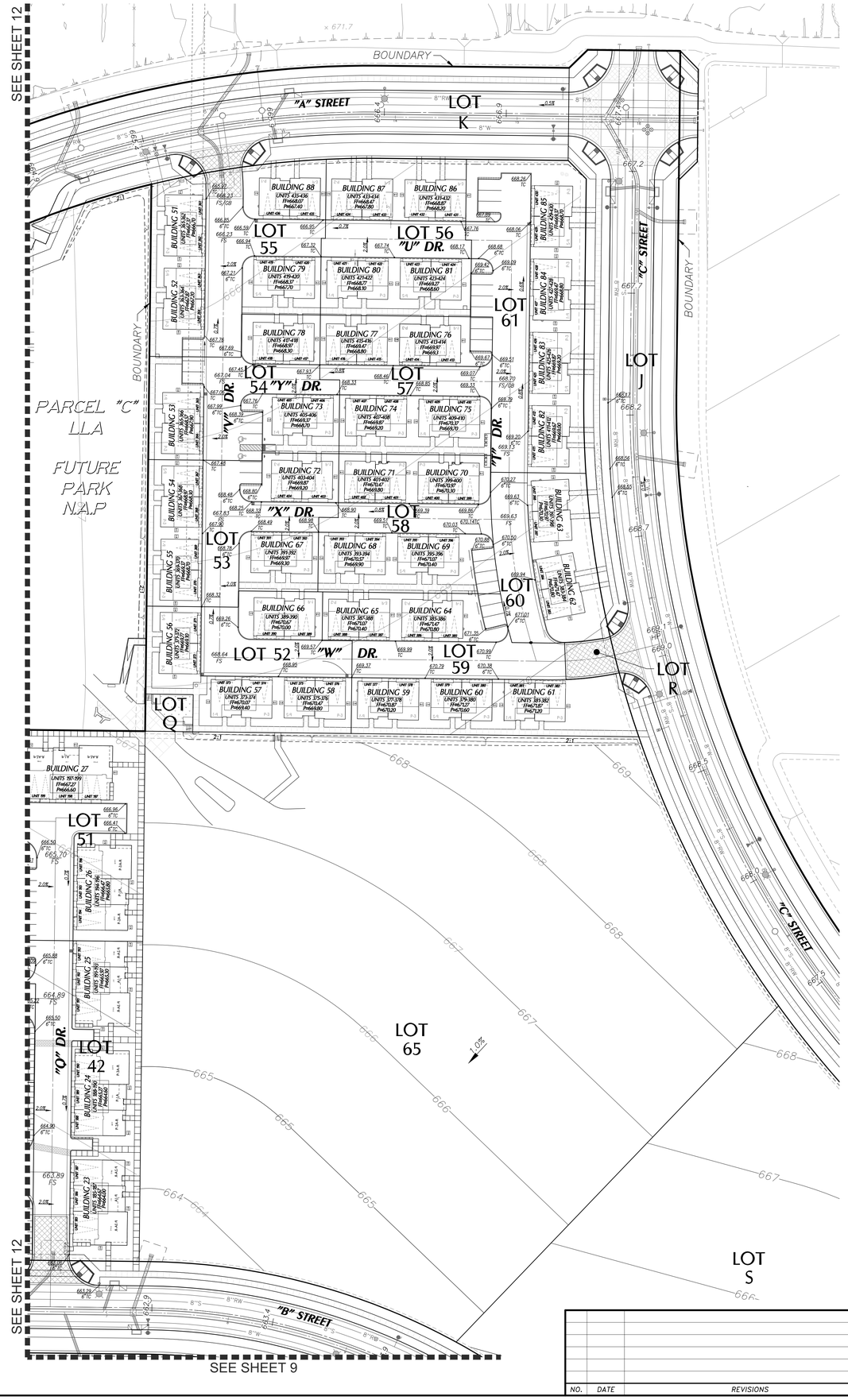
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City of Eastvale

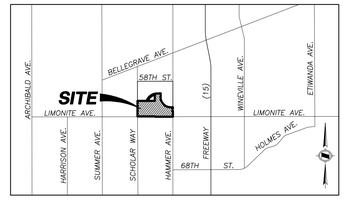
SHEET
10 OF 14

W.O.: 2749-44CX EASTMLK

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SEE SHEET 12





VICINITY MAP

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
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- EXISTING STORM DRAIN

FEET
0 20 40 80
INCHES
0 1/2 1 2

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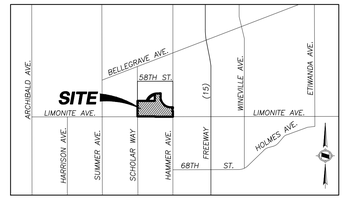
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GRADING PLAN
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FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
11 OF 14

W.O.: 2749-44CX EASTVALE

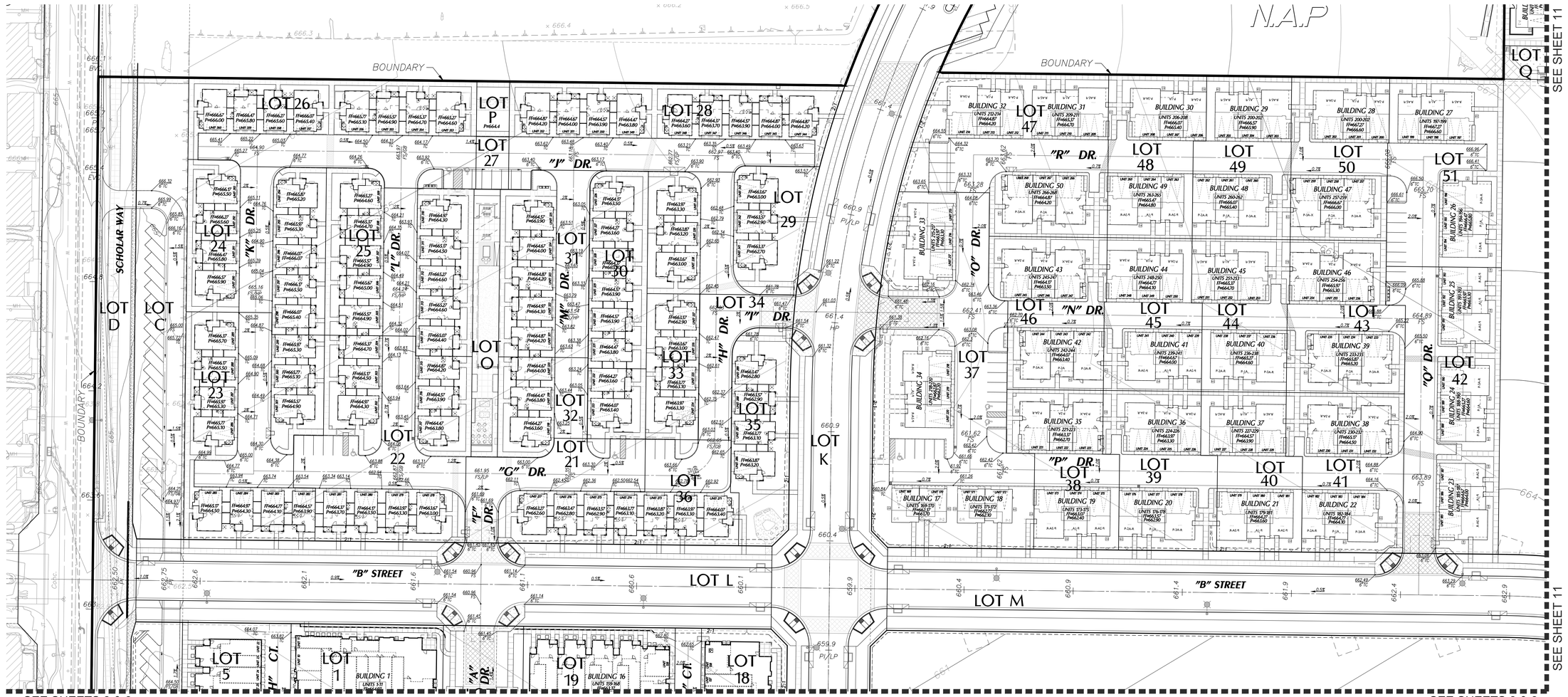
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VICINITY MAP

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
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- 101 PROPOSED MAJOR CONTOUR
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FEET 0 20 40 80
INCHES 0 1/2 1 2

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GRADING PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
12 OF 14

W.O.: 2749-4401 EASTWALK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:30:41 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-12.dwg

PARCEL D
LLA 2022-001
N.A.P

PARCEL "C"
LLA

FUTURE
PARK
N.A.P

"A" STREET

"B" STREET

"C" STREET

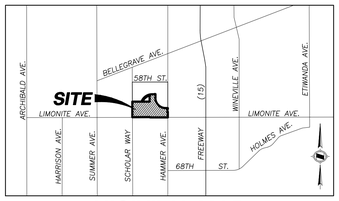
SCHOLAR WAY

PA-1

PA-7A

PA-6

PA-8



VICINITY MAP

REQUIRED/PROVIDED PARKING SUMMARY:

PLANNING AREA	NO. OF UNITS	TOTAL REQUIRED PARKING	PARKING PROVIDED IN GARAGES	GUEST PARKING	TOTAL PARKING PROVIDED	SURPLUS/ (DEFICIT)
PA 1	168	423	336	63	399	(-24)
PA 6	100	220	200	38	238	18
PA 7A	94	207	188	20	208	1
PA 8	76	168	152	27	179	11
LOT B	NA	NA	NA	32	32	32
LOT C	NA	NA	NA	20	20	20
TOTAL	438	1,018	876	200	1,076	58

FEET 0 30 60 120
INCHES 0 1/2 1 2

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: AM
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
more forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ■ ENGINEERING ■ SURVEYING
Three Hughes ■ Irvine, CA 92618 ■ PH: (949) 583-1010 ■ FX: (949) 583-0759

SITE PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
13 OF 14

W.O. 2749-44CX EASTMLK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:30:17 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-13.dwg

PARCEL D
LLA 2022-001
N.A.P

PARCEL "C"
LLA

FUTURE
PARK
N.A.P

"A" STREET

"B" STREET

"C" STREET

"A" STREET

BOUNDARY

PA-7A

PA-8

PA-6

PA-1

LOT A

LOT B

LOT C

LOT D

LOT E

LOT H

LOT J

LOT K

LOT L

LOT M

LOT N

LOT O

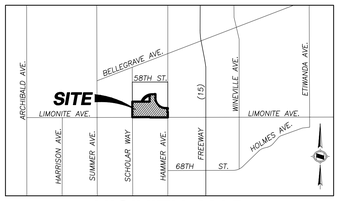
LOT P

LOT Q

LOT R

PARK/BASIN
PLANS PENDING
±1.08 Acres

UNDERGROUND
DRAINAGE STRUCTURE

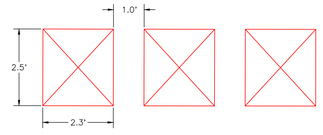


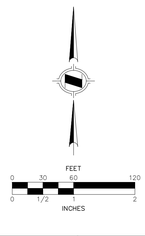
VICINITY MAP

LEGEND

⊠⊠⊠ TYPICAL TRASH BIN CONFIGURATION
(THREE) 64 GALLON BINS – ORGANIC WASTE, RECYCLE, AND TRASH

TRASH BIN CONFIGURATION





NO.	DATE	REVISIONS	APPROVED

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CHECKED BY: DS

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move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

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ARROYO CAP III, LLC.
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(951) 515-5419

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PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

SITE PLAN
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
14 OF 14

W.O. 2749-44CX EASTMLK

PLOTTED BY: Joey Valadez DATE: Sep. 29, 2023 04:29:57 PM FILE: F:\0736\Planning\sa_ttm_38594\Exh_SitePlan\TTM_38594_Site Plan_Sht-14.dwg

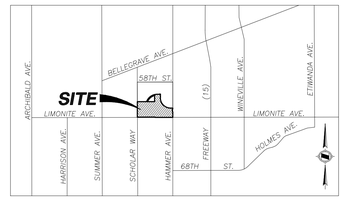
TENTATIVE TRACT MAP NO. 38594
FOR CONDOMINIUM PURPOSES

BEING ALL OF PARCEL A OF LOT LINE ADJUSTMENT NO. 2022-001, RECORDED AUGUST 24, 2022 AS INSTRUMENT NO, 2022-0370918 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA, TOGETHER WITH THAT PORTION OF THE SOUTHEAST QUARTER OF SECTION 24, TOWNSHIP 2 SOUTH, RANGE 7 WEST, JURUPA RANCHO, IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY SECTIONALIZED SURVEY OF THE JURUPA RANCHO, AS SHOWN BY MAP ON FILE IN BOOK 9, PAGE 33 OF MAPS, JURUPA RANCHO RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE EAST LINE OF SAID SECTION, 420.00 FEET NORTH OF THE SOUTHEAST CORNER THEREOF; THENCE WEST 208.70 FEET; THENCE NORTH 208.70 FEET; THENCE EAST 208.70 FEET TO A POINT ON THE EAST LINE OF SAID SECTION; THENCE SOUTH ALONG SAID EAST LINE, 208.70 FEET TO THE POINT OF BEGINNING.

EXCEPTING THE EAST 30.00 FEET THEREOF FOR STATE HIGHWAYS DESCRIBED IN A DOCUMENT TO THE STATE OF CALIFORNIA RECORDED JANUARY 8, 1943 IN BOOK 569, PAGE 86, OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.





VICINITY MAP

EXISTING EASEMENTS

(4) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: PUBLIC UTILITIES
RECORDING DATE: APRIL 9, 1953
RECORDING NO.: 17029, BOOK 1459, PAGE 442, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 1, 2 AND 6 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
TO BE QUITCLAIMED

EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

(6) GRANTED TO: ARTHUR L. HANSON AND BESSIE L. HANSON
PURPOSE: UTILITIES
RECORDING DATE: JUNE 5, 1953
RECORDING NO.: 27507, BOOK 1479, PAGE 275, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
A PORTION TO BE QUITCLAIMED

(9) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
PURPOSE: UTILITIES
RECORDING DATE: OCTOBER 25, 1968
RECORDING NO. 71591, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCEL 7 AND 8 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.
A PORTION TO BE QUITCLAIMED

(12) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: DECEMBER 21, 1998
RECORDING NO. 552204, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 3 AND 4 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(20) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2000-025215, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(21) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: PUBLIC ROAD AND DRAINAGE, INCLUDING PUBLIC UTILITY AND PUBLIC SERVICES
RECORDING DATE: JANUARY 15, 2002
RECORDING NO. 2000-025216, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(22) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: JURUPA COMMUNITY SERVICES DISTRICT
PURPOSE: PIPELINES, UTILITIES AND ACCESS
RECORDING DATE: OCTOBER 1, 2003
RECORDING NO. 2000-770719, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID PARCEL 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
PORTION TO BE QUITCLAIMED

(24) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: COUNTY OF RIVERSIDE
PURPOSE: DRAINAGE
RECORDING DATE: JULY 20, 2007
RECORDING NO. 2000-0474701, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF PARCELS 7 AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

(27) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTALS THERETO, AS GRANTED IN A DOCUMENT:

GRANTED TO: CITY OF EASTVALE
PURPOSE: PUBLIC ROAD AND UTILITY
RECORDING DATE: OCTOBER 10, 2013
RECORDING NO. 2013-0488886, OF OFFICIAL RECORDS
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

NOTES

1. EXISTING LAND USE: VACANT
2. PROPOSED LAND USE: RESIDENTIAL AND COMMERCIAL
3. EXISTING GENERAL PLAN LAND USE DESIGNATION: LEAL POLICY AREA
4. EXISTING ZONING: LEAL MASTER PLAN
5. ASSESSOR PARCEL NUMBERS: 164-030-010, 164-030-012, 164-030-013, 164-030-014, 164-030-024, 164-030-025
6. TOTAL GROSS AREA: 69.84 AC
7. WATER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
8. SEWER SERVICE PROVIDED BY: JURUPA COMMUNITY SERVICES DISTRICT, 11201 HARREL STREETS, MIRA LOMA, CA 91752, (951)685-7437
9. GAS SERVICE PROVIDED BY: SOUTHERN CALIFORNIA GAS COMPANY, 155 S. G STREET, SAN BERNARDINO, CA 92410, (909) 758-8691
10. ELECTRIC SERVICE PROVIDED BY: SOUTHERN CALIFORNIA EDISON, 1351 E. FRANCIS STREET, ONTARIO, CA 91761, (909) 930-8431
11. TELEPHONE SERVICE PROVIDED BY: VERIZON, 1400 E. PHILLIPS BLVD., POMONA, CA 91766, (909)469-2260
12. CABLE PROVIDED BY: AT&T, 1265 N. VAN BUREN STREET, SUITE 180, ANAHEIM, CA 92807, (800) 750-2355
13. REFUSE PROVIDED BY: WASTE MANAGEMENT OF THE INLAND EMPIRE, 800 SOUTH TEMESCAL STREET, CORONA, CA 92876, (951) 280-4500
14. THE PROJECT IS LOCATED WITHIN THE CORONA-NORCO UNIFIED SCHOOL DISTRICT, 2820 CLARK AVENUE, NORCO CA, 92860, (951) 736-5000
15. THE PROJECT SITE IS NOT LOCATED WITHIN A FLOOD ZONE PER FLOOD INSURANCE RATE MAP NUMBERS 06065C0677G & 06065C0681G, EFFECTIVE DATE AUGUST 28, 2008.

EARTHWORK SUMMARY

CUT	FILL
1,129,682 CYS	1,152,545 CYS

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
(4) PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL

FEET
0 100 200 400
0 1/2 1 2
INCHES

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
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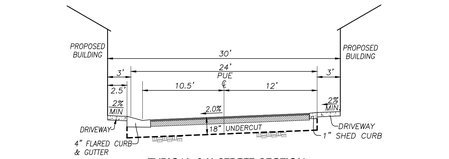
PREPARED BY:
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Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

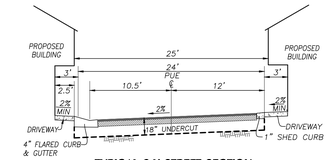
SHEET
1 OF 7

W.O.: 2749-44CC EASTWALK

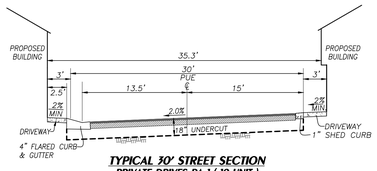
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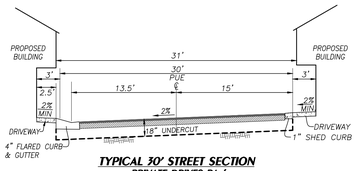
TYPICAL 24' STREET SECTION
PRIVATE DRIVES PA-1 (10 UNIT)
NOT TO SCALE



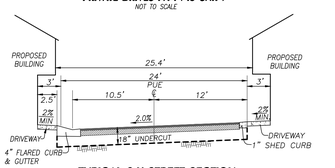
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PRIVATE DRIVES PA-6
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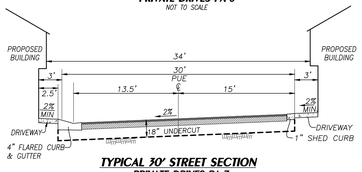
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PRIVATE DRIVES PA-1 (10 UNIT)
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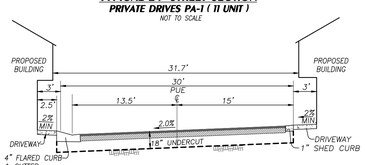
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PRIVATE DRIVES PA-6
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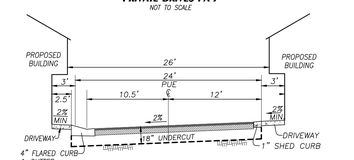
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PRIVATE DRIVES PA-1 (11 UNIT)
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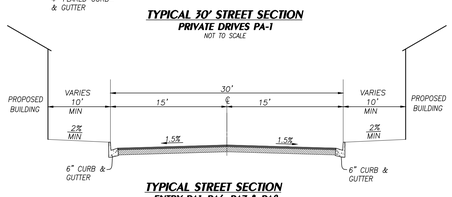
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PRIVATE DRIVES PA-7
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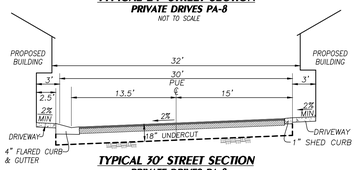
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PRIVATE DRIVES PA-1
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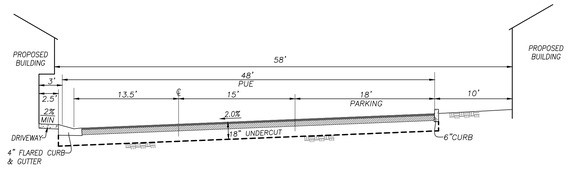
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PRIVATE DRIVES PA-8
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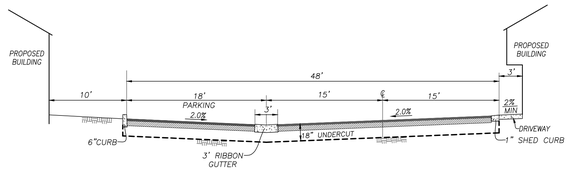
TYPICAL STREET SECTION
ENTRY PA1, PA6, PA7 & PA8
NOT TO SCALE



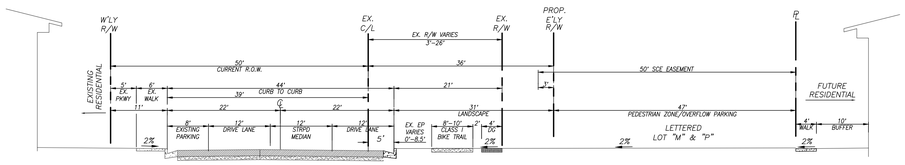
TYPICAL 30' STREET SECTION
PRIVATE DRIVES PA-8
NOT TO SCALE



TYPICAL 30' STREET SECTION W/PARKING
PRIVATE DRIVES PA-1, PA-6, PA-7 & PA-8
NOT TO SCALE

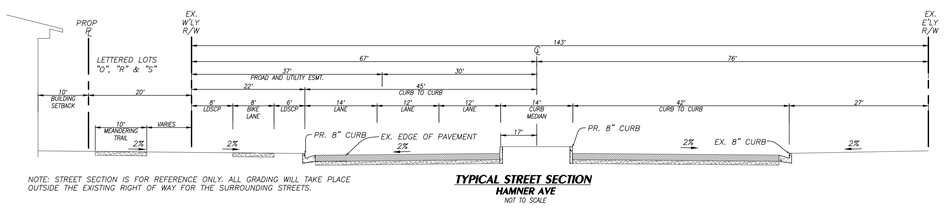


TYPICAL 30' STREET SECTION W/PARKING
PRIVATE DRIVES PA-7
NOT TO SCALE



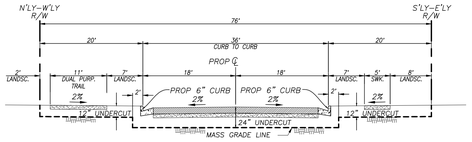
NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
SCHOLAR WAY
NOT TO SCALE



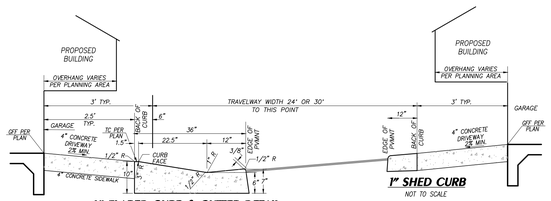
NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
HAMNER AVE
NOT TO SCALE



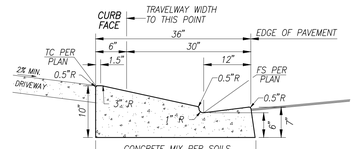
NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
INTERIOR A,B,C STREETS
NOT TO SCALE



4" FLARED CURB & GUTTER DETAIL
NOT TO SCALE

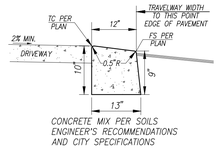
1" SHED CURB
NOT TO SCALE



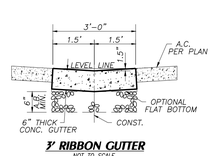
NOTE:

1. CURB CORES WILL NOT BE ALLOWED. YARD DRAINS MUST CONNECT DIRECTLY TO THE UNDERGROUND STORM DRAIN SYSTEM.
2. ASPHALT CONCRETE PAVEMENT SHALL BE A MAXIMUM $\frac{3}{8}$" HIGHER THAN EDGE OF GUTTER.

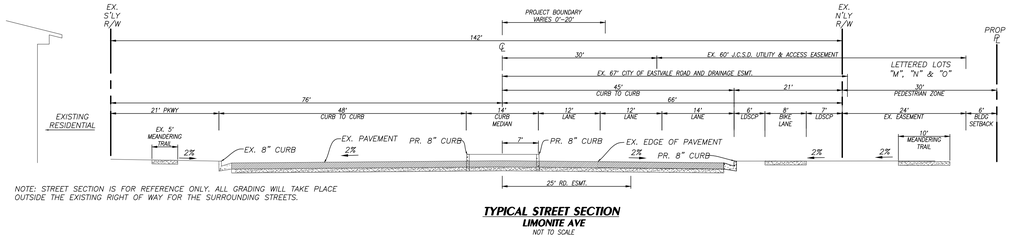
4" FLARED CURB & GUTTER DETAIL
NOT TO SCALE



1" SHED CURB
NOT TO SCALE

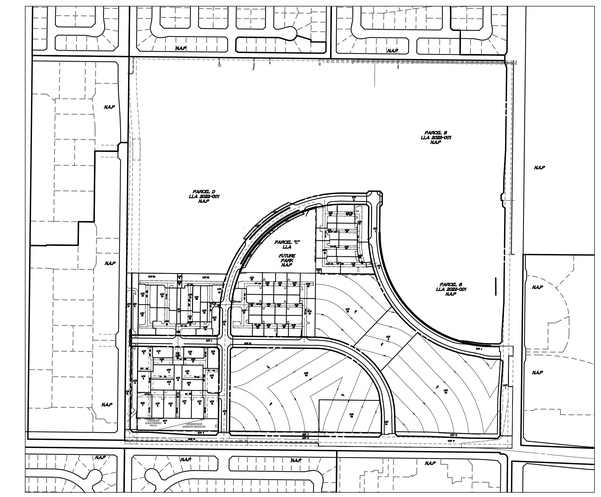


3' RIBBON GUTTER
NOT TO SCALE



NOTE: STREET SECTION IS FOR REFERENCE ONLY. ALL GRADING WILL TAKE PLACE OUTSIDE THE EXISTING RIGHT OF WAY FOR THE SURROUNDING STREETS.

TYPICAL STREET SECTION
LIMONITE AVE
NOT TO SCALE



KEY MAP

NUMBERED LOTS

Lot No.	Land Use	S.F	Acres	Lot No.	Land Use	S.F	Acres
1	Residential	10,454	0.24	34	Residential	5,663	0.13
2	Residential	6,534	0.15	35	Residential	10,019	0.23
3	Residential	14,810	0.34	36	Residential	9,148	0.21
4	Residential	11,761	0.27	37	Residential	39,204	0.90
5	Residential	17,424	0.40	38	Residential	12,197	0.28
6	Residential	12,632	0.29	39	Residential	13,068	0.30
7	Residential	16,988	0.39	40	Residential	11,326	0.26
8	Residential	15,682	0.36	41	Residential	14,375	0.33
9	Residential	16,117	0.37	42	Residential	23,522	0.54
10	Residential	4,792	0.11	43	Residential	13,939	0.32
11	Residential	15,246	0.35	44	Residential	11,761	0.27
12	Residential	16,117	0.37	45	Residential	11,761	0.27
13	Residential	18,295	0.42	46	Residential	13,504	0.31
14	Residential	17,860	0.41	47	Residential	23,522	0.54
15	Residential	10,454	0.24	48	Residential	12,197	0.28
16	Residential	13,939	0.32	49	Residential	12,632	0.29
17	Residential	10,454	0.24	50	Residential	13,504	0.31
18	Residential	11,326	0.26	51	Residential	18,295	0.42
19	Residential	10,454	0.24	52	Residential	16,553	0.38
20	Residential	9,148	0.21	53	Residential	16,988	0.39
21	Residential	13,068	0.30	54	Residential	14,810	0.34
22	Residential	25,700	0.59	55	Residential	19,602	0.45
23	Residential	23,958	0.55	56	Residential	15,246	0.35
24	Residential	18,295	0.42	57	Residential	15,246	0.35
25	Residential	20,038	0.46	58	Residential	15,246	0.35
26	Residential	22,651	0.52	59	Residential	21,780	0.50
27	Residential	1,307	0.03	60	Residential	11,326	0.26
28	Residential	23,522	0.54	61	Residential	21,780	0.50
29	Residential	16,553	0.38	62	Residential	453,460	10.41
30	Residential	9,583	0.22	63	Commercial	92,783	2.13
31	Residential	13,504	0.31	64	Commercial	417,305	9.58
32	Residential	10,454	0.24	65	Commercial	198,198	4.55
33	Residential	6,534	0.15				

TOTAL	2,065,615	47.42

LETTERED LOTS

Lot No.	Land Use	S.F	Acres
A	Open Space	45,302	1.04
B	Open Space	26,572	0.61
C	Open Space	19,602	0.45
D	Street Dedication (Public)	37,897	0.87
E	Open Space	13,939	0.32
F	Open Space	30,928	0.71
G	Open Space	30,056	0.69
H	Street Dedication (Public)	162,479	3.73
I	Street Dedication (Public)	34,848	0.8
J	Street (Public)	133,294	3.06
K	Street (Public)	170,755	3.92
L	Street (Public)	44,431	1.02
M	Street (Public)	115,870	2.66
N	Open Space	9,148	0.21
O	Open Space	6,098	0.14
P	Open Space	1,742	0.04
Q	Open Space	1,307	0.03
R	Street (Private)	1,307	0.03
S	Open Space	90,169	2.07

TOTAL	885,575	22.40

LAND USE SUMMARY

Lot No.	Land Use	S.F	Acres
1TO 62	RESIDENTIAL	1,355,152	31.19
63- 65	COMMERCIAL	708,286	16.26
A - C, E - G, N-S	OPEN SPACE	276,736	6.33
D, H - I	STREET DEDICATION	235,660	5.40
J - M	STREET	464,350	10.66

TOTAL	3,040,184	69.84

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

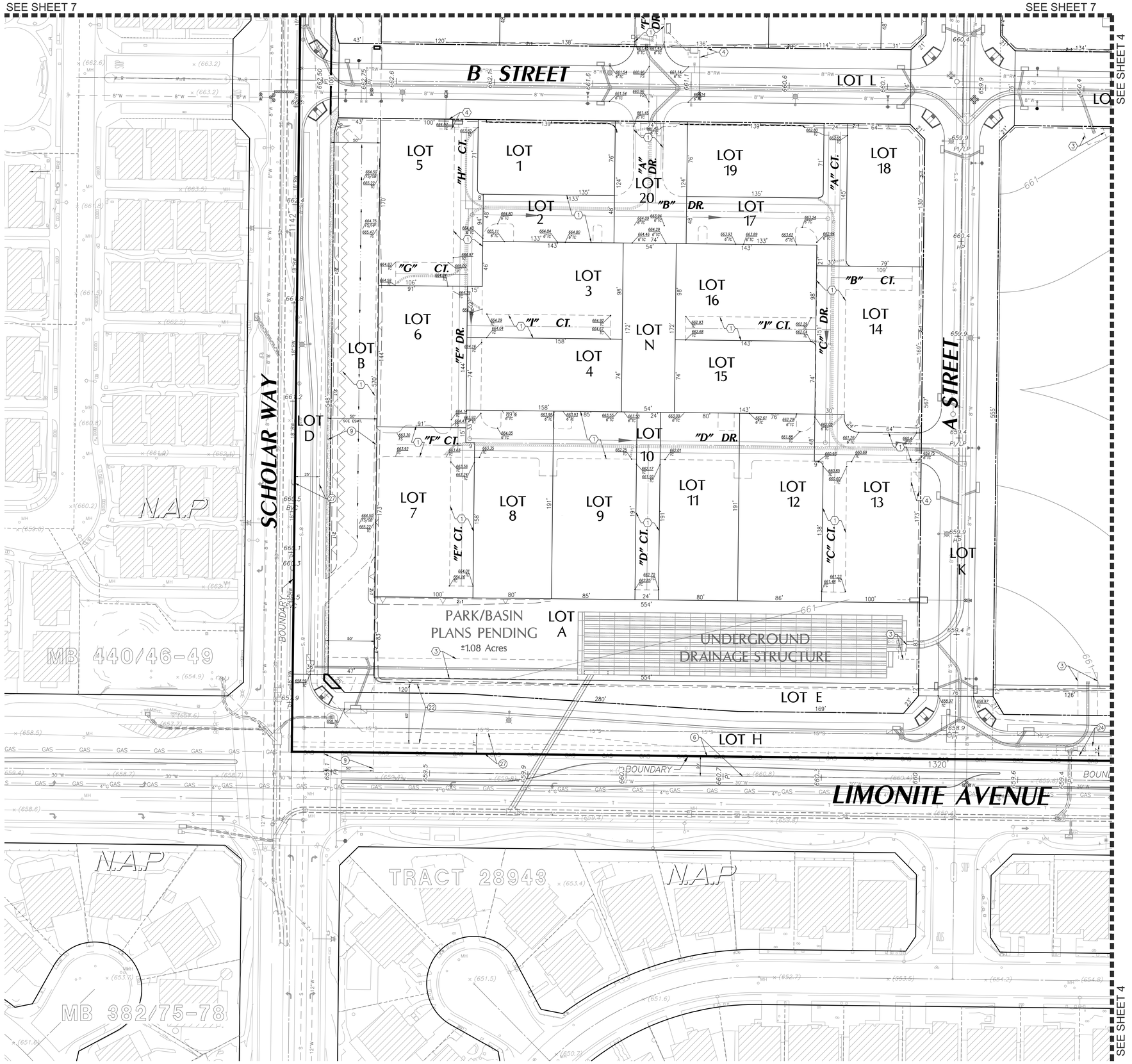
OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

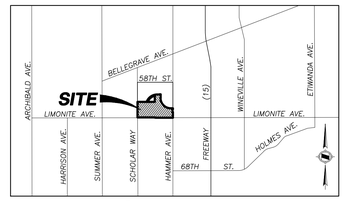
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IRVINE, INC.
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Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
2 OF 7

W.O.: 2749-44CP EASTWALK





VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET 0 20 40 80
INCHES 0 1/2 1 2

NO.	DATE	REVISIONS	APPROVED

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DESIGNED BY: JV
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move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
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18575 JAMBOREE ROAD
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City of Eastvale

SHEET
3 OF 7

W.O.: 2749-44CX EASTWALK

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SEE SHEETS 6 & 7

SEE SHEETS 6 & 7

SEE SHEET 3

SEE SHEET 5

LOT M

LOT 65

LOT S

LOT 18

LOT 62

LOT 64

LOT K

LOT 63

LOT M

LOT F

LOT H

PA-2

(TO BE BUILT BY OTHER)

±12.53 Acres

BOUNDARY

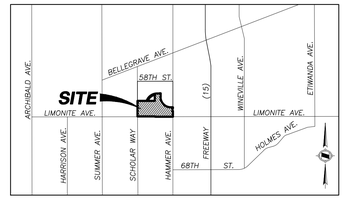
BOUNDARY

MAP MB 426/17-21

PARCEL MAP 36400

SEE SHEET 3

SEE SHEET 5



VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
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- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

NORTH

FEET 0 20 40 80

INCHES 0 1/2 1 2

NO.	DATE	REVISIONS	APPROVED

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IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

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FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
4 OF 7

W.O.: 2749-44CX EASTWALK

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SEE SHEET 6

SEE SHEET 6

SEE SHEET 4

SEE SHEET 4

PARCEL B
LLA 2022-001
N.A.P

PA-3

(TO BE BUILT BY OTHERS)

±16.18 Acres

LOT 65

LOT S

LOT 62

LOT 64

LOT 63

LOT M

LOT F

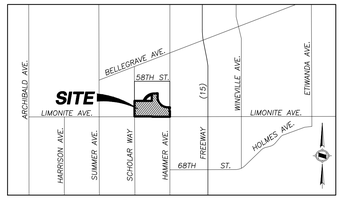
LOT J

LOT G

LOT H

LOT I

BOUNDARY



VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
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4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
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- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
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- W EXISTING WATER
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- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

FEET 0 20 40 80
INCHES 0 1/2 1 2

NO.	DATE	REVISIONS	APPROVED

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DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward.
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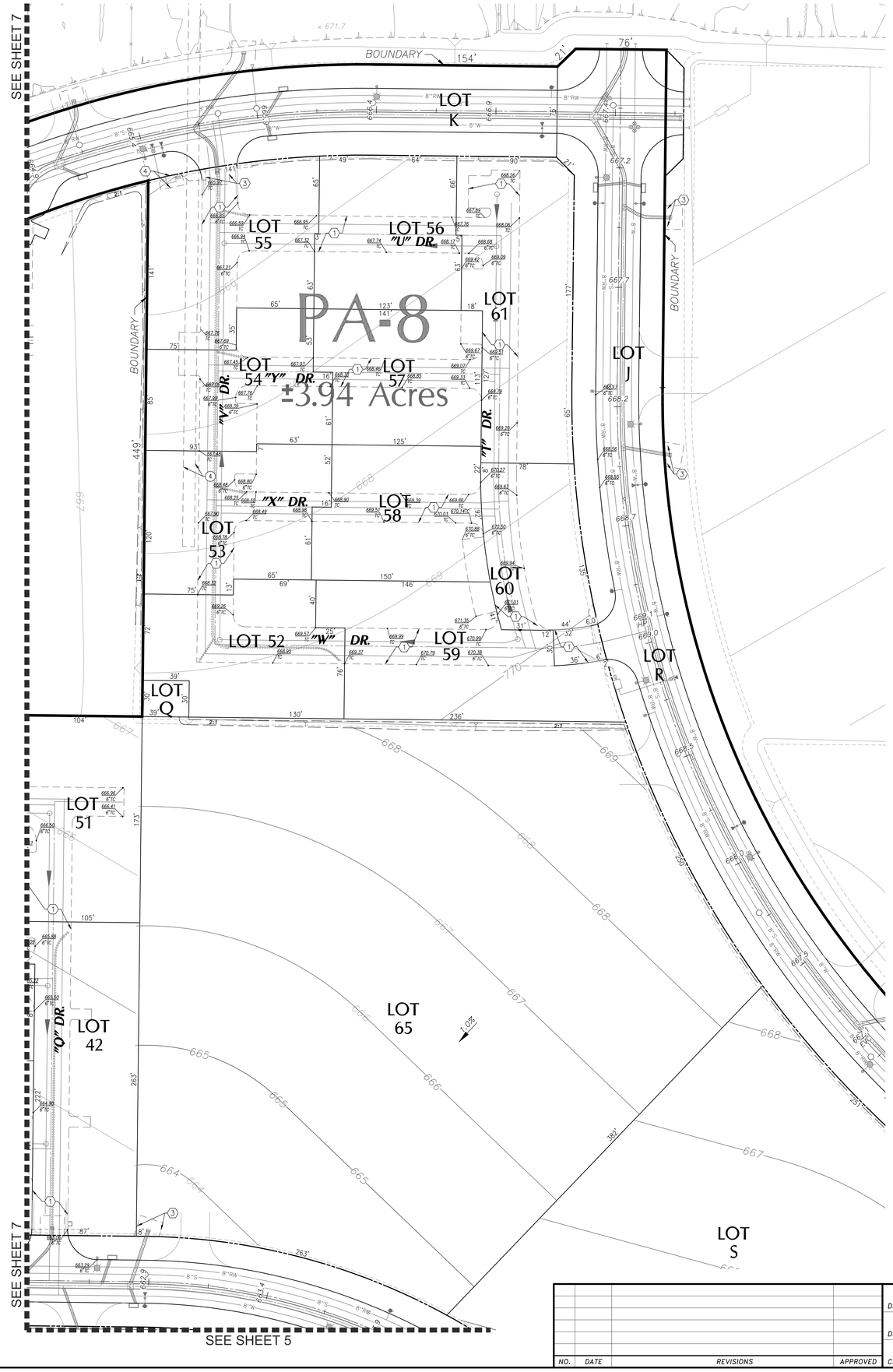
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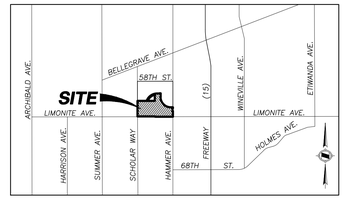
TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
5 OF 7

W.O.: 2749-44CX EASTVALK

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VICINITY MAP

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.

(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES

(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

(4) PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
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- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
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- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN



NO.	DATE	REVISIONS	APPROVED

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(909) 851-5792

OWNER:
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18575 JAMBOREE ROAD
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(951) 515-5419

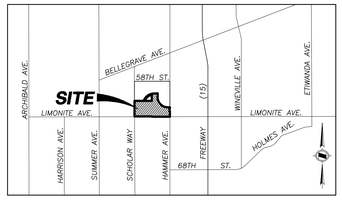
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TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
6 OF 7

W.O.: 2749-44CX EASTMALK

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VICINITY MAP

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
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- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.

(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES

(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

(4) PROPOSED EASEMENT FOR MASTER WATER METER

PA-7A

±5.65 Acres

PA-6

±5.61 Acres

SEE SHEET 6

SEE SHEETS 3 & 4

SEE SHEETS 3 & 4

FEET 0 20 40 80 | 0 1/2 1 2 INCHES

NO.	DATE	REVISIONS	APPROVED

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OWNER:
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18575 JAMBOREE ROAD
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TENTATIVE TRACT NO.38594
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
7 OF 7

W.O.: 2749-44CX EASTWALK

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EASTWALK | EASTVALE

PLANNING AREA 1
MAJOR DEVELOPMENT PLAN

GENERAL

SHEET	NAME
CS-1	Coversheet/Sheet Index
R-1	Site Rendering
R-2	Site Rendering
R-3	Site Rendering
SP-1	Overall Illustrative
SP-2	Planning Area Illustrative
SP-3	Pool Recreation Area

CIVIL

SHEET	NAME
1 of 1	Master Development Plan
2 of 2	Master Development Plan
3 of 3	Master Development Plan

ARCHITECTURE

SHEET	NAME
A0.1	Cover Sheet
A0.2	Color and Elevation Diagram / Assignments
A0.3	10-Plex Detail Elements - Mediterranean and Vineyard
A0.4	11-Plex Detail Elements - Transitional Mediterranean
A0.5	11-Plex Detail Elements - Transitional Craftsman
A1	10-Plex Composite Building Plans
A2	10-Plex 'A' Elevation / Roof Plans & elevations
A3	10-Plex 'B' Elevation / Roof Plans & elevations
A4	10-Plex Units 1 & 3 / Floor Plans
A5	10-Plex Units 2A & 2B / Floor Plans
A6	10-Plex Color Boards and Exterior Color & Materials
A7	11-Plex Composite 1st Floor Plans
A8	11-Plex Composite 2nd Floor Plans
A9	11-Plex Composite 3rd Floor Plans
A10	11-Plex Transitional Mediterranean Elevations - Front & Rear
A11	11-Plex Transitional Mediterranean Elevations - Sides & Roof Plan
A12	11-Plex Transitional Craftsman Elevations - Front & Rear
A13	11-Plex Transitional Craftsman Elevations - Sides & Roof Plan
A14	11-Plex Color and Material Selections & Boards
A15	Pool Building - Floor Plan & Roof Plan
A16	Pool Building - Elevations
A17	Pool Building - Color and Material Selections & Boards

LANDSCAPE

SHEET	NAME
L-100	Landscape Cover Sheet
L-101	Overall Site Plan
L-201	Planting Legend
L-202	Planting Imagery Board
L-203	Planting Imagery Board
L-204	Planting Imagery Board
L-301	Landscape Site Plan
L-302	Enlargement Plans
L-401	Fence and Wall Elevations
E-1	PA 1 Photometrics Site Plan
E-2	PA 1 Photometrics Site Plan

CITY OF EASTVALE

NEW HOME CO. move forward

EASTWALK

HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING ▪ ENGINEERING ▪ SURVEYING

Bassenian | Lagoni ARCHITECTURE ▪ PLANNING ▪ INTERIORS

WHA. ARCHITECTS . PLANNERS . DESIGNERS

BrightView Design Group

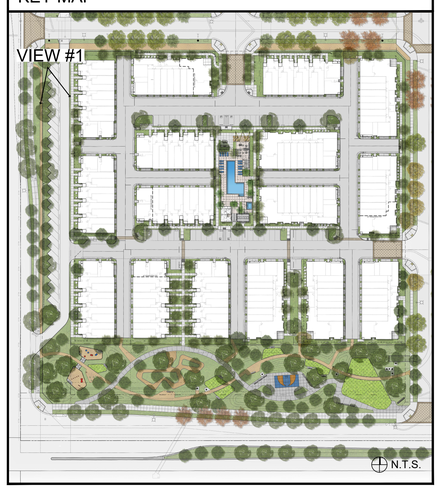
10/03/2023

CS-1

VIEW #1: SOUTH SIDE VIEW OF PASSIVE TRAIL SPACE

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
SITE RENDERING

SHEET NO.
R-1

VIEW #2: SOUTH SIDE VIEW OF POOL

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

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8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

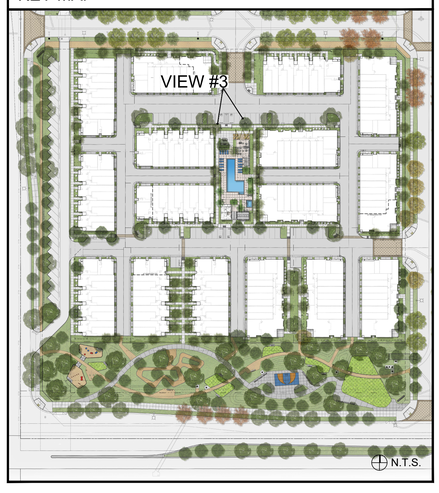
SHEET TITLE
SITE RENDERING

SHEET NO.
R-2

VIEW #3: NORTH SIDE VIEW OF AMENITIES

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



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LANDSCAPE ARCHITECT

CITY

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
SITE RENDERING

SHEET NO.
R-3

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

'A' ROAD

'C' ROAD

N.A.P

PLANNING
AREA 8

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

SCHOLAR WAY

HAMNER AVE.

PHASE A PROJECT BOUNDARY

PLANNING
AREA 7

PLANNING
AREA 6

'B' ROAD

'C' ROAD

PLANNING
AREA 1 SITE
BOUNDARY

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

'A' ROAD

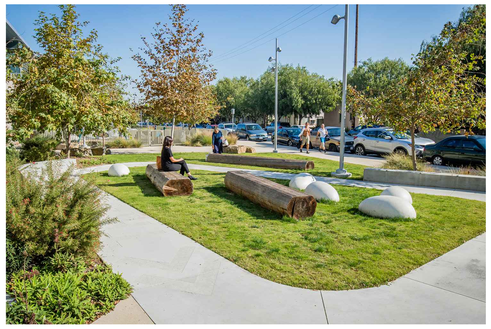
'B' ROAD

LIMONITE AVE.

PASSIVE SPACE REFERENCE IMAGERY









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SHEET TITLE
OVERALL
ILLUSTRATIVE

SHEET NO.
SP-1



SITE PLAN LEGEND

1. TYPICAL INTERNAL WALKWAYS.
2. GUEST PARKING AREA
3. CONNECTION TO ADJACENT STREETS/OPEN SPACE
4. ENHANCED PAVING
5. DECORATIVE VEHICULAR PAVING AT ENTRY
6. MAILBOX LOCATION
7. RETAINING WALL

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LANDSCAPE ARCHITECT | CITY

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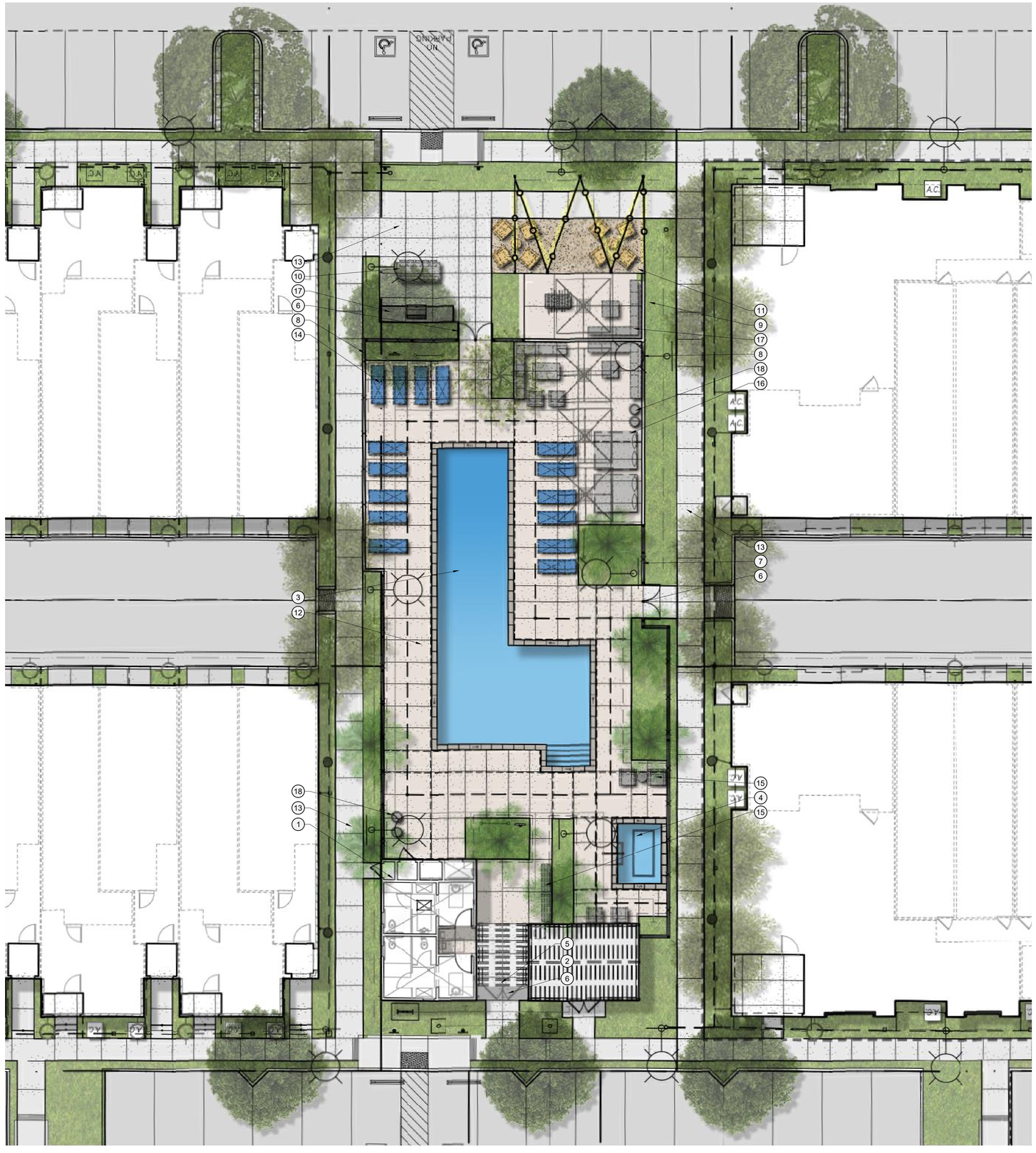
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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANNING AREA ILLUSTRATIVE

SHEET NO.
SP-2



SITE PLAN LEGEND

1. POOL RESTROOM BUILDING
2. POOL EQUIPMENT ROOM
3. FAMILY POOL
4. SPA
5. POOL ENTRY/BREEZEWAY
6. POOL GATE. GATE TO MEET FIRE AND HEALTH DEPARTMENT REGULATIONS.
7. POOL PERIMETER FENCE.
8. POOL PERIMETER MASONRY WALL
9. FREE STANDING POOL UMBRELLAS
10. BUILT-IN BBQ WITH SEATING AREA.
11. DG PAVING WITH OVERHEAD STRING LIGHTS.
12. POOL DECK PAVING.
13. PERIMETER CONCRETE PAVING
14. POOL DECK CHAISE LOUNGES
15. POOL SAFE SOFT SEATING
16. DAYBED INSIDE POOL DECK AREA
17. SOFT SEATING (CHAIRS/BENCHES)
18. TRASH RECEPTACLES

SCALE: 1/8" = 1'-0"

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LANDSCAPE ARCHITECT

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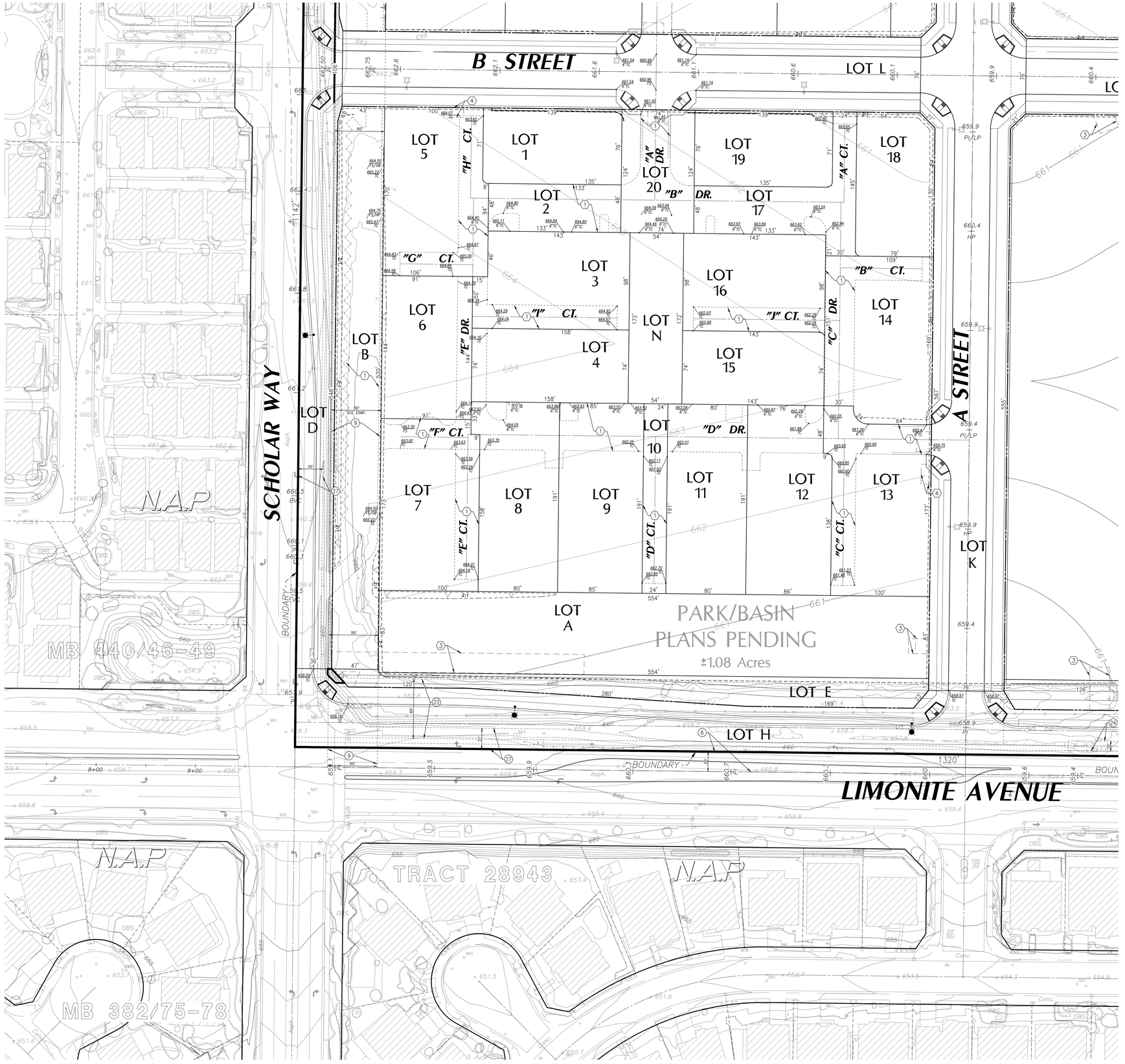
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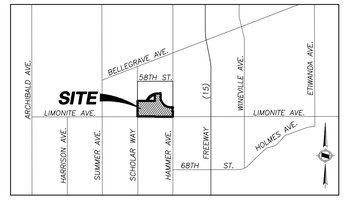
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MASTER DEVELOPMENT PLAN

SHEET TITLE
POOL REACREATION AREA

SHEET NO.
SP-3





VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE

NUMBER LOT SUMMARY

Lot No.	Land Use	S.F	Acres
1	Residential	10,454	0.24
2	Residential	6,534	0.15
3	Residential	14,810	0.34
4	Residential	11,761	0.27
5	Residential	17,424	0.40
6	Residential	12,632	0.29
7	Residential	16,988	0.39
8	Residential	15,682	0.36
9	Residential	16,117	0.37
10	Residential	4,792	0.11
11	Residential	15,246	0.35
12	Residential	16,117	0.37
13	Residential	18,295	0.42
14	Residential	17,860	0.41
15	Residential	10,454	0.24
16	Residential	13,939	0.32
17	Residential	10,454	0.24
18	Residential	11,326	0.26
19	Residential	10,454	0.24
20	Residential	9,148	0.21
TOTAL		260,489	5.98

LETTER LOT SUMMARY

Lot No.	Land Use	S.F	Acres
N	Open Space	9,148	0.21
TOTAL		9,148	0.21

FEET
0 5 20 40 80
0 1/2 1 2
INCHES

NO.	DATE	REVISIONS	APPROVED

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DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
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IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

PA-1
MASTER DEVELOPMENT PLAN
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
1 OF 3

W.O.: 2749-44CT EASTVALK

PLOTTED BY: Joey Valadez DATE: Oct. 02, 2023 04:32:48 PM FILE: F:\0736\Planning\SA_TTM_38594\Exh_MDP\TTM_38594_MDP_PA-1_Sht.1.dwg

Apartments/Flats

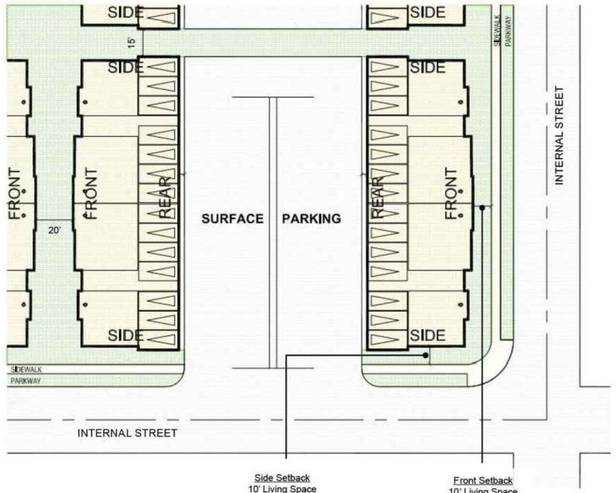
Table 4-7 establishes the development standards for residential apartments/flats. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.8.

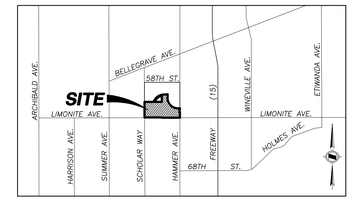
Table 4-7: Apartments/Flats Development Standards

	Apartments/Flats
Maximum Site Coverage	75%
Maximum Building Height	65' (4 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	3'
Minimum Side Setback (from Internal Street Right-of-Way)	
Living Space	10'
Porch, Courtyard or Balcony	5'
Minimum Building Separation	
Front to Front (entries) - at open space	20'
Side to Side (no entries) - at open space	15'

CHAPTER 4 – DEVELOPMENT STANDARDS

Figure 4.8 Apartments/Flats Setback Diagram





VICINITY MAP

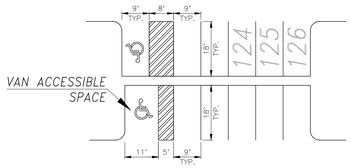
PROPOSED EASEMENTS

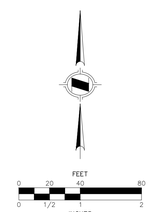
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3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
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- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
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- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

PARKING DIMENSIONS (TYP).





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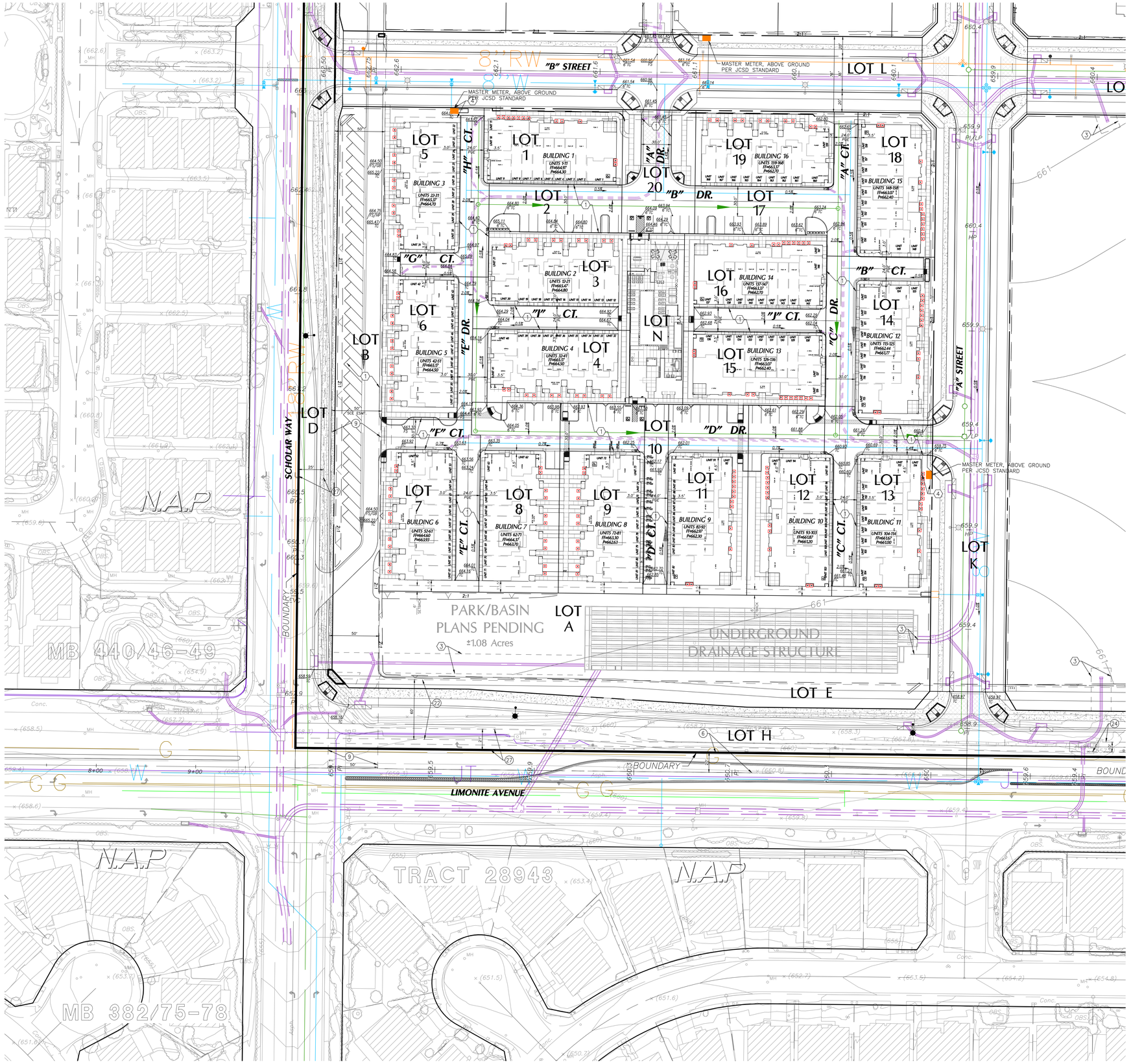
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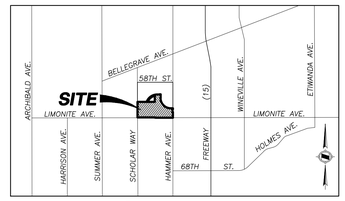
PA-1
MASTER DEVELOPMENT PLAN
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
2 OF 3

W.O.: 2749-44CX EASTWALK

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VICINITY MAP

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.

(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES

(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

(4) PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

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- 101 PROPOSED MINOR CONTOUR
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- EXISTING MEDIAN
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- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- PROPOSED A.C. PAD
- PROPOSED MASTER METER

FEET 0 20 40 80
INCHES 0 1/2 1 2

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MASTER DEVELOPMENT PLAN
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
3 OF 3

W.O.: 2749-44CX EASTWALK

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PA-1 THREE STORY 10-PLEX &11-PLEX



MEDITERRANEAN STYLE (10-PLEX)

The Mediterranean style is a prime example of an old-world traditional style adapted to the Southern California climate and aesthetic. This traditional style has been refined, transformed, and embellished into a truly eclectic classic style. The shallow pitched hipped roof and simple wall aesthetic identifies this style. This style elicits a rustic character, expressed in warm colors, textures, materials and simple massing. Major elements are vertically oriented with shallow, wrought iron balconies. Use of classically shaped decorative trim elements, columns, shutters and cornice details is characteristic but not mandatory, along with lighter colors, to complement the warm climate.



VINEYARD STYLE (10-PLEX)

The Vineyard style captures the spirit of California agrarian family living. Homes reflect an airy connection to the outdoors with simple forms, vertical windows, and outdoor living spaces. The style is earthy and horizontal in nature based on farmhouse shapes and materials that suggest the home grew with the vineyard. Gable and cross gable roof forms are accented by shed roofs. Use of materials connect the style to the agricultural past with stucco, stone, board wall materials. Balconies are supported by simple railings reminiscent of traditional porch railings.



TRANSITIONAL MEDITERRANEAN (11-PLEX)

Inspired by architecture from the coastal regions of Spain and Italy where intense sunlight bathes every corner, the Mediterranean style emerged as a response to an ideal climate. Transitional Mediterranean reinterprets the style in a fresh way with modern materials and simplified forms and massing for todays sophisticated buyer. Sculpted stucco massing in fresh, more angular shapes embraces the timeless appeal of modern architecture, while still retaining a warmth from its traditional roots. The light colored walls are contrasted with rich dark or grayed woods to create the classic blend of light and dark features to define the forms. Large windows can be grouped or wrapped around a corner to carry the style around the sides. Other defining characteristics include a simple or parabolic arch at a window or entry, courtyards and minimal use of accent materials to accentuate key components or walls.



TRANSITIONAL CRAFTSMAN (11-PLEX)

The Craftsman originated from the early 1900s in Southern California where most prime early examples are concentrated and quickly spread throughout the country until the 1930's. Craftsman homes were inspired by the work of Charles and Henry Greene which drew their influences from the English Arts and Crafts movement, and an interest in wooden architecture from Eastern regions. These buildings are architecturally distinguished by their low-pitched, projecting eaves with rafter tails; clapboards, expansive porches with decorative or tapered columns, decorative braces underneath gables. The Eastwalk interpretation of the Transitional Craftsman incorporates many of these details with modern construction techniques and materials.

SHEET INDEX

A0.1 - COVER SHEET
A0.2 - COLOR AND ELEVATION DIAGRAM / ASSIGNMENTS
A0.3 - 10-PLEX DETAIL ELEMENTS – MEDITERRANEAN AND VINEYARD
A0.4 - 11-PLEX DETAIL ELEMENTS – TRANSITIONAL MEDITERRANEAN
A0.5 - 11-PLEX DETAIL ELEMENTS – TRANSITIONAL CRAFTSMAN

A1 - 10-PLEX COMPOSITE BUILDING PLANS

A2 - 10-PLEX 'A' ELEVATION / ROOF PLANS & ELEVATIONS
A3 - 10-PLEX 'B' ELEVATION / ROOF PLANS & ELEVATIONS

A4 - 10-PLEX UNITS 1 & 3 / FLOOR PLANS
A5 - 10-PLEX UNITS 2A & 2B / FLOOR PLANS

A6 - 10-PLEX COLOR BOARDS AND EXTERIOR COLOR & MATERIALS

A7 - 11-PLEX COMPOSITE 1ST FLOOR PLANS
A8 - 11-PLEX COMPOSITE 2ND FLOOR PLANS
A9 - 11-PLEX COMPOSITE 3RD FLOOR PLANS

A10 - 11-PLEX TRANSITIONAL MEDITERRANEAN ELEVATIONS - FRONT & REAR
A11 - 11-PLEX TRANSITIONAL MEDITERRANEAN ELEVATIONS - SIDES & ROOF PLAN
A12 - 11-PLEX TRANSITIONAL CRAFTSMAN ELEVATIONS - FRONT & REAR
A13 - 11-PLEX TRANSITIONAL CRAFTSMAN ELEVATIONS - SIDES & ROOF PLAN

A14 - 11-PLEX COLOR AND MATERIAL SELECTIONS & BOARDS

A15 - POOL BUILDING - FLOOR PLAN & ROOF PLAN
A16 - POOL BUILDING - ELEVATIONS
A17 - POOL BUILDING - COLOR AND MATERIAL SELECTIONS & BOARDS

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WHA.
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PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COVER SHEET

SHEET NO.
A0.1



EASTWALK PA-1

COLOR & ELEVATION ASSIGNMENTS

BUILDING NO.	BUILDING TYPE	ARCHITECTURAL STYLE	COLOR SCHEME
1	11-PLEX	Transitional Craftsman	TC - 5
2	10-PLEX	Vineyard	V - 3
3	10-PLEX	Mediterranean	M - 2
4	10-PLEX	Mediterranean	M - 1
5	10-PLEX	Vineyard	V - 3
6	10-PLEX	Mediterranean	M - 1
7	10-PLEX	Vineyard	V - 3
8	10-PLEX	Mediterranean	M - 2
9	11-PLEX	Transitional Mediterranean	TM - 1
10	11-PLEX	Transitional Craftsman	TC - 4
11	11-PLEX	Transitional Mediterranean	TM - 3
12	11-PLEX	Transitional Craftsman	TC - 6
13	11-PLEX	Transitional Craftsman	TC - 5
14	11-PLEX	Transitional Mediterranean	TM - 2
15	11-PLEX	Transitional Mediterranean	TM - 1
16	10-PLEX	Mediterranean	M - 1

COLOR AND ELEVATION DIAGRAM / ASSIGNMENTS

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MASTER DEVELOPMENT PLAN

SHEET TITLE
COLOR AND ELEVATION DIAGRAM / ASSIGNMENTS

SHEET NO.
A0.2

10-Plex Detail Elements - Mediterranean and Vineyard

Planning Area 1 features eight 10-plex multi-family condominium buildings. This housing type provides the highest density and the largest buildings, which create a dynamic urban streetscape. Every front door faces a community street or pedestrian paseo to reinforce this neighborhood as pedestrian oriented. The buildings feature Mediterranean and Vineyard architecture with a variety of enhanced materials including wood siding, stone veneer and stucco detailing. The buildings have well-organized facades with repeated forms to define a classic urban style that will stand the test of time.

Despite their compact arrangement, each residence is provided with important amenities to make it livable and memorable such as private entries at grade, private decks on the second floor, and two-car garage.

Architectural Features:

- Private entries.
- Diverse accent materials including wood siding, stone veneer, stucco corbels, stucco trim and contrasting color blocking.
- Private covered decks.
- Alignment to paseos and streets.



Conceptual Elevation











Private Entries



Diverse Accent Materials



Covered Decks



Front Doors Oriented Towards Paseos and Streets

Note: Artist's Conception: Colors, Materials and Application may Vary.

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		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITTAL		
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ORANGE COUNTY . LOS ANGELES . BAY AREA . SACRAMENTO

PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
10-PLEX DETAIL ELEMENTS MEDITERRANEAN AND VINEYARD

SHEET NO.
A0.3















Detail Elements • Transitional Mediterranean

1 Stucco

2 Low-pitched Hipped Roofs

3 Low-Profile Concrete "S" Tile

4 Covered Porches and / or Decks

5 Color Field: Light to Medium Warm tone

6 Metal Railing

7 Metal Awning

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SHEET TITLE
11-PLEX DETAIL ELEMENTS TRANSITIONAL MEDITERRANEAN

SHEET NO.
A0.4



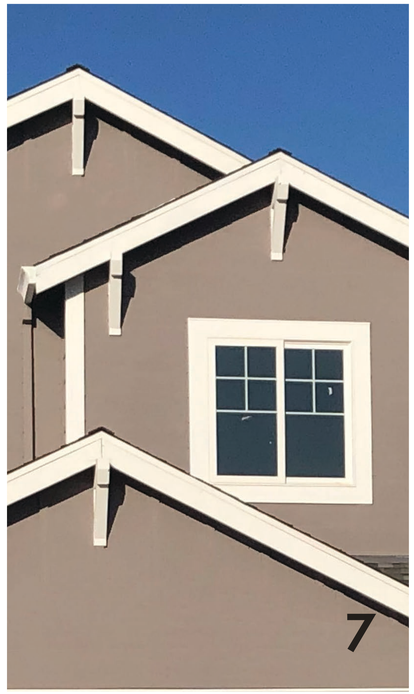












Detail Elements • Transitional Craftsman

1 Stucco

2 Low-pitched Gabled Roofs

3 Composition Shingle Roof

4 Extended Eaves

5 Simple Window Break-ups

6 Covered Porch

7 Knee Brace

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SHEET TITLE
11-PLEX DETAIL ELEMENTS TRANSITIONAL CRAFTSMAN

SHEET NO.
A0.5

BUILDING INFORMAITON

TYPE OF CONSTRUCTION: V-B

OCCUPANCY TYPE: R2

SPRINKLERS: NFPA-13



10-PLEX - SECOND LEVEL FLOOR PLAN



10-PLEX - THIRD LEVEL FLOOR PLAN



10-PLEX - FIRST LEVEL FLOOR PLAN

10-PLEX - COMPOSITE BUILDING PLANS

SHEET SCALE: 1'-8" = 1'-0"

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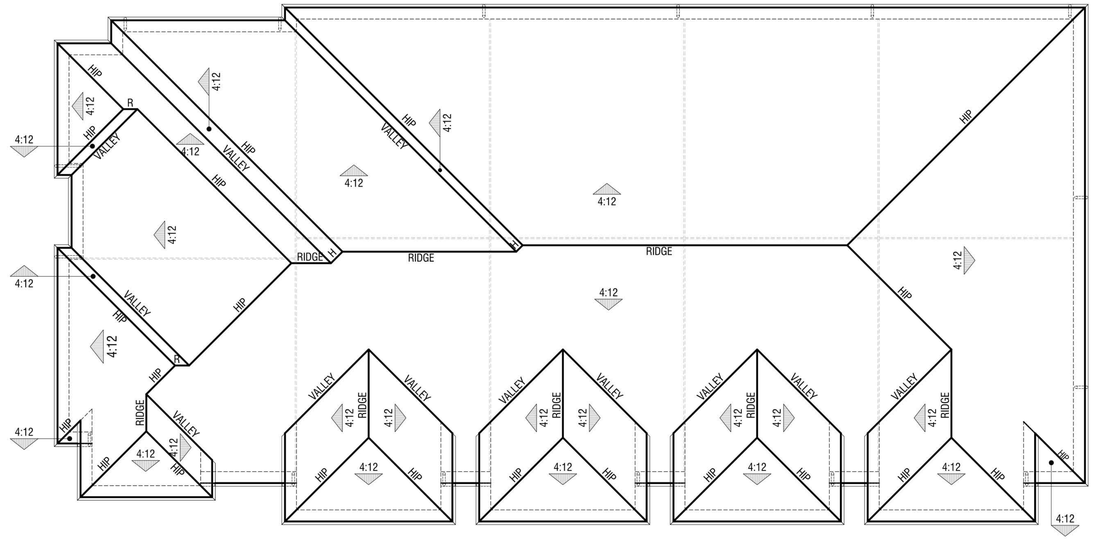
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SHEET TITLE
10-PLEX
COMPOSITE
BUILDING PLANS

SHEET NO.
A1



BLDG 100A - ROOF PLAN - MEDITERRANEAN

ROOF INFORMATION

EAVE - 1'-6"
RAKE - 1'-0"
MATERIAL - CONCRETE 'S' TILE



BLDG 100A - RIGHT ELEVATION - MEDITERRANEAN



BLDG 100A - REAR ELEVATION - MEDITERRANEAN



BLDG 100A - LEFT ELEVATION - MEDITERRANEAN

MATERIAL LEGEND

1. CONCRETE 'S' TILE
2. STUCCO FINISH - PRIMARY
3. STUCCO FINISH - SECONDARY
4. FOAM TRIM
5. VINYL WINDOW w/ GRIDS
6. LIGHT FIXTURE - VISUAL COMFORT BASKERVILLE - BRONZE - 89940-782
7. SECTIONAL GARAGE DOOR
8. METAL RAILING
9. ILLUMINATED ADDRESS SIGN
10. STUCCO CONTROL JOINT
11. FOAM CORBEL
12. METAL AWNING
13. STONE VENEER



BLDG 100A - FRONT ELEVATION - MEDITERRANEAN

10-PLEX - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-8" = 1'-0"

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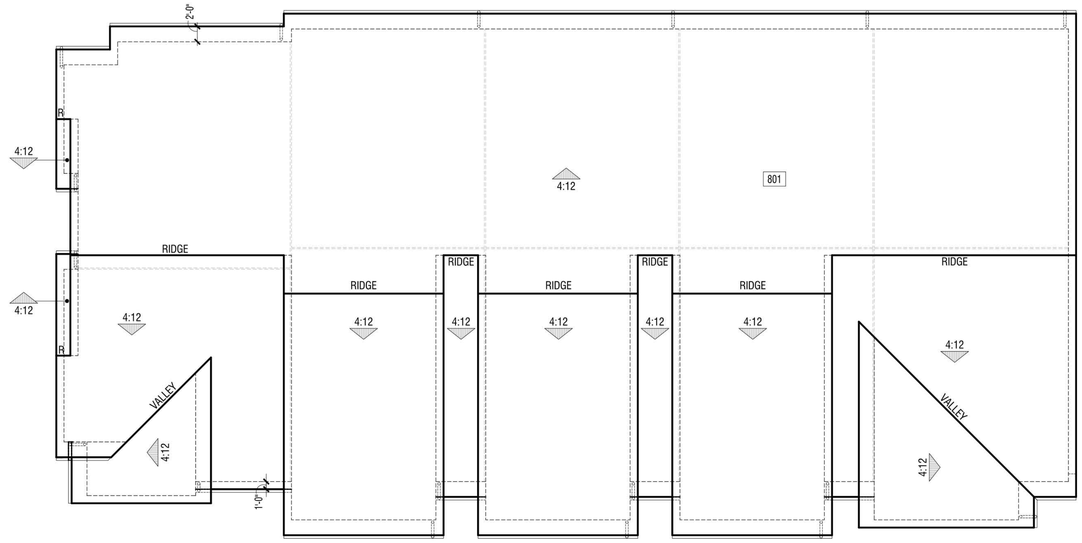
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SHEET TITLE
10-PLEX
'A' ELEVATION/
ROOF PLANS &
ELEVATIONS

SHEET NO.
A2



BLDG 100B - ROOF PLAN - VINEYARD

ROOF INFORMATION

EAVE - 2'-0"
RAKE - 1'-0"
MATERIAL - CONCRETE FLAT TILE



BLDG 100B - RIGHT ELEVATION - VINEYARD



BLDG 100B - REAR ELEVATION - VINEYARD



BLDG 100B - LEFT ELEVATION - VINEYARD

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. STUCCO FINISH - SECONDARY
4. FOAM TRIM
5. WOOD TRIM
6. VERTICAL SIDING
7. VINYL WINDOW w/ GRIDS
8. LIGHT FIXTURE - VISUAL COMFORT VADO - BRONZE - 8731101-12
9. SECTIONAL GARAGE DOOR
10. WOOD RAILING
11. ILLUMINATED ADDRESS SIGN
12. STONE VENEER
13. METAL AWNING
14. HORIZONTAL SIDING



BLDG 100B - FRONT ELEVATION - VINEYARD

10-PLEX - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May vary.

SHEET SCALE: 1'-8" = 1'-0"

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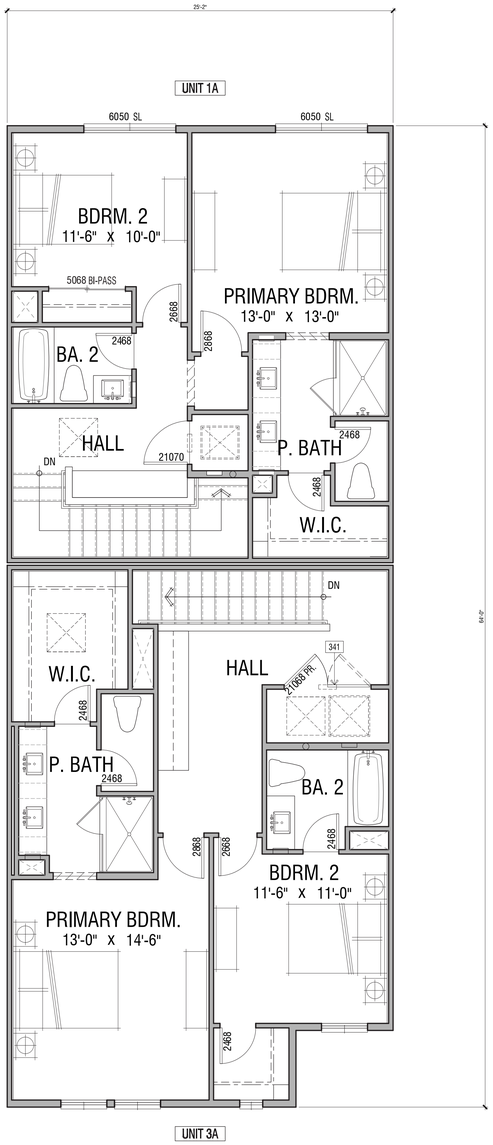
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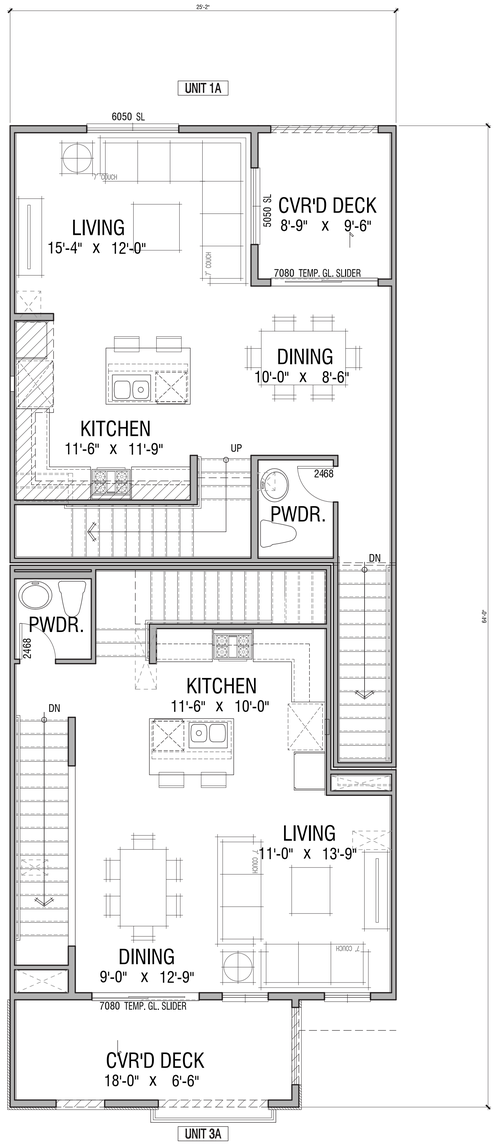
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'B' ELEVATION/
ROOF PLANS &
ELEVATIONS

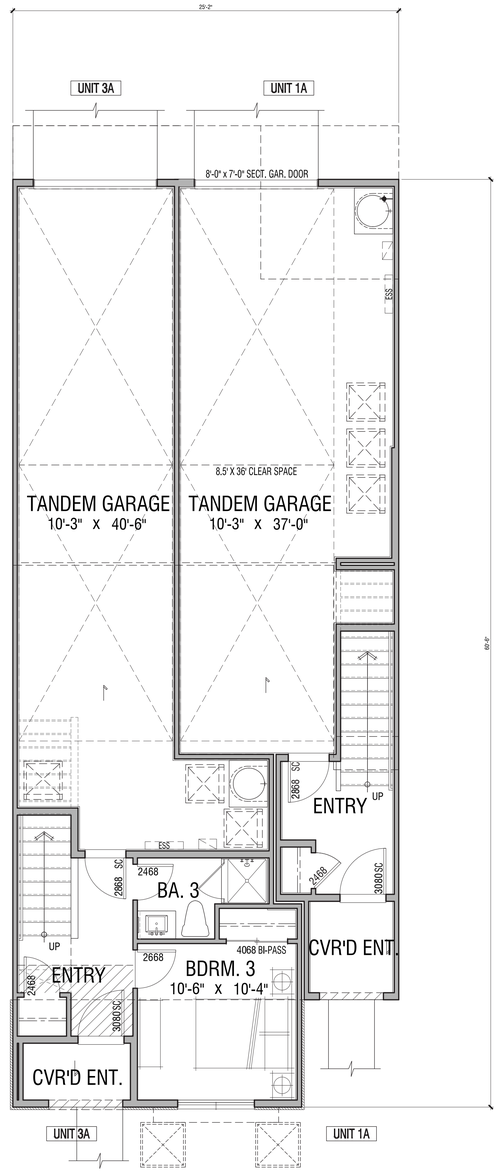
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A3



UNITS 1 & 3 - THIRD LEVEL FLOOR PLAN



UNITS 1 & 3 - SECOND LEVEL FLOOR PLAN



UNITS 1 & 3 - FIRST LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - UNIT 1	
ROOM TYPE	QUANTITY
BEDROOM(S)	2
BATH(S)	2.5

MARKETING FLOOR AREA TABLE	UNIT 1A
(MEASURED TO OUTSIDE FACE OF EXTERIOR WALL)	
FIRST LEVEL	125 SQ. FT.
SECOND LEVEL	629 SQ. FT.
THIRD LEVEL	644 SQ. FT.
TOTAL	1398 SQ. FT.
TANDEM GARAGE	509 SQ. FT.
COVERED ENTRY	40 SQ. FT.
COVERED DECK	90 SQ. FT.

DWELLING PLAN SUMMARY - UNIT 3	
ROOM TYPE	QUANTITY
BEDROOM(S)	3
BATH(S)	3.5

MARKETING FLOOR AREA TABLE	UNIT 3A
(MEASURED TO OUTSIDE FACE OF EXTERIOR WALL)	
FIRST LEVEL	310 SQ. FT.
SECOND LEVEL	588 SQ. FT.
THIRD LEVEL	810 SQ. FT.
TOTAL	1708 SQ. FT.
2-BAY GARAGE	495 SQ. FT.
COVERED ENTRY	32 SQ. FT.
COVERED DECK	122 SQ. FT.

10-PLEX UNITS 1 & 3 - FLOOR PLANS

SHEET SCALE: 1'-8" = 1'-0"

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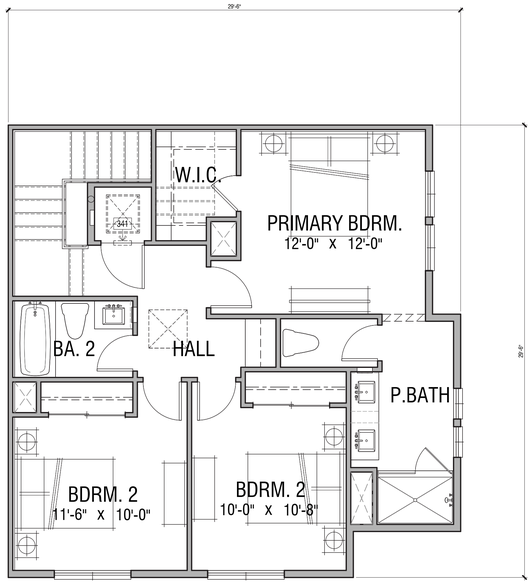
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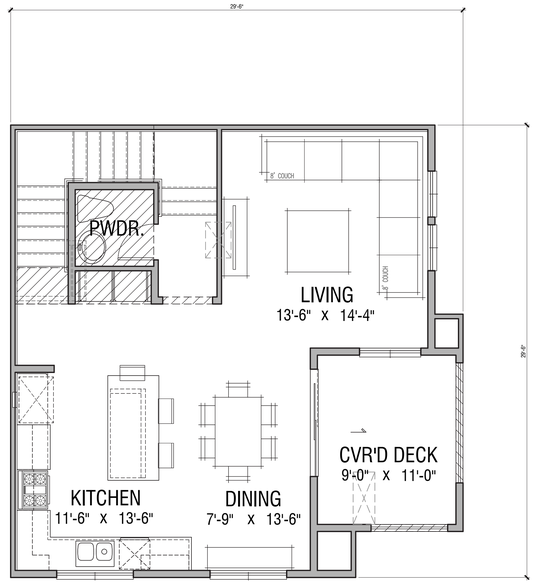
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MASTER DEVELOPMENT PLAN

SHEET TITLE
10-PLEX
UNITS 1 & 3 / FLOOR PLANS

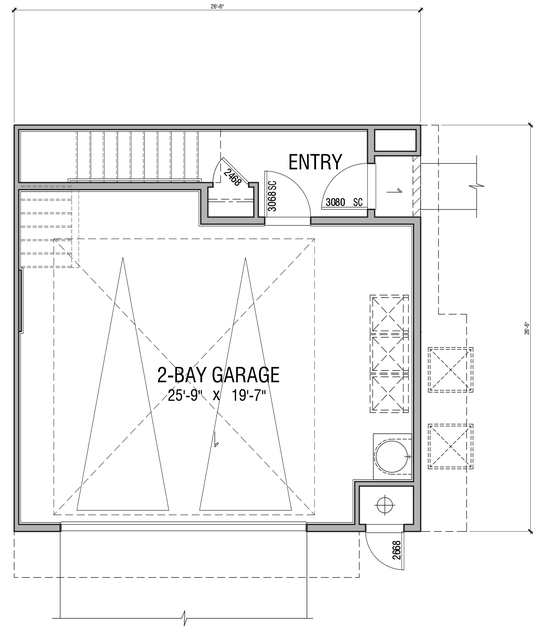
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UNIT 2A - THIRD LEVEL FLOOR PLAN



UNITS 2A - SECOND LEVEL FLOOR PLAN



UNITS 2A - FIRST LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - UNIT 2	
ROOM TYPE	QUANTITY
BEDROOM(S)	3
BATH(S)	2.5

MARKETING FLOOR AREA TABLE	UNIT 2A
(MEASURED TO OUTSIDE FACE OF EXTERIOR WALL)	
FIRST LEVEL	143 SQ. FT.
SECOND LEVEL	799 SQ. FT.
THIRD LEVEL	754 SQ. FT.
TOTAL	1692 SQ. FT.
2-BAY GARAGE	548 SQ. FT.
COVERED DECK	110 SQ. FT.
UTILITY CLOSET	12 SQ. FT.

10-PLEX UNIT 2A - FLOOR PLANS

SHEET SCALE: 1'-8" = 1'-0"

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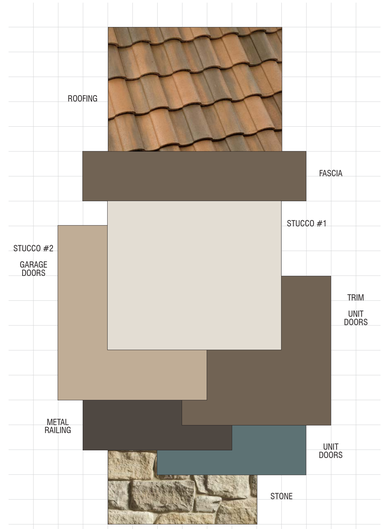
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SHEET TITLE
10-PLEX
UNITS 2A & 2B /
FLOOR PLANS

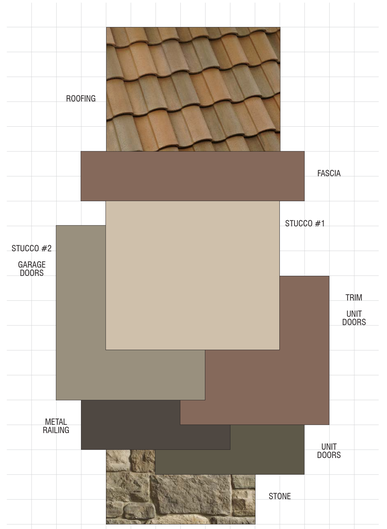
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EASTWALK PA-1 TOWNHOMES
Eastvale, California
THE NEW HOME COMPANY
September 1, 2023 | 2022148

SCHEME 1
'A' Elevations Only
Mediterranean

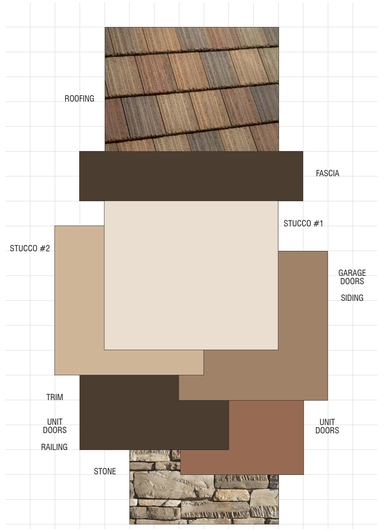
For exact color refer to manufacturers' actual samples.
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EASTWALK PA-1 TOWNHOMES
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SCHEME 2
'A' Elevations Only
Mediterranean

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EASTWALK PA-1 TOWNHOMES
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SCHEME 3
'B' Elevations Only
Vineyard

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[1]EASTWALK PA-1 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
December 8, 2022 | 2022148

Exterior Color & Materials

[1]SCHEME 1 — 'A' ELEVATIONS ONLY, MEDITERRANEAN

Material	Color	Manufacturer
Roofing: Concrete 'S' Tile	3645 Sunrise Blend Ref: .18 Emi: .93 A.SRI: 22 CRRC: 0918-0030	Eagle
Metal Bird Stop @ 'S' Tile *(factory finish)*	Terracotta	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
[2]Manufactured Stone *(standard raked joints)*	Timberwolf Craft Orchard Limestone	Creative Mines
[2]Grout @ Manufactured Stone	Oatmeal	Orco
Stucco Color #1 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7035 Aesthetic White)	Omega
Stucco Color #2 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 9111 Antler Velvet)	Omega
Trim Color #1 *(applied to):* Barge Boards, Eaves, Fascia, Trim, Utility Doors, Unit Doors	SW 7040 Smokehouse	Sherwin Williams
Trim Color #2 *(applied to):* Garage Doors	SW 9111 Antler Velvet	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 6222 Riverway	Sherwin Williams
Metal Railing	SW 7020 Black Fox	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Donna Aldrich (949) 250-0607.

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated. Scheme 2 utility doors added.
2	6/4/23	Additional Mediterranean Scheme added and original Mediterranean Scheme revised per city comments.
3	9/1/23	Stone added to Schemes 1 and 2 per city comments.

[1]EASTWALK PA-1 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
December 8, 2022 | 2022148

Exterior Color & Materials

SCHEME 2 — 'A' ELEVATIONS ONLY, MEDITERRANEAN

Material	Color	Manufacturer
Roofing: Concrete 'S' Tile	3605 San Benito Blend Ref: .20 Emi: .92 A.SRI: 21 CRRC: 0918-0031	Eagle
Metal Bird Stop @ 'S' Tile *(factory finish)*	Terracotta	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
[2]Manufactured Stone *(standard raked joints)*	Tortoiseshell Craft Orchard Limestone	Creative Mines
[2]Grout @ Manufactured Stone	Khaki	Orco
Stucco Color #1 *(16/20 sand finish)*	TBD [2](Match Sherwin Williams SW 7532 Urban Putty)	Omega
Stucco Color #2 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7744 Zeus)	Omega
Trim Color #1 *(applied to):* Barge Boards, Eaves, Fascia, Trim, Utility Doors, Unit Doors	SW 2836 Quartersawn Oak	Sherwin Williams
Trim Color #2 *(applied to):* Garage Doors	SW 7744 Zeus	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 6167 Garden Gate	Sherwin Williams
Metal Railing	SW 7020 Black Fox	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

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3	9/1/23	Stone added to Schemes 1 and 2 per city comments.

[1]EASTWALK PA-1 TOWNHOMES

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Exterior Color & Materials

SCHEME 3 — 'B' ELEVATIONS ONLY, VINEYARD

Material	Color	Manufacturer
Roofing: Concrete Shake Tile	5671 Village Blend Ref: .17 Emi: .93 A.SRI: 17 CRRC: 0918-0039	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Manufactured Stone *(dry stack joints)*	Timberwolf Craft Peak Ledge	Creative Mines
Stucco Color #1 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 6140 Moderate White)	Omega
Stucco Color #2 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 9102 Quinoa)	Omega
Siding Color *(applied to):* Corner Boards, Garage Doors, Vertical Siding, [1]Utility Doors	SW 7522 Meadowlark	Sherwin Williams
Trim Color *(applied to):* Barge Boards, Braces, Eaves, Fascia, Railing, Trim, Unit Doors	SW 9183 Dark Clove	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 7705 Wheat Penny	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

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REVISIONS:

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10-PLEX COLOR BOARDS AND EXTERIOR COLOR & MATERIALS

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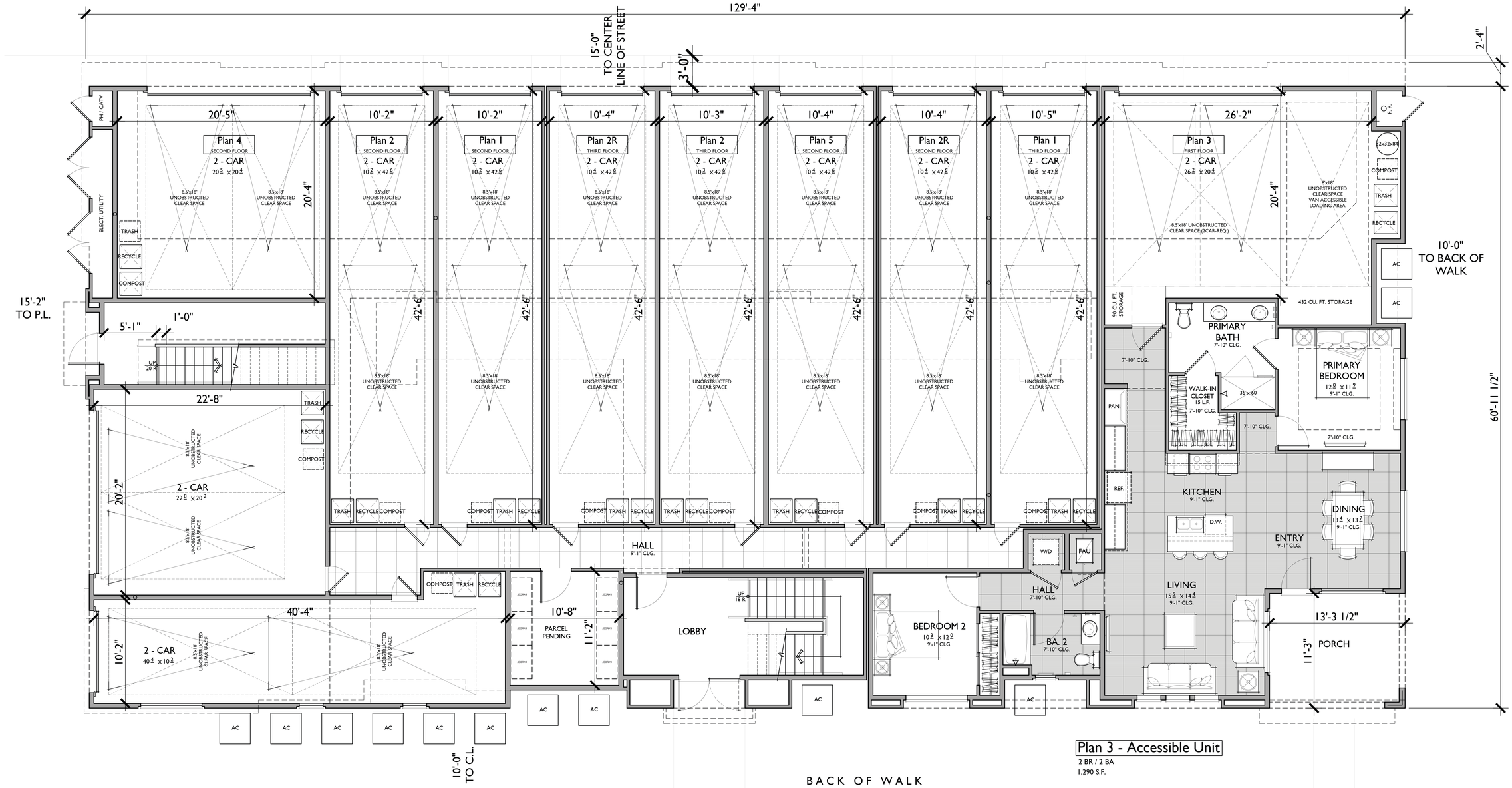
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MASTER DEVELOPMENT PLAN

SHEET TITLE
10-PLEX
COLOR BOARDS AND EXTERIOR COLOR & MATERIALS

SHEET NO.
A6



Plan 3 - Accessible Unit

2 BR / 2 BA
1,290 S.F.

CONCEPTUAL FIRST FLOOR COMPOSITE PLAN

REFLECT ELEV 'A' - TRANSITIONAL MEDITERRANEAN

11-PLEX SUMMARY

UNIT TYPES	BR / BA	LIVABLE	GARAGE	PROPOSED STORAGE SPACE	PROPOSED PRIVATE OPEN SPACE (PORCH / DECK)
PLAN 1	1 BR / 1 BA	772 SF	471 SF	576 CF	94 SF
PLAN 2	2 BR / 2 BA	956 SF	471 SF	765 CF	64 SF
PLAN 2R	2 BR / 2 BA	956 SF	469 SF	936 CF	64 SF
PLAN 3 (ACCESSIBLE*)	2 BR / 2 BA	1,290 SF	645 SF	522 CF	149 SF
PLAN 4	3 BR / 2 BA	1,494 SF	447 SF	900 CF	111 SF
PLAN 5	3 BR / 2 BA	1,643 SF	467 SF	711 CF	124 SF

Note: Square footage values are approximate and subject to change.
*** Plan 3 will be accessible where required, per chapter 11A of the 2019 C.B.C.**

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		10/03/23	FOURTH CITY SUBMITTAL		

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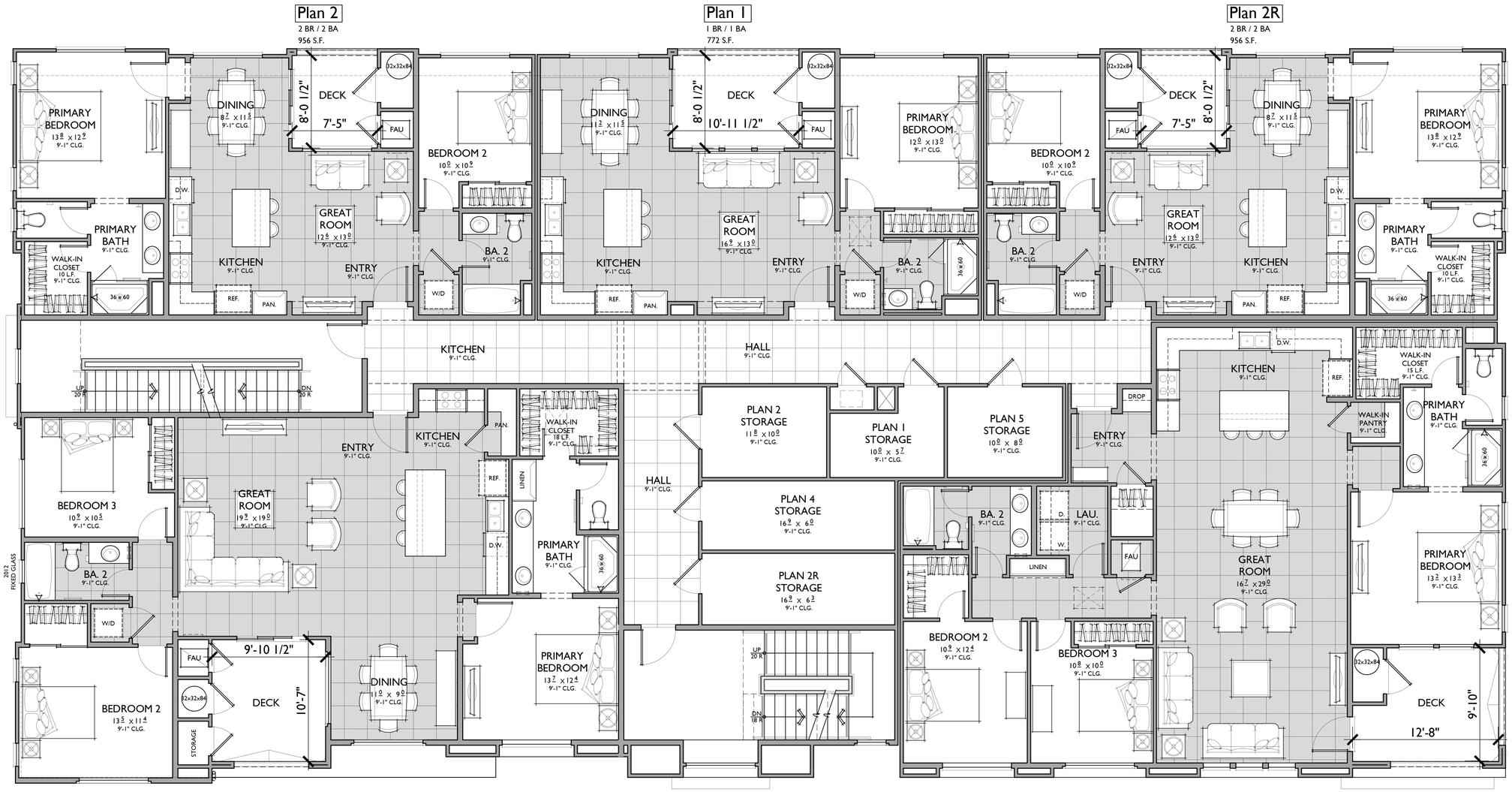
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
11-PLEX COMPOSITE 1ST FLOOR PLANS

SHEET NO.
A7



CONCEPTUAL SECOND FLOOR COMPOSITE PLAN

REFLECT ELEV 'A' - TRANSITIONAL MEDITERRANEAN

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			ARCHITECT		CITY

CITY OF EASTVALE

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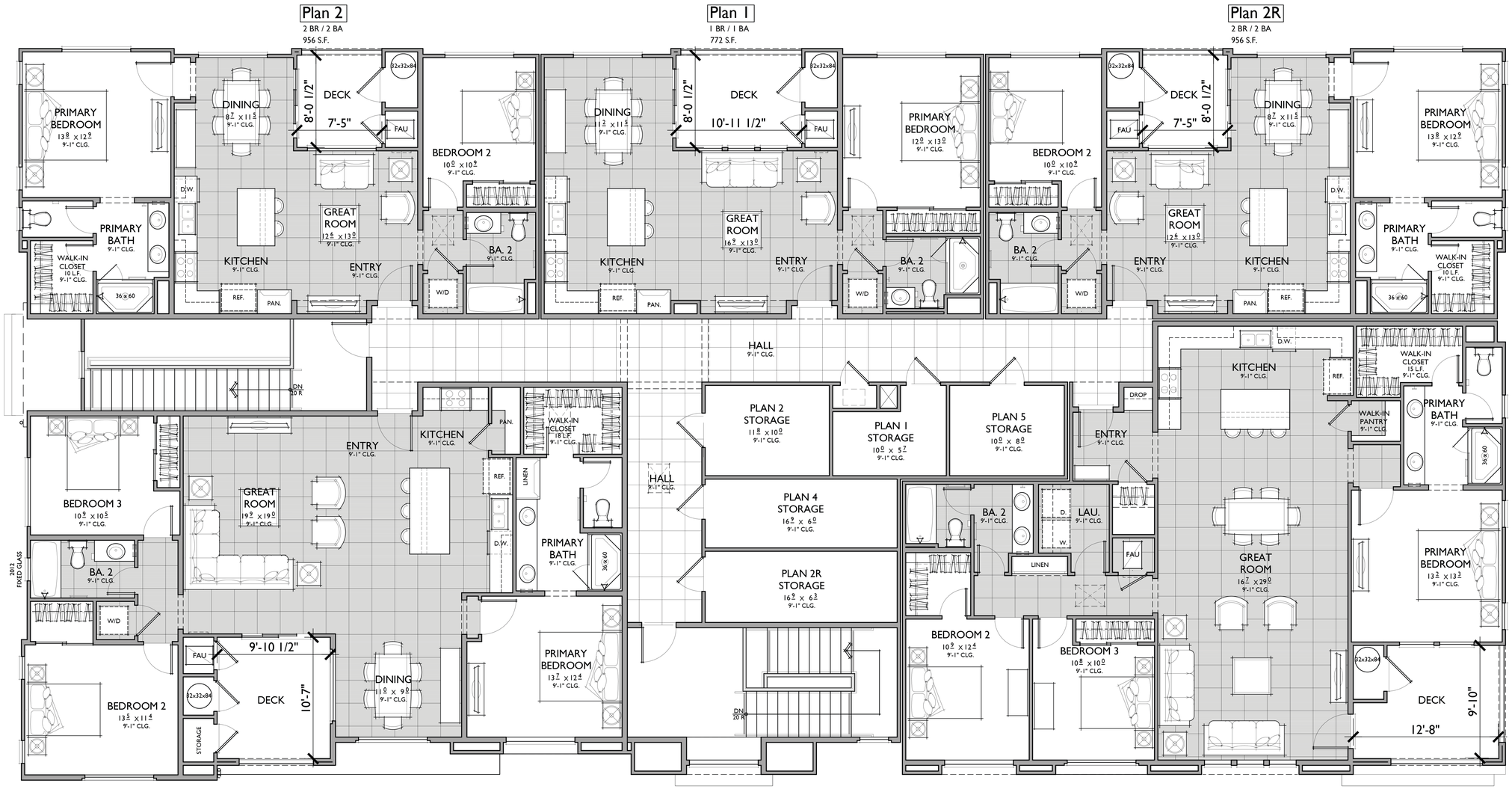
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
11-PLEX COMPOSITE 2ND FLOOR PLANS

SHEET NO.
A8



CONCEPTUAL THIRD FLOOR COMPOSITE PLAN

REFLECT ELEV 'A' - TRANSITIONAL MEDITERRANEAN

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SHEET TITLE
11-PLEX COMPOSITE 3RD FLOOR PLANS

SHEET NO.
A9



FRONT

A - TRANSITIONAL MEDITERRANEAN

130'-0"

1/4"=1'-0"



REAR

130'-0"

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. STUCCO (SAND FINISH)
D. FOAM TRIM
E. CEMENTITIOUS HORIZONTAL SIDING
F. VINYL WINDOW
G. LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. CRAFTSMAN (B) # 8552701-12
H. ROLL UP GARAGE DOOR
I. METAL AWNING
J. METAL RAILING
K. ILLUMINATED ADDRESS SIGN
L. WOOD KNEE BRACE
M. CONTROL JOINT (STUCCO)

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MASTER DEVELOPMENT PLAN

SHEET TITLE
11-PLEX TRANSITIONAL MEDITERRANEAN ELEVATIONS FRONT & REAR

SHEET NO.
A10



RIGHT

61'-5 1/2"

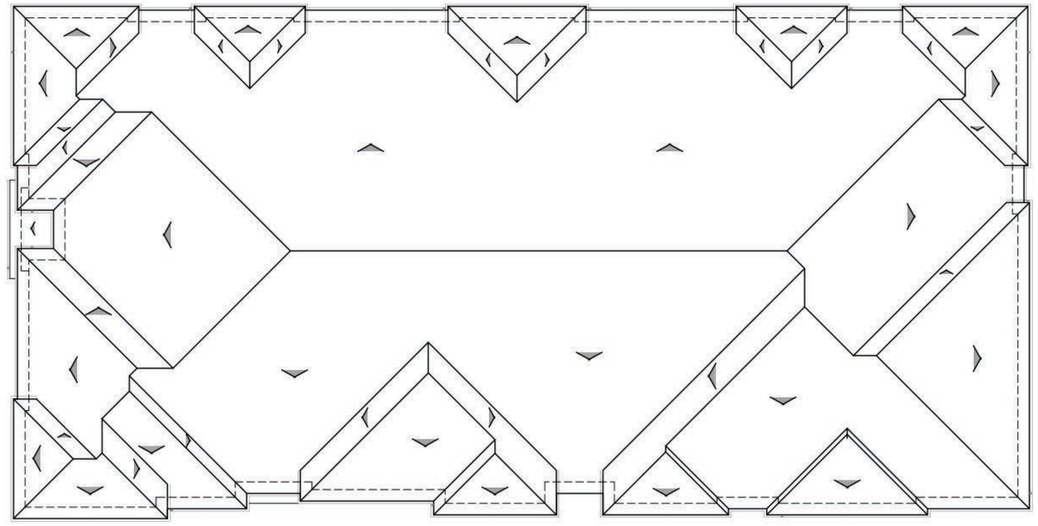


LEFT

61'-5 1/2"

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. STUCCO (SAND FINISH)
D. FOAM TRIM
E. CEMENTITIOUS HORIZONTAL SIDING
F. VINYL WINDOW
G. LIGHT FIXTURE
   T. MEDITERRANEAN (A)
   # 8720701EN3-12
   T. CRAFTSMAN (B)
   # 8552701-12
H. ROLL UP GARAGE DOOR
I. METAL AWNING
J. METAL RAILING
K. ILLUMINATED ADDRESS SIGN
L. WOOD KNEE BRACE
M. CONTROL JOINT (STUCCO)



BUILDING ROOF PLAN

A

PITCH: 4:12
RAKE: 18"
EAVE: 18"
ROOF MATERIAL: CONCRETE 'S' TILE

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
11-PLEX TRANSITIONAL MEDITERRANEAN ELEVATIONS SIDES & ROOF PLAN

SHEET NO.
A11



FRONT

B - TRANSITIONAL CRAFTSMAN

130'-0"

1/4"=1'-0"



REAR

130'-0"

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. STUCCO (SAND FINISH)
D. FOAM TRIM
E. CEMENTITIOUS HORIZONTAL SIDING
F. VINYL WINDOW
G. LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. CRAFTSMAN (B) # 8552701-12
H. ROLL UP GARAGE DOOR
I. METAL AWNING
J. METAL RAILING
K. ILLUMINATED ADDRESS SIGN
L. WOOD KNEE BRACE
M. CONTROL JOINT (STUCCO)

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
11-PLEX
TRANSITIONAL
CRAFTSMAN ELEVATIONS
FRONT & REAR

SHEET NO.
A12

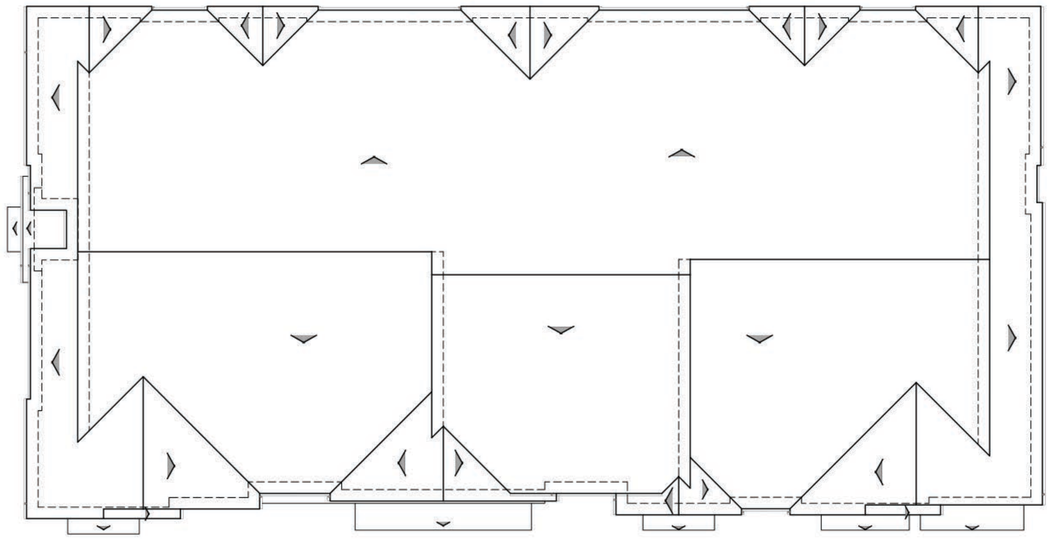


RIGHT



MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. STUCCO (SAND FINISH)
D. FOAM TRIM
E. CEMENTITIOUS HORIZONTAL SIDING
F. VINYL WINDOW
G. LIGHT FIXTURE
   T. MEDITERRANEAN (A)
   # 8720701EN3-12
   T. CRAFTSMAN (B)
   # 8552701-12
H. ROLL UP GARAGE DOOR
I. METAL AWNING
J. METAL RAILING
K. ILLUMINATED ADDRESS SIGN
L. WOOD KNEE BRACE
M. CONTROL JOINT (STUCCO)



BUILDING ROOF PLAN B

PITCH: 4:12 U.N.O.
RAKE: 18"
EAVE: 18"
ROOF MATERIAL: CONCRETE FLAT TILE

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
11-PLEX
TRANSITIONAL
CRAFTSMAN ELEVATIONS
SIDES & ROOF PLAN

SHEET NO.
A13

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COLOR SELECTION CHART

ROOF: EAGLE
PAINT: SHERWIN WILLIAMS
WROUGHT IRON: SW 6990 CAVIAR
GUTTERS & DOWNSPOUTS: CUSTOM BILT METALS

DECEMBER 5, 2022

	SCHEMES 1-2 ARE TRANSITIONAL MEDITERRANEAN ELEVATIONS			SCHEMES 3-4 ARE TRANSITIONAL CRAFTSMAN ELEVATIONS		
SCHEME #	**1**	**2**	**3**	**4**	**5**	**6**
FASCIA, EAVES, TRIM, & GARAGE DOOR	SW 7505 MANOR HOUSE	SW 0038 LIBRARY PEWTER	SW 6069 FRENCH ROAST	SW 7040 SMOKEHOUSE	SW 7027 HICKORY SMOKE	SW 7562 ROMAN COLUMN
FRONT ENTRY DOOR	SW 7625 MOUNT ETNA	SW 0008 CAJUN RED	SW 6186 DRIED TH THYME	SW 6062 RUGGED BROWN	SW 7730 FORESTWOOD	SW 7604 SMOKY BLUE
BASE STUCCO	SW 7102 WHITE FLOUR	SW 6119 ANTIQUE WHITE	SW 6149 RELAXED KHAKI	SW 7568 NEUTRAL GROUND	SW 2822 DOWNING SAND	SW 7546 PRAIRIE GRASS
ACCENT #1	SW 7043 WORLDLY GRAY	SW 7543 AVENUE TAN	SW 9174 MOTH WING	SW 7533 KHAKI SHADE	SW 7549 STUDIO TAUPE	SW 7562 ROMAN COLUMN
ACCENT #2	----------	----------	----------	SW 9131 CORNWALL SLATE	SW 7074 SOFTWARE	SW 6095 TOASTY
SIDING	SW 7505 MANOR HOUSE	SW 0038 LIBRARY PEWTER	SW 6069 FRENCH ROAST	SW 7040 SMOKEHOUSE	SW 7027 HICKORY SMOKE	SW 7562 ROMAN COLUMN
ROOF TILE	3646	3814	3816	5689	SCP 8801	5582
GUTTERS & DOWNSPOUT	WEATHERED COPPER	BEAVER BROWN	BEAVER BROWN	BRONZE	WEATHERED COPPER	SATIN WHITE

LEAL RANCH - 11 PLEX

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SCHEME #1 | TRANSITIONAL MEDITERRANEAN ELEVATIONS



ROOF
EAGLE - 3646 SUNSET BLEND

BASE STUCCO
SW 7102 WHITE FLOUR

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7505 MANOR HOUSE

FRONT DOOR
SW 7625 MOUNT ETNA

ACCENT STUCCO
SW 7043 WORLDLY GRAY

SIDING
SW 7505 MANOR HOUSE

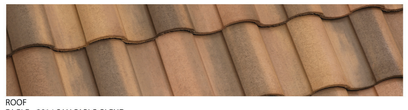
LEAL RANCH - 11 PLEX

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SCHEME #2 | TRANSITIONAL MEDITERRANEAN ELEVATIONS



ROOF
EAGLE - 3814 SAN PABLO BLEND

BASE STUCCO
SW 6119 ANTIQUE WHITE

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 0038 LIBRARY PEWTER

FRONT DOOR
SW 0008 CAJUN RED

ACCENT STUCCO
SW 7543 AVENUE TAN

SIDING
SW 0038 LIBRARY PEWTER

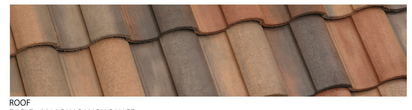
LEAL RANCH - 11 PLEX

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SCHEME #3 | TRANSITIONAL MEDITERRANEAN ELEVATIONS



ROOF
EAGLE - 3816 SAN RAMON RANGE

BASE STUCCO
SW 6149 RELAXED KHAKI

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 6069 FRENCH ROAST

FRONT DOOR
SW 6186 DRIED THYME

ACCENT STUCCO
SW 9174 MOTH WING

SIDING
SW 6069 FRENCH ROAST

LEAL RANCH - 11 PLEX

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SCHEME #4 | TRANSITIONAL CRAFTSMAN ELEVATIONS



ROOF
EAGLE - 5689 BROWN RANGE

BASE STUCCO
SW 7568 NEUTRAL GROUND

FASCIA, EAVES, TRIM, SIDING & GARAGE DOOR
SW 7040 SMOKEHOUSE

FRONT DOOR
SW 6062 RUGGED BROWN

ACCENT STUCCO #1
SW 7533 KHAKI SHADE

ACCENT STUCCO #2
SW 9131 CORNWALL SLATE

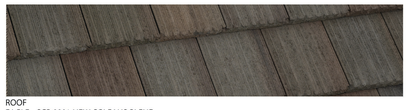
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SCHEME #5 | TRANSITIONAL CRAFTSMAN ELEVATIONS



ROOF
EAGLE - SCP 8801 NEW ORLEANS BLEND

BASE STUCCO
SW 2822 DOWNING SAND

FASCIA, EAVES, TRIM, SIDING & GARAGE DOOR
SW 7027 HICKORY SMOKE

FRONT DOOR
SW 7730 FORESTWOOD

ACCENT STUCCO #1
SW 7549 STUDIO TAUPE

ACCENT STUCCO #2
SW 7074 SOFTWARE

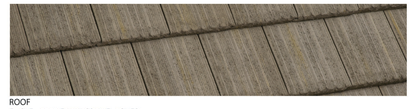
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SCHEME #6 | TRANSITIONAL CRAFTSMAN ELEVATIONS



ROOF
EAGLE - 5582 FAWN GRAY FLASHED

BASE STUCCO
SW 7546 PRAIRIE GRASS

FASCIA, EAVES, TRIM, SIDING & GARAGE DOOR
SW 7562 ROMAN COLUMN

FRONT DOOR
SW 7504 SMOKY BLUE

ACCENT STUCCO #1
SW 7562 ROMAN COLUMN

ACCENT STUCCO #2
SW 6095 TOASTY

LEAL RANCH - 11 PLEX

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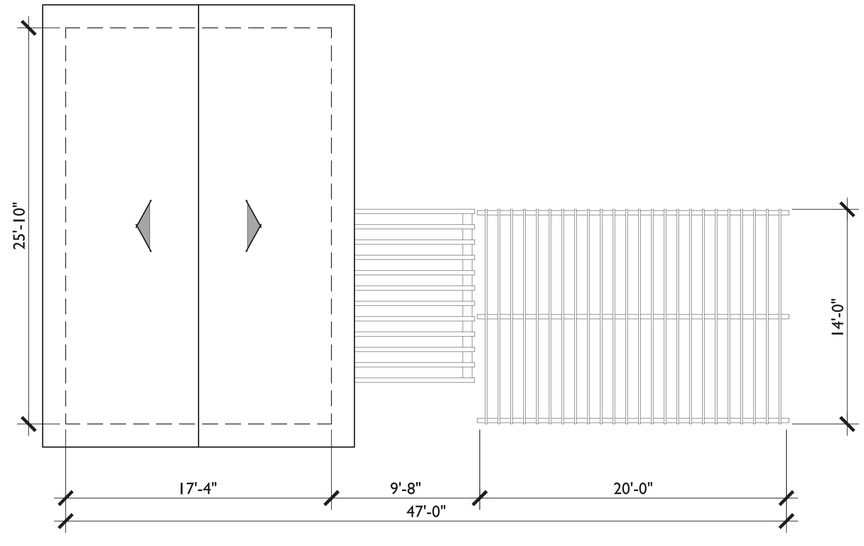
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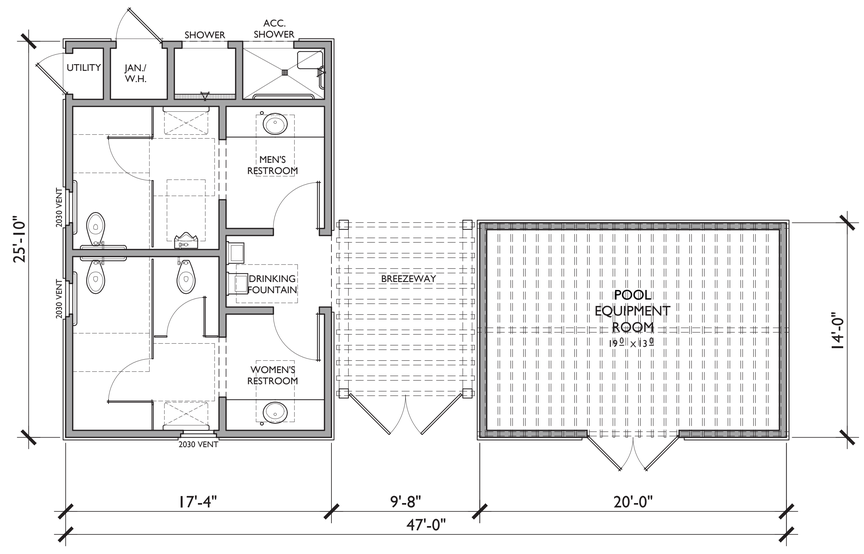
SHEET TITLE
11-PLEX
COLOR AND
MATERIAL SECTIONS
& BOARDS

SHEET NO.
A14



ROOF PLAN

PITCH: 4:12 U.N.O
RAKE: 18"
EAVE: 18"
ROOF MATERIAL: COMP SHINGLE



RESTROOM/ POOL BUILDING	
RESTROOM	382 SQ. FT.
POOL EQUIPMENT ROOM	280 SQ. FT.
SHOWERS	41 SQ. FT.
UTILITIES	25 SQ. FT.
TOTAL INDOOR AREA	**728 SQ. FT.**
BREEZEWAY	109 SQ. FT.
TOTAL	**837 SQ. FT.**

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

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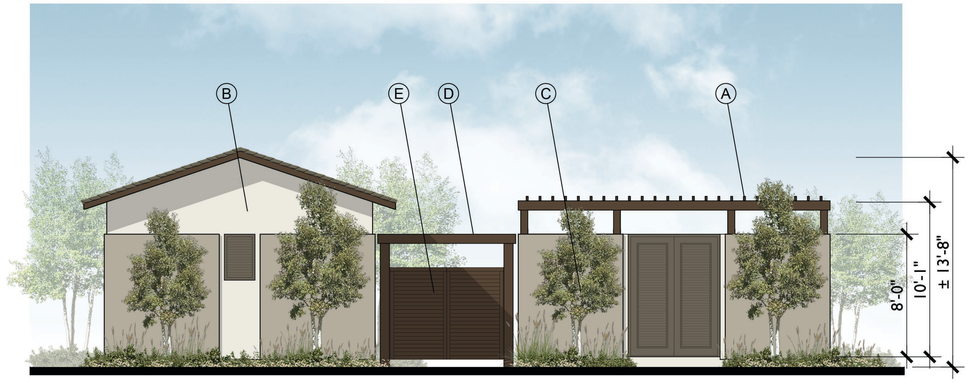
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
POOL BUILDING FLOOR PLAN & ROOF PLAN

SHEET NO.
A15



LEFT



FRONT

A. WOOD TRELLIS
B. STUCCO
C. ACCENT STUCCO
D. WOODEN KNEE BRACE
E. TRELLIS
F. METAL GATE



RIGHT



REAR

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
POOL BUILDING ELEVATIONS

SHEET NO.
A16

COLOR SELECTION CHART

AUGUST 1, 2023

ROOF: GAF TIMBERLINE HD REFLECTOR SERIES PLUS
PAINT: SHERWIN WILLIAMS
GUTTERS & DOWNSPOUT: CUSTOM BILT METALS OR EQUAL
WINDOWS: MILGARD OR EQUAL

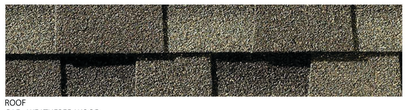
FASCIA, EAVES, TRIM, POSTS, BRACE, DOORS, GATES, SHUTTERS & TRELLIS	SW 7041 VAN DYKE BROWN
BASE STUCCO	SW 7008 ALABASTER
ACCENT STUCCO	SW 7644 GATEWAY GRAY
COMPOSITION ROOF **GAF**	GAF TIMBERLINE HD REFLECTOR SERIES PLUS WEATHERED WOOD
GUTTERS & DOWNSPOUTS	MATTE BLACK

EASTWALK - PA-1 REC CENTER

EASTVALE, CALIFRONIA | 752.23073

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POOL BUILDING COLOR & MATERIAL BOARD



ROOF
GAF - WEATHERED WOOD

FASCIA, EAVES, TRIM, POSTS, BRACE, DOORS, GATES, SHUTTERS & TRELLIS
SW 7041 VAN DYKE BROWN

BASE STUCCO
SW 7008 ALABASTER

ACCENT STUCCO
SW 7644 GATEWAY GRAY

EASTWALK - PA-1 REC CENTER

EASTVALE, CALIFRONIA | 752.23073

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		10/03/23	FOURTH CITY SUBMITTAL		

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CITY OF EASTVALE

NEW HOME CO. move forward

Bassenian | Lagoni
ARCHITECTURE • PLANNING • INTERIORS
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2031 Orchard Drive, Suite 100
Newport Beach, CA USA 92660
tel. +1 949 553 9100
fax. +1 949 553 0548

PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

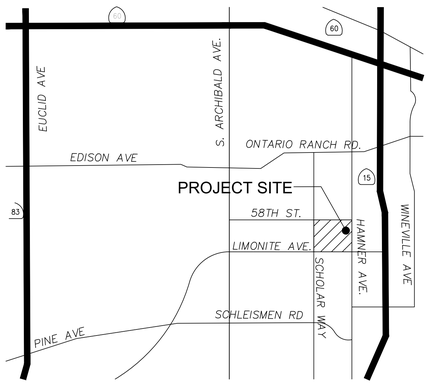
SHEET TITLE
POOL BUILDING COLOR AND MATERIAL SELECTIONS & BOARDS

SHEET NO.
A17

NEW HOME COMPANY
EASTWALK
LIMONITE AVE, HAMNER ST, 58TH ST, SCHOLAR WAY
TENTATIVE TRACT NO. 38290

PHASE 1 - PLANNING AREA 1

VICINITY MAP



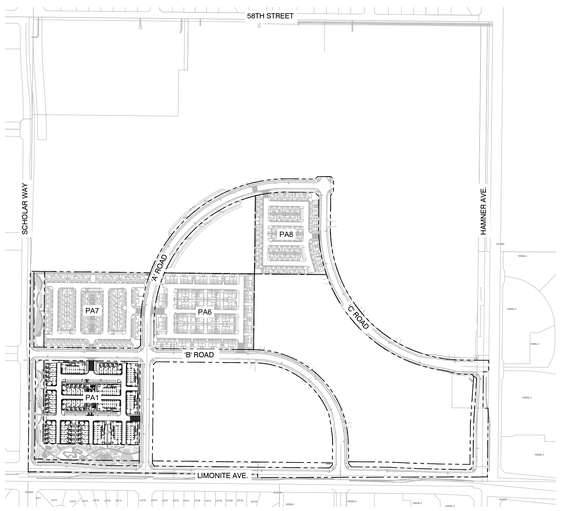
NORTH
N.T.S.

SHEET INDEX

LANDSCAPE SHEETS

SHEET NO.	SHEET TITLE
L-100	LANDSCAPE COVER SHEET
L-101	OVERALL SITE PLAN
L-201	PLANTING LEGEND
L-202	PLANTING IMAGERY BOARD
L-203	PLANTING IMAGERY BOARD
L-204	PLANTING IMAGERY BOARD
L-301	LANDSCAPE SITE PLAN
L-302	ENLARGEMENT PLAN
L-401	FENCE AND WALL ELEVATIONS

LOCATION MAP



GENERAL NOTES

NOTIFICATIONS

APPROVALS

PLAN CHECK #

_____

PLANNING DEPARTMENT
CITY OF EASTVALE, CA

ACCEPTED (PRINT NAME)	SIGNATURE	DATE

CLIENT
NEW HOME COMPANY
15231 LAGUNA CANYON RD,
SUITE 250 IRVINE CA, 92618
949.208.7279
MIKE MILLER
MMILLER@NWHM.COM

LANDSCAPE ARCHITECT
BRIGHTVIEW DESIGN GROUP
8 HUGHES, STE 150
IRVINE, CA 92618
949.514.7906
GLEN SHARRAR
GLEN.SHARRAR@BRIGHTVIEW.COM

ARCHITECT
WHA
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NEWPORT BEACH CA, 92660
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CIVIL ENGINEER
HUNSAKER & ASSOCIATES
2900 ADAMS STREET SUITE A-15
RIVERSIDE, CA 92504
951.509.7038
JOEY VALADEZ
JVALADEZ@HUNSAKER.COM

UTILITIES [CONTRACTOR TO NOTIFY THE FOLLOWING AGENCIES OR UTILITIES 48 HOURS PRIOR TO STARTING CONSTRUCTION OR EXCAVATION.]

ELECTRICAL COMPANY	SOUTHERN CALIFORNIA EDISON	909.930.8431
GAS COMPANY	SOCALGAS	909.758.8691
WATER DISTRICT	JURUPA COMMUNITY SERVICES DISTRICT	951.685.7434
TELEPHONE	VERIZON	909.469.2260
CABLE	AT&T	800.750.2355

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LANDSCAPE ARCHITECT | CITY

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8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
LANDSCAPE COVER SHEET

SHEET NO.
L-100

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

N.A.P

'A' ROAD

'C' ROAD

PLANNING
AREA 8

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

PHASE A PROJECT BOUNDARY

SCHOLAR WAY

HAMNER AVE.

PLANNING
AREA 7

PLANNING
AREA 6

'B' ROAD

PLANNING AREA 1
SITE BOUNDARY

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

'A' ROAD

'B' ROAD

'C' ROAD

LIMONITE AVE.

SCALE: 1" = 120'-0"

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CITY

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
L-101

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	LAURUS NOBILIS SWEET BAY	24" BOX	L
	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L
	OLEA EUROPAEA 'SWAN HILL' SWAN HILL FRUITLESS OLIVE	24" BOX	L
	PHOENIX DACTYLIFERA DATE PALM	FIELD DUG	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	QUERCUS ILEX HOLLY OAK	48" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

SHRUB LEGEND - ACCENTS

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
TRANSITIONAL CRAFTSMAN ARCHITECTURAL STYLE			
ARBUTUS UNEDO 'COMPACTA' DWARF STRAWBERRY TREE	5 GAL	L	48" o.c.
AGAVE ATTENUATA RAY OF LIGHT RAY OF LIGHT FOX TAIL AGAVE	5 GAL	L	36" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW-WOOD	5 GAL	L	48" o.c.
MEDITERRANEAN/TRANSITIONAL MEDITERRANEAN ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ELAEOCARPUS DECIPIENS JAPANESE BLUEBERRY TREE	5 GAL	L	48" o.c.
JUNIPERUS CHINENSIS GREEN COLUMNAR JUNIPER	5 GAL	L	36" o.c.
LAVANDULA ANGUSTIFOLIA ENGLISH LAVENDER	5 GAL	L	36" o.c.
VINEYARD ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
PRUNUS CAROLINIANA CAROLINA CHERRY-LAUREL	5 GAL	L	48" o.c.
PODOCARPUS HENKELII HENKEL'S YELLOWWOOD	5 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS 'TUSCAN BLUE' TUSCAN BLUE ROSEMARY	5 GAL	L	48" o.c.

SHRUB LEGEND - BACKGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ABUTILON PALMERI INDIAN MALLOW	5 GAL	L	48" o.c.
ALYOGYNE HUEGELII BLUE HIBISCUS	5 GAL	L	6'-0" o.c.
ARBUTUS UNEDO 'COMPACTA' COMPACT STRAWBERRY TREE	5 GAL	L	5'-0" o.c.
ARCTOSTAPHYLOS GLANDULOSA EASTWOOD MANZANITA	5 GAL	L	6'-0" o.c.
ARTEMISIA CALIFORNICA CALIFORNIA SAGEBRUSH	1 GAL	L	48" o.c.
BERBERIS AQUIFOLIUM OREGON GRAPE	5 GAL	L	48" o.c.
ECHIUM FASTUOSUM PRIDE OF MADEIRA	5 GAL	L	5'-0" o.c.
HETEROMELES ARBUTIFOLIA TOYON	5 GAL	L	48" o.c.
JUNIPERUS COMMUNIS COMMON JUNIPER	5 GAL	L	48" o.c.
LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	1 GAL	L	48" o.c.
MUHLENBERGIA RIGENS PINK MUHLY GRASS	1 GAL	M	48" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW WOOD	5 GAL	L	48" o.c.
RHUS INTEGRIFOLIA LEMONADE BERRY	5 GAL	L	10'-0" o.c.
RHUS OVATA SUGAR BUSH	5 GAL	L	8'-0" o.c.
RIBES SANGUINEUM RED FLOWERING CURRANT	1 GAL	M	48" o.c.
ROMNEYA COULTERI MATILIJA POPPY	5 GAL	L	6'-0" o.c.
TAGETES LEMMONII COPPER CANYON DAISY	5 GAL	L	8'-0" o.c.
TECOMA X 'ORANGE JUBILEE' ORANGE JUBILEE YELLOW BELLS	5 GAL	L	8'-0" o.c.

SHRUB LEGEND - MIDGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
AGAVE ATTENUATA FOXTAIL AGAVE	5 GAL	L	48" o.c.
AGAVE X 'BLUE FLAME' BLUE FLAME AGAVE	5 GAL	L	36" o.c.
AGAVE X 'BLUE GLOW' BLUE GLOW AGAVE	5 GAL	L	36" o.c.
ANIGOZANTHOS X 'ORANGE CROSS' ORANGE CROSS KANGAROO PAW	1 GAL	L	24" o.c.
BACCHARIS PILULARIS COYOTE BRUSH	1 GAL	L	8'-0" o.c.
BERBERIS THUNBERGII JAPANESE GREENLEAF BARBERRY	5 GAL	M	5'-0" o.c.
CALLISTEMON VIMINALIS 'LITTLE JOHN' LITTLE JOHN WEEPING BOTTLEBRUSH	1 GAL	M	5'-0" o.c.
CISTUS SALVIIFOLIUS 'PROSTRATUS' SAGELEAF ROCKROSE	1 GAL	L	5'-0" o.c.
DIANELLA REVOLUTA 'DTN03' BABY BLISS™ FLAX LILY	1 GAL	L	36" o.c.
EUPHORBIA RIGIDA YELLOW SPURGE	5 GAL	L	36" o.c.
HESPERALOE PARVIFLORA RED YUCCA	1 GAL	L	48" o.c.
JUNCUS PATENS CALIFORNIA GRAY RUSH	1 GAL	L	24" o.c.
KALANCHOE THYRSIFLORA PADDLE PLANT	1 GAL	L	36" o.c.
KNIPHOFIA TRIANGULARIS DWARF RED HOT POKER	1 GAL	M	48" o.c.
KNIPHOFIA UVARIA RED HOT POKER	1 GAL	L	36" o.c.
LAVANDULA STOECHAS SPANISH LAVENDER	5 GAL	L	36" o.c.
LEUCOPHYLLUM CANDIDUM TEXAS SAGE	5 GAL	L	36" o.c.
LOMANDRA LONGIFOLIA 'BREEZE' BREEZE™ MAT RUSH	5 GAL	L	36" o.c.
MELALEUCA NESOPHILA 'LITTLE NESSIE' LITTLE NESSIE PINK MELALEUCA	1 GAL	L	5'-0" o.c.
NANDINA DOMESTICA 'COMPACTA' DWARF HEAVENLY BAMBOO	1 GAL	M	36" o.c.
OLEA EUROPAEA 'MONTRA' LITTLE OLLIE® OLIVE	5 GAL	L	36" o.c.
PHLOMIS FRUTICOSA JERUSALEM SAGE	1 GAL	M	48" o.c.
PRUNUS ILICIFOLIA HOLLYLEAF CHERRY	5 GAL	L	8'-0" o.c.
RHAPHIOLEPIS UMBELLATA 'MINOR' DWARF INDIAN HAWTHORN	1 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS ROSEMARY	1 GAL	L	48" o.c.
SALVIA GREGGII AUTUMN SAGE	1 GAL	L	36" o.c.
SALVIA ROSMARINUS ROSEMARY	5 GAL	L	36" o.c.
SALVIA SPATHACEA HUMMINGBIRD SAGE	1 GAL	M	48" o.c.
TRICHOSTEMA LANATUM WOOLLY BLUE CURLS	1 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'BLUE GEM' COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA GREY BOX DWARF COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'SMOKEY' COAST ROSEMARY	5 GAL	L	48" o.c.

SHRUB LEGEND - FOREGROUND/GROUNDCOVER

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ACACIA REDOLENS 'DESERT CARPET' DESERT CARPET BANK CATCLAW	1 GAL	L	6'-0" o.c.
ACHILLEA TOMENTOSA WOOLLY YARROW	1 GAL	L	12" o.c.
BOUTELOUA GRACILIS BLUE GRAMA GRASS	1 GAL	L	24" o.c.
CAREX DIVULSA EUROPEAN GREY SEDGE	1 GAL	L	24" o.c.
CEANOTHUS X 'JOYCE COULTER' JOYCE COULTER WILD LILAC	1 GAL	M	8'-0" o.c.
ESCHSCHOLZIA CALIFORNICA CALIFORNIA POPPY	1 GAL	L	12" o.c.
FESTUCA GLAUCA BLUE FESCUE	1 GAL	M	18" o.c.
LANTANA MONTEVIDENSIS PURPLE TRAILING LANTANA	1 GAL	L	8'-0" o.c.
LONICERA JAPONICA JAPANESE HONEYSUCKLE	5 GAL	L	36" o.c.
MYOPORUM PARVIFOLIUM 'PUTAH CREEK' CREEPING MYOPORUM	1 GAL	L	8'-0" o.c.
ROSMARINUS OFFICINALIS 'HUNTINGTON CARPET' HUNTINGTON CARPET ROSEMARY	1 GAL	L	36" o.c.
SENECIO CINERARIA DUSTY MILLER	1 GAL	L	24" o.c.
SENECIO SERPENS BLUE CHALKSTICKS	1 GAL	L	24" o.c.
TEUCRIUM CHAMAEDRYS GERMANDER	1 GAL	L	24" o.c.
TEUCRIUM COSSONII CREEPING GERMANDER	1 GAL	L	24" o.c.
THYMUS X CITRIODORUS LEMON THYME	1 GAL	L	24" o.c.
TRACHELOSPERMUM JASMINOIDES CHINESE STAR JASMINE	1 GAL	M	36" o.c.

VINE LEGEND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
BOUGAINVILLEA X 'ROSENKA' ROSENKA BOUGAINVILLEA	5 GAL	L	48" o.c.
TRACHELOSPERMUM JASMINOIDES STAR JASMINE TRELLIS	5 GAL	M	48" o.c.
WISTERIA SINENSIS CHINESE WISTERIA	5 GAL	M	48" o.c.

NOTES:

1. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM
   - 15 GALLON 10%
   - 5 GALLON 30%
   -1 GALLON 60%

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING LEGEND

SHEET NO.
L-201

EVERGREEN TREES



ARBUTUS X 'MARINA'
MARINA STRAWBERRY TREE



CERCIS OCCIDENTALIS
WESTERN REDBUD



CINNAMOMUM CAMPHORA
CAMPHOR TREE



HYMENOSPORUM FLAVUM
SWEET SHADE



PODOCARPUS GRACILIOR
FERN PINE



RHUS LANCEA
AFRICAN SUMAC

DECIDUOUS TREES



PARKINSONIA X 'DESERT MUSEUM'
DESERT MUSEUM PALO VERDE



ULMUS PARVIFOLIA DRAKE
DRAKE CHINESE ELM

ACCENT TREES



ACACIA BAILEYANA 'PURPUREA'
PURPLE FERNLEAF ACACIA



TECOMA STANS
YELLOW BELLS

TRANSITIONAL CRAFTSMAN ARCHITECTURAL ACCENT PLANTING



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE

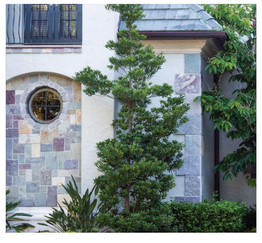


AGAVE ATTENUATA 'RAY OF LIGHT'
RAY OF LIGHT FOX TAIL AGAVE



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD

TRANSITIONAL MEDITERRANEAN ARCHITECTURAL ACCENT PLANTING



ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE



JUNIPERUS CHINENSIS
GREEN COLUMNAR JUNIPER



LAVANDULA ANGUSTIFOLIA
ENGLISH LAVENDER

VINEYARD ARCHITECTURAL ACCENT PLANTING



PRUNUS CAROLINIANA
CAROLINA CHERRY-LAUREL



PODOCARPUS HENKELII
HENKEL'S YELLOWWOOD



ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY

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SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-202

BACKGROUND SHRUBS



ABUTILON PALMERI
INDIAN MALLOW



ALYGYNE HUEGELII
BLUE HIBISCUS



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE



ARCTOSTAPHYLOS GLANDULOSA
EASTWOOD MANZANITA



ARTEMISIA CALIFORNICA 'CANYON GREY'
CANYON GREY CALIFORNIA SAGEBRUSH



BACCHARIS PILULARIS
COYOTE BRUSH



ECHIUM FASTUOSUM
PRIDE OF MADEIRA



HETEROMELES ARBUTIFOLIA
TOYON



JUNIPERUS COMMUNIS
COMMON JUNIPER



LEYMUS CONDENSATUS
GIANT WILD RYE



MUHLENBERGIA RIGENS 'PINK MULHY'
PINK MUHLY



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD



RHUS INTEGRIFOLIA
LEMONADE BERRY



RHUS OVATA
SUGAR BUSH



RIBES SANGUINEUM
RED FLOWERING CURRANT



ROMNEYA COULTERI
MATILIJA POPPY



TAGETES LEMONII
COPPER CANYON DAISY



TECOMA X 'ORANGE JUBILEE'
ORANGE JUBILEE YELLOW BELLS

MIDGROUND SHRUBS



AGAVE ATTENUATA
FOXTAIL AGAVE



AGAVE X 'BLUE FLAME'
BLUE FLAME AGAVE



AGAVE X 'BLUE GLOW'
BLUE GLOW AGAVE



ANIGOZANTHOS X 'ORANGE CROSS'
ORANGE CROSS KANGAROO PAW



BERBERIS THUNBERGII
JAPANESE GREENLEAF BARBERRY



CALLISTEMON VIMINALIS 'LITTLE JOHN'
LITTLE JOHN WEEPING BOTTLEBRUSH



CISTUS SALVIIFOLIUS 'PROSTRATUS'
SAGELEAF ROCKROSE



DIANELLA REVOLUTA 'DTNO3'
BABY BLISS FLAX LILY



EUPHORBIA RIGIDA
YELLOW SPURGE



HESPERALOE PARVIFLORA
RED YUCCA



JUNCUS PATENS
CALIFORNIA GRAY RUSH



KALANCHOE THYRSIFLORA
PADDLE PLANT



KNIPHOFIA TRIANGULARIS
DWARF RED HOT POKER



KNIPHOFIA UVARIA
RED HOT POKER



LAVANDULA STOECHAS
SPANISH LAVENDER



LEUCOPHYLLUM CANDIDUM
TEXAS SAGE



LOMANDRA LONGIFOLIA 'BREEZE'
BREEZE MAT RUSH



MELALEUCA NESOPHILA 'LITTLE NESSIE'
LITTLE NESSIE PINK MELALEUCA

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-203

MIDGROUND SHRUBS CONT.



NANDINA DOMESTICA 'COMPACTA'
DWARF HEAVENLY BAMBOO



OLEA EUROPAEA 'MONTRA'
LITTLE OLLIE OLIVE



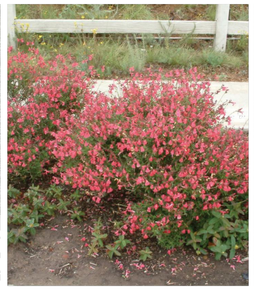
PHLOMIS FRUTICOSA
JERUSALEM SAGE



RHAPHIOLEPIS UMBELLATA 'MINOR'
DWARF INDIAN HAWTHORN



ROSMARINUS OFFICINALIS
ROSEMARY



SALVIA GREGII
AUTUMN SAGE



SALVIA SPATHACEA
HUMMINGBIRD SAGE



TRICHOSTEMA LANATUM
WOOLLY BLUE CURLS



WESTRINGIA FRUTICOSA
COAST ROSEMARY



WESTRINGIA FRUTICOSA 'SMOKEY GREY BOX
COAST ROSEMARY

FOREGROUND/GROUNDCOVER



ACACIA REDOLENS 'DESERT CARPET'
SWEET ACACIA



ACHILLEA TOMENTOSA
WOOLLY YARROW



BOUTELOUA GRACILIS
BLUE GRAMA GRASS



CAREX DIVULSA
EUROPEAN GREY SEDGE



CEONOTHUS X 'JOYCE COULTER'
JOYCE COULTER WILD LILAC



ESCHSCHOLZIA CALIFORNICA
CALIFORNIA POPPY



FESTUCA GLAUCA
BLUE FESCUE



LANTANA MONTEVIDENSIS
PURPLE TRAILING LANTANA



LONICERA JAPONICA
JAPANESE HONEYSUCKLE



MYOPORUM PARVIFOLIUM
TRAILING MYOPORUM



ROSMARINUS OFFICINALIS
'HUNTINGTON CARPET'
ROSEMARY



SENECIO CINERARIA
DUSTY MILLER



SENECIO SERPENS
BLUE CHALKSTICKS



TEUCRIUM CHAMAEDRYS
GERMANDER



TEUCRIUM COSONII
CREEPING GERMANDER

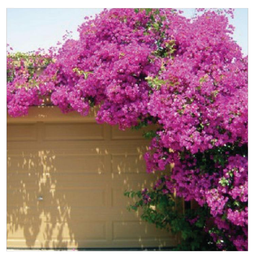


THYMUS X CITRIODORUS
LEMON THYME



TRACHELOSPERMUM JASMINOIDES
CHINESE STAR JASMINE

FOREGROUND/GROUNDCOVER



BOUGAINVILLEA 'ROSENKA'
ROSENKA BOUGAINVILLEA



TRACHELOSPERMUM JASMINOIDES
STAR JASMINE



WISTERIA SINENSIS
CHINESE WISTERIA

Know what's below. Call 811 before you dig.

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		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. *move forward*

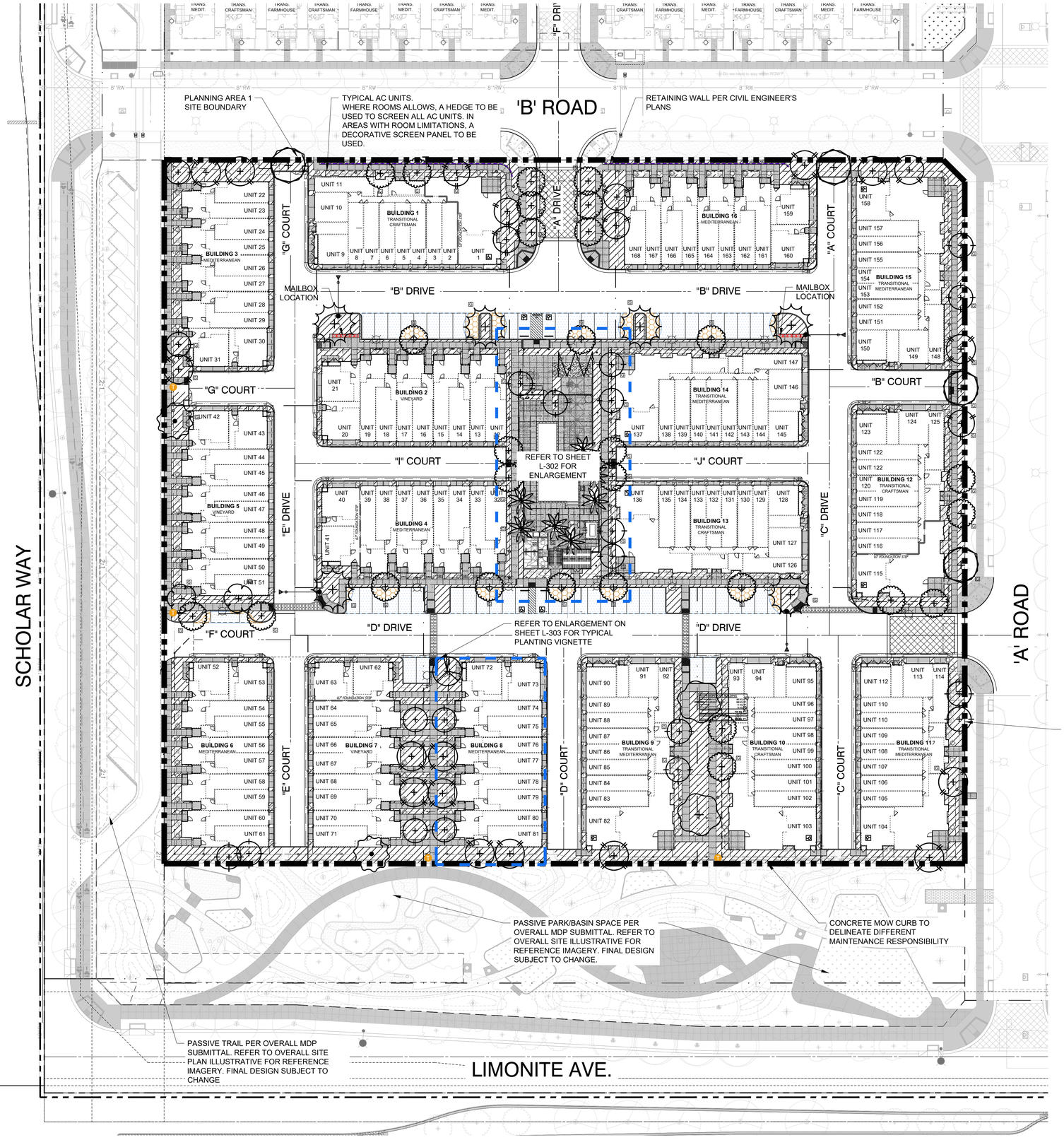
BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-204



FENCE AND WALL LEGEND :

3'-0" HIGH MAX PRECISION BLOCK WALL WITH 2" PRECISION BLOCK CAP. ANGELUS BLOCK, COLOR "FAWN". FINAL MATERIAL / COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

- TRASH CANS
- CONCRETE PAVING
- DECORATIVE VEHICULAR PAVING
- ENHANCED PEDESTRIAN PAVING
- PROPOSED MAILBOX LOCATION (ACTUAL MAILBOX LOCATIONS MAY CHANGE UPON USPS REVIEW)

TREE SHADING LEGEND:

- PARKING AREA SHADED BY TREES
- PARKING AREA

SHADED SUMMARY:

TOTAL PARKING AREA: (EXCLUDES DRIVE AISLES AND COVERED PARKING SPACES)	10,494 SF.
PARKING AREA SHADED BY TREES 20% OF COVERED PARKING AREA	2,013 SF.

* TREES SHOWN AT 15 YEARS MATURITY. PER RIVERSIDE COUNTY ORDINANCE 348, SECTION 1812

LANDSCAPE COVERAGE SUMMARY:

OVERALL LANDSCAPE: 35,152 SQ. FT.

TOTAL DEVELOPED AREA - PA 1: 6.15 ACRES

PERCENTAGE OF LANDSCAPE AREA: ± 13%

OPEN SPACE: 10,773 SQ. FT.

SHRUBS - REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

CONCRETE MOW CURB TO DELINEATE DIFFERENT MAINTENANCE RESPONSIBILITY

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING **FINAL DESIGN.**

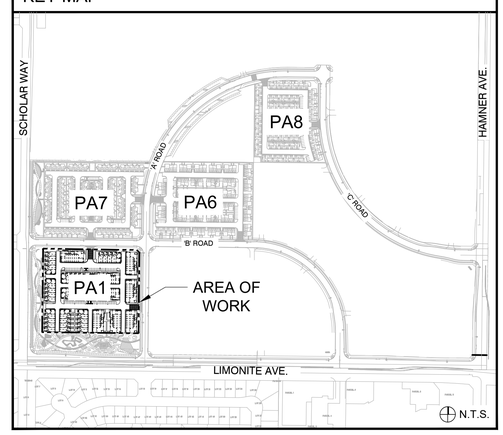
SCALE: 1" = 30'-0"

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	LAURUS NOBILIS SWEET BAY	24" BOX	L
	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L
	OLEA EUROPAEA 'SWAN HILL' SWAN HILL FRUITLESS OLIVE	24" BOX	L
	PHOENIX DACTYLIFERA DATE PALM	FIELD DUG	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	QUERCUS ILEX HOLLY OAK	48" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

KEY MAP



Know what's below. Call 811 before you dig.

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT — CITY

CITY OF EASTVALE

NEW HOME CO. move forward

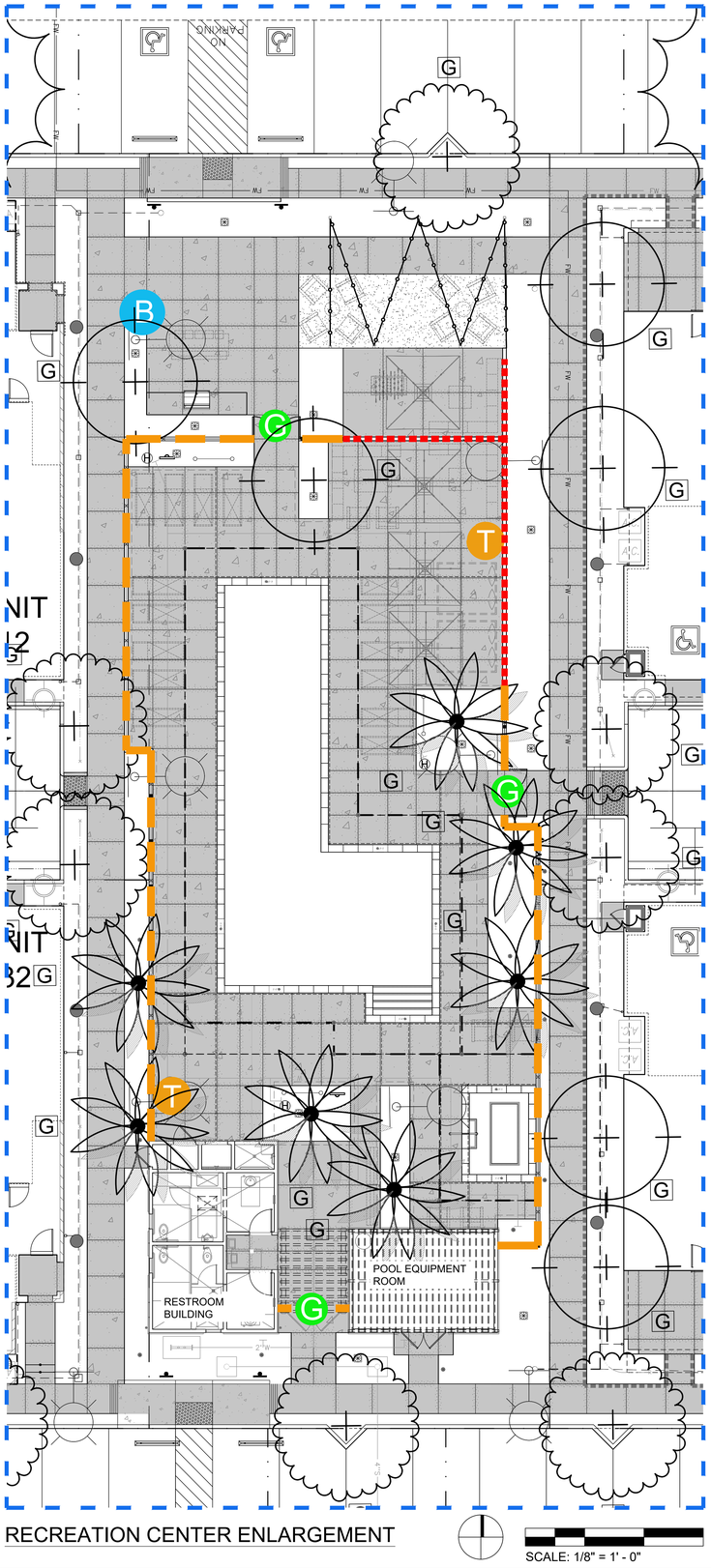
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IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

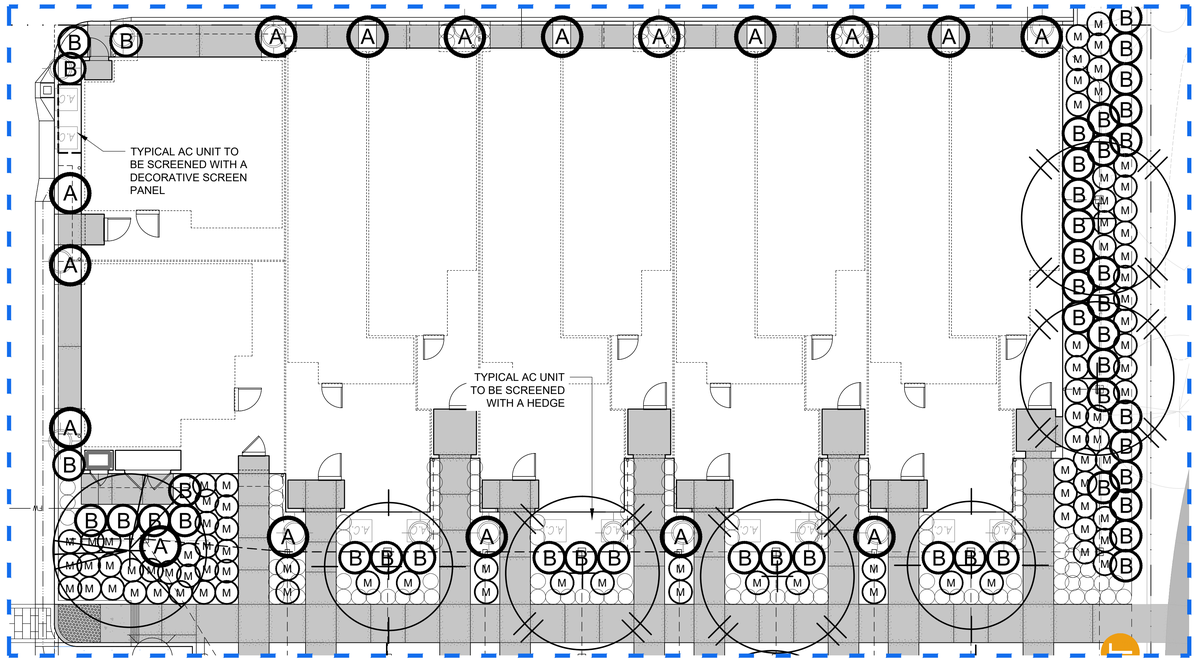
SHEET TITLE
LANDSCAPE SITE PLAN

SHEET NO.
L-301



RECREATION CENTER ENLARGEMENT

SCALE: 1/8" = 1' - 0"



PLANTING VIGNETTE - TYPICAL MASSING/LAYOUT

NOTE: TYPICAL MASSING/LAYOUT. FINAL LAYOUT TO BE DETERMINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS

SCALE: 1/8" = 1' - 0"

FENCE AND WALL LEGEND :

6'-0" HIGH MINIMUM STUCCO SCREEN/PRIVACY WALL. COLOR TO BE TAN OR TO MATCH POOL BUILDING COLOR/FINISHES. SEE SHEET L-401 FOR ELEVATION REFERENCE.

6'-0" HIGH MINIMUM TUBULAR STEEL FENCE AND GATE OR EQUAL (AT POOL TO MEET HEALTH CODE)
FINAL MATERIAL SELECTION TO BE CONFIRMED.
SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

- B — BIKE RACK
- T — TRASH CANS
- G — POOL GATE
- CONCRETE PAVING

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	LAURUS NOBILIS SWEET BAY	24" BOX	L
	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L
	OLEA EUROPAEA 'SWAN HILL' SWAN HILL FRUITLESS OLIVE	24" BOX	L
	PHOENIX DACTYLIFERA DATE PALM	FIELD DUG	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	QUERCUS ILEX HOLLY OAK	48" BOX	L
DECIDUOUS			
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	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

SHRUB LEGEND

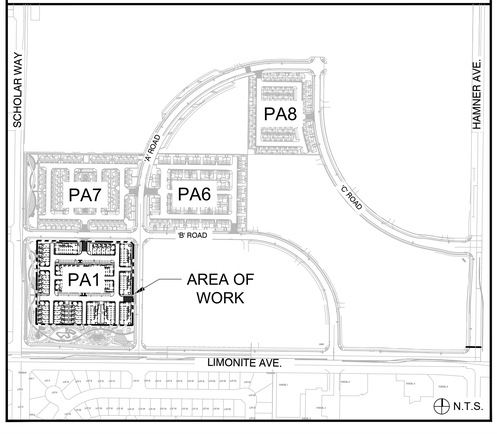
SYMBOL	DESCRIPTION	SIZE
A	ACCENTS	15 GAL
B	BACKGROUND	5 GAL
M	MIDGROUND	5 GAL AND 1 GAL
	GROUNDCOVER	1 GAL

NOTES:
1. REFER TO SHEET L-201 FOR FULL SHRUB PLANT PALETTE.
2. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM.
   15 GALLON: 10%
   5 GALLON: 30%
   1 GALLON: 60%

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
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   10' FROM FIRE HYDRANT OR STREET SIGN
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4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
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6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.

KEY MAP



Know what's below. Call 811 before you dig.

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. move forward

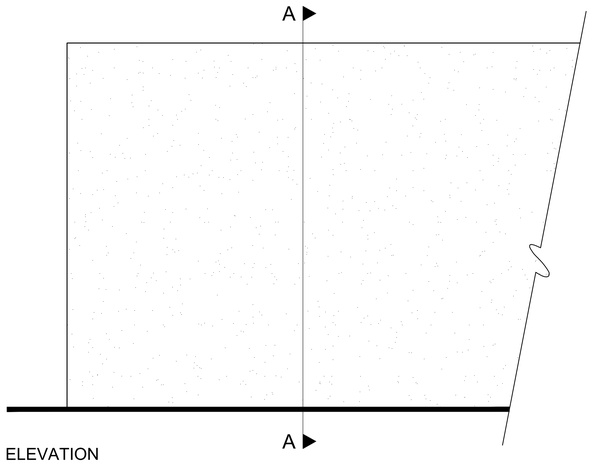
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IRVINE, CALIFORNIA 92618
(949) 238-4900

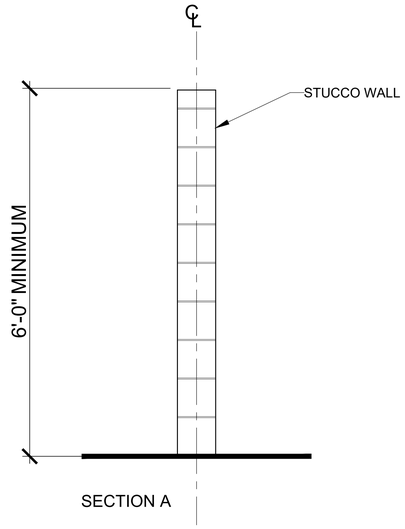
PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
ENLARGEMENT PLANS

SHEET NO.
L-302

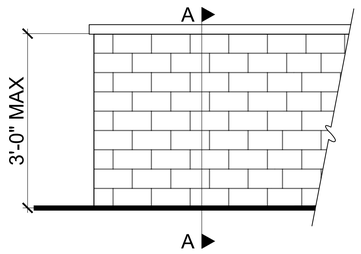


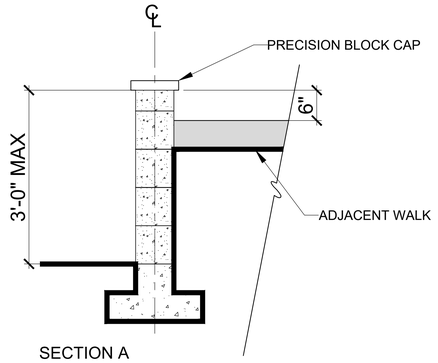


POOL ENCLOSURE WALL

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"

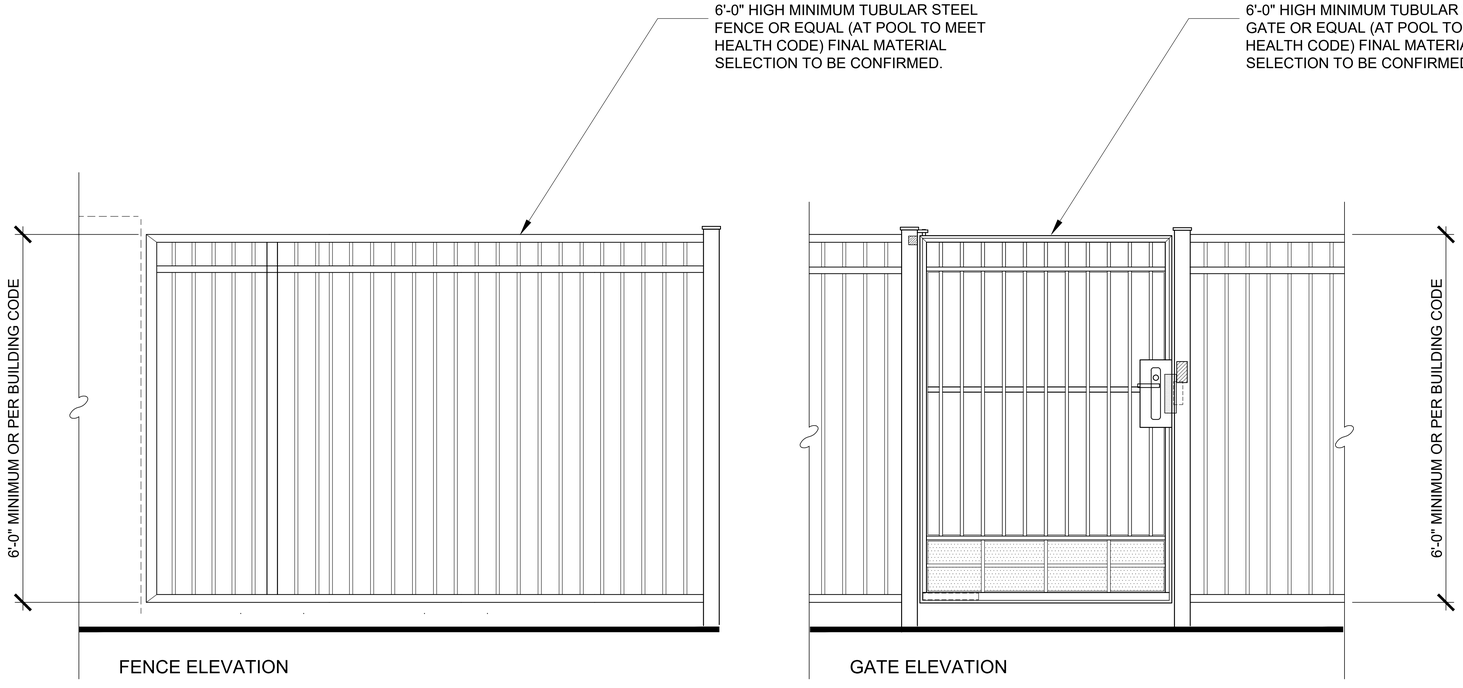




RETAINING WALL

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"



TUBULAR STEEL POOL FENCE AND GATE

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"



AC UNIT SCREEN PANEL

Final material selection subject to change per landscape plan submittal

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LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

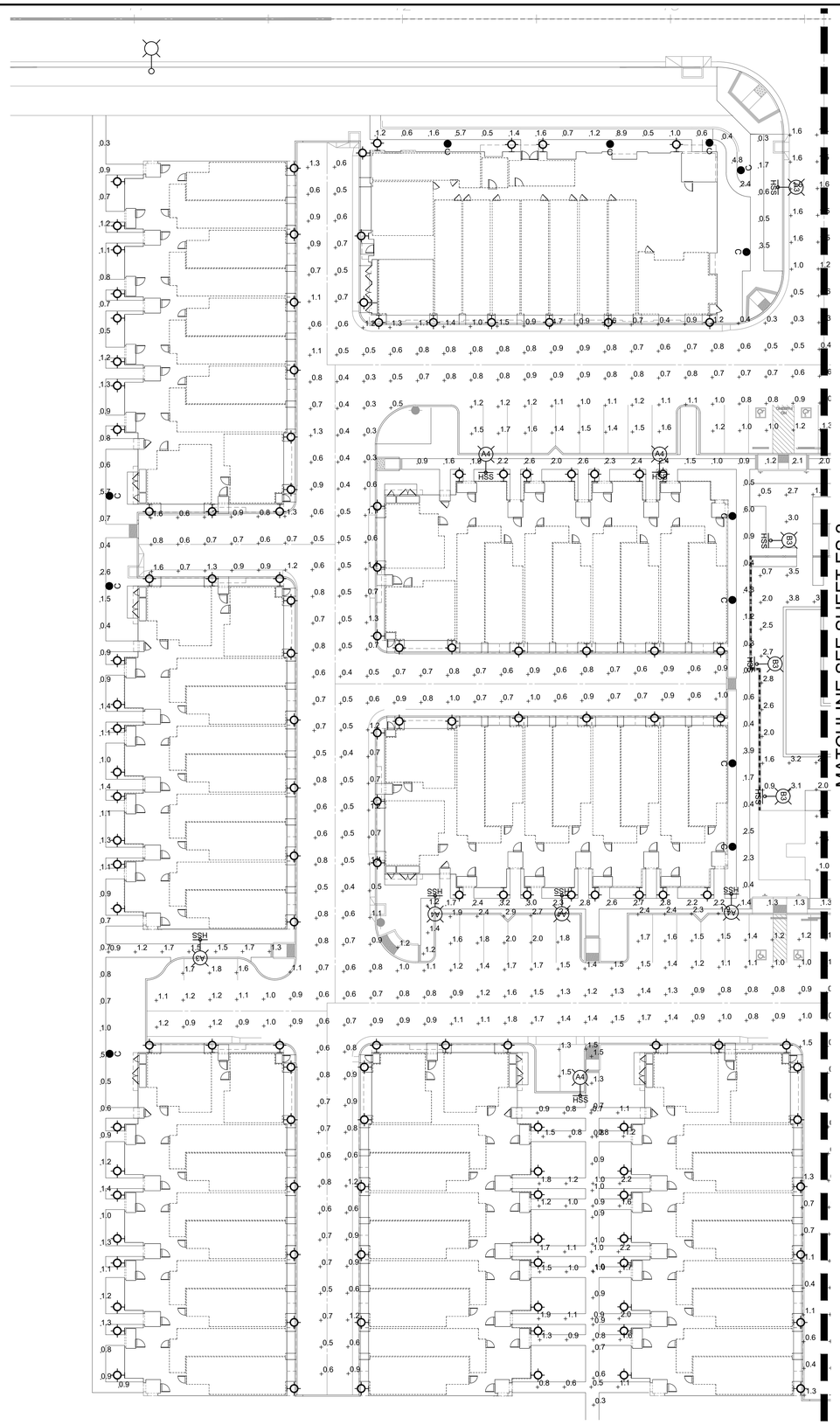
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PA NO. 1

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
FENCE AND WALL ELEVATIONS

SHEET NO.
L-401



LIGHTING FIXTURE LEGEND



A1
36W. LED POST LIGHT ON A 16FT POLE
TYPE III
USA# DS8A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

A2
36W. LED POST LIGHT ON A 16FT POLE
TYPE IV- FORWARD THROW
USA# DS8A-PLED-IVFT-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K



B1
36W. LED POST LIGHT ON A 12FT POLE
TYPE III
USA# DS6A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-124-11-RBC (4"DIA) - 3000°K

HSS
HOUSE SIDE SHIELD PER PLAN.
NOT ALL FIXTURES WILL HAVE A SHIELD.



C
20W. LED BOLLARD LIGHT - 36" TALL
USA# TLB5-DP-18LED-350mA-WW

LED WALL LIGHT
(1000 LUMEN MIN. AT 3000°K)
SELECT BY OWNER.
TO BE CONTROLLED BY ASTRONOMICAL TIME CLOCK ONLY.
SET DUSK TO DAWN.

N

10 0 5 10 20
(IN FEET)
1 inch = 20 ft.

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LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

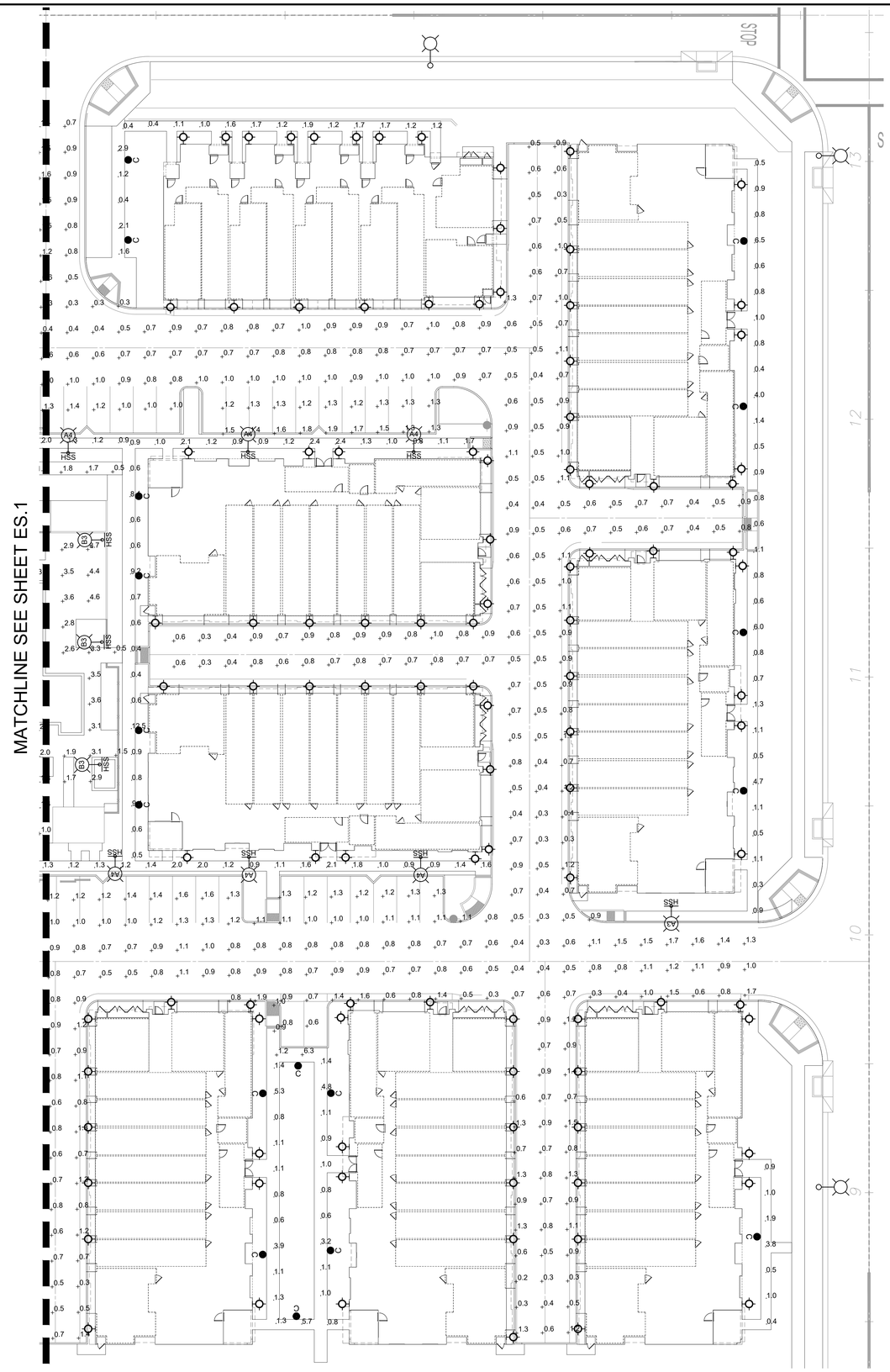
NEW HOME CO. move forward

CANDELA ENGINEERING
LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA 1
PHOTOMETRICS
SITE PLAN

SHEET NO.
E-1



LIGHTING FIXTURE LEGEND



A1 — 36W, LED POST LIGHT ON A 16FT POLE
TYPE III
USA# DS8A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

A2 — 36W, LED POST LIGHT ON A 16FT POLE
TYPE IV- FORWARD THROW
USA# DS8A-PLED-IVFT-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K



B1 — 36W, LED POST LIGHT ON A 12FT POLE
TYPE III
USA# DS6A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-124-11-RBC (4"DIA) - 3000°K

HSS — HOUSE SIDE SHIELD PER PLAN.
NOT ALL FIXTURES WILL HAVE A SHIELD.



C — 20W, LED BOLLARD LIGHT - 36" TALL
USA# TLB5-DP-18LED-350mA-WW

LED WALL LIGHT
(1000 LUMEN MIN. AT 3000°K)
SELECT BY OWNER.
TO BE CONTROLLED BY ASTRONOMICAL TIME CLOCK ONLY.
SET DUSK TO DAWN.

N

10 0 5 10 20
(IN FEET)
1 inch = 20 ft.

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LANDSCAPE ARCHITECT — CITY

CITY OF EASTVALE

NEW HOME CO.
move forward

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LIGHTING DESIGN | ELECTRICAL ENGINEERING
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Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA 1
PHOTOMETRICS
SITE PLAN

SHEET NO.
E-2

EASTWALK | EASTVALE

PLANNING AREA 6
MAJOR DEVELOPMENT PLAN

GENERAL

SHEET	NAME
CS-1	Coversheet/Sheet Index
R-1	Site Rendering
R-2	Site Rendering
SP-1	Overall Illustrative
SP-2	Planning Area Illustrative

CIVIL

SHEET	NAME
1 of 1	Master Development Plan
2 of 2	Master Development Plan
3 of 3	Master Development Plan

ARCHITECTURE

SHEET	NAME
A1	Cover Page
A2	Community Introduction and Character
A3	Color and Elevation Diagram / Assignments
A4	Building 100A Composite Floor Plans
A5	Building 100A Spanish Roof Plan & Elevations
A6	Building 100B Vineyard Roof Plan & Elevations
A7	Building 100C Farmhouse Roof Plan & Elevations
A8	Building 200A Composite Floor Plans
A9	Building 200A Spanish Roof Plan & Elevations
A10	Building 200B Vineyard Roof Plan & Elevations
A11	Building 200C Farmhouse Roof Plan & Elevations
A12	Unit 1 Floor Plans
A13	Unit 2 Floor Plans
A14	Unit 3 Floor Plans
A15	Color Boards and Exterior Color & Materials

LANDSCAPE

SHEET	NAME
L-100	Landscape Cover Sheet
L-101	Overall Site Plan
L-201	Planting Legend
L-202	Planting Imagery Board
L-203	Planting Imagery Board
L-204	Planting Imagery Board
L-301	Landscape Site Plan
L-302	Enlargement Plans
L-401	Fence and Wall Elevations
E-1	PA-6 Photometrics Site Plan

CITY OF EASTVALE

NEW HOME CO. move forward

EASTWALK

HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING ▪ ENGINEERING ▪ SURVEYING

Bassenian | Lagoni ARCHITECTURE ▪ PLANNING ▪ INTERIORS

WHA. ARCHITECTS / PLANNERS / DESIGNERS

BrightView Design Group

10/03/2023

CS-1

VIEW #1: WEST SIDE VIEW OF PASEO

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



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LANDSCAPE ARCHITECT

CITY

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IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
SITE RENDERING

SHEET NO.
R-1

VIEW #2: INTERIOIR VIEW OF PASEO

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
SITE RENDERING

SHEET NO.
R-2

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

'A' ROAD

'C' ROAD

N.A.P

PLANNING
AREA 8

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

PHASE A PROJECT BOUNDARY

SCHOLAR WAY

HAMNER AVE.

PLANNING
AREA 7

PLANNING
AREA 6

PLANNING AREA 6
SITE BOUNDARY

'B' ROAD

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

'A' ROAD

'B' ROAD

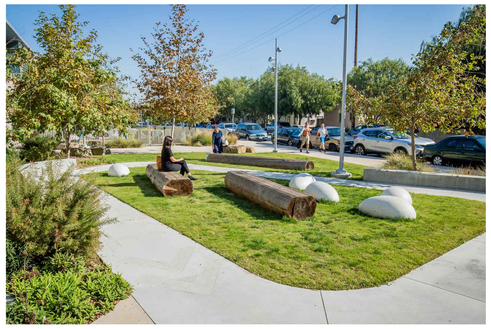
LIMONITE AVE.

SCALE: 1" = 120'-0"

PASSIVE SPACE REFERENCE IMAGERY









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		12/15/22	FIRST CITY SUBMITTAL		
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		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

CITY OF EASTVALE

NEW HOME CO.
move forward

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IRVINE, CALIFORNIA 92618
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OVERALL
ILLUSTRATIVE

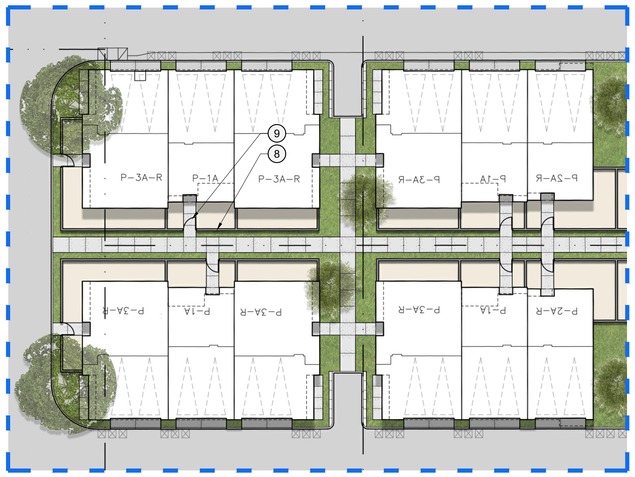
SHEET NO.
SP-1

SITE PLAN LEGEND

1. TYPICAL INTERNAL WALKWAYS.
2. GUEST PARKING AREA
3. CONNECTION TO ADJACENT STREETS/OPEN SPACE
4. ENHANCED PAVING
5. PRIVATE PATIO/COURTYARD (THESE UNITS ONLY)
6. DECORATIVE VEHICULAR PAVING AT ENTRY
7. MAILBOX LOCATION
8. OPTIONAL PATIO/COURTYARD WALL
9. OPTIONAL PATIO/COURTYARD GATE



SCALE: 1" = 40'-0"



PATIO/COURTYARD WALL OPTION - ENLARGEMENT

Note: Patio/courtyard wall shown are optional and might not be feasible due to site conditions. Final layout subject to change at the discretion of the Master Developer.

SCALE: 1" = 20'-0"

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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

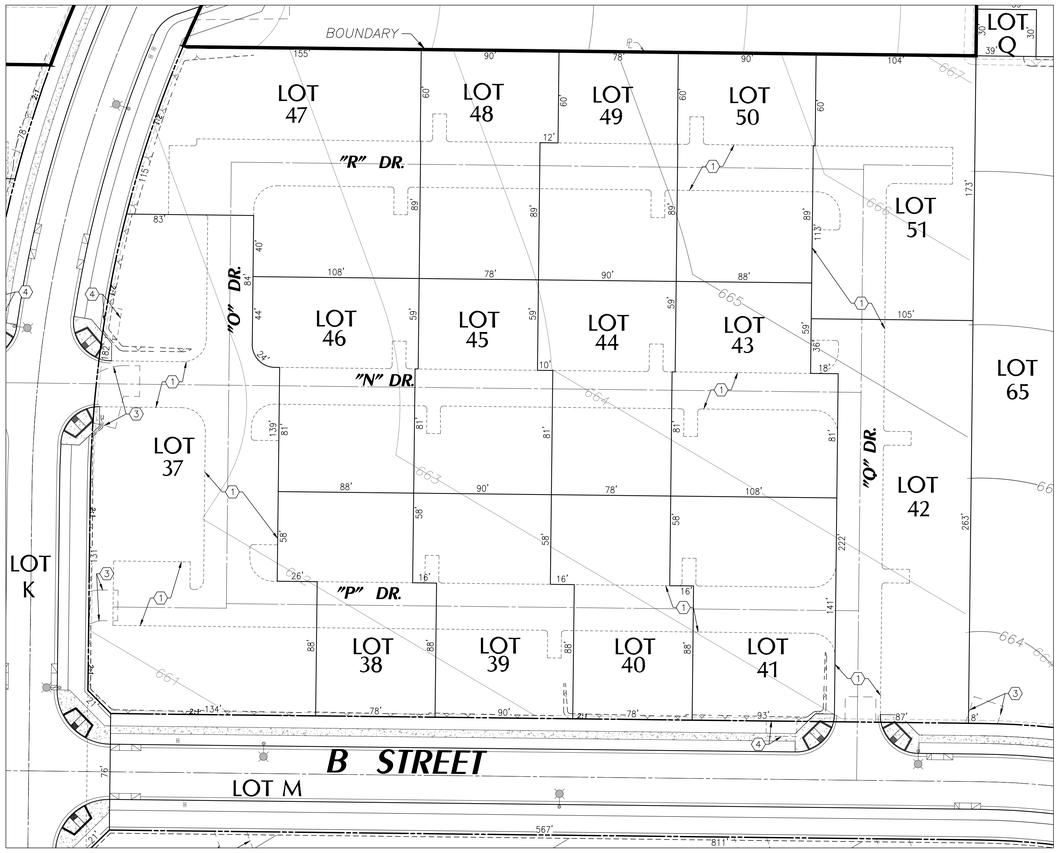
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IRVINE, CALIFORNIA 92618
(949) 238-4900

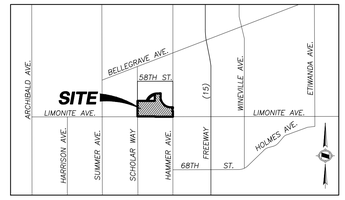
PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANNING AREA ILLUSTRATIVE

SHEET NO.
SP-2





VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL

NUMBER LOT SUMMARY

Lot No.	Land Use	S.F	Acres
37	Residential	39,204	0.90
38	Residential	12,197	0.28
39	Residential	13,068	0.30
40	Residential	11,326	0.26
41	Residential	14,375	0.33
42	Residential	23,522	0.54
43	Residential	13,939	0.32
44	Residential	11,761	0.27
45	Residential	11,761	0.27
46	Residential	13,504	0.31
47	Residential	23,522	0.54
48	Residential	12,197	0.28
49	Residential	12,632	0.29
50	Residential	13,504	0.31
51	Residential	18,295	0.42
TOTAL		244,807	5.62



NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, LLC.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

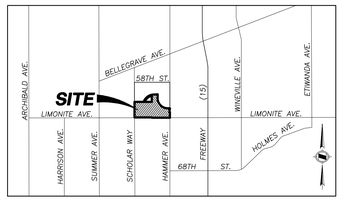
PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

PA-6
MASTER DEVELOPMENT PLAN
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
1 OF 3

W.O.: 2749-44GX EASTWALK

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 10:38:10 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_MDP\TTM_38594_MDP_PA-6.dwg



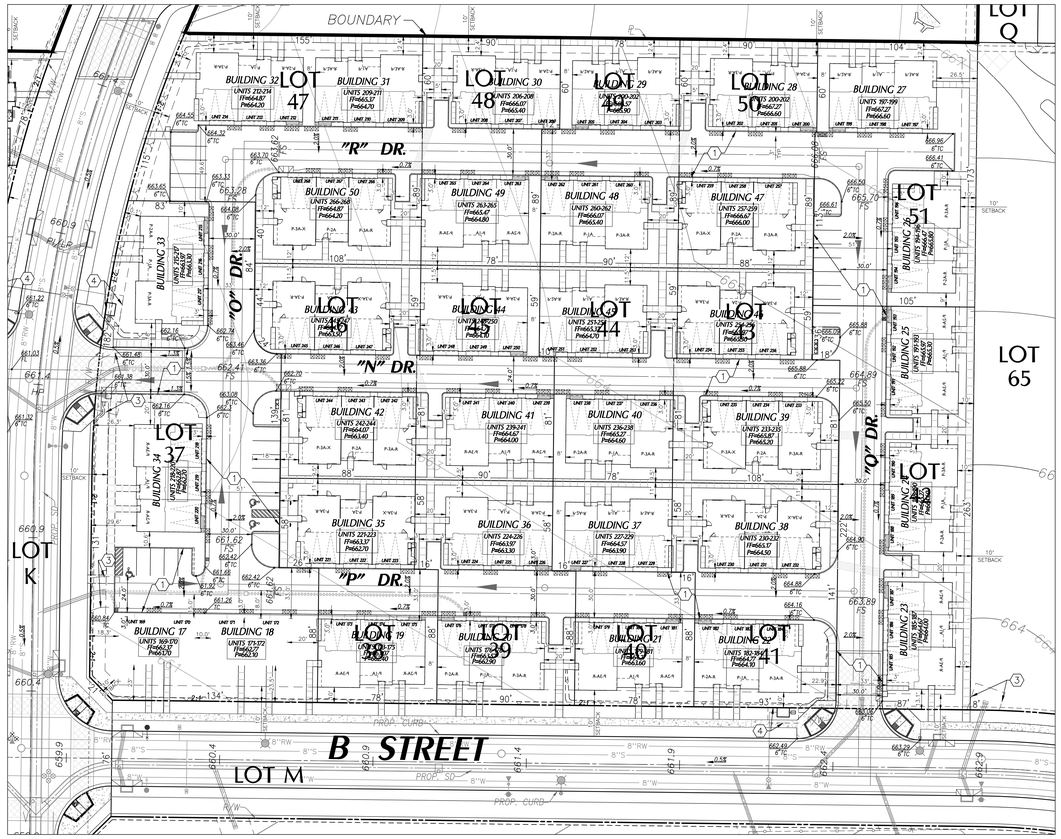
VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- S PROPOSED SEWER
- PROPOSED STORM DRAIN



FEET
0 20 40 80
0 1/2 1 2
INCHES

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
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IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

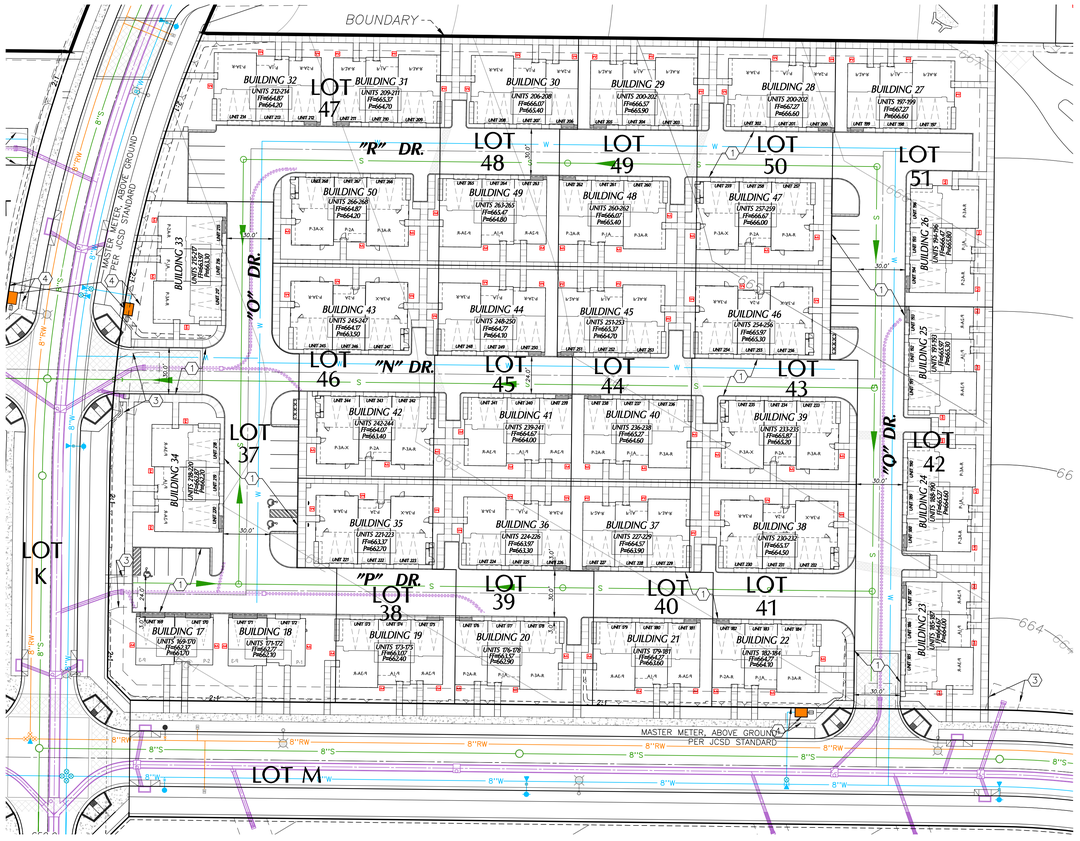
PREPARED BY:
HUNSAKER & ASSOCIATES
I R V I N E , I N C .
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

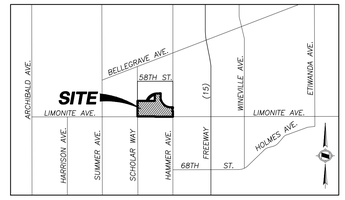
PA-6
MASTER DEVELOPMENT PLAN
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
2 OF 3

W.O.: 2749-44CX EASTWALK

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 10:50:49 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_MDP\TTM_38594_MDP_PA-6.dwg





VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- PROPOSED A.C. PAD
- PROPOSED MASTER METER

FEET
0 20 40 80
0 1/2 2
INCHES

NO.	DATE	REVISIONS	APPROVED

DRAWN BY: LP
DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
NEW HOME CO.
move forward
15231 LAGUNA CANYON ROAD
IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, LLC.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
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PA-6
MASTER DEVELOPMENT PLAN
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
3 OF 3

W.O.: 2749-46CX EASTWALK

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 10:39:00 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_MDP\TTM_38594_MDP_PA-6 - Sht.3.dwg



BUILDING 100A | SPANISH



BUILDING 100C | FARMHOUSE



BUILDING 200B | VINEYARD

OUR TEAM

The New Home Company
Contact: Mike Miller | Director, Community Development
15231 Laguna Canyon Rd, Suite 250
Irvine, CA 92618
949-208-7279 | www.NWHM.com

WHA. Architects . Planners . Designers .
Contact: Fernando Laullon
680 Newport Center Drive, Suite 300
Newport Beach, CA 92660
949.250.0607 | www.WHAinc.com

SHEET INDEX:

A1	Cover Page
A2	Community Introduction and Character
A3	Color and Elevation Diagram / Assignments
A4	Building 100A Composite Floor Plans
A5	Building 100A Spanish Roof Plan & Elevations
A6	Building 100B Vineyard Roof Plan & Elevations
A7	Building 100C Farmhouse Roof Plan & Elevations
A8	Building 200A Composite Floor Plans
A9	Building 200A Spanish Roof Plan & Elevations
A10	Building 200B Vineyard Roof Plan & Elevations
A11	Building 200C Farmhouse Roof Plan & Elevations
A12	Unit 1 Floor Plans
A13	Unit 2 Floor Plans
A14	Unit 3 Floor Plans
A15	Color Boards and Exterior Color & Materials

Note: Artist's Conception; Colors, Materials And Application May Vary.

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		06/25/23	SECOND CITY SUBMITTAL		
		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
ARCHITECT				CITY	

CITY OF EASTVALE

NEW HOME CO. move forward

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COVER PAGE

SHEET NO.
A1

Planning Area 6 features 96 Row Townhomes within 32 separate Triplex buildings. The buildings provide a variety of building types and building scales throughout the community. Townhome dwellings offer a lifestyle that bridges the gap between single family homes and multi-family developments by providing all of the spaces found in a single family dwelling but with a stronger emphasis on neighbor and community. Every unit has a private front door facing a community street or pedestrian paseo. Individual dwellings are articulated on the building façade with enhanced materials and features to provide enduring community diversity and pleasing visual interest.

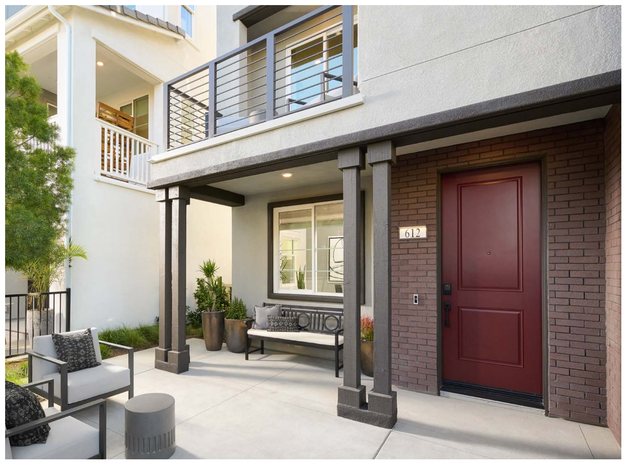
Three unique floor plans are offered. Some have living spaces on the first floor to activate the ground level while others offer living spaces on the upper floors with private covered decks. The buildings feature progressive interpretations of Spanish, Vineyard, and Farmhouse architecture.

Architectural Features:

- Private entries.
- Diverse accent materials.
- Private covered decks.
- Alignment to paseos and streets.













Private Entries



Diverse Accent Materials



Covered Decks



Front Doors Oriented Towards Paseos and Streets

Note: Artist's Conception; Colors, Materials And Application May Vary.

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ARCHITECT				CITY	

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COMMUNITY INTRODUCTION AND CHARACTER

SHEET NO.
A2

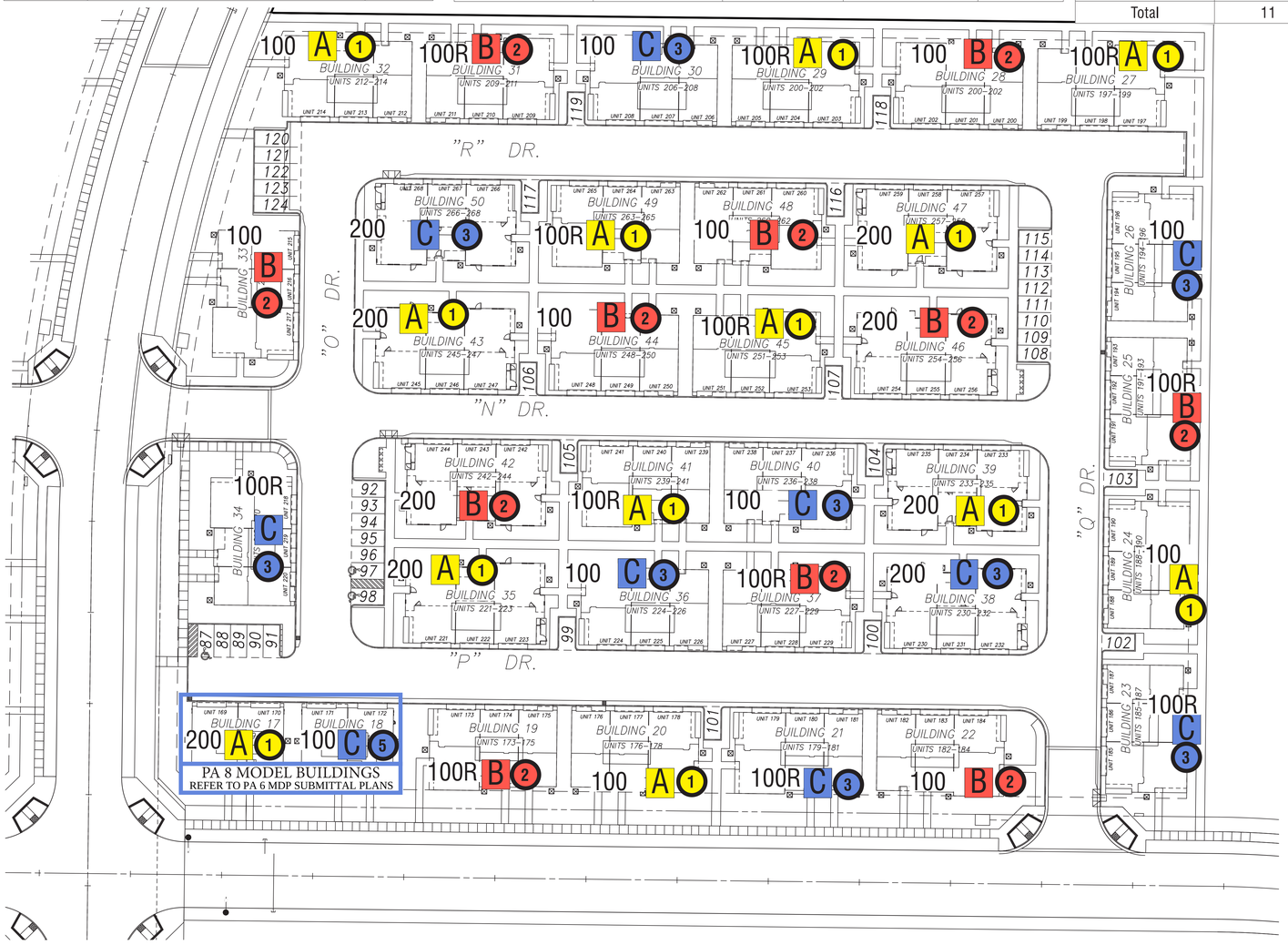
EASTWALK PA-6 TOWNHOMES		WHA 2022341
DATE	DESCRIPTION	INITIALS
2/9/23	Color & Elevation Assignments	D.A.
5/25/23	C+E Assignments R1	J.S.
8/3/23	New Site Plan Added	J.S.

Elevation Assignments

	A - Spanish	B - Vineyard	C - Farmhouse	Total
Building Type 100	8	9	7	24
Building Type 200	3	2	3	8
Total	11	11	10	32

Color Assignments

Scheme	A - Spanish	B - Vineyard	C - Farmhouse	Total
	1	2	3	
Building Type 100	8	9	7	24
Building Type 200	3	2	3	8
Total	11	11	10	32



EASTWALK PA-6 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
February 9, 2023 | 2022341
(Revision 1, 5/25/23)
PAGE 1 OF 1

Color & Elevation Assignments

[1]BUILDING NO.	[1]BUILDING TYPE	[1]ELEVATION TYPE	[1]ARCHITECTURAL STYLE	[1]COLOR SCHEME
19	100R	B	Vineyard	2
20	100	A	Spanish	1
21	100R	C	Farmhouse	3
22	100	B	Vineyard	2
23	100R	C	Farmhouse	3
24	100	A	Spanish	1
25	100R	B	Vineyard	2
26	100	C	Farmhouse	3
27	100R	A	Spanish	1
28	100	B	Vineyard	2
29	100R	A	Spanish	1
30	100	C	Farmhouse	3
31	100R	B	Vineyard	2
32	100	A	Spanish	1
33	200	A	Spanish	1
34	100	B	Vineyard	2
35	100R	A	Spanish	1
36	200	C	Farmhouse	3
37	200	A	Spanish	1
38	100	B	Vineyard	2
39	100R	A	Spanish	1
40	200	B	Vineyard	2
41	200	A	Spanish	1
42	100	C	Farmhouse	3
43	100R	A	Spanish	1
44	200	B	Vineyard	2
45	200	C	Farmhouse	3
46	100R	B	Vineyard	2
47	100	C	Farmhouse	3
48	200	A	Spanish	1
49	100	B	Vineyard	2
50	100R	C	Farmhouse	3

Color Designer: Donna Aldrich

© 2023 WILLIAM HEZMALHALCH ARCHITECTS, INC. DBA WHA

REVISIONS:

Number	Date	Description
1	5/25/23	Various revisions per new site plan.

COLOR AND ELEVATION DIAGRAM / ASSIGNMENTS

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITTAL		
		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

ARCHITECT | CITY

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CITY OF EASTVALE

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COLOR AND ELEVATION DIAGRAM / ASSIGNMENTS

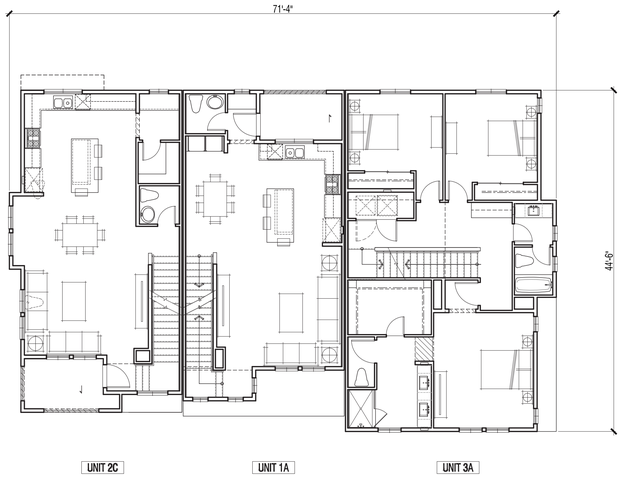
SHEET NO.
A3

BUILDING INFORMAITON

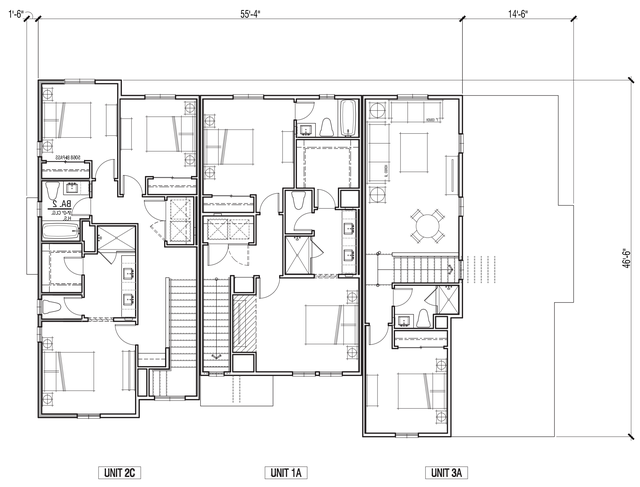
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OCCUPANCY TYPE: R3

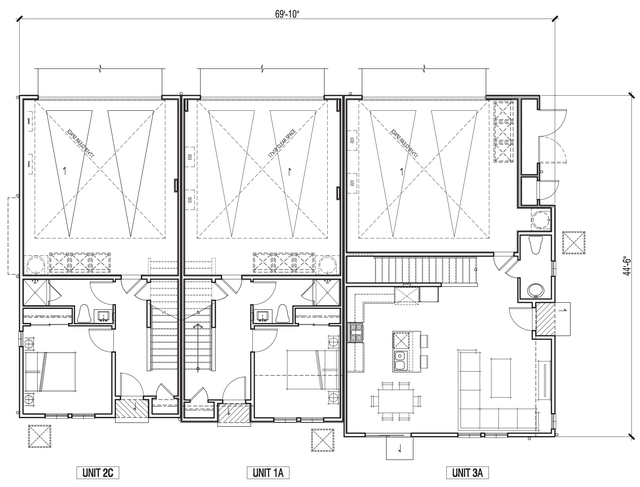
SPRINKLERS: NFPA-13D



BLDG 100A - SECOND LEVEL FLOOR PLAN



BLDG 100A - THIRD LEVEL FLOOR PLAN



BLDG 100A - FIRST LEVEL FLOOR PLAN

BUILDING 100A - COMPOSITE FLOOR PLANS

SHEET SCALE: 1'-8" = 1'-0"

Know what's below. Call 811 before you dig.

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ARCHITECT | CITY

CITY OF EASTVALE

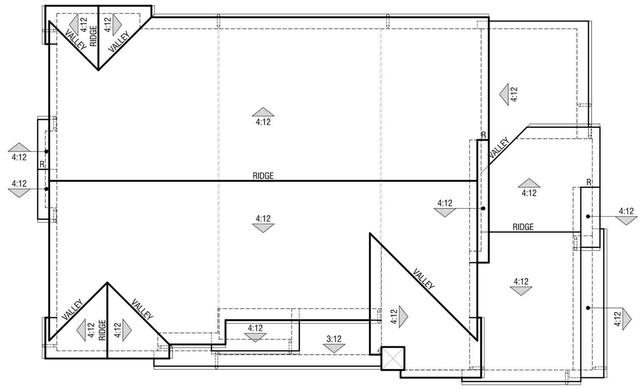
NEW HOME CO. move forward

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WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA . SACRAMENTO

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 100A
COMPOSITE FLOOR PLANS

SHEET NO.
A4



BLDG 100A - ROOF PLAN - SPANISH

ROOF INFORMATION

EAVE - 1'-6"
RAKE - 1'-0"
MATERIAL - CONCRETE 'S' TILE



BLDG 100A - RIGHT ELEVATION - SPANISH



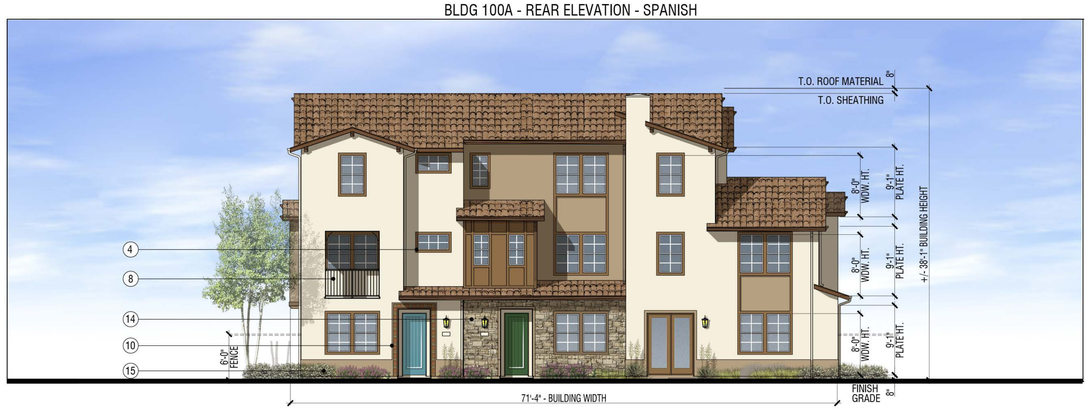
BLDG 100A - REAR ELEVATION - SPANISH



BLDG 100A - LEFT ELEVATION - SPANISH

MATERIAL LEGEND

1. CONCRETE 'S' TILE
2. STUCCO FINISH - PRIMARY
3. STUCCO FINISH - SECONDARY
4. FOAM TRIM
5. VINYL WINDOW w/ GRIDS
6. LIGHT FIXTURE - VISUAL COMFORT EDDINGTON - BRONZE - 8719301-71
7. SECTIONAL GARAGE DOOR
8. METAL RAILING
9. ILLUMINATED ADDRESS SIGN
10. 6x6 CERAMIC TILE SURROUND
11. FOAM CORBEL
12. RECESSED METAL GABLE DETAIL
13. WOOD OUTLOOKER
14. STONE VENEER
15. STUCCO WAINSCOT



BLDG 100A - FRONT ELEVATION - SPANISH

BUILDING 100A - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-8" = 1'-0"

Know what's below. Call 811 before you dig.

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		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

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CITY OF EASTVALE

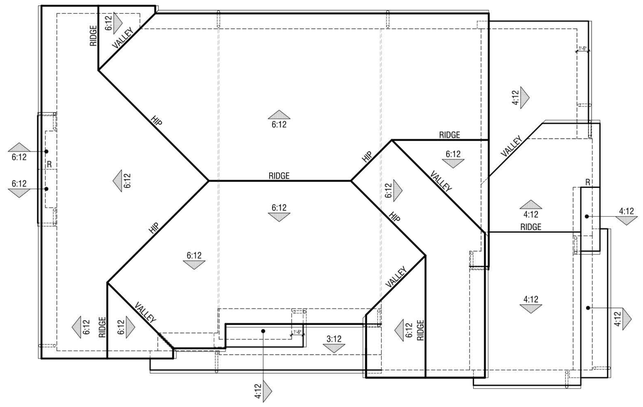
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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 100A
SPANISH ROOF PLAN
& ELEVATIONS

SHEET NO.
A5



BLDG 100B - ROOF PLAN - VINEYARD

ROOF INFORMATION

EAVE - 2'-0"
RAKE - 1'-0"
MATERIAL - CONCRETE FLAT TILE



BLDG 100B - RIGHT ELEVATION - VINEYARD



BLDG 100B - REAR ELEVATION - VINEYARD



BLDG 100B - LEFT ELEVATION - VINEYARD

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. VERTICAL SIDING
6. VINYL WINDOW w/ GRIDS
7. LIGHT FIXTURE - VISUAL COMFORT VADO - BLACK - 8731101-12
8. SECTIONAL GARAGE DOOR
9. WOOD RAILING
10. ILLUMINATED ADDRESS SIGN
11. STONE VENEER
12. WOOD POTSHELF
13. WOOD OUTLOOKER & KICKER
14. WOOD BEAM



BLDG 100B - FRONT ELEVATION - VINEYARD

BUILDING 100B - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

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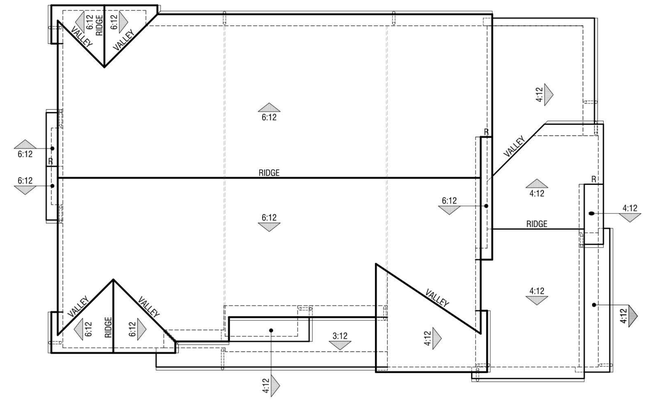
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SHEET TITLE
BUILDING 100B
VINEYARD ROOF
PLAN & ELEVATIONS

SHEET NO.
A6

ROOF INFORMATION

EAVE - 1'-6"
RAKE - 8"
MATERIAL - CONCRETE FLAT TILE



BLDG 100C - ROOF PLAN - FARM HOUSE



BLDG 100C - RIGHT ELEVATION - FARM HOUSE



BLDG 100C - REAR ELEVATION - FARM HOUSE



BLDG 100C - LEFT ELEVATION - FARM HOUSE

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. BOARD & BATTEN
6. HORIZONTAL SIDING
7. VINYL WINDOW w/ GRIDS
8. LIGHT FIXTURE - VISUAL COMFORT TYBEE - BLACK - 8708901-12
9. SECTIONAL GARAGE DOOR
10. WOOD RAILING
11. ILLUMINATED ADDRESS SIGN
12. STONE VENEER
13. WOOD ROOF AWNING w/ KNEE BRACE
14. WOOD OUTLOOKER & KICKER



BLDG 100C - FRONT ELEVATION - FARM HOUSE

BUILDING 100C - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-8" = 1'-0"

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SHEET TITLE
BUILDING 100C FARMHOUSE ROOF PLAN & ELEVATIONS

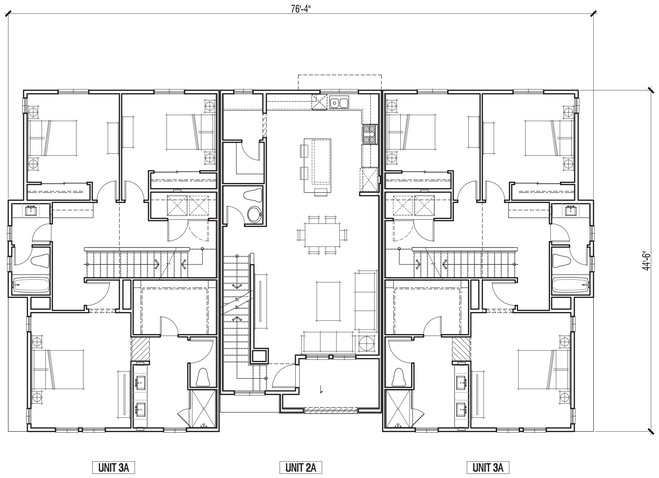
SHEET NO.
A7

BUILDING INFORMAITON

TYPE OF CONSTRUCTION: V-B

OCCUPANCY TYPE: R3

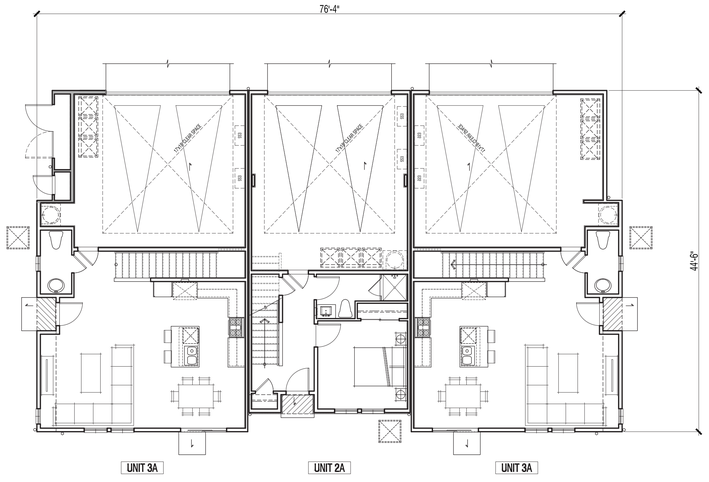
SPRINKLERS: NFPA-13D



BLDG 200A - SECOND LEVEL FLOOR PLAN



BLDG 200A - THIRD LEVEL FLOOR PLAN



BLDG 200A - FIRST LEVEL FLOOR PLAN

BUILDING 200A - COMPOSITE FLOOR PLANS

SHEET SCALE: 1'-8" = 1'-0"

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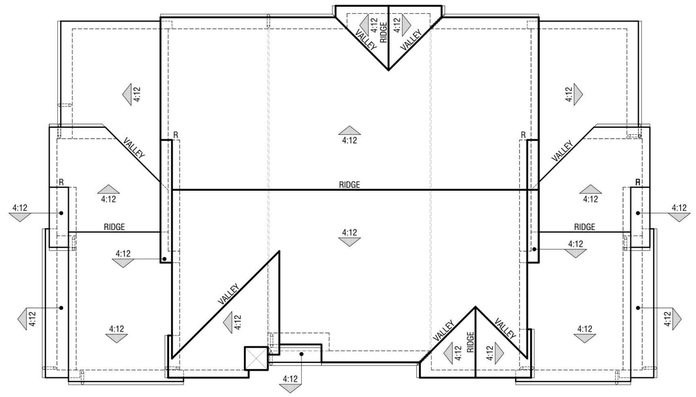
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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200A
COMPOSITE FLOOR PLANS

SHEET NO.
A8



BLDG 200A - ROOF PLAN - SPANISH

ROOF INFORMATION

EAVE - 1'-6"
RAKE - 1'-0"
MATERIAL - CONCRETE 'S' TILE



BLDG 200A - RIGHT ELEVATION - SPANISH



BLDG 200A - REAR ELEVATION - SPANISH



BLDG 200A - LEFT ELEVATION - SPANISH

MATERIAL LEGEND

1. CONCRETE 'S' TILE
2. STUCCO FINISH - PRIMARY
3. STUCCO FINISH - SECONDARY
4. FOAM TRIM
5. VINYL WINDOW w/ GRIDS
6. LIGHT FIXTURE - VISUAL COMFORT EDDINGTON - BRONZE - 8719301-71
7. SECTIONAL GARAGE DOOR
8. METAL RAILING
9. ILLUMINATED ADDRESS SIGN
10. 6x6 CERAMIC TILE SURROUND
11. FOAM CORBEL
12. RECESSED METAL GABLE DETAIL
13. WOOD OUTLOOKER
14. STONE VENEER
15. STUCCO WAINSCOT



BLDG 200A - FRONT ELEVATION - SPANISH

BUILDING 200A - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-8" = 1'-0"

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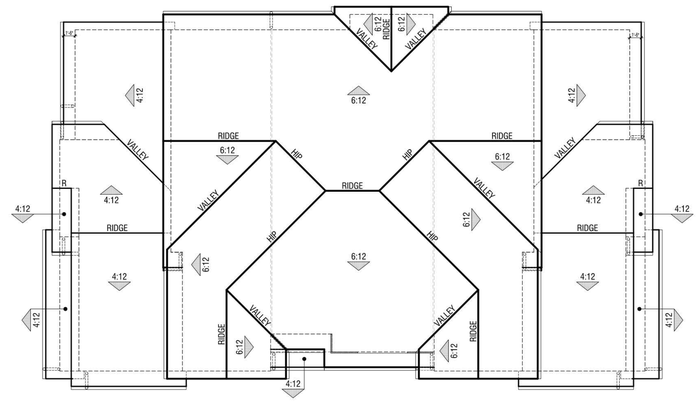
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200A
SPANISH ROOF PLAN
& ELEVATIONS

SHEET NO.
A9

ROOF INFORMATION

EAVE - 2'-0"
RAKE - 1'-0"
MATERIAL - CONCRETE FLAT TILE



BLDG 200B - ROOF PLAN - VINEYARD



BLDG 200B - RIGHT ELEVATION - VINEYARD



BLDG 200B - REAR ELEVATION - VINEYARD



BLDG 200B - LEFT ELEVATION - VINEYARD

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. VERTICAL SIDING
6. VINYL WINDOW w/ GRIDS
7. LIGHT FIXTURE - VISUAL COMFORT VADO - BLACK - 8731101-12
8. SECTIONAL GARAGE DOOR
9. WOOD RAILING
10. ILLUMINATED ADDRESS SIGN
11. STONE VENEER
12. WOOD POTSHELF
13. WOOD OUTLOOKER & KICKER
14. WOOD BEAM



BLDG 200B - FRONT ELEVATION - VINEYARD

BUILDING 200B - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-8" = 1'-0"

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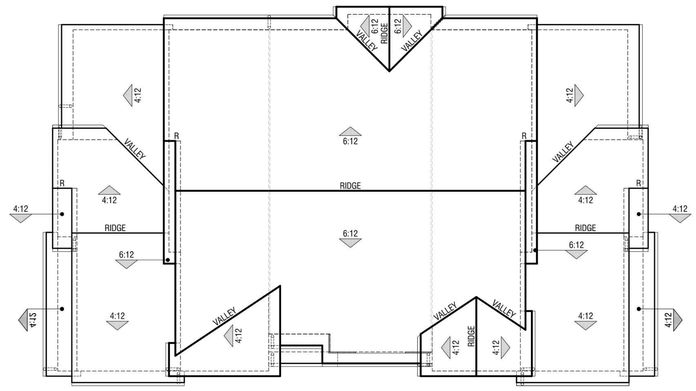
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MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200B
VINEYARD ROOF
PLAN & ELEVATIONS

SHEET NO.
A10



BLDG 200C - ROOF PLAN - FARM HOUSE

ROOF INFORMATION

EAVE - 1'-6"
RAKE - 8"
MATERIAL - CONCRETE FLAT TILE



BLDG 200C - RIGHT ELEVATION - FARM HOUSE



BLDG 200C - REAR ELEVATION - FARM HOUSE



BLDG 200C - LEFT ELEVATION - FARM HOUSE

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. BOARD & BATTEN
6. HORIZONTAL SIDING
7. VINYL WINDOW w/ GRIDS
8. LIGHT FIXTURE - VISUAL COMFORT TYBEE - BLACK - 8708901-12
9. SECTIONAL GARAGE DOOR
10. WOOD RAILING
11. ILLUMINATED ADDRESS SIGN
12. STONE VENEER
13. WOOD ROOF AWNING w/ KNEE BRACE
14. WOOD OUTLOOKER & KICKER



BLDG 200C - FRONT ELEVATION - FARM HOUSE

BUILDING 200C - ROOF PLAN & ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-8" = 1'-0"

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CITY OF EASTVALE

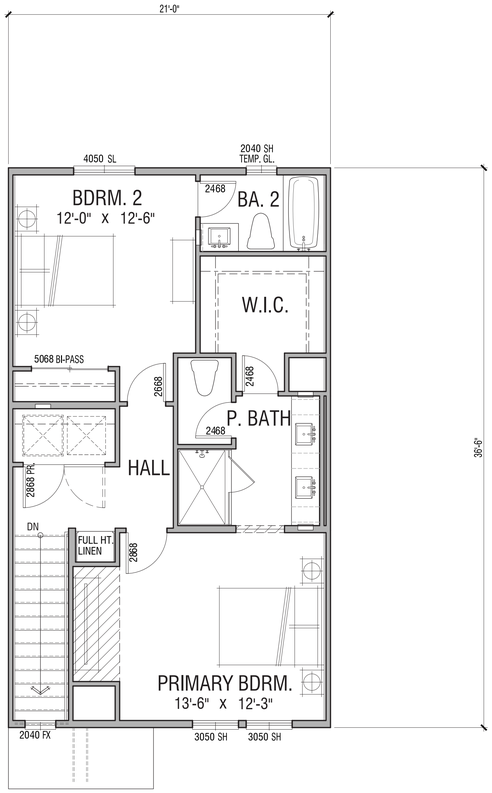
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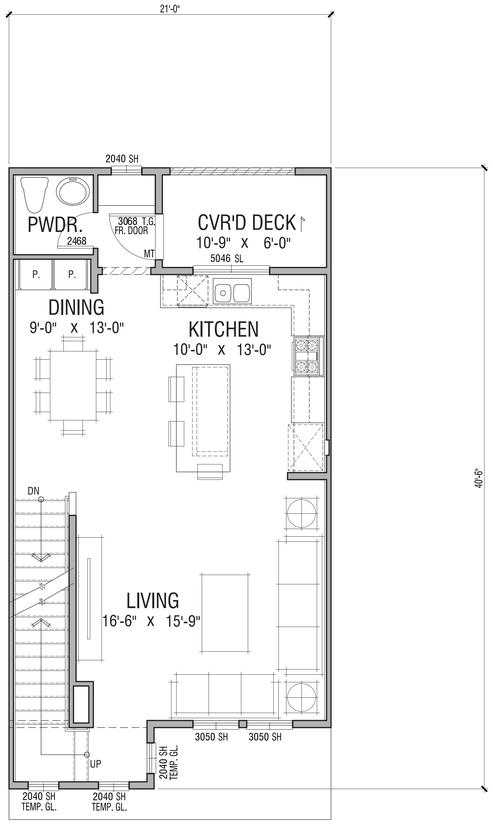
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MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200C
FARMHOUSE ROOF
PLAN & ELEVATIONS

SHEET NO.
A11



UNIT 1- THIRD LEVEL FLOOR PLAN

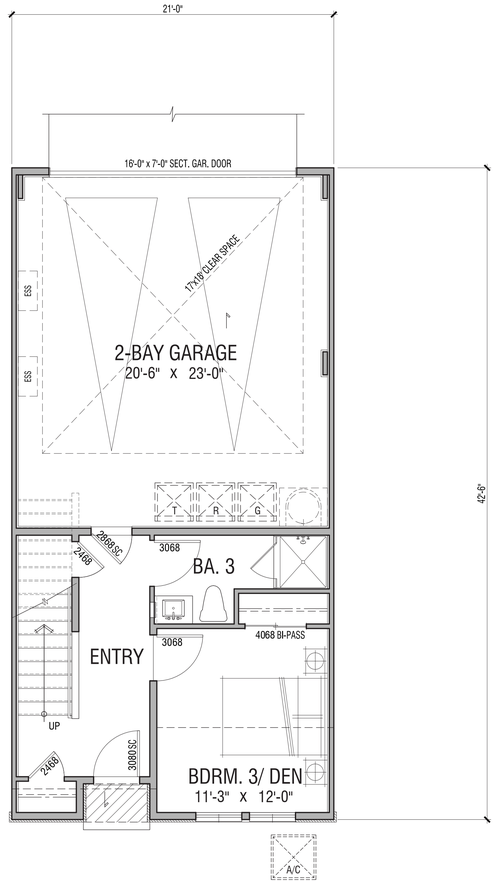


UNIT 1 - SECOND LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - UNIT 1	
ROOM TYPE	QUANTITY
BEDROOM(S)	3
BATH(S)	3.5

FLOOR AREA TABLE	UNIT 1A
FIRST LEVEL	396 SQ. FT.
SECOND LEVEL	733 SQ. FT.
THIRD LEVEL	717 SQ. FT.
TOTAL	1846 SQ. FT.
2-BAY GARAGE	493 SQ. FT.
COVERED DECK	71 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION



UNIT 1 - FIRST LEVEL FLOOR PLAN

UNIT 1 - FLOOR PLANS

SHEET SCALE: 1'- 4" = 1'-0"

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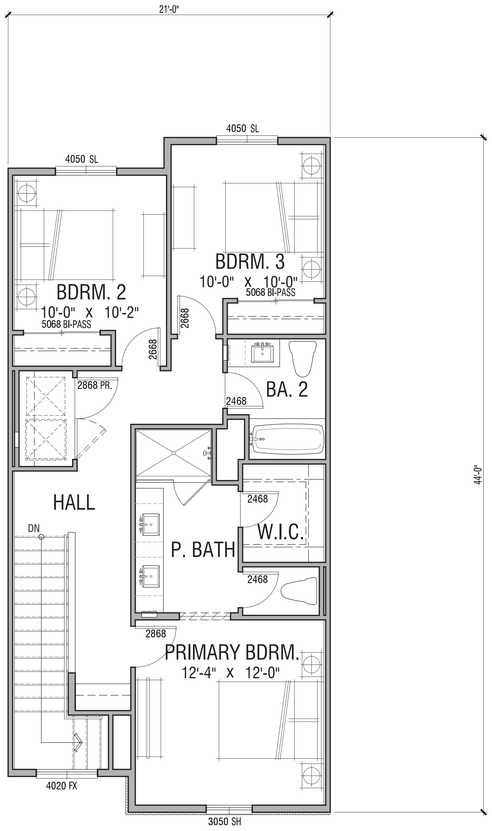
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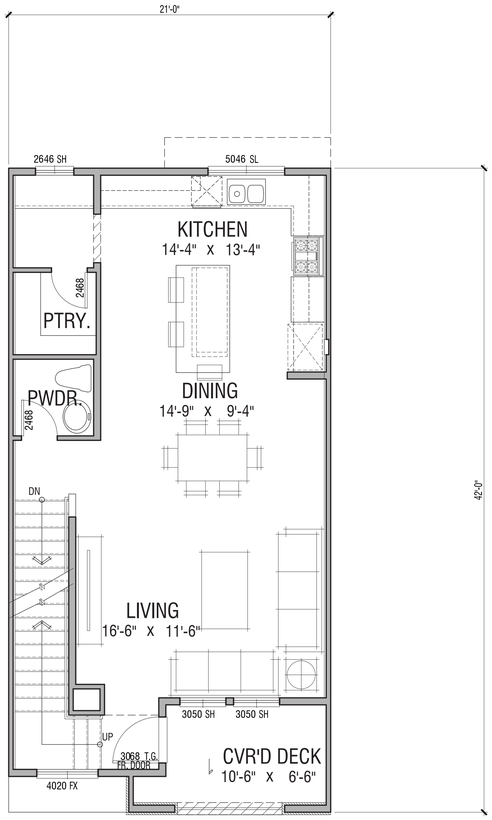
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MASTER DEVELOPMENT PLAN

SHEET TITLE
UNIT 1
FLOOR PLANS

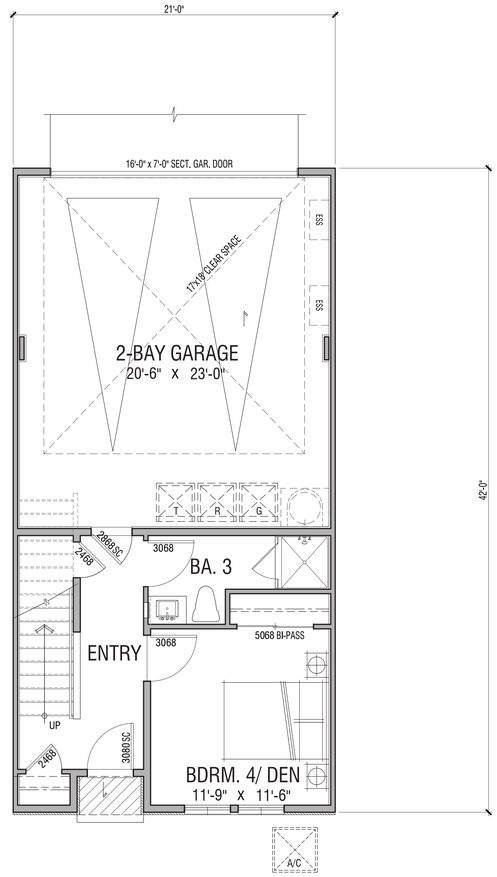
SHEET NO.
A12



UNIT 2 - THIRD LEVEL FLOOR PLAN



UNIT 2 - SECOND LEVEL FLOOR PLAN



UNIT 2 - FIRST LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - UNIT 2	
ROOM TYPE	QUANTITY
BEDROOM(S)	4
BATH(S)	3.5
FLOOR AREA TABLE	**UNIT 2A**
FIRST LEVEL	386 SQ. FT.
SECOND LEVEL	783 SQ. FT.
THIRD LEVEL	808 SQ. FT.
TOTAL	1977 SQ. FT.
2-BAY GARAGE	493 SQ. FT.
COVERED ENTRY	81 SQ. FT.

UNIT 2 - FLOOR PLANS

SHEET SCALE: 1'- 4" = 1'-0"

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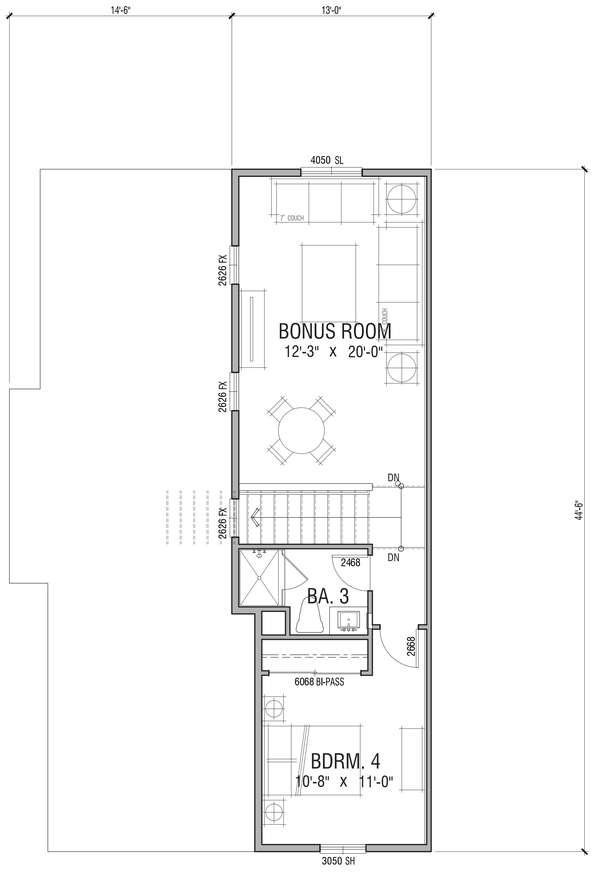
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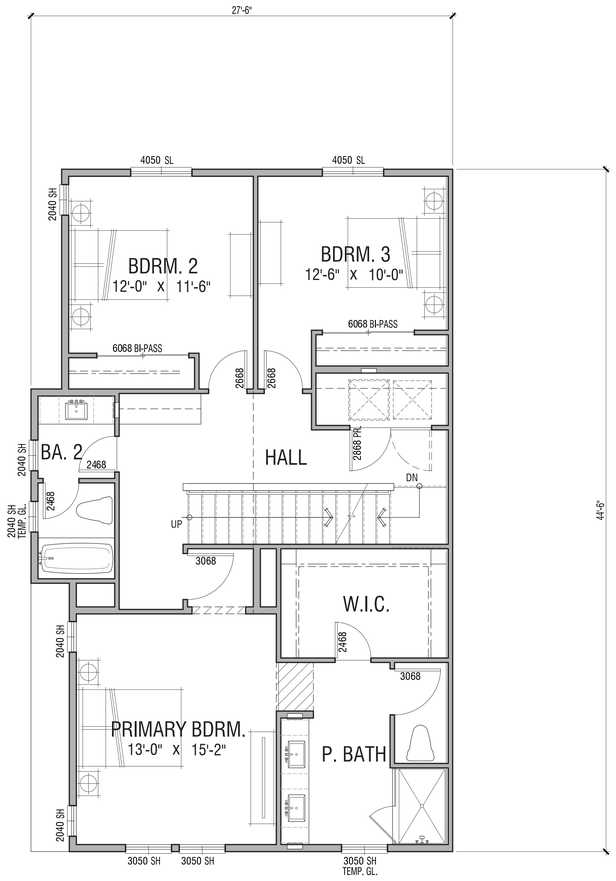
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MASTER DEVELOPMENT PLAN

SHEET TITLE
UNIT 2
FLOOR PLANS

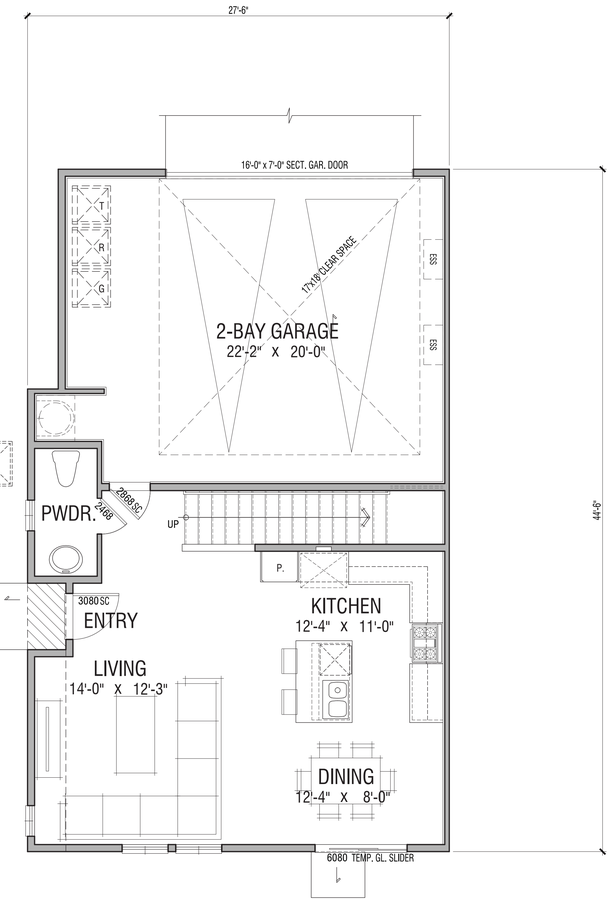
SHEET NO.
A13



UNIT 3 - THIRD LEVEL FLOOR PLAN



UNIT 3 - SECOND LEVEL FLOOR PLAN



UNIT 3 - FIRST LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - UNIT 3	
ROOM TYPE	QUANTITY
BEDROOM(S)	4
BATH(S)	3.5

FLOOR AREA TABLE	UNIT 3A
FIRST LEVEL	662 SQ. FT.
SECOND LEVEL	1151 SQ. FT.
THIRD LEVEL	510 SQ. FT.
TOTAL	2323 SQ. FT.
2-BAY GARAGE	522 SQ. FT.
COVERED ENTRY	11 SQ. FT.

UNIT 3 - FLOOR PLANS

SHEET SCALE: 1'- 4" = 1'-0"

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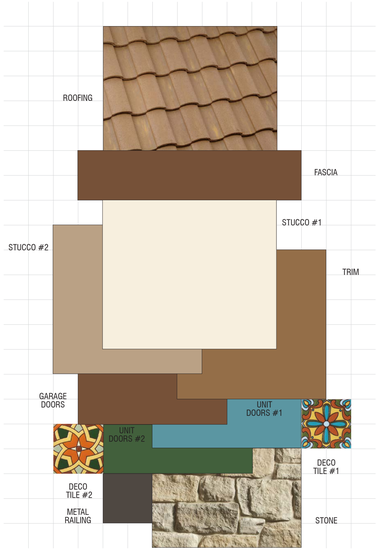
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SHEET TITLE
UNIT 3
FLOOR PLANS

SHEET NO.
A14

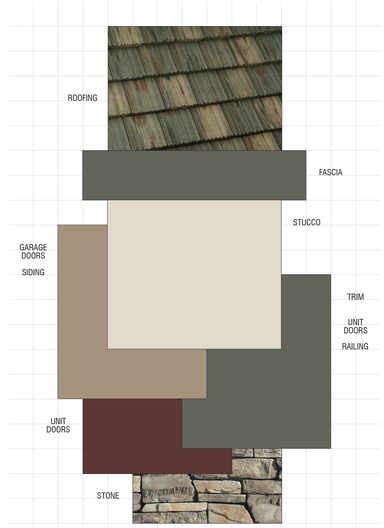


EASTWALK PA-6 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
August 4, 2023 | 2022341

SCHEME 1
'A' Elevations Only
Spanish

For exact color refer to manufacturers' actual samples.
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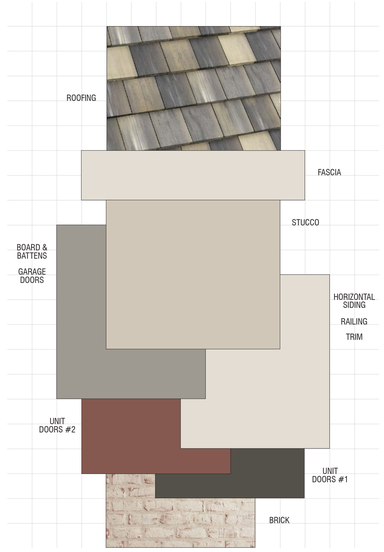


EASTWALK PA-6 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
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SCHEME 2
'B' Elevations Only
Vineyard

For exact color refer to manufacturers' actual samples.
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EASTWALK PA-6 TOWNHOMES

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SCHEME 3
'C' Elevations Only
Farmhouse

For exact color refer to manufacturers' actual samples.
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[1]EASTWALK PA-6 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
December 8, 2022 | 2022341

Exterior Color & Materials

SCHEME 1 — 'A' ELEVATIONS ONLY, SPANISH

Material	Color	Manufacturer
Roofing: Concrete 'S' Tile	3532 Weathered Terracotta Ref.: .24 Emi: .88 A.SRI: 26 CRRC: 0918-0014	Eagle
Metal Bird Stop @ 'S' Tile *(factory finish)*	Terracotta	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
[2]Manufactured Stone *(standard raked joints)*	Timberwolf Craft Orchard Limestone	Creative Mines
[2]Grout @ Manufactured Stone	Caramel	Orco
Stucco Color #1 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7105 Paperwhite)	Omega
Stucco Color #2 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 6108 Latte)	Omega
Trim Color #1 *(applied to):* Barge Boards, Fascia, Eaves, Garage Doors	SW 9100 Umber Rust	Sherwin Williams
Trim Color #2 *(applied to):* Trim, Utility Doors	SW 9106 El Caramelo	Sherwin Williams
Accent Color #1 *(applied to):* Unit Doors	SW 6494 Lakeshore	Sherwin Williams
Accent Color #2 *(applied to):* Unit Doors	SW 6446 Arugula	Sherwin Williams
Metal Railing	SW 7020 Black Fox	Sherwin Williams
6" x 6" Ceramic Deco Tile #1 *(@ Unit Doors with Accent Color #1 Only)*	SD 113-a	Arto
6" x 6" Ceramic Deco Tile #2 *(@ Unit Doors with Accent Color #2 Only)*	SD 117-b	Arto
6" x 6" Ceramic Solid Tile	470-u Pottery Brown	Arto
Grout @ Ceramic Tile	180 Sandstone	Custom Building Products
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Donna Aldrich (949) 250-0607.

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.
2	8/4/23	Manufactured stone added to Scheme 1.

[1]EASTWALK PA-6 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
December 8, 2022 | 2022341

Exterior Color & Materials

SCHEME 2 — 'B' ELEVATIONS ONLY, VINEYARD

Material	Color	Manufacturer
Roofing: Concrete Shake Tile	5634 Kings Canyon Blend Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0044	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Manufactured Stone *(dry stack joints)*	Grey Pearl Craft Peak Ledge	Creative Mines
Stucco Color *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7568 Neutral Ground)	Omega
Siding Color *(applied to):* Corner Boards, Garage Doors, Utility Doors, Vertical Siding	SW 9117 Urban Jungle	Sherwin Williams
Trim Color *(applied to):* Barge Boards, Braces, Eaves, Fascia, Pot Shelves, Railing, Secondary Doors, Trim, Unit Doors	SW 6202 Cast Iron	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 7595 Sommelier	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Donna Aldrich (949) 250-0607.

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.
2	8/4/23	Manufactured stone added to Scheme 1.

[1]EASTWALK PA-6 TOWNHOMES

Eastvale, California
THE NEW HOME COMPANY
December 8, 2022 | 2022341

Exterior Color & Materials

SCHEME 3 — 'C' ELEVATIONS ONLY, FARMHOUSE

Material	Color	Manufacturer
Roofing: Concrete Slate Tile	SCB 8827 Tacoma Blend Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0047	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Brick *(standard raked joints, half running bond pattern)*	Ghosted Craft Cannery Brick	Creative Mines
Grout @ Brick	Pale Smoke	Orco
Stucco Color *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7036 Accessible Beige)	Omega
Siding Color *(applied to):* Board & Battens, Corner Boards, Garage Doors, Utility Doors	SW 9170 Acier	Sherwin Williams
Trim Color *(applied to):* Barge Boards, Braces, Eaves, Fascia, Horizontal Siding, Railing, Secondary Doors, Trim	SW 7035 Aesthetic White	Sherwin Williams
Accent Color #1 *(applied to):* Unit Doors	SW 7048 Urbane Bronze	Sherwin Williams
Accent Color #2 *(applied to):* Unit Doors	SW 6054 Canyon Clay	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase. Contact Donna Aldrich (949) 250-0607.

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.
2	8/4/23	Manufactured stone added to Scheme 1.

COLOR BOARDS AND EXTERIOR COLOR & MATERIALS

Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITTAL		
		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

ARCHITECT — CITY

CITY OF EASTVALE

NEW HOME CO. move forward

ARCHITECTS . PLANNERS . DESIGNERS
WHA
ORANGE COUNTY . LOS ANGELES . BAY AREA . SACRAMENTO

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

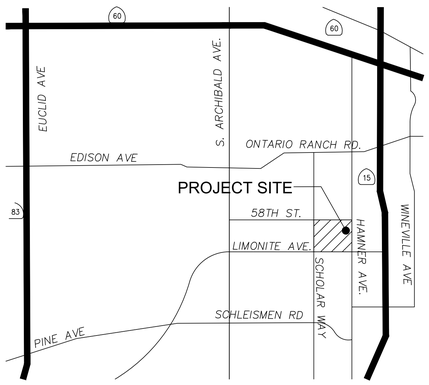
SHEET TITLE
COLOR BOARDS AND EXTERIOR COLOR & MATERIALS

SHEET NO.
A15

NEW HOME COMPANY
EASTWALK
LIMONITE AVE, HAMNER ST, 58TH ST, SCHOLAR WAY
TENTATIVE TRACT NO. 38290

PHASE 1 - PLANNING AREA 6

VICINITY MAP



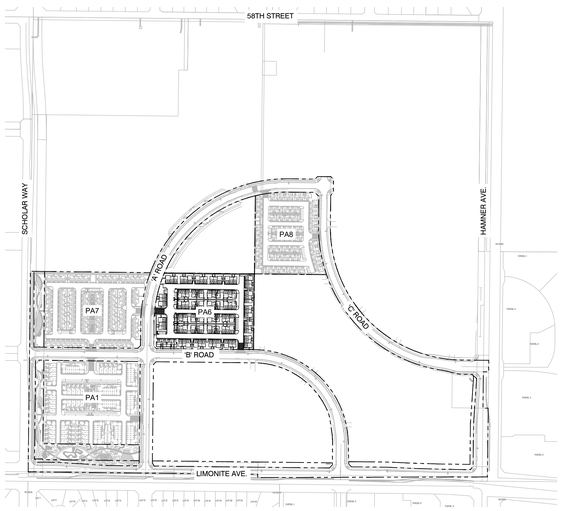
NORTH
N.T.S.

SHEET INDEX

LANDSCAPE SHEETS

SHEET NO.	SHEET TITLE
L-100	LANDSCAPE COVER SHEET
L-101	OVERALL SITE PLAN
L-201	PLANTING LEGEND
L-202	PLANTING IMAGERY BOARD
L-203	PLANTING IMAGERY BOARD
L-204	PLANTING IMAGERY BOARD
L-301	LANDSCAPE SITE PLAN
L-203	ENLARGEMENT PLANS
L-401	FENCE AND WALL ELEVATIONS

LOCATION MAP



GENERAL NOTES

NOTIFICATIONS

APPROVALS

PLAN CHECK #

CLIENT
NEW HOME COMPANY
15231 LAGUNA CANYON RD,
SUITE 250 IRVINE CA, 92618
949.208.7279
MIKE MILLER
MMILLER@NWHM.COM

LANDSCAPE ARCHITECT
BRIGHTVIEW DESIGN GROUP
8 HUGHES, STE 150
IRVINE, CA 92618
949.514.7906
GLEN SHARRAR
GLEN.SHARRAR@BRIGHTVIEW.COM

ARCHITECT
WHA
680 NEWPORT CENTER DR.SUITE 300
NEWPORT BEACH CA, 92660
949.250.0607 EXT. 8732
CHRIS BARLOW
CHRISB@WHAINC.COM

ARCHITECT
BASSENIAN
2031 ORCHARD DR. SUITE 100
NEWPORT BEACH, CA 92660
949.553.9100 EXT. 327
MARK KINER
MKINER@BASSENIANLAGOONI.COM

CIVIL ENGINEER
HUNSAKER & ASSOCIATES
2900 ADAMS STREET SUITE A-15
RIVERSIDE, CA 92504
951.509.7038
JOEY VALADEZ
JVALADEZ@HUNSAKER.COM

DEPARTMENT OF PLANNING
CITY OF EASTVALE, CA

ACCEPTED (PRINT NAME) _____ SIGNATURE _____ DATE _____

UTILITIES [CONTRACTOR TO NOTIFY THE FOLLOWING AGENCIES OR UTILITIES 48 HOURS PRIOR TO STARTING CONSTRUCTION OR EXCAVATION.]

ELECTRICAL COMPANY	SOUTHERN CALIFORNIA EDISON	909.930.8431
GAS COMPANY	SOCALGAS	909.758.8691
WATER DISTRICT	JURUPA COMMUNITY SERVICES DISTRICT	951.685.7434
TELEPHONE	VERIZON	909.469.2260
CABLE	AT&T	800.750.2355

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		05/25/23	SECOND CITY SUBMITTALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
LANDSCAPE COVER SHEET

SHEET NO.
L-100

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

'A' ROAD

'C' ROAD

N.A.P

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

PLANNING
AREA 8

PHASE A PROJECT BOUNDARY

PLANNING
AREA 7

PLANNING
AREA 6

PLANNING AREA 6
SITE BOUNDARY

'B' ROAD

'C' ROAD

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

'A' ROAD

'B' ROAD

SCHOLAR WAY

HAMNER AVE.

LIMONITE AVE.

SCALE: 1" = 120'-0"

Know what's below.
Call 811 before you dig.

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		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO.
move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
L-101

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CERCIS OCCIDENTALIS WESTERN REDBUD MULTI-TRUNK	36" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	HYMENOSPORUM FLAVUM SWEETSHADE	24" BOX	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

SHRUB LEGEND - ACCENTS

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
SPANISH ARCHITECTURAL STYLE			
ELAEOCARPUS DECIPIENS JAPANESE BLUEBERRY TREE	5 GAL	L	48" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW-WOOD	5 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS 'TUSCAN BLUE' TUSCAN BLUE ROSEMARY	5 GAL	L	48" o.c.
VINEYARD ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
PRUNUS CAROLINIANA CAROLINA CHERRY-LAUREL	5 GAL	L	48" o.c.
PODOCARPUS HENKELII HENKEL'S YELLOWWOOD	5 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS 'TUSCAN BLUE' TUSCAN BLUE ROSEMARY	5 GAL	L	48" o.c.
FARMHOUSE ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
DODONAEA VISCOSA 'PURPUREA' PURPLE-LEAFED HOP-BUSH	5 GAL	L	24" o.c.
ELAEOCARPUS DECIPIENS JAPANESE BLUEBERRY TREE	5 GAL	L	48" o.c.
LAURUS NOBILIS SWEET BAY	5 GAL	L	36" o.c.

SHRUB LEGEND - BACKGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ABUTILON PALMERI INDIAN MALLOW	5 GAL	L	48" o.c.
ALYOGYNE HUEGELII BLUE HIBISCUS	5 GAL	L	6'-0" o.c.
ARBUTUS UNEDO 'COMPACTA' COMPACT STRAWBERRY TREE	5 GAL	L	5'-0" o.c.
ARCTOSTAPHYLOS GLANDULOSA EASTWOOD MANZANITA	5 GAL	L	6'-0" o.c.
ARTEMISIA CALIFORNICA CALIFORNIA SAGEBRUSH	1 GAL	L	48" o.c.
BERBERIS AQUIFOLIUM OREGON GRAPE	5 GAL	L	48" o.c.
ECHIUM FASTUOSUM PRIDE OF MADEIRA	5 GAL	L	5'-0" o.c.
HETEROMELES ARBUTIFOLIA TOYON	5 GAL	L	48" o.c.
JUNIPERUS COMMUNIS COMMON JUNIPER	5 GAL	L	48" o.c.
LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	1 GAL	L	48" o.c.
MUHLENBERGIA RIGENS PINK MUHLY GRASS	1 GAL	M	48" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW WOOD	5 GAL	L	48" o.c.
RHUS INTEGRIFOLIA LEMONADE BERRY	5 GAL	L	10'-0" o.c.
RHUS OVATA SUGAR BUSH	5 GAL	L	8'-0" o.c.
RIBES SANGUINEUM RED FLOWERING CURRANT	1 GAL	M	48" o.c.
ROMNEYA COULTERI MATILIJA POPPY	5 GAL	L	6'-0" o.c.
TAGETES LEMMONII COPPER CANYON DAISY	5 GAL	L	8'-0" o.c.
TECOMA X 'ORANGE JUBILEE' ORANGE JUBILEE YELLOW BELLS	5 GAL	L	8'-0" o.c.

SHRUB LEGEND - MIDGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
AGAVE ATTENUATA FOXTAIL AGAVE	5 GAL	L	48" o.c.
AGAVE X 'BLUE FLAME' BLUE FLAME AGAVE	5 GAL	L	36" o.c.
AGAVE X 'BLUE GLOW' BLUE GLOW AGAVE	5 GAL	L	36" o.c.
ANIGOZANTHOS X 'ORANGE CROSS' ORANGE CROSS KANGAROO PAW	1 GAL	L	24" o.c.
BACCHARIS PILULARIS COYOTE BRUSH	1 GAL	L	8'-0" o.c.
BERBERIS THUNBERGII JAPANESE GREENLEAF BARBERRY	5 GAL	M	5'-0" o.c.
CALLISTEMON VIMINALIS 'LITTLE JOHN' LITTLE JOHN WEEPING BOTTLEBRUSH	1 GAL	M	5'-0" o.c.
CISTUS SALVIIFOLIUS 'PROSTRATUS' SAGELEAF ROCKROSE	1 GAL	L	5'-0" o.c.
DIANELLA REVOLUTA 'DTN03' BABY BLISS™ FLAX LILY	1 GAL	L	36" o.c.
EUPHORBIA RIGIDA YELLOW SPURGE	5 GAL	L	36" o.c.
HESPERALOE PARVIFLORA RED YUCCA	1 GAL	L	48" o.c.
JUNCUS PATENS CALIFORNIA GRAY RUSH	1 GAL	L	24" o.c.
KALANCHOE THYRSIFLORA PADDLE PLANT	1 GAL	L	36" o.c.
KNIPHOFIA TRIANGULARIS DWARF RED HOT POKER	1 GAL	M	48" o.c.
KNIPHOFIA UVARIA RED HOT POKER	1 GAL	L	36" o.c.
LAVANDULA STOECHAS SPANISH LAVENDER	5 GAL	L	36" o.c.
LEUCOPHYLLUM CANDIDUM TEXAS SAGE	5 GAL	L	36" o.c.
LOMANDRA LONGIFOLIA 'BREEZE' BREEZE™ MAT RUSH	5 GAL	L	36" o.c.
MELALEUCA NESOPHILA 'LITTLE NESSIE' LITTLE NESSIE PINK MELALEUCA	1 GAL	L	5'-0" o.c.
NANDINA DOMESTICA 'COMPACTA' DWARF HEAVENLY BAMBOO	1 GAL	M	36" o.c.
OLEA EUROPAEA 'MONTRA' LITTLE OLLIE® OLIVE	5 GAL	L	36" o.c.
PHLOMIS FRUTICOSA JERUSALEM SAGE	1 GAL	M	48" o.c.
PRUNUS ILICIFOLIA HOLLYLEAF CHERRY	5 GAL	L	8'-0" o.c.
RHAPHIOLEPIS UMBELLATA 'MINOR' DWARF INDIAN HAWTHORN	1 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS ROSEMARY	1 GAL	L	48" o.c.
SALVIA GREGGII AUTUMN SAGE	1 GAL	L	36" o.c.
SALVIA ROSMARINUS ROSEMARY	5 GAL	L	36" o.c.
SALVIA SPATHACEA HUMMINGBIRD SAGE	1 GAL	M	48" o.c.
TRICHOSTEMA LANATUM WOOLLY BLUE CURLS	1 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'BLUE GEM' COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA GREY BOX DWARF COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'SMOKEY' COAST ROSEMARY	5 GAL	L	48" o.c.

SHRUB LEGEND - FOREGROUND/GROUNDCOVER

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ACACIA REDOLENS 'DESERT CARPET' DESERT CARPET BANK CATCLAW	1 GAL	L	6'-0" o.c.
ACHILLEA TOMENTOSA WOOLLY YARROW	1 GAL	L	12" o.c.
BOUTELOUA GRACILIS BLUE GRAMA GRASS	1 GAL	L	24" o.c.
CAREX DIVULSA EUROPEAN GREY SEDGE	1 GAL	L	24" o.c.
CEANOTHUS X 'JOYCE COULTER' JOYCE COULTER WILD LILAC	1 GAL	M	8'-0" o.c.
ESCHSCHOLZIA CALIFORNICA CALIFORNIA POPPY	1 GAL	L	12" o.c.
FESTUCA GLAUCA BLUE FESCUE	1 GAL	M	18" o.c.
LANTANA MONTEVIDENSIS PURPLE TRAILING LANTANA	1 GAL	L	8'-0" o.c.
LONICERA JAPONICA JAPANESE HONEYSUCKLE	5 GAL	L	36" o.c.
MYOPORUM PARVIFOLIUM 'PUTAH CREEK' CREEPING MYOPORUM	1 GAL	L	8'-0" o.c.
ROSMARINUS OFFICINALIS 'HUNTINGTON CARPET' HUNTINGTON CARPET ROSEMARY	1 GAL	L	36" o.c.
SENECIO CINERARIA DUSTY MILLER	1 GAL	L	24" o.c.
SENECIO SERPENS BLUE CHALKSTICKS	1 GAL	L	24" o.c.
TEUCRIUM CHAMAEDRYS GERMANDER	1 GAL	L	24" o.c.
TEUCRIUM COSSONII CREEPING GERMANDER	1 GAL	L	24" o.c.
THYMUS X CITRIODORUS LEMON THYME	1 GAL	L	24" o.c.
TRACHELOSPERMUM JASMINOIDES CHINESE STAR JASMINE	1 GAL	M	36" o.c.

VINE LEGEND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
BOUGAINVILLEA X 'ROSENKA' ROSENKA BOUGAINVILLEA	5 GAL	L	48" o.c.
TRACHELOSPERMUM JASMINOIDES STAR JASMINE TRELLIS	5 GAL	M	48" o.c.
WISTERIA SINENSIS CHINESE WISTERIA	5 GAL	M	48" o.c.

NOTES:

1. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM
   - 15 GALLON 10%
   - 5 GALLON 30%
   - 1 GALLON 60%

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING LEGEND

SHEET NO.
L-201

EVERGREEN TREES



ARBUTUS X 'MARINA'
MARINA STRAWBERRY TREE



CERCIS OCCIDENTALIS
WESTERN REDBUD



CINNAMOMUM CAMPHORA
CAMPHOR TREE



HYMENOSPORUM FLAVUM
SWEET SHADE



PODOCARPUS GRACILIOR
FERN PINE



RHUS LANCEA
AFRICAN SUMAC

DECIDUOUS TREES



PARKINSONIA X 'DESERT MUSEUM'
DESERT MUSEUM PALO VERDE



ULMUS PARVIFOLIA DRAKE
DRAKE CHINESE ELM

ACCENT TREES

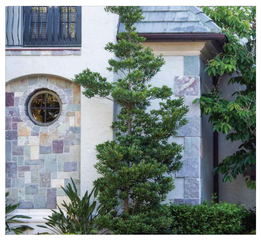


ACACIA BAILEYANA 'PURPUREA'
PURPLE FERNLEAF ACACIA



TECOMA STANS
YELLOW BELLS

SPANISH ARCHITECTURAL ACCENT PLANTING



ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD



ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY

VINEYARD ARCHITECTURAL ACCENT PLANTING



PRUNUS CAROLINIANA
CAROLINA CHERRY-LAUREL



PODOCARPUS HENKELII
HENKEL'S YELLOWWOOD

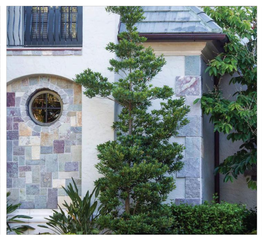


ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY

FARMHOUSE ARCHITECTURAL ACCENT PLANTING



DODONAEA VISCOSA 'PURPUREA'
PURPLE-LEAFED HOP-BUSH



ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE



LAURUS NOBILIS
SWEET BAY

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-202

BACKGROUND SHRUBS



ABUTILON PALMERI
INDIAN MALLOW



ALYGYNE HUEGELII
BLUE HIBISCUS



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE



ARCTOSTAPHYLOS GLANDULOSA
EASTWOOD MANZANITA



ARTEMISIA CALIFORNICA 'CANYON GREY'
CANYON GREY CALIFORNIA SAGEBRUSH



BACCHARIS PILULARIS
COYOTE BRUSH



ECHIUM FASTUOSUM
PRIDE OF MADEIRA



HETEROMELES ARBUTIFOLIA
TOYON



JUNIPERUS COMMUNIS
COMMON JUNIPER



LEYMUS CONDENSATUS
GIANT WILD RYE



MUHLENBERGIA RIGENS 'PINK MULHY'
PINK MUHLY



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD



RHUS INTEGRIFOLIA
LEMONADE BERRY



RHUS OVATA
SUGAR BUSH



RIBES SANGUINEUM
RED FLOWERING CURRANT



ROMNEYA COULTERI
MATILIJA POPPY



TAGETES LEMONII
COPPER CANYON DAISY



TECOMA X 'ORANGE JUBILEE'
ORANGE JUBILEE YELLOW BELLS

MIDGROUND SHRUBS



AGAVE ATTENUATA
FOXTAIL AGAVE



AGAVE X 'BLUE FLAME'
BLUE FLAME AGAVE



AGAVE X 'BLUE GLOW'
BLUE GLOW AGAVE



ANIGOZANTHOS X 'ORANGE CROSS'
ORANGE CROSS KANGAROO PAW



BERBERIS THUNBERGII
JAPANESE GREENLEAF BARBERRY



CALLISTEMON VIMINALIS 'LITTLE JOHN'
LITTLE JOHN WEEPING BOTTLEBRUSH



CISTUS SALVIIFOLIUS 'PROSTRATUS'
SAGELEAF ROCKROSE



DIANELLA REVOLUTA 'DTNO3'
BABY BLISS FLAX LILY



EUPHORBIA RIGIDA
YELLOW SPURGE



HESPERALOE PARVIFLORA
RED YUCCA



JUNCUS PATENS
CALIFORNIA GRAY RUSH



KALANCHOE THYRSIFLORA
PADDLE PLANT



KNIPHOFIA TRIANGULARIS
DWARF RED HOT POKER



KNIPHOFIA UVARIA
RED HOT POKER



LAVANDULA STOECHAS
SPANISH LAVENDER



LEUCOPHYLLUM CANDIDUM
TEXAS SAGE



LOMANDRA LONGIFOLIA 'BREEZE'
BREEZE MAT RUSH



MELALEUCA NESOPHILA 'LITTLE NESSIE'
LITTLE NESSIE PINK MELALEUCA

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LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-203

MIDGROUND SHRUBS CONT.



NANDINA DOMESTICA 'COMPACTA'
DWARF HEAVENLY BAMBOO



OLEA EUROPAEA 'MONTRA'
LITTLE OLLIE OLIVE



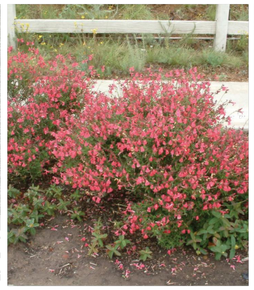
PHLOMIS FRUTICOSA
JERUSALEM SAGE



RHAPHIOLEPIS UMBELLATA 'MINOR'
DWARF INDIAN HAWTHORN



ROSMARINUS OFFICINALIS
ROSEMARY



SALVIA GREGII
AUTUMN SAGE



SALVIA SPATHACEA
HUMMINGBIRD SAGE



TRICHOSTEMA LANATUM
WOOLLY BLUE CURLS



WESTRINGIA FRUTICOSA
COAST ROSEMARY



WESTRINGIA FRUTICOSA 'SMOKEY GREY BOX
COAST ROSEMARY

FOREGROUND/GROUNDCOVER



ACACIA REDOLENS 'DESERT CARPET'
SWEET ACACIA



ACHILLEA TOMENTOSA
WOOLLY YARROW



BOUTELOUA GRACILIS
BLUE GRAMA GRASS



CAREX DIVULSA
EUROPEAN GREY SEDGE



CEONOTHUS X 'JOYCE COULTER'
JOYCE COULTER WILD LILAC



ESCHSCHOLZIA CALIFORNICA
CALIFORNIA POPPY



FESTUCA GLAUCA
BLUE FESCUE



LANTANA MONTEVIDENSIS
PURPLE TRAILING LANTANA



LONICERA JAPONICA
JAPANESE HONEYSUCKLE



MYOPORUM PARVIFOLIUM
TRAILING MYOPORUM



ROSMARINUS OFFICINALIS
'HUNTINGTON CARPET'
ROSEMARY



SENECIO CINERARIA
DUSTY MILLER



SENECIO SERPENS
BLUE CHALKSTICKS



TEUCRIUM CHAMAEDRYS
GERMANDER



TEUCRIUM COSONII
CREEPING GERMANDER

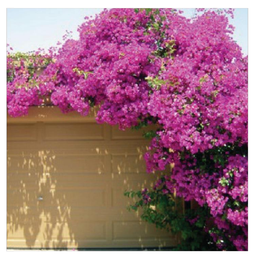


THYMUS X CITRIODORUS
LEMON THYME



TRACHELOSPERMUM JASMINOIDES
CHINESE STAR JASMINE

FOREGROUND/GROUNDCOVER



BOUGAINVILLEA 'ROSENKA'
ROSENKA BOUGAINVILLEA



TRACHELOSPERMUM JASMINOIDES
STAR JASMINE



WISTERIA SINENSIS
CHINESE WISTERIA

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. *move forward*

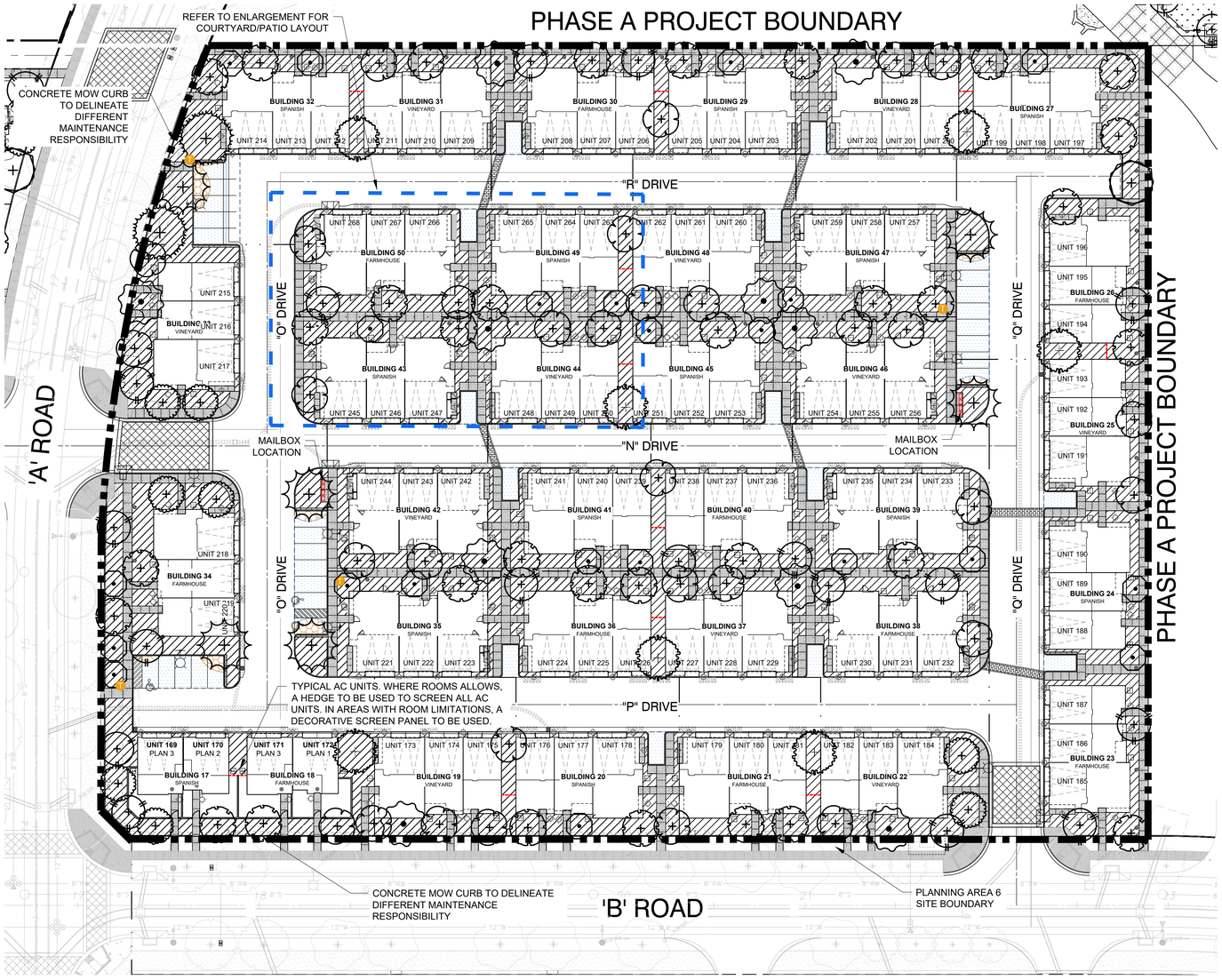
BrightView Design Group
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(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-204



NOTE:
BUILDING 17 AND 18 REFLECT FOOTPRINTS FROM PLANNING AREA 8. REFER TO PLANNING AREA 8 FOR ADDITIONAL INFORMATION ON BUILDING FOOTPRINTS.

SCALE: 1" = 30'-0"

FENCE AND WALL LEGEND :

6'-0" HIGH PRECISION BLOCK WALL WITH 2" PRECISION BLOCK CAP. ANGELUS BLOCK, COLOR "FAWN". FINAL MATERIAL / COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

- TRASH CANS
- CONCRETE PAVING
- DECORATIVE VEHICULAR PAVING
- ENHANCED PEDESTRIAN PAVING
- PROPOSED MAILBOX LOCATION (ACTUAL MAILBOX LOCATIONS MAY CHANGE UPON USPS REVIEW)

TREE SHADING LEGEND:

- PARKING AREA SHADED BY TREES
- PARKING AREA

SHADED SUMMARY:

TOTAL PARKING AREA: (EXCLUDES DRIVE AISLES AND COVERED PARKING SPACES)	6,177 SF.
PARKING AREA SHADED BY TREES 11% OF COVERED PARKING AREA	676 SF

* TREES SHOWN AT 15 YEARS MATURITY, PER RIVERSIDE COUNTY ORDINANCE 348, SECTION 1812

LANDSCAPE COVERAGE SUMMARY:

OVERALL LANDSCAPE: 47,078 SQ. FT.

TOTAL DEVELOPED AREA - PA 6: 5.61 ACRES

PERCENTAGE OF LANDSCAPE AREA: ± 19%

SHRUBS - REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

TREE LEGEND

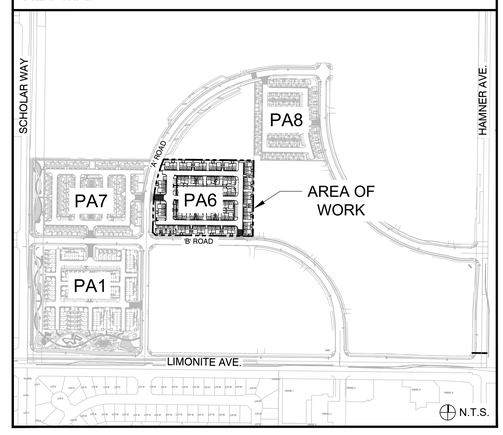
SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CERCIS OCCIDENTALIS WESTERN REDBUD MULTI-TRUNK	36" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	HYMENOSPORUM FLAVUM SWEETSHADE	24" BOX	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN .
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

KEY MAP



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LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

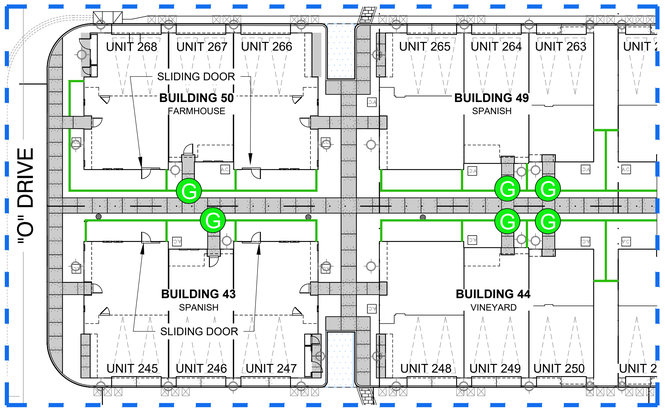
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IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
LANDSCAPE SITE PLAN

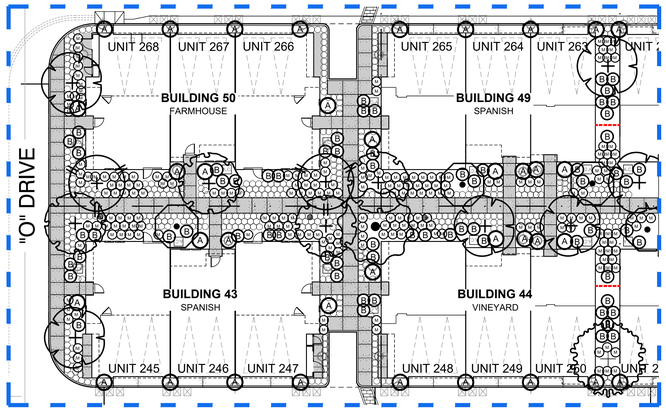
SHEET NO.
L-301



PATIO/COURTYARD WALL OPTION - ENLARGEMENT

NOTE: PATIO/COURTYARD WALL SHOWN ARE OPTIONAL AND MIGHT NOT BE FEASIBLE DUE TO SITE CONDITIONS. FINAL LAYOUT SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER.

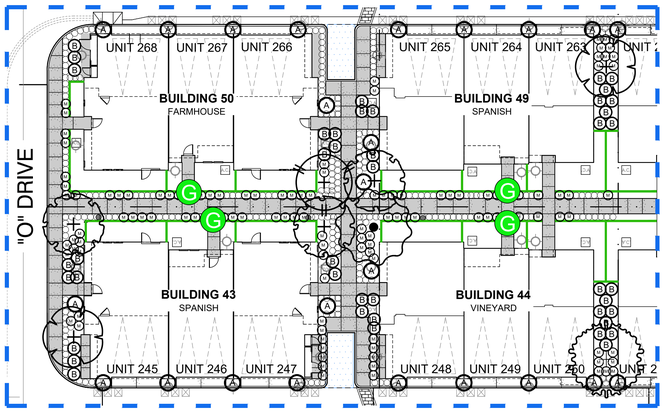
SCALE: 1" = 20'-0"



PLANTING VIGNETTE - ENLARGEMENT

NOTE: TYPICAL MASSING/LAYOUT. FINAL LAYOUT TO BE DETERMINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS.

SCALE: 1" = 20'-0"



PLANTING VIGNETTE PATIO/COURTYARD WALL OPTION - ENLARGEMENT

Note: TYPICAL MASSING/LAYOUT. FINAL LAYOUT TO BE DETERMINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS.

SCALE: 1" = 20'-0"

FENCE AND WALL LEGEND :

- 3'-0" HIGH PRECISION BLOCK WALL - NO CAP. ANGELUS BLOCK, COLOR "FAWN". SITE SPECIFIC LAYOUT/HEIGHT MAY VARY DEPENDING ON FINAL SITE CONDITIONS. FINAL MATERIAL/COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.
- 6'-0" HIGH PRECISION BLOCK WALL WITH 2" PRECISION BLOCK CAP. ANGELUS BLOCK, COLOR "FAWN". FINAL MATERIAL / COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

- PATIO/COURTYARD GATE
- CONCRETE PAVING
- DECORATIVE VEHICULAR PAVING
- ENHANCED PEDESTRIAN PAVING

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CERCIS OCCIDENTALIS WESTERN REDBUD MULTI-TRUNK	36" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	HYMENOSPORUM FLAVUM SWEETSHADE	24" BOX	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

SHRUB LEGEND

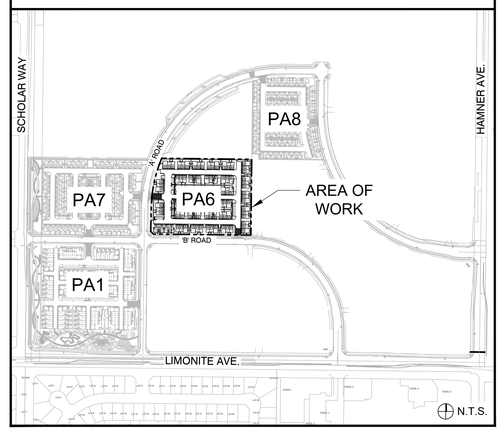
SYMBOL	DESCRIPTION	SIZE
A	ACCENTS	15 GAL
B	BACKGROUND	5 GAL
M	MIDGROUND	5 GAL AND 1 GAL
	GROUNDCOVER	1 GAL

NOTES:
1. REFER TO SHEET L-201 FOR FULL SHRUB PLANT PALETTE.
2. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM.
   15 GALLON: 10%
   5 GALLON: 30%
   1 GALLON: 60%

GENERAL NOTES:

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LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

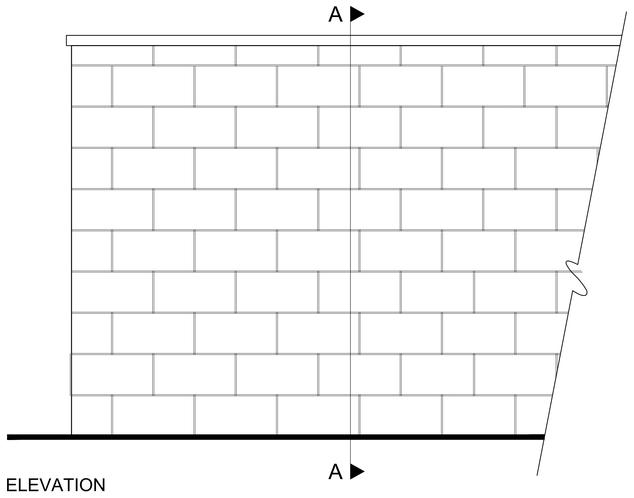
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(949) 238-4900

PA NO. 6

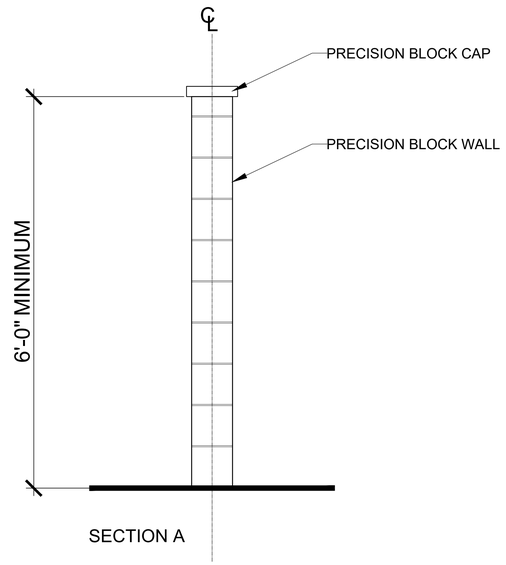
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
ENLARGEMENT PLAN

SHEET NO.
L-302



ELEVATION



SECTION A

PRIVACY WALL OPTIONS

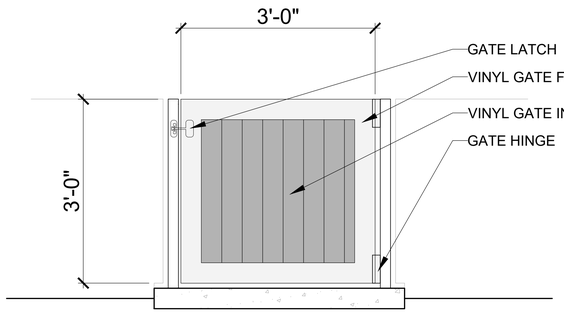
Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"

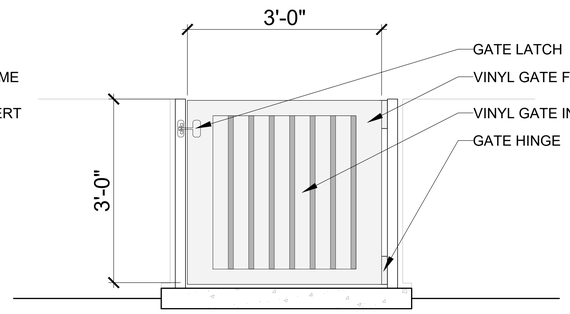


AC UNIT SCREEN PANEL

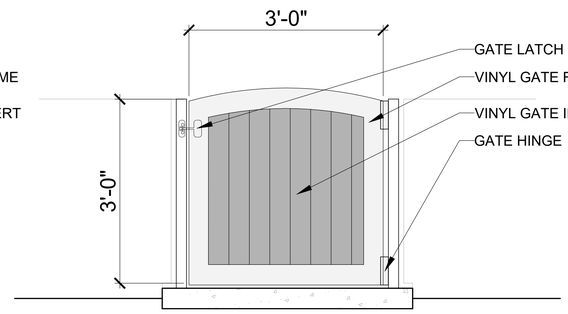
Final material selection subject to change per landscape plan submittal



VINEYARD



FARMHOUSE



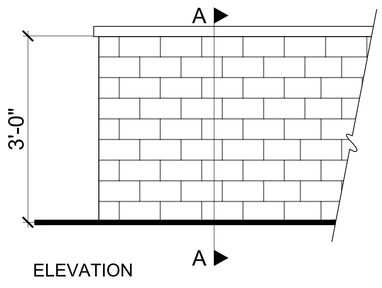
SPANISH

NOTE: SOME RESIDENTIAL UNITS MAY NOT HAVE A GATE AT THE DISCRETION OF THE MASTER DEVELOPER

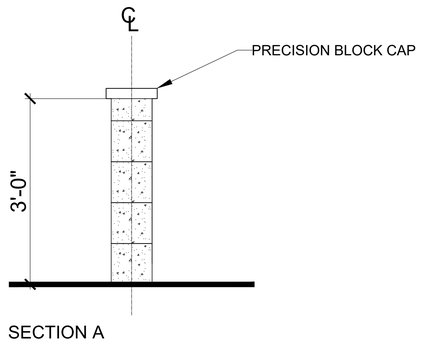
PATIO/COURTYARD GATE OPTIONS (OPTIONAL)

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"



ELEVATION



SECTION A

PATIO/COURTYARD WALL OPTIONS (OPTIONAL)

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"

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LANDSCAPE ARCHITECT | CITY

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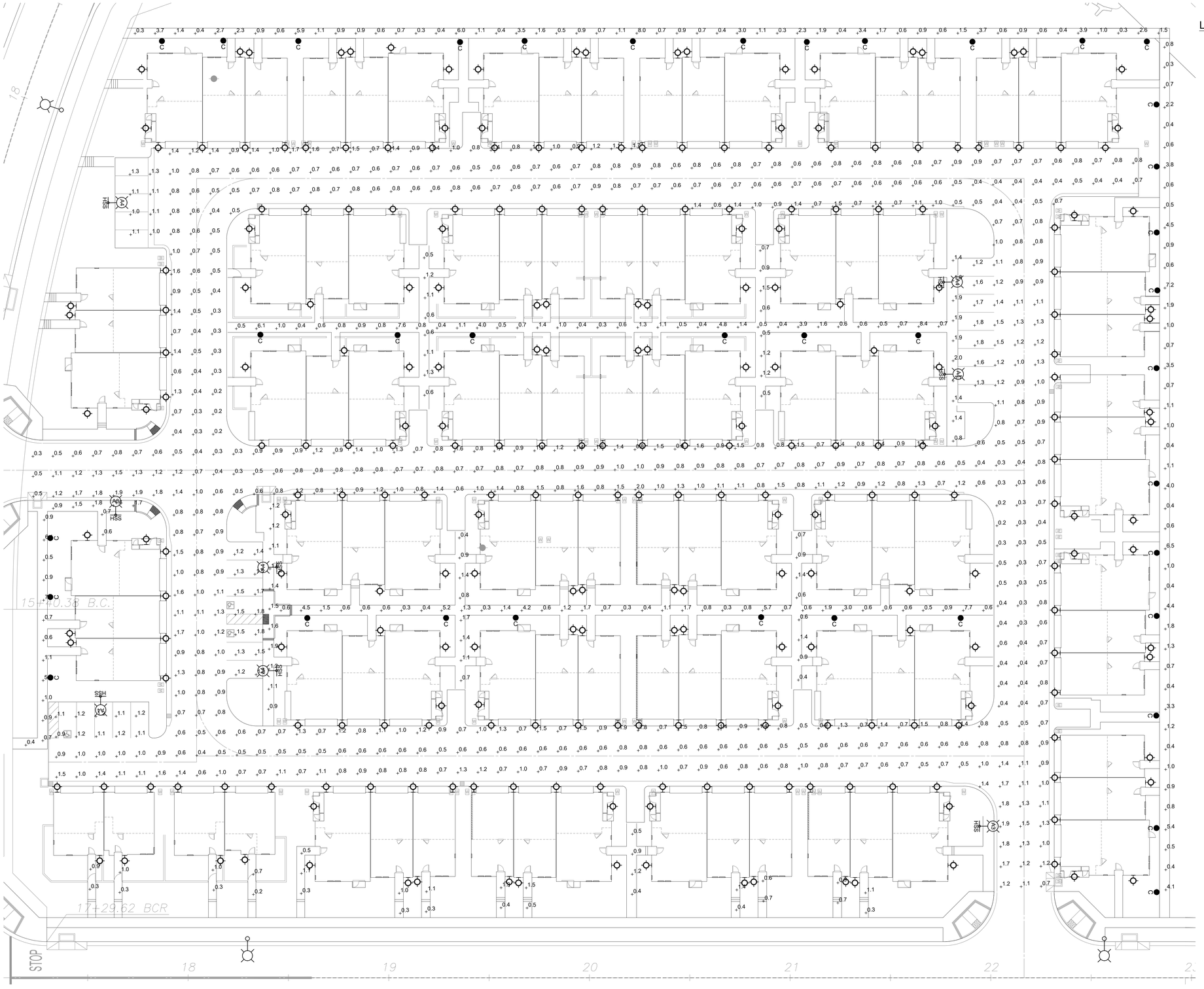
BrightView Design Group
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PA NO. 6

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
FENCE AND WALL ELEVATIONS

SHEET NO.
L-401



LIGHTING FIXTURE LEGEND

20' DIA.

A1 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE III
USA# DS8A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

A2 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE IV- FORWARD THROW
USA# DS8A-PLED-IVFT-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

HSS — HOUSE SIDE SHIELD PER PLAN.
NOT ALL FIXTURES WILL HAVE A SHIELD.

36" / 5.5" / 7"

C — 20W. LED BOLLARD LIGHT - 36" TALL
USA# TLB5-DP-18LED-350mA-WW

LED WALL LIGHT
(1000 LUMEN MIN. AT 3000°K)
SELECT BY OWNER.
TO BE CONTROLLED BY ASTRONOMICAL TIME CLOCK ONLY.
SET DUSK TO DAWN.

N

10 0 5 10 20
(IN FEET)
1 inch = 20 ft.

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA 6
PHOTOMETRICS
SITE PLAN

SHEET NO.
E-1

EASTWALK | EASTVALE

PLANNING AREA 7
MAJOR DEVELOPMENT PLAN

GENERAL

SHEET	NAME
CS-1	Coversheet/Sheet Index
R-1	Site Rendering
R-2	Site Rendering
SP-1	Overall Illustrative
SP-2	Planning Area Illustrative
SP-3	Amenity Space Enlargement

CIVIL

SHEET	NAME
1 of 1	Master Development Plan
2 of 2	Master Development Plan
3 of 3	Master Development Plan

ARCHITECTURE

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A0.2	Detail Elements - Transitional Mediterranean
A0.3	Detail Elements - Transitional Farmhouse
A0.4	Detail Elements - Transitional Craftsman
A0.5	Elevation & Color Scheme Plotting
A1	Composite 1st Floor Plans
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LANDSCAPE

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10/03/2023

CS-1

VIEW 1: SOUTH SIDE VIEW OF FLEX SPACE

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



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SHEET TITLE
SITE RENDERING

SHEET NO.
R-1

VIEW 2: NORTH SIDE VIEW OF PASSIVE TRAIL SPACE

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



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SHEET TITLE
SITE RENDERING

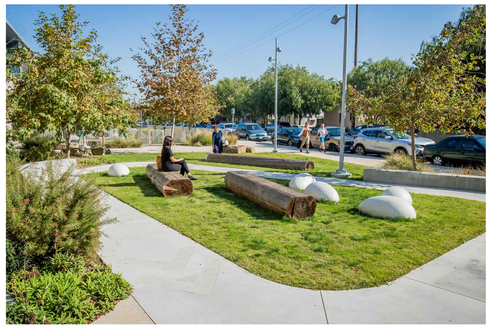
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R-2



PASSIVE SPACE REFERENCE IMAGERY









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SHEET TITLE
OVERALL ILLUSTRATIVE

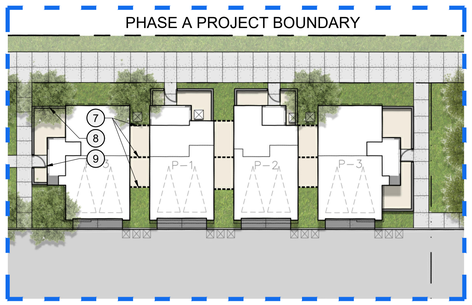
SHEET NO.
SP-1

SITE PLAN LEGEND

1. TYPICAL INTERNAL WALKWAYS
2. GUEST PARKING AREA
3. CONNECTION TO ADJACENT STREETS/OPEN SPACE
4. ENHANCED PAVING
5. DECORATIVE VEHICULAR PAVING AT ENTRY
6. MAILBOX LOCATION
7. PRIVACY WALL
8. OPTIONAL PATIO/COURTYARD WALL
9. OPTIONAL PATIO/COURTYARD GATE
10. DECOMPOSED GRANITE PAVING WITH BENCHES



SCALE: 1" = 40'-0"



PATIO/COURTYARD WALL OPTION - ENLARGEMENT

Note: Patio/courtyard wall shown are optional and might not be feasible due to site conditions.
Final layout subject to change at the discretion of the Master Developer.

SCALE: 1" = 20'-0"

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SHEET TITLE
PLANNING AREA ILLUSTRATIVE

SHEET NO.
SP-2



SITE PLAN LEGEND

1. LOW MASONRY PRIVACY WALL
2. STABILIZED DECOMPOSED GRANITE PAVING
3. CONCRETE PAVING WITH LIGHT FINISH
4. PERIMETER NATURAL GREY CONCRETE PAVING
5. COMMUNITY THEME BENCHES
6. OPEN SPACE FOR SOFT SEATING.
7. SUNKEN OPEN TURF AREA
8. STEPS TO SUNKEN TURF AREA
9. CONCRETE RAMP
10. ENHANCED PAVING
11. OUTDOOR TABLE WITH CHAIRS
12. STRING LIGHTS
13. SOFT SEATING (CHAIRS/COFFEE TABLE)
14. PING PONG TABLE

SCALE: 1" = 10'-0"

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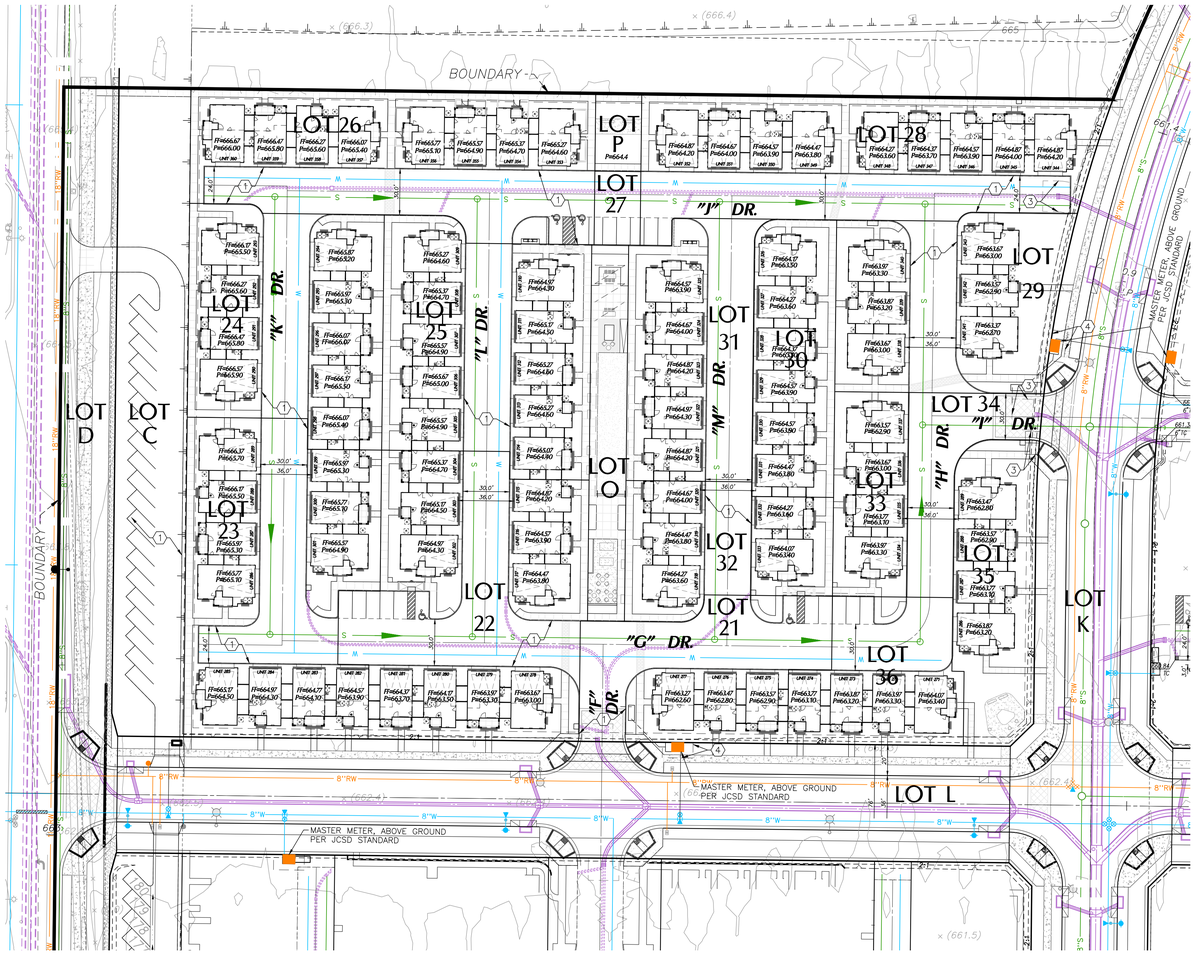
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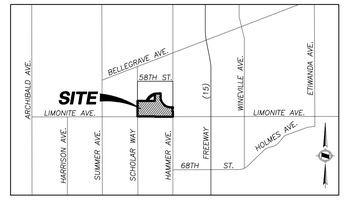
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CITY OF EASTVALE
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SHEET TITLE
OPEN SPACE ENLARGEMENT

SHEET NO.
SP-3





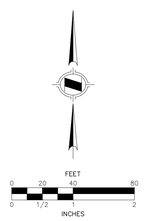
VICINITY MAP

PROPOSED EASEMENTS

1. INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.
2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- PROPOSED A.C. PAD
- PROPOSED MASTER METER



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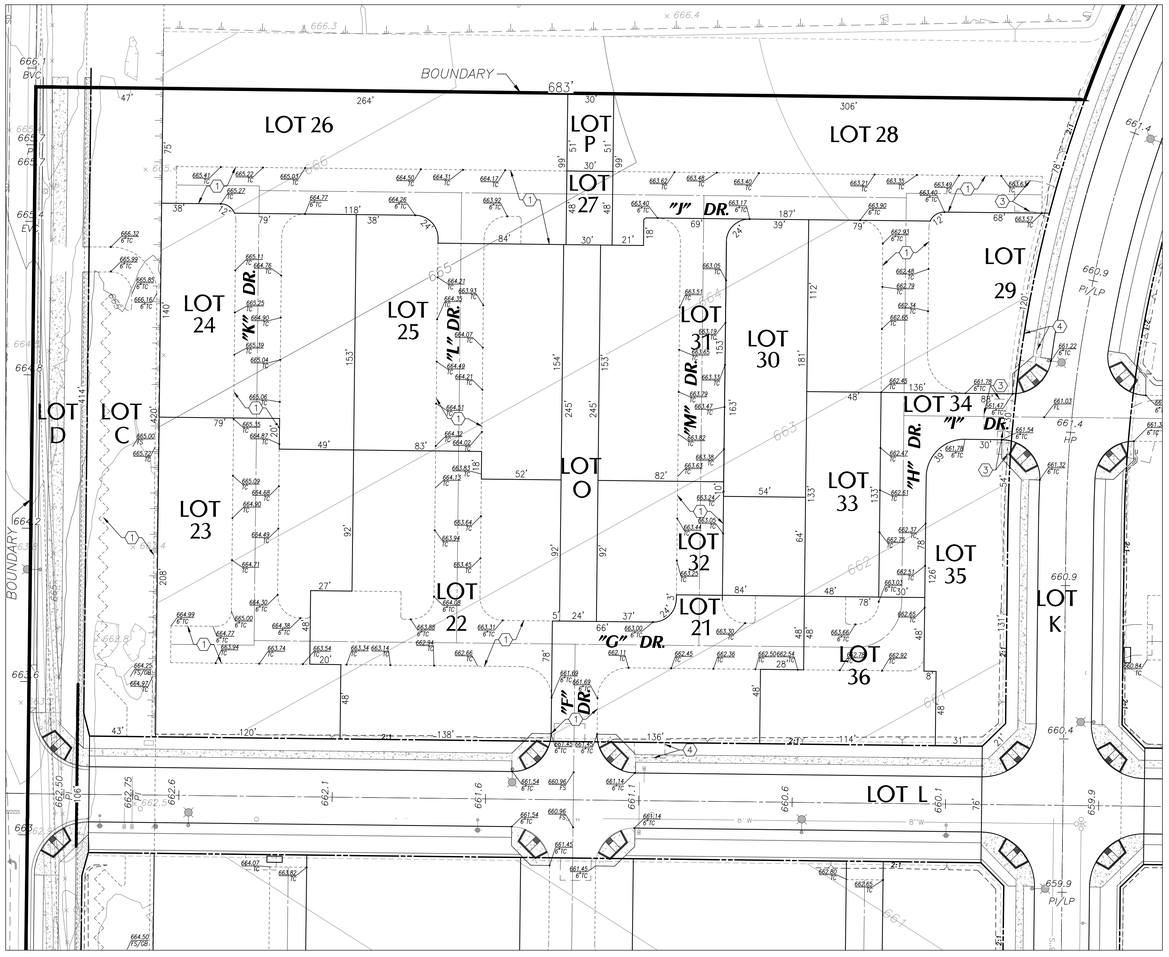
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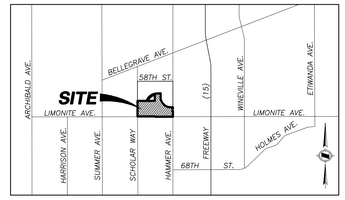
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SHEET
3 OF 3

W.O.: 2749-44CX EASTWALK

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VICINITY MAP

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2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL

NUMBER LOT SUMMARY

Lot No.	Land Use	S.F	Acres
21	Residential	13,068	0.30
22	Residential	25,700	0.59
23	Residential	23,958	0.55
24	Residential	18,295	0.42
25	Residential	20,038	0.46
26	Residential	22,651	0.52
27	Residential	1,307	0.03
28	Residential	23,522	0.54
29	Residential	16,553	0.38
30	Residential	9,583	0.22
31	Residential	13,504	0.31
32	Residential	10,454	0.24
33	Residential	6,534	0.15
34	Residential	5,663	0.13
35	Residential	10,019	0.23
36	Residential	9,148	0.21
TOTAL		229,997	5.28

LETTER LOT SUMMARY

Lot No.	Land Use	S.F	Acres
O	Open Space	6,098	0.14
P	Open Space	1,742	0.04
TOTAL		7,841	0.18

FEET
0 20 40 80
0 1/2 1 2
INCHES

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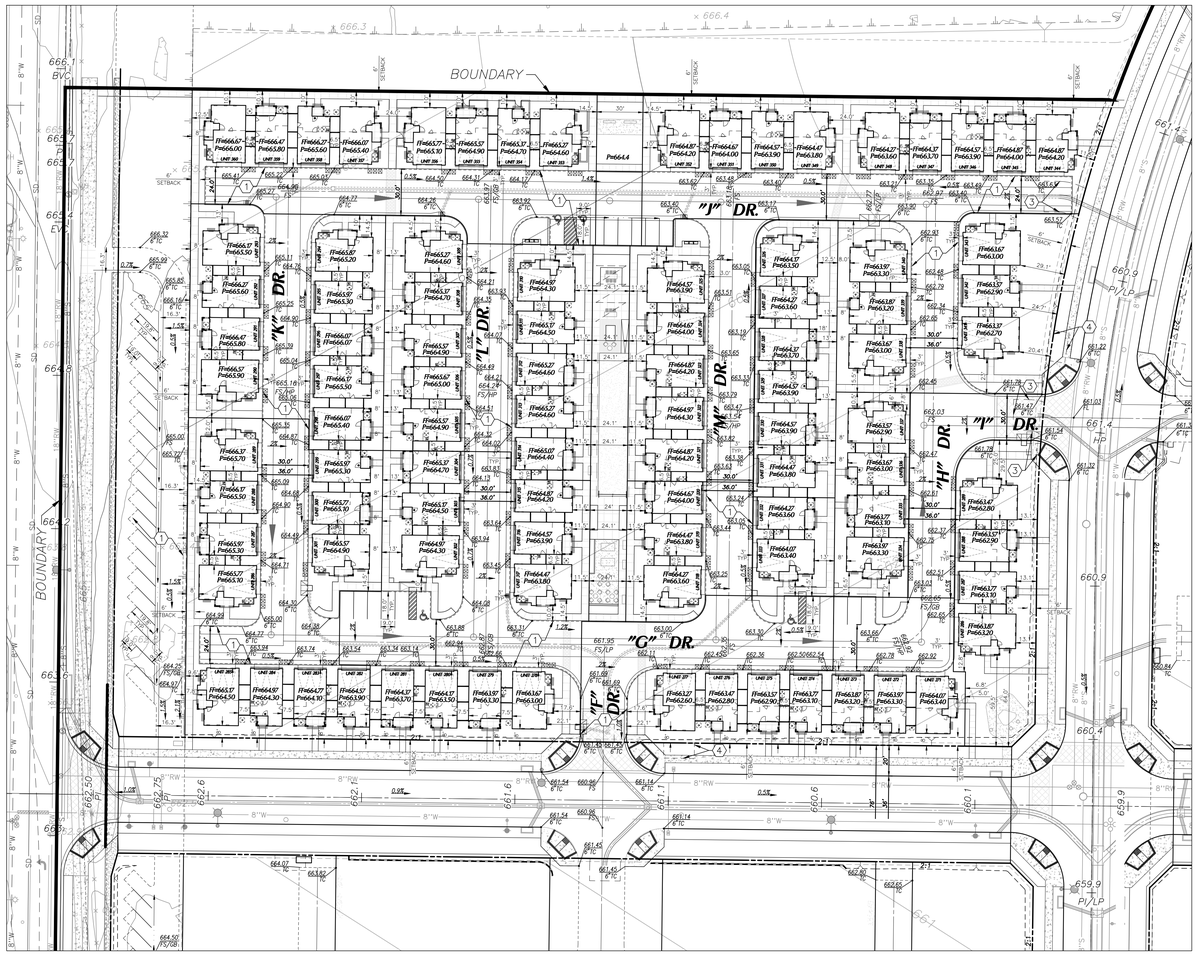
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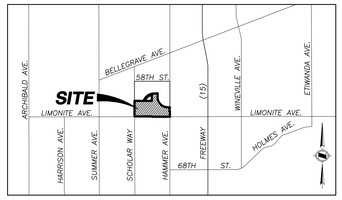
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SHEET
1 OF 3

W.O.: 2749-44CX EASTMLK

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3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES
4. PROPOSED EASEMENT FOR MASTER WATER METER

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

4.1.2.2. Zero-Lot Line and Rear Loaded SFD Residential

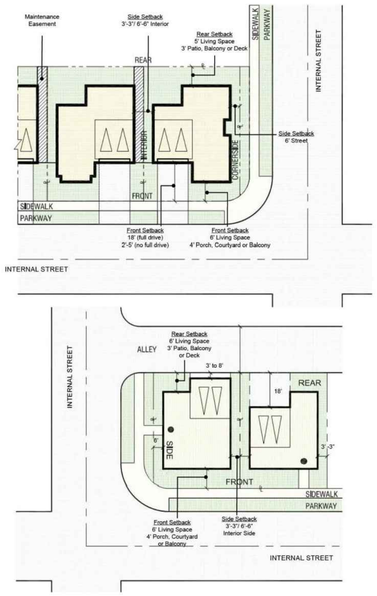
Table 4-3 establishes the development standards for front loaded zero-lot line and rear loaded SFD residential development. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.4. Note: Zero-Lot Line Homes may be front or rear loaded. In the event that a rear-loaded Zero-Lot Line Home is proposed, the Rear-Loaded Homes standards shall apply (with a maintenance easement for the side yard).

Table 4-3:Zero-Lot & Rear Loaded SFD Residential Development Standards

	Zero-Lot Line Homes	Rear Loaded Homes
Minimum Lot Size	2,500 sq. ft.	2,000 sq. ft.
Maximum Building Height	50' (3 stories)	50' (3 stories)
Maximum Building Coverage	70%	70%
Minimum Front Setback (from Property Line)		
Living Space	6'	6'
Porch, Courtyard or Balcony	4'	4'
Front Entry Garage	18' (full driveway/2'- 5')	N/A
Minimum Side Setback (from Property Line)		
Interior Side (one side/between buildings)	3'/6'	3'/6'
Internal Street Right-of-Way Side	6'	6'
Minimum Rear Setback (from Property Line)		
Living Space	5'	5'
Patio Cover, Balcony or Deck	3'	3'
Rear Entry Garage Setback (from Access Drive)	N/A	3' to 8' or 18' min.

CHAPTER 4 – DEVELOPMENT STANDARDS

Figure 4.4 Front Loaded Zero-Lot & Rear Loaded SFD Residential Setback Diagrams



FEET
0 20 40 80
INCHES
0 1/2 1 2

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SHEET
2 OF 3

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PA-7 THREE STORY SFD



TRANSITIONAL MEDITERRANEAN

Inspired by architecture from the coastal regions of Spain and Italy where intense sunlight bathes every corner, the Mediterranean style emerged as a response to an ideal climate. Transitional Mediterranean reinterprets the style in a fresh way with modern materials and simplified forms and massing for todays sophisticated buyer. Sculpted stucco massing in fresh, more angular shapes embraces the timeless appeal of modern architecture, while still retaining a warmth from its traditional roots. The light colored walls are contrasted with rich dark or grayed woods to create the classic blend of light and dark features to define the forms. Large windows can be grouped or wrapped around a corner to carry the style around the sides. Other defining characteristics include a simple or parabolic arch at a window or entry, courtyards and minimal use of accent materials to accentuate key components or walls.



TRANSITIONAL FARMHOUSE

Originating in the Midwest in the mid-1800s, the Farmhouse style ranges from small, simple structures to more elaborate homes featuring elements borrowed from other styles, particularly Victorian. This style gives a general feeling of nostalgia -- of a simpler time, with a sentimental connection to the land surrounding it and our country's rich architectural history. Front gables, porches and extended roof eaves are all style trademarks regardless of the home's size. The style evolved from the characteristics of the place, people, climate and materials available. Today's Transitional Farmhouse borrows design elements from its predecessors, while presenting a leaner profile composed of thoroughly modern materials. More refined details and simplified massing with an emphasis on vertical proportions define a more contemporary version of our traditional Farmhouse. Contrasting materials in a crisp range of whites and greys add a fresh look to an old favorite.



TRANSITIONAL CRAFTSMAN

The Craftsman originated from the early 1900s in Southern California where most prime early examples are concentrated and quickly spread throughout the country until the 1930's. Craftsman homes were inspired by the work of Charles and Henry Greene which drew their influences from the English Arts and Crafts movement, and an interest in wooden architecture from Eastern regions. These buildings are architecturally distinguished by their low-pitched, projecting eaves with rafter tails; clapboards, expansive porches with decorative or tapered columns, decorative braces underneath gables. The Eastwalk interpretation of the Transitional Craftsman incorporates many of these details with modern construction techniques and materials.

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A0.3 - DETAIL ELEMENTS - TRANSITIONAL FARMHOUSE
A0.4 - DETAIL ELEMENTS - TRANSITIONAL CRAFTSMAN
A0.5 - ELEVATION & COLOR SCHEME PLOTTING

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A2 - COMPOSITE 2ND FLOOR PLANS
A3 - COMPOSITE 3RD FLOOR PLANS

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A14 - PLAN 3B/3XB - TRANSITIONAL FARMHOUSE ELEVATIONS
A15 - PLAN 3C/3XC - TRANSITIONAL CRAFTSMAN ELEVATIONS

A16 - COLOR & MATERIAL SELECTIONS & BOARDS, PAGE 1
A17 - COLOR & MATERIAL SELECTIONS & BOARDS, PAGE 2

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		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		
ARCHITECT				CITY	

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CITY OF EASTVALE
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COVER SHEET

SHEET NO.
A0.1















Detail Elements • Transitional Mediterranean

1 Stucco + Horizontal Siding

2 Low-pitched Hipped Roofs

3 Low-Proifle Concrete “S” Tile

4 Covered Porches

5 Color Field: Light to Medium Warm tone

6 Horizontal Siding at Corners

7 Metal Awning

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PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
DETAIL ELEMENTS TRANSITIONAL MEDITERRANEAN

SHEET NO.
A0.2

















Detail Elements • Transitional Farmhouse

1 Asymmetrical Shapes

2 Composition Shingle Roof

3 Rectangular Windows

4 Metal Shed Roof

5 Vertical Siding at Upper Levels

6 Board and Batt

7 Metal Railing

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MASTER DEVELOPMENT PLAN

SHEET TITLE
DETAIL ELEMENTS
TRANSITIONAL
FARMHOUSE

SHEET NO.
A0.3















Detail Elements • Transitional Craftsman

1 Stucco

2 Low-pitched Gabled Roofs

3 Composition Shingle Roof

4 Extended Eaves

5 Simple Window Break-ups

6 Covered Porch

7 Knee Brace

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MASTER DEVELOPMENT PLAN

SHEET TITLE
DETAIL ELEMENTS
TRANSITIONAL
CRAFTSMAN

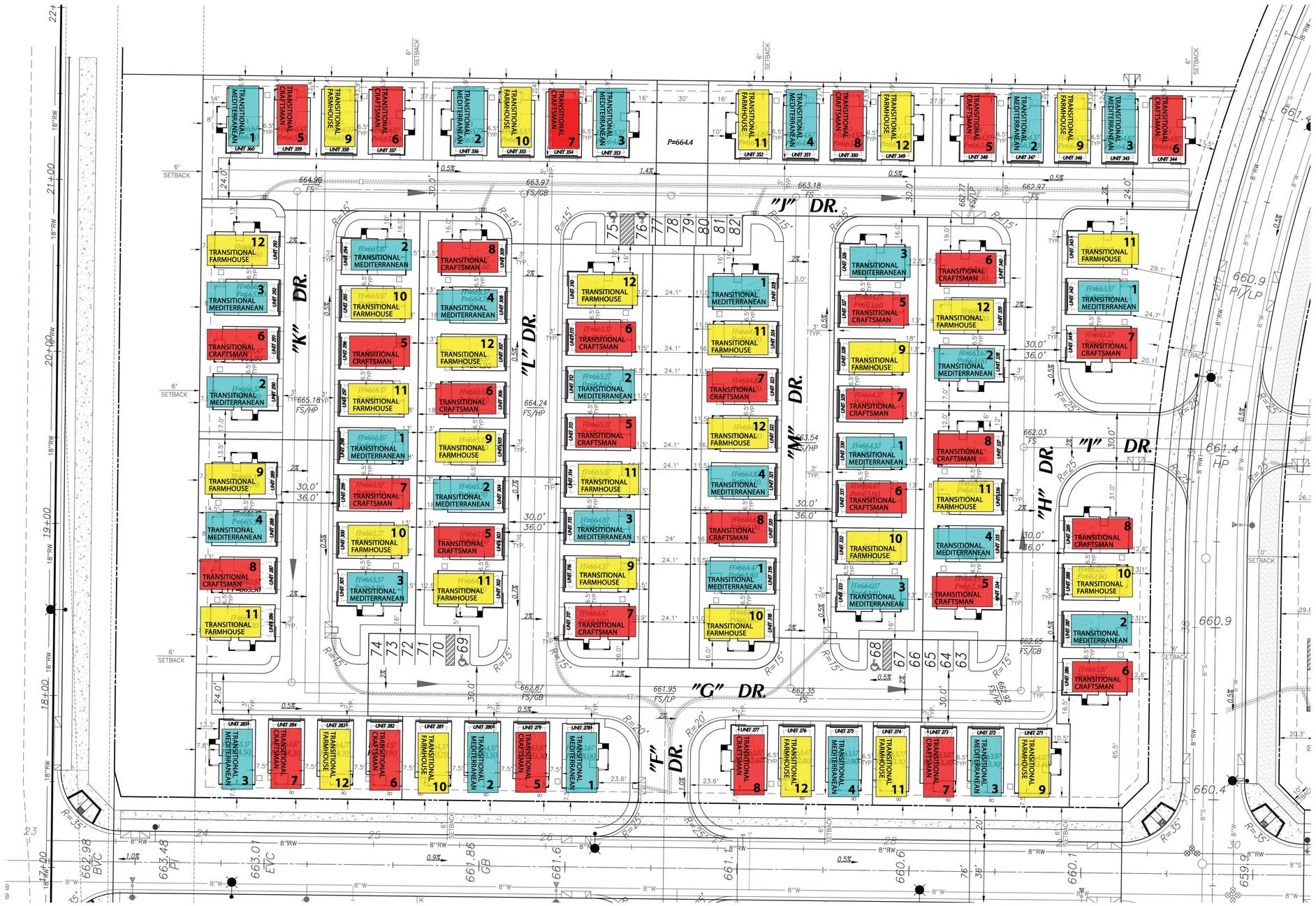
SHEET NO.
A0.4

EASTVALE
THREE-STORY SFD
ELEVATION & COLOR PLOTTING

TRANSITIONAL MEDITERRANEAN
SCHEMES 1-4

TRANSITIONAL CRAFTSMAN
SCHEMES 5-8

TRANSITIONAL FARMHOUSE
SCHEMES 9-12



UNIT #	PLAN #	ELEVATION STYLE	COLOR SCHEME
271	3	TRANSITIONAL FARMHOUSE	9
272	2	TRANSITIONAL MEDITERRANEAN	3
273	1	TRANSITIONAL CRAFTSMAN	7
274	2	TRANSITIONAL FARMHOUSE	11
275	1	TRANSITIONAL MEDITERRANEAN	4
276	2	TRANSITIONAL FARMHOUSE	12
277	3	TRANSITIONAL CRAFTSMAN	8
278	3	TRANSITIONAL MEDITERRANEAN	1
279	1	TRANSITIONAL FARMHOUSE	5
280	2	TRANSITIONAL MEDITERRANEAN	2
281	1	TRANSITIONAL FARMHOUSE	10
282	2	TRANSITIONAL CRAFTSMAN	6
283	1	TRANSITIONAL FARMHOUSE	12
284	2	TRANSITIONAL CRAFTSMAN	7
285	2	TRANSITIONAL MEDITERRANEAN	3
286	3	TRANSITIONAL FARMHOUSE	11
287	1	TRANSITIONAL CRAFTSMAN	8
288	2	TRANSITIONAL MEDITERRANEAN	4
289	3	TRANSITIONAL FARMHOUSE	9
290	3	TRANSITIONAL MEDITERRANEAN	2
291	1	TRANSITIONAL CRAFTSMAN	6
292	2	TRANSITIONAL MEDITERRANEAN	3
293	3	TRANSITIONAL FARMHOUSE	12
294	3	TRANSITIONAL MEDITERRANEAN	2
295	2	TRANSITIONAL FARMHOUSE	10
296	1	TRANSITIONAL CRAFTSMAN	5
297	2	TRANSITIONAL FARMHOUSE	11
298	1	TRANSITIONAL MEDITERRANEAN	1
299	2	TRANSITIONAL CRAFTSMAN	7
300	1	TRANSITIONAL FARMHOUSE	10
301	3	TRANSITIONAL MEDITERRANEAN	3
302	3	TRANSITIONAL FARMHOUSE	11
303	2	TRANSITIONAL CRAFTSMAN	5
304	1	TRANSITIONAL MEDITERRANEAN	2
305	2	TRANSITIONAL FARMHOUSE	9
306	1	TRANSITIONAL CRAFTSMAN	6
307	2	TRANSITIONAL FARMHOUSE	12
308	1	TRANSITIONAL MEDITERRANEAN	4
309	3	TRANSITIONAL CRAFTSMAN	8
310	3	TRANSITIONAL FARMHOUSE	12
311	2	TRANSITIONAL CRAFTSMAN	6
312	1	TRANSITIONAL MEDITERRANEAN	2
313	2	TRANSITIONAL CRAFTSMAN	5
314	1	TRANSITIONAL FARMHOUSE	11
315	2	TRANSITIONAL MEDITERRANEAN	3
316	1	TRANSITIONAL FARMHOUSE	9
317	3	TRANSITIONAL CRAFTSMAN	7
318	3	TRANSITIONAL FARMHOUSE	10
319	2	TRANSITIONAL MEDITERRANEAN	1
320	1	TRANSITIONAL CRAFTSMAN	8
321	2	TRANSITIONAL MEDITERRANEAN	4
322	1	TRANSITIONAL FARMHOUSE	12
323	2	TRANSITIONAL CRAFTSMAN	7
324	1	TRANSITIONAL FARMHOUSE	11
325	3	TRANSITIONAL MEDITERRANEAN	1
326	3	TRANSITIONAL MEDITERRANEAN	3
327	2	TRANSITIONAL CRAFTSMAN	5
328	1	TRANSITIONAL FARMHOUSE	9
329	2	TRANSITIONAL CRAFTSMAN	7
330	1	TRANSITIONAL MEDITERRANEAN	1
331	2	TRANSITIONAL CRAFTSMAN	6
332	1	TRANSITIONAL FARMHOUSE	10
333	3	TRANSITIONAL MEDITERRANEAN	3
334	3	TRANSITIONAL CRAFTSMAN	5
335	1	TRANSITIONAL MEDITERRANEAN	4
336	2	TRANSITIONAL FARMHOUSE	11
337	3	TRANSITIONAL CRAFTSMAN	8
338	3	TRANSITIONAL MEDITERRANEAN	2
339	2	TRANSITIONAL FARMHOUSE	12
340	3	TRANSITIONAL CRAFTSMAN	6
341	3	TRANSITIONAL CRAFTSMAN	7
342	2	TRANSITIONAL MEDITERRANEAN	1
343	3	TRANSITIONAL FARMHOUSE	11
344	3	TRANSITIONAL CRAFTSMAN	6
345	1	TRANSITIONAL MEDITERRANEAN	3
346	2	TRANSITIONAL FARMHOUSE	9
347	1	TRANSITIONAL MEDITERRANEAN	2
348	3	TRANSITIONAL CRAFTSMAN	5
349	3	TRANSITIONAL FARMHOUSE	12
350	2	TRANSITIONAL CRAFTSMAN	8
351	1	TRANSITIONAL MEDITERRANEAN	4
352	3	TRANSITIONAL FARMHOUSE	11
353	3	TRANSITIONAL MEDITERRANEAN	3
354	2	TRANSITIONAL CRAFTSMAN	7
355	1	TRANSITIONAL FARMHOUSE	10
356	3	TRANSITIONAL MEDITERRANEAN	2
357	3	TRANSITIONAL CRAFTSMAN	6
358	2	TRANSITIONAL FARMHOUSE	9
359	1	TRANSITIONAL CRAFTSMAN	5
360	3	TRANSITIONAL MEDITERRANEAN	1

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
ELEVATION & COLOR SCHEME PLOTTING

SHEET NO.
A0.5

PLAN 1

1,608 SQ. FT.

3 BEDROOMS/ 2.5 BATHS/ STUDY/ OFFICE
2 - CAR GARAGE

FLOOR AREA TABLE	
1ST FLOOR	223 SQ. FT.
2ND FLOOR	678 SQ. FT.
3RD FLOOR	707 SQ. FT.
TOTAL	1,608 SQ. FT.
2 - CAR GARAGE	467 SQ. FT.
PORCH	88 SQ. FT.
DECK	88 SQ. FT.
PRIVATE OPEN SPACE	59 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

PLAN 2

1,665 SQ. FT.

3 BEDROOMS/ 3.5 BATHS/ FLEX
2 - CAR GARAGE

FLOOR AREA TABLE	
1ST FLOOR	269 SQ. FT.
2ND FLOOR	672 SQ. FT.
3RD FLOOR	724 SQ. FT.
TOTAL	1,665 SQ. FT.
2 - CAR GARAGE	466 SQ. FT.
PORCH	51 SQ. FT.
DECK	111 SQ. FT.
PRIVATE OPEN SPACE	68 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

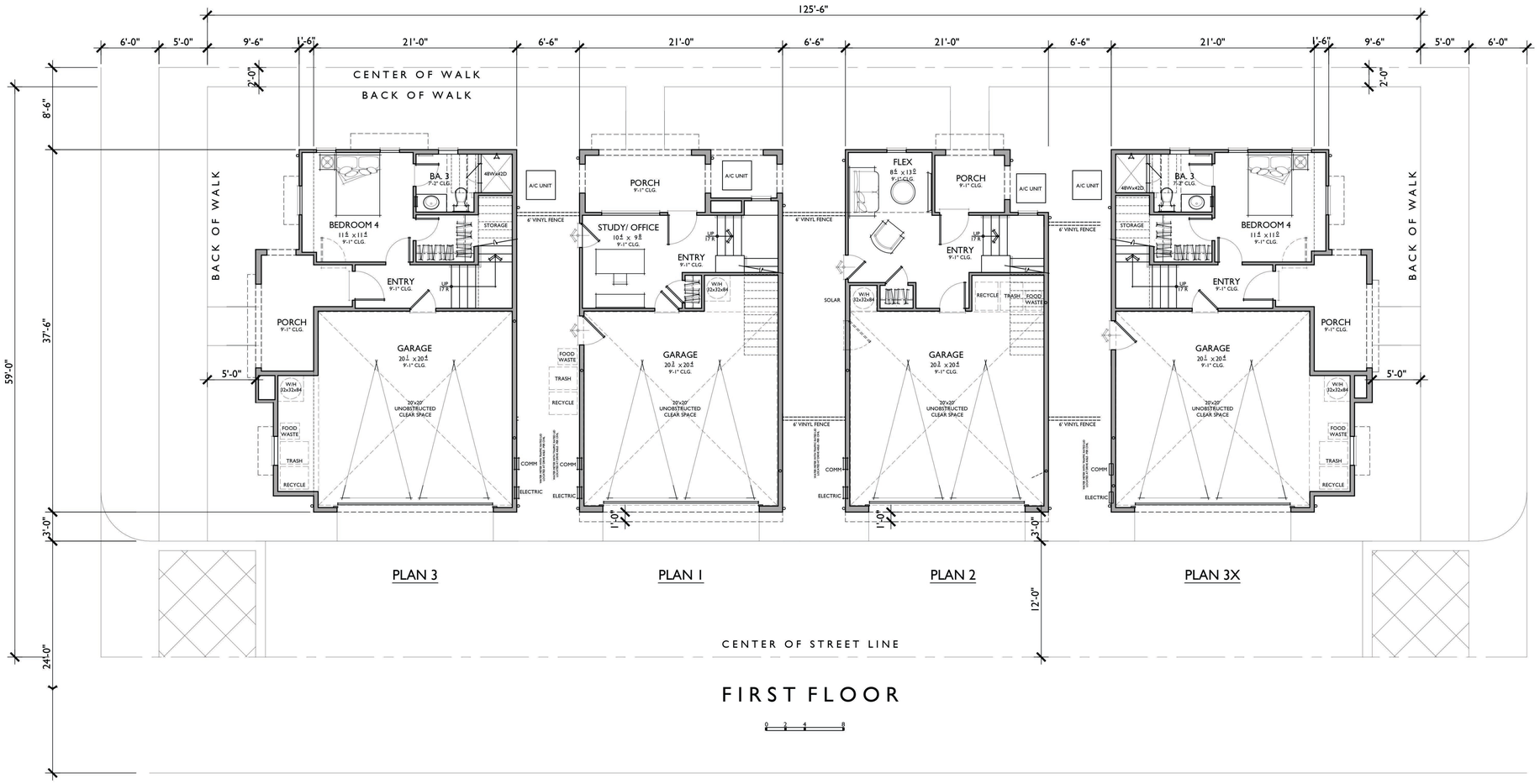
PLAN 3 / 3X

1,879 SQ. FT.

4 BEDROOMS / 3.5 BATHS
2 - CAR GARAGE

FLOOR AREA TABLE	
1ST FLOOR	348 SQ. FT.
2ND FLOOR	788 SQ. FT.
3RD FLOOR	744 SQ. FT.
TOTAL	1,879 SQ. FT.
2 - CAR GARAGE	492 SQ. FT.
PORCH	93 SQ. FT.
DECK	95 SQ. FT.
PRIVATE OPEN SPACE	56 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION



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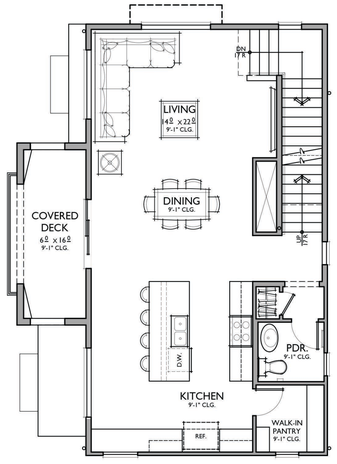
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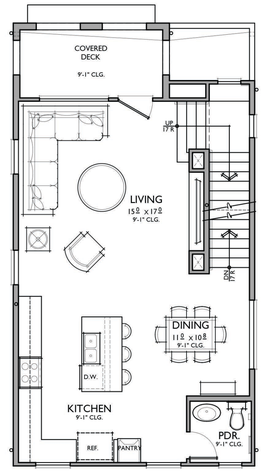
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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COMPOSITE 1ST FLOOR PLANS

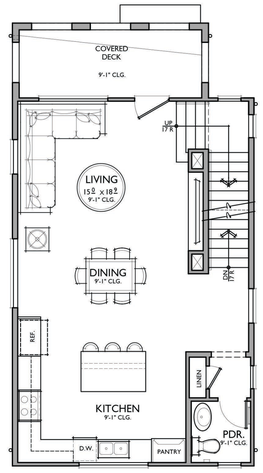
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A-1



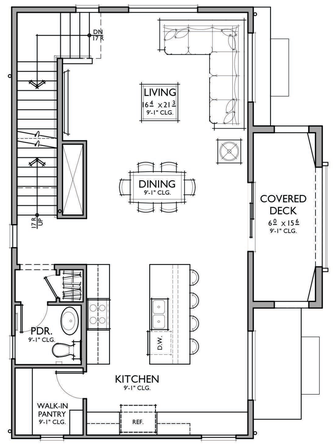
PLAN 3



PLAN 1



PLAN 2



PLAN 3X

SECOND FLOOR

0 2 4 8

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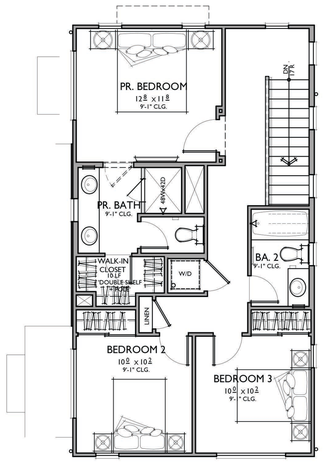
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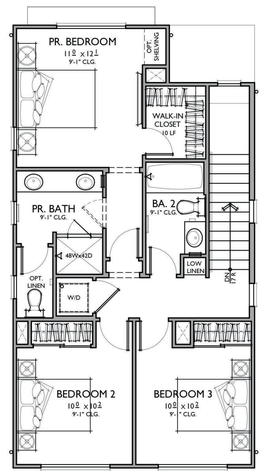
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MASTER DEVELOPMENT PLAN

SHEET TITLE
COMPOSITE 2ND FLOOR PLANS

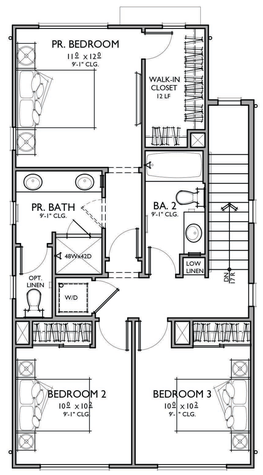
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A-2



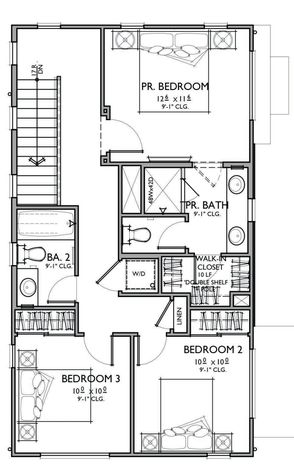
PLAN 3



PLAN 1



PLAN 2



PLAN 3X

THIRD FLOOR

0 2 4 8

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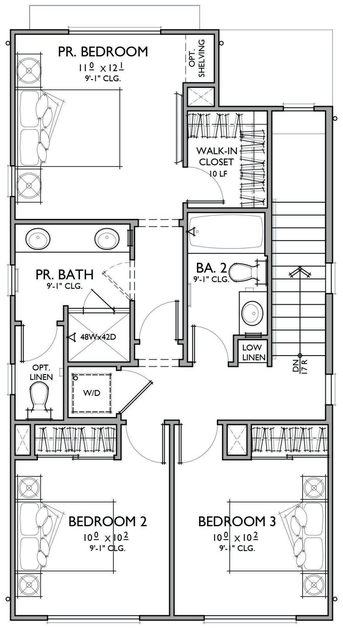
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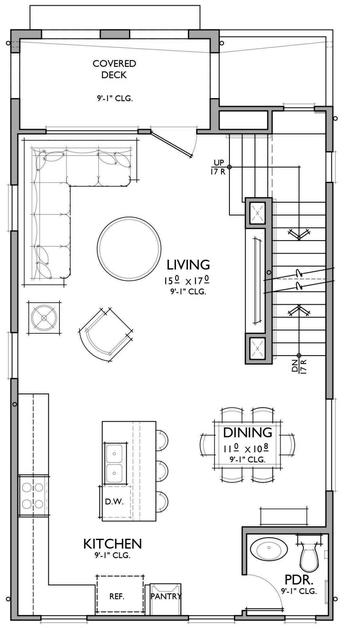
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MASTER DEVELOPMENT PLAN

SHEET TITLE
COMPOSITE 3RD FLOOR PLANS

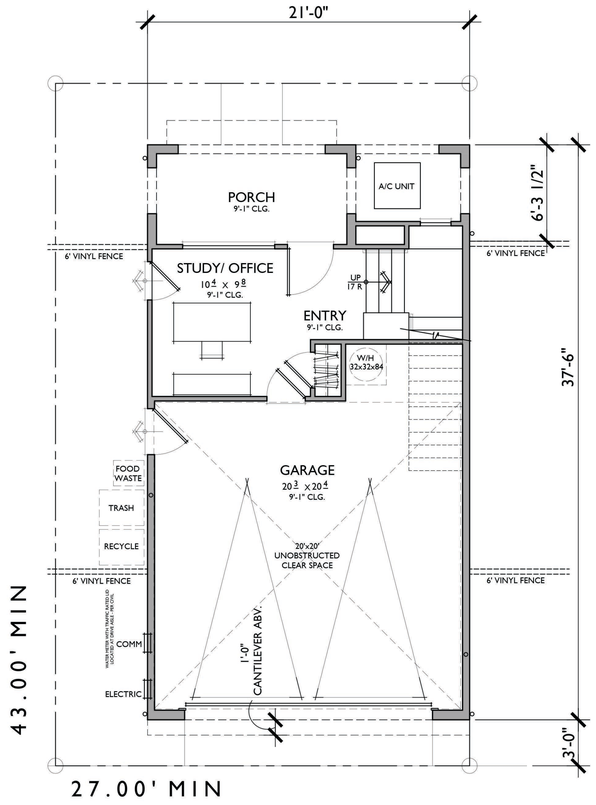
SHEET NO.
A-3



THIRD FLOOR



SECOND FLOOR



FIRST FLOOR

PLAN 1A

1,608 SQ. FT.

3 BEDROOMS/ 2.5 BATHS/ STUDY/ OFFICE
2 - CAR GARAGE

FLOOR AREA TABLE	
1ST FLOOR	223 SQ. FT.
2ND FLOOR	678 SQ. FT.
3RD FLOOR	707 SQ. FT.
TOTAL	1,608 SQ. FT.
2 - CAR GARAGE	467 SQ. FT.
PORCH	88 SQ. FT.
DECK	88 SQ. FT.
PRIVATE OPEN SPACE	59 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

0 2 4 8
SCALE: 1/4" = 1'-0"

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 1
FLOOR PLAN

SHEET NO.
A-4



LEFT

37'-6"



FRONT TRANSITIONAL MEDITERRANEAN

21'-0"



RIGHT

37'-6"



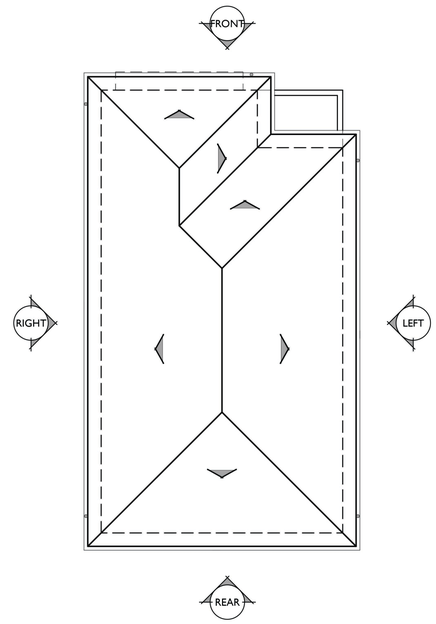
REAR

21'-0"

0 2 4 8

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. DECORATIVE LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 8537401EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE



ROOF PLAN A

PITCH: 4:12 (U.N.O)
RAKE: 6"
EAVE: 14"
ROOF MATERIAL: CONCRETE 'S' TILE

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SHEET TITLE
PLAN 1A
TRANSITIONAL MEDITERRANEAN ELEVATIONS

SHEET NO.
A-5



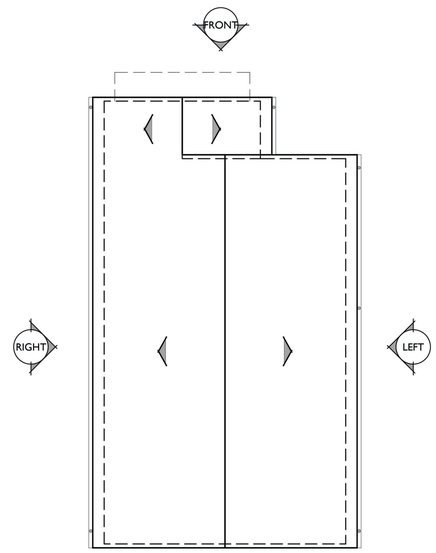
LEFT

37'-6"



FRONT TRANSITIONAL FARMHOUSE

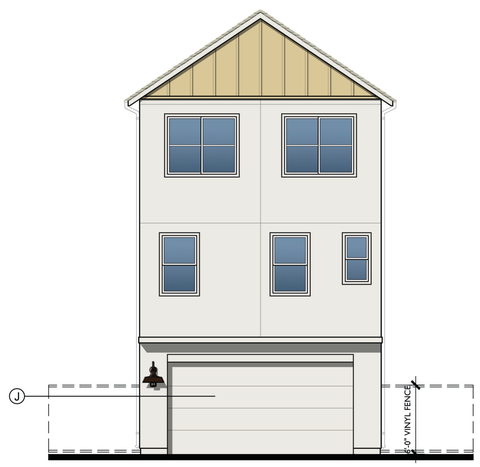
21'-0"





RIGHT

37'-6"



REAR

21'-0"

0 2 4 8

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. DECORATIVE LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 8537401EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE

ROOF PLAN B

PITCH: 8:12 (U.N.O)
RAKE: 4"
EAVE: 12"
ROOF MATERIAL: COMPOSITION SHINGLE

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		

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PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 1B
TRANSITIONAL
FARMHOUSE
ELEVATIONS

SHEET NO.
A-6



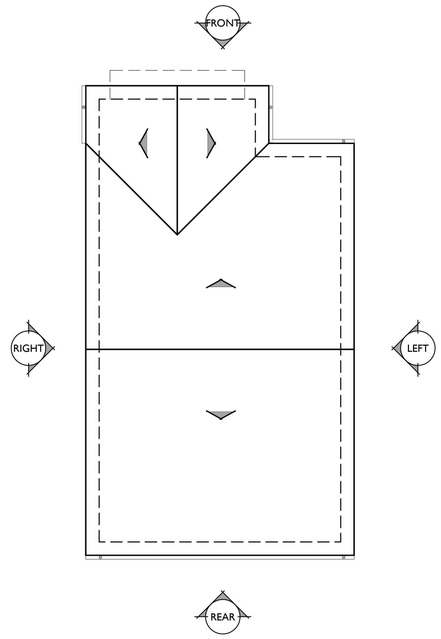
LEFT

37'-6"



FRONT TRANSITIONAL CRAFTSMAN

21'-0"





RIGHT

37'-6"



REAR

21'-0"

0 2 4 8

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. DECORATIVE LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 8537401EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE

ROOF PLAN C

PITCH: 4:12 (U.N.O)
RAKE: 14"
EAVE: 14"
ROOF MATERIAL: COMPOSITION SHINGLE

811 Know what's below. Call 811 before you dig.

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		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		
ARCHITECT				CITY	

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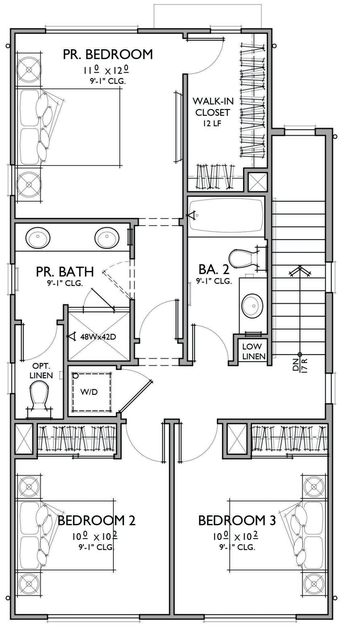
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PA NO. 7

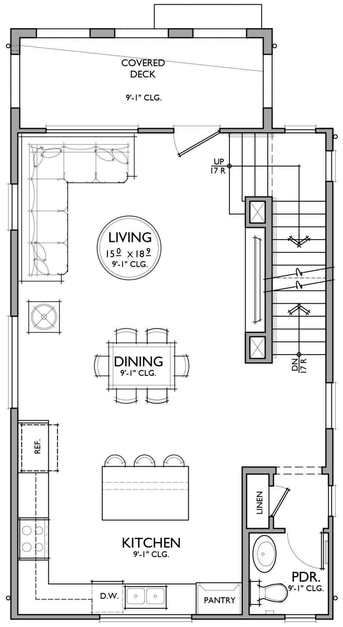
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 1C
TRANSITIONAL
CRAFTSMAN
ELEVATION

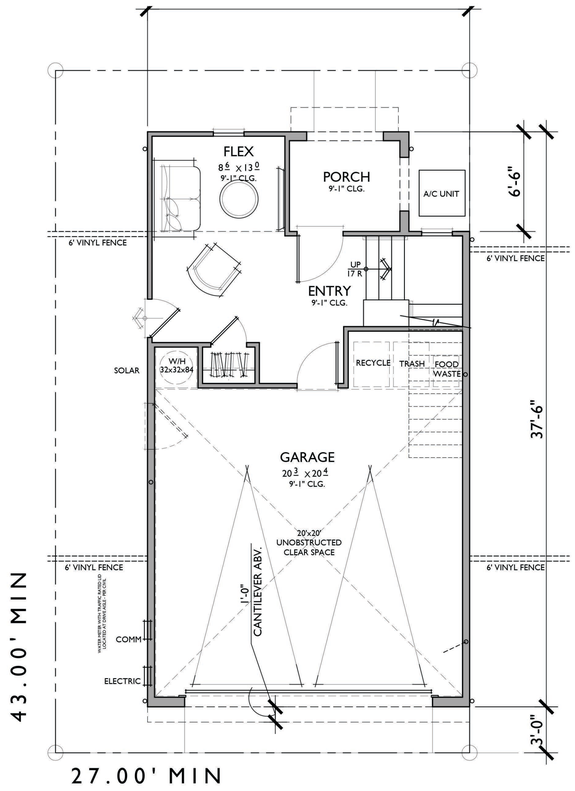
SHEET NO.
A-7



THIRD FLOOR



SECOND FLOOR



FIRST FLOOR

0 2 4 8

SCALE: 1/4" = 1'-0"

PLAN 2A

1,665 SQ. FT.

3 BEDROOMS/ 3.5 BATHS/ FLEX

2 - CAR GARAGE

FLOOR AREA TABLE	
1ST FLOOR	269 SQ. FT.
2ND FLOOR	672 SQ. FT.
3RD FLOOR	724 SQ. FT.
TOTAL	1,665 SQ. FT.
2 - CAR GARAGE	466 SQ. FT.
PORCH	51 SQ. FT.
DECK	111 SQ. FT.
PRIVATE OPEN SPACE	68 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

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		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 2
FLOOR PLANS

SHEET NO.
A-8



LEFT

37'-6"



FRONT TRANSITIONAL MEDITERRANEAN

21'-0"



RIGHT

37'-6"



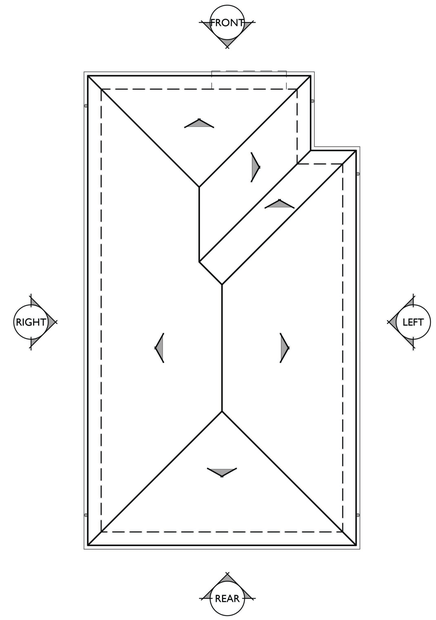
REAR

21'-0"

0 2 4 8

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 8537401EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE



ROOF PLAN A

PITCH: 4:12 (U.N.O)
RAKE: 6"
EAVE: 14"
ROOF MATERIAL: CONCRETE 'S' TILE

Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		

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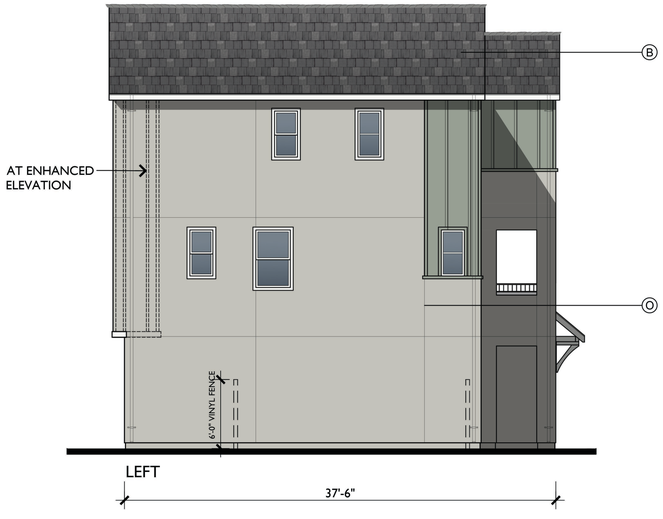
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

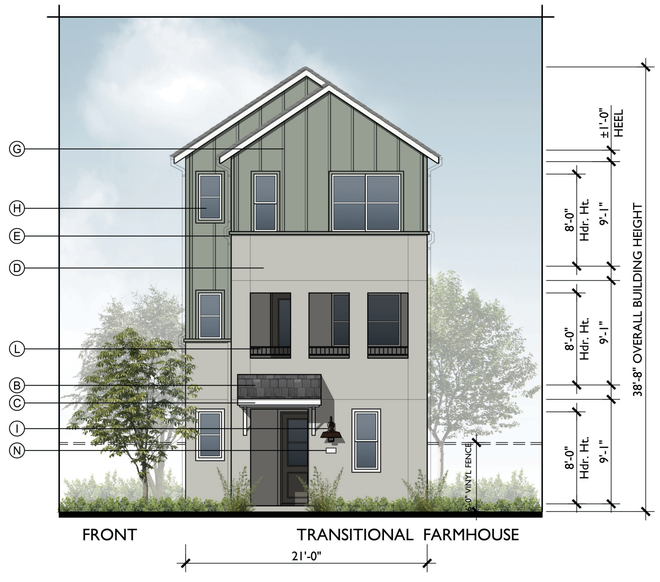
SHEET TITLE
PLAN 2A
TRANSITIONAL MEDITERRANEAN ELEVATIONS

SHEET NO.
A-9



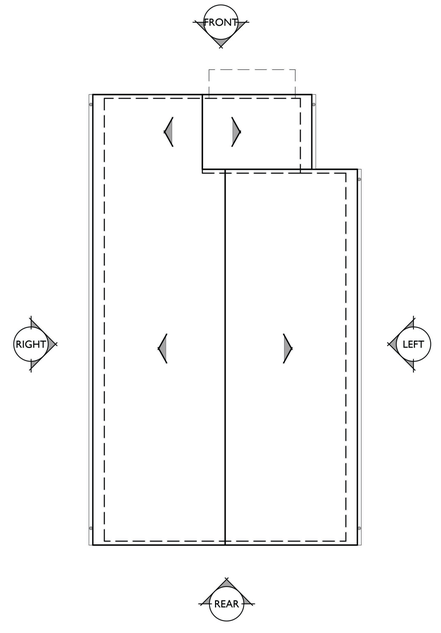
LEFT

37'-6"



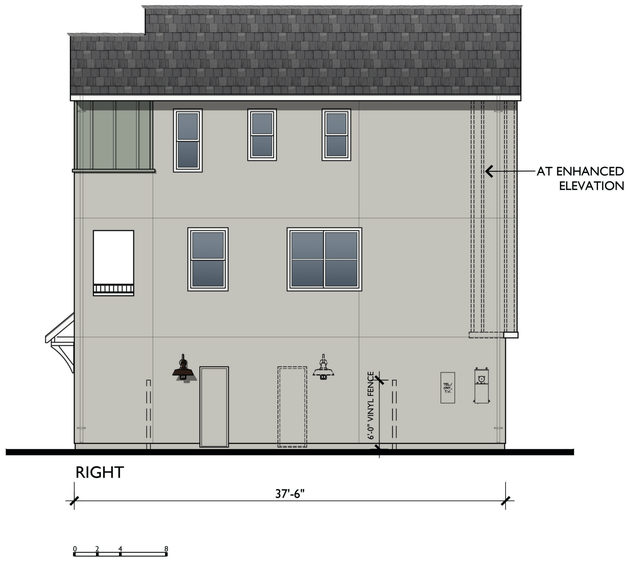
FRONT TRANSITIONAL FARMHOUSE

21'-0"



ROOF PLAN B

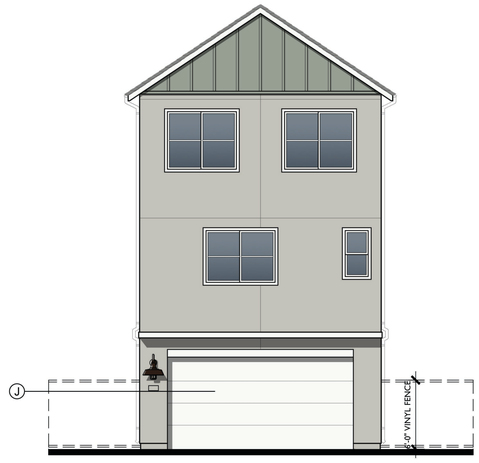
PITCH: 8:12 (U.N.O)
RAKE: 4"
EAVE: 12"
ROOF MATERIAL: COMPOSITION SHINGLE



RIGHT

37'-6"

0 2 4 8

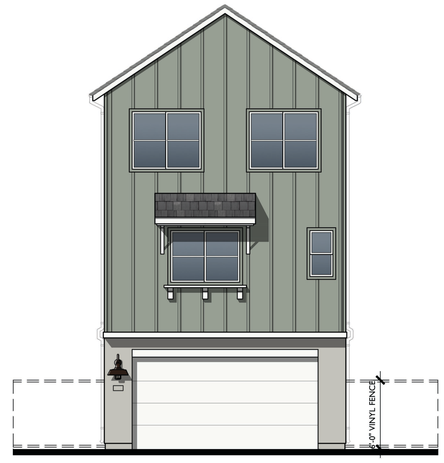


REAR

21'-0"

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 85374O1EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE



REAR ENHANCEMENT

21'-0"

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS
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		05/25/23	SECOND CITY SUBMITALL
		08/04/23	THIRD CITY SUBMITALL
		10/03/23	FOURTH CITY SUBMITALL

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APPR.	DATE

CITY

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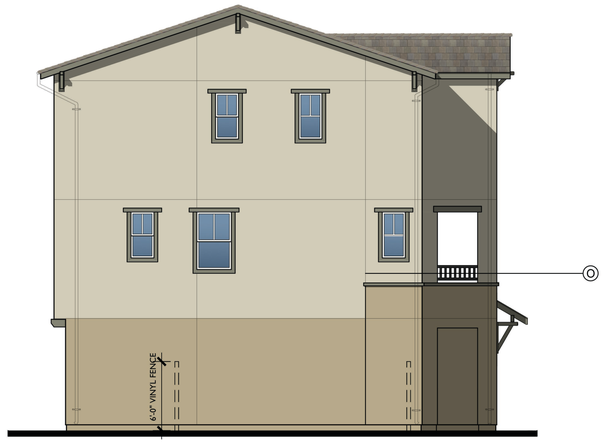
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 2B
TRANSITIONAL
FARMHOUSE
ELEVATIONS

SHEET NO.
A-10



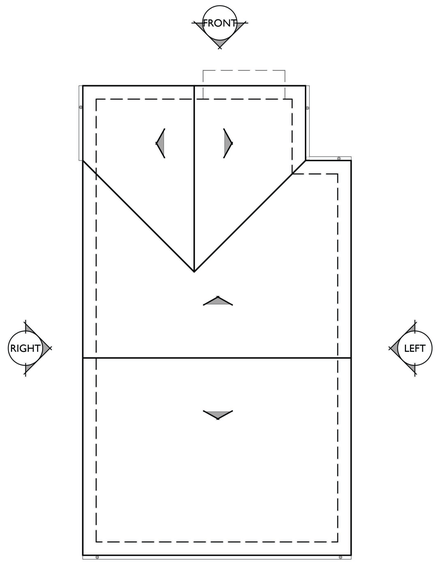
LEFT

37'-6"



FRONT TRANSITIONAL CRAFTSMAN

21'-0"





RIGHT

37'-6"



REAR

21'-0"

0 2 4 8

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. LIGHT FIXTURE
   - T. MEDITERRANEAN (A) # 8720701EN3-12
   - T. FARMHOUSE (B) # 8537401EN3-12
   - T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE

ROOF PLAN C

PITCH: 4:12 (U.N.O)
RAKE: 14"
EAVE: 14"
ROOF MATERIAL: COMPOSITION SHINGLE

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		

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CITY OF EASTVALE

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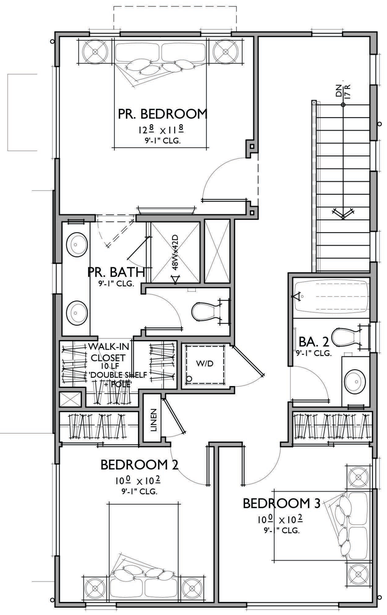
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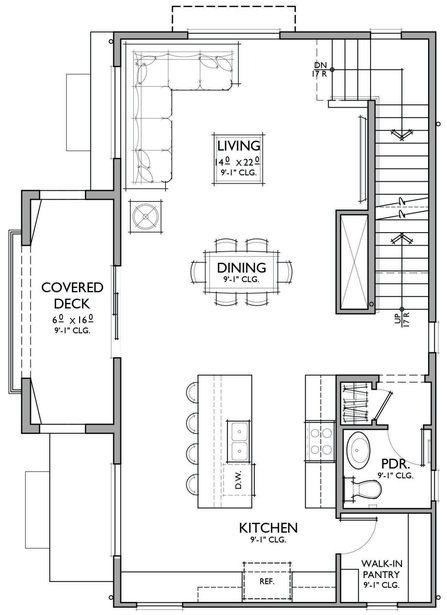
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 2C
TRANSITIONAL
CRAFTSMAN
ELEVATIONS

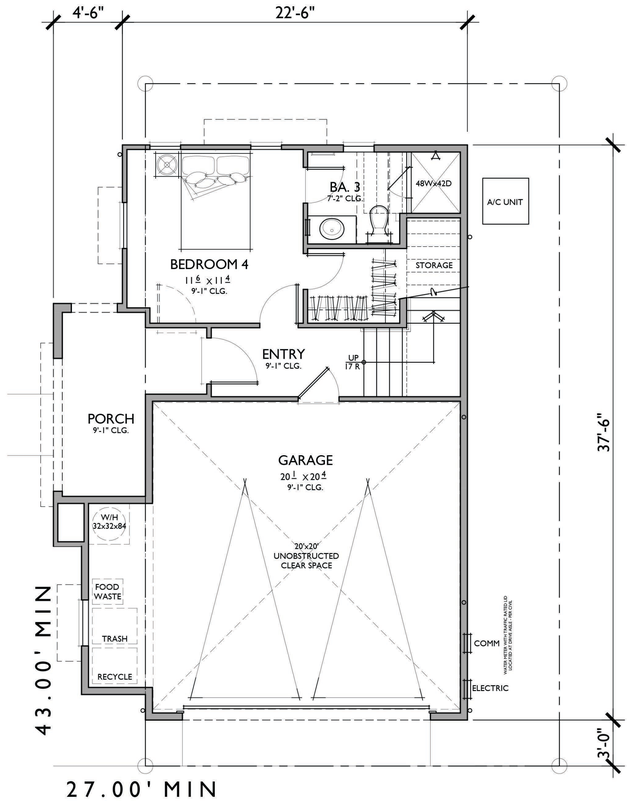
SHEET NO.
A-11



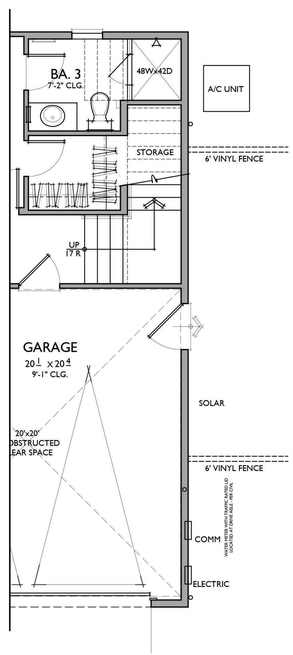
THIRD FLOOR



SECOND FLOOR



FIRST FLOOR



CONDITION AT PLAN 3X ONLY

PLAN 3A / 3XA

1,879 SQ. FT.

4 BEDROOMS / 3.5 BATHS

2 - CAR GARAGE

FLOOR AREA TABLE

1ST FLOOR	348 SQ. FT.
2ND FLOOR	788 SQ. FT.
3RD FLOOR	744 SQ. FT.
TOTAL	1,879 SQ. FT.
2 - CAR GARAGE	492 SQ. FT.
PORCH	93 SQ. FT.
DECK	95 SQ. FT.
PRIVATE OPEN SPACE	56 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

0 2 4 8

SCALE: 1/4" = 1'-0"

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		

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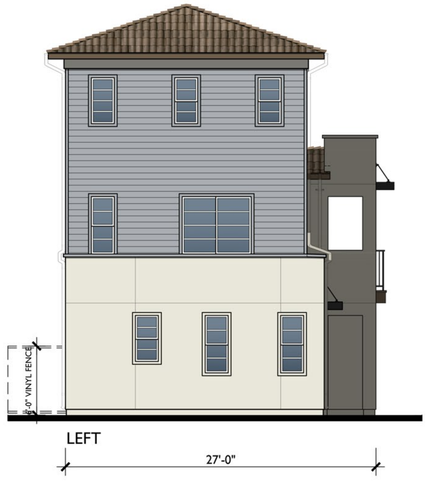
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 3
FLOOR PLAN

SHEET NO.
A-12



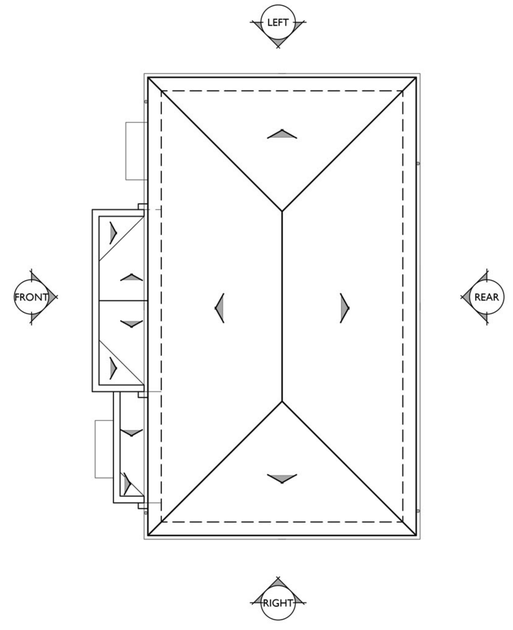
LEFT

27'-0"



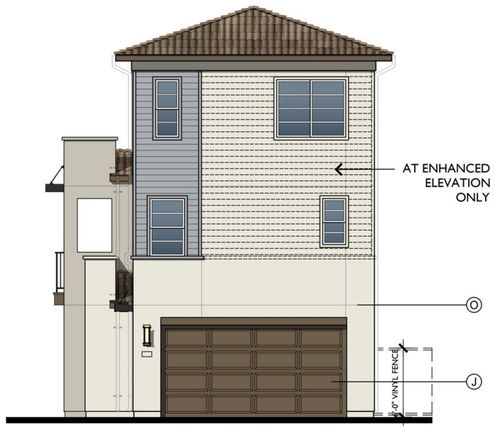
FRONT TRANSITIONAL MEDITERRANEAN

37'-6"



ROOF PLAN A

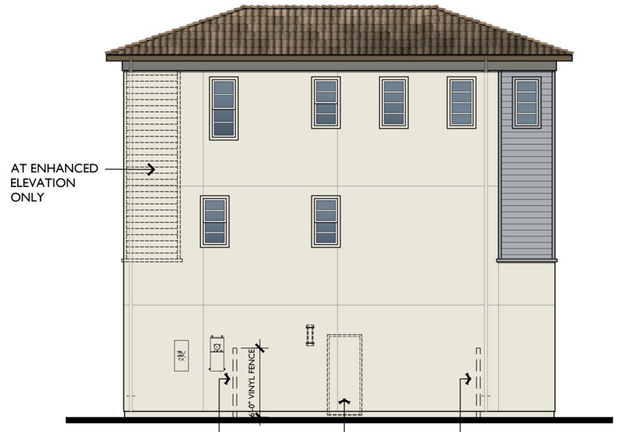
PITCH: 4:12 (U.N.O)
RAKE: 6"
EAVE: 14"
ROOF MATERIAL: CONCRETE 'S' TILE



RIGHT

27'-0"

0 2 4 8



REAR

37'-6"

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 8537401EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE



LEFT ENHANCEMENT

27'-0"

Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		

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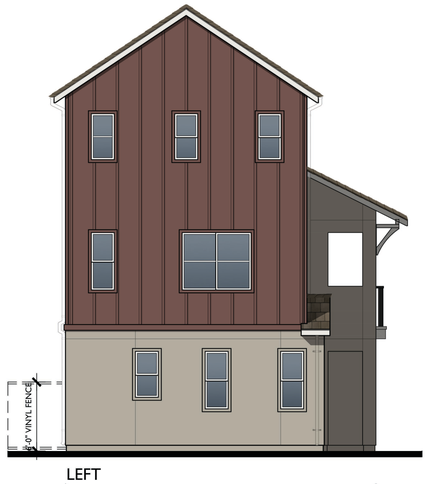
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fax +1 949 553 0548

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 3A/3XA
TRANSITIONAL
MEDITERRANEAN
ELEVATIONS

SHEET NO.
A-13



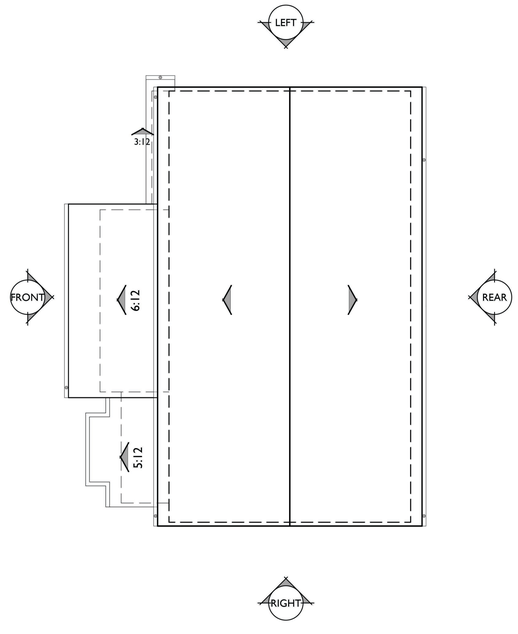
LEFT

27'-0"



FRONT TRANSITIONAL FARMHOUSE

37'-6"



ROOF PLAN B

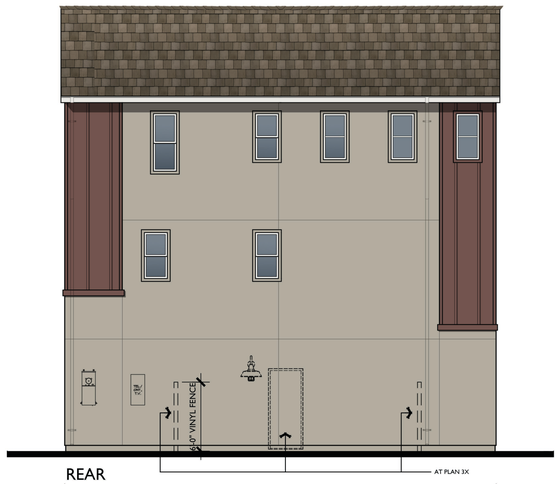
PITCH: 8:12 (U.N.O)
RAKE: 4"
EAVE: 12"
ROOF MATERIAL: COMPOSITION SHINGLE



RIGHT

27'-0"

0 2 4 8

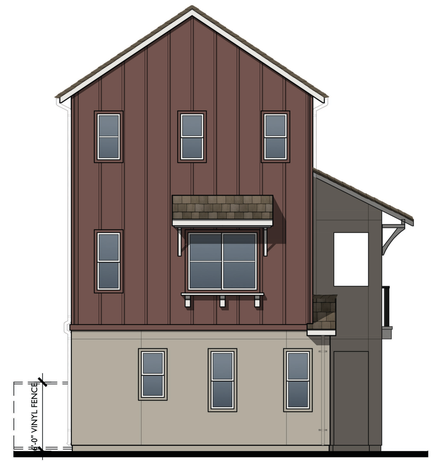


REAR

37'-6"

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 8537401EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE



LEFT ENHANCEMENT

27'-0"

Know what's below. Call 811 before you dig.

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		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		

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fax +1 949 553 0548

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 3B/3XB
TRANSITIONAL
FARMHOUSE
ELEVATIONS

SHEET NO.
A-14



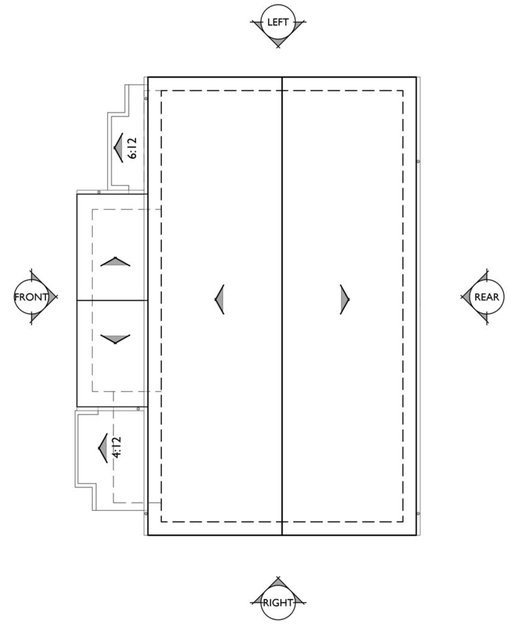
LEFT

27'-0"



FRONT TRANSITIONAL CRAFTSMAN

37'-6"



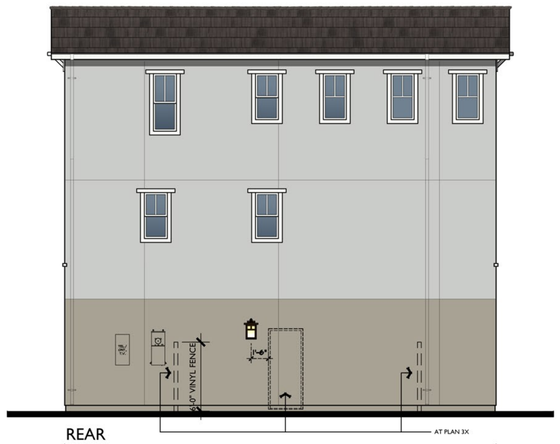
ROOF PLAN C

PITCH: 4:12 (U.N.O)
RAKE: 14"
EAVE: 14"
ROOF MATERIAL: COMPOSITION SHINGLE



RIGHT

27'-0"



REAR

37'-6"

MATERIAL LEGEND

A. LOW PROFILE CONCRETE 'S' TILE
B. COMPOSITION SHINGLE
C. WOOD FASCIA
D. STUCCO (SAND FINISH)
E. FOAM TRIM
F. CEMENTITIOUS HORIZONTAL SIDING
G. BOARD AND BATT
H. VINYL WINDOW
I. LIGHT FIXTURE
   T. MEDITERRANEAN (A) # 8720701EN3-12
   T. FARMHOUSE (B) # 8537401EN3-12
   T. CRAFTSMAN (C) # 8552701-12
J. ROLL UP GARAGE DOOR
K. METAL AWNING
L. METAL RAILING
M. WOOD POT-SHELF
N. ILLUMINATED ADDRESS SIGN
O. CONTROL JOINT (STUCCO)
P. WOOD KNEE BRACE



LEFT ENHANCEMENT

27'-0"

0 2 4 8

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLAN 3C/3XC
TRANSITIONAL
CRAFTSMAN
ELEVATIONS

SHEET NO.
A-15

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COLOR SELECTION CHART

ROOF: EAGLE
PAINT: SHERWIN WILLIAMS
WROUGHT IRON: SW 6990 CAVIAR
GUTTERS & DOWNSPOUTS: CUSTOM BILT METALS

DECEMBER 5, 2022

	SCHEMES 1-4 ARE TRANSITIONAL MEDITERRANEAN ELEVATIONS				SCHEMES 5-8 ARE TRANSITIONAL CRAFTSMAN ELEVATIONS				SCHEMES 9-12 ARE TRANSITIONAL FARMHOUSE ELEVATIONS			
SCHEME #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
FASCIA, EAVES, TRIM, & GARAGE DOOR	SW 7054 OAK-LEAF BROWN	SW 7005 PURE WHITE	SW 6089 GROUNDED	SW 7757 HIGH REFLECTIVE WHITE	SW 9091 HALF-CAFF	SW 6200 LINK GRAY	SW 7757 HIGH REFLECTIVE WHITE	SW 7040 SMOKE-HOUSE	SW 7004 SNOW-BOUND	SW 7757 HIGH REFLECTIVE WHITE	SW 7004 SNOW-BOUND	SW 7006 EXTRA WHITE
FRONT ENTRY DOOR	SW 2637 AURORA BROWN	SW 6076 TURKISH COFFEE	SW 2819 DOWNING SLATE	SW 0032 NEEDLE-POINT NAVY	SW 7618 DEEP SEA DIVE	SW 6083 SABLE	SW 6335 FIRED BRICK	SW 2811 ROOK-WOOD BLUE GREEN	SW 6181 SECRET GARDEN	SW 7026 GRIFFIN	SW 7601 DOCKSIDE BLUE	SW 6090 JAVA
BASE STUCCO	SW 7530 BARCELONA BEIGE	SW 6169 SEDATE GRAY	SW 7008 ALABASTER	SW 7011 NATURAL CHOICE	SW 7541 GRECIAN IVORY	SW 6148 WOOL SKEIN	SW 7071 GRAY SCREEN	SW 7005 PURE WHITE	SW 7004 SNOW-BOUND	SW 7015 REPOSE GRAY	SW 7543 AVENUE TAN	SW 7006 EXTRA WHITE
ACCENT STUCCO #1	SW 7568 NEUTRAL GROUND	SW 7005 PURE WHITE	SW 1015 SKYLINE STEEL	SW 7052 GRAY AREA	7546 PRAIRIE GRASS	SW 6143 BASKET BEIGE	SW 7633 TAUPE TONE	SW 0052 PEARL GRAY	.....	.....	.....	.....
SIDING	SW 2851 SUBURBAN GREEN LIGHT	SW 0031 DUTCH TILE BLUE	SW 6248 JUBILEE	SW 6096 JUTE BROWN	.....	.....	.....	.....	SW 2834 BIRDSEYE MAPLE	SW 6192 COASTAL PATH	SW 2839 ROYCROFT COPPER RED	SW 7603 POOL-HOUSE
ROOF	3645	3813	3646	3814	5557	5582	SCP 8801	5689	4634	4503	4810	4595
GUTTERS & DOWNSPOUT	FERRELSTONE CLAY	SATIN WHITE	BUCKSKIN BROWN	SATIN WHITE	ALMOND	BRONZE	SATIN WHITE	BRONZE	SATIN WHITE	SATIN WHITE	SATIN WHITE	SATIN WHITE

LEAL RANCH - SFD

EASTVALE, CALIFRONIA | 752.22314

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SCHEME #1 | TRANSITIONAL MEDITERRANEAN ELEVATIONS



ROOF
EAGLE - 3645 SUNRISE BLEND

BASE STUCCO
SW 7530 BARCELONA BEIGE

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7054 OAK-LEAF BROWN

FRONT DOOR
SW 2637 AURORA BROWN

ACCENT STUCCO
SW 7568 NEUTRAL GROUND

SIDING
SW 2851 SUBURBAN GREEN LIGHT

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SCHEME #10 | TRANSITIONAL FARMHOUSE ELEVATIONS



ROOF
EAGLE - 4503 SIERRA MADRE

BASE STUCCO
SW 7015 REPOSE GRAY

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7757 HIGH REFLECTIVE WHITE

FRONT DOOR
SW 7026 GRIFFIN

SIDING
SW 6192 COASTAL PATH

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SCHEME #11 | TRANSITIONAL FARMHOUSE ELEVATIONS



ROOF
EAGLE - 4810 AVONDALE BLEND

BASE STUCCO
SW 7543 AVENUE TAN

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7004 SNOWBOUND

FRONT DOOR
SW 7601 DOCKSIDE BLUE

SIDING
SW 2839 ROCROFT COPPER RED

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SCHEME #12 | TRANSITIONAL FARMHOUSE ELEVATIONS



ROOF
EAGLE - 4595 DARK CHARCOAL

BASE STUCCO
SW 7006 EXTRA WHITE

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7006 EXTRA WHITE

FRONT DOOR
SW 6090 JAVA

SIDING
SW 7603 POOLHOUSE

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SCHEME #2 | TRANSITIONAL MEDITERRANEAN ELEVATIONS



ROOF
EAGLE - 3816 SAN RAMON RANGE

BASE STUCCO
SW 6169 SEDATE GRAY

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7005 PURE WHITE

FRONT DOOR
SW 6076 TURKISH COFFEE

ACCENT STUCCO
SW 7005 PURE WHITE

SIDING
SW 0031 DUTCH TILE BLUE

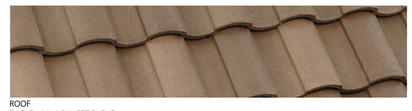
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SCHEME #3 | TRANSITIONAL MEDITERRANEAN ELEVATIONS



ROOF
EAGLE - 3646 SUNSET BLEND

BASE STUCCO
SW 7008 ALABASTER

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 6089 GROUNDED

FRONT DOOR
SW 2819 DOWNING SLATE

ACCENT STUCCO
SW 1015 SKYLINE STEEL

SIDING
SW 6248 JUBILEE

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		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		
	ARCHITECT			CITY	

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COLOR & MATERIAL SELECTIONS & BOARDS, PAGE 1

SHEET NO.
A-16

COLOR SELECTION CHART

DECEMBER 5, 2022

ROOF: EAGLE
PAINT: SHERWIN WILLIAMS
WROUGHT IRON: SW 6990 CAVIAR
GUTTERS & DOWNSPOUTS: CUSTOM, BILT METALS

	SCHEMES 1-4 ARE TRANSITIONAL MEDITERRANEAN ELEVATIONS				SCHEMES 5-8 ARE TRANSITIONAL CRAFTSMAN ELEVATIONS				SCHEMES 9-12 ARE TRANSITIONAL FARMHOUSE ELEVATIONS			
SCHEME #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
FASCIA, EAVES, TRIM, & GARAGE DOOR	SW 7054 OAK LEAF BROWN	SW 7005 PURE WHITE	SW 6089 GROUNDED	SW 7757 HIGH REFLECTIVE WHITE	SW 9091 HALF-CAFF	SW 6200 LINK GRAY	SW 7757 HIGH REFLECTIVE WHITE	SW 7040 SMOKE-HOUSE	SW 7004 SNOW-BOUND	SW 7757 HIGH REFLECTIVE WHITE	SW 7004 SNOW-BOUND	SW 7006 EXTRA WHITE
FRONT ENTRY DOOR	SW 2637 AURORA BROWN	SW 6076 TURKISH COFFEE	SW 2819 DOWNING SLATE	SW 0032 NEEDLE-POINT NAVY	SW 7618 DEEP SEA DIVE	SW 6083 SABLE	SW 6335 FIRED BRICK	SW 2811 ROOK-WOOD BLUE GREEN	SW 6181 SECRET GARDEN	SW 7026 GRIFFIN	SW 7601 DOCKSIDE BLUE	SW 6090 JAVA
BASE STUCCO	SW 7530 BARCELONA BEIGE	SW 6169 SEDATE GRAY	SW 7008 ALABASTER	SW 7011 NATURAL CHOICE	SW 7541 GRECIAN IVORY	SW 6148 WOOL SKEIN	SW 7071 GRAY SCREEN	SW 7005 PURE WHITE	SW 7004 SNOW-BOUND	SW 7015 REPOSE GRAY	SW 7543 AVENUE TAN	SW 7006 EXTRA WHITE
ACCENT STUCCO #1	SW 7568 NEUTRAL GROUND	SW 7005 PURE WHITE	SW 1015 SKYLINE STEEL	SW 7052 GRAY AREA	7546 PRAIRIE GRASS	SW 6143 BASKET BEIGE	SW 7633 TAUPE TONE	SW 0052 PEARL GRAY	.....	.....	.....	.....
SIDING	SW 2851 SUBURBAN GREEN LIGHT	SW 0031 DUTCH TILE BLUE	SW 6248 JUBILEE	SW 6096 JUTE BROWN	.....	.....	.....	.....	SW 2834 BIRDSEYE MAPLE	SW 6192 COASTAL PATH	SW 2839 ROYCROFT COPPER RED	SW 7603 POOL-HOUSE
ROOF	3645	3813	3646	3814	5557	5582	SCP 8801	5689	4634	4503	4810	4595
GUTTERS & DOWNSPOUT	FIRBLESTONE CLAY	SATIN WHITE	BUCKSKIN BROWN	SATIN WHITE	ALMOND	BRONZE	SATIN WHITE	BRONZE	SATIN WHITE	SATIN WHITE	SATIN WHITE	SATIN WHITE

LEAL RANCH - SFD

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SCHEME #4 | TRANSITIONAL MEDITERRANEAN ELEVATIONS



ROOF
EAGLE - 3814 SAN PABLO BLEND

BASE STUCCO
SW 7011 NATURAL CHOICE

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7757 HIGH REFLECTIVE WHITE

FRONT DOOR
SW 0032 NEEDLEPOINT NAVY

ACCENT STUCCO
SW 7052 GRAY AREA

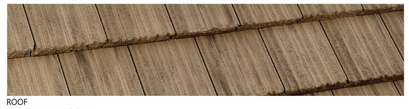
SIDING
SW 6096 JUTE BROWN

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SCHEME #5 | TRANSITIONAL CRAFTSMAN ELEVATIONS



ROOF
EAGLE - 5557 LIVE OAK

BASE STUCCO
SW 7541 GRECIAN IVORY

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 9091 HALF-CAFF

FRONT DOOR
SW 7618 DEEP SEA DIVE

ACCENT STUCCO
SW 7546 PRAIRIE GRASS

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SCHEME #6 | TRANSITIONAL CRAFTSMAN ELEVATIONS



ROOF
EAGLE - 5582 FAWN GRAY FLASHED

BASE STUCCO
SW 6148 WOOL SKEIN

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 6200 LINK GRAY

FRONT DOOR
SW 6083 SABLE

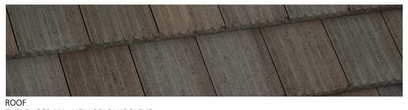
ACCENT STUCCO
SW 6143 BASKET BEIGE

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SCHEME #7 | TRANSITIONAL CRAFTSMAN ELEVATIONS



ROOF
EAGLE - SCP 8801 NEW ORLEANS BLEND

BASE STUCCO
SW 7071 GRAY SCREEN

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7757 HIGH REFLECTIVE WHITE

FRONT DOOR
SW 6335 FIRED BRICK

ACCENT STUCCO
SW 7633 TAUPE TONE

LEAL RANCH - SFD

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SCHEME #8 | TRANSITIONAL CRAFTSMAN ELEVATIONS



ROOF
EAGLE - 5689 BROWN RANGE

BASE STUCCO
SW 7005 PURE WHITE

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7040 SMOKEHOUSE

FRONT DOOR
SW 2811 ROOKWOOD BLUE GREEN

ACCENT STUCCO
SW 0052 PEARL GRAY

LEAL RANCH - SFD

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SCHEME #9 | TRANSITIONAL FARMHOUSE ELEVATIONS



ROOF
EAGLE - 4634 KINGS CANYON BLEND

BASE STUCCO
SW 7004 SNOWBOUND

FASCIA, EAVES, TRIM, & GARAGE DOOR
SW 7004 SNOWBOUND

FRONT DOOR
SW 6181 SECRET GARDEN

SIDING
SW 2834 BIRDSEYE MAPLE

LEAL RANCH - SFD

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		08/04/23	THIRD CITY SUBMITALL		
		10/03/23	FOURTH CITY SUBMITALL		
ARCHITECT				CITY	

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EASTWALK
MASTER DEVELOPMENT PLAN

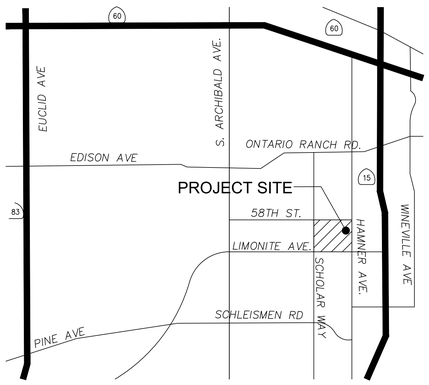
SHEET TITLE
COLOR & MATERIAL SELECTIONS & BOARDS, PAGE 2

SHEET NO.
A-17

NEW HOME COMPANY
EASTWALK
LIMONITE AVE, HAMNER ST, 58TH ST, SCHOLAR WAY
TENTATIVE TRACT NO. 38290

PHASE 1 - PLANNING AREA 7

VICINITY MAP



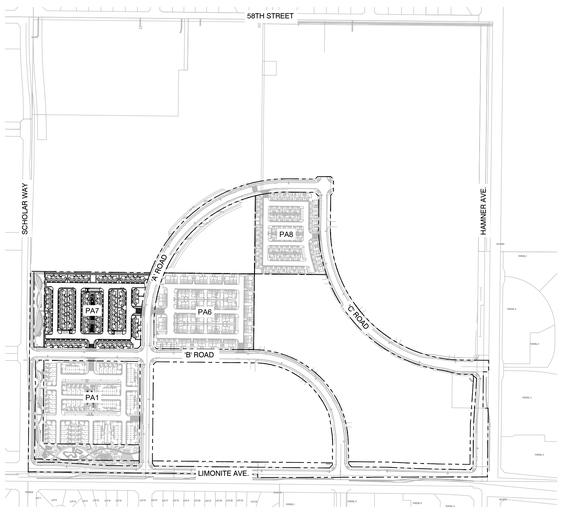
NORTH
N.T.S.

SHEET INDEX

LANDSCAPE SHEETS

SHEET NO.	SHEET TITLE
L-100	LANDSCAPE COVER SHEET
L-101	OVERALL SITE PLAN
L-201	PLANTING LEGEND
L-202	PLANTING IMAGERY BOARD
L-203	PLANTING IMAGERY BOARD
L-204	PLANTING IMAGERY BOARD
L-301	LANDSCAPE SITE PLAN
L-302	ENLARGEMENT PLANS
L-401	FENCE AND WALL ELEVATIONS

LOCATION MAP



GENERAL NOTES

NOTIFICATIONS

APPROVALS

PLAN CHECK #

CLIENT
NEW HOME COMPANY
15231 LAGUNA CANYON RD,
SUITE 250 IRVINE CA, 92618
949.208.7279
MIKE MILLER
MMILLER@NWHM.COM

LANDSCAPE ARCHITECT
BRIGHTVIEW DESIGN GROUP
8 HUGHES, STE 150
IRVINE, CA 92618
949.514.7906
GLEN SHARRAR
GLEN.SHARRAR@BRIGHTVIEW.COM

ARCHITECT
WHA
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NEWPORT BEACH CA, 92660
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CHRIS BARLOW
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MARK KINER
MKINER@BASSENIANLAGOONI.COM

CIVIL ENGINEER
HUNSAKER & ASSOCIATES
2900 ADAMS STREET SUITE A-15
RIVERSIDE, CA 92504
951.509.7038
JOEY VALADEZ
JVALADEZ@HUNSAKER.COM

DEPARTMENT OF PLANNING
CITY OF EASTVALE, CA

ACCEPTED (PRINT NAME) | SIGNATURE | DATE

UTILITIES [CONTRACTOR TO NOTIFY THE FOLLOWING AGENCIES OR UTILITIES 48 HOURS PRIOR TO STARTING CONSTRUCTION OR EXCAVATION.]

ELECTRICAL COMPANY	SOUTHERN CALIFORNIA EDISON	909.930.8431
GAS COMPANY	SOCALGAS	909.758.8691
WATER DISTRICT	JURUPA COMMUNITY SERVICES DISTRICT	951.685.7434
TELEPHONE	VERIZON	909.469.2260
CABLE	AT&T	800.750.2355

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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

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BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
LANDSCAPE COVER SHEET

SHEET NO.
L-100

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

'A' ROAD

N.A.P

'C' ROAD

PLANNING
AREA 8

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

PHASE A PROJECT BOUNDARY

HAMNER AVE.

SCHOLAR WAY

PLANNING AREA 7
SITE BOUNDARY

PLANNING
AREA 7

PLANNING
AREA 6

'B' ROAD

'C' ROAD

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

'A' ROAD

'B' ROAD

LIMONITE AVE.

SCALE: 1" = 120'-0"

Know what's below.
Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITTALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO.
move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
L-101

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	LAURUS NOBILIS SWEET BAY	24" BOX	L
	QUERCUS ILEX HOLLY OAK	48" BOX	L
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	TECOMA STANS YELLOW BELLS	24" BOX	L

SHRUB LEGEND - ACCENTS

CRAFTSMAN ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ARBUTUS UNEDO 'COMPACTA' DWARF STRAWBERRY TREE	5 GAL	L	48" o.c.
AGAVE ATTENUATA RAY OF LIGHT RAY OF LIGHT FOX TAIL AGAVE	5 GAL	L	36" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW-WOOD	5 GAL	L	48" o.c.
MEDITERRANEAN ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ELAEOCARPUS DECIPIENS JAPANESE BLUEBERRY TREE	5 GAL	L	48" o.c.
JUNIPERUS CHINENSIS GREEN COLUMNAR JUNIPER	5 GAL	L	36" o.c.
LAVANDULA ANGUSTIFOLIA ENGLISH LAVENDER	5 GAL	L	36" o.c.
FARMHOUSE ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ELAEOCARPUS DECIPIENS JAPANESE BLUEBERRY TREE	5 GAL	L	48" o.c.
DODONAEA VISCOSA 'PURPUREA' PURPLE-LEAFED HOP-BUSH	5 GAL	L	24" o.c.
LAURUS NOBILIS SWEET BAY	5 GAL	L	36" o.c.

SHRUB LEGEND - BACKGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ABUTILON PALMERI INDIAN MALLOW	5 GAL	L	48" o.c.
ALYOGYNE HUEGELII BLUE HIBISCUS	5 GAL	L	6'-0" o.c.
ARBUTUS UNEDO 'COMPACTA' COMPACT STRAWBERRY TREE	5 GAL	L	5'-0" o.c.
ARCTOSTAPHYLOS GLANDULOSA EASTWOOD MANZANITA	5 GAL	L	6'-0" o.c.
ARTEMISIA CALIFORNICA CALIFORNIA SAGEBRUSH	1 GAL	L	48" o.c.
BERBERIS AQUIFOLIUM OREGON GRAPE	5 GAL	L	48" o.c.
ECHIUM FASTUOSUM PRIDE OF MADEIRA	5 GAL	L	5'-0" o.c.
HETEROMELES ARBUTIFOLIA TOYON	5 GAL	L	48" o.c.
JUNIPERUS COMMUNIS COMMON JUNIPER	5 GAL	L	48" o.c.
LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	1 GAL	L	48" o.c.
MUHLENBERGIA RIGENS PINK MUHLY GRASS	1 GAL	M	48" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW WOOD	5 GAL	L	48" o.c.
RHUS INTEGRIFOLIA LEMONADE BERRY	5 GAL	L	10'-0" o.c.
RHUS OVATA SUGAR BUSH	5 GAL	L	8'-0" o.c.
RIBES SANGUINEUM RED FLOWERING CURRANT	1 GAL	M	48" o.c.
ROMNEYA COULTERI MATILIJA POPPY	5 GAL	L	6'-0" o.c.
TAGETES LEMMONII COPPER CANYON DAISY	5 GAL	L	8'-0" o.c.
TECOMA X 'ORANGE JUBILEE' ORANGE JUBILEE YELLOW BELLS	5 GAL	L	8'-0" o.c.

SHRUB LEGEND - MIDGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
AGAVE ATTENUATA FOXTAIL AGAVE	5 GAL	L	48" o.c.
AGAVE X 'BLUE FLAME' BLUE FLAME AGAVE	5 GAL	L	36" o.c.
AGAVE X 'BLUE GLOW' BLUE GLOW AGAVE	5 GAL	L	36" o.c.
ANIGOZANTHOS X 'ORANGE CROSS' ORANGE CROSS KANGAROO PAW	1 GAL	L	24" o.c.
BACCHARIS PILULARIS COYOTE BRUSH	1 GAL	L	8'-0" o.c.
BERBERIS THUNBERGII JAPANESE GREENLEAF BARBERRY	5 GAL	M	5'-0" o.c.
CALLISTEMON VIMINALIS 'LITTLE JOHN' LITTLE JOHN WEEPING BOTTLEBRUSH	1 GAL	M	5'-0" o.c.
CISTUS SALVIIFOLIUS 'PROSTRATUS' SAGELEAF ROCKROSE	1 GAL	L	5'-0" o.c.
DIANELLA REVOLUTA 'DTN03' BABY BLISS™ FLAX LILY	1 GAL	L	36" o.c.
EUPHORBIA RIGIDA YELLOW SPURGE	5 GAL	L	36" o.c.
HESPERALOE PARVIFLORA RED YUCCA	1 GAL	L	48" o.c.
JUNCUS PATENS CALIFORNIA GRAY RUSH	1 GAL	L	24" o.c.
KALANCHOE THYRSIFLORA PADDLE PLANT	1 GAL	L	36" o.c.
KNIPHOFIA TRIANGULARIS DWARF RED HOT POKER	1 GAL	M	48" o.c.
KNIPHOFIA UVARIA RED HOT POKER	1 GAL	L	36" o.c.
LAVANDULA STOECHAS SPANISH LAVENDER	5 GAL	L	36" o.c.
LEUCOPHYLLUM CANDIDUM TEXAS SAGE	5 GAL	L	36" o.c.
LOMANDRA LONGIFOLIA 'BREEZE' BREEZE™ MAT RUSH	5 GAL	L	36" o.c.
MELALEUCA NESOPHILA 'LITTLE NESSIE' LITTLE NESSIE PINK MELALEUCA	1 GAL	L	5'-0" o.c.
NANDINA DOMESTICA 'COMPACTA' DWARF HEAVENLY BAMBOO	1 GAL	M	36" o.c.
OLEA EUROPAEA 'MONTRA' LITTLE OLLIE® OLIVE	5 GAL	L	36" o.c.
PHLOMIS FRUTICOSA JERUSALEM SAGE	1 GAL	M	48" o.c.
PRUNUS ILICIFOLIA HOLLYLEAF CHERRY	5 GAL	L	8'-0" o.c.
RHAPHIOLEPIS UMBELLATA 'MINOR' DWARF INDIAN HAWTHORN	1 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS ROSEMARY	1 GAL	L	48" o.c.
SALVIA GREGGII AUTUMN SAGE	1 GAL	L	36" o.c.
SALVIA ROSMARINUS ROSEMARY	5 GAL	L	36" o.c.
SALVIA SPATHACEA HUMMINGBIRD SAGE	1 GAL	M	48" o.c.
TRICHOSTEMA LANATUM WOOLLY BLUE CURLS	1 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'BLUE GEM' COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA GREY BOX DWARF COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'SMOKEY' COAST ROSEMARY	5 GAL	L	48" o.c.

SHRUB LEGEND - FOREGROUND/GROUNDCOVER

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ACACIA REDOLENS 'DESERT CARPET' DESERT CARPET BANK CATCLAW	1 GAL	L	6'-0" o.c.
ACHILLEA TOMENTOSA WOOLLY YARROW	1 GAL	L	12" o.c.
BOUTELOUA GRACILIS BLUE GRAMA GRASS	1 GAL	L	24" o.c.
CAREX DIVULSA EUROPEAN GREY SEDGE	1 GAL	L	24" o.c.
CEANOTHUS X 'JOYCE COULTER' JOYCE COULTER WILD LILAC	1 GAL	M	8'-0" o.c.
ESCHSCHOLZIA CALIFORNICA CALIFORNIA POPPY	1 GAL	L	12" o.c.
FESTUCA GLAUCA BLUE FESCUE	1 GAL	M	18" o.c.
LANTANA MONTEVIDENSIS PURPLE TRAILING LANTANA	1 GAL	L	8'-0" o.c.
LONICERA JAPONICA JAPANESE HONEYSUCKLE	5 GAL	L	36" o.c.
MYOPORUM PARVIFOLIUM 'PUTAH CREEK' CREEPING MYOPORUM	1 GAL	L	8'-0" o.c.
ROSMARINUS OFFICINALIS 'HUNTINGTON CARPET' HUNTINGTON CARPET ROSEMARY	1 GAL	L	36" o.c.
SENECIO CINERARIA DUSTY MILLER	1 GAL	L	24" o.c.
SENECIO SERPENS BLUE CHALKSTICKS	1 GAL	L	24" o.c.
TEUCRIUM CHAMAEDRYS GERMANDER	1 GAL	L	24" o.c.
TEUCRIUM COSSONII CREEPING GERMANDER	1 GAL	L	24" o.c.
THYMUS X CITRIODORUS LEMON THYME	1 GAL	L	24" o.c.
TRACHELOSPERMUM JASMINOIDES CHINESE STAR JASMINE	1 GAL	M	36" o.c.

VINE LEGEND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
BOUGAINVILLEA X 'ROSENKA' ROSENKA BOUGAINVILLEA	5 GAL	L	48" o.c.
TRACHELOSPERMUM JASMINOIDES STAR JASMINE TRELLIS	5 GAL	M	48" o.c.
WISTERIA SINENSIS CHINESE WISTERIA	5 GAL	M	48" o.c.

NOTES:

1. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM
   - 15 GALLON 10%
   - 5 GALLON 30%
   -1 GALLON 60%

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

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move forward

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8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING LEGEND

SHEET NO.
L-201

EVERGREEN TREES



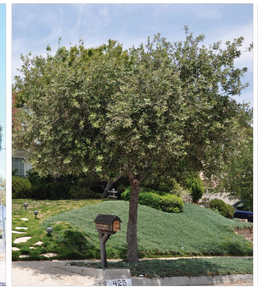
ARBUTUS X 'MARINA'
MARINA STRAWBERRY TREE



CINNAMOMUM CAMPHORA
CAMPHOR TREE



LAURUS NOBILIS
SWEET BAY



QUERCUS ILEX
HOLLY OAK



RHUS LANCEA
AFRICAN SUMAC

DECIDUOUS TREES



GEIJERA PARVIFLORA
AUSTRALIAN WILLOW



PARKINSONIA X 'DESERT MUSEUM'
DESERT MUSEUM PALO VERDE



ULMUS PARVIFOLIA DRAKE
DRAKE CHINESE ELM

ACCENT TREES



TECOMA STANS
YELLOW BELLS

TRANSITIONAL CRAFTSMAN ARCHITECTURAL ACCENT PLANTING



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE

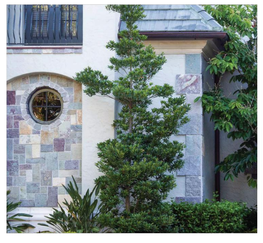


AGAVE ATTENUATA 'RAY OF LIGHT'
RAY OF LIGHT FOX TAIL AGAVE



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD

TRANSITIONAL MEDITERRANEAN ARCHITECTURAL ACCENT PLANTING



ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE

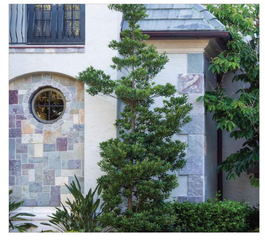


JUNIPERUS CHINENSIS
GREEN COLUMNAR JUNIPER



LAVANDULA ANGUSTIFOLIA
ENGLISH LAVENDER

TRANSITIONAL FARMHOUSE ARCHITECTURAL ACCENT PLANTING



ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE



DODONAEA VISCOSA 'PURPUREA'
PURPLE-LEAFED HOP-BUSH



LAURUS NOBILIS
SWEET BAY

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

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IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-202

BACKGROUND SHRUBS



ABUTILON PALMERI
INDIAN MALLOW



ALYGYNE HUEGELII
BLUE HIBISCUS



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE



ARCTOSTAPHYLOS GLANDULOSA
EASTWOOD MANZANITA



ARTEMISIA CALIFORNICA 'CANYON GREY'
CANYON GREY CALIFORNIA SAGEBRUSH



BACCHARIS PILULARIS
COYOTE BRUSH



ECHIUM FASTUOSUM
PRIDE OF MADEIRA



HETEROMELES ARBUTIFOLIA
TOYON



JUNIPERUS COMMUNIS
COMMON JUNIPER



LEYMUS CONDENSATUS
GIANT WILD RYE



MUHLENBERGIA RIGENS 'PINK MULHY'
PINK MUHLY



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD



RHUS INTEGRIFOLIA
LEMONADE BERRY



RHUS OVATA
SUGAR BUSH



RIBES SANGUINEUM
RED FLOWERING CURRANT



ROMNEYA COULTERI
MATILIJA POPPY



TAGETES LEMONII
COPPER CANYON DAISY



TECOMA X 'ORANGE JUBILEE'
ORANGE JUBILEE YELLOW BELLS

MIDGROUND SHRUBS



AGAVE ATTENUATA
FOXTAIL AGAVE



AGAVE X 'BLUE FLAME'
BLUE FLAME AGAVE



AGAVE X 'BLUE GLOW'
BLUE GLOW AGAVE



ANIGOZANTHOS X 'ORANGE CROSS'
ORANGE CROSS KANGAROO PAW



BERBERIS THUNBERGII
JAPANESE GREENLEAF BARBERRY



CALLISTEMON VIMINALIS 'LITTLE JOHN'
LITTLE JOHN WEEPING BOTTLEBRUSH



CISTUS SALVIIFOLIUS 'PROSTRATUS'
SAGELEAF ROCKROSE



DIANELLA REVOLUTA 'DTNO3'
BABY BLISS FLAX LILY



EUPHORBIA RIGIDA
YELLOW SPURGE



HESPERALOE PARVIFLORA
RED YUCCA



JUNCUS PATENS
CALIFORNIA GRAY RUSH



KALANCHOE THYRSIFLORA
PADDLE PLANT



KNIPHOFIA TRIANGULARIS
DWARF RED HOT POKER



KNIPHOFIA UVARIA
RED HOT POKER



LAVANDULA STOECHAS
SPANISH LAVENDER



LEUCOPHYLLUM CANDIDUM
TEXAS SAGE



LOMANDRA LONGIFOLIA 'BREEZE'
BREEZE MAT RUSH



MELALEUCA NESOPHILA 'LITTLE NESSIE'
LITTLE NESSIE PINK MELALEUCA

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LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

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IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-203

MIDGROUND SHRUBS CONT.



NANDINA DOMESTICA 'COMPACTA'
DWARF HEAVENLY BAMBOO



OLEA EUROPAEA 'MONTRA'
LITTLE OLLIE OLIVE



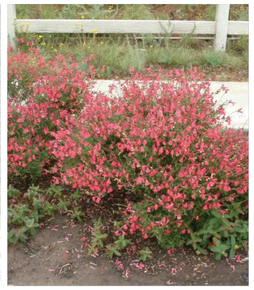
PHLOMIS FRUTICOSA
JERUSALEM SAGE



RHAPHIOLEPIS UMBELLATA 'MINOR'
DWARF INDIAN HAWTHORN



ROSMARINUS OFFICINALIS
ROSEMARY



SALVIA GREGII
AUTUMN SAGE



SALVIA SPATHACEA
HUMMINGBIRD SAGE



TRICHOSTEMA LANATUM
WOOLLY BLUE CURLS



WESTRINGIA FRUTICOSA
COAST ROSEMARY



WESTRINGIA FRUTICOSA 'SMOKEY GREY BOX
COAST ROSEMARY

FOREGROUND/GROUNDCOVER



ACACIA REDOLENS 'DESERT CARPET'
SWEET ACACIA



ACHILLEA TOMENTOSA
WOOLLY YARROW



BOUTELOUA GRACILIS
BLUE GRAMA GRASS



CAREX DIVULSA
EUROPEAN GREY SEDGE



CEONOTHUS X 'JOYCE COULTER'
JOYCE COULTER WILD LILAC



ESCHSCHOLZIA CALIFORNICA
CALIFORNIA POPPY



FESTUCA GLAUCA
BLUE FESCUE



LANTANA MONTEVIDENSIS
PURPLE TRAILING LANTANA



LONICERA JAPONICA
JAPANESE HONEYSUCKLE



MYOPORUM PARVIFOLIUM
TRAILING MYOPORUM



ROSMARINUS OFFICINALIS 'HUNTINGTON CARPET'
ROSEMARY



SENECIO CINERARIA
DUSTY MILLER



SENECIO SERPENS
BLUE CHALKSTICKS



TEUCRIUM CHAMAEDRYS
GERMANDER



TEUCRIUM COSONII
CREEPING GERMANDER

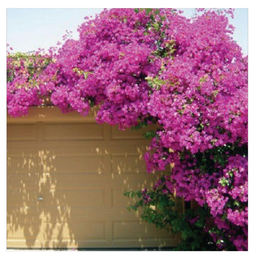


THYMUS X CITRIODORUS
LEMON THYME



TRACHELOSPERMUM JASMINOIDES
CHINESE STAR JASMINE

FOREGROUND/GROUNDCOVER



BOUGAINVILLEA 'ROSENKA'
ROSENKA BOUGAINVILLEA



TRACHELOSPERMUM JASMINOIDES
STAR JASMINE



WISTERIA SINENSIS
CHINESE WISTERIA

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. *move forward*

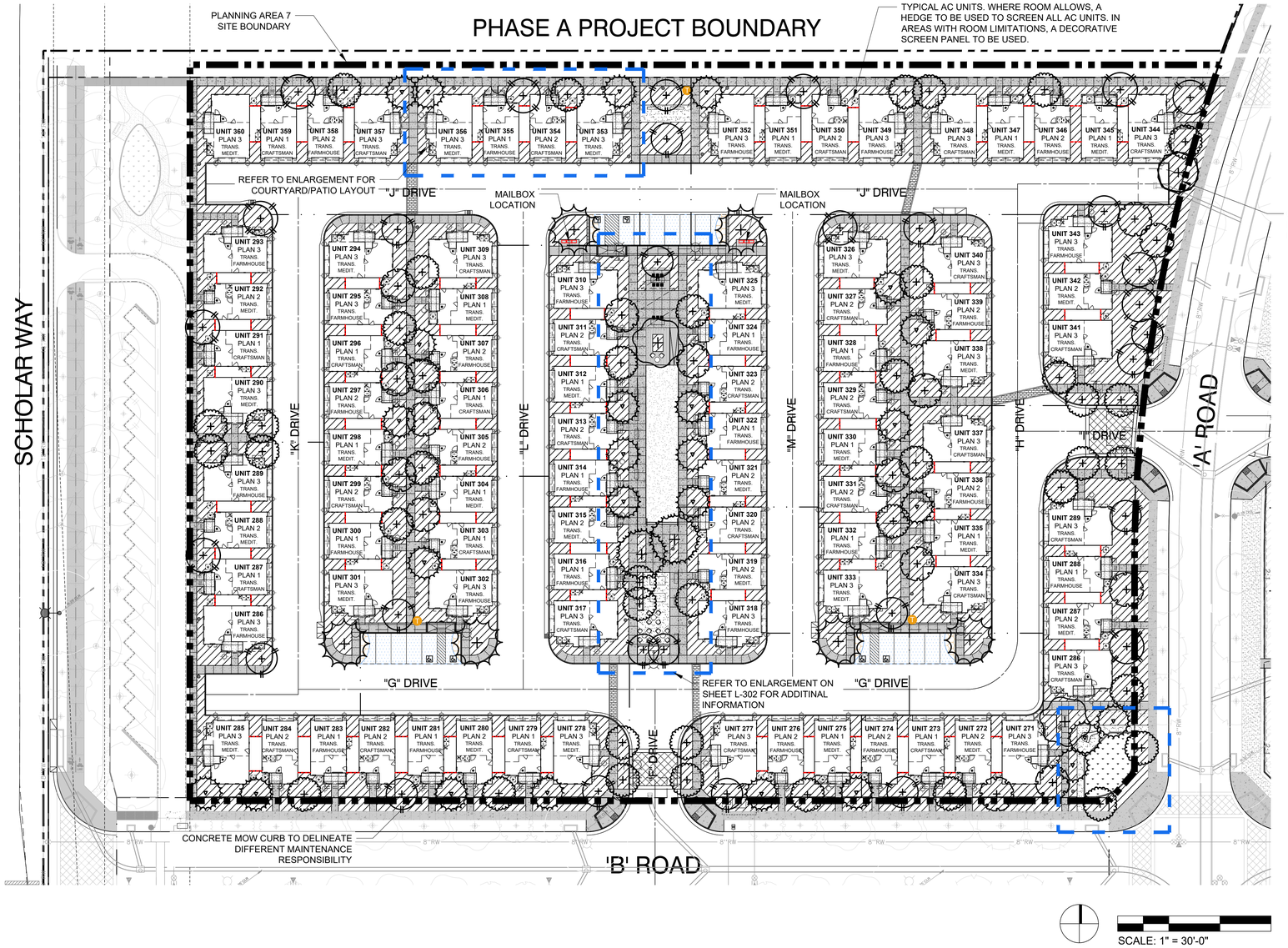
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PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

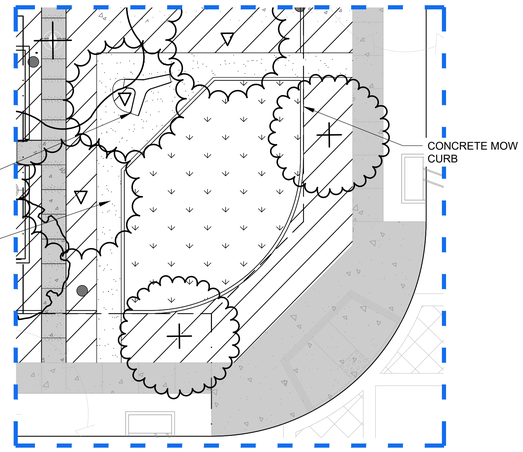
SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-204



TREE LEGEND			
EVERGREEN			
SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	LAURUS NOBILIS SWEET BAY	24" BOX	L
	QUERCUS ILEX HOLLY OAK	48" BOX	L
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	TECOMA STANS YELLOW BELLS	24" BOX	L

NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES



OPEN SPACE - ENLARGEMENT

SCALE: 1" = 10'-0"

FENCE AND WALL LEGEND :

6'-0" HIGH PRECISION BLOCK WALL WITH 2" PRECISION BLOCK CAP. ANGELUS BLOCK, COLOR "FAWN". FINAL MATERIAL / COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

- TRASH CANS
- CONCRETE PAVING
- STABILIZED DECOMPOSED GRANITE PAVING
- DECORATIVE VEHICULAR PAVING
- ENHANCED PEDESTRIAN PAVING
- PROPOSED MAILBOX LOCATION (ACTUAL MAILBOX LOCATIONS MAY CHANGE UPON USPS REVIEW)

TREE SHADING LEGEND:

- PARKING AREA SHADED BY TREES
- PARKING AREA

SHADED SUMMARY:

TOTAL PARKING AREA: (EXCLUDES DRIVE AISLES AND COVERED PARKING SPACES)	3,563 SF.
PARKING AREA SHADED BY TREES 13% OF COVERED PARKING AREA	469 SF.

* TREES SHOWN AT 15 YEARS MATURITY. PER RIVERSIDE COUNTY ORDINANCE 348, SECTION 1812

LANDSCAPE COVERAGE SUMMARY:

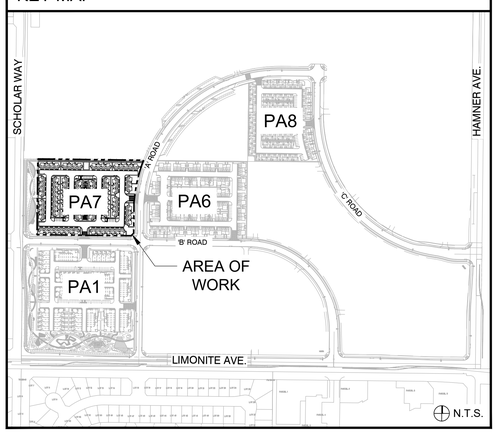
OVERALL LANDSCAPE: 57,861SQ. FT.
TOTAL DEVELOPED AREA - PA 7: 5.65 ACRES
PERCENTAGE OF LANDSCAPE AREA: ± 23.5%
OPEN SPACE: 7,988 SF.

SHRUBS - REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

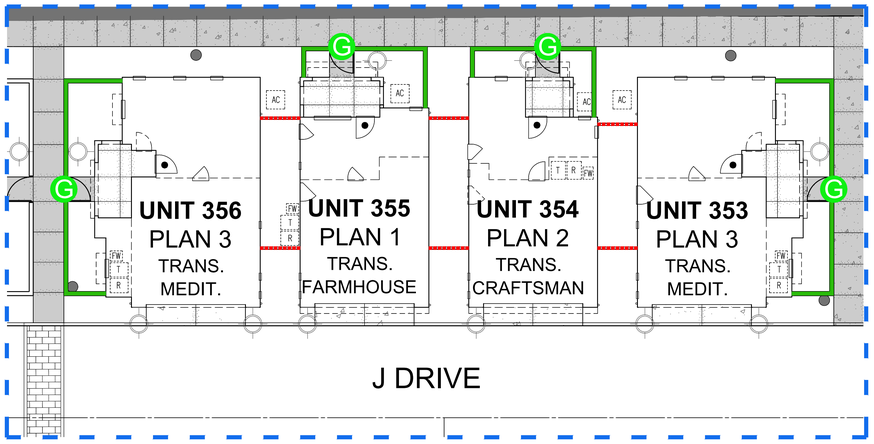
BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
LANDSCAPE SITE PLAN

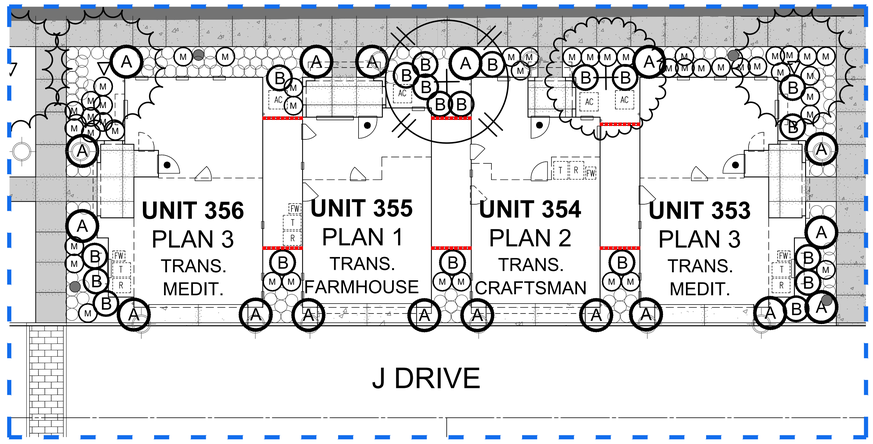
SHEET NO.
L-301



PATIO/COURTYARD WALL OPTION - ENLARGEMENT

NOTE: PATIO/COURTYARD WALL SHOWN ARE OPTIONAL AND MIGHT NOT BE FEASIBLE DUE TO SITE CONDITIONS. FINAL LAYOUT SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER.

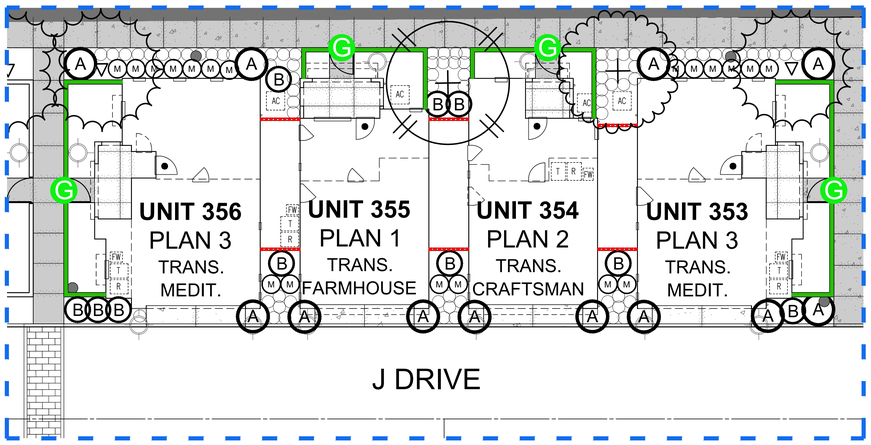
SCALE: 1" = 10'-0"



PLANTING VIGNETTE - ENLARGEMENT

NOTE: TYPICAL MASSING/LAYOUT. FINAL LAYOUT TO BE DETERMINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS.

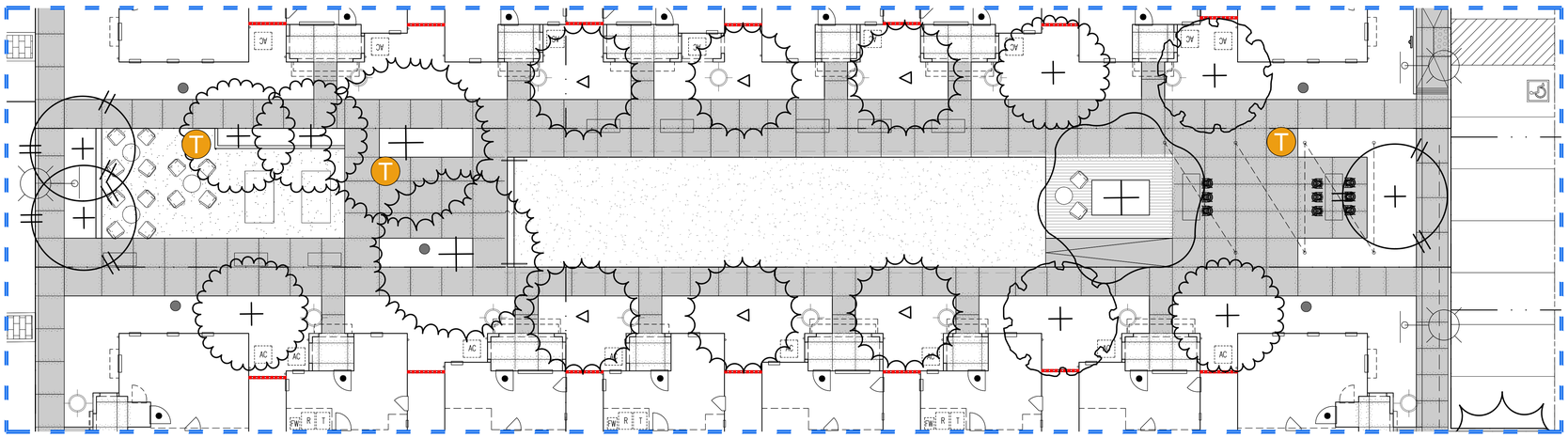
SCALE: 1" = 10'-0"



PLANTING VIGNETTE PATIO/COURTYARD WALL OPTION - ENLARGEMENT

Note: TYPICAL MASSING/LAYOUT. FINAL LAYOUT TO BE DETERMINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS.

SCALE: 1" = 10'-0"



AMENITY OPEN SPACE - ENLARGEMENT

SCALE: 1" = 10'-0"

FENCE AND WALL LEGEND :

- 3'-0" HIGH PRECISION BLOCK WALL - NO CAP. ANGELUS BLOCK, COLOR "FAWN". SITE SPECIFIC LAYOUT/HEIGHT MAY VARY DEPENDING ON FINAL SITE CONDITIONS. FINAL MATERIAL/COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.
- 6'-0" HIGH PRECISION BLOCK WALL WITH 2" PRECISION BLOCK CAP. ANGELUS BLOCK, COLOR "FAWN". FINAL MATERIAL / COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

- PATIO/COURTYARD GATE
- TRASH CANS
- CONCRETE PAVING
- STABILIZED DECOMPOSED GRANITE PAVING
- ENHANCED PEDESTRIAN PAVING

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
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5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX,

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	LAURUS NOBILIS SWEET BAY	24" BOX	L
	QUERCUS ILEX HOLLY OAK	48" BOX	L
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	TECOMA STANS YELLOW BELLS	24" BOX	L

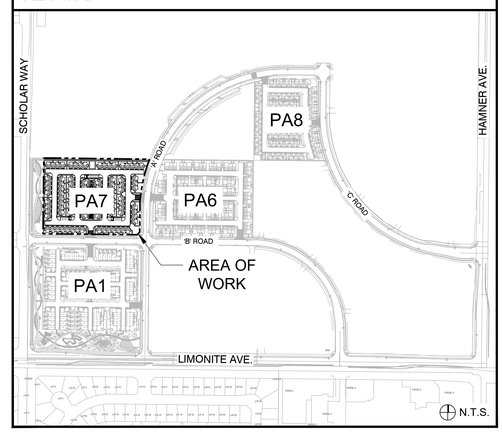
NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

SHRUB LEGEND

SYMBOL	DESCRIPTION	SIZE
A	ACCENTS	15 GAL
B	BACKGROUND	5 GAL
M	MIDGROUND	5 GAL AND 1 GAL
	GROUNDCOVER	1 GAL

NOTES:
1. REFER TO SHEET L-201 FOR FULL SHRUB PLANT PALETTE.
2. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM.
   15 GALLON: 10%
   5 GALLON: 30%
   1 GALLON: 60%

KEY MAP



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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

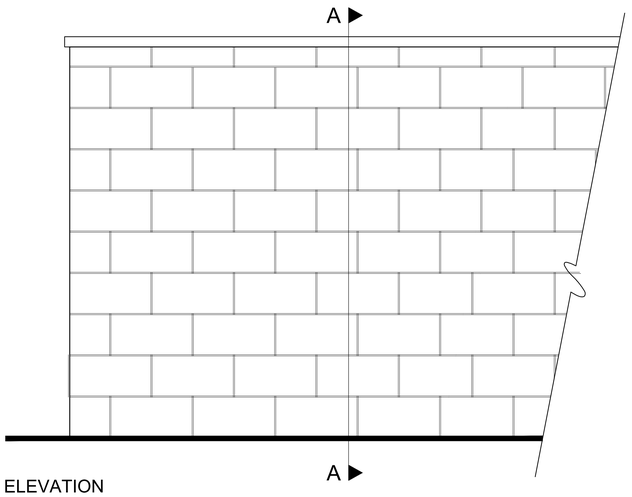
BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

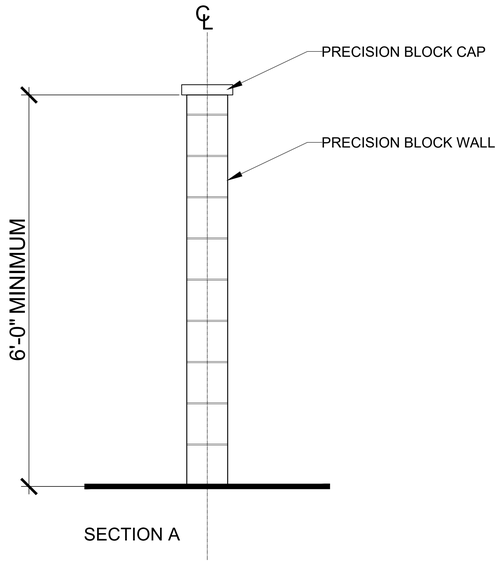
PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
ENLARGEMENT PLANS

SHEET NO.
L-302





PRIVACY WALL OPTIONS

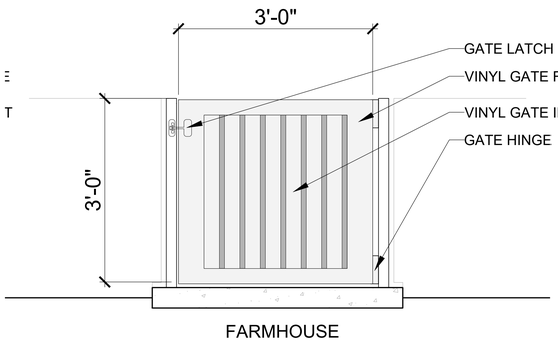
Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"

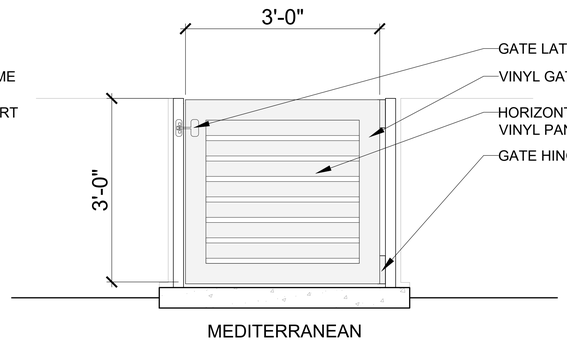


AC UNIT SCREEN PANEL

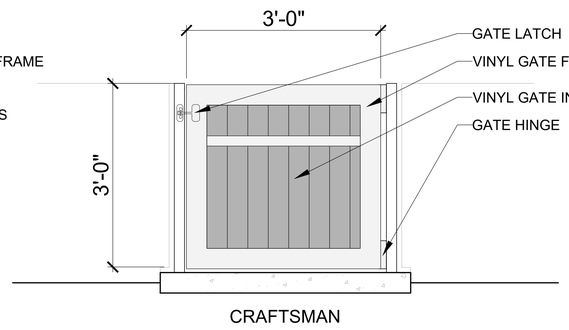
Final material selection subject to change per landscape plan submittal



FARMHOUSE



MEDITERRANEAN



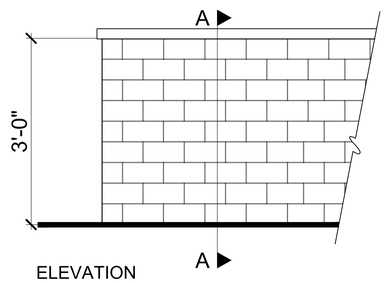
CRAFTSMAN

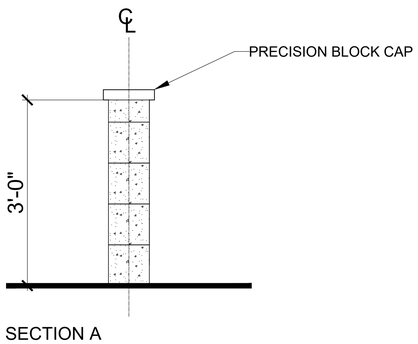
NOTE: SOME RESIDENTIAL UNITS MAY NOT HAVE A GATE AT THE DISCRETION OF THE MASTER DEVELOPER

PATIO/COURTYARD GATE OPTIONS (OPTIONAL)

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"





PATIO/COURTYARD WALL OPTIONS (OPTIONAL)

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. move forward

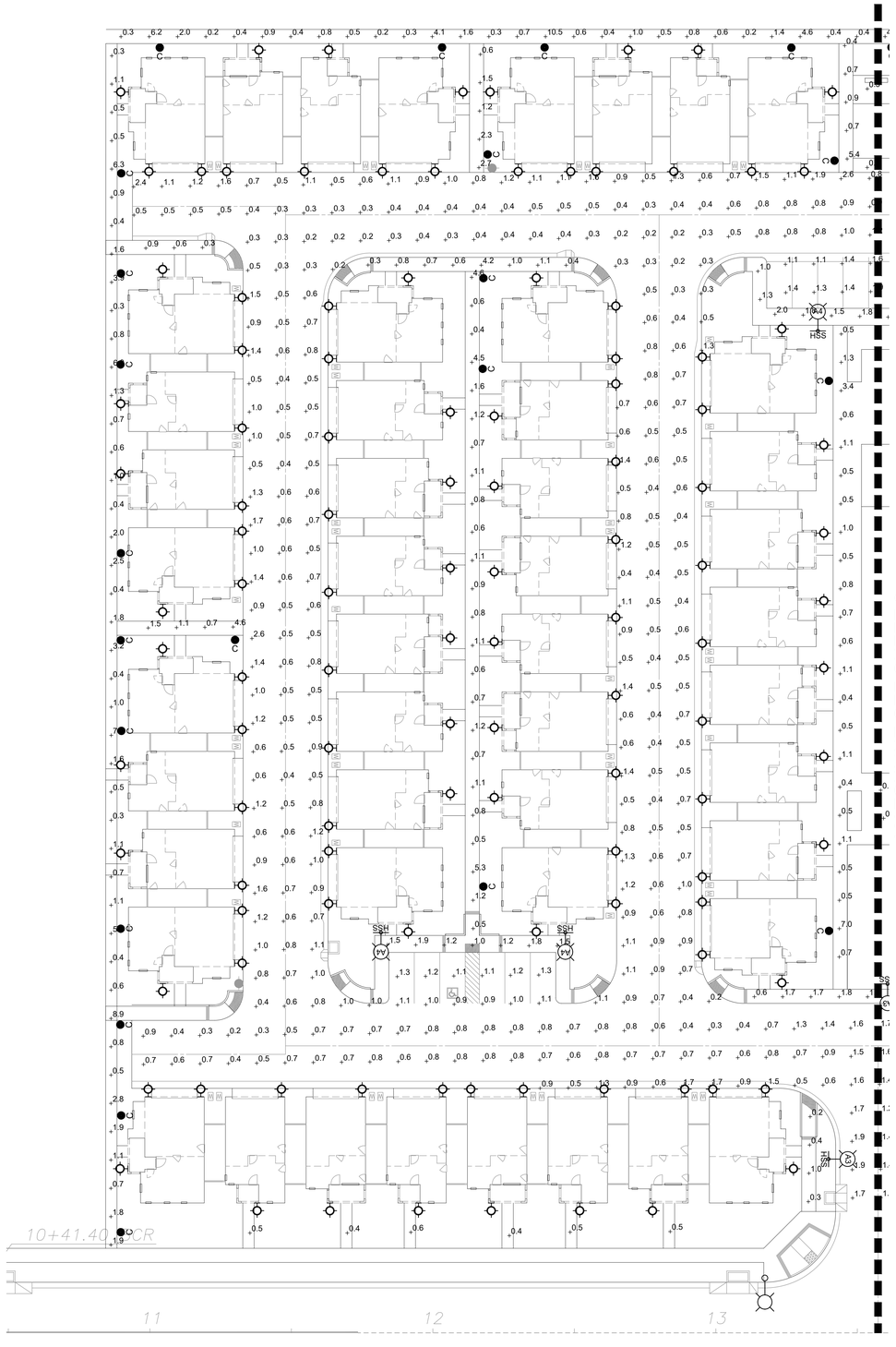
BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 7

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
FENCE AND WALL ELEVATIONS

SHEET NO.
L-401



LIGHTING FIXTURE LEGEND

20" DIA.

A3 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE III
USA# DS8A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

A4 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE IV- FORWARD THROW
USA# DS8A-PLED-IVFT-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

HSS — HOUSE SIDE SHIELD PER PLAN.
NOT ALL FIXTURES WILL HAVE A SHIELD.

36" / 5.5" / 7"

C — 20W. LED BOLLARD LIGHT - 36" TALL
USA# TLB5-DP-18LED-350mA-WW

LED WALL LIGHT
(1000 LUMEN MIN. AT 3000°K)
SELECT BY OWNER.
TO BE CONTROLLED BY ASTRONOMICAL TIME CLOCK ONLY.
SET DUSK TO DAWN.

N

10 0 5 10 20
(IN FEET)
1 inch = 20 ft.

811 Know what's below. Call 811 before you dig.

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

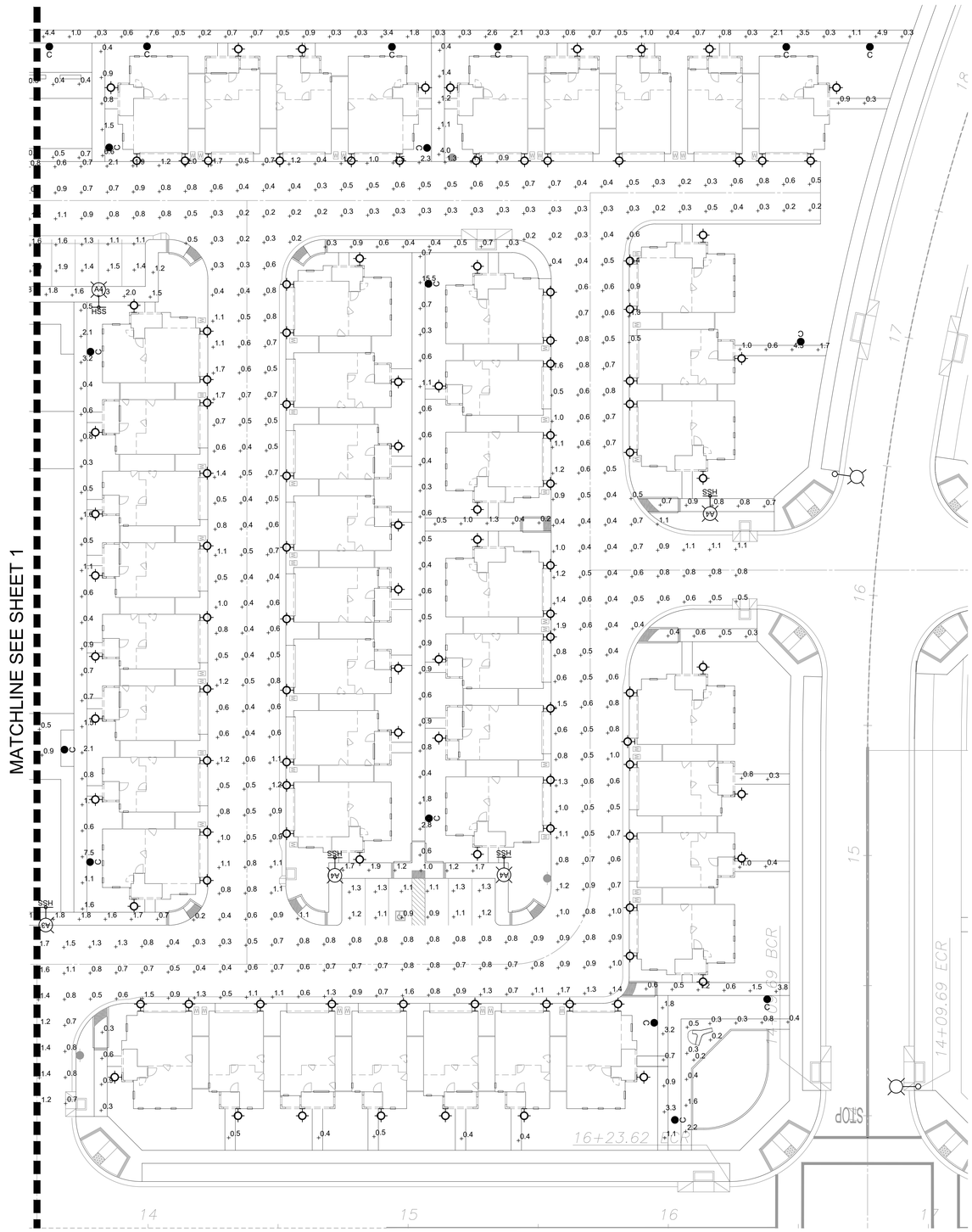
NEW HOME CO. move forward

CANDELA ENGINEERING
LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA 7
PHOTOMETRICS
SITE PLAN

SHEET NO.
E-1



LIGHTING FIXTURE LEGEND

20" DIA.

A3 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE III
USA# DS8A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

A4 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE IV- FORWARD THROW
USA# DS8A-PLED-IVFT-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

HSS — HOUSE SIDE SHIELD PER PLAN.
NOT ALL FIXTURES WILL HAVE A SHIELD.

7" / 36" / 5.5"

C — 20W. LED BOLLARD LIGHT - 36" TALL
USA# TLB5-DP-18LED-350mA-WW

LED WALL LIGHT
(1000 LUMEN MIN. AT 3000°K)
SELECT BY OWNER.
TO BE CONTROLLED BY ASTRONOMICAL TIME CLOCK ONLY.
SET DUSK TO DAWN.

N

10 0 5 10 20
(IN FEET)
1 inch = 20 ft.

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LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

CANDELA ENGINEERING
LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA 7
PHOTOMETRICS
SITE PLAN

SHEET NO.
E-2

EASTWALK | EASTVALE

PLANNING AREA 8
MAJOR DEVELOPMENT PLAN

GENERAL

SHEET	NAME
CS-1	Coversheet/Sheet Index
R-1	Site Rendering
R-2	Site Rendering
SP-1	Overall Illustrative
SP-2	Planning Area Illustrative
SP-3	Civic Center Interface

CIVIL

SHEET	NAME
1 of 1	Master Development Plan
2 of 2	Master Development Plan
3 of 3	Master Development Plan

ARCHITECTURE

SHEET	NAME
A1	Cover Page
A2	Community Introduction and Character
A3	Color and Elevation Diagram / Assignments
A4	Building 100A - Composite Building Plans
A5	Building 100 - Composite Roof Plans
A6	Building 100A - Elevations
A7	Building 100B - Elevations
A8	Building 100C - Elevations
A9	Building 200A - Composite Building Plans
A10	Building 200 - Composite Roof Plans
A11	Building 200A - Elevations
A12	Building 200B - Elevations
A13	Building 200C - Elevations
A14	Unit 1 - Floor Plans
A15	Unit 2 - Floor Plans
A16	Unit 3 - Floor Plans
A17	Color Boards and Exterior Color & Materials

LANDSCAPE

SHEET	NAME
L-100	Landscape Cover Sheet
L-101	Overall Site Plan
L-201	Planting Legend
L-202	Planting Imagery Board
L-203	Planting Imagery Board
L-204	Planting Imagery Board
L-301	Landscape Site Plan
L-302	Enlargement Plans
L-401	Fence and Wall Elevations
E-1	PA-8 Photometrics Site Plan

CITY OF EASTVALE

NEW HOME CO. move forward

EASTWALK

HUNSAKER & ASSOCIATES IRVINE, INC. PLANNING ▪ ENGINEERING ▪ SURVEYING

Bassenian | Lagoni ARCHITECTURE ▪ PLANNING ▪ INTERIORS

WHA. ARCHITECTS · PLANNERS · DESIGNERS

BrightView Design Group

10/03/2023

VIEW #1: SOUTH EAST SIDE VIEW OF THE LOT

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



Know what's below. Call 811 before you dig.

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
SITE RENDERING

SHEET NO.
R-1



VIEW #2: EAST SIDE ENTRANCE VIEW

CONCEPTUAL RENDERINGS TO DEPICT DESIGN INTENT. SUBJECT TO CHANGE

KEY MAP



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		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
LANDSCAPE ARCHITECT				CITY	

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
SITE RENDERING

SHEET NO.
R-2

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

'A' ROAD

'A' ROAD

N.A.P

'C' ROAD

SCHOLAR WAY

HAMNER AVE.

PLANNING
AREA 8

PLANNING AREA
8 SITE BOUNDRY

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

PHASE A PROJECT BOUNDARY

PLANNING
AREA 7

PLANNING
AREA 6

'B' ROAD

'C' ROAD

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

'A' ROAD

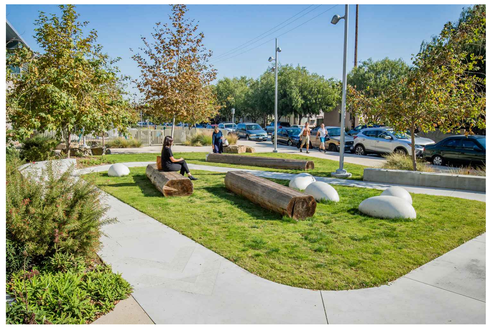
'B' ROAD

LIMONITE AVE.

PASSIVE SPACE REFERENCE IMAGERY









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		10/03/23	FOURTH CITY SUBMITTAL		
			LANDSCAPE ARCHITECT		CITY

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IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OVERALL
ILLUSTRATIVE

SHEET NO.
SP-1



SCALE: 1" = 40'-0"



PATIO/COURTYARD WALL OPTION - ENLARGEMENT

Note: Patio/courtyard wall shown are optional and might not be feasible due to site conditions.
Final layout subject to change at the discretion of the Master Developer.

SCALE: 1" = 20'-0"

SITE PLAN LEGEND

1. TYPICAL INTERNAL WALKWAYS.
2. GUEST PARKING AREA
3. CONNECTION TO ADJACENT STREETS/OPEN SPACE
4. ENHANCED PAVING
5. DECORATIVE VEHICULAR PAVING AT ENTRY
6. MAILBOX LOCATION
7. PRIVACY WALL
8. OPTIONAL PATIO/COURTYARD WALL
9. OPTIONAL PATIO/COURTYARD GATE

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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

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(949) 238-4900

PA NO. 8

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EASTWALK
MASTER DEVELOPMENT PLAN

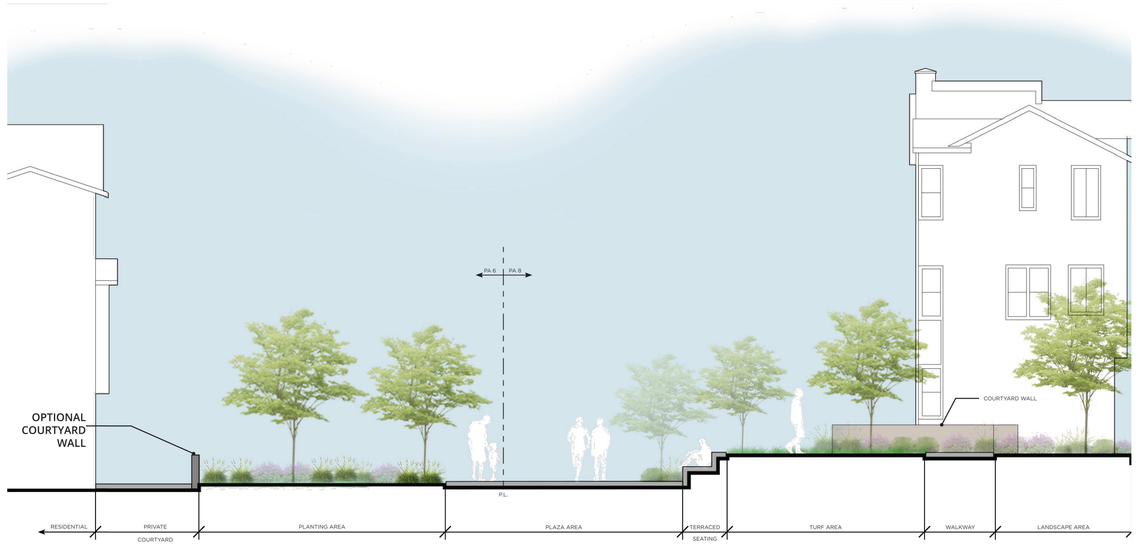
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PLANNING AREA ILLUSTRATIVE

SHEET NO.
SP-2



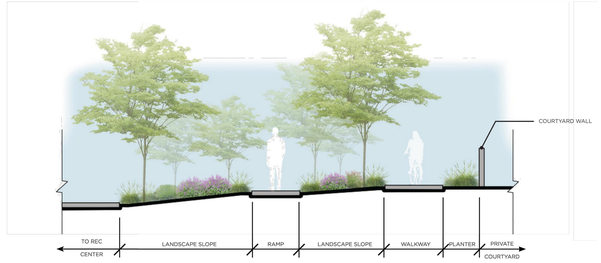
PLAN

SCALE: 1" = 20'-0"



SECTION D'- D'

N.T.S



SECTION A'- A'

N.T.S



SECTION B'- B'

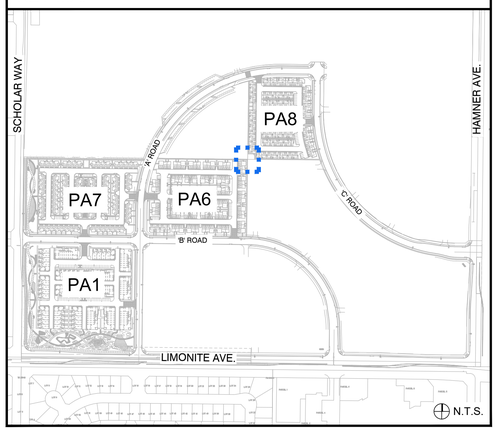
N.T.S



SECTION C'- C'

N.T.S

KEY MAP



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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

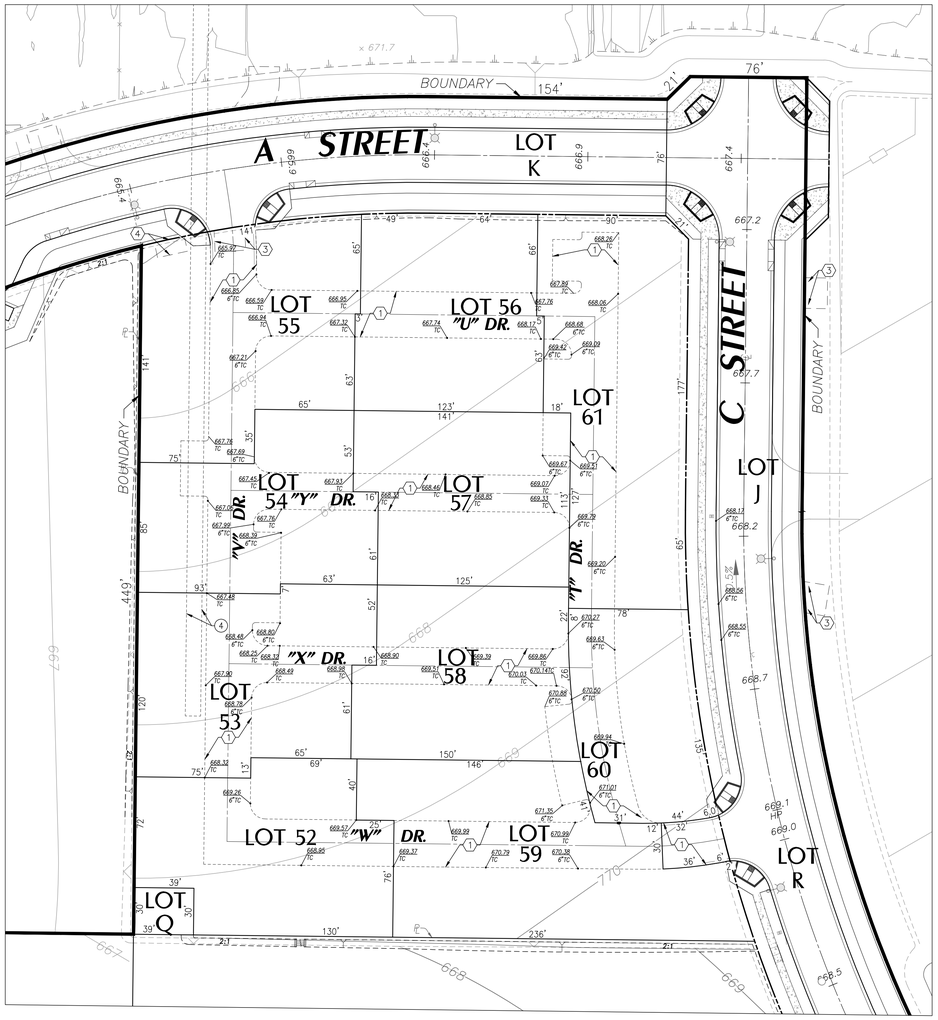
NEW HOME CO.
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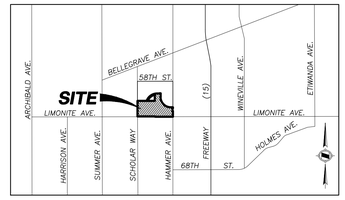
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
CIVIC CENTER INTERFACE

SHEET NO.
SP-3





VICINITY MAP

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.

(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES

(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

(4) PROPOSED EASEMENT FOR MASTER WATER METER

EXISTING EASEMENTS

(4) EXISTING SCE EASEMENT TO BE QUITCLAIMED.

LEGEND

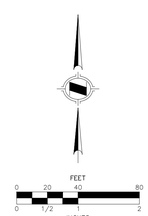
- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL

NUMBER LOT SUMMARY

Lot No.	Land Use	S.F	Acres
52	Residential	16,553	0.38
53	Residential	16,988	0.39
54	Residential	14,810	0.34
55	Residential	19,602	0.45
56	Residential	15,246	0.35
57	Residential	15,246	0.35
58	Residential	15,246	0.35
59	Residential	21,780	0.50
60	Residential	11,326	0.26
61	Residential	21,780	0.50
TOTAL		168,577	3.87

LETTER LOT SUMMARY

Lot No.	Land Use	S.F	Acres
Q	Open Space	1,307	0.03
R	Street (Private)	1,307	0.03
TOTAL		2,614	0.06



NO.	DATE	REVISIONS	APPROVED

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DESIGNED BY: JV
CHECKED BY: DS

PREPARED FOR:
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move forward
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IRVINE, CA 92618
(909) 851-5792

OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

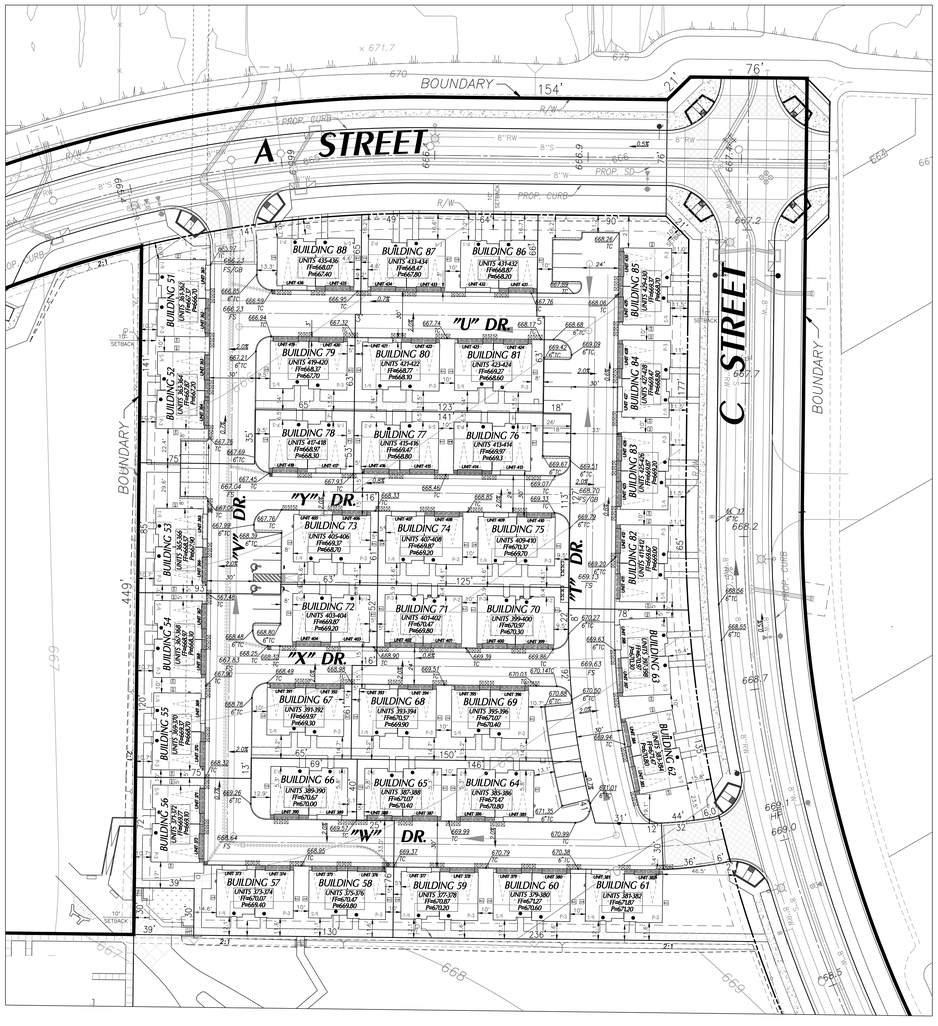
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IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

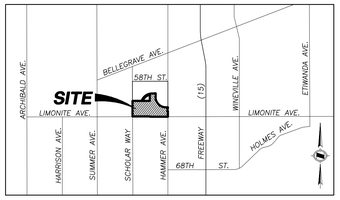
PA-8
MASTER DEVELOPMENT PLAN
FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
1 OF 3

W.O. 2749-44CX EASTMLK

PLOTTED BY: Luis Pina DATE: Aug. 30, 2023 10:41:19 AM FILE: F:\0736\Planning\SA_TTM_38594\Exh_MDP\TTM_38594_MDP_PA-8.dwg





VICINITY MAP

PROPOSED EASEMENTS

(1) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES.

(2) INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES

(3) PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

(4) PROPOSED EASEMENT FOR MASTER WATER METER

EXISTING EASEMENTS

(4) EXISTING SCE EASEMENT TO BE QUITCLAIMED.

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- 101 PROPOSED MAJOR CONTOUR
- 101 PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- W PROPOSED WATER
- W EXISTING WATER
- RW PROPOSED RECLAIMED WATER
- RW EXISTING RECLAIMED WATER
- S PROPOSED SEWER
- S EXISTING SEWER
- G EXISTING GAS
- T EXISTING TELEFONE
- JT EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

4.1.2.4. Row Townhomes

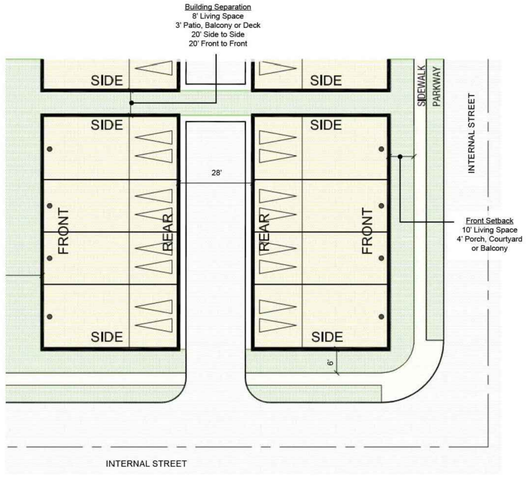
Table 4-5 establishes the development standards for row townhomes. A conceptual plotting example illustrating the setback requirements is shown in Figure 4.6.

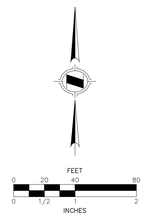
Table 4-5:Row Townhome Development Standards

	Row Townhomes
Minimum Parcel Size	1 ac
Maximum Site Coverage	N/A
Maximum Building Height	50' (3 stories)
Minimum Front Setback (from Internal Street Right-of-Way)	
Front Living Space	10'
Porch, Courtyard or Balcony	4'
Minimum Side Setback (from Internal Street Right-of-Way)	
Street Side	6'
Minimum Building Separation	
Living Space	8'
Patio Cover, Balcony or Deck	3'
Front to Front (entries) - at open space	20'
Side to Side with entries	20'
Garage Door to Garage Door at Alley	28'

CHAPTER 4 – DEVELOPMENT STANDARDS

Figure 4.6 Row Townhome Setback Diagram





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DESIGNED BY: JV
CHECKED BY: DS

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OWNER:
ARROYO CAP III, L.L.C.
18575 JAMBOREE ROAD
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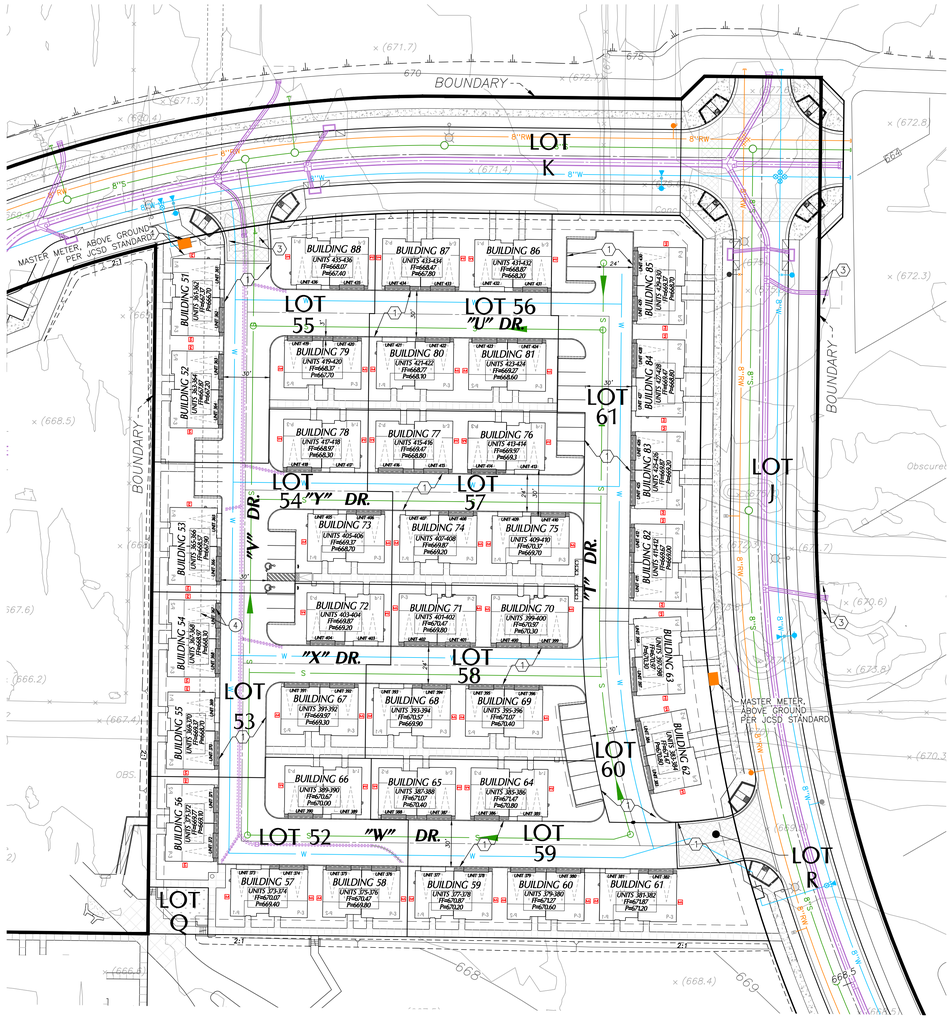
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PLANNING ▪ ENGINEERING ▪ SURVEYING
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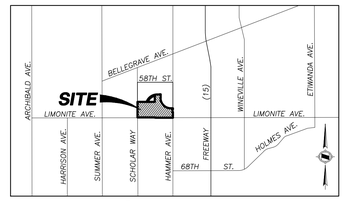
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FOR CONDOMINIUM PURPOSES
City of Eastvale

SHEET
2 OF 3

W.O.: 2749-44CK EASTWALK

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VICINITY MAP

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2. INGRESS EGRESS AND EMERGENCY ACCESS FOR PUBLIC PURPOSES
3. PROPOSED EASEMENT FOR STORM DRAIN PURPOSES

EXISTING EASEMENTS

4. EXISTING SCE EASEMENT TO BE QUITCLAIMED.

LEGEND

- RIGHT OF WAY
- LOT LINE
- TRACT BOUNDARY
- EASEMENT
- GRADE BREAK
- DAYLIGHT LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING CURB
- EXISTING MEDIAN
- TOP AND TOE OF SLOPE
- RETAINING WALL
- PROPOSED WATER
- EXISTING WATER
- PROPOSED RECLAIMED WATER
- EXISTING RECLAIMED WATER
- PROPOSED SEWER
- EXISTING SEWER
- EXISTING GAS
- EXISTING TELEFONE
- EXISTING JOINT TRENCH
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- PROPOSED A.C. PAD
- PROPOSED MASTER METER

FEET
0 20 40 80
INCHES
0 1/2 1 2

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Isaac Brevard
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(909) 851-5792

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18575 JAMBOREE ROAD
IRVINE, CA 92612
(951) 515-5419

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3 OF 3

W.O.: 2749-44EX EASTVALK

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BUILDING 100C | FARMHOUSE



BUILDING 200A | SPANISH



BUILDING 100B | VINEYARD

OUR TEAM

The New Home Company
Contact: Mike Miller | Director, Community Development
15231 Laguna Canyon Rd, Suite 250
Irvine, CA 92618
949-208-7279 | www.NWHM.com

WHA. Architects . Planners . Designers .
Contact: Fernando Laullon
680 Newport Center Drive, Suite 300
Newport Beach, CA 92660
949.250.0607 | www.WHAinc.com

SHEET INDEX:

A1 Cover Page
A2 Community Introduction and Character
A3 Color and Elevation Diagram / Assignments
A4 Building 100A - Composite Building Plans
A5 Building 100 - Composite Roof Plans
A6 Building 100A - Elevations
A7 Building 100B - Elevations
A8 Building 100C - Elevations
A9 Building 200A - Composite Building Plans
A10 Building 200 - Composite Roof Plans
A11 Building 200A - Elevations
A12 Building 200B - Elevations
A13 Building 200C - Elevations
A14 Unit 1 - Floor Plans
A15 Unit 2 - Floor Plans
A16 Unit 3 - Floor Plans
A17 Color Boards and Exterior Color & Materials

Note: Artist's Conception; Colors, Materials And Application May Vary.

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		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITALL		
ARCHITECT				CITY	

CITY OF EASTVALE

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MASTER DEVELOPMENT PLAN

SHEET TITLE
COVER PAGE

SHEET NO.
A1

Planning Area 8 features 78 dwelling units configured as duplex buildings. This housing type offers the same lifestyles typically associated with single-family residences, but in a more compact arrangement with attention to community design. Each residence features a private yard in addition to a large deck at the second floor to maximize outdoor living opportunities. Front door are oriented towards street or paseos, enhancing the pedestrian experience and neighborhood aesthetic.

Three different floor plans are offered, each expressed in three architectural styles: Spanish, Vineyard, and Farmhouse. Visual variety is further provided through six color schemes unique to this neighborhood.

Architectural Features:

- Wood and metal awnings at front doors.
- Diverse accent materials, including wood siding, stone veneer, stucco corbels, stucco trim and contrasting color blocking.
- Front patios.
- Private covered decks.
- Front door orientation toward street or paseo.





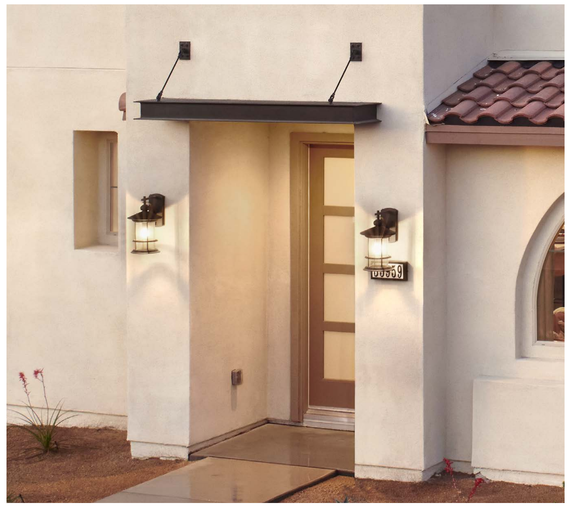
Conceptual Elevation



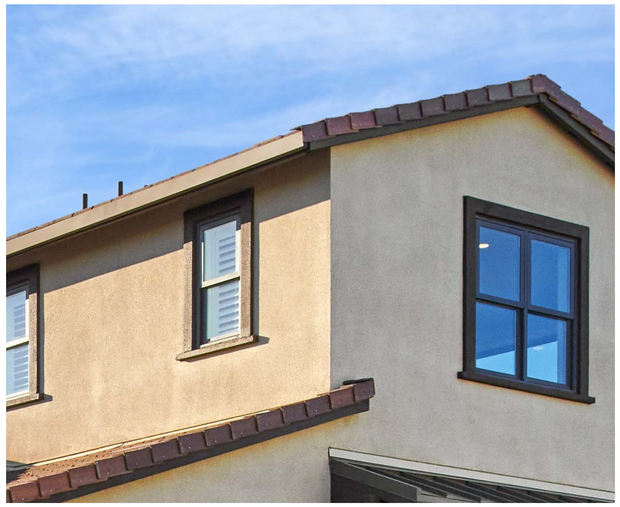




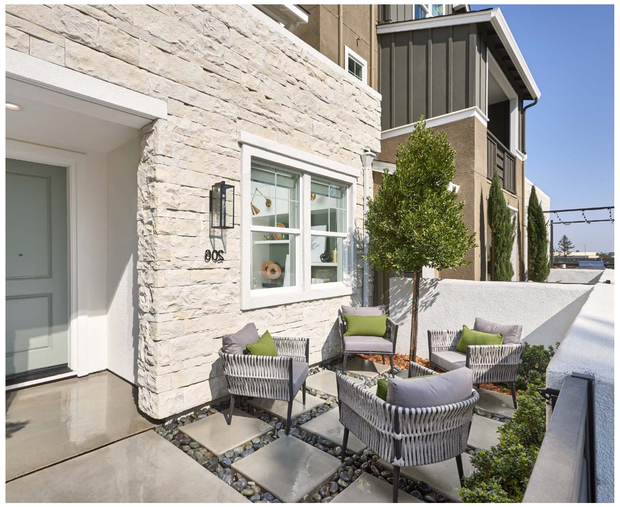




Front Door Enhancements



Diverse Accent Materials



Covered Decks/Front Patios



Front Doors Oriented Towards Paseos and Streets

Note: Artist's Conception; Colors, Materials and Application may Vary.

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		10/03/23	FOURTH CITY SUBMITALL		
ARCHITECT				CITY	

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COMMUNITY INTRODUCTION AND CHARACTER

SHEET NO.
A2



Elevation Assignments

	A - Spanish	B - Vineyard	C - Farmhouse	Total
Building Type 100	6	7	5	
Building Type 200	6	6	8	
Total	12	13	13	38

Color Assignments

	A - Spanish		B - Vineyard		C - Farmhouse		Total
Scheme	1	2	3	4	5	6	
Building Type 100	4	2	5	3	2	3	
Building Type 200	2	4	2	3	5	3	
Total	6	6	7	6	7	6	38

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ORANGE COUNTY . LOS ANGELES . BAY AREA . SACRAMENTO

EASTWALK PA-8 DUPLEXES

Eastvale, California
THE NEW HOME COMPANY
February 9 2023 | 2022342
(Revision 3, 9/1/23)

Color & Elevation Assignments

[3]TRACT 38594

[1]BUILDING NO.	BUILDING TYPE	ELEVATION TYPE	ARCHITECTURAL STYLE	[1]COLOR SCHEME
[2]17 (Model)	200	A	Spanish	1
[2]18 (Model)	100	C	Farmhouse	5
51	100	C	Farmhouse	6
52	200R	B	Vineyard	4
53	100R	A	Spanish	2
54	200R	C	Farmhouse	5
55	100R	B	Vineyard	3
56	200R	A	Spanish	1
57	100	C	Farmhouse	6
58	200R	A	Spanish	2
59	100	B	Vineyard	4
60	200R	C	Farmhouse	5
61	200	B	Vineyard	[3]3
62	100	A	Spanish	1
63	200	C	Farmhouse	6
64	100R	B	Vineyard	3
65	200	A	Spanish	1
66	100R	C	Farmhouse	5
67	200R	B	Vineyard	4
68	100R	C	Farmhouse	6
69	200R	A	Spanish	2
70	200R	C	Farmhouse	5
71	200R	B	Vineyard	3
72	100R	A	Spanish	1
73	200R	C	Farmhouse	6
74	100R	A	Spanish	2
75	100R	B	Vineyard	4
76	100R	A	Spanish	1
77	200	C	Farmhouse	5
78	100R	B	Vineyard	3
79	200R	A	Spanish	2
80	100R	B	Vineyard	4
81	200R	C	Farmhouse	6
82	200R	B	Vineyard	3
83	100R	C	Farmhouse	5
84	200R	A	Spanish	2
85	200R	B	Vineyard	[3]4
86	100	A	Spanish	1
87	200	C	Farmhouse	5
88	100R	B	Vineyard	3

Color Designer: Donna Aldrich

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REVISIONS:

Number	Date	Description
1	5/25/23	Various revisions per new site plan.
2	6/6/23	Model buildings added.
3	9/1/23	Lot 61 & 85 color scheme revised per current site plan. Tract number added.

EASTWALK PA-8		WHA 2022342
DATE	DESCRIPTION	INITIALS
2/9/23	Color & Elevation Assignments	D.A.
5/25/23	C & E Assignments R1	D.A.
8/3/23	New Site Plan Added	J.S.
9/1/23	New site plan added. Lot 61 & 85, color scheme revised.	J.M.

COLOR AND ELEVATION DIAGRAM / ASSIGNMENTS

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		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTALL		

ARCHITECT | CITY

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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
COLOR AND ELEVATION DIAGRAM / ASSIGNMENTS

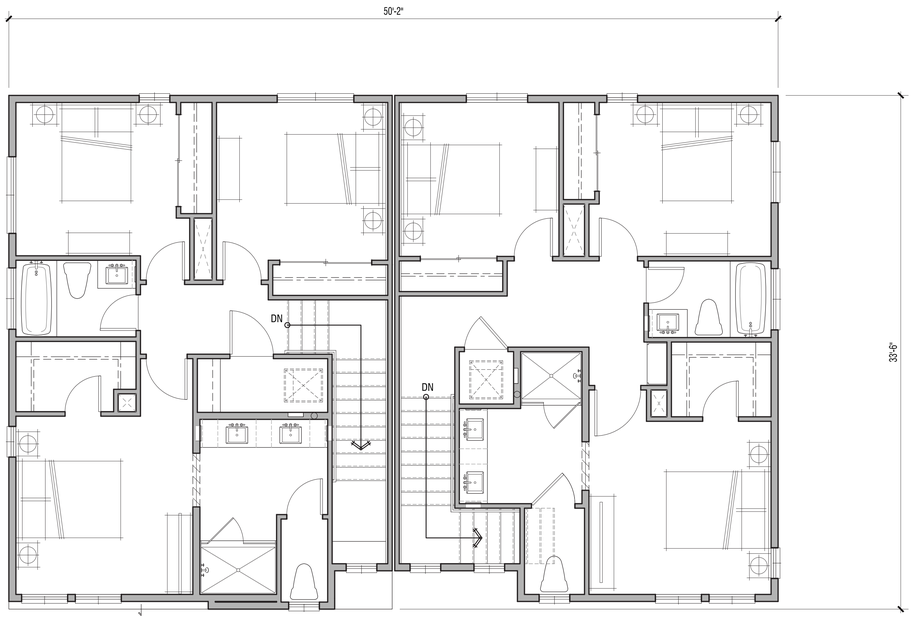
SHEET NO.
A3

BUILDING INFORMAITON

TYPE OF CONSTRUCTION: V-B

OCCUPANCY TYPE: R3

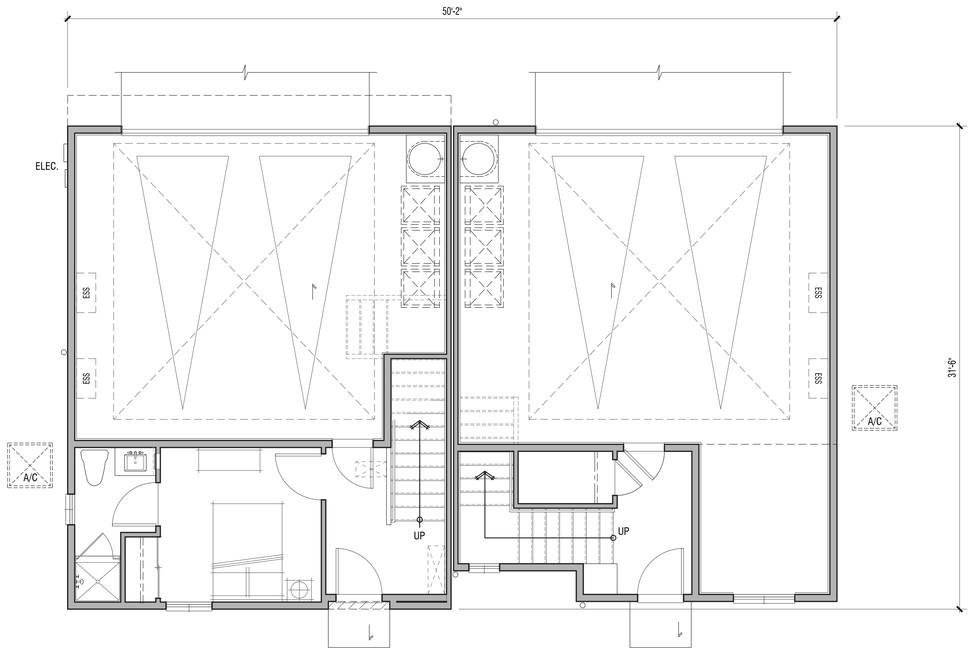
SPRINKLERS: NFPA-13D



UNIT 3A

UNIT 1A

BLDG. 100A - THIRD LEVEL FLOOR PLAN



UNIT 3A

UNIT 1A

BLDG. 100A - FIRST LEVEL FLOOR PLAN

BUILDING 100A - COMPOSITE BUILDING PLANS

SHEET SCALE: 1'-4" = 1'-0"

Know what's below. Call 811 before you dig.

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		12/15/22	FIRST CITY SUBMITALL		
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		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		
ARCHITECT				CITY	

CITY OF EASTVALE

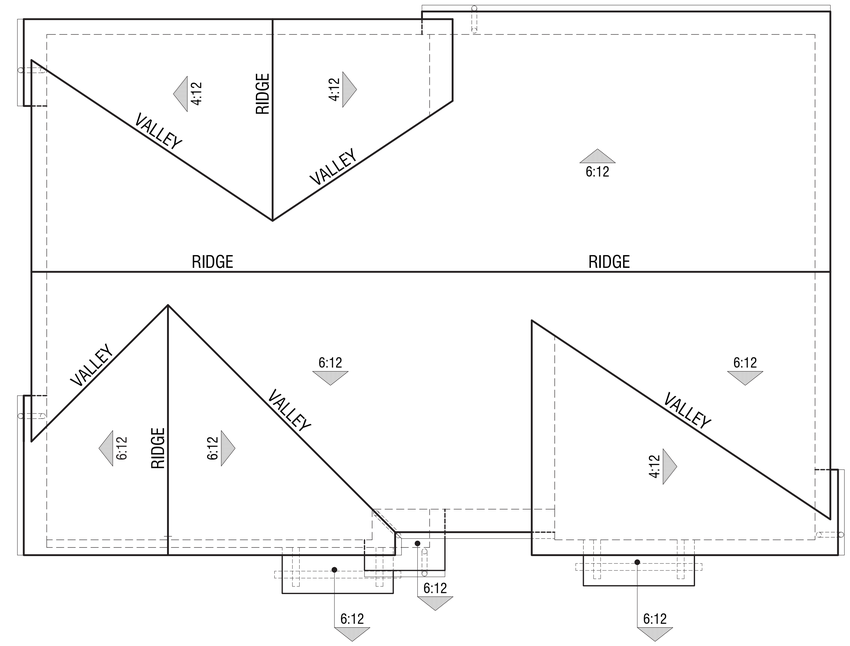
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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 100A
COMPOSITE
BUILDING PLANS

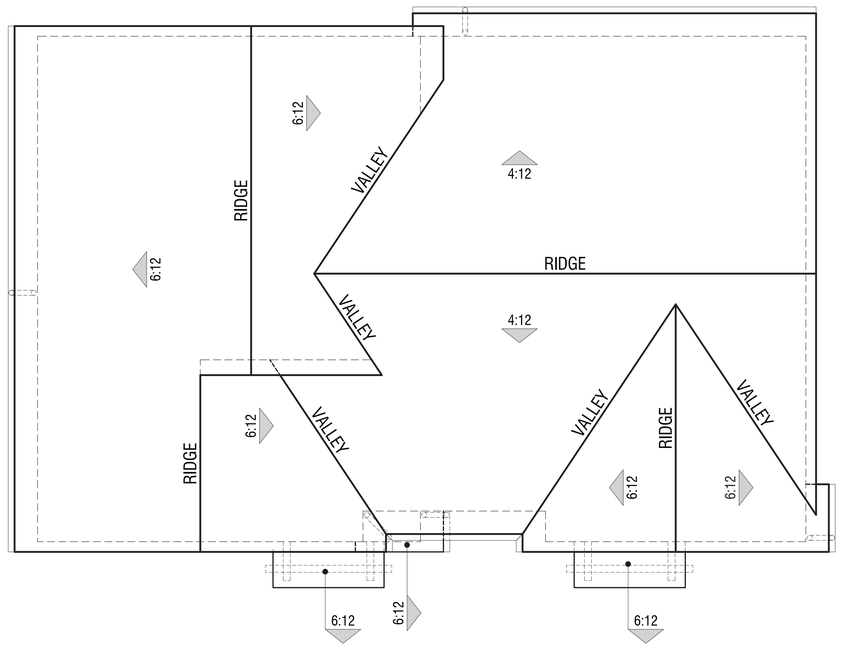
SHEET NO.
A4



ROOF INFORMATION

EAVE - 1'-6"
RAKE - 1'-0"
MATERIAL - CONCRETE FLAT TILE

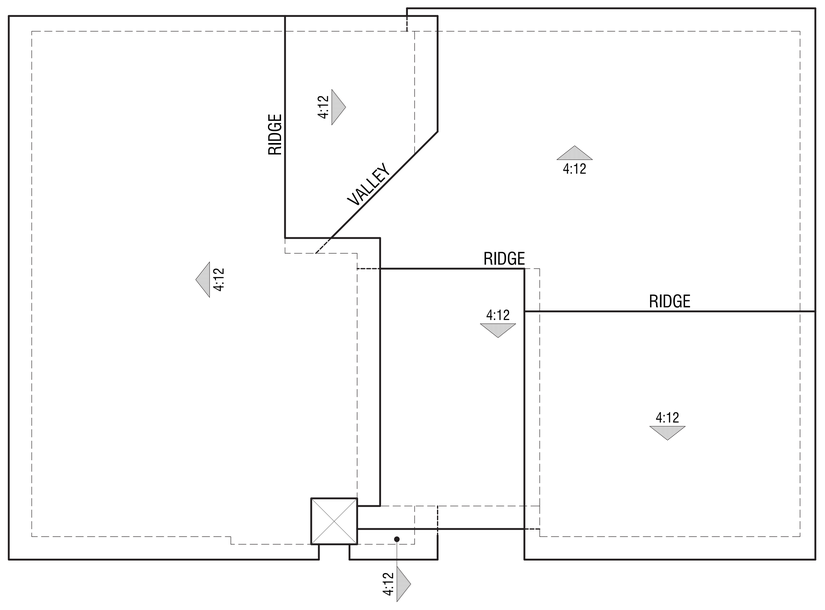
BLDG. 100B - ROOF PLAN - VINEYARD



ROOF INFORMATION

EAVE - 1'-6"
RAKE - 8"
MATERIAL - CONCRETE FLAT TILE

BLDG. 100C - ROOF PLAN - FARM HOUSE



ROOF INFORMATION

EAVE - 1'-6"
RAKE - 1'-0"
MATERIAL - CONCRETE 'S' TILE

BLDG. 100A - ROOF PLAN - SPANISH

BUILDING 100 - COMPOSITE ROOF PLANS

SHEET SCALE: 1'-4" = 1'-0"

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MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 100 COMPOSITE ROOF PLANS

SHEET NO.
A5



BLDG. 100A - RIGHT ELEVATION - SPANISH



BLDG. 100A - REAR ELEVATION - SPANISH



BLDG. 100A - LEFT ELEVATION - SPANISH

MATERIAL LEGEND

1. CONCRETE 'S' TILE
2. STUCCO FINISH - PRIMARY
3. STUCCO FINISH - SECONDARY
4. FOAM TRIM
5. VINYL WINDOW
6. LIGHT FIXTURE - VISUAL COMFORT EDDINGTON - BRONZE - 87193O1-71
7. SECTIONAL GARAGE DOOR
8. METAL RAILING
9. ILLUMINATED ADDRESS SIGN
10. STUCCO CONTROL JOINT
11. METAL AWNING
12. WOOD OUTLOOKERS
13. PAINTED STUCCO CORBEL
14. RECESSED GABLE DETAIL w/ METAL



BLDG. 100A - FRONT ELEVATION - SPANISH

BUILDING 100A - ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-4" = 1'-0"

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		06/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTALL		
ARCHITECT				CITY	

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MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 100A ELEVATIONS

SHEET NO.
A6



BLDG. 100B - RIGHT ELEVATION - VINEYARD



BLDG. 100B - REAR ELEVATION - VINEYARD



BLDG. 100B - LEFT ELEVATION - VINEYARD

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. VERTICAL SIDING
6. VINYL WINDOW
7. LIGHT FIXTURE - VISUAL COMFORT VADO - BLACK - 87311101-12
8. SECTIONAL GARAGE DOOR
9. WOOD RAILING
10. ILLUMINATED ADDRESS SIGN
11. STUCCO CONTROL JOINT
12. WOOD ROOF AWNING w/ KNEE BRACE



BLDG. 100B - FRONT ELEVATION - VINEYARD

BUILDING 100B - ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-4" = 1'-0"

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		10/03/23	FOURTH CITY SUBMITTALL		

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SHEET TITLE
BUILDING 100B ELEVATIONS

SHEET NO.
A7



BLDG. 100C - RIGHT ELEVATION - FARM HOUSE



BLDG. 100C - REAR ELEVATION - FARM HOUSE



33'-6" - BUILDING WIDTH

BLDG. 100C - LEFT ELEVATION - FARM HOUSE

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. BOARD & BATTEN
6. HORIZONTAL SIDING
7. VINYL WINDOW
8. LIGHT FIXTURE - VISUAL COMFORT TYBEE - BLACK - 87089O1-12
9. SECTIONAL GARAGE DOOR
10. WOOD RAILING
11. ILLUMINATED ADDRESS SIGN
12. STUCCO CONTROL JOINT
13. WOOD ROOF AWNING w/ KNEE BRACE



50'-2" - BUILDING WIDTH

BLDG. 100C - FRONT ELEVATION - FARM HOUSE

BUILDING 100C - ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-4" = 1'-0"

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		10/03/23	FOURTH CITY SUBMITALL		

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MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 100 C ELEVATIONS

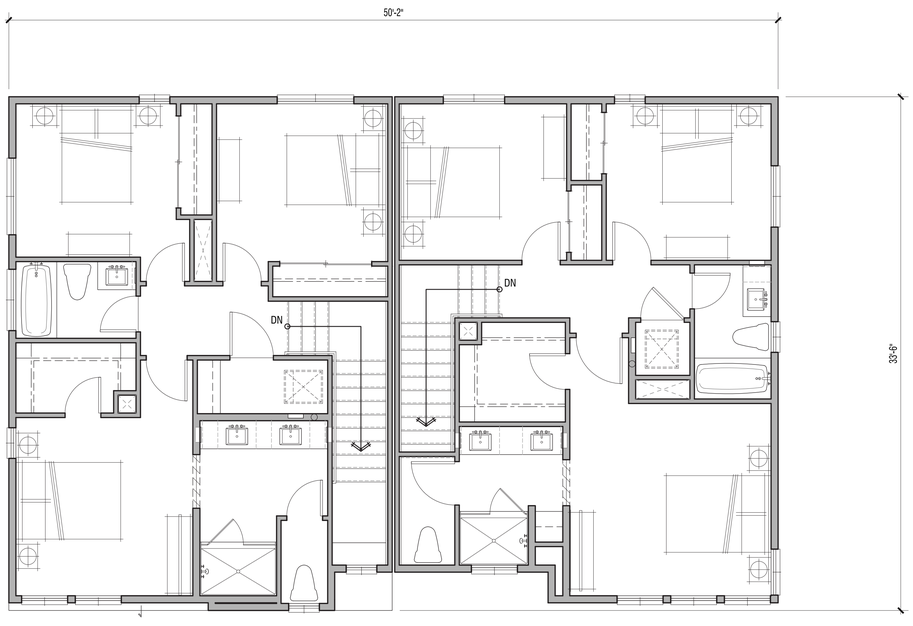
SHEET NO.
A8

BUILDING INFORMAITON

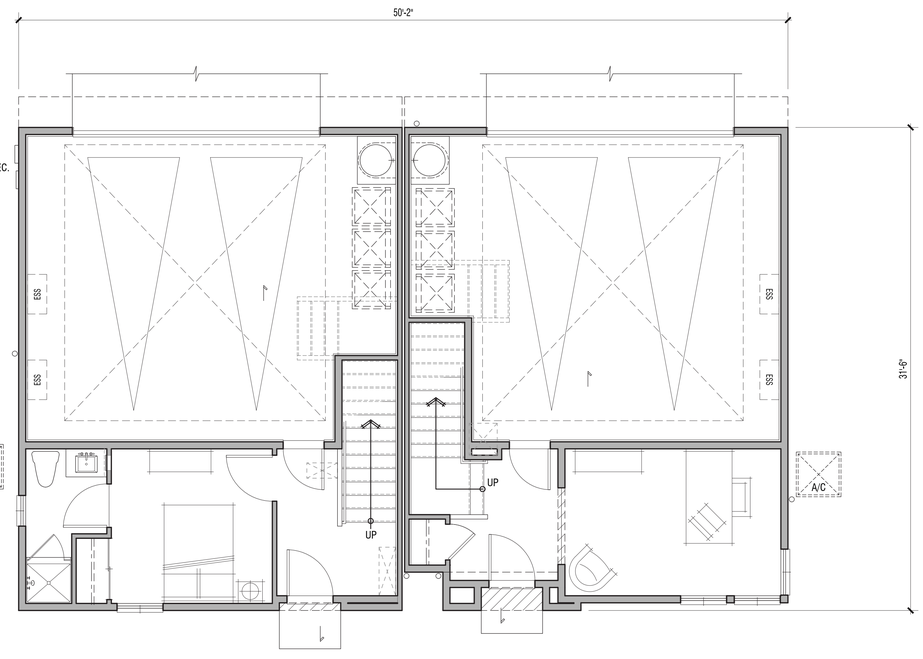
TYPE OF CONSTRUCTION: V-B

OCCUPANCY TYPE: R3

SPRINKLERS: NFPA-13D



BLDG. 200A - THIRD LEVEL FLOOR PLAN



BLDG. 200A - FIRST LEVEL FLOOR PLAN

BUILDING 200A - COMPOSITE BUILDING PLANS

SHEET SCALE: 1'-4" = 1'-0"

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		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITALL		

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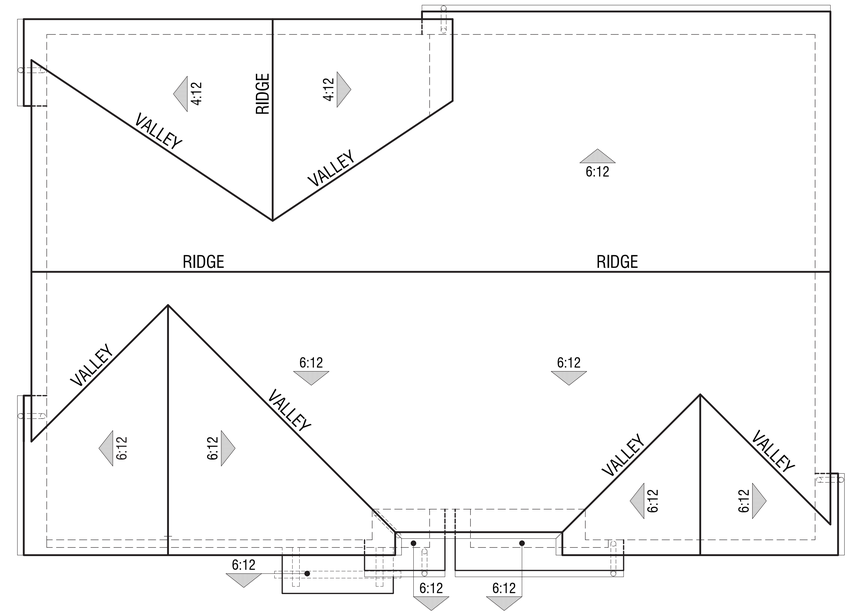
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EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200A
COMPOSITE
BUILDING PLANS

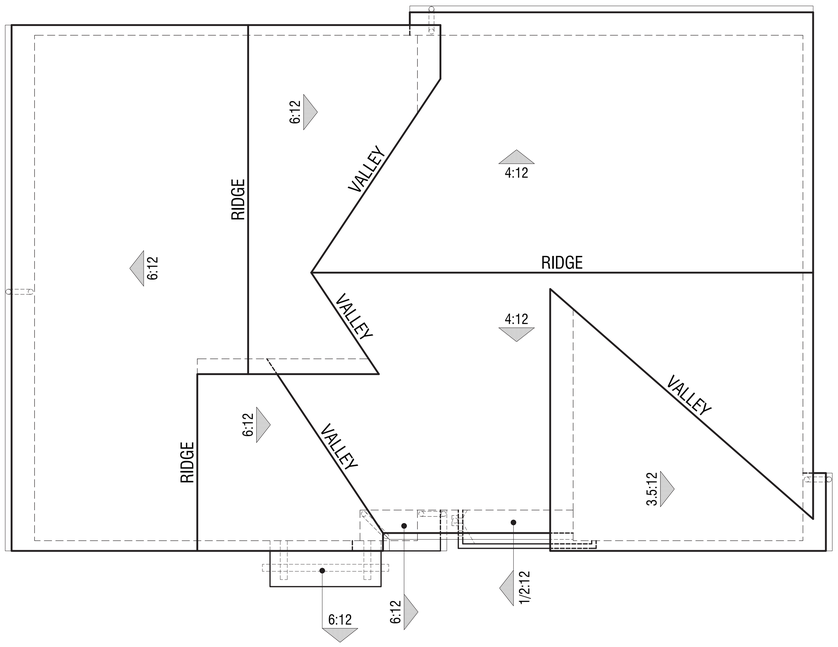
SHEET NO.
A9



ROOF INFORMATION

EAVE - 1'-6"
RAKE - 1'-0"
MATERIAL - CONCRETE FLAT TILE

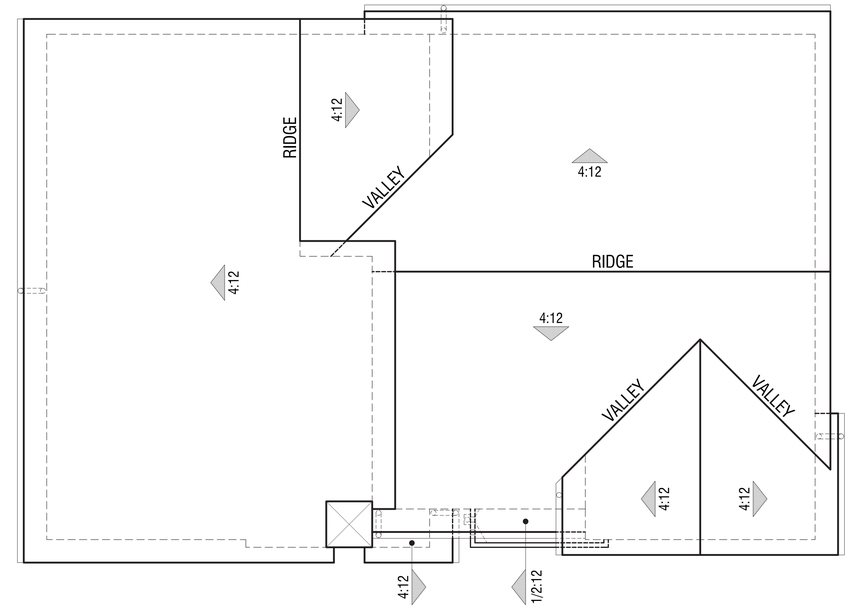
BLDG. 200B - ROOF PLAN - VINEYARD



ROOF INFORMATION

EAVE - 1'-6"
RAKE - 8"
MATERIAL - CONCRETE FLAT TILE

BLDG. 200C - ROOF PLAN - FARM HOUSE



ROOF INFORMATION

EAVE - 1'-6"
RAKE - 1'-0"
MATERIAL - CONCRETE 'S' TILE

BLDG. 200A - ROOF PLAN - SPANISH

BUILDING 200 - COMPOSITE ROOF PLANS

SHEET SCALE: 1'-4" = 1'-0"

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		12/15/22	FIRST CITY SUBMITALL		
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		10/03/23	FOURTH CITY SUBMITALL		
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SHEET TITLE
BUILDING 200 COMPOSITE ROOF PLANS

SHEET NO.
A10



BLDG. 200A - RIGHT ELEVATION - SPANISH



BLDG. 200A - REAR ELEVATION - SPANISH



BLDG. 200A - LEFT ELEVATION - SPANISH

MATERIAL LEGEND

1. CONCRETE 'S' TILE
2. STUCCO FINISH - PRIMARY
3. STUCCO FINISH - SECONDARY
4. FOAM TRIM
5. VINYL WINDOW
6. LIGHT FIXTURE - VISUAL COMFORT EDDINGTON - BRONZE - 8719301-71
7. SECTIONAL GARAGE DOOR
8. METAL RAILING
9. ILLUMINATED ADDRESS SIGN
10. STUCCO CONTROL JOINT
11. METAL AWNING
12. WOOD OUTLOOKERS
13. PAINTED STUCCO CORBEL
14. RECESSED GABLE DETAIL w/ METAL



BLDG. 200A - FRONT ELEVATION - SPANISH

BUILDING 200A - ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-4" = 1'-0"

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		10/03/23	FOURTH CITY SUBMITALL		

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MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200A ELEVATIONS

SHEET NO.
A11



BLDG. 200B - RIGHT ELEVATION - VINEYARD



BLDG. 200B - REAR ELEVATION - VINEYARD



BLDG. 200B - LEFT ELEVATION - VINEYARD

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. VERTICAL SIDING
6. VINYL WINDOW
7. LIGHT FIXTURE - VISUAL COMFORT VADO - BLACK - 87311101-12
8. SECTIONAL GARAGE DOOR
9. WOOD RAILING
10. ILLUMINATED ADDRESS SIGN
11. STUCCO CONTROL JOINT
12. WOOD ROOF AWNING w/ KNEE BRACE



BLDG. 200B - FRONT ELEVATION - VINEYARD

BUILDING 200B - ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-4" = 1'-0"

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CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200B ELEVATIONS

SHEET NO.
A12



BLDG. 200C - RIGHT ELEVATION - FARM HOUSE



BLDG. 200C - REAR ELEVATION - FARM HOUSE



BLDG. 200C - LEFT ELEVATION - FARM HOUSE

MATERIAL LEGEND

1. CONCRETE FLAT TILE
2. STUCCO FINISH - PRIMARY
3. FOAM TRIM
4. WOOD TRIM
5. BOARD & BATTEN
6. HORIZONTAL SIDING
7. VINYL WINDOW
8. LIGHT FIXTURE - VISUAL COMFORT TYBEE - BLACK - 8708901-12
9. SECTIONAL GARAGE DOOR
10. WOOD RAILING
11. ILLUMINATED ADDRESS SIGN
12. STUCCO CONTROL JOINT
13. WOOD ROOF AWNING w/ KNEE BRACE



BLDG. 200C - FRONT ELEVATION - FARM HOUSE

BUILDING 200C - ELEVATIONS

Note: Artist's Conception; Colors, Materials And Application May Vary.

SHEET SCALE: 1'-4" = 1'-0"

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		ARCHITECT			CITY

CITY OF EASTVALE

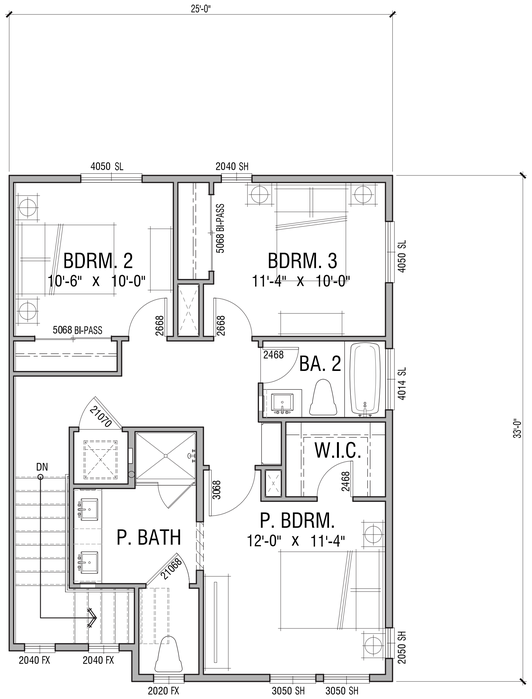
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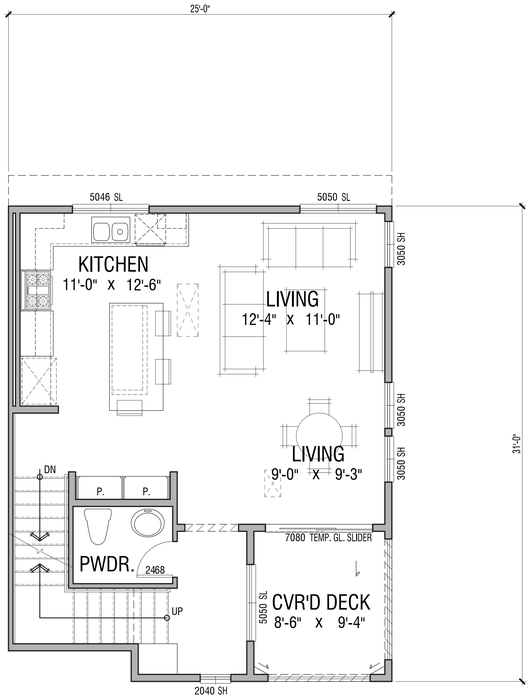
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
BUILDING 200C ELEVATIONS

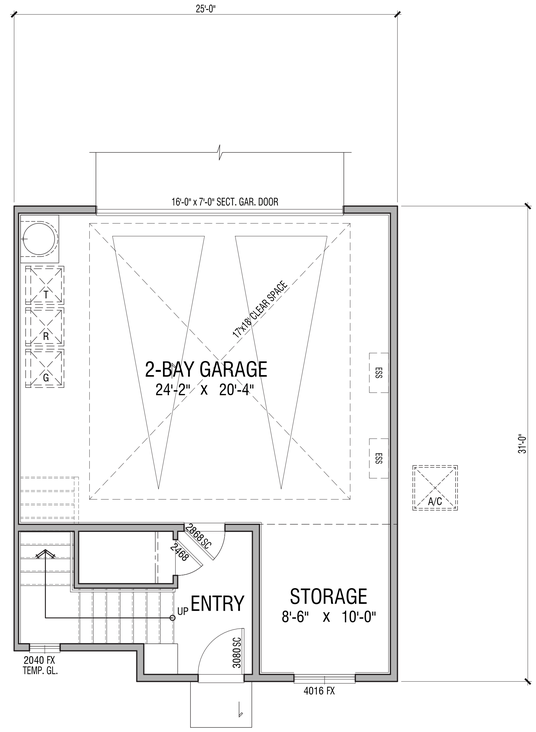
SHEET NO.
A13



UNIT 1- THIRD LEVEL FLOOR PLAN



UNIT 1 - SECOND LEVEL FLOOR PLAN



UNIT 1 - FIRST LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - UNIT 1	
ROOM TYPE	QUANTITY
BEDROOM(S)	2.5
BATH(S)	3
FLOOR AREA TABLE	**UNIT 1A**
FIRST LEVEL	160 SQ. FT.
SECOND LEVEL	671 SQ. FT.
THIRD LEVEL	748 SQ. FT.
TOTAL	1579 SQ. FT.
2-BAY GARAGE	611 SQ. FT.
COVERED DECK	88 SQ. FT.

NOTE: SQUARE FOOTAGE MAY VARY DUE TO METHOD OF CALCULATION

UNIT 1 - FLOOR PLANS

SHEET SCALE: 1'-4" = 1'-0"

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		10/03/23	FOURTH CITY SUBMITALL		

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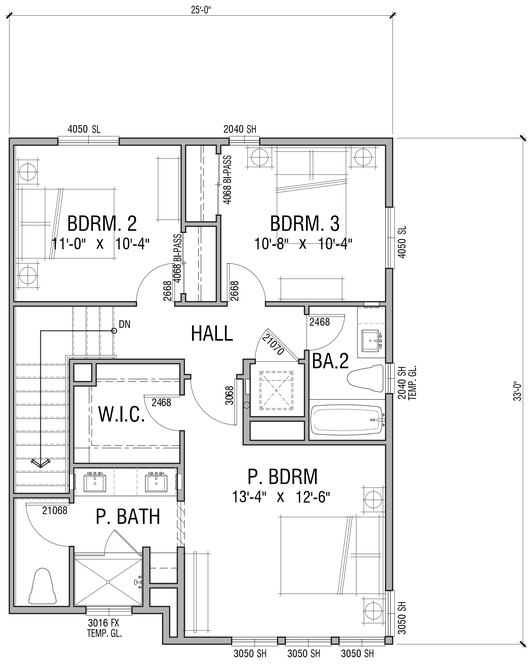
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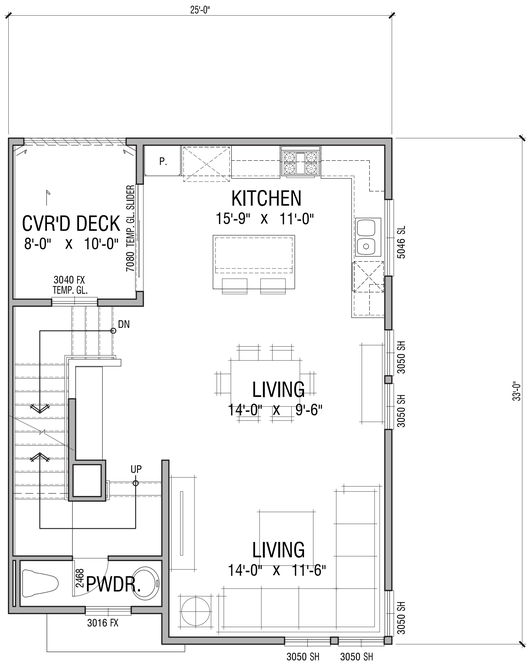
CITY OF EASTVALE
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MASTER DEVELOPMENT PLAN

SHEET TITLE
UNIT 1
FLOOR PLANS

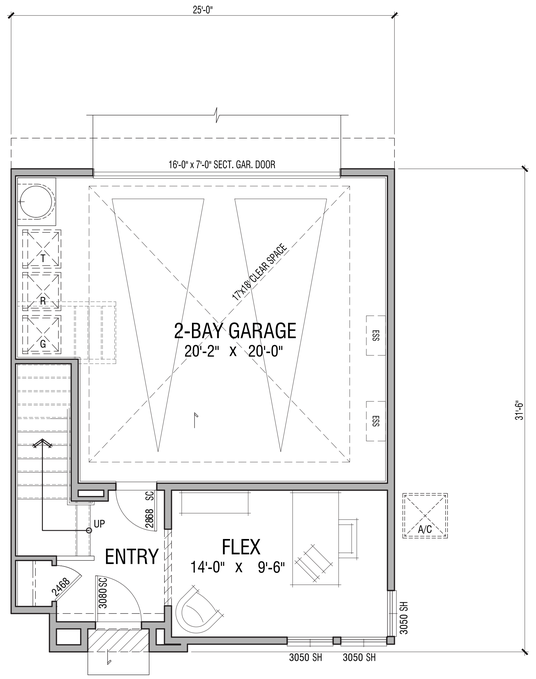
SHEET NO.
A14



UNIT 2 - THIRD LEVEL FLOOR PLAN



UNIT 2 - SECOND LEVEL FLOOR PLAN



UNIT 2 - FIRST LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - PLAN 2	
ROOM TYPE	QUANTITY
BEDROOM(S)	3
BATH(S)	2.5

FLOOR AREA TABLE	PLAN 2A
FIRST LEVEL	309 SQ. FT.
SECOND LEVEL	717 SQ. FT.
THIRD LEVEL	746 SQ. FT.
TOTAL	1772 SQ. FT.
2-BAY GARAGE	477 SQ. FT.
COVERED DECK	88 SQ. FT.

UNIT 2 - FLOOR PLANS

SHEET SCALE: 1'-4" = 1'-0"

811 Know what's below. Call 811 before you dig.

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		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITTAL		
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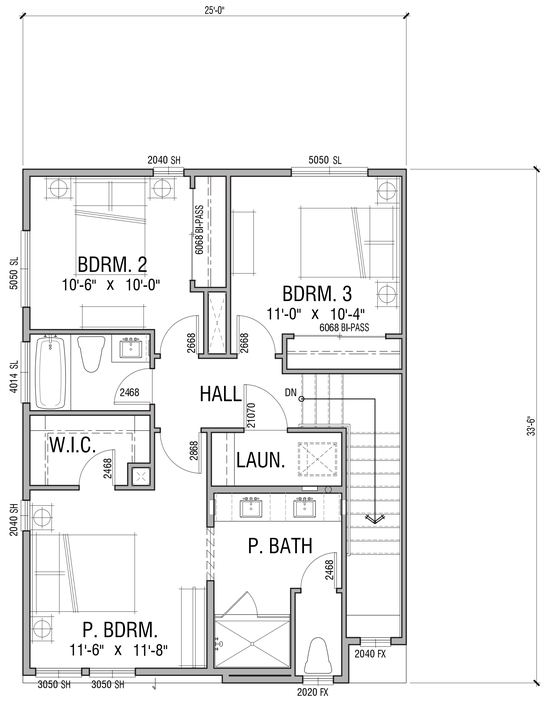
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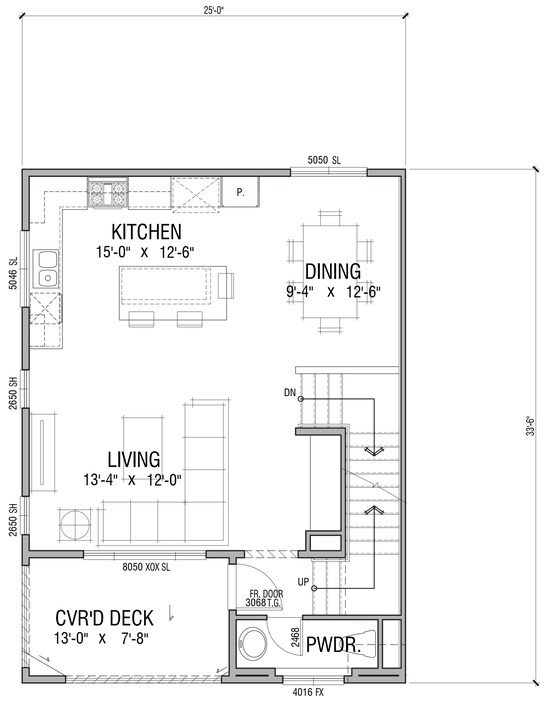
CITY OF EASTVALE
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SHEET TITLE
UNIT 2
FLOOR PLANS

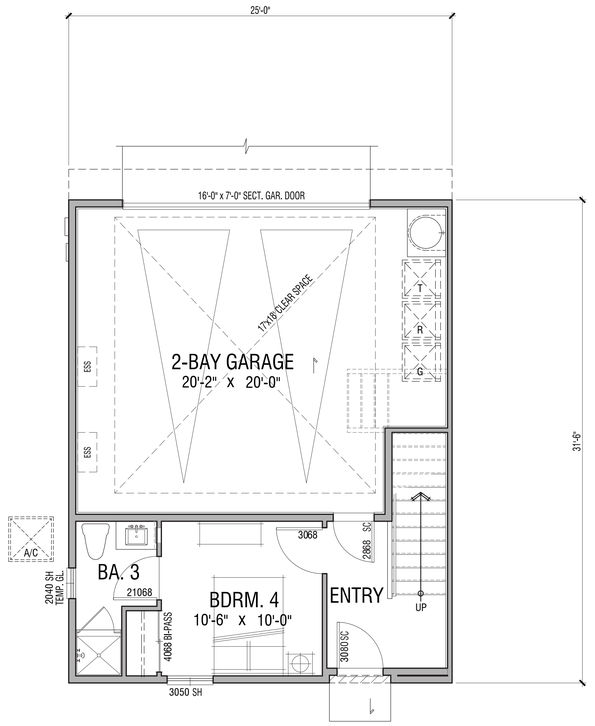
SHEET NO.
A15



UNIT 3 - THIRD LEVEL FLOOR PLAN



UNIT 3 - SECOND LEVEL FLOOR PLAN



UNIT 3 - FIRST LEVEL FLOOR PLAN

DWELLING PLAN SUMMARY - PLAN 3	
ROOM TYPE	QUANTITY
BEDROOM(S)	4
BATH(S)	3.5

FLOOR AREA TABLE	PLAN 3A
FIRST LEVEL	320 SQ. FT.
SECOND LEVEL	725 SQ. FT.
THIRD LEVEL	740 SQ. FT.
TOTAL	1785 SQ. FT.
2-BAY GARAGE	488 SQ. FT.
COVERED ENTRY	110 SQ. FT.

UNIT 3 - FLOOR PLANS

SHEET SCALE: 1'-4" = 1'-0"

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITALL		
		05/25/23	SECOND CITY SUBMITALL		
		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITALL		

ARCHITECT | CITY

CITY OF EASTVALE

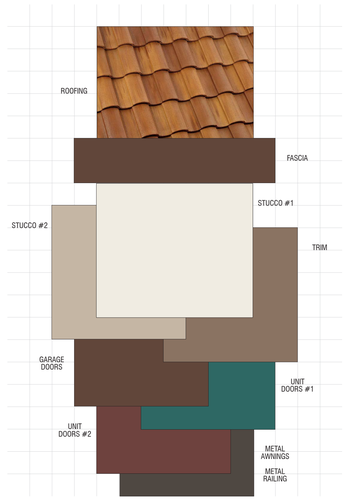
NEW HOME CO. move forward

ARCHITECTS . PLANNERS . DESIGNERS
WHA.
ORANGE COUNTY . LOS ANGELES . BAY AREA . SACRAMENTO

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
UNIT 3
FLOOR PLANS

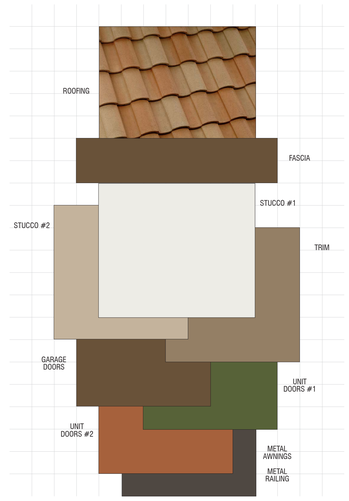
SHEET NO.
A16



EASTWALK PA-8 DUPLEXES
Eastvale, California
THE NEW HOME COMPANY
December 16, 2022 | 2022342

SCHEME 1
'A' Elevations Only
Spanish

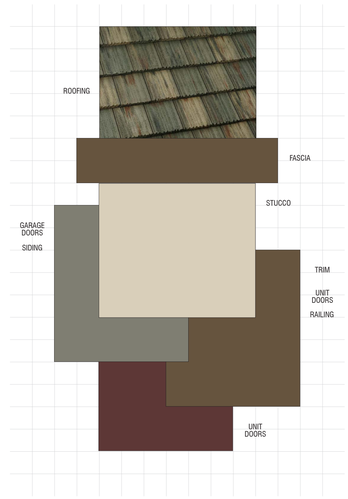
For exact color refer to manufacturers' actual samples.
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Eastvale, California
THE NEW HOME COMPANY
December 16, 2022 | 2022342

SCHEME 2
'A' Elevations Only
Spanish

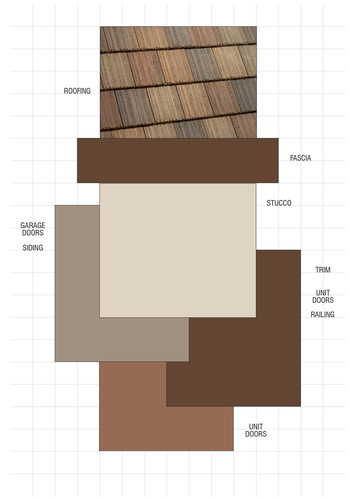
For exact color refer to manufacturers' actual samples.
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Eastvale, California
THE NEW HOME COMPANY
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SCHEME 3
'B' Elevations Only
Vineyard

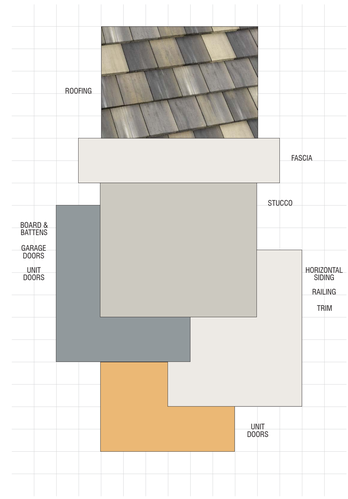
For exact color refer to manufacturers' actual samples.
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SCHEME 4
'B' Elevations Only
Vineyard

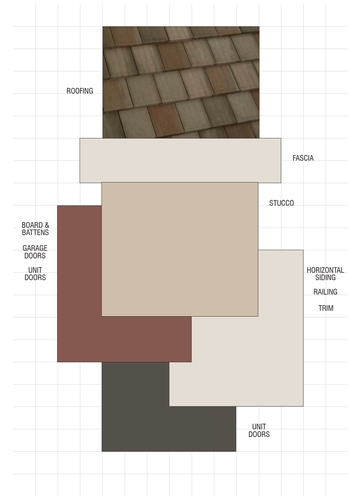
For exact color refer to manufacturers' actual samples.
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Eastvale, California
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SCHEME 5
'C' Elevations Only
Farmhouse

For exact color refer to manufacturers' actual samples.
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Eastvale, California
THE NEW HOME COMPANY
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SCHEME 6
'C' Elevations Only
Farmhouse

For exact color refer to manufacturers' actual samples.
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[1]EASTWALK PA-8 DUPLEXES

Eastvale, California
THE NEW HOME COMPANY
December 8, 2022 | 2022342
PAGE 1 OF 6

Exterior Color & Materials

SCHEME 1 — 'A' ELEVATIONS ONLY, SPANISH

Material	Color	Manufacturer
Roofing: Concrete 'S' Tile	SMC 8816 San Gabriel Blend Ref: .15 Emi: .93 A.SRI: 17 CRRC: 0918-0034	Eagle
Metal Bird Stop @ 'S' Tile *(factory finish)*	Terracotta	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Stucco Color #1 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7551 Greek Villa)	Omega
Stucco Color #2 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7512 Pavilion Beige)	Omega
Trim Color #1 *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Secondary Doors	SW 2856 Fairfax Brown	Sherwin Williams
Trim Color #2 *(applied to):* Trim	SW 7525 Tree Branch	Sherwin Williams
Accent Color #1 *(applied to):* Unit Doors	SW 6481 Green Bay	Sherwin Williams
Accent Color #2 *(applied to):* Unit Doors	SW 7594 Carriage Door	Sherwin Williams
Metal Awnings & Railing	SW 7020 Black Fox	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Donna Aldrich (949) 250-0607

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.

[1]EASTWALK PA-8 DUPLEXES

Eastvale, California
THE NEW HOME COMPANY
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PAGE 2 OF 6

Exterior Color & Materials

SCHEME 2 — 'A' ELEVATIONS ONLY, SPANISH

Material	Color	Manufacturer
Roofing: Concrete 'S' Tile	SMC 8404 San Juan Blend Ref: .30 Emi: .85 A.SRI: 36 CRRC: 0918-0012	Eagle
Metal Bird Stop @ 'S' Tile *(factory finish)*	Terracotta	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Stucco Color #1 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7005 Pure White)	Omega
Stucco Color #2 *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7530 Barcelona Beige)	Omega
Trim Color #1 *(applied to):* Barge Boards, Eaves, Fascia, Garage Doors, Secondary Doors	SW 9115 Cowboy Boots	Sherwin Williams
Trim Color #2 *(applied to):* Trim	SW 6144 Dapper Tan	Sherwin Williams
Accent Color #1 *(applied to):* Unit Doors	SW 6433 Inverness	Sherwin Williams
Accent Color #2 *(applied to):* Unit Doors	SW 6356 Copper Mountain	Sherwin Williams
Metal Awnings & Railing	SW 7020 Black Fox	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.

[1]EASTWALK PA-8 DUPLEXES

Eastvale, California
THE NEW HOME COMPANY
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PAGE 3 OF 6

Exterior Color & Materials

SCHEME 3 — 'B' ELEVATIONS ONLY, VINEYARD

Material	Color	Manufacturer
Roofing: Concrete Shake Tile	5634 Kings Canyon Blend Ref: .13 Emi: .94 A.SRI: 16 CRRC: 0918-0044	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Stucco Color *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 6148 Wool Skein)	Omega
Siding Color *(applied to):* Corner Boards, Garage Doors, Vertical Siding	SW 6200 Link Gray	Sherwin Williams
Trim Color *(applied to):* Barge Boards, Braces, Eaves, Fascia, Railing, Secondary Doors, Trim, Unit Doors	SW 6153 Protege Bronze	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 7595 Sommelier	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.

[1]EASTWALK PA-8 DUPLEXES

Eastvale, California
THE NEW HOME COMPANY
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PAGE 4 OF 6

Exterior Color & Materials

SCHEME 4 — 'B' ELEVATIONS ONLY, VINEYARD

Material	Color	Manufacturer
Roofing: Concrete Shake Tile	5671 Village Blend Ref: .17 Emi: .93 A.SRI: 17 CRRC: 0918-0039	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Stucco Color *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 9109 Natural Linen)	Omega
Siding Color *(applied to):* Corner Boards, Garage Doors, Vertical Siding	SW 9174 Moth Wing	Sherwin Williams
Trim Color *(applied to):* Barge Boards, Braces, Eaves, Fascia, Railing, Secondary Doors, Trim, Unit Doors	SW 6090 Java	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 7705 Wheat Penny	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Donna Aldrich (949) 250-0607

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.

[1]EASTWALK PA-8 DUPLEXES

Eastvale, California
THE NEW HOME COMPANY
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Exterior Color & Materials

SCHEME 5 — 'C' ELEVATIONS ONLY, FARMHOUSE

Material	Color	Manufacturer
Roofing: Concrete Slate Tile	SCB 8827 Tacoma Blend Ref: .15 Emi: .92 A.SRI: 17 CRRC: 0918-0047	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Stucco Color *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 7015 Repose Gray)	Omega
Siding Color *(applied to):* Board & Battens, Corner Boards, Garage Doors, Unit Doors	SW 9143 Cadet	Sherwin Williams
Trim Color *(applied to):* Barge Boards, Braces, Eaves, Fascia, Horizontal Siding, Railing, Secondary Doors, Trim	SW 7004 Snowbound	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 2831 Classical Gold	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Donna Aldrich (949) 250-0607

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.

[1]EASTWALK PA-8 DUPLEXES

Eastvale, California
THE NEW HOME COMPANY
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Exterior Color & Materials

SCHEME 6 — 'C' ELEVATIONS ONLY, FARMHOUSE

Material	Color	Manufacturer
Roofing: Concrete Slate Tile	4713 Tiburon Blend Ref: .17 Emi: .93 A.SRI: 18 CRRC: 0918-0121	Eagle
Vinyl Windows *(factory finish)*	White	TBD
Gutters & Downspouts *(factory finish)*	Match Adjacent Color	TBD
Stucco Color *(16/20 sand finish)*	TBD (Match Sherwin Williams SW 9110 Malabar)	Omega
Siding Color *(applied to):* Board & Battens, Corner Boards, Garage Doors, Unit Doors	SW 6054 Canyon Clay	Sherwin Williams
Trim Color *(applied to):* Barge Boards, Braces, Eaves, Fascia, Horizontal Siding, Railing, Secondary Doors, Trim	SW 7035 Aesthetic White	Sherwin Williams
Accent Color *(applied to):* Unit Doors	SW 7048 Urbane Bronze	Sherwin Williams
Garage Door Weatherstrip *(factory finish)*	Match Garage Door Color	TBD

NOTE: Notify WHA if any variation occurs between these schemes and the construction documents prior to purchase.
Contact Donna Aldrich (949) 250-0607

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REVISIONS:

Number	Date	Description
1	12/16/22	Project name updated.

COLOR BOARDS AND EXTERIOR COLOR & MATERIALS

Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTALL		
		05/25/23	SECOND CITY SUBMITTALL		
		08/04/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTALL		

ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

ARCHITECTS . PLANNERS . DESIGNERS
WHA
ORANGE COUNTY . LOS ANGELES . BAY AREA . SACRAMENTO

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

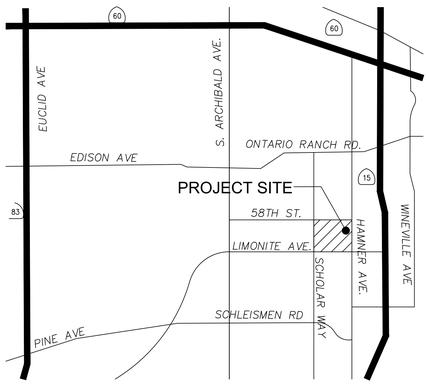
SHEET TITLE
COLOR BOARDS AND EXTERIOR COLOR & MATERIALS

SHEET NO.
A17

NEW HOME COMPANY
EASTWALK
LIMONITE AVE, HAMNER ST, 58TH ST, SCHOLAR WAY
TENTATIVE TRACT NO. 38290

PHASE 1 - PLANNING AREA 8

VICINITY MAP



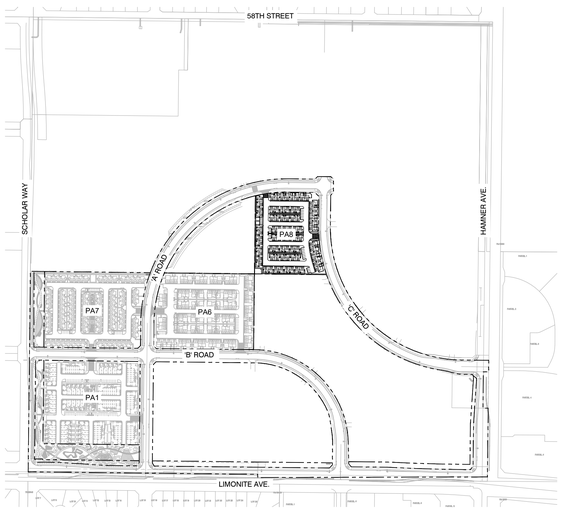
NORTH
N.T.S.

SHEET INDEX

LANDSCAPE SHEETS

SHEET NO.	SHEET TITLE
L-100	LANDSCAPE COVER SHEET
L-101	OVERALL SITE PLAN
L-201	PLANTING LEGEND
L-202	PLANTING IMAGERY BOARD
L-203	PLANTING IMAGERY BOARD
L-204	PLANTING IMAGERY BOARD
L-301	LANDSCAPE SITE PLAN
L-302	ENLARGEMENT PLANS
L-401	FENCE AND WALL ELEVATIONS

LOCATION MAP



GENERAL NOTES

NOTIFICATIONS

APPROVALS

PLAN CHECK #

ACCEPTED (PRINT NAME) | SIGNATURE | DATE

DEPARTMENT OF PLANNING
CITY OF EASTVALE, CA

CLIENT
NEW HOME COMPANY
15231 LAGUNA CANYON RD,
SUITE 250 IRVINE CA, 92618
949.208.7279
MIKE MILLER
MMILLER@NWHM.COM

LANDSCAPE ARCHITECT
BRIGHTVIEW DESIGN GROUP
8 HUGHES, STE 150
IRVINE, CA 92618
949.514.7906
GLEN SHARRAR
GLEN.SHARRAR@BRIGHTVIEW.COM

ARCHITECT
WHA
680 NEWPORT CENTER DR.SUITE 300
NEWPORT BEACH CA, 92660
949.250.0607 EXT. 8732
CHRIS BARLOW
CHRISB@WHAINC.COM

ARCHITECT
BASSENIAN
2031 ORCHARD DR. SUITE 100
NEWPORT BEACH, CA 92660
949.553.9100 EXT. 327
MARK KINER
MKINER@BASSENIANLAGOONI.COM

CIVIL ENGINEER
HUNSAKER & ASSOCIATES
2900 ADAMS STREET SUITE A-15
RIVERSIDE, CA 92504
951.509.7038
JOEY VALADEZ
JVALADEZ@HUNSAKER.COM

UTILITIES
[CONTRACTOR TO NOTIFY THE FOLLOWING AGENCIES OR UTILITIES 48 HOURS PRIOR TO STARTING CONSTRUCTION OR EXCAVATION.]

ELECTRICAL COMPANY	SOUTHERN CALIFORNIA EDISON	909.930.8431
GAS COMPANY	SOCALGAS	909.758.8691
WATER DISTRICT	JURUPA COMMUNITY SERVICES DISTRICT	951.685.7434
TELEPHONE	VERIZON	909.469.2260
CABLE	AT&T	800.750.2355

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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

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BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
LANDSCAPE COVER SHEET

SHEET NO.
L-100

58TH STREET

FUTURE PHASE C
N.A.P.

FUTURE PHASE B
N.A.P.

'A' ROAD

N.A.P

'C' ROAD

PLANNING AREA 8
SITE BOUNDARY

PLANNING
AREA 8

REC/PARK
N.A.P

(Rec entitlement will be revised
and reviewed with Phase B)

PHASE A PROJECT BOUNDARY

SCHOLAR WAY

HAMNER AVE.

PLANNING
AREA 7

PLANNING
AREA 6

'B' ROAD

'C' ROAD

PLANNING
AREA 1

PLANNING AREA 2
(TO BE BUILT BY OTHERS)

PLANNING AREA 3
(TO BE BUILT BY OTHERS)

'A' ROAD

'B' ROAD

LIMONITE AVE.

SCALE: 1" = 120'-0"

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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

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8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
OVERALL SITE PLAN

SHEET NO.
L-101

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CERCIS OCCIDENTALIS WESTERN REDBUD MULTI-TRUNK	36" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	HYMENOSPORUM FLAVUM SWEETSHADE	24" BOX	L
	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	QUERCUS ILEX HOLLY OAK	48" BOX	L
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

SHRUB LEGEND - ACCENTS

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
SPANISH ARCHITECTURAL STYLE			
ELAEOCARPUS DECIPIENS JAPANESE BLUEBERRY TREE	5 GAL	L	48" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW-WOOD	5 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS 'TUSCAN BLUE' TUSCAN BLUE ROSEMARY	5 GAL	L	48" o.c.
VINEYARD ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
PRUNUS CAROLINIANA CAROLINA CHERRY-LAUREL	5 GAL	L	48" o.c.
PODOCARPUS HENKELII HENKEL'S YELLOWWOOD	5 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS 'TUSCAN BLUE' TUSCAN BLUE ROSEMARY	5 GAL	L	48" o.c.
FARMHOUSE ARCHITECTURAL STYLE			
BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ELAEOCARPUS DECIPIENS JAPANESE BLUEBERRY TREE	5 GAL	L	48" o.c.
DODONAEA VISCOSA 'PURPUREA' PURPLE-LEAFED HOP-BUSH	5 GAL	L	24" o.c.
LAURUS NOBILIS SWEET BAY	5 GAL	L	36" o.c.

SHRUB LEGEND - BACKGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ABUTILON PALMERI INDIAN MALLOW	5 GAL	L	48" o.c.
ALYOGYNE HUEGELII BLUE HIBISCUS	5 GAL	L	6'-0" o.c.
ARBUTUS UNEDO 'COMPACTA' COMPACT STRAWBERRY TREE	5 GAL	L	5'-0" o.c.
ARCTOSTAPHYLOS GLANDULOSA EASTWOOD MANZANITA	5 GAL	L	6'-0" o.c.
ARTEMISIA CALIFORNICA CALIFORNIA SAGEBRUSH	1 GAL	L	48" o.c.
BERBERIS AQUIFOLIUM OREGON GRAPE	5 GAL	L	48" o.c.
ECHIUM FASTUOSUM PRIDE OF MADEIRA	5 GAL	L	5'-0" o.c.
HETEROMELES ARBUTIFOLIA TOYON	5 GAL	L	48" o.c.
JUNIPERUS COMMUNIS COMMON JUNIPER	5 GAL	L	48" o.c.
LEYMUS CONDENSATUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	1 GAL	L	48" o.c.
MUHLENBERGIA RIGENS PINK MUHLY GRASS	1 GAL	M	48" o.c.
PODOCARPUS ELONGATUS 'MONMAL' ICEE BLUE® YELLOW WOOD	5 GAL	L	48" o.c.
RHUS INTEGRIFOLIA LEMONADE BERRY	5 GAL	L	10'-0" o.c.
RHUS OVATA SUGAR BUSH	5 GAL	L	8'-0" o.c.
RIBES SANGUINEUM RED FLOWERING CURRANT	1 GAL	M	48" o.c.
ROMNEYA COULTERI MATILIJA POPPY	5 GAL	L	6'-0" o.c.
TAGETES LEMMONII COPPER CANYON DAISY	5 GAL	L	8'-0" o.c.
TECOMA X 'ORANGE JUBILEE' ORANGE JUBILEE YELLOW BELLS	5 GAL	L	8'-0" o.c.

SHRUB LEGEND - MIDGROUND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
AGAVE ATTENUATA FOXTAIL AGAVE	5 GAL	L	48" o.c.
AGAVE X 'BLUE FLAME' BLUE FLAME AGAVE	5 GAL	L	36" o.c.
AGAVE X 'BLUE GLOW' BLUE GLOW AGAVE	5 GAL	L	36" o.c.
ANIGOZANTHOS X 'ORANGE CROSS' ORANGE CROSS KANGAROO PAW	1 GAL	L	24" o.c.
BACCHARIS PILULARIS COYOTE BRUSH	1 GAL	L	8'-0" o.c.
BERBERIS THUNBERGII JAPANESE GREENLEAF BARBERRY	5 GAL	M	5'-0" o.c.
CALLISTEMON VIMINALIS 'LITTLE JOHN' LITTLE JOHN WEEPING BOTTLEBRUSH	1 GAL	M	5'-0" o.c.
CISTUS SALVIIFOLIUS 'PROSTRATUS' SAGELEAF ROCKROSE	1 GAL	L	5'-0" o.c.
DIANELLA REVOLUTA 'DTN03' BABY BLISS™ FLAX LILY	1 GAL	L	36" o.c.
EUPHORBIA RIGIDA YELLOW SPURGE	5 GAL	L	36" o.c.
HESPERALOE PARVIFLORA RED YUCCA	1 GAL	L	48" o.c.
JUNCUS PATENS CALIFORNIA GRAY RUSH	1 GAL	L	24" o.c.
KALANCHOE THYRSIFLORA PADDLE PLANT	1 GAL	L	36" o.c.
KNIPHOFIA TRIANGULARIS DWARF RED HOT POKER	1 GAL	M	48" o.c.
KNIPHOFIA UVARIA RED HOT POKER	1 GAL	L	36" o.c.
LAVANDULA STOECHAS SPANISH LAVENDER	5 GAL	L	36" o.c.
LEUCOPHYLLUM CANDIDUM TEXAS SAGE	5 GAL	L	36" o.c.
LOMANDRA LONGIFOLIA 'BREEZE' BREEZE™ MAT RUSH	5 GAL	L	36" o.c.
MELALEUCA NESOPHILA 'LITTLE NESSIE' LITTLE NESSIE PINK MELALEUCA	1 GAL	L	5'-0" o.c.
NANDINA DOMESTICA 'COMPACTA' DWARF HEAVENLY BAMBOO	1 GAL	M	36" o.c.
OLEA EUROPAEA 'MONTRA' LITTLE OLLIE® OLIVE	5 GAL	L	36" o.c.
PHLOMIS FRUTICOSA JERUSALEM SAGE	1 GAL	M	48" o.c.
PRUNUS ILICIFOLIA HOLLYLEAF CHERRY	5 GAL	L	8'-0" o.c.
RHAPHIOLEPIS UMBELLATA 'MINOR' DWARF INDIAN HAWTHORN	1 GAL	L	48" o.c.
ROSMARINUS OFFICINALIS ROSEMARY	1 GAL	L	48" o.c.
SALVIA GREGGII AUTUMN SAGE	1 GAL	L	36" o.c.
SALVIA ROSMARINUS ROSEMARY	5 GAL	L	36" o.c.
SALVIA SPATHACEA HUMMINGBIRD SAGE	1 GAL	M	48" o.c.
TRICHOSTEMA LANATUM WOOLLY BLUE CURLS	1 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'BLUE GEM' COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA GREY BOX DWARF COAST ROSEMARY	5 GAL	L	48" o.c.
WESTRINGIA FRUTICOSA 'SMOKEY' COAST ROSEMARY	5 GAL	L	48" o.c.

SHRUB LEGEND - FOREGROUND/GROUNDCOVER

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
ACACIA REDOLENS 'DESERT CARPET' DESERT CARPET BANK CATCLAW	1 GAL	L	6'-0" o.c.
ACHILLEA TOMENTOSA WOOLLY YARROW	1 GAL	L	12" o.c.
BOUTELOUA GRACILIS BLUE GRAMA GRASS	1 GAL	L	24" o.c.
CAREX DIVULSA EUROPEAN GREY SEDGE	1 GAL	L	24" o.c.
CEANOTHUS X 'JOYCE COULTER' JOYCE COULTER WILD LILAC	1 GAL	M	8'-0" o.c.
ESCHSCHOLZIA CALIFORNICA CALIFORNIA POPPY	1 GAL	L	12" o.c.
FESTUCA GLAUCA BLUE FESCUE	1 GAL	M	18" o.c.
LANTANA MONTEVIDENSIS PURPLE TRAILING LANTANA	1 GAL	L	8'-0" o.c.
LONICERA JAPONICA JAPANESE HONEYSUCKLE	5 GAL	L	36" o.c.
MYOPORUM PARVIFOLIUM 'PUTAH CREEK' CREEPING MYOPORUM	1 GAL	L	8'-0" o.c.
ROSMARINUS OFFICINALIS 'HUNTINGTON CARPET' HUNTINGTON CARPET ROSEMARY	1 GAL	L	36" o.c.
SENECIO CINERARIA DUSTY MILLER	1 GAL	L	24" o.c.
SENECIO SERPENS BLUE CHALKSTICKS	1 GAL	L	24" o.c.
TEUCRIUM CHAMAEDRYS GERMANDER	1 GAL	L	24" o.c.
TEUCRIUM COSSONII CREEPING GERMANDER	1 GAL	L	24" o.c.
THYMUS X CITRIODORUS LEMON THYME	1 GAL	L	24" o.c.
TRACHELOSPERMUM JASMINOIDES CHINESE STAR JASMINE	1 GAL	M	36" o.c.

VINE LEGEND

APPLICABLE TO ALL ARCHITECTURAL STYLES

BOTANICAL / COMMON NAME	SIZE	WUCOLS	SPACING
BOUGAINVILLEA X 'ROSENKA' ROSENKA BOUGAINVILLEA	5 GAL	L	48" o.c.
TRACHELOSPERMUM JASMINOIDES STAR JASMINE TRELLIS	5 GAL	M	48" o.c.
WISTERIA SINENSIS CHINESE WISTERIA	5 GAL	M	48" o.c.

NOTES:

1. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM
   - 15 GALLON 10%
   - 5 GALLON 30%
   -1 GALLON 60%

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING LEGEND

SHEET NO.
L-201

EVERGREEN TREES



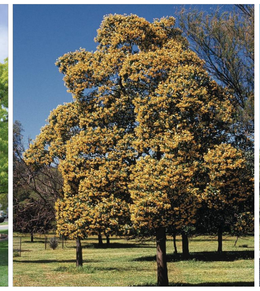
ARBUTUS X 'MARINA'
MARINA STRAWBERRY TREE



CERCIS OCCIDENTALIS
WESTERN REDBUD



CINNAMOMUM CAMPHORA
CAMPHOR TREE



HYMENOSPORUM FLAVUM
SWEET SHADE



LAURUS NOBILIS 'SARATOGA'
SARATOGA HYBRID LAUREL



PODOCARPUS GRACILIOR
FERN PINE



RHUS LANCEA
AFRICAN SUMAC

DECIDUOUS TREES



GEIJERA PARVIFLORA
AUSTRALIAN WILLOW



PARKINSONIA X 'DESERT MUSEUM'
DESERT MUSEUM PALO VERDE



ULMUS PARVIFOLIA DRAKE
DRAKE CHINESE ELM

ACCENT TREES

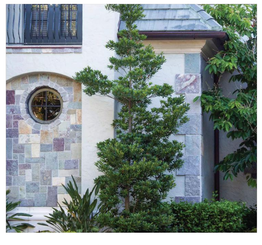


ACACIA BAILEYANA 'PURPUREA'
PURPLE FERNLEAF ACACIA



TECOMA STANS
YELLOW BELLS

SPANISH ARCHITECTURAL ACCENT PLANTING



ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD



ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY

VINEYARD ARCHITECTURAL ACCENT PLANTING



PRUNUS CAROLINIANA
CAROLINA CHERRY-LAUREL



PODOCARPUS HENKELII
HENKEL'S YELLOWWOOD

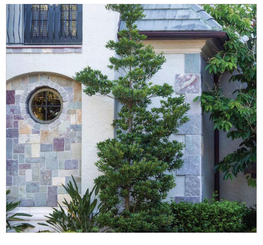


ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY

FARMHOUSE ARCHITECTURAL ACCENT PLANTING



DODONAEA VISCOSA 'PURPUREA'
PURPLE-LEAFED HOP-BUSH



ELAEOCARPUS DECIPIENS
JAPANESE BLUEBERRY TREE



LAURUS NOBILIS
SWEET BAY

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LANDSCAPE ARCHITECT

CITY

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IRVINE, CALIFORNIA 92618
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PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-202

BACKGROUND SHRUBS



ABUTILON PALMERI
INDIAN MALLOW



ALYGYNE HUEGELII
BLUE HIBISCUS



ARBUTUS UNEDO 'COMPACTA'
COMPACT STRAWBERRY TREE



ARCTOSTAPHYLOS GLANDULOSA
EASTWOOD MANZANITA



ARTEMISIA CALIFORNICA 'CANYON GREY'
CANYON GREY CALIFORNIA SAGEBRUSH



BACCHARIS PILULARIS
COYOTE BRUSH



ECHIUM FASTUOSUM
PRIDE OF MADEIRA



HETEROMELES ARBUTIFOLIA
TOYON



JUNIPERUS COMMUNIS
COMMON JUNIPER



LEYMUS CONDENSATUS
GIANT WILD RYE



MUHLENBERGIA RIGENS 'PINK MULHY'
PINK MUHLY



PODOCARPUS ELONGATUS 'MONMAL'
ICE BLUE YELLOW WOOD



RHUS INTEGRIFOLIA
LEMONADE BERRY



RHUS OVATA
SUGAR BUSH



RIBES SANGUINEUM
RED FLOWERING CURRANT



ROMNEYA COULTERI
MATILIJA POPPY



TAGETES LEMONII
COPPER CANYON DAISY



TECOMA X 'ORANGE JUBILEE'
ORANGE JUBILEE YELLOW BELLS

MIDGROUND SHRUBS



AGAVE ATTENUATA
FOXTAIL AGAVE



AGAVE X 'BLUE FLAME'
BLUE FLAME AGAVE



AGAVE X 'BLUE GLOW'
BLUE GLOW AGAVE



ANIGOZANTHOS X 'ORANGE CROSS'
ORANGE CROSS KANGAROO PAW



BERBERIS THUNBERGII
JAPANESE GREENLEAF BARBERRY



CALLISTEMON VIMINALIS 'LITTLE JOHN'
LITTLE JOHN WEEPING BOTTLEBRUSH



CISTUS SALVIIFOLIUS 'PROSTRATUS'
SAGELEAF ROCKROSE



DIANELLA REVOLUTA 'DTNO3'
BABY BLISS FLAX LILY



EUPHORBIA RIGIDA
YELLOW SPURGE



HESPERALOE PARVIFLORA
RED YUCCA



JUNCUS PATENS
CALIFORNIA GRAY RUSH



KALANCHOE THYRSIFLORA
PADDLE PLANT



KNIPHOFIA TRIANGULARIS
DWARF RED HOT POKER



KNIPHOFIA UVARIA
RED HOT POKER



LAVANDULA STOECHAS
SPANISH LAVENDER



LEUCOPHYLLUM CANDIDUM
TEXAS SAGE



LOMANDRA LONGIFOLIA 'BREEZE'
BREEZE MAT RUSH



MELALEUCA NESOPHILA 'LITTLE NESSIE'
LITTLE NESSIE PINK MELALEUCA

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO.
move forward

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8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-203

MIDGROUND SHRUBS CONT.



NANDINA DOMESTICA 'COMPACTA'
DWARF HEAVENLY BAMBOO



OLEA EUROPAEA 'MONTRA'
LITTLE OLLIE OLIVE



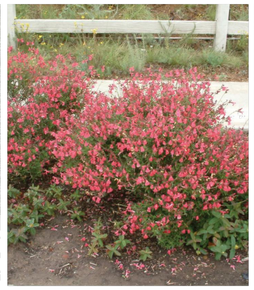
PHLOMIS FRUTICOSA
JERUSALEM SAGE



RHAPHIOLEPIS UMBELLATA 'MINOR'
DWARF INDIAN HAWTHORN



ROSMARINUS OFFICINALIS
ROSEMARY



SALVIA GREGII
AUTUMN SAGE



SALVIA SPATHACEA
HUMMINGBIRD SAGE



TRICHOSTEMA LANATUM
WOOLLY BLUE CURLS



WESTRINGIA FRUTICOSA
COAST ROSEMARY



WESTRINGIA FRUTICOSA 'SMOKEY GREY BOX
COAST ROSEMARY

FOREGROUND/GROUNDCOVER



ACACIA REDOLENS 'DESERT CARPET'
SWEET ACACIA



ACHILLEA TOMENTOSA
WOOLLY YARROW



BOUTELOUA GRACILIS
BLUE GRAMA GRASS



CAREX DIVULSA
EUROPEAN GREY SEDGE



CEONOTHUS X 'JOYCE COULTER'
JOYCE COULTER WILD LILAC



ESCHSCHOLZIA CALIFORNICA
CALIFORNIA POPPY



FESTUCA GLAUCA
BLUE FESCUE



LANTANA MONTEVIDENSIS
PURPLE TRAILING LANTANA



LONICERA JAPONICA
JAPANESE HONEYSUCKLE



MYOPORUM PARVIFOLIUM
TRAILING MYOPORUM



ROSMARINUS OFFICINALIS
'HUNTINGTON CARPET'
ROSEMARY



SENECIO CINERARIA
DUSTY MILLER



SENECIO SERPENS
BLUE CHALKSTICKS



TEUCRIUM CHAMAEDRYS
GERMANDER



TEUCRIUM COSONII
CREEPING GERMANDER

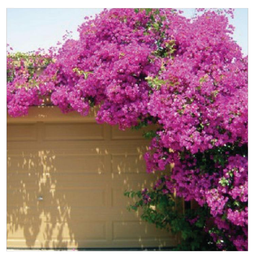


THYMUS X CITRIODORUS
LEMON THYME



TRACHELOSPERMUM JASMINOIDES
CHINESE STAR JASMINE

FOREGROUND/GROUNDCOVER



BOUGAINVILLEA 'ROSENKA'
ROSENKA BOUGAINVILLEA



TRACHELOSPERMUM JASMINOIDES
STAR JASMINE



WISTERIA SINENSIS
CHINESE WISTERIA

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LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

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move forward

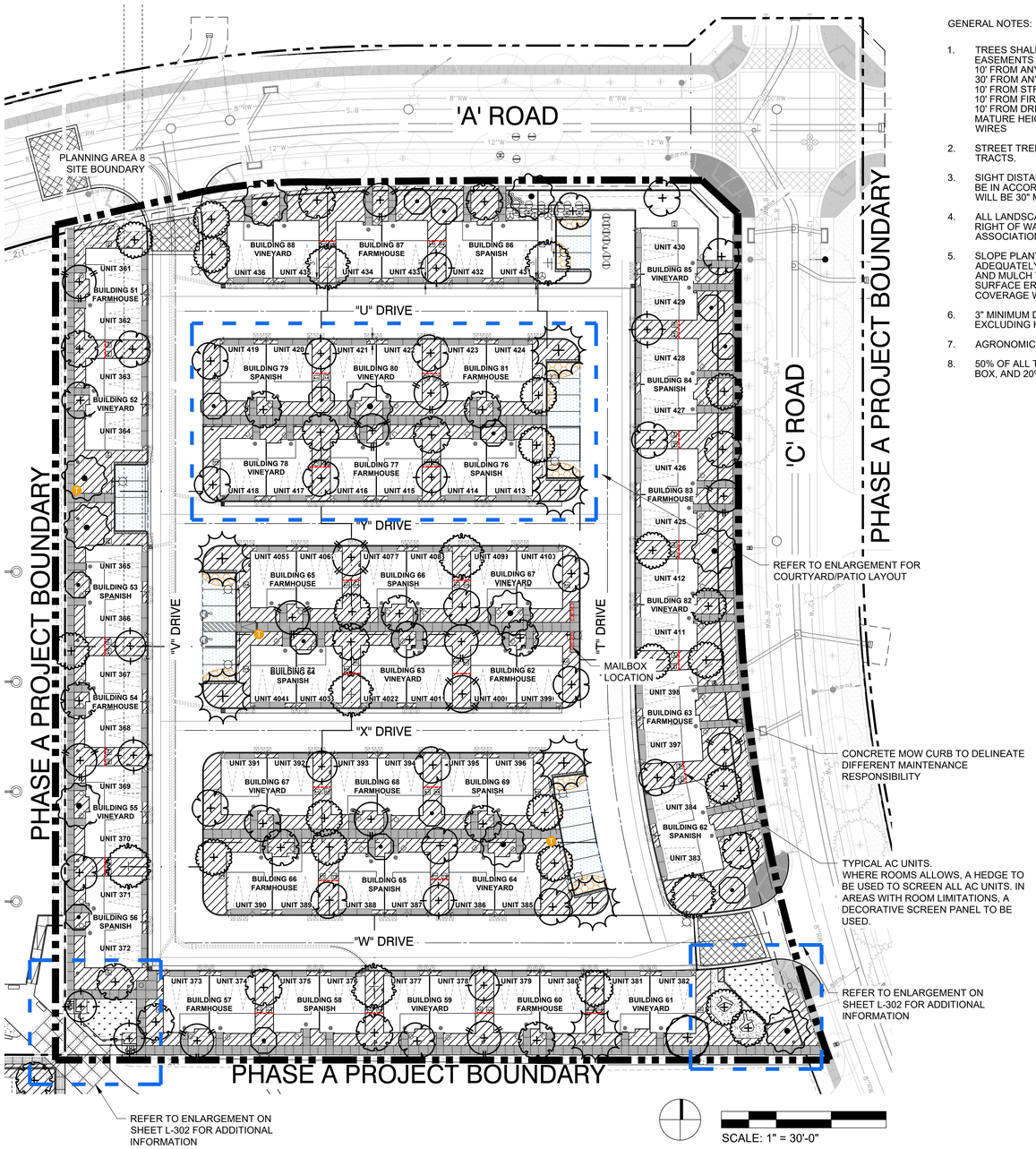
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IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PLANTING IMAGERY BOARD

SHEET NO.
L-204



GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

FENCE AND WALL LEGEND :

6'-0" HIGH PRECISION BLOCK WALL WITH 2" PRECISION BLOCK CAP. ANGELUS BLOCK, COLOR "FAWN". FINAL MATERIAL / COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

- TRASH CANS
- CONCRETE PAVING
- STABILIZED DECOMPOSED GRANITE PAVING
- DECORATIVE PAVING
- ENHANCED PEDESTRIAN PAVING
- TURF
- PROPOSED MAILBOX LOCATION (ACTUAL MAILBOX LOCATIONS MAY CHANGE UPON USPS REVIEW)

TREE SHADING LEGEND:

- PARKING AREA SHADED BY TREES
- PARKING AREA

SHADED SUMMARY:

TOTAL PARKING AREA: (EXCLUDES DRIVE AISLES AND COVERED PARKING SPACES)	4,482 SF.
PARKING AREA SHADED BY TREES 24% OF COVERED PARKING AREA	1,085 SF.

* TREES SHOWN AT 15 YEARS MATURITY. PER RIVERSIDE COUNTY ORDINANCE 348, SECTION 1812

LANDSCAPE COVERAGE SUMMARY:

OVERALL LANDSCAPE: 26,691 SQ. FT.
TOTAL DEVELOPED AREA - PA 8: 3.94 ACRES
PERCENTAGE OF LANDSCAPE AREA: ± 15.5%

OPEN SPACE: 4,475 SF.

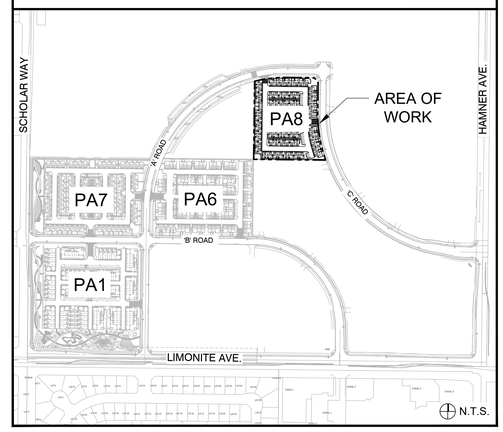
SHRUBS - REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CERCIS OCCIDENTALIS WESTERN REDBUD MULTI-TRUNK	36" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	HYMENOSPORUM FLAVUM SWEETSHADE	24" BOX	L
	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	QUERCUS ILEX HOLLY OAK	48" BOX	L
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
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		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

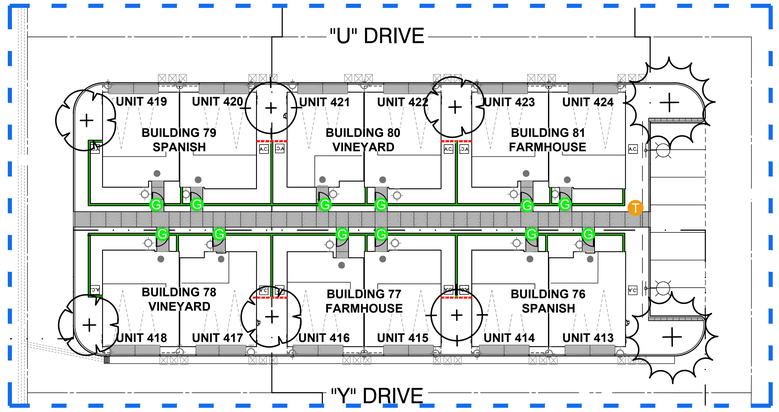
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(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
LANDSCAPE SITE PLAN

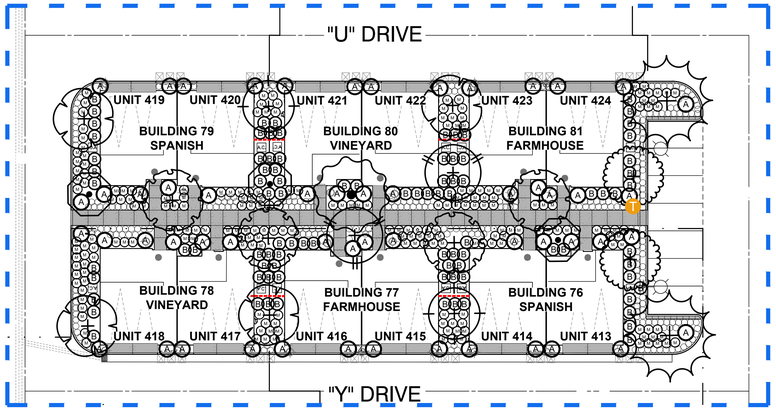
SHEET NO.
L-301



PATIO/COURTYARD WALL OPTION - ENLARGEMENT

NOTE: PATIO/COURTYARD WALL SHOWN ARE OPTIONAL AND MIGHT NOT BE FEASIBLE DUE TO SITE CONDITIONS. FINAL LAYOUT SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER.

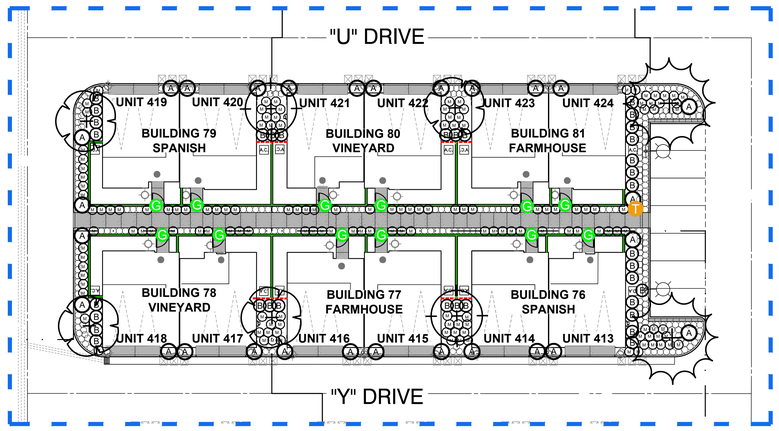
SCALE: 1" = 20'-0"



PLANTING VIGNETTE - ENLARGEMENT

NOTE: TYPICAL MASSING/LAYOUT. FINAL LAYOUT TO BE DETERMINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS.

SCALE: 1" = 20'-0"



PLANTING VIGNETTE PATIO/COURTYARD WALL OPTION - ENLARGEMENT

Note: TYPICAL MASSING/LAYOUT. FINAL LAYOUT TO BE DETERMINED DURING THE PREPARATION OF CONSTRUCTION DOCUMENTS.

SCALE: 1" = 20'-0"

FENCE AND WALL LEGEND :

3'-0" HIGH PRECISION BLOCK WALL - NO CAP. ANGELUS BLOCK, COLOR "FAWN". SITE SPECIFIC LAYOUT/HEIGHT MAY VARY DEPENDING ON FINAL SITE CONDITIONS. FINAL MATERIAL/COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

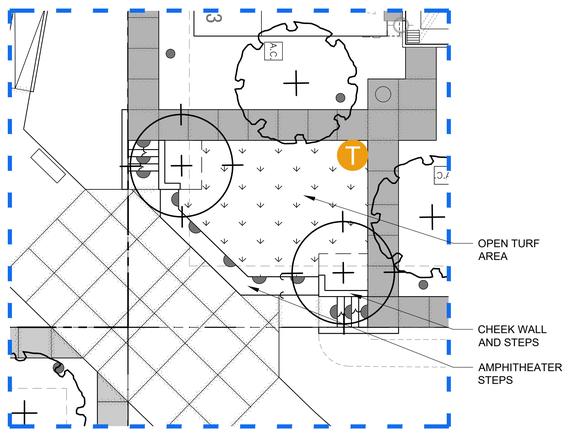
6'-0" HIGH PRECISION BLOCK WALL WITH 2" PRECISION BLOCK CAP. ANGELUS BLOCK, COLOR "FAWN". FINAL MATERIAL / COLOR SUBJECT TO CHANGE AT THE DISCRETION OF THE MASTER DEVELOPER. SEE SHEET L-401 FOR ELEVATION REFERENCE.

SITE ELEMENTS LEGEND:

T — TRASH CANS

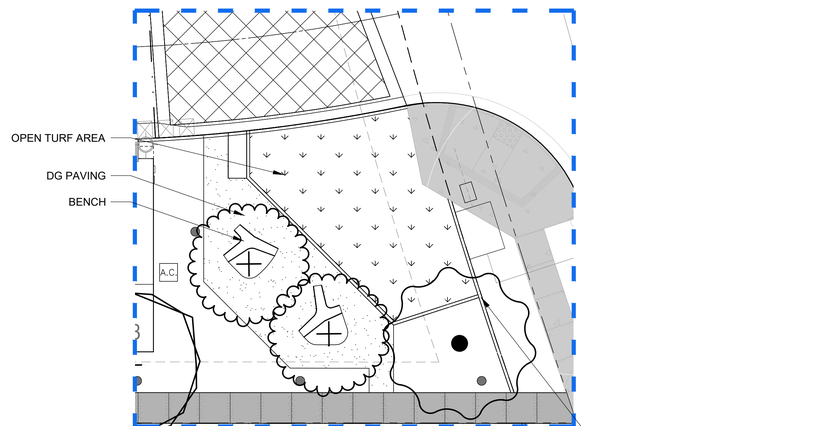
G — PATIO/COURTYARD GATE

CONCRETE PAVING



OPEN SPACE ENLARGEMENT

SCALE: 1" = 10'-0"



OPEN SPACE ENLARGEMENT

SCALE: 1" = 10'-0"

TREE LEGEND

SYMBOL	BOTANICAL / COMMON NAME	MIN. SIZE	WUCOLS
EVERGREEN			
	ARBUTUS X 'MARINA' MARINA STRAWBERRY TREE	24" BOX	L
	CERCIS OCCIDENTALIS WESTERN REDBUD MULTI-TRUNK	36" BOX	L
	CINNAMOMUM CAMPHORA CAMPHOR TREE	24" BOX	L
	HYMENOSPORUM FLAVUM SWEETSHADE	24" BOX	L
	LAURUS X 'SARATOGA' SARATOGA HYBRID LAUREL	24" BOX	L
	PODOCARPUS GRACILIOR FERN PINE	24" BOX	M
	QUERCUS ILEX HOLLY OAK	48" BOX	L
	RHUS LANCEA AFRICAN SUMAC	24" BOX	L
DECIDUOUS			
	GEIJERA PARVIFLORA AUSTRALIAN WILLOW	24" BOX	L
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE	24" BOX	L
	ULMUS PARVIFOLIA 'DRAKE' DRAKE LACEBARK ELM	24" BOX	L
ACCENTS			
	ACACIA BAILEYANA 'PURPUREA' PURPLE-LEAF BAILEY ACACIA	24" BOX	L
	TECOMA STANS YELLOW BELLS	24" BOX	L

NOTES:
REFER TO SHEET L-201 FOR FULL PLANTING LEGEND AND NOTES

SHRUB LEGEND

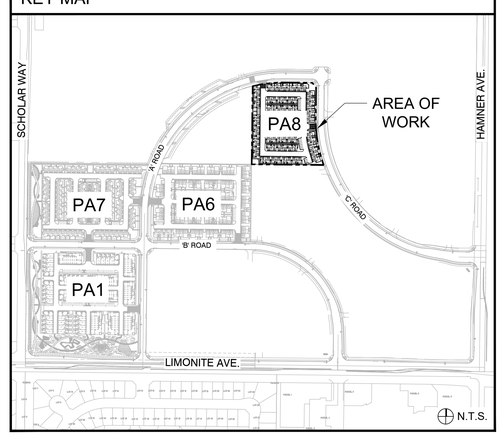
SYMBOL	DESCRIPTION	SIZE
A	ACCENTS	15 GAL
B	BACKGROUND	5 GAL
M	MIDGROUND	5 GAL AND 1 GAL
	GROUNDCOVER	1 GAL

NOTES:
1. REFER TO SHEET L-201 FOR FULL SHRUB PLANT PALETTE.
2. SHRUB DENSITY SHALL ADHERE TO THE FOLLOWING MINIMUM.
   15 GALLON: 10%
   5 GALLON: 30%
   1 GALLON: 60%

GENERAL NOTES:

1. TREES SHALL BE LOCATED OUTSIDE OF UTILITY SETBACKS OR EASEMENTS AND SHALL BE LOCATED
   10' FROM ANY WATER OR SEWER LINE
   30' FROM ANY INTERSECTION
   10' FROM STREET LIGHT
   10' FROM FIRE HYDRANT OR STREET SIGN
   10' FROM DRIVEWAY APPROACH
   MATURE HEIGHT TO BE NO TALLER THAN 20' IF PLANTED UNDER UTILITY WIRES
2. STREET TREE SPECIES AND SPACING SHALL CONFORM TO ADJACENT TRACTS.
3. SIGHT DISTANCE TRIANGLES AT INTERSECTIONS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH COUNTY STANDARD NO. 821. VEGETATION WILL BE 30" MAXIMUM HEIGHT IN LIMITED USE AREAS.
4. ALL LANDSCAPE IMPROVEMENTS DEPICTED HEREIN OUTSIDE OF PUBLIC RIGHT OF WAY TO BE MAINTAINED BY PRIVATE PROPERTY ASSOCIATION(S) OR HOMEOWNERS ASSOCIATION(S).
5. SLOPE PLANTING SHALL INCLUDE PERMANENT GROUND COVER ADEQUATELY PLANTED WITH SHRUBS AND/OR TREES. PLANT MATERIAL AND MULCH TO BE SUITABLE FOR SLOPE USE AND PREVENTION OF SURFACE EROSION. PLANT SELECTION SHALL ENSURE FULL SLOPE COVERAGE WITHIN 12 MONTHS OF PLANTING.
6. 3" MINIMUM DEPTH OF SHREDDED BARK MULCH IN ALL PLANTER AREAS EXCLUDING HYDROSEED AREAS.
7. AGRONOMIC SOILS REPORT WILL BE PROVIDED DURING FINAL DESIGN.
8. 50% OF ALL TREES SHALL BE 24" BOX, 30% OF ALL TREES SHALL BE 36" BOX, AND 20% OF ALL TREES SHALL BE 48" BOX.

KEY MAP



Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITALL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT — CITY

CITY OF EASTVALE

NEW HOME CO. move forward

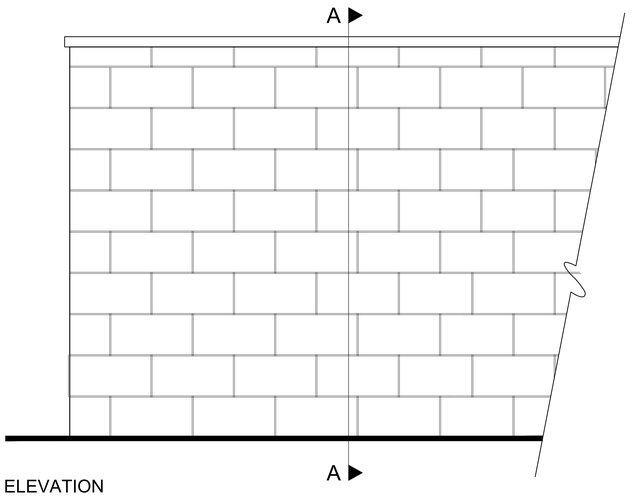
BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

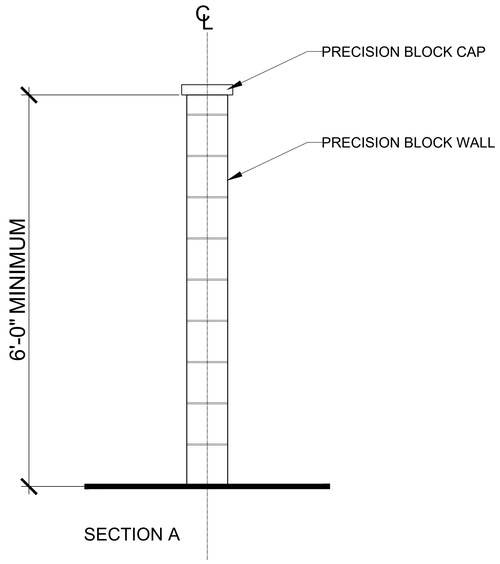
CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
ENLARGEMENT PLANS

SHEET NO.
L-302



ELEVATION



SECTION A

PRIVACY WALL OPTIONS

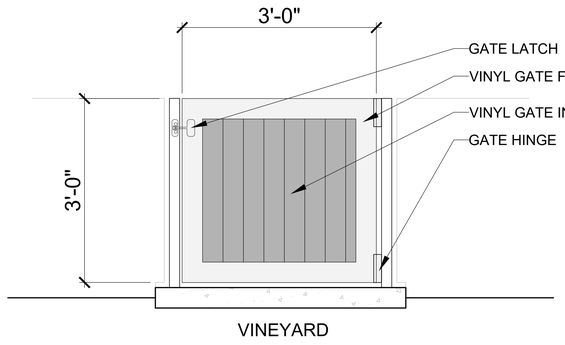
Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"

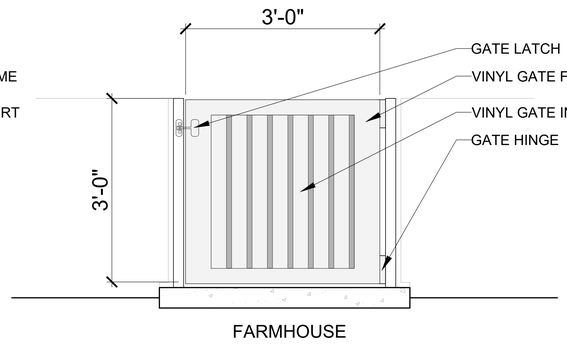


AC UNIT SCREEN PANEL

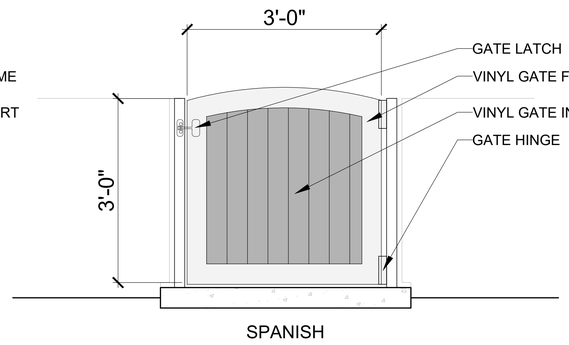
Final material selection subject to change per landscape plan submittal



VINEYARD



FARMHOUSE



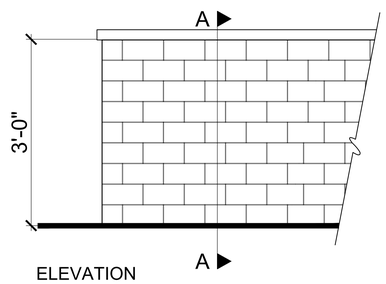
SPANISH

NOTE: SOME RESIDENTIAL UNITS MAY NOT HAVE A GATE AT THE DISCRETION OF THE MASTER DEVELOPER

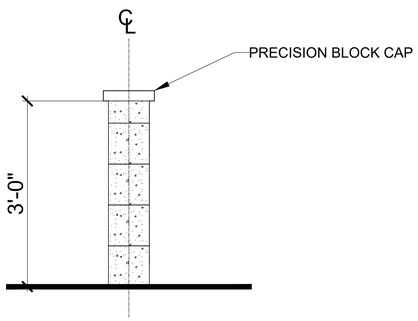
PATIO/COURTYARD GATE OPTIONS (OPTIONAL)

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"



ELEVATION



SECTION A

PATIO/COURTYARD WALL OPTIONS (OPTIONAL)

Final material selection subject to change per landscape plan submittal

SCALE: 1" = 1' -0"

Know what's below. Call 811 before you dig.

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		12/15/22	FIRST CITY SUBMITTAL		
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		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT

CITY

CITY OF EASTVALE

NEW HOME CO. move forward

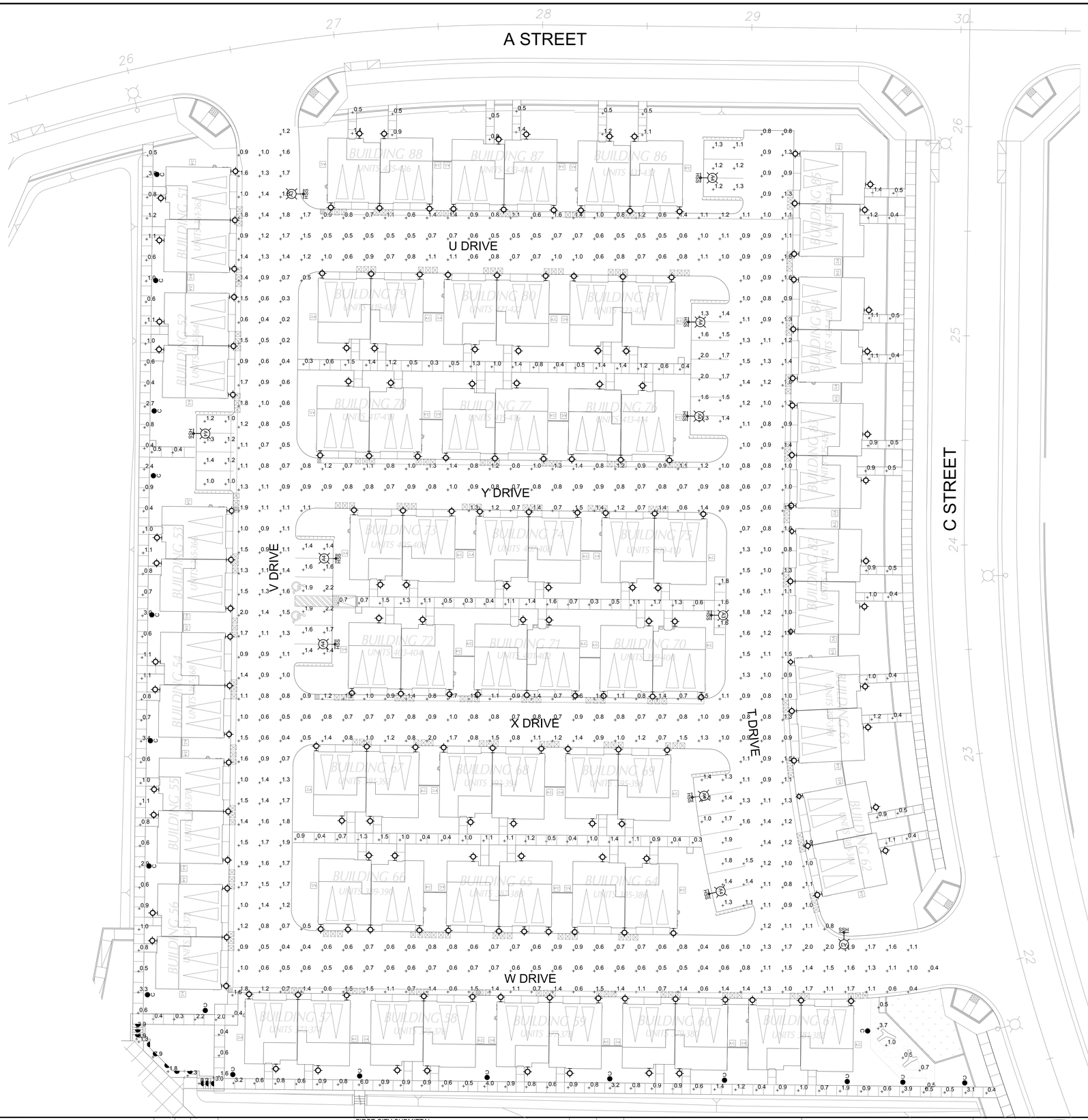
BrightView Design Group
8 HUGHES, SUITE 150
IRVINE, CALIFORNIA 92618
(949) 238-4900

PA NO. 8

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
FENCE AND WALL ELEVATIONS

SHEET NO.
L-401



LIGHTING FIXTURE LEGEND



A3 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE III
USA# DS8A-PLED-III-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K

A4 — 36W. LED POST LIGHT ON A 16FT POLE
TYPE IV- FORWARD THROW
USA# DS8A-PLED-IVFT-20LED-525mA-30K-120V-XWB-1-FINISH
RNTS-164-11-RBC (4"DIA) - 3000°K



HSS — HOUSE SIDE SHIELD PER PLAN.
NOT ALL FIXTURES WILL HAVE A SHIELD.

C — 20W. LED BOLLARD LIGHT - 36" TALL
USA# TLB5-DP-18LED-350mA-WW



4.1W LED STEP LIGHT
AT STAIR RISER CENTER (STANDARD STEPS)
OR JUST UNDER THE TOP TREAD (LARGE STEPS)
BEGA# 33-053-K3 (3000°K)

LED WALL LIGHT
(1000 LUMEN MIN. AT 3000°K)
SELECT BY OWNER.
TO BE CONTROLLED BY ASTRONOMICAL TIME CLOCK ONLY.
SET DUSK TO DAWN.

811 Know what's below. Call 811 before you dig.

MARK	BY	DATE	REVISIONS	APPR.	DATE
		12/15/22	FIRST CITY SUBMITTAL		
		05/25/23	SECOND CITY SUBMITTAL		
		08/09/23	THIRD CITY SUBMITTAL		
		10/03/23	FOURTH CITY SUBMITTAL		

LANDSCAPE ARCHITECT | CITY

CITY OF EASTVALE

NEW HOME CO. move forward

CANDELA ENGINEERING
LIGHTING DESIGN | ELECTRICAL ENGINEERING
27201 Calle Juanita
Dana Point, CA 92624
Ph. 949.201.1333
candelaengineering.com

CITY OF EASTVALE
EASTWALK
MASTER DEVELOPMENT PLAN

SHEET TITLE
PA 8
PHOTOMETRICS
SITE PLAN

SHEET NO.
E-1

September 13, 2023

Mr. Mike Miller
THE NEW HOME COMPANY
15231 Laguna Canyon Road, Suite 250
Irvine, CA 92618

Subject: Leal Master Plan Residential Parking Review and Parking Management Plan (PMP) – Phase A, City of Eastvale

Dear Mr. Miller:

Introduction

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this Parking Review and Parking Management Plan for the proposed Leal Master Plan Project.

The purpose of this report is to determine appropriate residential parking rates that can effectively serve the proposed Leal Master Plan Project. This parking analysis includes a review of parking requirements from 38 comparable cities within the Inland Empire area. Furthermore, a parking management plan has been developed that aims to address parking needs and manage parking spaces efficiently. The implementation of a parking management plan (PMP) will ensure fair parking access to meet the needs of the residents and guests. The features outlined in the PMP must be integrated into the Declaration of Covenants, Conditions, and Restrictions (CC&Rs).

The proposed project will utilize recommended parking rates that are more intense than the City of Eastvale rates and the Leal Master Plan Amendment. Parking rate data from 38 comparable cities were collected to create an 85th-percentile parking rate per dwelling unit type[1]. The PMP will utilize various features for both the residents and their guests/visitors.

[1] The 85th percentile rate is what ITE (Institute of Transportation Engineers) Parking Generation Manual published as an acceptable and common methodology when combining parking ratios from multiple sources. This is also consistent with standard industry practice.

1401 dove street, ste. 540
newport beach, ca 92660
P (949) 474-0809
W rkengineer.com

Project Description

The proposed Leal Master Plan Project (hereinafter referred to as "project") is in the City of Eastvale. The project site is bounded by 58th Street to the north, Limonite Avenue to the south, Hamner Avenue to the east, and Scholar Avenue to the west. The project site is currently vacant. In total, the proposed project consists of approximately 2,500 residential dwelling units. This report applies to Phase A, which generally includes the southern portion of the site, including the following Planning Areas:

- PA 1 – 168 multi-family units
- PA 6 – 100 single-family units
- PA 7A – 94 single-family units
- PA 8 – 76 single-family units

The Institute of Traffic Engineers (ITE) Manual states that multi-family housing "includes apartments, townhomes, and condominiums located within the same building with at least three other dwelling units…". Therefore, buildings with four or more units are considered multi-family housing. Buildings with three or less units are considered single-family attached housing. The appropriate parking rates apply to either single or multi-family housing.

Access to the project will be provided through residential collector streets "A", "B", and "C" and direct access to each planning area will be provided via driveways.

Exhibit A shows the planning areas for Phase A of Leal Master Plan, which are analyzed in this report.

Parking Review

The following section calculates appropriate parking rates for respective dwelling unit types for the proposed project. The 85th percentile is determined by analyzing data compiled from 38 comparable cities. These rates do not assume the enforcement of a parking management plan, which will further help reduce parking demand at the project site.

City of Eastvale Parking Requirements

The City of Eastvale Municipal Code §120.05.060 – Off-Street Vehicle Parking identifies parking design standards and the number of required parking spaces to serve various land use types, including residential uses.

The Leal Master Plan project consists of the development of both single-family and multi-family residential dwelling units.

Per §120.05.060 of the City of Eastvale Municipal Code, the following parking requirement have been identified for single-family and multi-family residential dwelling units respectively:

- Single Family Dwellings – 2 spaces per dwelling unit;
- Multi-Family Dwellings
    - Single Bedroom Dwelling Unit – 1.25 spaces per unit;
    - Two Bedroom Dwelling Unit – 2.25 spaces per unit; and
    - Three or More Bedroom Dwelling Unit – 2.75 spaces per unit.

Other Local Agencies Residential Parking Requirements

The parking requirement for a development is typically estimated using the respective city's rates outlined in their municipal code or other documented sources.

To determine an adequate parking rate, parking rates from a total of 38 comparable cities in the Inland Empire were utilized in this study. The municipal code from each city was reviewed to determine parking rates based on the residential dwelling unit type (i.e., multi-family and single-family). From this, the 85th percentile parking requirements were utilized

from all cities surveyed. The 85th percentile parking ratio is identified by the ITE (Institute of Transportation Engineers) Parking Generation Manual publication as an acceptable and common methodology when combining parking ratios from multiple sources and represents a conservative calculation.

A compiled list of the cities utilized is shown in Table 1:

Table 1
Inland Empire Study Cities

County of Riverside	County of San Bernardino
Banning	Adelanto
Beaumont	Apple Valley
Calimesa	Barstow
Canyon Lake	Big Bear Lake
Corona	Chino
Hemet	Chino Hills
Jurupa Valley	Colton
Lake Elsinore	Fontana
Menifee	Grand Terrace
Moreno Valley	Hesperia
Murrieta	Highland
Norco	Loma Linda
Perris	Montclair
Riverside	Ontario
San Jacinto	Rancho Cucamonga
Temecula	Redlands
Wildomar	Rialto
	San Bernardino
	Upland
	Victorville
	Yucaipa

[1] Thirty-eight (38) cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC) Source: https://mmasc.org/163/Inland-Empire-Region

Table 2 shows a summary of Eastvale's parking rate, the 85th percentile parking rate, and the recommended parking rates. The recommended parking rate was calculated using the 85th percentile parking rate.

The calculations yielding the 85th percentile parking rate per dwelling unit type can be seen in Appendix A.

Table 2
Parking Ratio Summary

Dwelling Unit Type[1]		City of Eastvale Parking Rate	85th Percentile Parking Rate[2]	Recommended Parking Rates	Proposed Parking Rate Increase
Multi-family	1-Bed	1.25	2.36	2.36	+1.11
	2-Bed	2.25	2.36	2.36	+0.11
	3-Bed	2.75	2.90	2.90	+0.15
	4-Bed	2.75	3.29	3.29	+0.54
	5-Bed	2.75	3.29	3.29	+0.54
Single-Family (Attached and Detached)[3]		2.00	2.00	2.20	+0.20

[1] Each dwelling unit type will have a 2-car garage.
[2] Source : https://mmasc.org/163/Inland-Empire-Region. 38 cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC).

[3] The Recommended Parking Rates (for Single-Family) consist of the base requirement of "2.00 spaces per unit" plus an additional 0.2 guest parking spaces per unit. Typically, guest spaces are not included in the parking rates for Single-Family homes since it is assumed that there is off-street parking available. However, in the Leal Master Plan, guest parking will be provided within each planning area. Hence, this recommended rate allows for one guest space for every five units.

Based on the research, the City of Eastvale's multifamily parking rates are consistently lower than the calculated 85th percentile parking rates from other cities in the Inland Empire. Therefore, to be conservative, the recommended parking rates for the multifamily land uses are based on the 85th percentile parking rates, and would appropriately serve the proposed project.

The recommended single-family parking rate is higher than both Eastvale's and the 85th percentile parking rate. According to the Urban Land Institute (ULI) Third Edition Shared Parking, dated 2020, residential land uses utilize a 0.10 parking rate for visitors during the weekday and 0.15 during the weekend. The project utilizes an additional 0.20 guest parking spaces per unit as a conservative approach.

Parking Management Plan

The following Parking Management Plan (PMP) applies to all Planning Areas within Phase A and will be incorporated into the rules and regulations portion of the homeowner's association adopted Declaration of Covenants, Conditions, and Restrictions (CC&Rs). The purpose of the PMP is to outline the best practices (objectives, policies, and enforcement) to optimize parking for each residential planning area. Each dwelling unit will be equipped with a 2-car garage which is required to be used by residents. All other parking will be marked as parking spaces for guests only.

DEFINITIONS

The following definitions of terms are provided for this Parking Management Plan.

1. Association: Association means Association, which is the homeowners association formed under California *Civil Code* section 4080 to operate and manage the residential elements of the community, its successors and assigns.

2. Authorized Vehicle: The following vehicles are Authorized Vehicles: standard passenger vehicles including, without limitation, automobiles, passenger vans designed to accommodate ten (10) or fewer people, motorcycles and pickup trucks having a manufacturer's rating or payload capacity of one (1) ton or less.

3. Prohibited Vehicle: The following vehicles are "Prohibited Vehicles": (i) recreational vehicles (e.g., motorhomes, travel trailers, camper vans, boats, etc.), (ii) commercial-type vehicles (e.g., stake bed trucks, tank trucks, dump trucks, step vans, concrete trucks, limousines, etc.), (iii) buses or vans designed to accommodate more than ten (10) people, (iv) vehicles having more than two (2) axles, (v) trailers, inoperable vehicles or parts of vehicles, (vi) aircraft, other similar vehicles or any vehicle or vehicular equipment deemed a nuisance by the Board, (vii) any vehicles or vehicular equipment deemed a nuisance by the Board, and (viii) any other vehicles not classified as an Authorized Vehicle.

4. Parking Permit: An Association issued vehicle specific permit to a Resident which, when properly applied to and displayed, authorizes a vehicle to park in the areas designed for parking by permit only.

5. Parking Pass: An Association-issued, and vehicle-specific, temporary parking permission for Guests, which, when properly applied to and displayed, authorizes a vehicle to temporarily park in the areas designed for guest parking.

6. Resident: Any owner, tenant, or resident of the Association

7. Guest: An authorized person visiting the property that does not reside in the community.

8. Safelist: The recording of specific vehicle information for the purpose of temporarily exempting a vehicle from enforcement measures related to selected parking restrictions for a predetermined period of time.

PARKING SPACES

Parking spaces are classified as resident parking spaces and guest parking spaces. Generally, resident parking spaces occur within the resident's garage. Guest parking spaces are provided within common uncovered parking areas. Additionally, public parking spaces are provided within the community and available for public parking. The types of parking spaces are further described below.

RESIDENT PARKING AREAS

Each dwelling unit includes an enclosed two-car garage for resident parking. The Association shall adopt and administer a parking inspection program to ensure resident garages are free and clear of obstructions and available for resident parking.

GUEST PARKING AREAS

Guest parking areas are provided within uncovered surface parking areas within each Planning Area and within the uncovered surface parking area for the private recreation/park areas and Lots B and C.

PUBLIC PARKING AREAS

Residential collector streets "A", "B", and "C" are public streets that allow for on-street parking during the daytime hours. The streets will be signed to prohibit overnight parking. Vehicles in violation will be towed. The public parking on the collector streets is available to residents, guests, park users, and commercial users.

RESIDENT PARKING RESTRICTIONS

Residents shall register their Authorized Vehicles with the Association's management company. Residents will be provided with a resident Parking Permit to be displayed in accordance with the Association's rules and regulations (e.g., shall be affixed to the window or be displayed from the vehicle's rear-view mirror). The validity of a Parking Permit which has been issued by the Association shall depend on adherence to the Association's rules and regulations. The issuance of Parking Permits shall be vehicle and property address specific. Parking Permits shall be renewed annually or less frequently as may be set forth in the Association's rules and regulations.

Residents shall park in their enclosed garage spaces. Residents shall not be permitted to park in guest parking spaces. Residents with a valid resident Parking Permit may park in the private recreation/park parking area during the daytime hours, generally 6AM to 10PM. Any Resident parking in a guest parking space at any time, or in the private recreation/park parking area during nighttime hours, is subject to citation and/or towing.

GUEST PARKING RESTRICTIONS

Parking in guest parking areas is not permitted without the Authorized Vehicle being registered on the Safelist and the vehicle displaying a valid parking pass. To register an Authorized Vehicle on the Safelist, a Resident must contact the Association's management company and provide the vehicle make, model, color, and license plate number of the guest vehicle. The management company will provide the Resident a temporary parking pass to be displayed on the dashboard of the Guest vehicle. Residents shall be permitted to safelist an Authorized Vehicle a maximum of ten (10) times (days) per calendar month. Special exceptions will be made for Residents during the "moving in" period. During this period, a Resident vehicle may be placed on the safelist for up to 60 days from the close of the escrow date or execution of the lease agreement date to create space in the garage for Resident parking.

An Authorized Guest Vehicle may park overnight in a guest parking space according to the term of the temporary parking pass. Guests are permitted to park in the private recreation/park parking areas between the hours of 9 AM to 9 PM. After 9 PM, vehicles parked in the private recreation/park parking areas are subject to enforcement actions including citation and/or towing.

The residential collector streets "A", "B", and "C" will be marked for no overnight parking by any vehicle, including Authorized Guest Vehicles and Residents, and violators would be subject to citation and/or towing.

Lot B and Lot C are located along the western boundary of the project site adjacent to PA 1 and PA 7A, near Scholar Way, and will provide parking spaces for guests. All parking in Lot B and Lot C will be restricted to registered guests on the Safelist and require that the vehicle display a valid parking pass. Parking passes for Lot B and Lot C should only be provided to guests for PA 1.

ENFORCEMENT

Patrols hired by the Association will occur at random days and times overnight in marked patrol vehicles. The officers will verify permits, check for violations, and issue citations or call for the towing of the vehicle.

1. In the event that any vehicle is found to be in violation of any provisions of these guidelines, or the Association's rules and regulations, such vehicle will be cited and immediately towed, without any further warning. No exceptions or grace periods will apply to "Immediate Tow Offenses".

2. In the event that any vehicle is found to be in violation of any provision of these guidelines other than those provisions specifically identified as an "Immediate Tow Offense", such vehicles will be subject to the following enforcement measures:

- A written citation will be issued to the offending vehicle disclosing the nature of the violation, and that such vehicle is subject to towing at the vehicle owner's expense immediately upon discovery of the vehicle in subsequent violation of the same provision within the period as specified in the Association's rules and regulations (e.g., more than once within the same calendar year).

- No less than 72-hours shall pass prior to the vehicle being subsequently observed for compliance with the originally violated provision.

- In the event that the vehicle is again found to be in violation of the same provision or the guidelines within the period specified in the Association's rules and regulations, a second citation will be issued to the vehicle, at which

time the vehicle may be immediately towed at the vehicle owner's expense without additional warning.

Additional Parking Management Features

The Parking Management Plan and additional parking management features, as described below, will help further reduce parking demand on the project site.

A. Available Public Transit

To reduce the demand for parking, the Leal Master Plan proposes recommendations for alternative modes of transportation. These may include public transit, bike lanes, and pedestrian routes. Leal Master Plan includes the buildout of internal sidewalks so pedestrians can access bus stops.

Based on the "Falling Transit Ridership: California and Southern California" report prepared for the Southern California Association of Government, dated January 2018, public transit accounted for approximately 5% of trips in the SCAG area in 2012. The availability of alternative modes of transportation would allow users to access the project without the need for a passenger car and individual parking space.

The report prepared for SCAG can be seen in Appendix B.

Riverside Transportation Authority (RTA) Bus Lines 3 and 29 have five (5) stops available within one-quarter (1/4) mile of the project site. Every RTA bus is equipped with at least two bike racks that are free to use and are accepted on a first-come, first-serve basis.

More information and specific bus schedules can be found at https://www.riversidetransit.com/index.php/riding-the-bus/maps-schedules.

Omnitrans Route 87 has two (2) stops located approximately one-half mile away from the project site. Omnitrans buses are also equipped with bicycle racks that are free to use and are accepted on a first-come, first-serve basis.

More information and specific bus schedules can be found at https://omnitrans.org/plan-a-trip/routes-schedules/.

Leal Master Plan contemplates an additional bus stop within the project that will be serviced by the Riverside Transit Authority (RTA). Additional bus stops are at the discretion of the RTA, however, given the commercial activity center and number of residents, an additional stop appears warranted. This addition will further public transit access by the residents living in this community and will allow guests to be able to use the bus to visit.

B. Available Bike Racks

Based on a study by The League of American Bicyclists, dated 2021, approximately 0.71% of commuters bike in the County of Riverside. The project shall provide bicycle racks throughout the planning areas. This will encourage the use of alternative modes of transportation and reduce parking demand.

The study by The League of American Bicyclists can be seen in Appendix C.

C. Improve Transit Access, Safety, and Comfort

The California Air Pollution Control Officers Association (CAPCOA) released a handbook for quantifying greenhouse gas (and vehicle miles traveled) mitigation measures. From this handbook, measure SDT-1 is applicable to the project due to the buildout and improvement of the pedestrian network. The project will include pedestrian network improvements within the project site and connecting offsite in an urban/suburban area, therefore a 2% estimated VMT reduction is allowed per CAPCOA guidelines. Although this 2% is for VMT reduction, the same proportionality can be applied to reduce parking because of the increase in available alternative modes of transportation.

D. Resident Safelist

Residents cannot park in guest spaces as described in the Parking Management Plan, above.

E. Community Outreach/Online Portal

The project's Homeowners Association (HOA) shall provide an online portal with local transit and multi-modal transit facilities/infrastructure information, as well as current maps, routes, and schedules for public transit.

F. Two-Car Garage Features

Each residential dwelling is equipped with a 2-car garage. It is common for residents to use their garages for extra storage space or as an at-home gym which leads to insufficient space to park their vehicles. The design of the dwelling units incorporates storage in order to facilitate residents parking vehicles in the garage spaces. For example, the City of Eastvale requires a length of 36 feet for a tandem-style parking garage, however, the Leal Master Plan has designed garages to exceed minimum requirements at varying lengths. This allows for additional storage space to be utilized in every garage. Additionally, the garages have been designed to accommodate overhead storage racks and wall-mounted bicycle racks, which will also allow residents to maximize their garage space at their discretion.

G. Guest Safelist Program

The guest safelist program is described in the Parking Management Plan, above.

H. Ride-Hailing Zones

Ride-Hailing Zones are anticipated to occur within the commercial portions of the Leal Master Plan area. The ride-hailing zones are designed to reduce congestion, improve safety, and enhance the overall ride-hailing experience for both drivers and passengers. This provides another alternative mode of transportation which is similar to public transit and will help reduce the overall parking demand for the project.

Phase A – Parking Requirements by Planning Area

Table 3: Leal Master Plan 2022: Planning Area 1
Parking Calculation

Dwelling Unit Type		Number of Dwelling Units	City of Eastvale Municipal Code 120.05.060 Parking Code	City of Eastvale Parking Requirements			85th Percentile Parking Rate[1]	85th Percentile Parking Requirements			Recommended Parking Rates	Recommended Parking Requirements		
				Resident-Only Parking	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking
Multi-Family	1-Bed	16	"1.25 spaces per unit"	16	4	20	2.36	32	6	38	**2.36**	32	6	38
	2-Bed	72	"2.25 spaces per unit"	144	18	162	2.36	144	26	170	**2.36**	144	26	170
	3-Bed	80	"2.75 spaces per unit"	160	60	220	2.90	160	72	232	**2.90**	160	72	232
	Subtotal	168	--	320	82	402		336	104	440		336	104	440
Blended Rate			" 2.39 spaces per unit"				2.62				**2.62**			

[1] Sourced from 38 comparable cities in the San Bernardino / Riverside County areas.

Table 4: Leal Master Plan 2022: Planning Area 6
Parking Calculation

Dwelling Unit Type		Number of Dwelling Units	City of Eastvale Municipal Code 120.05.060 Parking Code	City of Eastvale Parking Requirements			85th Percentile Parking Rate[1]	85th Percentile Parking Requirements			Recommended Parking Rates[2]	Recommended Parking Requirements		
				Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking
Single-Family (Attached)	3-Bed	58	"2.00 spaces per unit"	116	0	116	2.00	116	0	116	**2.20**	116	12	128
	4-Bed	42	"2.00 spaces per unit"	84	0	84	2.00	84	0	84	**2.20**	84	8	92
	Subtotal	100	--	200	0	200		200	0	200		200	20	220
Blended Rate			" 2 spaces per unit"				2.00				**2.20**			

[1] Sourced from 38 comparable cities in the San Bernardino / Riverside County areas.

[2] The recommended rates include the base "2.00 spaces per unit" along with an additional 0.2 spaces per unit for guest parking. Single-Family parking rates generally do not include guest spaces because it's assumed that off-street parking is available. Leal Master Plan does not allow intra-street parking therefore this rate allows one guest space for every 5 units.

Table 5: Leal Master Plan 2022: Planning Area 7A

Parking Calculation Table

Dwelling Unit Type		Number of Dwelling Units	City of Eastvale Municipal Code 120.05.060 Parking Code	City of Eastvale Parking Requirements			85th Percentile Parking Rate[1]	85th Percentile Parking Requirements			Recommended Parking Rates[2]	Recommended Parking Requirements		
				Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking
Single-Family (Detached)	3-Bed	60	"2.00 spaces per unit"	120	0	120	2.00	120	0	120	**2.20**	120	12	132
	4-Bed	34	"2.00 spaces per unit"	68	0	68	2.00	68	0	68	**2.20**	68	7	75
	Subtotal	94	--	188	0	188		188	0	188		188	19	207
		Blended Rate	" 2 spaces per unit"				2.00				**2.20**			

[1] Sourced from 38 comparable cities in the San Bernardino / Riverside County areas.

[2] The recommended rates include the base "2.00 spaces per unit" along with an additional 0.2 spaces per unit for guest parking. Single-Family parking rates generally do not include guest spaces because it's assumed that off-street parking is available. Leal Master Plan does not allow intra-street parking therefore this rate allows one guest space for every 5 units.

Table 6: Leal Master Plan 2022: Planning Area 8

Parking Calculation Table

Dwelling Unit Type		Number of Dwelling Units	City of Eastvale Municipal Code 120.05.060 Parking Code	City of Eastvale Parking Requirements			85th Percentile Parking Rate[1]	85th Percentile Parking Requirements			Recommended Parking Rates[2]	Recommended Parking Requirements		
				Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking		Resident-Only Parking (2-Car Garage)	Guest Parking	Total Required Parking
Single-Family (Attached)	3-Bed	38	"2.00 spaces per unit"	76	0	76	2.00	76	0	76	**2.20**	76	8	84
	4-Bed	38	"2.00 spaces per unit"	76	0	76	2.00	76	0	76	**2.20**	76	8	84
	Subtotal	76	--	152	0	152		152	0	152		152	16	168
		Blended Rate	"2 spaces per unit"				2.00				**2.20**			

[1] Sourced from 38 comparable cities in the San Bernardino / Riverside County areas.

[2] The recommended rates include the base "2.00 spaces per unit" along with an additional 0.2 spaces per unit for guest parking. Single-Family parking rates generally do not include guest spaces because it's assumed that off-street parking is available. Leal Master Plan does not allow intra-street parking therefore this rate allows one guest space for every 5 units.

Table 7
Leal Master Plan 2022: Phase A
Required/Provided Parking Summary

Planning Area	No. of Units	Total Required Parking[1]	Parking Provided in Garages	Guest Parking Provided	Total Parking Provided	Surplus
PA 1	168	440	336	63	399	- -
Lot B[2]	- -	- -	- -	*32*	*32*	- -
Lot C[2]	- -	- -	- -	*20*	*20*	- -
PA 1 Subtotal	168	440	336	115	451	11
PA 6	100	220	200	38	238	18
PA 7A	94	207	188	20	208	1
PA 8	76	168	152	27	179	11
Private Recreation (Lot L)	NA	NA	NA	39	39	39
Private Recreation (Lot K)	NA	NA	NA	29	29	29
Total	**438**	**1,035**	**876**	**268**	**1,144**	**109**

1. Total required parking is based on the 85th percentile parking rate from 38 comparable cities in the San Bernardino / Riverside County areas.
2. Parking in Lot B and C will be restricted to guests only for Planning Area 1.

Conclusions

RK Engineering Group, Inc. has completed this Parking Review and Parking Management Plan for Phase A – Planning Areas 1, 6, 7A, and 8. Through this analysis, parking rates applicable to Phase A exceed the City of Eastvale's currently adopted parking standards. A Parking Management Plan places enforceable restrictions on both guest and resident parking, ensuring adequate parking is provided.

Furthermore, Phase A will provide more parking than required by the parking rates established in this study. The HOA shall be responsible for clearly informing potential new residents of the rules and regulations regarding parking in place by integrating PMP features into the CC&Rs of the community.

The HOA will also be responsible for updating, managing, and enforcing all PMP features whether that be through ongoing performance evaluations or program revisions. The HOA can enforce the PMP features through ongoing monitoring of parking adequacy and issuing citations to violators. All residents must be informed of any changes made to the rules and regulations.

RK Engineering Group, Inc. appreciates this opportunity to assist THE NEW HOME COMPANY with this project. If you have any questions regarding this study, please do not hesitate to contact us at (949) 474-0809.

Sincerely,

RK ENGINEERING GROUP, INC.

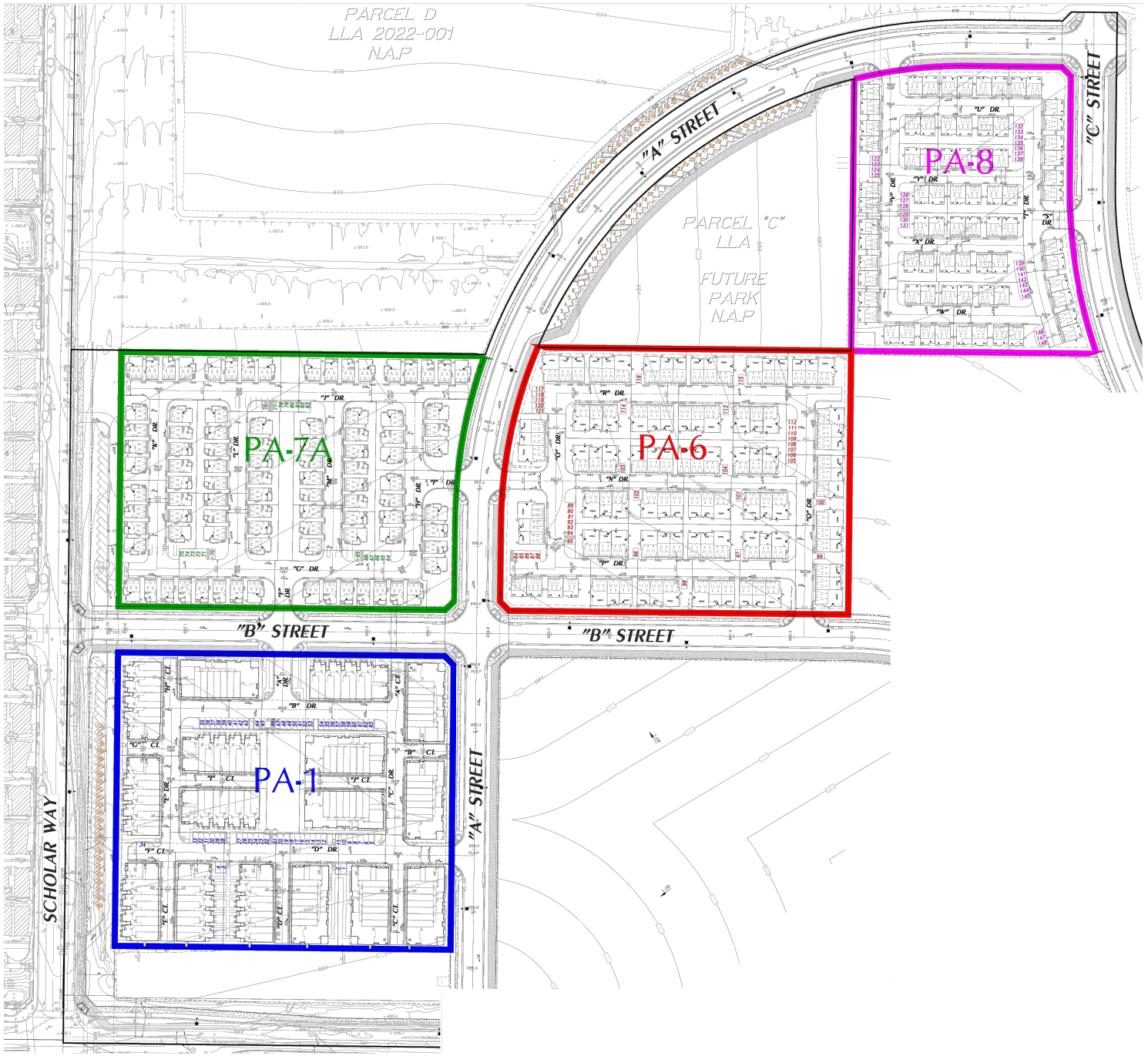
Rogier Goedecke
President

Michael Torres, EIT
Engineer II

Exhibits

Exhibit A

Site Plan



N

RK engineering group, inc.

Appendices

Appendix A

Raw Parking Data from Surveyed Cities

Table 1: Inland Empire Cities[1] & Published Sources[2]
Single-Family Housing Parking Rates

Agency/Publication	County	Source	Parking Code	Parking Rate
1. Adelanto	San Bernardino	§17.65.060 - City of Adelanto, CA Municpal Code	"2-car enclosed garage for each unit."	2.0
2. Apple Valley	San Bernardino	§9.72.020 - City of Apple Valley, CA Municipal Code	"2-car enclosed garage per unit."	2.0
3. Banning	Riverside	§17.28.040 - City of Banning, CA Muncipal Code	"Two covered spaces within an enclosed garage."	2.0
4. Barstow	San Bernardino	§19.06.050 - City of Barstow, CA Municipal Code	"Each dwelling unit permitted in this district shall have on the same lot two enclosed parking spaces."	2.0
5. Beaumont	Riverside	§17.05.040 - City of Beaumont, CA Muncipal Code	"2 enclosed spaces/unit…"	2.0
6. Big Bear Lake	San Bernardino	§17.25.070 - City of Big Bear Lake, CA Municipal Code	"Single-family detached residential dwelling units in any zone shall be provided with a minimum of two parking spaces."	2.0
7. Calimesa	Riverside	§18.45.060 - City of Calimesa, CA Municipal Code	"2 covered spaces within an enclosed garage."	2.0
8. Canyon Lake[3]	Riverside			
9. Chino	San Bernardino	§20.18.030 - City of Chino, CA Municipal Code	"2 garage spaces per dwelling"	2.0
10. Chino Hills	San Bernardino	§16.34.060 - City of Chino Hills, CA Muncipal Code	"Up to 3,100 SF - 4 spaces (2 must be in a garage) 3,101 - 6,000 SF - 5 spaces (3 must be in a garage) 6,001 and above - 6 spaces (4 must be in a garage)"	4.0
11. Colton	San Bernardino	§18.12.170 - City of Colton, CA Muncipal Code	"There shall be no less than two parking spaces in the form of a garage for every dwelling unit…"	2.0
12. Corona	Riverside	§17.76.030 - City of Corona, CA Muncipal Code	"2 covered spaces within an enclosed garage"	2.0
13. Fontana	San Bernardino	§30-685 - City of Fontana, CA Municipal Code	"Two-car garage, for up to four-bedrooms Three-car garage, for five and six bedrooms and one garage space for every two bedrroms over six bedroooms."	2.0
14. Grand Terrace	San Bernardino	§18.60.030 - City of Grand Terrace, CA Municipal Code	"Two parking spaces for each residential unit…"	2.0
15. Hemet	Riverside	§90-1423 - City of Hemet, CA Municpal Code	"2 spaces in a garage or carport"	2.0
16. Hesperia	San Bernardino	§16.20.080 - City of Hesperia, CA Municipal Code	"1-4 bedrooms: 2-car garage 5 or more bedrooms: 3-car garage"	2.0
17. Highland	San Bernardino	§15.52.030 - City of Highland, CA Municipal Code	"2.0 spaces per unit."	2.0
18. Jurupa Valley	Riverside	§9.240.120 - City of Jurupa Valley, CA Municipal Code	"2 spaces/dwelling unit"	2.0
19. Lake Elsinore	Riverside	§17.148.030 - City of Lake Elsinore, CA Municipal Code	" Two spaces per dwelling unit in a garage, plus two open spaces"	2.0
20. Loma Linda	San Bernardino	§17.24.060 - City of Loma Linda, CA Municipal Code	"One-family dwellings shall be provided with two garage spaces."	2.0
21. Menifee	Riverside	§9.215.040 - City of Menigee, CA Development Code	"2 spaces per dwelling unit"	2.0
22. Montclair	San Bernardino	§11.66.010 - City of Montclair, CA Municipal Code	"2 covered spaces within an enclosed garage."	2.0
23. Moreno Valley	Riverside	§9.11.040 - City of Moreno Valley, CA Municipal Code	"2/unit"	2.0
24. Murrieta	Riverside	§16.34.040 - City of Murrieta, CA Municipal Code	"Two spaces in a fully enclosed garage."	2.0
25. Norco	Riverside	§18.38.10 - City of Norco, CA Municipal Code	"A private garage, accommodating not less than two parking spaces for each dwelling."	2.0
26. Ontario	San Bernardino	§9-1.3010 - City of Ontario, CA Municipal Code	"2 spaces within an enclosed garage"	2.0
27. Perris	Riverside	§19.69.020 - City of Perris, CA Municipal Code	"a. Single-family 1. Light agricultural zone: Two spaces, one within a garage. 2. Rural residential/agricultural zone: Two spaces, one within a garage. 3. Detached residential, R-4 zone: Two garage spaces. 4 . Detached Residential, R-7 zone: Two garage spaces."	2.0
28. Rancho Cucamonga	San Bernardino	§17.64.050 - City of Rancho Cucamonga, CA Municipal Code	"2 per unit"	2.0
29. Redlands	San Bernardino	§18.164.080 - City of Redlands, CA Municipal Code	"there shall be not less than two (2) covered parking spaces in a garage or carport for every dwelling unit."	2.0
30. Rialto	San Bernardino	§18.58.060 - City of Rialto, CA Municipal Code	" Two parking spaces within an enclosed garage.	2.0
31. Riverside	Riverside	§19.580.060 - City of Riverside, CA Municipal Code	"2 spaces within a private garage/dwelling unit"	2.0
32. San Bernardino	San Bernardino	§19.24.040 - City of San Bernardino, CA Municipal Code	"2 covered spaces within an enclosed garage"	2.0
33. San Jacinto	Riverside	§17.330.050 - City of San Jacinto, CA Off-Street Parking and Loading Standards	"2 enclosed spaces for up to 4 bedrooms, and 3 enclosed spaces for 5 or more bedrooms."	2.0
34. Temecula	Riverside	§17.24.040 - City of Temecula, CA Municipal Code	"2 enclosed spaces"	2.0
35. Upland	San Bernardino	§17.11.030 - City of Upland, CA Municipal Code	"2 within a garage"	2.0
36. Victorville	San Bernardino	§16-3.21.030 - City of Victorville, CA Municipal Code	"2 spaces within an enclosed garage"	2.0
37. Wildomar	Riverside	§17.188.030 - City of Wildomar, CA Municipal Code	"2 spaces per dwelling unit in an enclosed garage or covered carport onsite"	2.0
38. Yucaipa[3]	San Bernardino			
39. Urban Land Institute (ULI)[2,3]	- -	- -	- -	- -
40. Institute of Transportation Engineers (ITE)[2]	- -	- -	- -	- -
			Average Single-Family Housing Parking Rate	2.06
			85th Percentile Single-Family Housing Parking Rate	2.00
			95th Percentile Single-Family Housing Parking Rate	2.00
			City of Eastvale Municipal Code §120.05.060 Parking Rate	2.00

[1] Cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC) Source: https://mmasc.org/163/Inland-Empire-Region

[2] ULI Source: Shared Parking, Third Edition, Urban Land Institute, February 2020;

Table 2: Inland Empire Cities[1] & Published Sources[2]
Multi-Family Housing (1-Bedroom) Dwelling Unit Parking Rates

Agency/Publication	County	Source	Parking Code	Resident Parking Rate	Visitor Parking Rate	Net Parking Rate
1. Adelanto	San Bernardino	§17.65.060 - City of Adelanto, CA Municpal Code	"2 spaces per unit,…plus 1 guest space for every 2 dwelling units"	2.0	0.5	2.5
2. Apple Valley	San Bernardino	§9.72.020 - City of Apple Valley, CA Municipal Code	"a. Small Projects (2-8 units): A two (2) car garage, plus 1 uncovered guest space per unit. b. Medium Projects (9-15 units): 1 covered and 1.5 uncovered space per unit c. Large Projects (16 units or greater): 1 covered and 1.25 uncovered guest spaces per units."	1.0	1.25	2.25
3. Banning	Riverside	§17.28.040 - City of Banning, CA Muncipal Code	"One covered parking space per unit, plus one uncovered guest space for every 4 units"	1.0	0.25	1.25
4. Barstow	San Bernardino	§19.06.050 - City of Barstow, CA Municipal Code	"Each dwelling unit permitted with one or more bedrooms in this district shall have on the same lot two parking spaces…An additional ten percent of the required parking shall be set aside for visitor parking."	2.0	0.2	2.2
5. Beaumont	Riverside	§17.05.040 - City of Beaumont, CA Muncipal Code	"1.25 spaces per unit..."	1.25	0.0	1.25
6. Big Bear Lake	San Bernardino	§17.25.070 - City of Big Bear Lake, CA Municipal Code	"d. Parking for Large-Scale Multiple Family Residential Uses (Six or More Dwelling Units). 1. Multiple-family residential projects with six or more dwelling units…shall provide a minimum of one parking space for each…one-bedroom unit; 2. In addition to required parking for residents, each multiple family project shall provide a minimum of two guest parking spaces for each four units up to twelve (12) units; one space for each four units for the thirteenth (13th) to the forty-eight (48th) unit; and one space for each additional six units above forty-eight (48) units."	1.0	Units (1-12): 0.5 Units (13-48): 0.25 Units (48+): 0.17	1.5 1.25 1.17
7. Calimesa	Riverside	§18.45.060 - City of Calimesa, CA Municipal Code	"1 covered space per unit plus 1 uncovered guest space for each 5 units."	1.0	0.2	1.2
8. Canyon Lake	Riverside	§9.20.040 City of Canyon Lake, CA Development Standards	"(j) Parking standards (1) SRO/efficiency, studio, and 1-bedroom units: one covered parking space. (5) Multi-family developments of ten or more dwelling units shall provide one visitor space for every ten dwelling units."	1.0	Units (<9): 0 Units (10+): 0.10	0 1.10
9. Chino	San Bernardino	§20.18.030 - City of Chino, CA Municipal Code	"1-Bedroom Units: 1.5 covered spaces per dwelling, Guest Parking: 1 space for every 10 dwelling units"	1.5	0.1	1.6
10. Chino Hills	San Bernardino	§16.34.060 - City of Chino Hills, CA Muncipal Code	"2-car garage or carport for each unit, plus one guest space for every 2 dwelling units"	2.0	0.5	2.5
11. Colton	San Bernardino	§18.16.180 - City of Colton, CA Muncipal Code	"a minimum one car garage or carport… Where there are six or more Dwelling Units on one lot, there shall be an additional one-half Unenclosed Space per Dwelling Unit for Guest parking."	1.0	Units (<6): 0 Units (6+): 0.5	1.0 1.5
12. Corona	Riverside	§17.76.030 - City of Corona, CA Muncipal Code	"2 covered spaces/unit, plus 1 uncovered guest space/5 units"	2.0	0.2	2.2
13. Fontana	San Bernardino	§30-685 - City of Fontana, CA Municipal Code	"One garage space with one-half open parking space is required for each unit... Guest parking: One parking space is required for each three units, with a minimum of three parking spaces provided"	1.5	0.33	1.83
14. Grand Terrace	San Bernardino	§18.60.030 - City of Grand Terrace, CA Municipal Code	"Two parking spaces for each one-, two- or three bedroom unit. Guest parking shall be provided at a ratio of 0.25 spaces for each residential unit"	2.0	0.25	2.25
15. Hemet	Riverside	§90-1423 - City of Hemet, CA Municpal Code	"1.5 spaces for…each 1-bedroom unit…Plus 1 uncovered space for each 5 dwelling units for visitors."	1.5	0.2	1.7
16. Hesperia	San Bernardino	§16.20.080 - City of Hesperia, CA Municipal Code	"1 bedroom: 1.75 spaces/unit Guest parking: 0.25 spaces/unit"	1.75	0.25	2.0
17. Highland	San Bernardino	§15.52.030 - City of Highland, CA Municipal Code	"1 bedroom: 1.5 spaces per unit Guest parking: 0.3 space per unit"	1.5	0.3	1.8
18. Jurupa Valley	Riverside	§9.240.120 - City of Jurupa Valley, CA Municipal Code	"Single bedroom…unit: 1.25 spaces/unit"	1.25	0.0	1.25
19. Lake Elsinore	Riverside	§17.148.030 - City of Lake Elsinore, CA Municipal Code	"one covered space, plus two-thirds open space per dwelling unit"	1.67	0.0	1.67
20. Loma Linda	San Bernardino	§17.24.060 - City of Loma Linda, CA Municipal Code	"One-bedroom unit, 1.5 parking spaces per unit;… In addition, a minimum of 0.25 spaces per bedroom shall be provided for guest parking."	1.5	0.25	1.75
21. Menifee	Riverside	§9.215.040 - City of Menigee, CA Development Code	"1.00 spaces per unit… Residential guest: 1 space per each 10 dwelling units"	1.0	0.1	1.1
22. Montclair	San Bernardino	§11.66.010 - City of Montclair, CA Municipal Code	"For each one-bedroom unit, one and one-fourth spaces"	1.25	0.0	1.25
23. Moreno Valley	Riverside	§9.11.040 - City of Moreno Valley, CA Municipal Code	"1.5/unit… Guest parking is required for all units at 0.25 spaces/unit."	1.5	0.25	1.75
24. Murrieta	Riverside	§16.34.040 - City of Murrieta, CA Municipal Code	"1.5 spaces for each unit… guest parking equal to 25% of the total number of units."	1.5	0.25	1.75
25. Norco	Riverside	§18.38.10 - City of Norco, CA Municipal Code	"Not less than two roofed parking spaces for each dwelling unit."	2.0	0.0	2.0
26. Ontario	San Bernardino	§9-1.3010 - City of Ontario, CA Municipal Code	"1.75 spaces per unit… <u>Guest Parking</u> (3-50 units): 1 space per 4 units (51-100 units): 1 space per 5 units (100+ units): 1 space per 6 units"	1.75	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	1.75 2.0 1.95 1.92
27. Perris	Riverside	§19.69.020 - City of Perris, CA Municipal Code	"One bedroom unit: 1.5 spaces… One guest parking space per five units."	1.5	0.2	1.7
28. Rancho Cucamonga	San Bernardino	§17.64.050 - City of Rancho Cucamonga, CA Municipal Code	"One bedroom: 1.5 per unit… <u>Visitor parking</u> <50 units: 1 per 3 units >50 units: 1 per 5 units"	1.5	0.33 0.20	1.83 1.7
29. Redlands	San Bernardino	§18.164.080 - City of Redlands, CA Municipal Code	"1 bedroom unit: 1 In addition, all multiple residential projects containing more than two (2) uits per lot of record shall provide one uncovered off-street parking space for each two (2) units or fraction thereof."	1.0	0.5	1.5
30. Rialto	San Bernardino	§18.58.060 - City of Rialto, CA Municipal Code	" A minimum of two parking spaces for each dwelling unit… In addition to the parking required…there there shall be a minimum of one guest parking space for every four dwelling units."	2.0	0.25	2.25
31. Riverside	Riverside	§19.580.060 - City of Riverside, CA Municipal Code	"1.5 spaces/dwelling unit"	1.5	0.0	1.5
32. San Bernardino	San Bernardino	§19.24.040 - City of San Bernardino, CA Municipal Code	"1.5 covered and 1 uncovered guest space for every 5 units."	1.5	0.2	1.7
33. San Jacinto	Riverside	§17.330.050 - City of San Jacinto, CA Off-Street Parking and Loading Standards	"1.5 spaces per unit… <u>Guest Parking</u> 0-10 units - none required 11-30 units - 0.25 spaces per unit 31-60 units - 0.20 spaces per unit 61 units and over - 0.166 spaces per unit"	1.5	0 0.25 0.20 0.166	1.5 1.75 1.7 1.666
34. Temecula	Riverside	§17.24.040 - City of Temecula, CA Municipal Code	"1 covered parking space plus 0.5 uncovered space parking space…in addition, 1 guest space for every 6 units."	1.5	0.17	1.67
35. Upland	San Bernardino	§17.11.030 - City of Upland, CA Municipal Code	"1 for each unit in a garage… Guest Parking: 3-50 units: 1 per 4 units; 51-100 units: 1 per 5 units; 100 + units: 1 per 6 units"	1.0	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	1.0 1.25 1.20 1.17
36. Victorville	San Bernardino	§16-3.21.030 - City of Victorville, CA Municipal Code	"2 spaces per unit - 1 space shall be covered"	2.0	0.0	2.0
37. Wildomar	Riverside	§17.188.030 - City of Wildomar, CA Municipal Code	"1.25 spaces/unit… Visitor parking: 15% of total required spaces"	1.25	0.19	1.44
38. Yucaipa	San Bernardino	§88.01305 - City of Yucaipa, CA Municipal Code	" Each one…bedroom dwelling shall be provided with two parking spaces… One open parking space for each two dwelling units shall be provided for guest parking."	2.0	0.5	2.5
39. Urban Land Institute (ULI)	- -	- -	- -	0.9	0.1	1.0
40. Institute of Transportation Engineers (ITE)	- -	- -	"Multifamily Housing (Low-Rise) (220) Peak Period Parking Demand vs: Bedrooms On a : Weekday (Monday - Friday)"	0.66	0.0	0.66
			Average 1-Bedroom Dwelling Unit Parking Rate	1.49	0.23	1.72
			85th Percentile 1-Bedroom Dwelling Unit Parking Rate	2.00	0.36	2.36
			95th Percentile 1-Bedroom Dwelling Unit Parking Rate	2.00	0.50	2.50
			City of Eastvale Municipal Code §120.05.060 Parking Rate	1.25	0.00	1.25

[1] Cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC) Source: https://mmasc.org/163/Inland-Empire-Region

[2] ULI Source: Shared Parking, Third Edition, Urban Land Institute, February 2020;
ITE Source: Parking Generation Manual 5th Edition, Institute of Transportation Engineers January 2020.

Table 3: Inland Empire Cities[1] & Published Sources[2]
Multi-Family Housing (2-Bedroom) Dwelling Unit Parking Rates

	Agency/Publication	County	Source	Parking Code	Resident Parking Rate	Visitor Parking Rate	Net Parking Rate
1.	Adelanto	San Bernardino	§17.65.060 - City of Adelanto, CA Municpal Code	"2 spaces per unit,…plus 1 guest space for every 2 dwelling units"	2.0	0.5	2.5
2.	Apple Valley	San Bernardino	§9.72.020 - City of Apple Valley, CA Municipal Code	"a. Small Projects (2-8 units): A two (2) car garage, plus 1 uncovered guest space per unit. b. Medium Projects (9-15 units): 1 covered and 1.5 uncovered space per unit c. Large Projects (16 units or greater): 1 covered and 1.25 uncovered guest spaces per units."	1.0	1.25	2.25
3.	Banning	Riverside	§17.28.040 - City of Banning, CA Muncipal Code	"Two covered parking spaces per unit, plus one uncovered guest parking space for every 4 units."	2.0	0.25	2.25
4.	Barstow	San Bernardino	§19.06.050 - City of Barstow, CA Municipal Code	"Each dwelling unit permitted with one or more bedrooms in this district shall have on the same lot two parking spaces…An additional ten percent of the required parking shall be set aside for visitor parking."	2.0	0.2	2.2
5.	Beaumont	Riverside	§17.05.040 - City of Beaumont, CA Muncipal Code	"2 spaces per unit"	2.00	0.0	2.00
6.	Big Bear Lake	San Bernardino	§17.25.070 - City of Big Bear Lake, CA Municipal Code	"d. Parking for Large-Scale Multiple Family Residential Uses (Six or More Dwelling Units). 1. Multiple-family residential projects with six or more dwelling units…shall provide a minimum of…two parking spaces per each two or three bedroom unit 2. In addition to required parking for residents, each multiple family project shall provide a minimum of two guest parking spaces for each four units up to twelve (12) units; one space for each four units for the thirteenth (13th) to the forty-eight (48th) unit; and one space for each additional six units above forty-eight (48) units."	2.0	Units (1-12): 0.5 Units (13-48): 0.25 Units (48+): 0.17	2.5 2.25 2.17
7.	Calimesa	Riverside	§18.45.060 - City of Calimesa, CA Municipal Code	"2 covered spaces per unit plus 1 uncovered guest space for each 5 units."	2.0	0.2	2.2
8.	Canyon Lake	Riverside	§9.20.040 City of Canyon Lake, CA Development Standards	"(j) Parking standards (2) Two-bedroom units: one covered parking space plus one uncovered parking space. (5) Multi-family developments of ten or more dwelling units shall provide one visitor space for every ten dwelling units."	2.0	Units (<9): 0 Units (10+): 0.10	0 2.10
9.	Chino	San Bernardino	§20.18.030 - City of Chino, CA Municipal Code	"2 or more bedroom units: 2 covered spaces per dwelling… Guest Parking: 1 space for every 10 dwelling units"	2.0	0.1	2.1
10.	Chino Hills	San Bernardino	§16.34.060 - City of Chino Hills, CA Muncipal Code	"2-car garage or carport for each unit, plus one guest space for every 2 dwelling units"	2.0	0.5	2.5
11.	Colton	San Bernardino	§18.16.180 - City of Colton, CA Muncipal Code	"There shall be no less than two parking spaces, in the form of enclosed garages, for every dwelling unit… Where there are six or more Dwelling Units on one lot, there shall be an additional one-half Unenclosed Space per Dwelling Unit for Guest parking."	2.0	Units (<6): 0 Units (6+): 0.5	2.0 2.5
12.	Corona	Riverside	§17.76.030 - City of Corona, CA Muncipal Code	"2 covered spaces/unit, plus 1 uncovered guest space/5 units"	2.0	0.2	2.2
13.	Fontana	San Bernardino	§30-685 - City of Fontana, CA Municipal Code	"Two garage spaces is required for each unit… Guest parking: One parking space is required for each three units, with a minimum of three parking spaces provided"	2.0	0.33	2.33
14.	Grand Terrace	San Bernardino	§18.60.030 - City of Grand Terrace, CA Municipal Code	"Two parking spaces for each one-, two- or three bedroom unit. Guest parking shall be provided at a ratio of 0.25 spaces for each residential unit"	2.0	0.25	2.25
15.	Hemet	Riverside	§90-1423 - City of Hemet, CA Municpal Code	"2 spaces for each 1-bedroom unit with den or more bedroom units…Plus 1 uncovered space for each 5 dwelling units for visitors."	2.0	0.2	2.2
16.	Hesperia	San Bernardino	§16.20.080 - City of Hesperia, CA Municipal Code	"2 bedroom: 2.25 spaces/unit Guest parking: 0.25 spaces/unit"	2.25	0.25	2.5
17.	Highland	San Bernardino	§15.52.030 - City of Highland, CA Municipal Code	"2 bedroom: 1.9 spaces per unit Guest parking: 0.3 space per unit"	1.9	0.3	2.2
18.	Jurupa Valley	Riverside	§9.240.120 - City of Jurupa Valley, CA Municipal Code	"Two bedrooms/dwelling unit: 2.25 spaces/unit"	2.25	0.0	2.25
19.	Lake Elsinore	Riverside	§17.148.030 - City of Lake Elsinore, CA Municipal Code	"For two or more bedrooms: one covered space, plus one and one-third open space per dwelling unit."	2.33	0.0	2.33
20.	Loma Linda	San Bernardino	§17.24.060 - City of Loma Linda, CA Municipal Code	"One-bedroom unit, 1.5 parking spaces per unit; Each additional bedroom, 0.5 additional parking spaces per bedroom. In addition, a minimum of 0.25 spaces per bedroom shall be provided for guest parking."	2.0	0.25	2.25
21.	Menifee	Riverside	§9.215.040 - City of Menigee, CA Development Code	"1.50 spaces per unit… Residential guest: 1 space per each 10 dwelling units"	1.5	0.1	1.6
22.	Montclair	San Bernardino	§11.66.010 - City of Montclair, CA Municipal Code	"for each two-bedroom dwelling unit, one and one-half spaces"	1.50	0.0	1.50
23.	Moreno Valley	Riverside	§9.11.040 - City of Moreno Valley, CA Municipal Code	"2.0/unit… Guest parking is required for all units at 0.25 spaces/unit."	2.0	0.25	2.25
24.	Murrieta	Riverside	§16.34.040 - City of Murrieta, CA Municipal Code	"Two bedrooms or more: 2 spaces for each unit, plus 0.5 additional spaces for each bedroom over 2… guest parking equal to 25% of the total number of units."	2.0	0.25	2.25
25.	Norco	Riverside	§18.38.10 - City of Norco, CA Municipal Code	"Not less than two roofed parking spaces for each dwelling unit."	2.0	0.0	2.0
26.	Ontario	San Bernardino	§9-1.3010 - City of Ontario, CA Municipal Code	"2 spaces per unit… <u>Guest Parking</u> (3-50 units): 1 space per 4 units (51-100 units): 1 space per 5 units (100+ units): 1 space per 6 units"	2.0	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.0 2.25 2.2 2.17
27.	Perris	Riverside	§19.69.020 - City of Perris, CA Municipal Code	"Two bedroom unit: 2 spaces… One guest parking space per five units."	2.0	0.2	2.2
28.	Rancho Cucamonga	San Bernardino	§17.64.050 - City of Rancho Cucamonga, CA Municipal Code	"Two bedroom: 2 per unit… <u>Visitor parking</u> <50 units: 1 per 3 units >50 units: 1 per 5 units"	2.0	0.33 0.20	2.33 2.2
29.	Redlands	San Bernardino	§18.164.080 - City of Redlands, CA Municipal Code	"2 bedroom unit: 1.5 In addition, all multiple residential projects containing more than two (2) uits per lot of record shall provide one uncovered off-street parking space for each two (2) units or fraction thereof."	1.5	0.5	2.0
30.	Rialto	San Bernardino	§18.58.060 - City of Rialto, CA Municipal Code	" A minimum of two parking spaces for each dwelling unit… In addition to the parking required…there there shall be a minimum of one guest parking space for every four dwelling units."	2.0	0.25	2.25
31.	Riverside	Riverside	§19.580.060 - City of Riverside, CA Municipal Code	"2 spaces/dwelling unit with 2 or more bedrooms"	2.0	0.0	2.0
32.	San Bernardino	San Bernardino	§19.24.040 - City of San Bernardino, CA Municipal Code	"2 covered and 1 uncovered guest space for every 5 units."	2.0	0.2	2.2
33.	San Jacinto	Riverside	§17.330.050 - City of San Jacinto, CA Off-Street Parking and Loading Standards	"1.75 spaces per unit… <u>Guest Parking</u> 0-10 units - none required 11-30 units - 0.25 spaces per unit 31-60 units - 0.20 spaces per unit 61 units and over - 0.166 spaces per unit"	1.75	0 0.25 0.20 0.17	1.75 2.0 1.95 1.92
34.	Temecula	Riverside	§17.24.040 - City of Temecula, CA Municipal Code	"1 covered parking space plus 1 uncovered parking space for 2 bedroom units. In addition, 1 guest space for every 6 units."	2.0	0.17	2.17
35.	Upland	San Bernardino	§17.11.030 - City of Upland, CA Municipal Code	"2 for each unit in a garage… Guest Parking: 3-50 units: 1 per 4 units; 51-100 units: 1 per 5 units; 100 + units: 1 per 6 units"	2.0	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.0 2.25 2.20 2.17
36.	Victorville	San Bernardino	§16-3.21.030 - City of Victorville, CA Municipal Code	"2 spaces per unit - 1 space shall be covered"	2.0	0.0	2.0
37.	Wildomar	Riverside	§17.188.030 - City of Wildomar, CA Municipal Code	"2.25 spaces/unit… Visitor parking: 15% of total required spaces"	2.25	0.34	2.59
38.	Yucaipa	San Bernardino	§88.01305 - City of Yucaipa, CA Municipal Code	"Each one or two bedroom dwelling shall be provided with two parking spaces… One open parking space for each two dwelling units shall be provided for guest parking."	2.0	0.5	2.5
39.	Urban Land Institute (ULI)	- -	- -	- -	1.65	0.1	1.8
40.	Institute of Transportation Engineers (ITE)	- -	- -	"Multifamily Housing (Low-Rise) (220) Peak Period Parking Demand vs: Bedrooms On a : Weekday (Monday - Friday)"	1.32	0.0	1.32
				Average 2-Bedroom Dwelling Unit Parking Rate	1.95	0.23	2.18
				85th Percentile 2-Bedroom Dwelling Unit Parking Rate	2.00	0.36	2.36
				95th Percentile 2-Bedroom Dwelling Unit Parking Rate	2.25	0.50	2.75
				City of Eastvale Municipal Code §120.05.060 Parking Rate	2.25	0.00	2.25

[1] Cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC) Source: https://mmasc.org/163/Inland-Empire-Region
[2] ULI Source: Shared Parking, Third Edition, Urban Land Institute, February 2020;
ITE Source: Parking Generation Manual 5th Edition, Institute of Transportation Engineers January 2020.

Table 4: Inland Empire Cities[1] & Published Sources[2]
Multi-Family Housing (3-Bedroom) Dwelling Unit Parking Rates

	Agency/Publication	County	Source	Parking Code	Resident Parking Rate	Visitor Parking Rate	Net Parking Rate
1.	Adelanto	San Bernardino	§17.65.060 - City of Adelanto, CA Municpal Code	"2 spaces per unit,…plus 1 guest space for every 2 dwelling units"	2.0	0.5	2.5
2.	Apple Valley	San Bernardino	§9.72.020 - City of Apple Valley, CA Municipal Code	"a. Small Projects (2-8 units): A two (2) car garage, plus 1 uncovered guest space per unit. b. Medium Projects (9-15 units): 1 covered and 1.5 uncovered space per unit c. Large Projects (16 units or greater): 1 covered and 1.25 uncovered guest spaces per units."	1.0	1.25	2.25
3.	Banning	Riverside	§17.28.040 - City of Banning, CA Muncipal Code	"Three or more bedrooms: Three covered parking spaces per unit, plus one uncovered guest parking space for every 4 units"	3.0	0.25	3.25
4.	Barstow	San Bernardino	§19.06.050 - City of Barstow, CA Municipal Code	"Each dwelling unit permitted with one or more bedrooms in this district shall have on the same lot two parking spaces…An additional ten percent of the required parking shall be set aside for visitor parking."	2.0	0.2	2.2
5.	Beaumont	Riverside	§17.05.040 - City of Beaumont, CA Muncipal Code	"2 spaces per unit"	2.00	0.0	2.00
6.	Big Bear Lake	San Bernardino	§17.25.070 - City of Big Bear Lake, CA Municipal Code	"d. Parking for Large-Scale Multiple Family Residential Uses (Six or More Dwelling Units). 1. Multiple-family residential projects with six or more dwelling units…shall provide a minimum of…two parking spaces per each two or three bedroom unit 2. In addition to required parking for residents, each multiple family project shall provide a minimum of two guest parking spaces for each four units up to twelve (12) units; one space for each four units for the thirteenth (13th) to the forty-eight (48th) unit; and one space for each additional six units above forty-eight (48) units."	2.0	Units (1-12): 0.5 Units (13-48): 0.25 Units (48+): 0.17	2.5 2.25 2.17
7.	Calimesa	Riverside	§18.45.060 - City of Calimesa, CA Municipal Code	"2 covered spaces per unit plus 1 uncovered guest space for each 5 units."	2.0	0.2	2.2
8.	Canyon Lake	Riverside	§9.20.040 City of Canyon Lake, CA Development Standards	"(j) Parking standards (3) Three- and four-bedroom units: one covered parking space and one and one-half uncovered parking space. (5) Multi-family developments of ten or more dwelling units shall provide one visitor space for every ten dwelling units."	2.5	Units (<9): 0 Units (10+): 0.10	2.50 2.60
9.	Chino	San Bernardino	§20.18.030 - City of Chino, CA Municipal Code	"2 or more bedroom units: 2 covered spaces per dwelling... Guest Parking: 1 space for every 10 dwelling units"	2.0	0.1	2.1
10.	Chino Hills	San Bernardino	§16.34.060 - City of Chino Hills, CA Muncipal Code	"2-car garage or carport for each unit, plus one guest space for every 2 dwelling units"	2.0	0.5	2.5
11.	Colton	San Bernardino	§18.16.180 - City of Colton, CA Muncipal Code	"There shall be no less than two parking spaces, in the form of enclosed garages, for every dwelling unit... Where there are six or more Dwelling Units on one lot, there shall be an additional one-half Unenclosed Space per Dwelling Unit for Guest parking."	2.0	Units (<6): 0 Units (6+): 0.5	2.0 2.5
12.	Corona	Riverside	§17.76.030 - City of Corona, CA Muncipal Code	" Three or more bedroom unit: 2 covered and 1 uncovered spaces/unit, plus 1 uncovered guest space/5 units"	3.0	0.2	3.2
13.	Fontana	San Bernardino	§30-685 - City of Fontana, CA Municipal Code	"Two garage spaces and one-half open parking space is required for each unit... Guest parking: One parking space is required for each three units, with a minimum of three parking spaces provided"	2.5	0.33	2.83
14.	Grand Terrace	San Bernardino	§18.60.030 - City of Grand Terrace, CA Municipal Code	"Two parking spaces for each one-, two- or three bedroom unit. Guest parking shall be provided at a ratio of 0.25 spaces for each residential unit"	2.0	0.25	2.25
15.	Hemet	Riverside	§90-1423 - City of Hemet, CA Municpal Code	"2 spaces for each 1-bedroom unit with den or more bedroom units…Plus 1 uncovered space for each 5 dwelling units for visitors."	2.0	0.2	2.2
16.	Hesperia	San Bernardino	§16.20.080 - City of Hesperia, CA Municipal Code	"2 bedroom: 2.25 spaces/unit Guest parking: 0.25 spaces/unit"	2.25	0.25	2.5
17.	Highland	San Bernardino	§15.52.030 - City of Highland, CA Municipal Code	"3 bedroom: 2.1 spaces per unit Guest parking: 0.3 space per unit"	2.1	0.3	2.4
18.	Jurupa Valley	Riverside	§9.240.120 - City of Jurupa Valley, CA Municipal Code	"Three or more bedrooms/dwelling unit: 2.75 spaces/unit"	2.75	0.0	2.75
19.	Lake Elsinore	Riverside	§17.148.030 - City of Lake Elsinore, CA Municipal Code	"For two or more bedrooms: one covered space, plus one and one-third open space per dwelling unit."	2.33	0.0	2.33
20.	Loma Linda	San Bernardino	§17.24.060 - City of Loma Linda, CA Municipal Code	"One-bedroom unit, 1.5 parking spaces per unit; Each additional bedroom, 0.5 additional parking spaces per bedroom. In addition, a minimum of 0.25 spaces per bedroom shall be provided for guest parking."	2.5	0.25	2.75
21.	Menifee	Riverside	§9.215.040 - City of Menigee, CA Development Code	"Three or more bedrooms: 2.50 spaces per unit… Residential guest: 1 space per each 10 dwelling units"	2.5	0.1	2.6
22.	Montclair	San Bernardino	§11.66.010 - City of Montclair, CA Municipal Code	"for each dwelling unit with three or more bedrooms, two spaces."	2.00	0.0	2.00
23.	Moreno Valley	Riverside	§9.11.040 - City of Moreno Valley, CA Municipal Code	"2.5/unit… Guest parking is required for all units at 0.25 spaces/unit."	2.5	0.25	2.75
24.	Murrieta	Riverside	§16.34.040 - City of Murrieta, CA Municipal Code	"Two bedrooms or more: 2 spaces for each unit, plus 0.5 additional spaces for each bedroom over 2… guest parking equal to 25% of the total number of units."	2.5	0.25	2.75
25.	Norco	Riverside	§18.38.10 - City of Norco, CA Municipal Code	"Not less than two roofed parking spaces for each dwelling unit."	2.0	0.0	2.0
26.	Ontario	San Bernardino	§9-1.3010 - City of Ontario, CA Municipal Code	"Three or more bedroom Unit: 2.5 spaces per unit… Guest Parking (3-50 units): 1 space per 4 units (51-100 units): 1 space per 5 units (100+ units): 1 space per 6 units"	2.5	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.5 2.75 2.7 2.67
27.	Perris	Riverside	§19.69.020 - City of Perris, CA Municipal Code	"Three bedroom unit or more: 2.5 spaces… One quest parking space per five units."	2.5	0.2	2.7
28.	Rancho Cucamonga	San Bernardino	§17.64.050 - City of Rancho Cucamonga, CA Municipal Code	"Three bedroom: 2 per unit… Visitor parking <50 units: 1 per 3 units >50 units: 1 per 5 units"	2.0	0.33 0.20	2.33 2.2
29.	Redlands	San Bernardino	§18.164.080 - City of Redlands, CA Municipal Code	"3 or more bedroom unit: 2 In addition, all multiple residential projects containing more than two (2) uits per lot of record shall provide one uncovered off-street parking space for each two (2) units or fraction thereof."	2.0	0.5	2.5
30.	Rialto	San Bernardino	§18.58.060 - City of Rialto, CA Municipal Code	" A minimum of two parking spaces for each dwelling unit… In addition to the parking required…there there shall be a minimum of one guest parking space for every four dwelling units."	2.0	0.25	2.25
31.	Riverside	Riverside	§19.580.060 - City of Riverside, CA Municipal Code	"2 spaces/dwelling unit with 2 or more bedrooms"	2.0	0.0	2.0
32.	San Bernardino	San Bernardino	§19.24.040 - City of San Bernardino, CA Municipal Code	"2.5 covered and 1 uncovered guest space for every 5 units."	2.5	0.2	2.7
33.	San Jacinto	Riverside	§17.330.050 - City of San Jacinto, CA Off-Street Parking and Loading Standards	"2 spaces per unit… Guest Parking 0-10 units - none required 11-30 units - 0.25 spaces per unit 31-60 units - 0.20 spaces per unit 61 units and over - 0.166 spaces per unit"	2.00	0 0.25 0.20 0.17	2 2.25 2.2 2.17
34.	Temecula	Riverside	§17.24.040 - City of Temecula, CA Municipal Code	"2 covered parking spaces and 0.5 uncovered parking space for three bedroom (or more) units. In addition, 1 guest space for every 6 units."	2.5	0.17	2.67
35.	Upland	San Bernardino	§17.11.030 - City of Upland, CA Municipal Code	"2.5 for each unit in a garage… Guest Parking: 3-50 units: 1 per 4 units; 51-100 units: 1 per 5 units; 100 + units: 1 per 6 units"	2.5	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.5 2.75 2.7 2.67
36.	Victorville	San Bernardino	§16-3.21.030 - City of Victorville, CA Municipal Code	"2 spaces per unit - 1 space shall be covered"	2.0	0.0	2.0
37.	Wildomar	Riverside	§17.188.030 - City of Wildomar, CA Municipal Code	"2.50 spaces/unit… Visitor parking: 15% of total required spaces"	2.50	0.38	2.88
38.	Yucaipa	San Bernardino	§88.01305 - City of Yucaipa, CA Municipal Code	"Each dwelling unit with three or more bedrooms shall be provided with two and one-half parking spaces… One open parking space for each two dwelling units shall be provided for guest parking."	2.5	0.5	3.0
39.	Urban Land Institute (ULI)	- -	- -	- -	2.5	0.1	2.6
40.	Institute of Transportation Engineers (ITE)	- -	- -	"Multifamily Housing (Low-Rise) (220) Peak Period Parking Demand vs: Bedrooms On a : Weekday (Monday - Friday)"	1.98	0.0	1.98
				Average 3-Bedroom Dwelling Unit Parking Rate	2.24	0.23	2.47
				85th Percentile 3-Bedroom Dwelling Unit Parking Rate	2.50	0.40	2.90
				95th Percentile 3-Bedroom Dwelling Unit Parking Rate	2.79	0.50	3.29
				City of Eastvale Municipal Code §120.05.060 Parking Rate	2.75	0.00	2.75

[1] Cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC)Source: https://mmasc.org/163/Inland-Empire-Region
[2] ULI Source: Shared Parking, Third Edition, Urban Land Institute, February 2020;
ITE Source: Parking Generation Manual 5th Edition, Institute of Transportation Engineers January 2020.

Table 5: Inland Empire Cities[1] & Published Sources[2]
Multi-Family Housing (4-Bedroom) Dwelling Unit Parking Rates

Agency/Publication		County	Source	Parking Code	Resident Parking Rate	Visitor Parking Rate	Net Parking Rate
1.	Adelanto	San Bernardino	§17.65.060 - City of Adelanto, CA Municpal Code	"2 spaces per unit,…plus 1 guest space for every 2 dwelling units"	2.0	0.5	2.5
2.	Apple Valley	San Bernardino	§9.72.020 - City of Apple Valley, CA Municipal Code	"a. Small Projects (2-8 units): A two (2) car garage, plus 1 uncovered guest space per unit. b. Medium Projects (9-15 units): 1 covered and 1.5 uncovered space per unit c. Large Projects (16 units or greater): 1 covered and 1.25 uncovered guest spaces per units."	1.0	1.25	2.25
3.	Banning	Riverside	§17.28.040 - City of Banning, CA Muncipal Code	"Three or more bedrooms: Three covered parking spaces per unit, plus one uncovered guest parking space for every 4 units"	3.0	0.25	3.25
4.	Barstow	San Bernardino	§19.06.050 - City of Barstow, CA Municipal Code	"Each dwelling unit permitted with one or more bedrooms in this district shall have on the same lot two parking spaces…An additional ten percent of the required parking shall be set aside for visitor parking."	2.0	0.2	2.2
5.	Beaumont	Riverside	§17.05.040 - City of Beaumont, CA Muncipal Code	"2 spaces per unit"	2.00	0.0	2.00
6.	Big Bear Lake	San Bernardino	§17.25.070 - City of Big Bear Lake, CA Municipal Code	"d. Parking for Large-Scale Multiple Family Residential Uses (Six or More Dwelling Units). 1. Multiple-family residential projects with six or more dwelling units…shall provide a minimum of…three parking spaces for each unit with four or more bedrooms. 2. In addition to required parking for residents, each multiple family project shall provide a minimum of two guest parking spaces for each four units up to twelve (12) units; one space for each four units for the thirteenth (13th) to the forty-eight (48th) unit; and one space for each additional six units above forty-eight (48) units."	3.0	Units (1-12): 0.5 Units (13-48): 0.25 Units (48+): 0.17	3.5 3.25 3.17
7.	Calimesa	Riverside	§18.45.060 - City of Calimesa, CA Municipal Code	"2 covered spaces per unit plus 1 uncovered guest space for each 5 units."	2.0	0.2	2.2
8.	Canyon Lake	Riverside	§9.20.040 City of Canyon Lake, CA Development Standards	"(j) Parking standards (3) Three- and four-bedroom units: one covered parking space and one and one-half uncovered parking space. (5) Multi-family developments of ten or more dwelling units shall provide one visitor space for every ten dwelling units."	2.5	Units (<9): 0 Units (10+): 0.10	2.50 2.60
9.	Chino	San Bernardino	§20.18.030 - City of Chino, CA Municipal Code	"2 or more bedroom units: 2 covered spaces per dwelling… Guest Parking: 1 space for every 10 dwelling units"	2.0	0.1	2.1
10.	Chino Hills	San Bernardino	§16.34.060 - City of Chino Hills, CA Muncipal Code	"2-car garage or carport for each unit, plus one guest space for every 2 dwelling units"	2.0	0.5	2.5
11.	Colton	San Bernardino	§18.16.180 - City of Colton, CA Muncipal Code	"There shall be no less than two parking spaces, in the form of enclosed garages, for every dwelling unit… Where there are six or more Dwelling Units on one lot, there shall be an additional one-half Unenclosed Space per Dwelling Unit for Guest parking."	2.0	Units (<6): 0 Units (6+): 0.5	2.0 2.5
12.	Corona	Riverside	§17.76.030 - City of Corona, CA Muncipal Code	" Three or more bedroom unit: 2 covered and 1 uncovered spaces/unit, plus 1 uncovered guest space/5 units"	3.0	0.2	3.2
13.	Fontana	San Bernardino	§30-685 - City of Fontana, CA Municipal Code	"Two garage spaces and one-half open parking space is required for each unit… Guest parking: One parking space is required for each three units, with a minimum of three parking spaces provided"	2.5	0.33	2.83
14.	Grand Terrace	San Bernardino	§18.60.030 - City of Grand Terrace, CA Municipal Code	"Three parking spaces for each four-bedroom unit or more…Guest parking shall be provided at a ratio of 0.25 spaces for each residential unit"	3.0	0.25	3.25
15.	Hemet	Riverside	§90-1423 - City of Hemet, CA Municpal Code	"2 spaces for each 1-bedroom unit with den or more bedroom units…Plus 1 uncovered space for each 5 dwelling units for visitors."	2.0	0.2	2.2
16.	Hesperia	San Bernardino	§16.20.080 - City of Hesperia, CA Municipal Code	"2 bedroom: 2.25 spaces/unit Guest parking: 0.25 spaces/unit"	2.25	0.25	2.5
17.	Highland	San Bernardino	§15.52.030 - City of Highland, CA Municipal Code	"4 bedroom: 2.4 spaces per unit Guest parking: 0.3 space per unit"	2.4	0.3	2.7
18.	Jurupa Valley	Riverside	§9.240.120 - City of Jurupa Valley, CA Municipal Code	"Three or more bedrooms/dwelling unit: 2.75 spaces/unit"	2.75	0.0	2.75
19.	Lake Elsinore	Riverside	§17.148.030 - City of Lake Elsinore, CA Municipal Code	"For two or more bedrooms: one covered space, plus one and one-third open space per dwelling unit."	2.33	0.0	2.33
20.	Loma Linda	San Bernardino	§17.24.060 - City of Loma Linda, CA Municipal Code	"One-bedroom unit, 1.5 parking spaces per unit; Each additional bedroom, 0.5 additional parking spaces per bedroom. In addition, a minimum of 0.25 spaces per bedroom shall be provided for guest parking."	3.0	0.25	3.25
21.	Menifee	Riverside	§9.215.040 - City of Menigee, CA Development Code	"Three or more bedrooms: 2.50 spaces per unit… Residential guest: 1 space per each 10 dwelling units"	2.5	0.1	2.6
22.	Montclair	San Bernardino	§11.66.010 - City of Montclair, CA Municipal Code	"for each dwelling unit with three or more bedrooms, two spaces."	2.00	0.0	2.00
23.	Moreno Valley	Riverside	§9.11.040 - City of Moreno Valley, CA Municipal Code	"2.5/unit… Guest parking is required for all units at 0.25 spaces/unit."	2.5	0.25	2.75
24.	Murrieta	Riverside	§16.34.040 - City of Murrieta, CA Municipal Code	"Two bedrooms or more: 2 spaces for each unit, plus 0.5 additional spaces for each bedroom over 2… guest parking equal to 25% of the total number of units."	3.0	0.25	3.25
25.	Norco	Riverside	§18.38.10 - City of Norco, CA Municipal Code	"Not less than two roofed parking spaces for each dwelling unit."	2.0	0.0	2.0
26.	Ontario	San Bernardino	§9-1.3010 - City of Ontario, CA Municipal Code	"Three or more bedroom Unit: 2.5 spaces per unit… Guest Parking (3-50 units): 1 space per 4 units (51-100 units): 1 space per 5 units (100+ units): 1 space per 6 units"	2.5	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.5 2.75 2.7 2.67
27.	Perris	Riverside	§19.69.020 - City of Perris, CA Municipal Code	"Three bedroom unit or more: 2.5 spaces… One guest parking space per five units."	2.5	0.2	2.7
28.	Rancho Cucamonga	San Bernardino	§17.64.050 - City of Rancho Cucamonga, CA Municipal Code	"Four or more bedrooms: 2.5 per unit… Visitor parking <50 units: 1 per 3 units >50 units: 1 per 5 units"	2.5	0.33 0.20	2.83 2.7
29.	Redlands	San Bernardino	§18.164.080 - City of Redlands, CA Municipal Code	"3 or more bedroom unit: 2 In addition, all multiple residential projects containing more than two (2) uits per lot of record shall provide one uncovered off-street parking space for each two (2) units or fraction thereof."	2.0	0.5	2.5
30.	Rialto	San Bernardino	§18.58.060 - City of Rialto, CA Municipal Code	" A minimum of two parking spaces for each dwelling unit… In addition to the parking required…there there shall be a minimum of one guest parking space for every four dwelling units."	2.0	0.25	2.25
31.	Riverside	Riverside	§19.580.060 - City of Riverside, CA Municipal Code	"2 spaces/dwelling unit with 2 or more bedrooms"	2.0	0.0	2.0
32.	San Bernardino	San Bernardino	§19.24.040 - City of San Bernardino, CA Municipal Code	"2.5 covered and 1 uncovered guest space for every 5 units."	2.5	0.2	2.7
33.	San Jacinto	Riverside	§17.330.050 - City of San Jacinto, CA Off-Street Parking and Loading Standards	"2 spaces per unit… Guest Parking 0-10 units - none required 11-30 units - 0.25 spaces per unit 31-60 units - 0.20 spaces per unit 61 units and over - 0.166 spaces per unit"	2.00	0 0.25 0.20 0.17	2 2.25 2.2 2.17
34.	Temecula	Riverside	§17.24.040 - City of Temecula, CA Municipal Code	"2 covered parking spaces and 0.5 uncovered parking space for three bedroom (or more) units. In addition, 1 guest space for every 6 units."	2.5	0.17	2.67
35.	Upland	San Bernardino	§17.11.030 - City of Upland, CA Municipal Code	"2.5 for each unit in a garage… Guest Parking: 3-50 units: 1 per 4 units; 51-100 units: 1 per 5 units; 100 + units: 1 per 6 units"	2.5	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.5 2.75 2.7 2.67
36.	Victorville	San Bernardino	§16-3.21.030 - City of Victorville, CA Municipal Code	"2 spaces per unit - 1 space shall be covered"	2.0	0.0	2.0
37.	Wildomar	Riverside	§17.188.030 - City of Wildomar, CA Municipal Code	"2.50 spaces/unit… Visitor parking: 15% of total required spaces"	2.50	0.38	2.88
38.	Yucaipa	San Bernardino	§88.01305 - City of Yucaipa, CA Municipal Code	"Each dwelling unit with three or more bedrooms shall be provided with two and one-half parking spaces… One open parking space for each two dwelling units shall be provided for guest parking."	2.5	0.5	3.0
39.	Urban Land Institute (ULI)	- -	- -	- -	2.5	0.1	2.6
40.	Institute of Transportation Engineers (ITE)	- -	- -	"Multifamily Housing (Low-Rise) (220) Peak Period Parking Demand vs: Bedrooms On a : Weekday (Monday - Friday)"	1.98	0.0	1.98
				Average 4-Bedroom Dwelling Unit Parking Rate	2.34	0.25	2.59
				85th Percentile 4-Bedroom Dwelling Unit Parking Rate	2.86	0.43	3.29
				95th Percentile 4-Bedroom Dwelling Unit Parking Rate	3.00	0.50	3.50
				City of Eastvale Municipal Code §120.05.060 Parking Rate	2.75	0.00	2.75

[1] Cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC) Source: https://mmasc.org/163/Inland-Empire-Region

[2] ULI Source: Shared Parking, Third Edition, Urban Land Institute, February 2020;
ITE Source: Parking Generation Manual 5th Edition, Institute of Transportation Engineers January 2020.

Table 6: Inland Empire Cities[1] & Published Sources[2]
Multi-Family Housing (5-Bedroom) Dwelling Unit Parking Rates

	Agency/Publication	County	Source	Parking Code	Resident Parking Rate	Visitor Parking Rate	Net Parking Rate
1.	Adelanto	San Bernardino	§17.65.060 - City of Adelanto, CA Municpal Code	"2 spaces per unit,…plus 1 guest space for every 2 dwelling units"	2.0	0.5	2.5
2.	Apple Valley	San Bernardino	§9.72.020 - City of Apple Valley, CA Municipal Code	"a. Small Projects (2-8 units): A two (2) car garage, plus 1 uncovered guest space per unit. b. Medium Projects (9-15 units): 1 covered and 1.5 uncovered space per unit c. Large Projects (16 units or greater): 1 covered and 1.25 uncovered guest spaces per units."	1.0	1.25	2.25
3.	Banning	Riverside	§17.28.040 - City of Banning, CA Muncipal Code	"Three or more bedrooms: Three covered parking spaces per unit, plus one uncovered guest parking space for every 4 units"	3.0	0.25	3.25
4.	Barstow	San Bernardino	§19.06.050 - City of Barstow, CA Municipal Code	"Each dwelling unit permitted with one or more bedrooms in this district shall have on the same lot two parking spaces…An additional ten percent of the required parking shall be set aside for visitor parking."	2.0	0.2	2.2
5.	Beaumont	Riverside	§17.05.040 - City of Beaumont, CA Muncipal Code	"2 spaces per unit"	2.00	0.0	2.00
6.	Big Bear Lake	San Bernardino	§17.25.070 - City of Big Bear Lake, CA Municipal Code	"d. Parking for Large-Scale Multiple Family Residential Uses (Six or More Dwelling Units). 1. Multiple-family residential projects with six or more dwelling units…shall provide a minimum of…three parking spaces for each unit with four or more bedrooms. 2. In addition to required parking for residents, each multiple family project shall provide a minimum of two guest parking spaces for each four units up to twelve (12) units; one space for each four units for the thirteenth (13th) to the forty-eight (48th) unit; and one space for each additional six units above forty-eight (48) units."	3.0	Units (1-12): 0.5 Units (13-48): 0.25 Units (48+): 0.17	3.5 3.25 3.17
7.	Calimesa	Riverside	§18.45.060 - City of Calimesa, CA Municipal Code	"2 covered spaces per unit plus 1 uncovered guest space for each 5 units."	2.0	0.2	2.2
8.	Canyon Lake	Riverside	§9.20.040 City of Canyon Lake, CA Development Standards	"(j) Parking standards (3) Three- and four-bedroom units: one covered parking space and one and one-half uncovered parking space. (5) Multi-family developments of ten or more dwelling units shall provide one visitor space for every ten dwelling units."	2.5	Units (<9): 0 Units (10+): 0.10	2.50 2.60
9.	Chino	San Bernardino	§20.18.030 - City of Chino, CA Municipal Code	"2 or more bedroom units: 2 covered spaces per dwelling… Guest Parking: 1 space for every 10 dwelling units"	2.0	0.1	2.1
10.	Chino Hills	San Bernardino	§16.34.060 - City of Chino Hills, CA Muncipal Code	"2-car garage or carport for each unit, plus one guest space for every 2 dwelling units"	2.0	0.5	2.5
11.	Colton	San Bernardino	§18.16.180 - City of Colton, CA Muncipal Code	"There shall be no less than two parking spaces, in the form of enclosed garages, for every dwelling unit… Where there are six or more Dwelling Units on one lot, there shall be an additional one-half Unenclosed Space per Dwelling Unit for Guest parking."	2.0	Units (<6): 0 Units (6+): 0.5	2.0 2.5
12.	Corona	Riverside	§17.76.030 - City of Corona, CA Muncipal Code	" Three or more bedroom unit: 2 covered and 1 uncovered spaces/unit, plus 1 uncovered guest space/5 units"	3.0	0.2	3.2
13.	Fontana	San Bernardino	§30-685 - City of Fontana, CA Municipal Code	"Two garage spaces and one-half open parking space is required for each unit… Guest parking: One parking space is required for each three units, with a minimum of three parking spaces provided"	2.5	0.33	2.83
14.	Grand Terrace	San Bernardino	§18.60.030 - City of Grand Terrace, CA Municipal Code	"Three parking spaces for each four-bedroom unit or more…Guest parking shall be provided at a ratio of 0.25 spaces for each residential unit"	3.0	0.25	3.25
15.	Hemet	Riverside	§90-1423 - City of Hemet, CA Municpal Code	"2 spaces for each 1-bedroom unit with den or more bedroom units…Plus 1 uncovered space for each 5 dwelling units for visitors."	2.0	0.2	2.2
16.	Hesperia	San Bernardino	§16.20.080 - City of Hesperia, CA Municipal Code	"2 bedroom: 2.25 spaces/unit Guest parking: 0.25 spaces/unit"	2.25	0.25	2.5
17.	Highland	San Bernardino	§15.52.030 - City of Highland, CA Municipal Code	"4 bedroom: 2.4 spaces per unit Guest parking: 0.3 space per unit"	2.4	0.3	2.7
18.	Jurupa Valley	Riverside	§9.240.120 - City of Jurupa Valley, CA Municipal Code	"Three or more bedrooms/dwelling unit: 2.75 spaces/unit"	2.75	0.0	2.75
19.	Lake Elsinore	Riverside	§17.148.030 - City of Lake Elsinore, CA Municipal Code	"For two or more bedrooms: one covered space, plus one and one-third open space per dwelling unit."	2.33	0.0	2.33
20.	Loma Linda	San Bernardino	§17.24.060 - City of Loma Linda, CA Municipal Code	"One-bedroom unit, 1.5 parking spaces per unit; Each additional bedroom, 0.5 additional parking spaces per bedroom. In addition, a minimum of 0.25 spaces per bedroom shall be provided for guest parking."	3.5	0.25	3.75
21.	Menifee	Riverside	§9.215.040 - City of Menigee, CA Development Code	"Three or more bedrooms: 2.50 spaces per unit… Residential guest: 1 space per each 10 dwelling units"	2.5	0.1	2.6
22.	Montclair	San Bernardino	§11.66.010 - City of Montclair, CA Municipal Code	"for each dwelling unit with three or more bedrooms, two spaces."	2.00	0.0	2.00
23.	Moreno Valley	Riverside	§9.11.040 - City of Moreno Valley, CA Municipal Code	"2.5/unit… Guest parking is required for all units at 0.25 spaces/unit."	2.5	0.25	2.75
24.	Murrieta	Riverside	§16.34.040 - City of Murrieta, CA Municipal Code	"Two bedrooms or more: 2 spaces for each unit, plus 0.5 additional spaces for each bedroom over 2… guest parking equal to 25% of the total number of units."	3.5	0.25	3.75
25.	Norco	Riverside	§18.38.10 - City of Norco, CA Municipal Code	"Not less than two roofed parking spaces for each dwelling unit."	2.0	0.0	2.0
26.	Ontario	San Bernardino	§9-1.3010 - City of Ontario, CA Municipal Code	"Three or more bedroom Unit: 2.5 spaces per unit… Guest Parking (3-50 units): 1 space per 4 units (51-100 units): 1 space per 5 units (100+ units): 1 space per 6 units"	2.5	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.5 2.75 2.7 2.67
27.	Perris	Riverside	§19.69.020 - City of Perris, CA Municipal Code	"Three bedroom unit or more: 2.5 spaces… One guest parking space per five units."	2.5	0.2	2.7
28.	Rancho Cucamonga	San Bernardino	§17.64.050 - City of Rancho Cucamonga, CA Municipal Code	"Four or more bedrooms: 2.5 per unit… Visitor parking <50 units: 1 per 3 units >50 units: 1 per 5 units"	2.5	0.33 0.20	2.83 2.7
29.	Redlands	San Bernardino	§18.164.080 - City of Redlands, CA Municipal Code	"3 or more bedroom unit: 2 In addition, all multiple residential projects containing more than two (2) uits per lot of record shall provide one uncovered off-street parking space for each two (2) units or fraction thereof."	2.0	0.5	2.5
30.	Rialto	San Bernardino	§18.58.060 - City of Rialto, CA Municipal Code	" A minimum of two parking spaces for each dwelling unit… In addition to the parking required…there there shall be a minimum of one guest parking space for every four dwelling units."	2.0	0.25	2.25
31.	Riverside	Riverside	§19.580.060 - City of Riverside, CA Municipal Code	"2 spaces/dwelling unit with 2 or more bedrooms"	2.0	0.0	2.0
32.	San Bernardino	San Bernardino	§19.24.040 - City of San Bernardino, CA Municipal Code	"2.5 covered and 1 uncovered guest space for every 5 units."	2.5	0.2	2.7
33.	San Jacinto	Riverside	§17.330.050 - City of San Jacinto, CA Off-Street Parking and Loading Standards	"2 spaces per unit… Guest Parking 0-10 units - none required 11-30 units - 0.25 spaces per unit 31-60 units - 0.20 spaces per unit 61 units and over - 0.166 spaces per unit"	2.00	0 0.25 0.20 0.17	2 2.25 2.2 2.17
34.	Temecula	Riverside	§17.24.040 - City of Temecula, CA Municipal Code	"2 covered parking spaces and 0.5 uncovered parking space for three bedroom (or more) units. In addition, 1 guest space for every 6 units."	2.5	0.17	2.67
35.	Upland	San Bernardino	§17.11.030 - City of Upland, CA Municipal Code	"2.5 for each unit in a garage… Guest Parking: 3-50 units: 1 per 4 units; 51-100 units: 1 per 5 units; 100 + units: 1 per 6 units"	2.5	(3-50 units): 0.25 (51-100 units): 0.20 (100+ units): 0.17	2.5 2.75 2.7 2.67
36.	Victorville	San Bernardino	§16-3.21.030 - City of Victorville, CA Municipal Code	"2 spaces per unit - 1 space shall be covered"	2.0	0.0	2.0
37.	Wildomar	Riverside	§17.188.030 - City of Wildomar, CA Municipal Code	"2.50 spaces/unit… Visitor parking: 15% of total required spaces"	2.50	0.38	2.88
38.	Yucaipa	San Bernardino	§88.01305 - City of Yucaipa, CA Municipal Code	"Each dwelling unit with three or more bedrooms shall be provided with two and one-half parking spaces… One open parking space for each two dwelling units shall be provided for guest parking."	2.5	0.5	3.0
39.	Urban Land Institute (ULI)	- -	- -	- -	2.5	0.1	2.6
40.	Institute of Transportation Engineers (ITE)	- -	- -	"Multifamily Housing (Low-Rise) (220) Peak Period Parking Demand vs: Bedrooms On a : Weekday (Monday - Friday)"	1.98	0.0	1.98
				Average 5-Bedroom Dwelling Unit Parking Rate	2.36	0.25	2.61
				85th Percentile 5-Bedroom Dwelling Unit Parking Rate	2.86	0.43	3.29
				95th Percentile 5-Bedroom Dwelling Unit Parking Rate	3.08	0.50	3.58
				City of Eastvale Municipal Code §120.05.060 Parking Rate	2.75	0.00	2.75

[1] Cities representing the Inland Empire Region as identified per the Municipal Management Association of Southern California (MMASC) Source: https://mmasc.org/163/Inland-Empire-Region

[2] ULI Source: Shared Parking, Third Edition, Urban Land Institute, February 2020;
ITE Source: Parking Generation Manual 5th Edition, Institute of Transportation Engineers January 2020.

Appendix B

"Falling Transit Ridership: California and Southern California"
Prepared for the Southern California Association of Governments (SCAG)



Falling Transit Ridership:

California and Southern California

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Prepared for the Southern California Association of Governments
January 2018

UCLA ITS INSTITUTE OF TRANSPORTATION STUDIES

REBUILDING CALIFORNIA SB1

SCAG INNOVATING FOR A BETTER TOMORROW

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EXECUTIVE SUMMARY

In the last ten years transit use in Southern California has fallen significantly. This report investigates that falling transit use. We define Southern California as the six counties that participate in the Southern California Association of Governments (SCAG) – Los Angeles, Orange, Riverside, San Bernardino, Ventura and Imperial. We examine patterns of transit service and patronage over time and across the region, and consider an array of explanations for falling transit use: declining transit service levels, eroding transit service quality, rising fares, falling fuel prices, the growth of Lyft and Uber, the migration of frequent transit users to outlying neighborhoods with less transit service, and rising vehicle ownership. While all of these factors probably play some role, we conclude that the most significant factor is increased motor vehicle access, particularly among low-income households that have traditionally supplied the region with its most frequent and reliable transit users.

Transit service and use trends in Southern California

Long associated with the automobile, in the last 25 years Southern California has invested heavily in public transportation. Since 1990, the SCAG region has added over 100 miles of light and heavy rail in Los Angeles County, and over 530 miles of commuter rail region-wide. These investments, however, have not been matched by increases in transit ridership. Transit ridership in the SCAG region reached its postwar peak in 1985. Through the 1990s and 2000s ridership rose and fell modestly, but never again reached its 1985 level. Figure ES-1 shows that per capita trips have been mostly declining in the SCAG region since 2007, and have fallen consistently since 2013.

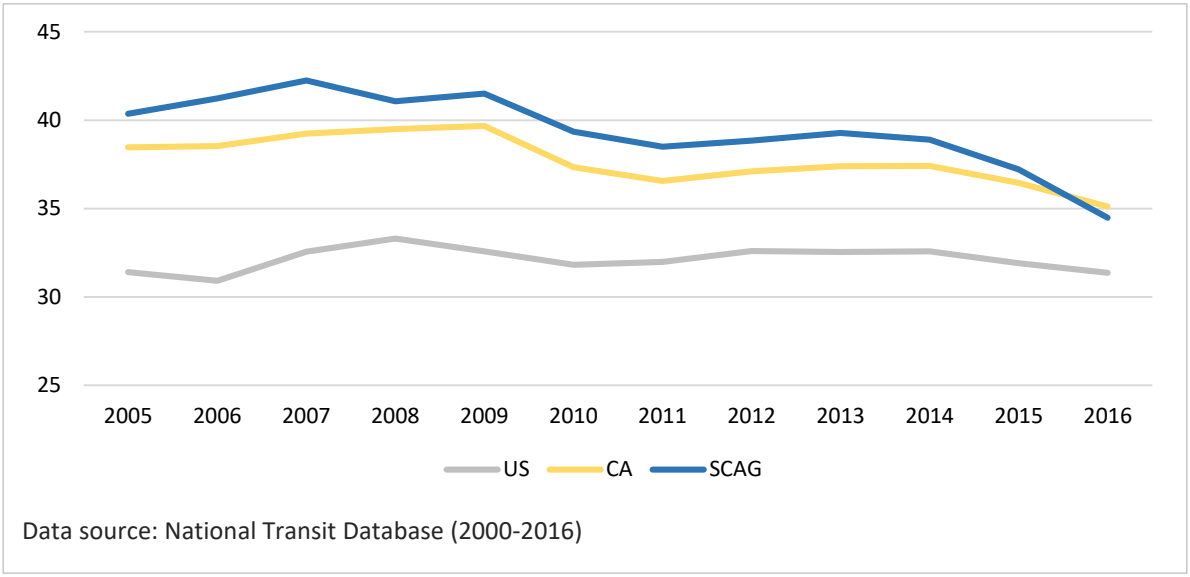


Figure ES 1. Transit trips per capita. *Relatively flat nationally, but down in California since 2009.*

This decline spans modes; it is not simply a case of bus ridership falling while rail ridership increases. Rail ridership, on net, is also down. Further, these aggregate numbers mask large asymmetries in transit service and use. Transit use in particular is heavily concentrated among a relatively small segment of the population, in a small number of the region's neighborhoods, and on a small share of the region's transit systems. As a result of these asymmetries, even small changes in these households, neighborhoods, or transit systems can have an outsized effect on regional transit use.

A few people make most of the trips

The average resident of the SCAG-region made about 35 transit trips in 2016, but the median resident made none. Only a minority of the population rides transit very frequently or even occasionally. About two percent of the population rides transit very frequently (averaging 45 trips/month), another 20 percent of the population rides transit occasionally (averaging 12 trips/month), and more than three-quarters of SCAG-region residents ride transit very little or not at all (averaging less than 1 trip/month). Heavy transit use, moreover, is concentrated among the low-income population, and especially low-income foreign born residents.

A few neighborhoods generate most of the trips

Ten percent of all of the people who commuted to and from work on transit in 2015 lived in 1.4 percent of the region's census tracts, which covered just 0.2 percent of the region's land area; the average number of transit commuters in these few tracts was almost 12 times the regional average. Fully 60 percent of the region's transit commuters lived in 21 percent of the region's census tracts, which occupied 0.9 percent of the region's land area. Overall, the most urban and transit-friendly neighborhoods in the SCAG region comprise less than one percent of the region's land area. These neighborhoods hold about 17 percent the

region's population, but 45 percent of its transit commuters. So while the region's transit systems are increasingly diverse and far reaching, transit riders remain highly concentrated.

A few operators carry most of the passengers

The SCAG region has over 100 transit operators, but just a few them carry the vast majority of riders. Figure ES-2 shows that nine percent of the region's operators are responsible for 60 percent of the region's transit service and carry about 80 percent of all transit riders.

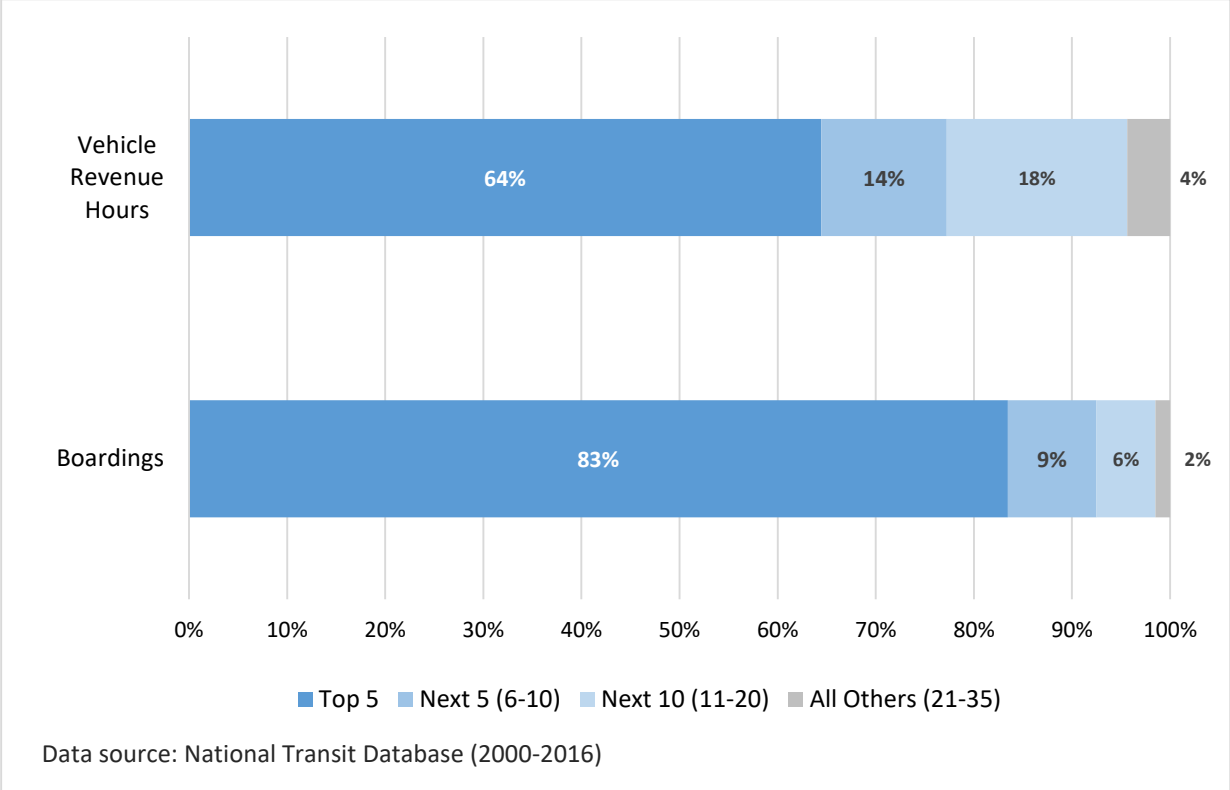


Figure ES 2. Key metrics by operating grouping. *14% of operators carry 83% of the trips.*

Because service and riders are concentrated on the largest systems, ridership losses are concentrated on these systems as well. Four SCAG-region operators—LA Metro, Orange County Transportation Authority (OCTA), Los Angeles Department of Transportation (LADOT), and the Santa Monica Big Blue Bus—accounted for 88 percent of the state's ridership losses between 2010 and 2016. LA Metro by itself accounted for a remarkable 72 percent of the state's losses. Because LA Metro's losses are themselves highly concentrated, a dozen *routes* in LA County account for 38 percent of all the lost ridership in California. In fact, half of California's total lost ridership is accounted for by 17 LA Metro routes (14 bus and 3 rail lines) and one OCTA route.

Possible causes of eroding transit use

Why is transit use falling? We consider a number of potential explanations, and review our findings below.

Changes in transit service and fares have mostly followed and not led falling ridership

Transit use can fall if transit becomes harder to use: if service declines, or fares rise. It does not appear, however, that these factors played a large role in the SCAG region's falling ridership. While transit fare increases are never popular, they are occasionally necessary to keep pace with rising costs. Figure ES-3 shows the inflation-adjusted trends in average fare paid per mile of transit travel between 2002 and 2016 in the U.S., California, and the SCAG region. Fares in Southern California are lower than those in the rest of the state and the country and have been remarkably flat over time.

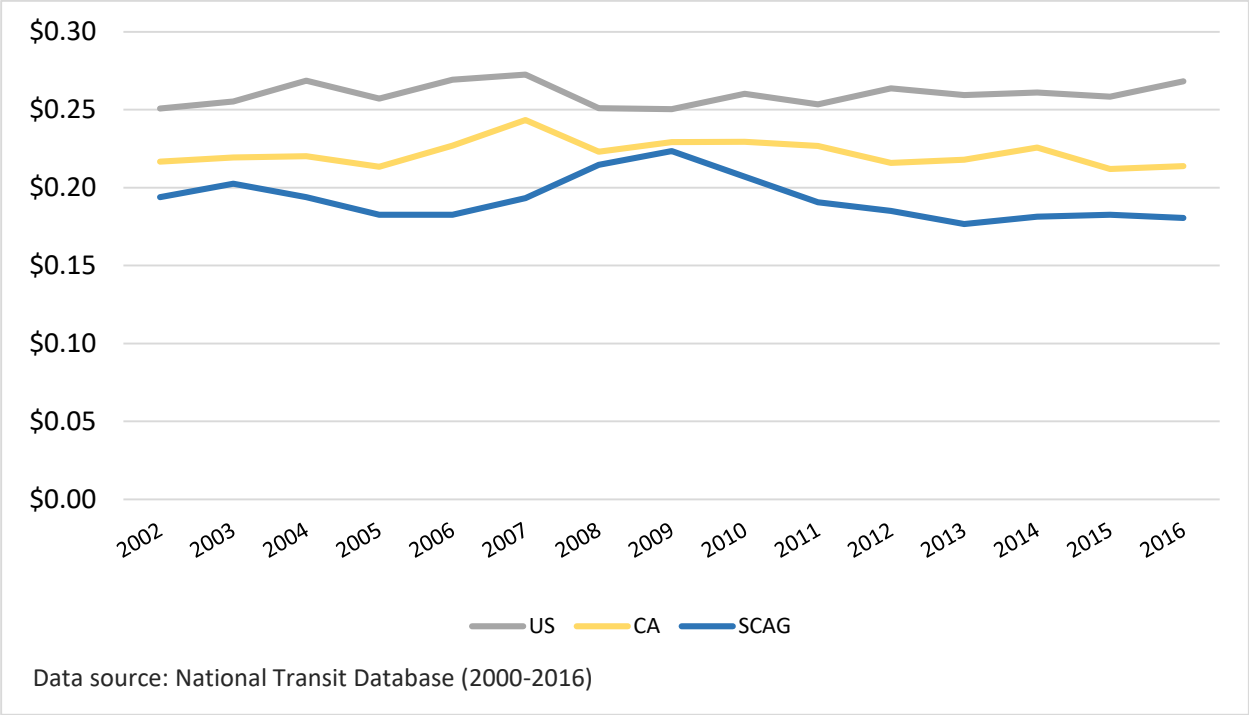


Figure ES 3. Average fare per passenger mile traveled in 2015 dollars. *Average fare per PMT remained fairly consistent and even declined a little since 2009.*

These regional averages can mask significant variation among transit operators. In particular, inflation-adjusted fares per boarding for both OCTA and the Big Blue Bus increased by about 50 percent between 2002 and 2016 — to nearly $1.25 and $0.75 per boarding respectively. So while fares have probably not caused significant ridership declines across the region, they may have played a role at operators like OCTA and Big Blue.

Transit service in the SCAG region, moreover, mostly rose while ridership was falling, and ridership fell even on routes that maintained excellent on-time records. These circumstances suggest that service quantity and reliability were not large factors in falling transit use. There is some evidence, admittedly limited, that riders felt unsafe on transit vehicles in recent years, which may have contributed to the ridership decline.

Fuel prices have likely played a contributing, but not leading role

Fuel prices have been volatile since 1998, but have fallen substantially since peaking in 2012. Figure ES-4 compares trends in fuel prices and transit use in the Los Angeles metropolitan area. While there is a generally positive relationship (as fuel prices rise so too does ridership), it is a relatively weak one – fuel prices rise and fall much more dramatically than transit patronage. The timing of transit's decline, moreover, is not conducive to a fuel price explanation. Per capita transit use in Southern California has been mostly falling since 2007, and it fell between 2009 and 2011 when fuel prices were rising sharply.

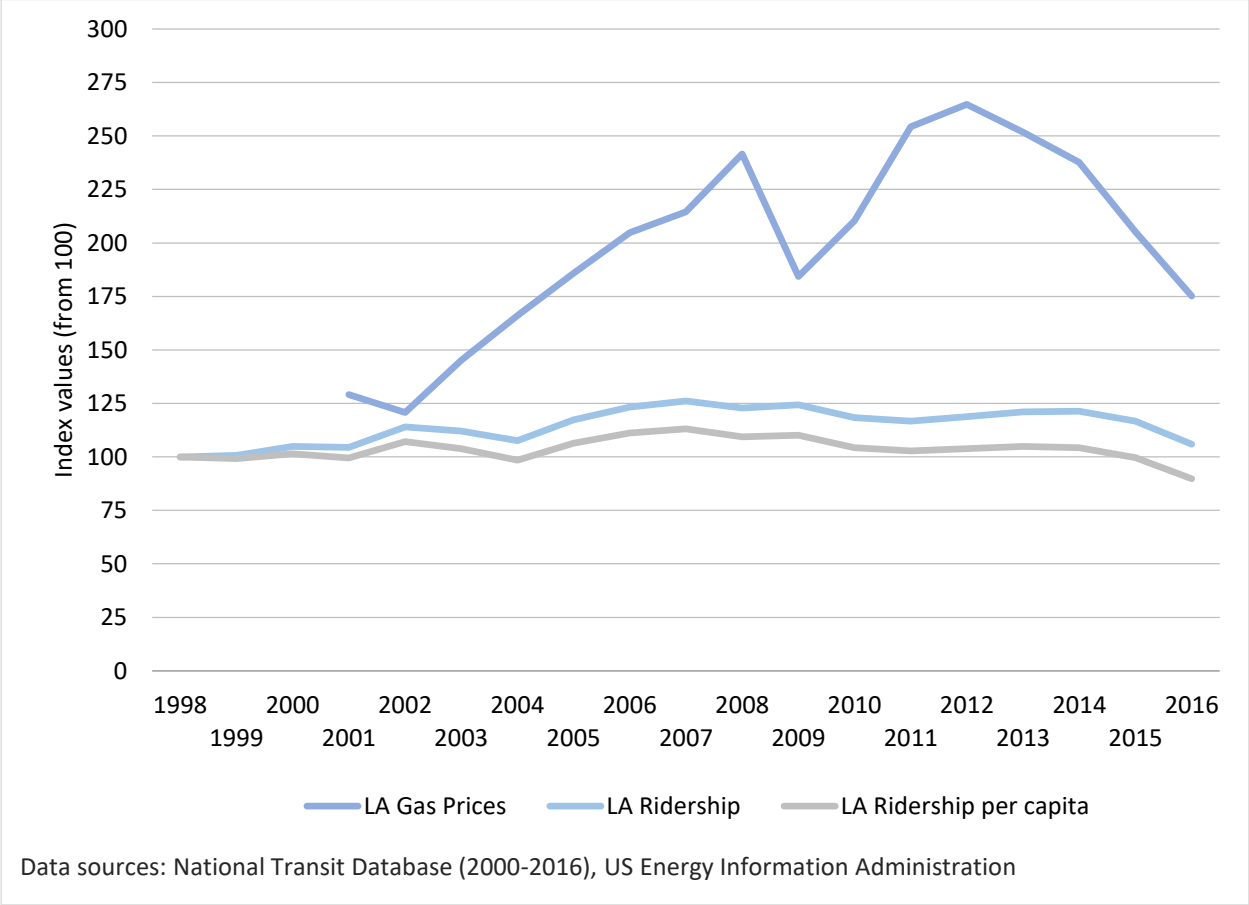


Figure ES 4. Transit ridership and gas prices in Los Angeles Metropolitan Area.

The Transportation Network Companies do not appear to have cannibalized transit

We have very little data that lets us directly measure the effect of transportation network companies (TNCs, like Lyft and Uber) on transit use. What evidence we do have suggests that most TNC trips are probably not replacing large numbers of transit trips. The typical TNC user does not resemble the typical transit rider, the typical TNC trip does not occur when and where most transit trips occur, and most TNC users report no change in their travel by other modes. However, if the pool of TNC users continues to expand, the effect of TNCs on transit use — both positive and negative — may expand as well.

Evidence about neighborhood change and migration of lower-income people is mixed, but suggestive

Transit is heavily-supplied in a small proportion of places, and heavily used by a small proportion of people. If the neighborhoods where transit quality is high change, and become less likely to hold the small group of people who use transit regularly, then transit use could fall. We find some evidence consistent with the idea that neighborhood change has been associated with less transit use. Areas that were heavily populated with transit commuters in the year 2000 became, in the next 15 years, slightly less poor, and significantly less foreign born. Perhaps most important, the share of households without vehicles in these neighborhoods fell notably. All these factors align with a narrative where a transit-using populace is replaced by people who are more likely to drive. We emphasize, however, that this relationship is not one we can measure with precision, and it would be premature to declare neighborhood change a large culprit in falling transit ridership.

Private vehicle access increased substantially from 2000 forward

A defining attribute of regular transit riders is their relative lack of private vehicle access. But between 2000 and 2015, households in the SCAG region, and especially lower-income households, dramatically increased their levels of vehicle ownership. Census data show that from 1990 to 2000 the region added 1.8 million people but only 456,000 household vehicles (or 0.25 vehicles per new resident). From 2000 to 2015, the SCAG region added 2.3 million people and 2.1 million household vehicles (or 0.95 vehicles per new resident).

The growth in vehicle access has been especially dramatic among subsets of the population that are among the heaviest users of transit. Between 2000 and 2015, the share of households in the region with no vehicles fell by 30 percent, and the share of households with fewer vehicles than adults fell 14 percent. Among foreign-born residents, zero-vehicle households were down 42 percent, and those with fewer vehicles than adults were down 22 percent. Finally, among foreign-born households from Mexico, the share of households without vehicles declined an astonishing 66 percent, while households with more adults than vehicles dropped 27 percent. Living in a household without a vehicle is perhaps the strongest single predictor of transit use; the decline of these households has powerful implications for transit in Southern California.

Vehicle ownership is not, of course, the only determinant of regional transit ridership—income, race, age, and nativity, to name a few, also matter. But vehicle access may well be the largest factor. We demonstrate the strong association between vehicle access and transit ridership by building a series of statistical models of transit ridership. The models cover the SCAG region, all of California, Los Angeles

County, and the SCAG region outside of LA County. Each model compares two predicted outcomes: the change in transit use we would expect to see based on due to changes in socioeconomic attributes *other than* vehicle ownership, and the change we would expect to see if we account, in addition, for changes in vehicle access. In short, we compare a scenario where incomes, nativity, racial composition, and various other attributes change the way they did from 2000-2015, but where vehicle access is unchanged, to a scenario where vehicle access changes as well.

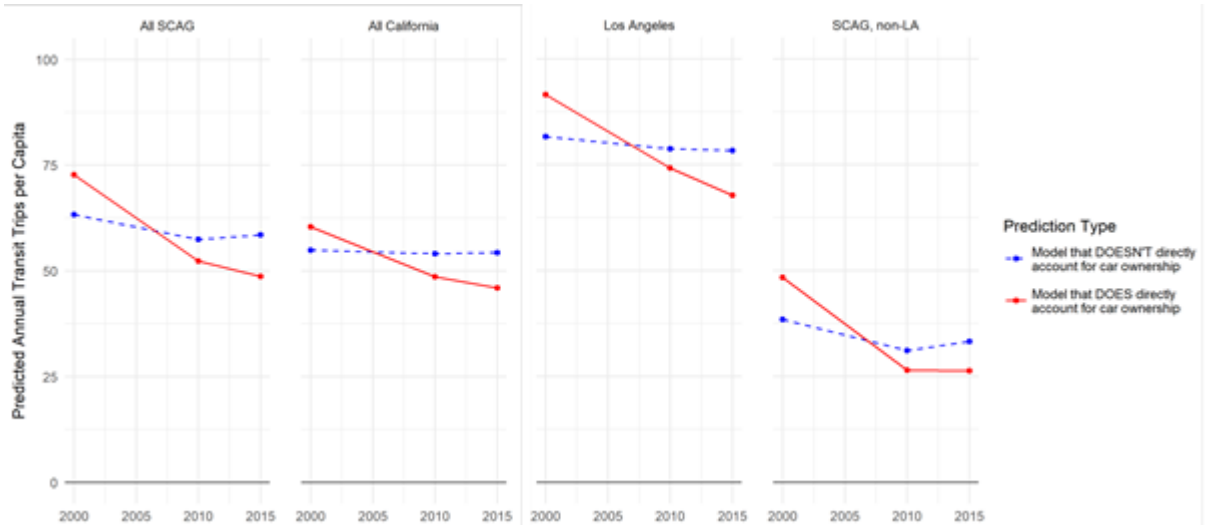


Figure ES 5. Transit use changes based on area.

Figure ES-5 shows the results of these models. The dotted blue line in each case is an estimate of transit ridership trends between 2000 and 2015 based on changes in the region's income, nativity, and so on, but assuming no change in vehicle ownership. The solid red lines represent these same models, but with the region's observed changes in vehicle access included. In all cases the blue line predicts transit use starting at a lower point and declining only modestly, while the red line shows transit use starting at a higher point and falling sharply, more in line with what we are actually observing. The models reinforce the idea that vehicle access is the decisive factor in transit use: income, age, and many other factors matter, but they matter largely because they predict the ability to access and use motor vehicles. In Southern California since 2000, that ability has increased, and transit use has fallen.

Conclusion

Public transportation is unlikely to fare well when Southern California is flooded with additional vehicles, especially when those vehicles are owned disproportionately by transit's traditional riders. Much of the region's built environment is designed to accommodate the presence of private vehicles and to punish their absence. Extensive street and freeway networks link free parking spaces at the origin and destination of most trips. Driving is relatively easy, while moving around by means other than driving is not. These circumstances give people strong economic and social incentives to acquire cars, and — once they have cars — to drive more and ride transit less.

The advantages of automobile access, which are particularly large for low-income people with limited mobility, suggest that transit agencies should not respond to falling ridership by trying to win back former riders who now travel by auto. A better approach may be to convince the vast majority of people who rarely or never use transit to begin riding occasionally instead of driving. This task is unquestionably more difficult than serving frequent-riding transit dependents, and it would likely require weakening or removing some of the state's and region's entrenched subsidies for motor vehicle use. But the opportunity is substantial. The SCAG region, between 2012 and 2016, lost 72 million transit rides annually. That number seems daunting, but the region has a population of 18.8 million, and about 77 percent of those people (roughly 14.5 million), ride transit rarely or never. If one out of every four of those people replaced a single driving trip with a transit trip once every two weeks, annual ridership would grow by 96 million — more than compensating for the losses of recent years. The future of public transit in the SCAG region, then, will be shaped less by the mobility needs of people who do not own vehicles, and more by policy decisions that encourage vehicle-owning households to drive less and use transit more.

FALLING TRANSIT RIDERSHIP: CALIFORNIA AND SOUTHERN CALIFORNIA

In the last 15 years Americans have supported public transportation more and demanded it less. California, the nation's most populous state, is in many ways emblematic of this pattern. Motivated by concerns about congestion and climate change, California's state and local governments have invested heavily in transit, often with the explicit approval of voters. This investment is particularly evident in Southern California. Since 1990, the six-county Southern California Association of Governments (SCAG) region has added over 100 miles of light and heavy rail in Los Angeles County, and over 530 miles of commuter rail region-wide. In November 2016, voters in LA County approved a $120 billion sales tax measure for transportation, with a plurality of the funding dedicated to expanding and improving transit (Measure M: Metro's Plan to Transform Transportation in LA 2016). This measure marked the third such countywide tax increase since 1990, and the fourth one overall. Other SCAG counties have also routinely passed sales tax measures for transportation and transit improvements.

Over the same period, however, California's transit use (depending on how one measures it) has varied from modest increases to relative stagnancy to—in more recent years—steep decline. Southern California is again illustrative. Despite its heavy investments in transit, in absolute terms the region's transit ridership reached its postwar peak in 1985. Through the 1990s and mid-2000s ridership rose and fell modestly, never reaching 1985 levels, and in 2012 it began declining. In per capita terms, ridership has fallen more steadily since the 1980s. Ridership per capita was flat in the early 2000s, but started trending down again in 2007. In California overall, per capita ridership was flat until 2009, when it began a decline from which it has not recovered (The National Transit Database (NTD), 2015).

Why is transit ridership falling? The question is not merely academic. The combination of rising supply and falling demand has profound fiscal implications for transit operators, since it substantially increases the public cost of moving each passenger. Increased transit supply has meant increased public investment, particularly in new rail services. Measured as a ten-year rolling average of capital and operating costs, transit investment in both the US and California rose almost 50 percent between 2000 and 2015. These rising expenditures, when combined with falling patronage, yield falling productivity. Between 2005 and 2016, transit productivity —measured as passenger boardings per vehicle revenue hour (VRH) —has fallen 5 percent in California and 14 percent in the SCAG region. Falling productivity is not sustainable; it usually ends with more subsidies or less service.

Beyond fiscal concerns, falling ridership calls into question a number of California's ambitious environmental goals. California's aggressive agenda for combatting climate change is predicated in part on many people using transit more and driving less. The carbon reduction targets set out in Senate Bill 375, California's landmark climate reduction bill of 2008, involve large mode shifts to transit and away from driving, while the California Department of Transportation's current Strategic Management Plan includes an explicit goal of doubling the state's transit mode share by 2020 (California Department of Transportation, 2015). But transit ridership, despite heavy transit investment, is trending very much in the opposite direction.

This report assesses California's, and particularly Southern California's, recent ridership downturn. We emphasize Southern California because — as we will show — California's falling ridership is in many ways Southern California's falling ridership. Had transit use not fallen in the SCAG region through 2016, it would not have fallen statewide.

Our study considers the years from 2000 to 2015 or 2016 (depending on data availability). While widespread concern about falling transit use did not begin until ridership began falling absolutely in 2012, we focus on the per capita decline that began about five years before that. The falling absolute ridership of the last few years is important, and we do pay outsized attention to it. But we view it as a particularly acute manifestation of the longer-run per capita decline, not as a phenomenon in itself. Absolute declines in ridership are at once more noticeable and less important than per capita declines. Ridership numbers that are not adjusted for population lack context, and focusing only on absolute ridership declines can for that reason yield incomplete or misleading results.

For example, since 2012 gas prices have fallen sharply, transportation network companies (TNCs) like Lyft and Uber have expanded dramatically, undocumented immigrants have been granted drivers' licenses, and the economy has rebounded from the Great Recession. All these factors may have depressed transit use, but all of them also occurred well *after* per capita transit ridership began to decline. Thus none of them, individually or in combination, can fully explain Southern California's, or California's, transit patronage losses.

Our analysis faces data limitations common to examinations of transit. Aggregate data on transit use are widely available through the National Transit Database (NTD), but users of NTD data can never be entirely sure of the data's accuracy.[1] NTD records are compiled from the reports of individual transit operators to the federal government, and for a variety of reasons — from failure to report to mistakes in reporting to errors in correcting those mistakes— NTD data do not always match up with operator data. We have checked some of the NTD data used in this report against operator data and been satisfied that they reasonably conform, but checking all the data would be impossible. We emphasize that this problem is almost universal in transit studies: all data are imperfect, but the NTD is the nation's standard source for transit data.

A second issue is that while data on transit use are easy to find, data on transit *users* are not. Public transportation is used by a small and hard-to-track subset of the population, making riders (and especially former riders) hard to study. The U.S. Census, in its annual American Community Survey (ACS), provides detailed economic and demographic information about transit commuters, but commutes are a minority of transit trips, and commuters (as we will show) are a minority of transit riders. More detailed data on transit users can be found in the California Household Travel Survey (CHTS) which provides an in-depth look at travel of all types by Californians, and complements those travel data with extensive person-level

[1] Transit operators who receive funding from the Federal Transit Administration's Urbanized Area Formula Program, or its Rural Formula program, must submit data to the NTD on the financial and operating conditions of their systems, as well as the conditions of their assets and rolling stock. Just over 660 operators receive such funding and report to the NTD. See https://www.transit.dot.gov/ntd

socioeconomic information. But the CHTS is a one-year snapshot, only available for 2012. As a result, we have a data mismatch: excellent data for a single year, but a research question – why is transit ridership declining? – that demands data on changes over time.

A last data obstacle is that the determinants of transit use are varied, ranging from gas prices to auto ownership to the quality of transit service, and no single data set contains all of them. Some factors thought to influence transit use, like the availability of free parking, are not systematically tracked at all.

To work around these limitations, we draw on an array of spatial, person-level, and administrative data. At different points we use the U.S. Census summary files, the Integrated Public Use Microdata (IPUMS) of the Census,[2] state and national travel diary data, gas price and economic data from the Energy Information Agency and the Bureau of Labor Statistics, and data and rider surveys conducted by some of Southern California's larger transit operators. One operator—the Los Angeles County Metropolitan Transportation Authority (Metro, or LA Metro)—by itself accounts for most of the region's transit use and has ample public data available. As a result, at different points in the report when data for the entire region is lacking, we draw on data specific to LA Metro.

Largely because of these data constraints, the case we build is circumstantial; we offer no definitive proof of cause-and-effect. But the evidence is nevertheless compelling. The primary factor we identify is automobile ownership. In the last 15 years, household vehicle access in the SCAG region has grown dramatically. Vehicle ownership has grown particularly sharply among subgroups most likely to use transit, such as the low-income and the foreign born from Latin America. The steep rise in vehicle access among these groups that occurred as transit ridership began to fall is not direct proof, but it is a smoldering if not a smoking gun. Public transportation is unlikely to fare well when Southern California is flooded with additional vehicles. Much of the region's built environment is designed to accommodate the presence of private vehicles and to punish their absence. Extensive street and freeway networks link free parking spaces at the origin and destination of most trips. These circumstances give people strong incentives to acquire cars, and — once they have cars — to drive more and ride transit less.

The surge in vehicle ownership does not explain all of the transit decline. And it may well have been reinforced by falling gas prices and the rise of TNCs— though again we note that increasing vehicle ownership and declining transit use began before TNCs existed and when gas prices were still high. But increased vehicle ownership by itself probably explains much of Southern California's lost transit ridership.

Our findings accord with previous research about transit patronage. Giuliano (2005) has shown that compared to Americans at large, the poor use transit more but like it less. The typical low-income rider wants to graduate to automobiles, while the typical driver might view transit positively but have little interest in using it (Manville & Cummins, 2015). These facts, coupled with the falling ridership of recent years, raise questions about transit's future.

Transit ridership is not, by itself, a legitimate goal of public policy. Transit use is instead a means to achieve other public ends. Traditionally, transit's goals have been twofold: Providing mobility to disadvantaged people who lack it, and mitigating the social and environmental costs of private automobiles by providing alternatives to them. The first goal has long accounted for more of transit's ridership, while the second

[2] The IPUMS data are from Ruggles et al (2017).

has accounted for more of its rhetoric. Throughout the United States, and particularly in Southern California, public transportation advocates have emphasized transit's potential to manage traffic and reduce pollution. In practice, however, transit has functioned overwhelmingly as a social service for low-income people with little private mobility (Taylor & Morris, 2015).

Because transit has primarily carried low-income people, rising vehicle ownership among those people suggests a future where public transportation's core ridership could dramatically shrink. While this outcome poses a grave problem for transit operators, it is not obvious that transit operators should try to win these low-income riders back, at least not to the very high levels at which they rode transit previously. With very few exceptions, acquiring an automobile in Southern California makes life easier along multiple dimensions, dramatically increasing access to jobs, educational institutions and other opportunities (Kawabata & Shen, 2006). As a result, pulling low-income former riders out of their cars and back onto trains and buses could make transit agencies healthier but the region poorer. If transit agencies want to protect their fiscal health while also increasing social welfare, they may need to convince the vast majority of people who never use transit to begin riding occasionally instead of driving. This task is unquestionably more difficult than serving a large pool of people who have few alternatives to transit. Convincing some drivers to start using transit would likely require weakening or removing some of the state's and region's entrenched subsidies for motor vehicle use. But transit is unlikely to grow substantially, to accomplish its environmental goals, if driving remains artificially inexpensive.

THE SPATIAL AND DEMOGRAPHIC DISTRIBUTION OF AMERICAN PUBLIC TRANSPORTATION

Public transportation use in the United States is distributed unevenly across people and places. Transit accounts for about two percent of all passenger miles travelled (PMT), and about two percent of personal trips overall (NHTS 2009). These small overall numbers, however, conceal transit's outsized importance to some people in some places. The average U.S. resident made about 32 transit trips in 2016 (Neff & Dickens, 2017; U.S. Census Bureau, 2016), but the modal resident made zero trips, and a small number of people rely on transit extensively. Chu (2012) shows that 20 percent of Americans live in neighborhoods without transit, while 60 percent live in neighborhoods with transit but have not used it in the previous month. Another 11 percent uses transit less than ten times per month, while eight percent take ten or more trips monthly.

The small share of people who use transit frequently is concentrated in a handful of metropolitan areas. In 2016, 65 percent of all transit boardings occurred on the nation's ten largest transit operators; the 15 systems in the New York region by themselves account for over 40 percent of the country's transit trips (FTA, 2016). Even within these transit-heavy areas, however, most people do not use transit regularly, because most transit use occurs in the central cities, and specifically among lower-income and foreign-

born people in these cities. And even within these subgroups, whose members are *more likely* to ride transit, *most* people do not use transit.

Why is transit use so rare? In the broadest terms, travelers will choose to ride transit when they believe transit has the lowest relative costs – in money, time, or risk and uncertainty – of the various transportation modes available to them. These factors help explain why so much transit use occurs in New York City. New Yorkers ride transit as much as they do not only because transit service is frequent and extensive, but also because riding a subway across Manhattan is often cheaper, faster and more reliable than driving. Manhattan's streets are clogged with unpredictable congestion and parking is scarce and expensive.[3] In most other places, driving is a faster door-to-door option, and one that people also believe is safer (Yoh, Iseki, Smart, & Taylor, 2011). Driving in these places is also more reliable: when congestion is low and transit service is sparse, riding transit might involve more time waiting at stops and transferring between vehicles, which make trips seem unpredictable, complicated and burdensome (Iseki & Taylor, 2009). For this reason, outside New York and a handful of other urban places, most transit users are people who for various reasons do not have the option of travelling by car.

The fact that so few people use transit regularly is important but often overlooked, especially in discussions about why ridership might fall. Per capita transit use can fall when current riders ride less, when the number of people who never ride grows, or both. Strictly speaking, there is no difference between these root causes. A person who rides and stops is a lost transit rider, but so is a person who moves to a transit service area and never rides. The decision to stop and the failure to start both reduce per capita transit use.

In practice, however, concerns about falling per capita ridership are rarely concerns about new residents who never start riding, and are instead concerns about current riders who leave. This dynamic is understandable, as riders who leave are easier to notice. But it is important to remember that transit riders leave transit regularly, even when ridership is stable or growing. If riders who leave are replaced by others, their departure from transit is less noticeable, and ridership might remain unchanged. For that matter, ridership can remain unchanged even when riders leave and are *not* replaced by other people. If an existing rider stops taking her daily trip and drives instead, but another frequent rider adds a daily trip, the number of riders falls but per capita ridership does not. Conversely, if two riders who take three trips a day each start taking two, the number of riders won't change but ridership will. Riders are not equivalent to ridership; stable ridership can conceal large churn among riders, and vice-versa.

The Spatial Concentration of Transit in California and Southern California

As it is in the nation at large, public transit use in California is unevenly distributed: a small share of people and places account for a large share of overall rides. Northern Californians use transit more intensively than Southern Californians, largely as a result of high ridership in San Francisco and its surrounding areas, but most of California's transit use occurs in Southern California, where a majority of the state's

[3] Manhattan also has relatively few highway lane-miles, which contributes to its surface-street congestion.

population lives (Figure 1). Transit accounts for 6 percent of all trips in the Bay Area, as opposed to 5 percent in the SCAG region, but the SCAG region – because it is so large – accounts for 52 percent of California's transit trips, while the Bay Area accounts for 28 percent. Southern California thus exerts a large influence on California's overall transit use.

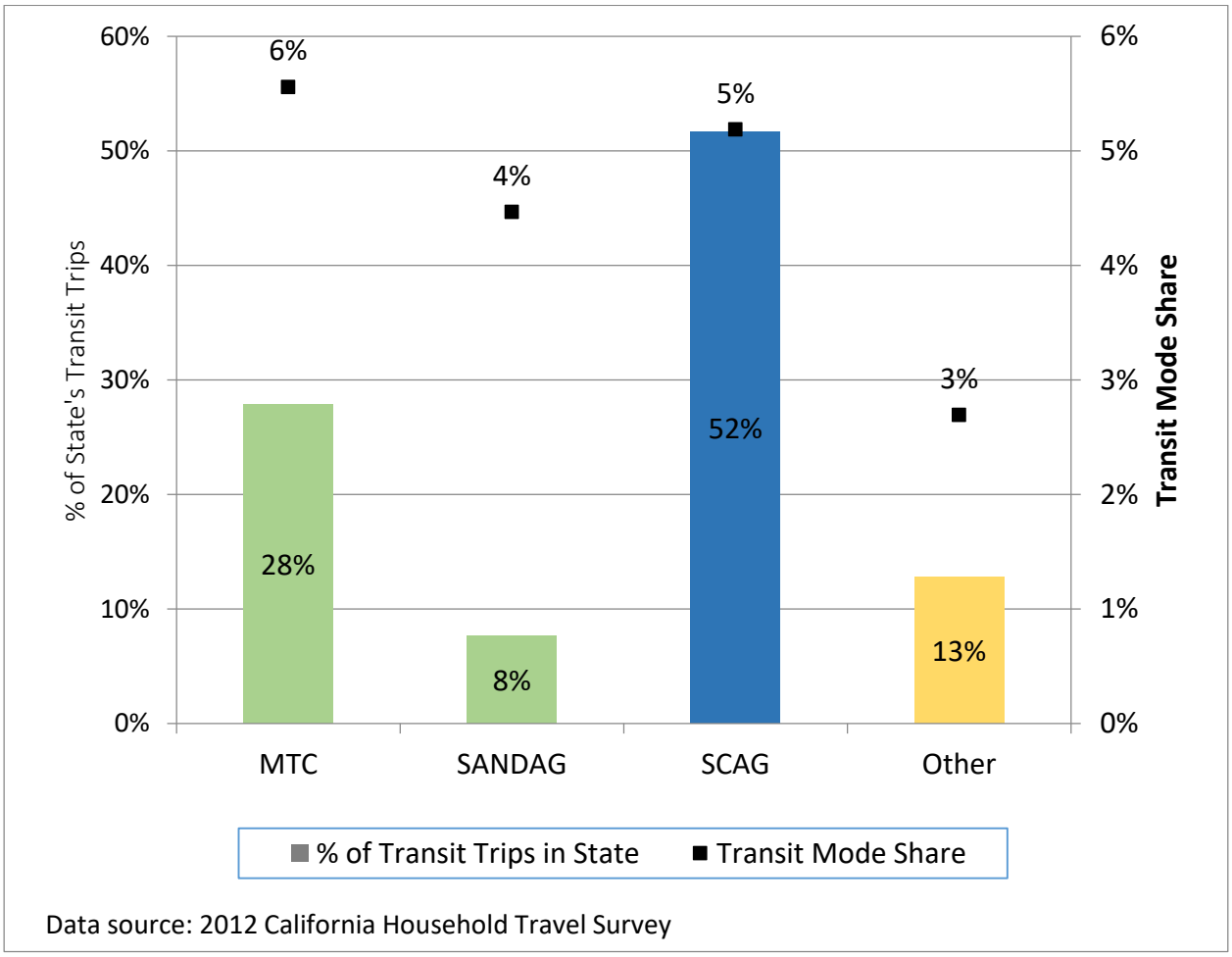


Figure 1. Transit mode share and distribution of transit trips by California region.

Figures 2 and 3 show the trend in transit boardings nationwide, in California, and the SCAG region between 2000 and 2016, first in absolute and then in relative terms. Absolute ridership was largely flat over this time in all three geographies. In relative terms ridership grew steadily between 2004 and 2007 (SCAG region), 2008 (the U.S.), and 2009 (California). This period of growth was followed by patronage losses from the start of the Great Recession through 2011, particularly in California. The recession's end brought a gradual transit patronage recovery, followed by steep declines from 2014 onward.

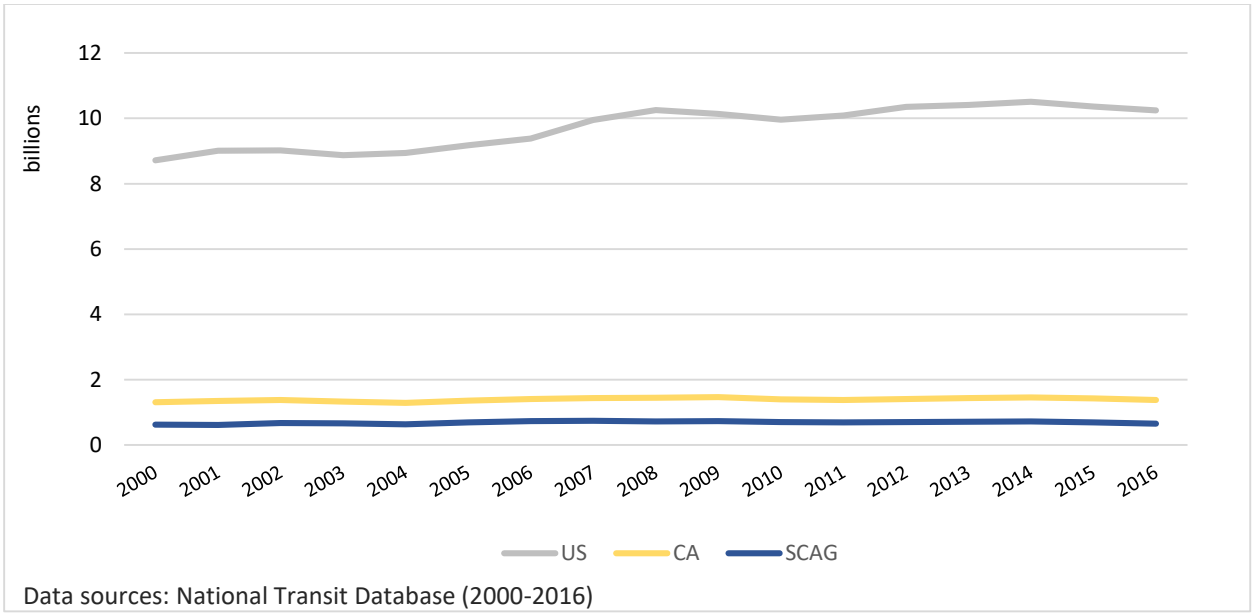


Figure 2. Boardings *(unlinked passenger trips). Growing nationwide, but relatively flat in California and SCAG.*

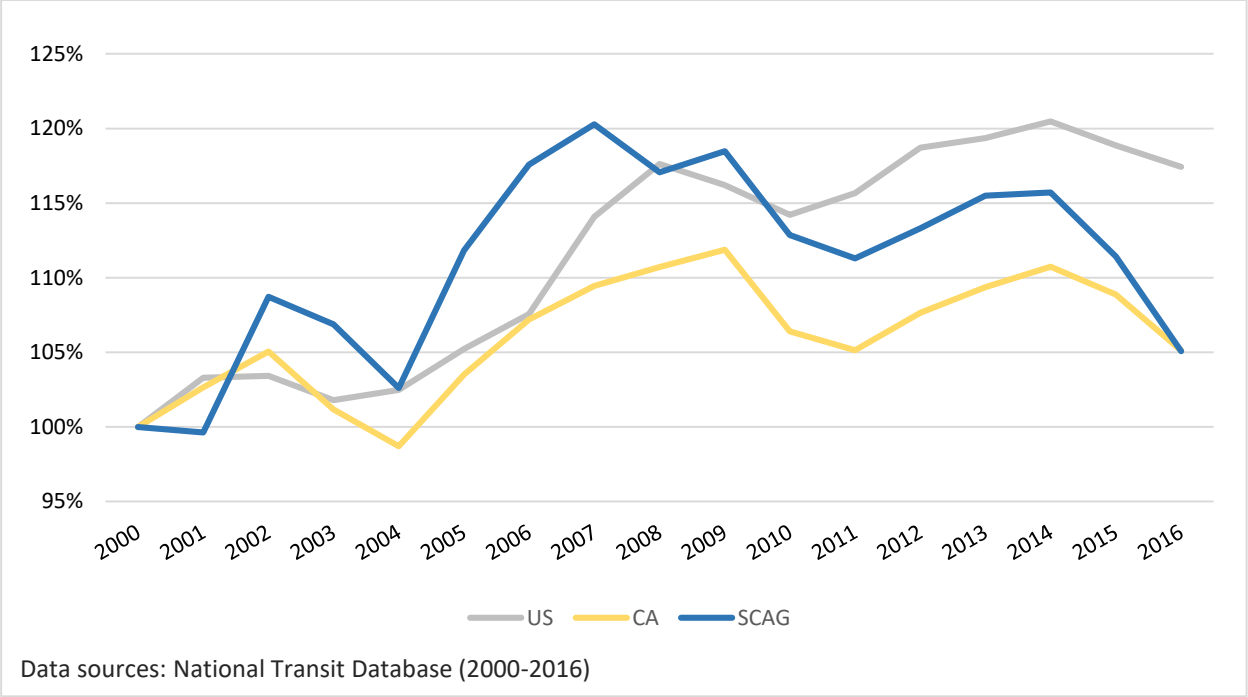


Figure 3. Indexed boardings. *Growing nationwide, but California and SCAG face steeper declines, returning to 2000 levels.*

Figure 4 expresses these ridership trends in per capita terms. Between 2005 and 2016, per capita ridership peaked in California in 2009, in the nation in 2008, and in the SCAG region in 2007. Since 2007, per capita transit use in the SCAG region has been mostly falling—before the recession, the rise of Lyft and Uber, or the post-2012 drop in fuel prices.

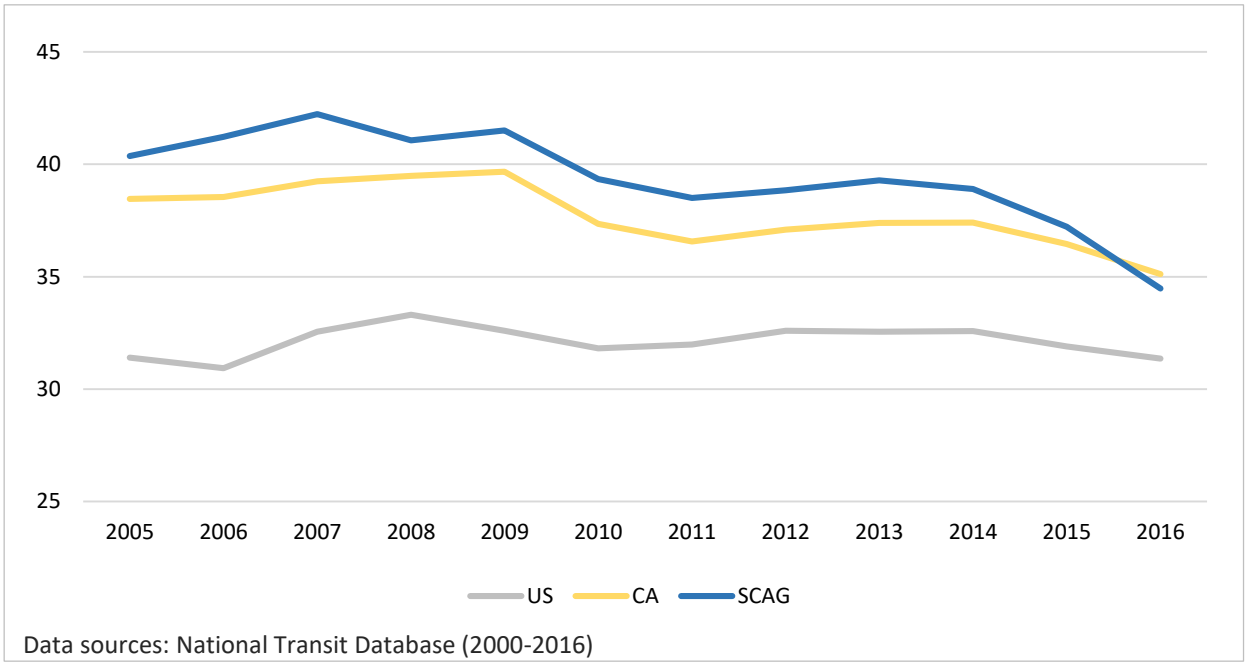


Figure 4. Transit trips per capita. *Relatively flat nationally, but down in California since 2009.*

Because the SCAG region accounts for so much of California's ridership, and because in recent years its decline has been so steep, losses in the SCAG region from 2012 to 2016 actually account for all of California's ridership losses during that time. Figure 5 shows changes in transit ridership across California from 2012 to 2016. During this time annual transit boardings statewide fell by 62.2 million. The SCAG region, however, lost *72 million* annual rides, or 120 percent of the state's total losses. Ridership outside the SCAG region actually rose 20 percent, largely as a result of gains made by transit systems in San Francisco. The Bay Area Rapid Transit District (BART) alone accounted for 28.4 percent of the state's increased transit ridership (although by 2017 ridership on BART, and in California outside the SCAG region, had also started to fall).



Figure 5. CA net change in ridership (2012-2016). *Losses in CA are driven by losses from the largest operators in the SCAG region, while Bay Area region saw growth in ridership.*

Within the SCAG region, transit trips (and lost trips) are similarly geographically concentrated. We can illustrate this concentration in a number of ways. For example, the CHTS shows that in 2012 82 percent of the transit trips in the SCAG region were in Los Angeles County. Another 8 percent were in Orange County, and the remaining ten percent were spread over the other four counties.

A second way to measure concentration, which allows us to examine smaller levels of geography, is to use census data and map the location of the region's transit commuters. While commuters are not the majority of transit riders, they do tend to use transit frequently and intensively, and we have high-quality data about their residential locations. Those locations are intensely concentrated. In 2000, 2010, and 2015, 60 percent of the SCAG region's transit commuters lived in 20 percent of its census tracts, which represented (depending on the year) one to three percent of the region's land area. In all three years, ten percent of the region's transit commuters lived in one percent of the region's census tracts, which accounted for two-tenths of one percent (0.2%) of the region's land area.[4] (Note that even in these tracts, *most* workers do not commute via transit – 7 out of 10 use some other means.) Unsurprisingly, these tracts are overwhelmingly located in LA County, followed by Orange County.

A third way to illustrate the concentration of transit use is to examine transit trips by operator. Figure 6 shows that the ten largest transit agencies in the SCAG region account for 60 percent of all transit service

[4] Calculated from summary file data of the Decennial Census 2000, and the 2010 and 2015 ACS.

(measured in vehicle-revenue hours), and 80 percent of all transit trips. The smallest 60 transit operators, by contrast, account for just over 6 percent of service and just over two percent of trips.

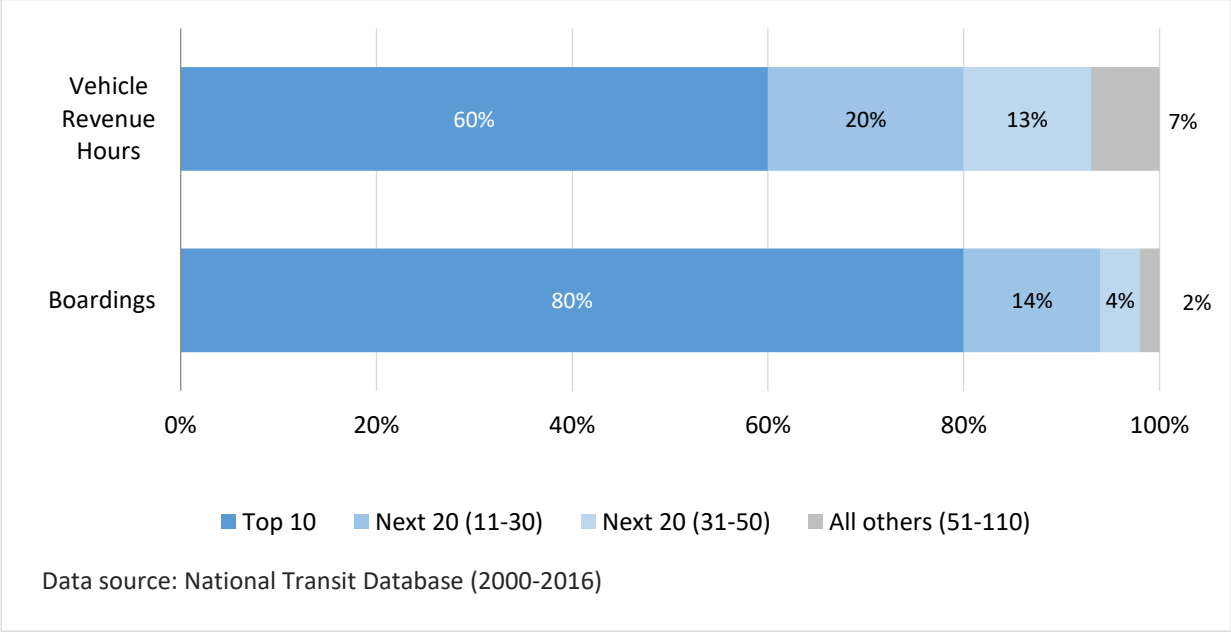


Figure 6. Key metrics by operator grouping. *9% of operators carry 80% of the trips*

Digging still deeper, the distribution of service and trips within these large operators is also highly skewed. LA Metro accounts for most of the SCAG region's trips, and LA Metro's ridership is itself highly concentrated. The agency has over 100 transit routes, but in both 2012 and 2016 over half of its total rides took place on 20 of those routes.[5] Metro's busiest routes are also, unsurprisingly, where the agency has suffered the largest ridership declines. A dozen Metro lines accounted for 53 percent of all the agency's lost rides between 2012 and 2016.

Putting all this information together, we see that declining transit patronage through 2016 in California is essentially declining patronage in Southern California, and that Southern California's ridership declines are themselves remarkably concentrated. As a result, the state's lost ridership can be traced to a small number of Southern California transit operators. Four SCAG operators (LA Metro, the Orange County Transportation Authority (OCTA), the Los Angeles Department of Transportation (LA DOT), and the Santa Monica Big Blue Bus) accounted for 88 percent of the state's ridership losses, and LA Metro by itself accounted for a remarkable 72 percent of the state's losses. Because LA Metro's losses are themselves highly concentrated, a dozen *routes* from LA Metro account for 38 percent of all the lost ridership in California. Half of California's total lost ridership is accounted for by 17 LA Metro routes (14 bus and 3 rail lines) and one OCTA route.

[5] Calculated from Metro ridership-by-line data, 2012 and 2016.

If we examine these routes more closely (Figures 7 and 8), we see that they include both bus and rail. Transit agencies nationwide – LA Metro included – have made substantial investments in rail service, but the bus remains the workhorse of public transit in the US, the SCAG region and LA County. Bus trips are 78 percent of all transit trips in California and 86 percent of transit trips in the SCAG region.[6] Given that buses carry the most passengers, it is not surprising that they have also seen the largest ridership declines, accounting for 84 percent of the lost rides between 2012 and 2016. While some bus routes gained ridership, the bus routes that lost riders lost more than the growing routes gained. The five bus lines with the largest declines were urban routes that travel in and out of downtown LA, while the five lines that gained the most ridership ran more outlying and circumferential routes.

Two Metro rail lines, meanwhile – the Gold and Expo – opened extensions after 2012, and partly as a result their ridership grew. But Metro's remaining rail lines, most of which also travel into downtown LA, saw steep ridership losses that exceeded the Gold and Expo Line's gains. The SCAG transit decline thus spans modes; it is not a simple story of buses falling behind while rail surges. Instead major routes that run into the heart of the city – the sort of routes where transit is traditionally strongest – are losing riders precipitously.

[6] Calculated from the 2012 California Household Travel Survey.

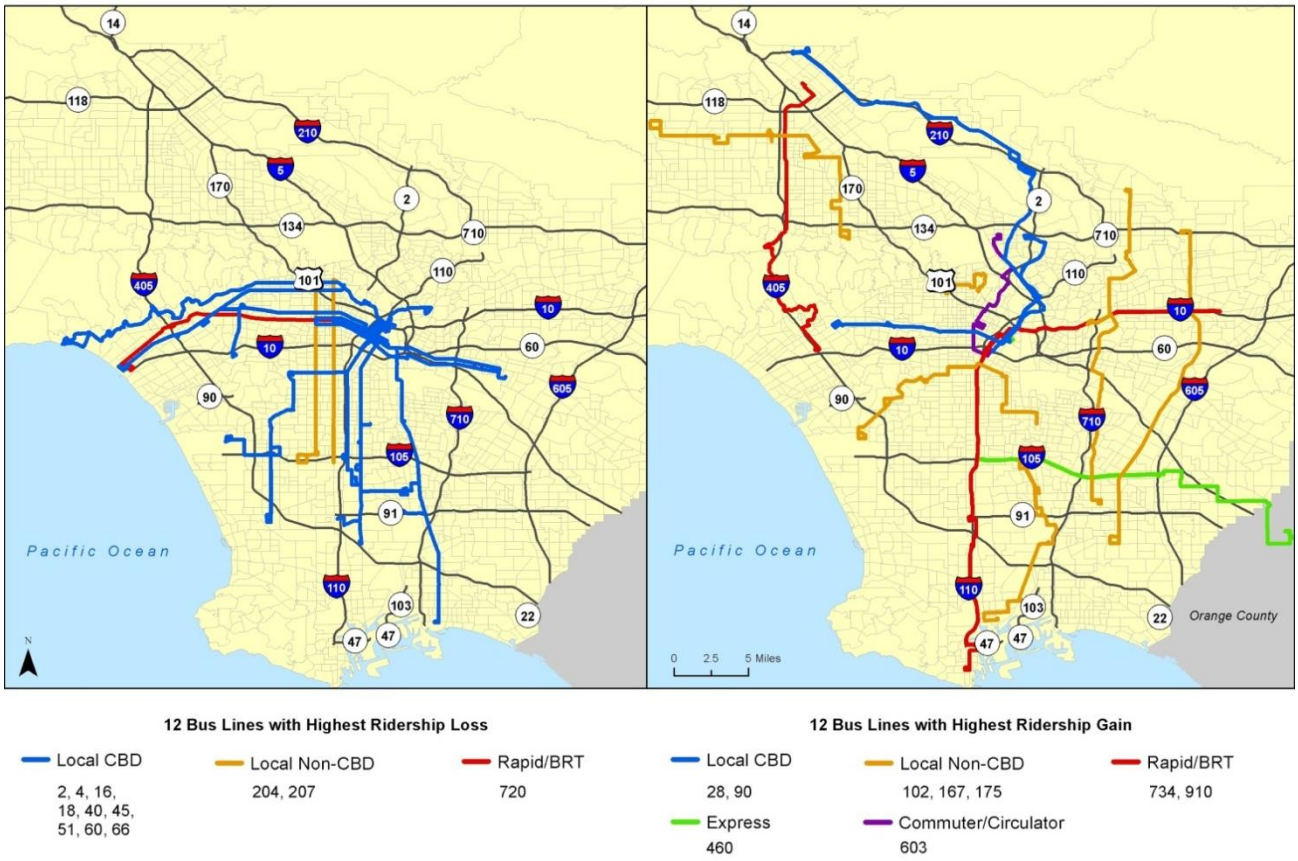


Figure 7. LA MTA: Bus lines with the most ridership change (2012-2016).



Figure 8. LA MTA: Net change in Ridership (2013-2016) by mode. *Buses made up 84% of loss and rail made up 12%.*

The Demographic Concentration of Transit Use in Southern California

Transit use in the SCAG region is concentrated among a small group of people as well as a small number of places. People ride transit for different reasons, but a common thread running through regular transit users is lack of access to a private vehicle. This trait is not universal; many commuter rail passengers, for example, could make their trips by car and choose not to, but commuter rail is a small portion of overall transit ridership. In general, transit ridership is powerfully associated with lack of vehicle access (Taylor & Fink, 2013). Note again, however, that this relationship is not symmetrical. While most regular transit users lack vehicle access, most people without vehicle access do not regularly use transit, in part because transit is unavailable in many places.

Lack of vehicle access might arise for economic reasons, for medical reasons, or out of personal preference or habit (Brown, 2017). The relationship between vehicle access and transit use could also run two ways. People might ride transit because they do not have a car (either they cannot afford a car or cannot use

one for medical or legal reasons) or they may not have access to a car *because* they ride transit (they live and work near high-quality transit and so need not spend money on vehicles).[7]

Non-economic reasons for lacking a vehicle include disabilities or medical conditions that prevent driving, and legal sanctions that forbid it (e.g. losing a license as a result of traffic infractions, or being in the country illegally). In Southern California, perhaps the largest non-economic source of low vehicle access is immigration. Even controlling for income, immigrants are less likely than the native born to have vehicles, and more likely to use public transportation. Why this is so remains something of a puzzle. Scholars have proposed various explanations, including immigrants' tendency to live in dense areas; their tendency to live in close-knit communities that allow for more communal resources, including sharing of cars; a habit of not driving carried over from the native country; and – if the immigrant is undocumented – legal barriers to owning and operating automobiles (Blumenberg & Smart, 2014; Chatman & Klein, 2009, 2013; Liu & Painter, 2012). The evidence suggests, however, that driving less and riding transit more is not universal among the foreign born – immigrants from some countries, particularly Mexico and many countries in Central America, are less likely than others to drive and more likely to ride (Chatman, Klein, & DiPetrillo, 2010). There is also substantial evidence that over time immigrants assimilate and begin to travel more like the native born, with more driving and less transit use (Blumenberg & Evans, 2010). Thus transit ridership cannot be sustained by immigration alone; it requires a steady stream of new immigrants from particular countries, who will arrive with a transit habit and replace those earlier arrivals who assimilate driving.

Economic reasons for lacking vehicle access can include both low incomes and the high cost of driving. In some parts of California, such as northeastern San Francisco, a combination of heavy congestion, high tolls, and scarce and expensive parking make the price of owning and operating a vehicle high, and encourage even affluent people to ride transit (notably, the same density that makes the city congested can makes transit service more effective by putting large numbers of trip origins and destinations within steps of transit stops). Yet there are few places in Southern California where driving is challenging in this way. Congestion is severe, but parking is abundant and often inexpensive if not free, and low-to-moderate densities make transit less able to effectively link many places. As a result, income becomes the principal determining factor in vehicle access, and thus of transit use.

Figure 9 uses CHTS data to illustrate the disproportionate propensity to use transit among the low-income, the foreign-born, and households with limited vehicle access. The figure's dashed vertical line represents the overall average of daily unlinked transit trips in the SCAG region, and the circle associated with each subgroup indicates its relative size in the overall population. The figure shows, in short, that transit use is more common among smaller segments of the population. African Americans and Hispanics ride transit about three times as much as Whites and Asians. Immigrants who have been in the country less than ten years ride substantially more than both the native-born and longtime immigrants who have been in the country longer. Households earning under $25,000 per year ride more than twice as much as households earning $25,000 to $50,000, and these households in turn ride twice as much as households earning over $50,000 annually. By far the largest differences, however, are those that represent vehicle availability. Households without vehicles take almost five times as many transit trips as households with one vehicle,

[7] These reasons might interact. People who cannot afford vehicles might choose to live near transit because of their lack of vehicle access (Glaeser, Kahn, & Rappaport, 2008).

and households with one vehicle take twice as many trips as households with two. If we measure vehicles per adult, households with one vehicle for every two adults take twice as many trips as households with one vehicle per adult. Finally, people without driver's licenses take many more transit trips than licensed residents.

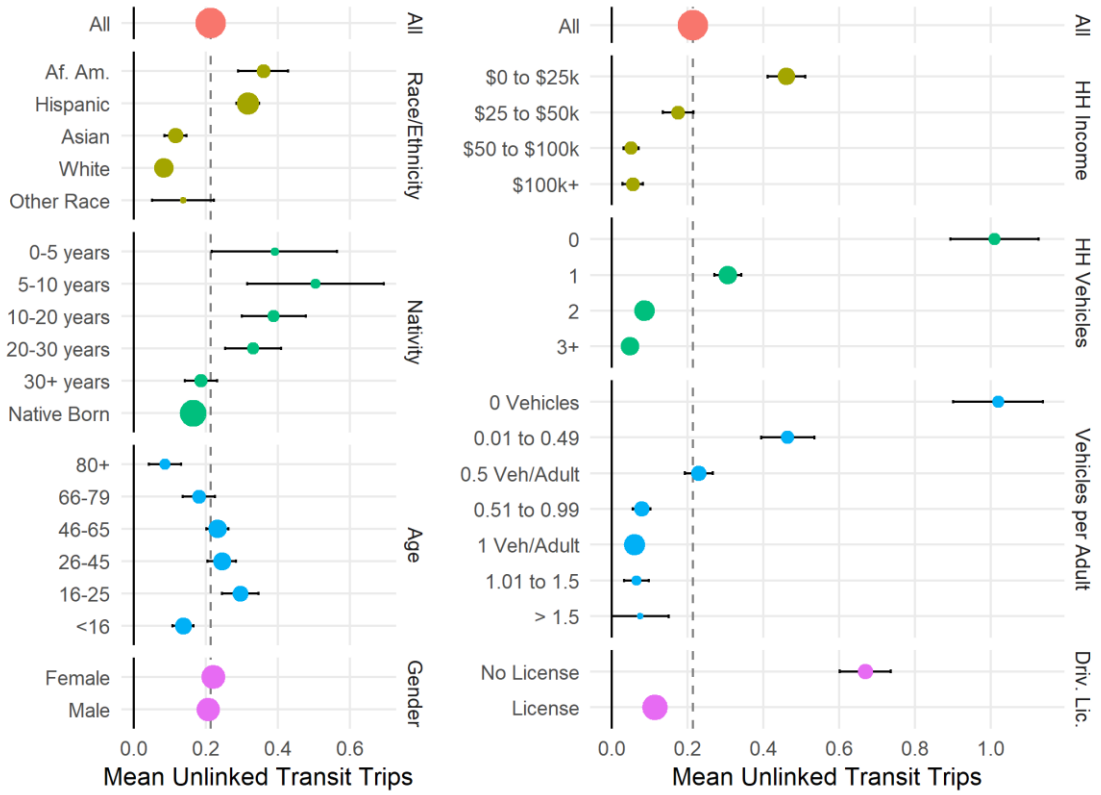


Figure 9. Mean transit trips by socio-economic characteristics and automobile access (CHTS).

The drawback of the CHTS, as we have mentioned before, is that it provides only one year of data. Table 1 uses LA Metro's annual rider surveys to show that the prevalence of people with low incomes and limited vehicle access on transit extends across years. We examine the 2005 survey (the earliest available) and then annual surveys from 2010 to 2016. Across both bus and rail riders, at least 69 percent of transit users (and often closer to 80%) report not having a vehicle available to make their trip. These proportions are higher for bus riders than rail riders, but even among rail riders between 58 and 65 percent (depending on the year) report not having a vehicle. The share of riders reporting not having a vehicle, furthermore, has grown over time.

In addition to limited vehicle access, Metro riders generally have low incomes and are strongly dependent on transit. Close to half of all surveyed LA Metro riders in each year have household incomes under $15,000. The median household income of riders hovers near $16,000, and the average income barely exceeds $25,000 in most years. In most years a strong majority of riders are habitual (riding over 4 days a

week) and a majority are longtime users (riding over 5 years). The riders are also overwhelmingly nonwhite.

All these characteristics make Metro riders – who are, again, most of SCAG's transit users – strikingly different from the population at large. The CHTS shows that in 2012, 73 percent of LA County residents took transit only occasionally or never, and the 2016 Census ACS shows that LA County residents are 26 percent non-Hispanic white, and that county median household income is $62,000. Only 5 percent of the county's households earn less than $15,000 per year. Thus SCAG's largest transit operator has for over a decade been dominated by low-income, nonwhite people with little vehicle access, people who live and move very differently from the typical Southern Californian.

	2005	2010	2012	2013	2014	2015
Share No Vehicle Available (%)	69	75	81	79	69	78
Bus Only	73	76	82	80	70	82
Rail Only	50	64	63	63	58	65
Share Earning Under $15k/Year			51	45	47	47
Median Household Income ($)			14,706	16,316	15,910	15,918
Mean Household Income ($)			26,025	25,540	23,223	25,747
Share White		8	9	10	9	9
Share Riding 5+ Days/Week		56	67	67	67	68
Share Riding 5+ Years		49	53	52	59	57

Source: Metro Rider Surveys. Not all questions asked every year. Dollars are nominal. "No vehicle" indicates that respondents lack access to a vehicle for the current trip.

Table 1. Characteristics of LA Metro riders, 2005-2015.

The importance of vehicle access is reinforced by evidence from other transit operators. A small operator in the SCAG region, the Montebello Bus Lines, surveyed residents (not just riders) in 2016. Most respondents did not ride transit, and 55 percent of non-riders said they would only ride if they lost access to their car. Most people who did ride did not have access to a vehicle (Diversified Transportation Solutions 2015). In 2016, the OCTA also surveyed Orange County residents about their travel behavior. The results were similar. Only three percent of people who always had vehicle access listed transit as their primary travel mode, compared to 33 percent of people who never had a vehicle (True North Research 2015).[8]

The OCTA survey also stands out for usefully disaggregating "lack of vehicle access," and demonstrating that vehicle access is not the same as vehicle ownership. Over 70 percent of OCTA transit users had a car in their household, but the car was not available to them. In most instances it was being used by someone else, but 19 percent of current riders were unable to drive, and another eight percent reported having a vehicle that was not working (True North Research 2015). People in households with vehicles can still lack

[8] Note that 2/3 of people without vehicle access still did not use transit regularly.

vehicle access. If a household has more adults than vehicles, and if most adults move around on most days, then someone is without a car, and the odds of using public transportation rise.

We emphasize again, however, that most people simply do not use public transportation very often. The four panels of Figure 10 use 2012 CHTS data to divide the California, Southern California, and LA County populations into three groups: *Transit Commuters* (respondents who use transit for the journey to work); *Transit Non-Commuters* (respondents who used transit in the week prior to the survey but do not use transit for the journey to work); and *Infrequent Transit Users* (respondents who do not use transit for the journey to work and did not use it in the previous week).

In general, and unsurprisingly, transit use is more intensive in the SCAG region than in California, and more intensive in LA County than in the SCAG region. Beyond this difference, the patterns relating to these three types of users are generally consistent across the three geographies. *Transit Commuters*, who garner perhaps the most attention from public officials and transit planners, ride most frequently (44 to 49 trips per month), but are a very small share (2% to 3%) of the population; as a result, they account for just 25 percent to 30 percent of all transit trips taken, despite their frequent use. *Transit Non-Commuters* ride transit less frequently (11 to 16 trips per month) than *Transit Commuters,* but account for a much larger share (20% to 23%) of the population, and as a result they actually account for over half (54% to 57%) of all transit trips. Finally, *Infrequent Transit Users* ride little or not at all, averaging only 0.9 to 1.5 trips per month across the three geographies. This group, however, comprises about three-quarters (73% to 78%) of the population, and because of this large base, *Infrequent Transit Users* account for better than one in seven (16% to 18%) of all transit trips.

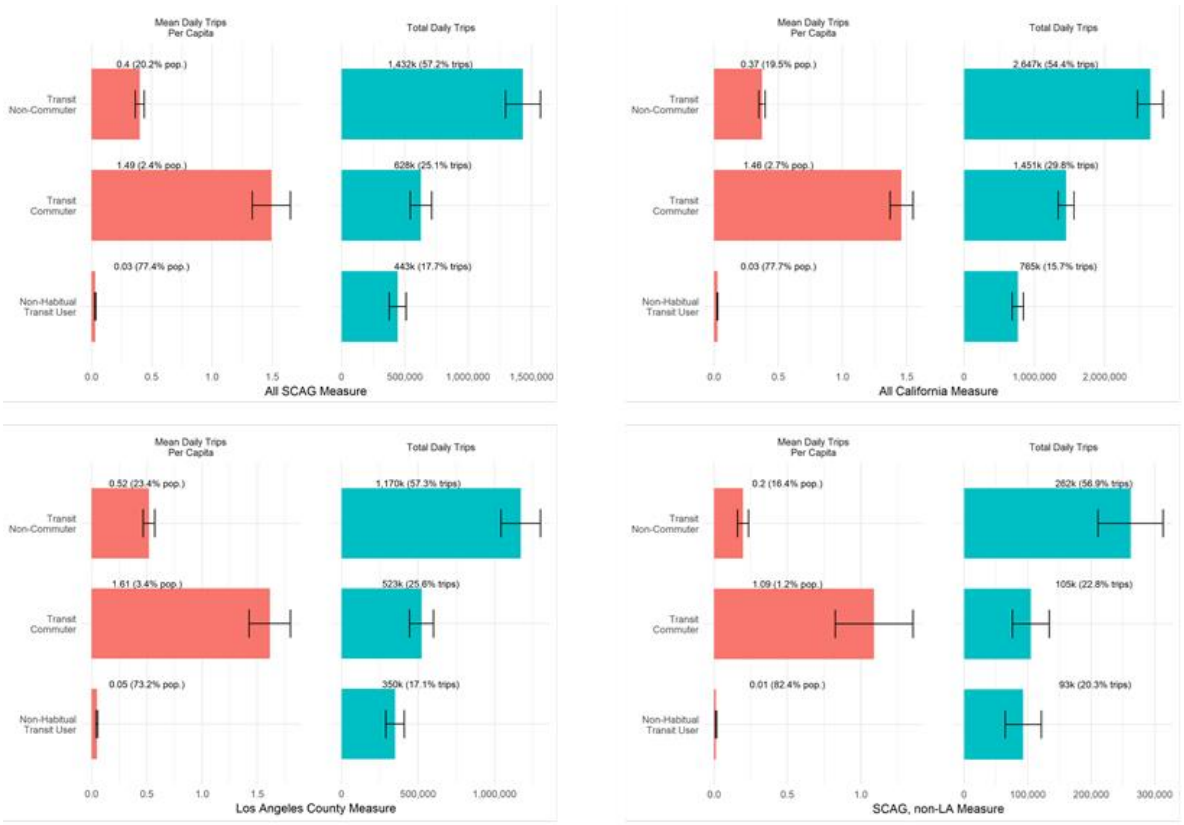


Figure 10. Mean and total daily trips by transit user group for the SCAG region, California, Los Angeles County, and non-Los Angeles SCAG region.

This snapshot of transit users is a picture of asymmetry, and this asymmetry suggests how transit ridership can fall dramatically and seemingly suddenly. The people who ride transit regularly are a narrow segment of the population. They come disproportionately from households with two or more adults per available vehicle, and especially from households with no vehicles. They have lower incomes, on average, and are more likely immigrants, young adults, and African-American or Latino. Many of them do *not* ride transit to or from work; transit commuters are just three percent of the population, and 13 percent of regular transit riders. The transit industry is thus heavily-dependent on a small subset of people, and very sensitive to even small changes in how those people choose to move around.

EXAMINING SOUTHERN CALIFORNIA'S DECLINE IN TRANSIT USE

Transit ridership can fall for multiple reasons. For convenience we divide these reasons into two categories: factors that transit operators (funding permitting) can control, and factors they cannot. We take these up in turn.

Factors Within Transit Operators' Control

The Quantity and Quality of Transit Service

People will ride transit less if service is slow, infrequent, or unreliable, and/or if rides are difficult or dangerous to take. As the quantity or quality of service falls, ridership should fall as well.

The Quantity of Transit Service

Some observers contend that recent drops in transit ridership can be tied directly to declining service quantity. For example, Hertz (2015) ties falling transit ridership to cuts in bus service, and articles in both the Wall Street Journal (Harrison, 2017) and New York Times(Rosenthal, Fitzsimmons, & LaForgia, 2017) make similar arguments. Freemark (2017) argues that LA's declining bus ridership is a function of Metro's falling service levels, and observes that average bus speeds fell 13 percent between 2005 and 2013.

Service levels certainly have a strong influence on ridership, even controlling for reverse causality – the fact that places with more riders often add more service (Alam, Nixon, & Zhang, 2015; Taylor, Miller, Iseki, & Fink, 2009). But service levels can be measured in many ways; two of the most common metrics are vehicle revenue miles (VRMs) and vehicle revenue hours (VRHs). VRM measures the distance transit vehicles cover while in service, while VRH measures the amount of time vehicles are in service. Both Hertz (2015) and Harrison (2017), in relating falling ridership to service declines, measure service using VRM. VRM alone, however, can be a problematic measure of transit service. In practical terms, VRM differentiates faster, longer-distance commuter services from lower speed local service. VRH, in contrast, measures the supply of different kinds of services (local bus service, bus rapid transit, rail transit, express bus, commuter rail, etc.) more similarly. VRH differentiates less among modes and service area types because the time between stops often varies far less than the distance travelled between them. A dozen stops spaced far apart in uncongested outlying suburbs can take a similar amount of time to serve as a dozen closely-spaced stops in a congested urban environment. The miles covered on the two routes will vary greatly, but the time required to serve them may not.

As a result, falling VRM *can* indicate service cuts, but can also reflect transit vehicles operating in higher levels of congestion, or agencies increasing local service rather than express service, or agencies redirecting service from outlying areas to central areas.

For example, if a transit agency shifts service from outlying suburban routes that travel longer distances at higher speeds to shorter, slower urban routes, VRM would almost certainly fall, as would average speed. But VRH may not change. Vehicles moved to dense areas typically cover less ground, but also move more slowly, stop more frequently, and dwell longer at each stop to allow more people to board and alight. In this case a "cut" in VRM would not necessarily be associated with a cut in VRH, and could actually deliver more service to more people.

In short, falling VRM is hard to interpret without also examining VRH. If VRM and VRH fall at roughly the same rate, then service is likely falling absolutely. But VRM falling substantially more than VRH suggests a change in service deployment or operating conditions (such as worsening congestion), rather than a service cut.

With this as background, we can consider the SCAG region's recent trends in VRM and VRH; we will show that rates of change in VRM and VRH have generally not been in concert. Figure 11 shows the relative trends in total VRM for the US, California, the SCAG region, and the SCAG region excluding LA Metro or OCTA between 2000 and 2016.

While VRM has increased across all four geographies, it has grown faster in the SCAG region than the U.S. or California as a whole, and faster still among SCAG's smaller transit operators – suggesting a relative shift in service delivery from LA Metro and OCTA to the smaller operators.

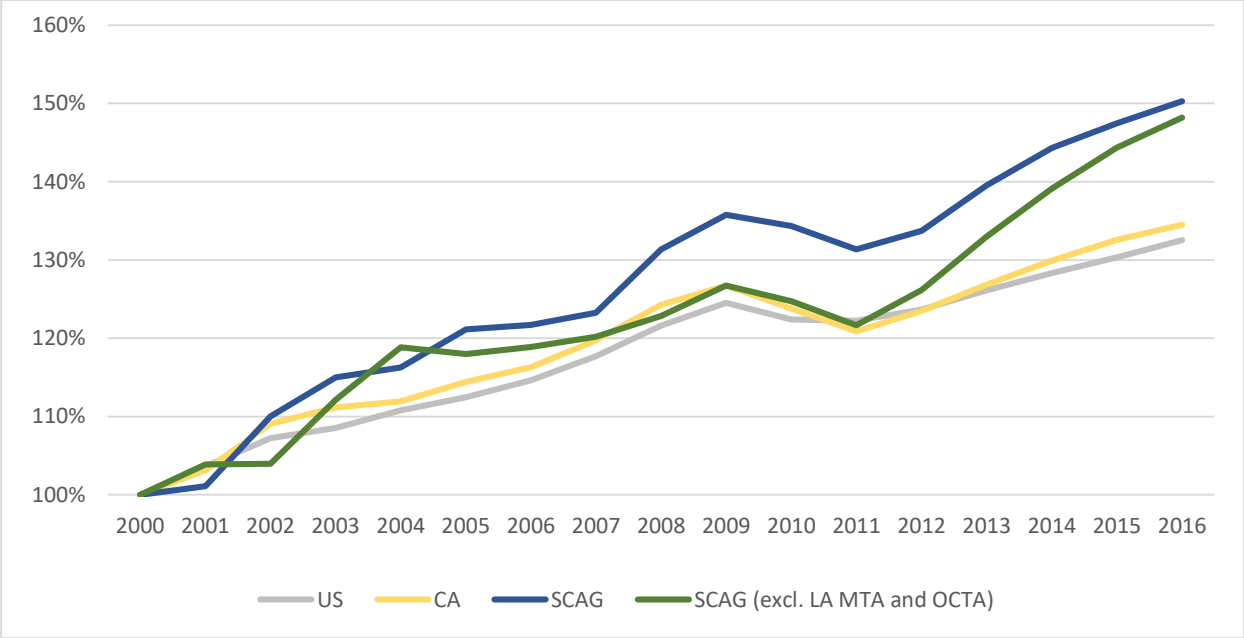


Figure 11. Indexed vehicle revenue miles. *Growth in service in the SCAG region outpaces national and state trends; within the SCAG region, all other operators have collectively added service at a faster rate than LA MTA or OCTA.*

This pattern is confirmed if we examine absolute VRM trends in the SCAG region separately for LA Metro, OCTA, and the remaining SCAG operators (Figure 12). Overall transit VRM has been growing for all three groups, but growing faster at the smaller operators.

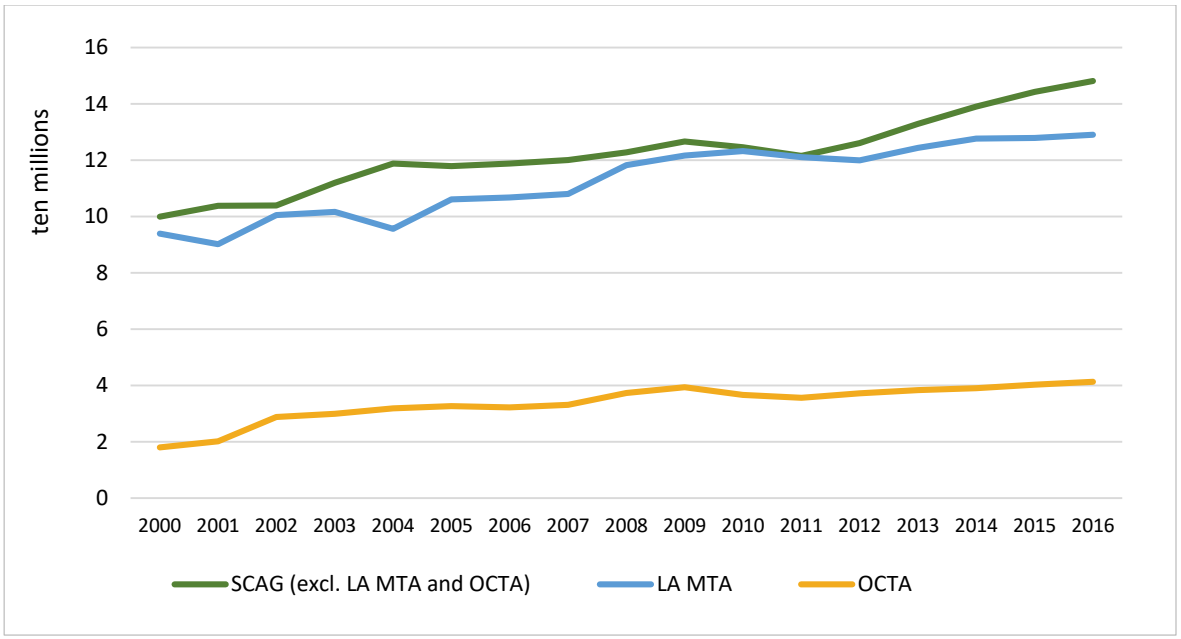


Figure 12. Vehicle revenue miles. *Service levels for LA MTA matches aggregate service provision for all other operators in the region (minus OCTA). Service is growing faster in the SCAG area excluding LA MTA and OCTA than at LA MTA or OCTA.*

While VRM rose in the aggregate from 2000 and 2016, it has not been climbing for all modes. Figure 13 shows the roller coaster that has been the VRM trend for local bus service over this period: Significant growth between 2000 and 2005, little change between 2005 and 2009, a steep drop between 2009 and 2013, and slow growth from 2014 to 2016. Rail service, in contrast, has been steadily rising, especially light rail (Figure 14).

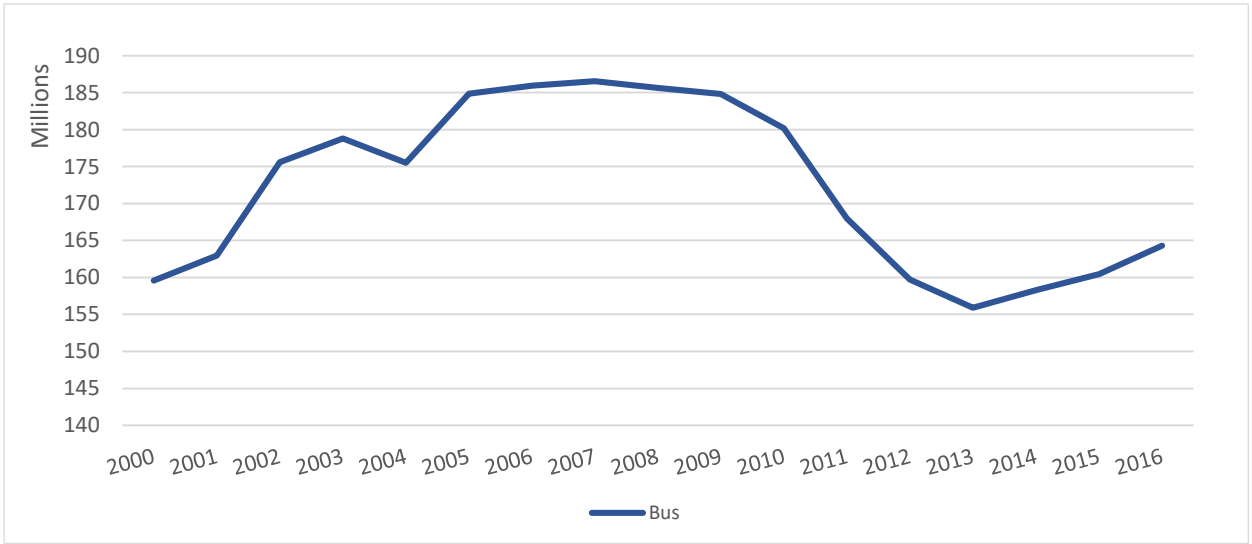


Figure 13. SCAG region: VRM for bus. *Service in miles traveled dropped by 15% between 2007 and 2013. Service has increased since. Hours of service has also declined, but not as rapidly as miles of service, indicating that service is cut on suburban bus lines.*

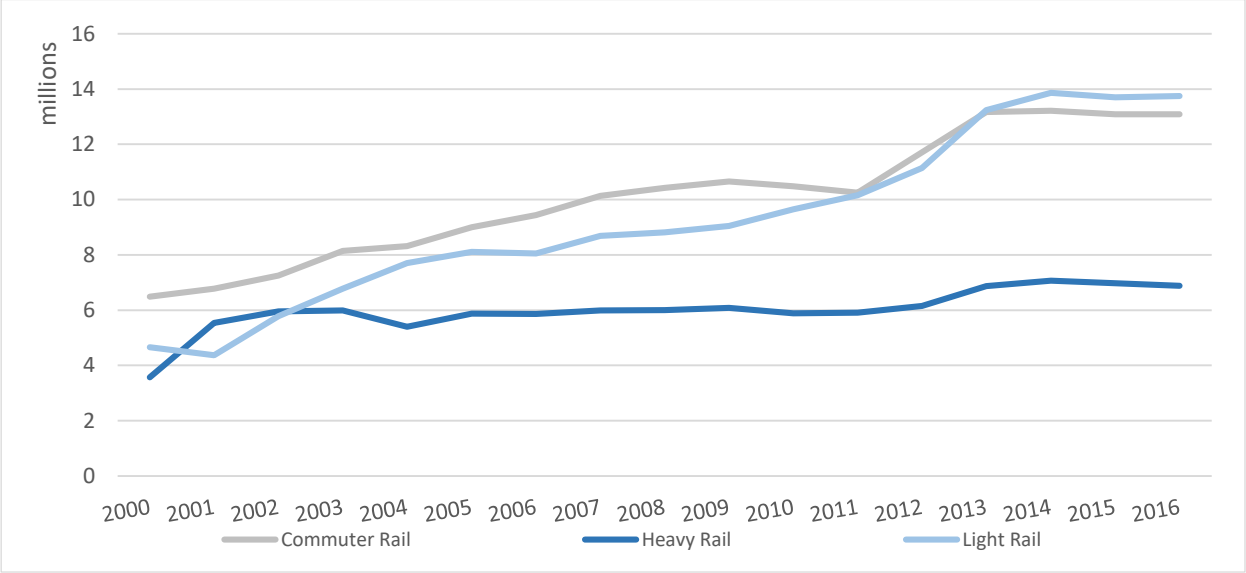


Figure 14. SCAG region: VRM for rail. *Substantial service increases for all commuter and light rail since 2000.*

If we examine service hours (VRH), we see similar aggregate trends. VRH rose from 2000 to 2009 in the US, California, and the SCAG region, fell from 2009 to 2011 during the Great Recession, and then climbed again across all three geographies through 2016 (Figure 15).

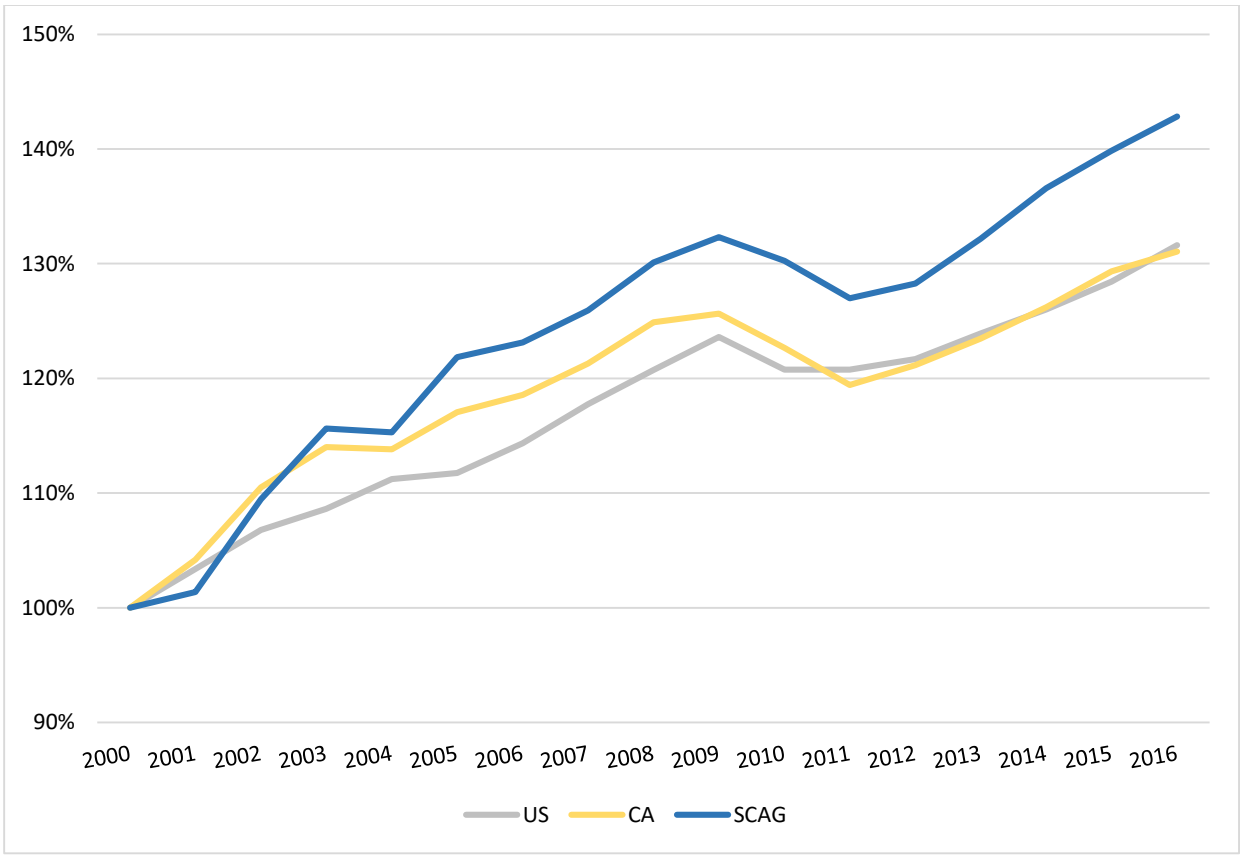


Figure 15. Indexed vehicle revenue hours. *Growth in service in the SCAG region outpaces national and state trends.*

Figure 16 shows the percent change in vehicle revenue hours over two time periods – 2005 to 2016 and 2010 to 2016 – across three geographies (US, California, SCAG region) and across four types of SCAG-region transit operators (Largest, Large, Medium, and Small). The figure shows that VRH increased during both time periods across all three geographies and all four operator types. It also shows, however, that VRH grew least among the largest operators that have lost the most riders, while it increased much more among the smaller operators.

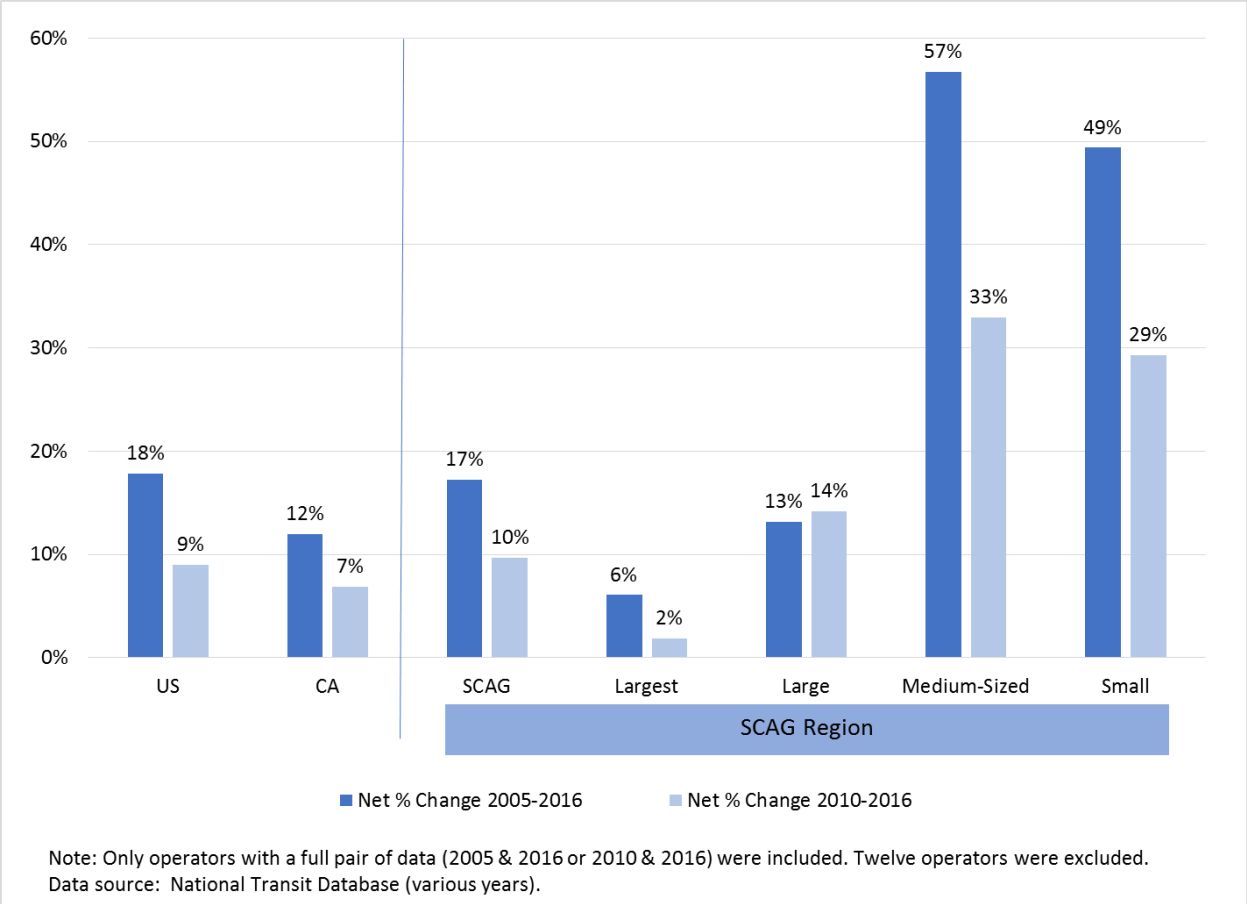
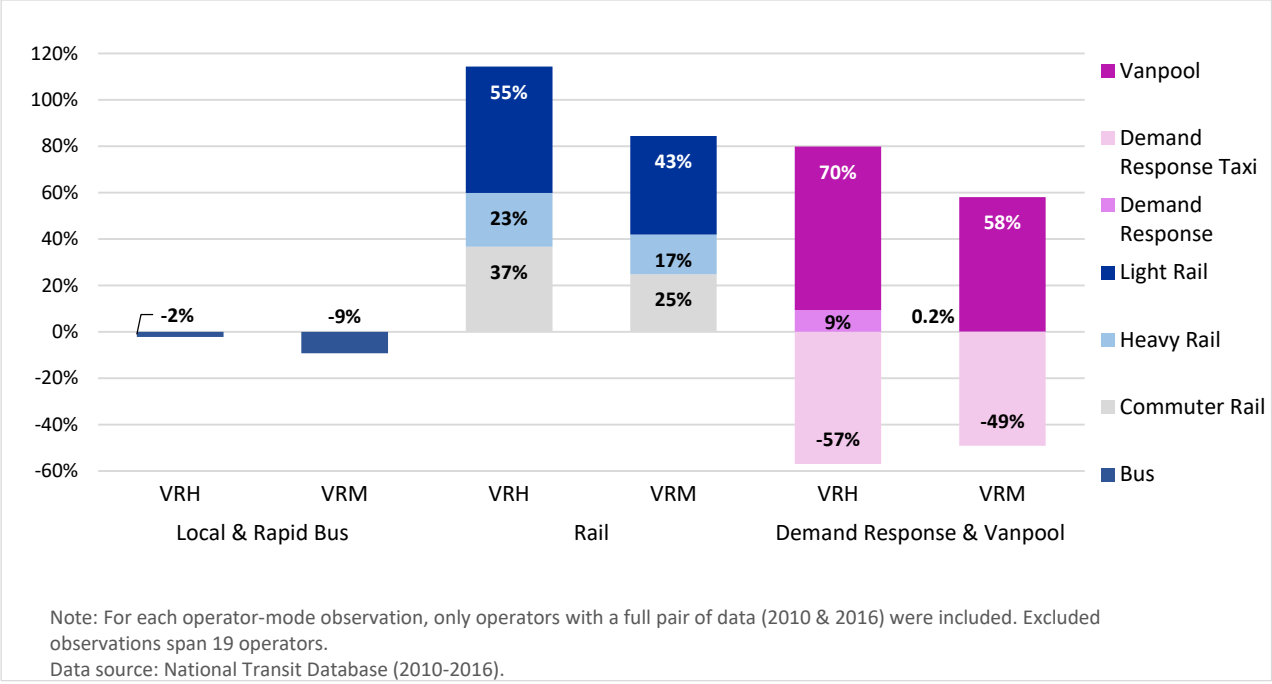


Figure 16. Changes in indexed vehicle revenue hours by region and SCAG transit operator size: 2005-2016 & 2010-2016. *Service growth among the largest SCAG operators was lower than national, state, or regional averages, and much small than smaller SCAG-region operators.*

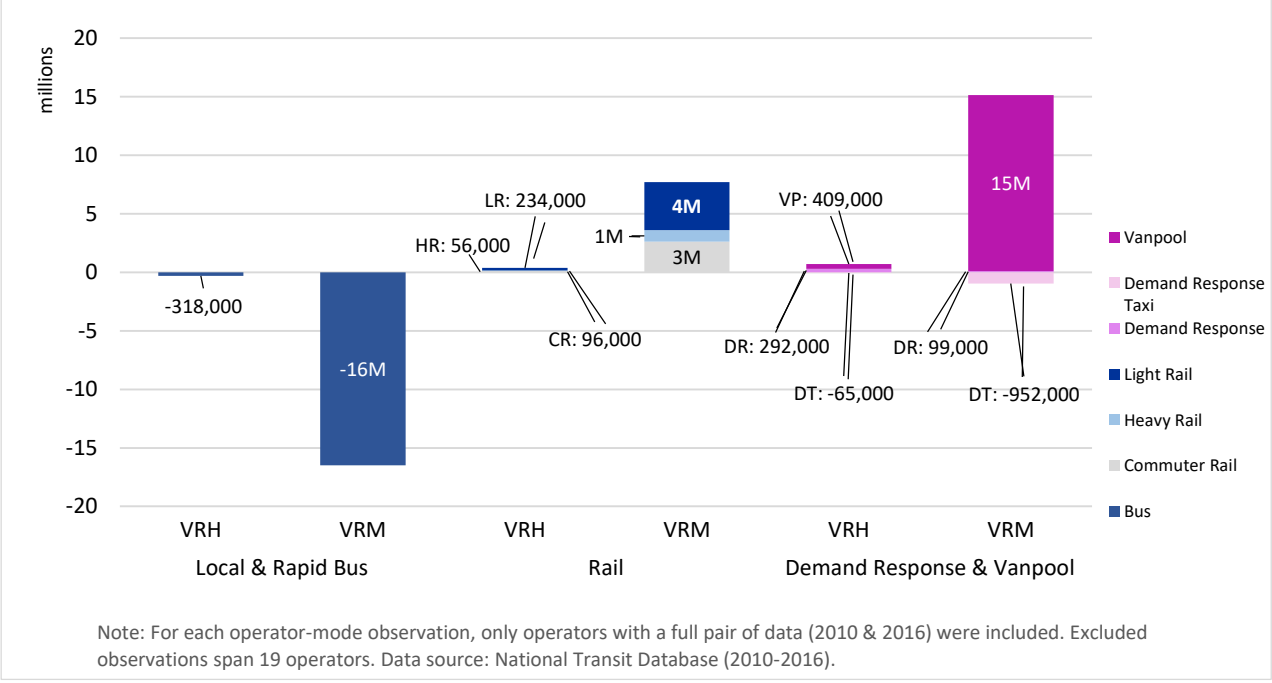
Finally, Figures 17 and 18 show the absolute and relative changes in VRM and VRH by mode between 2010 and 2016.[9] The figures show substantial overall shifts in service among modes, with local bus, rapid bus and demand response taxi service declining, while rail, commuter bus, and vanpool service increased. In absolute terms, local and rapid bus service declined most, while commuter bus and vanpool grew most; in relative terms, rail transit grew most while demand response fell most.

[9] Note that because Figure 17 shows absolute changes in both VRM and VRH on the same Y-axis, the VRM changes appear to be substantially larger than the proportional differences shown in Figure 16. These apparently large differences are mostly an artifact of transit service moving anywhere from about 6 (for the slowest urban bus service) to 40 (for the fastest commuter rail service) miles per hour, on average. This means that, for example, a one million VRH increase might be expected to have a corresponding 10 million or more VRM increase.



Note: For each operator-mode observation, only operators with a full pair of data (2010 & 2016) were included. Excluded observations span 19 operators.
Data source: National Transit Database (2010-2016).

Figure 17. Percent change in service (hours and miles) by mode: SCAG region 2010-2016. *Rail and vanpool have largest % gains, and service is added in the urban core, rather than to outlying areas. Bus service hours were slightly reduced, and came from outlying areas.*



Note: For each operator-mode observation, only operators with a full pair of data (2010 & 2016) were included. Excluded observations span 19 operators. Data source: National Transit Database (2010-2016).

Figure 18. Change in service (hours and miles) by mode: SCAG region 2010-2016. *A 9% reduction in bus service miles is equivalent to 16.5 million bus service miles cut. Vanpool had the most service miles added, reflecting the longer commutes that vanpool serves.*

Overall, these shifts in service provision reflect both the choices and mandates of public policy. For better than three decades Southern California, and Los Angeles County in particular, has chosen to invest heavily in new rail services. As these new services have come on line, they account for a growing share of the region's transit service. Second, federal civil rights legislation, in the form of the Americans with Disabilities Act, has mandated the delivery of both accessible and demand-response transportation services to a growing and aging population. In combination, these choices and mandates have shifted transit service away from buses and toward rail and van services.[10]

What do these changes in transit service supply mean for transit patronage? First, Figure 19 shows the trends per capita VRH and per capita transit boardings over the past quarter century in the SCAG region. Transit service supply has been mostly climbing in the SCAG region for better than a quarter century, while transit use has never reached the 1991 levels. Given this, there is no *prima facie* case that faltering transit service supply is driving down patronage.

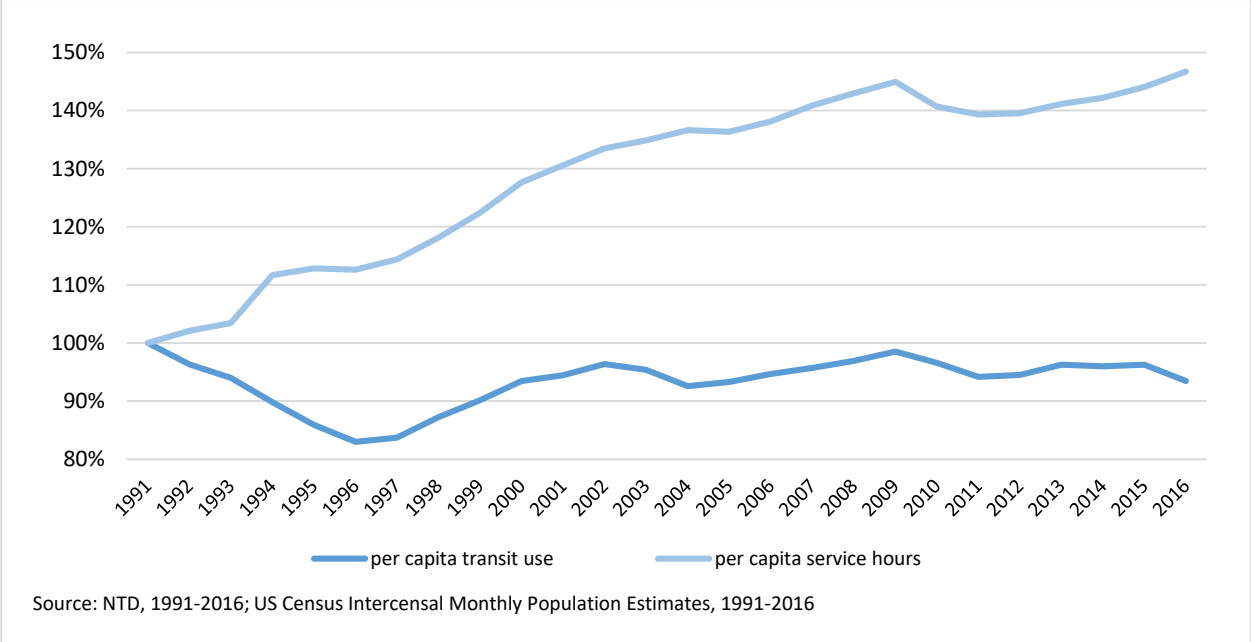


Figure 19. Transit trips and transit supply (1991-2016). *Per capita transit supply has increased 34% since 1991, while per capita transit use has not changed much.*

[10] Though not directly relevant to our question, these shifts have significant budgetary implications beyond just the deployment of various services (Taylor, Garrett, & Iseki, 2000). Local bus and bus rapid transit services (with the exception of those operating in exclusive rights-of-way) tend to be the cheapest to deliver and require the smallest per passenger subsidies. By contrast, the annualized capital plus operating expenses of rail transit tend to be substantially greater per passenger, while the per passenger subsidies for ADA demand response services tend to be the highest of all.

As a final way to examine the relationship between service levels and ridership, we examine the shifts between modes that occurred within the region's largest transit operator, LA Metro. Doing so allows us to address the possibility that aggregate increases in services are masking drops in those types of services— such as buses— that most transit riders rely on. The figures below show the indexed trends in boardings, service (VRH), and productivity (boardings/VRH) for LA Metro bus (Figure 20) and rail (Figure 21) service from 2000 to 2016, and demand response service (Figure 22) since 2008. For local bus and BRT service, transit service supply has tended to follow, rather than lead, changes in ridership — at least through 2014. Beginning in 2014, bus service rose slightly while boardings plunged. Rail service, not surprisingly, has increased more than 150 percent since 2000, and ridership has increased as well, though more slowly. Both service and patronage have tailed off since 2014, but largely in concert— there is no obvious sign of one leading the other. Finally, demand response and van service supply has grown steadily since 2008; boardings increased steadily, albeit more slowly than service, through 2015. Over the past year, service continued to gradually climb, while patronage began to fall.

Collectively, these data offer little evidence that service cuts are driving away customers. Instead service expansion has been accompanied by less ridership, with the main result being lost productivity, particularly for rapidly expanding rail and van services. Rail and van productivity (measured as boardings per VRH) has eroded steadily since 2009, while the service effectiveness of local bus and BRT service began dropping later (and more precipitously) in 2014. Falling service does not seem to be the culprit for falling ridership; falling ridership, in concert with expanding service, is the culprit for falling productivity.



Figure 20. LA MTA: Indexed bus and BRT boardings, service, and productivity. *Declining ridership since 2007, with services' slow growth in the post-recession period leading to declining productivity.*

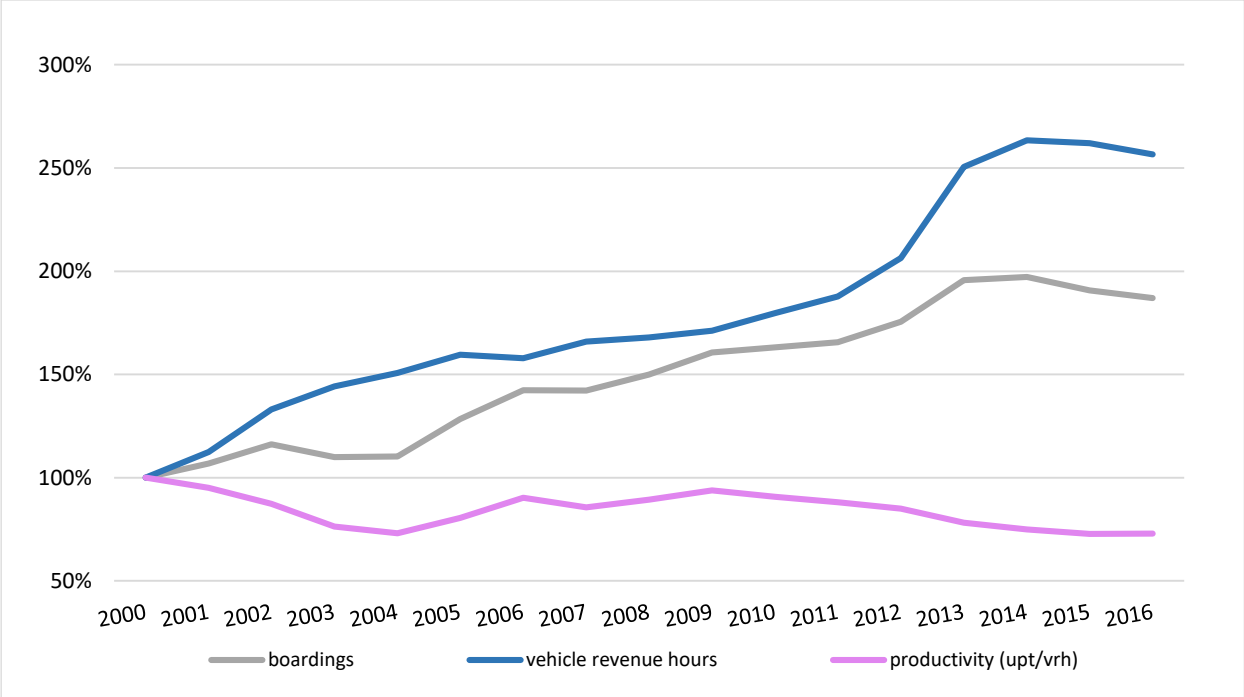


Figure 21. LA MTA: Indexed rail boardings, service, and productivity. *Light rail service doubles with the opening of the Expo Line. Boardings do increase, but slower than the amount of service added.*

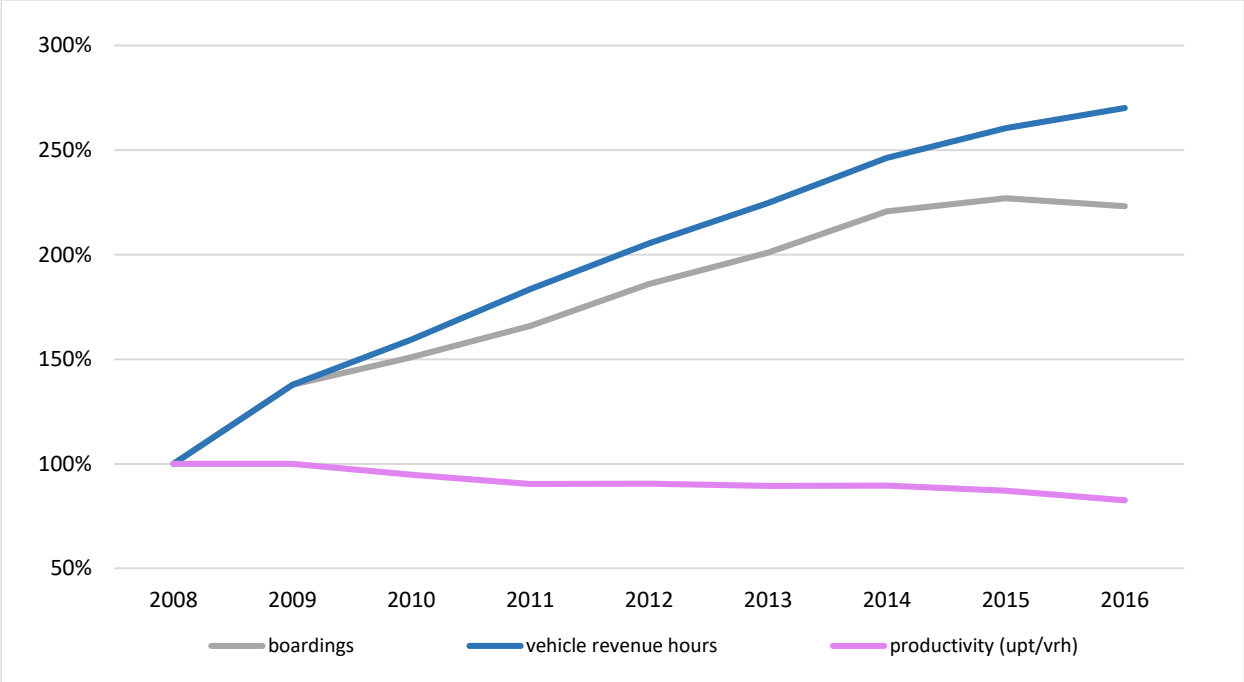


Figure 22. LA MTA: Indexed demand response boardings, service, productivity.
Ridership more than doubled, while service increased by 2.8x.

The Quality of Transit Service

Even if transit quantity does not change, transit quality might. Transit quality has no specific definition, but we can divide it into speed, reliability, and experience. Speed measures how quickly transit vehicles move throughout the region. Reliability is a measure of on-time performance: Do vehicles arrive and depart when they are supposed to? Experience is a measure of how safe or comfortable people feeling during their transit journey, including the time they spend waiting for and transferring among their buses and trains.

Local bus and BRT service in the SCAG region has been slowing down over time. This slowdown is likely a result of many factors, including worsening congestion, shifts from faster suburban to slower urban service, shorter stop spacing, and longer stop "dwell" times to load and unload passengers. Whatever the underlying causes, region-wide bus vehicle speeds declined five percent between 2000 and 2010, and another eight percent between 2010 and 2016, for a total drop in speed of nearly 13 percent over 16 years. By comparison, rail transit speeds were down only two percent between 2000 and 2016.

Falling speeds slow travel times, and if operators do not counteract falling speed by adding more vehicles, then headways (the time between vehicle arrivals at a stop) will rise. Rising headways make transit less attractive by increasing average wait times at stops and lengthening the times of transfers among vehicles. Research has shown that transit passengers find waiting for busses and trains to be especially burdensome, so increased headways can undermine the quality of transit service even if the quantity (in terms of vehicle revenue hours of service) stays unchanged (Iseki & Taylor, 2009).

The SCAG region has 41 transit agencies that operate fixed-route general public service, and on-time performance naturally varies across them.[11] Measuring reliability for all or even most of these operators is therefore beyond the scope of this report. We can, however, examine reliability for LA Metro, which again accounts for the lion's share of the SCAG region's transit trips and lost trips.

Historically, Metro has been unreliable relative to other large transit agencies. A 2008 study by the agency showed that compared to 9 peer operators, Metro had both a lower on-time target and a lower on-time percentage (a vehicle is considered "on-time" if it is less than 5 minutes late). Metro aimed to have 70 percent of its vehicles arrive on time, and attained a rate of 63 percent. In comparison, New York attempted an 83 percent on-time rate and attained an 82 percent rate (Flowers & Snoble, 2008). Metro's reliability problems occur almost entirely on buses, which can easily become trapped in congestion (and which, of course, can also exacerbate congestion).

In the intervening years, however, Metro's on-time performance appears to have improved substantially. An analysis of Metro data by local reporters (Mendelson, 2015) suggests that from 2010 to 2015 Metro rail maintained a 99 percent on-time rate (with subways being late 1 stop out of 200, and light rail 1 stop out of 50), while the buses improved their on-time rate to 81 percent. We say "appears" because this discussion comes with an important caveat: Reliability is a function of the conditions in which buses and trains operate, the efficacy of the bus and train operations, and the schedule that sets the performance expectations. Controlling for conditions or operations, schedules that assume few traffic disruptions and little layover or recovery times can be difficult to meet, while those that assume slower speeds and provide generous layover and recovery times at the ends of routes are easier to meet.

As a result, transit operators can improve measured reliability in two ways. The first involves steps like better field supervision, quicker boarding and alighting procedures that reduce dwell times, and giving buses their own lanes in chronically congested districts. All these steps can change operations, and lower the variability of travel times. But the second way to improve reliability is to change the schedule, by factoring in more slack. Doing so is not necessarily disingenuous, and may simply reflect the challenges of operating in heavy congestion. Adding slack to schedules can allow vehicles to maintain performance even in the face of disruptions (severe congestion, crashes, crowds of people boarding or alighting at particular stops, and so on). The downside to this approach, however, is that too much slack in the schedule might increase reliability on paper but manifest as poorer-quality service in the eyes of riders. As slack increases average vehicle speeds fall, headways rise, and so do timepoint holds (instances where vehicles wait at stops so as not to run ahead of schedule). A service that is on-time because its schedule makes it less frequent is not a high-quality service.

We could not, with the data and time available to us, determine if Metro's schedule adherence improved because its buses met the existing schedule more often, or because schedules themselves were changed. If bus performance improved on the street as opposed to on paper, then we would have little reason to think service reliability was a large factor in falling ridership – bus ridership would have fallen even as schedule adherence increased. But we cannot say for certain that this occurred. We do know, however,

[11] With another 69 systems operating demand-response and other types of transit services, for a total of 110 regional transit service providers.

that rail ridership fell even as rail maintained a near-perfect on-time record. So we have some reason to think that service reliability did not play a large role in the ridership downturn.

We should also note that the advent of mobile apps that track transit vehicles in real time may have diminished the problems caused by unreliable buses. Unreliability is a larger problem when it strands people at stops with little idea of when a vehicle will arrive. To the extent people can follow vehicles in real time and adjust their departures to minimize waiting, some of the worst aspects of irregular transit vehicle arrivals can be mitigated (Yoh et al., 2011). LA Metro has next bus and next train information at its rail stations and BRT stops, and real time information about local and express buses is available on multiple smartphone applications. Metro's 2016 rider survey shows that 51 percent of bus riders have a smartphone, and that 66 percent of these riders use the phone "very often" or "occasionally" to get information about Metro rides.

A transit vehicle that arrives on time can still have poor service quality, if the experience of using the vehicle – which includes walking to the stop, waiting at the stop, and riding – is unpleasant. Specifically, if people using transit feel unsafe or uncomfortable, ridership could fall (Delbosc & Currie, 2012; Iseki & Taylor, 2009). Safety perceptions are often gendered (Loukaitou-Sideris, 2015), and a slight majority of transit users in the SCAG region are women. Note that perceptions of safety are different from, and probably more important than, safety itself. Many behaviors that are not crimes, and that do not directly threaten other people, may nevertheless disturb people nearby, and can discourage them from using transit (Ellickson, 1996; Fink, 2012).

There is some reason to think that transit vehicles, stations, and stops in the SCAG region – and particularly along LA Metro routes – came to feel less safe to riders in recent years. In 2016, LA Metro surveyed former riders, and 28 percent said that the primary reason they stopped riding transit was that they felt either unsafe or uncomfortable. Unfortunately, this survey is not conclusive. Former transit riders are a hard group to reach, and there are responses in the survey that suggest that the overall sample may not have been representative. As a result, we cannot be certain that safety actually loomed so large for former riders. At the same time, even if the survey inflated safety concerns by a factor of two, a nontrivial share of former riders (14 percent) report leaving transit because they felt unsafe. And considerable anecdotal evidence suggests that in recent years transit users started to feel less safe — such reports prompted Metro to completely revamp its security procedures in 2017.

What might explain riders' perceptions that transit is less safe? Possibly some riders have *always* felt unsafe, and what changed was not conditions on transit but the option to leave (if people got access to vehicles or TNCs, for example). We do not discount this possibility, but will take it up later in this report. If we assume that perceptions of safety really did decline in recent years, one potential (and admittedly speculative) reason involves LA County's dramatic increase in homelessness after 2010. Table 2 shows changes in the LA County homeless population from 2005 to 2017, based on homeless counts done by the Los Angeles County Housing Services Administration. Homeless counts, and especially counts of the unsheltered homeless, are for obvious reasons prone to error. Nevertheless, the table suggests that homelessness, while not as severe today as it was in 2005, has in recent years both risen sharply and changed in composition. The unsheltered chronic homeless (people who are not just homeless but also have some sort of disabling condition) became a larger proportion of the homeless overall.

Year	All Homeless		Share	Chronic Homeless		Share
	Total	Unsheltered	Unsheltered	Total	Unsheltered	Unsheltered
2005	65,287	53,429	81.8%			
2007	59,956	39,168	74.0%			
2009	38,602	21,073	54.6%			
2011	39,153	20,157	52.4%			
2013	39,463	25,136	63.7%	7,475	6,652	89.0%
2015	44,359	31,025	69.9%	13,356	nd	nd
2016	46,874	34,701	74.0%	14,644	13,746	93.9%
2017	57,794	42,828	74.1%	17,531	13,321	93.1%
Pct Change, 2005-2017	-13.0%	-24.8%	-10.4%			
Pct Change, 2009-2017	33.2%	50.8%	26.3%			
Pct Change, 2013-2017	46.5%	70.4%	16.3%	57.4%	59.2%	4.4%

Source: Los Angeles Homeless Counts, Los Angeles Almanac
https://www.lahsa.org/homeless-count/reports
http://www.laalmanac.com/social/so14.php

Table 2. Changes in LA County homeless population, 2005-2017.

Homelessness— the simple condition of people being without housing— often arises from high housing prices that push some people out of the housing market (O'Flaherty, 1998). Chronic homelessness, however, which tends to be much more visible (in part because the chronic homeless are less likely to be sheltered) often has different underlying causes related to addiction or mental illness. In conversations with transit operators during the writing of this report, some mentioned the impact of California's prison realignment program, which led to many inmates being released from prisons and jails. The state's carceral institutions have traditionally held many mentally ill persons, and discharging them without any corresponding increase in other social services may have increased the number of people with addictions and disabilities living on the streets. No government entity tracks prison realignment's impact on homelessness, but some advocates estimate that up to 20 percent of the state prisoners discharged, and up to 10 percent of county jail inmates, have now become homeless(Holland, 2015). There is also small body of evidence, some academic and some journalistic, suggesting that the unsheltered homeless gather disproportionately around transit facilities. Transit vehicles can provide shelter and protection, while transit stops can provide a roof or even just a bench (Emmons, 2013; National Academies of Sciences, Engineering, and Medicine, Transportation Research Board, Transit Cooperative Research Program, & Boyle, 2016; Trevor, n.d.; Voorhees Center for Neighborhood and Community Improvement, 2016). To the extent some of these people use transit stops and transit vehicles as ad hoc shelters, and to the extent their presence or behavior disturbs others, realignment may have played a role in making transit seem less safe, and reducing ridership. We emphasize again that this line of thinking is quite speculative and warrants further research.

Transit Fares

Potential transit riders weigh the quality of a ride against its price. Like most goods, transit, even at constant quality, will become less attractive if its price rises, and more attractive if the price falls. The postwar high-water mark for transit in Los Angeles County occurred during a three-year program that cut bus fares in half from 1982 to 1985. When this program ended and bus fares returned to their previous levels, transit ridership fell substantially (Southern California Rapid Transit District, 1986).

The inverse relationship between fares and use, however, is complicated by two factors. First, the people who use transit the most – lower-income people with limited or no vehicle access – are generally more price sensitive in that they have less income, but *less* price sensitive in that they have few viable alternatives to transit. As a result, many transit riders are less sensitive to fare increases than one might expect given their incomes. Second, although every transit operator has a posted one-way fare, relatively few riders actually pay that rate, because agencies offer a variety of discounts and bulk payment mechanisms, including daily, weekly or monthly passes, youth and elderly discount passes, and so on that offer substantial discounts to particular classes of riders, including those who ride frequently (Yoh, Taylor, & Gahbauer, 2016). Heavy users who buy monthly passes will typically pay a per-ride rate much lower than the advertised fare. LA Metro's 2016 rider survey showed nearly half (49%) used a daily, weekly, or monthly pass, while about 25 percent paid a discounted fare.

Further complicating this issue is that transit fares can be calculated on a per-trip or per-mile basis. Arguably the most intuitive way to think about fare increases is per-trip: How much does a person pay to get aboard a vehicle? But once a passenger is on board, what follows might be a local bus trip of two blocks or a light rail trip of 22 miles. With the exception of commuter rail and some express bus routes, transit fares generally do not change with distance travelled. If the average fare to board a vehicle rises less quickly than the average distance of a trip, the per-mile fare could fall more than the per-trip fare rises, and transit may in a real sense become less expensive. For our purposes, the fare per trip is probably more relevant, as it is likely more salient to potential riders, but it remains worthwhile to consider both.

This wide array of payment methods and rates, and ways of considering these rates, makes calculating the actual fare paid by different classes of users beyond the scope of this report. We can, however, easily determine the average fare paid per boarding for a given system and the SCAG region, by simply dividing total fare revenues collected by either total boardings or passenger miles. While these metrics will fail to capture some of the nuances of fare payment among different types of users (they cannot completely control, for instance, the bulk discounts for heavy users of different lines) they are a measure of the fare payments actually made by people when they ride.

Figure 23 below displays the average inflation-adjusted fare paid per boarding across all transit systems in the US, California, and the SCAG region between 2002 and 2015. The figure shows, first, that the average transit fare paid is lower in the SCAG region than for California as a whole, which in turn is lower than the average transit fare paid nationwide. Second, the figure shows that the average inflation-adjusted fare paid per boarding in California began creeping up in 2012, and to a lesser extent in the US since 2013 and the SCAG region since 2015. Overall, however, the average inflation-adjusted fare per boarding in the SCAG region has been remarkably flat since 2002.

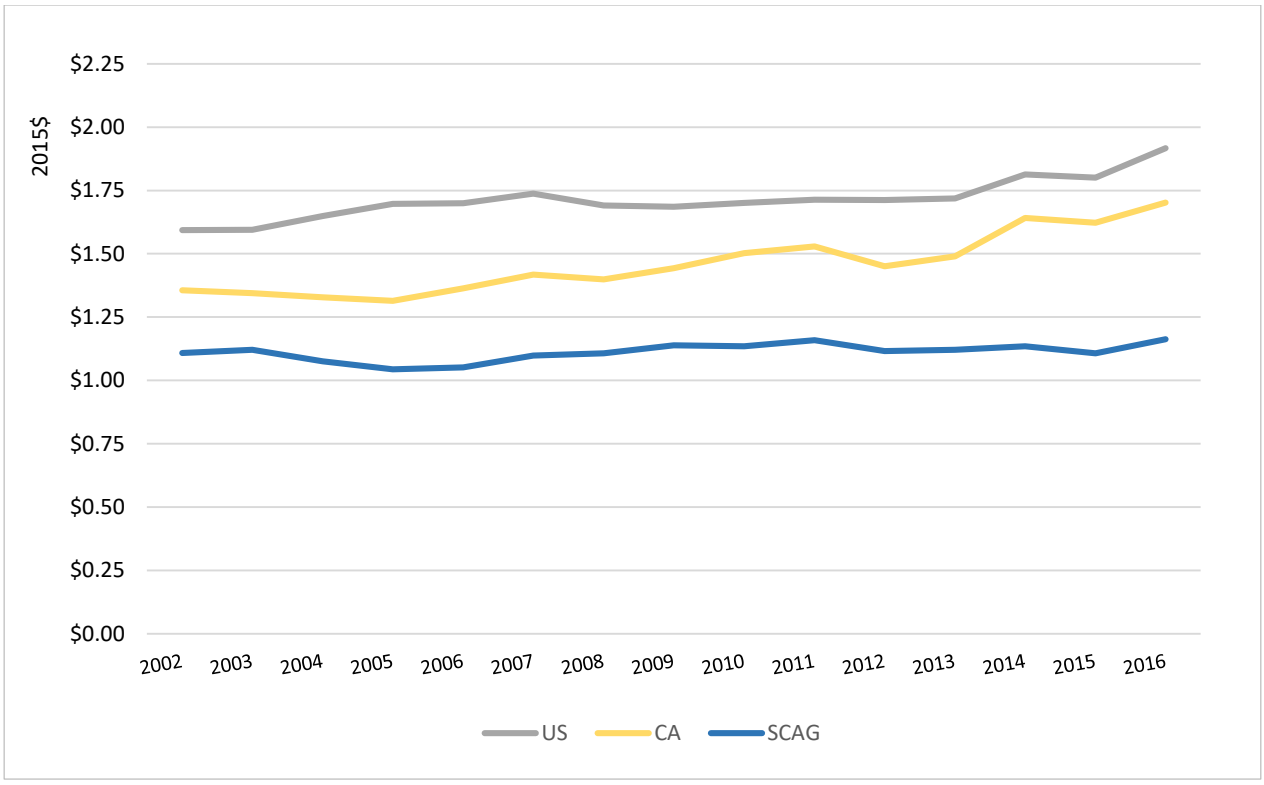


Figure 23. Average fare per boarding in 2015 dollars. *Average fare per boarding has stayed relatively constant in the SCAG region.*

National, state, and regional averages, of course, can mask considerable variation in fares paid across transit systems, services, and riders. Figure 24 shows the same inflation-adjusted trend in fares paid per boarding since 2002 for each of the six largest transit operators in the SCAG region. Focusing on these larger operators tells a different story. With the exception of Long Beach Transit, inflation-adjusted fare payments have been increasing over time on these operators. In particular, inflation-adjusted fares per boarding at both OCTA and the Big Blue Bus increased by about 50 percent between 2002 and 2016 — to nearly $1.25 and $0.75 per boarding respectively. Foothill transit had (in 2016) the highest average fares paid (at $1.25 per boarding), followed in order by OCTA, LA MTA, the Big Blue Bus and Long Beach Transit, while LA DOT had the lowest average fare paid (at just over $0.50 per boarding).

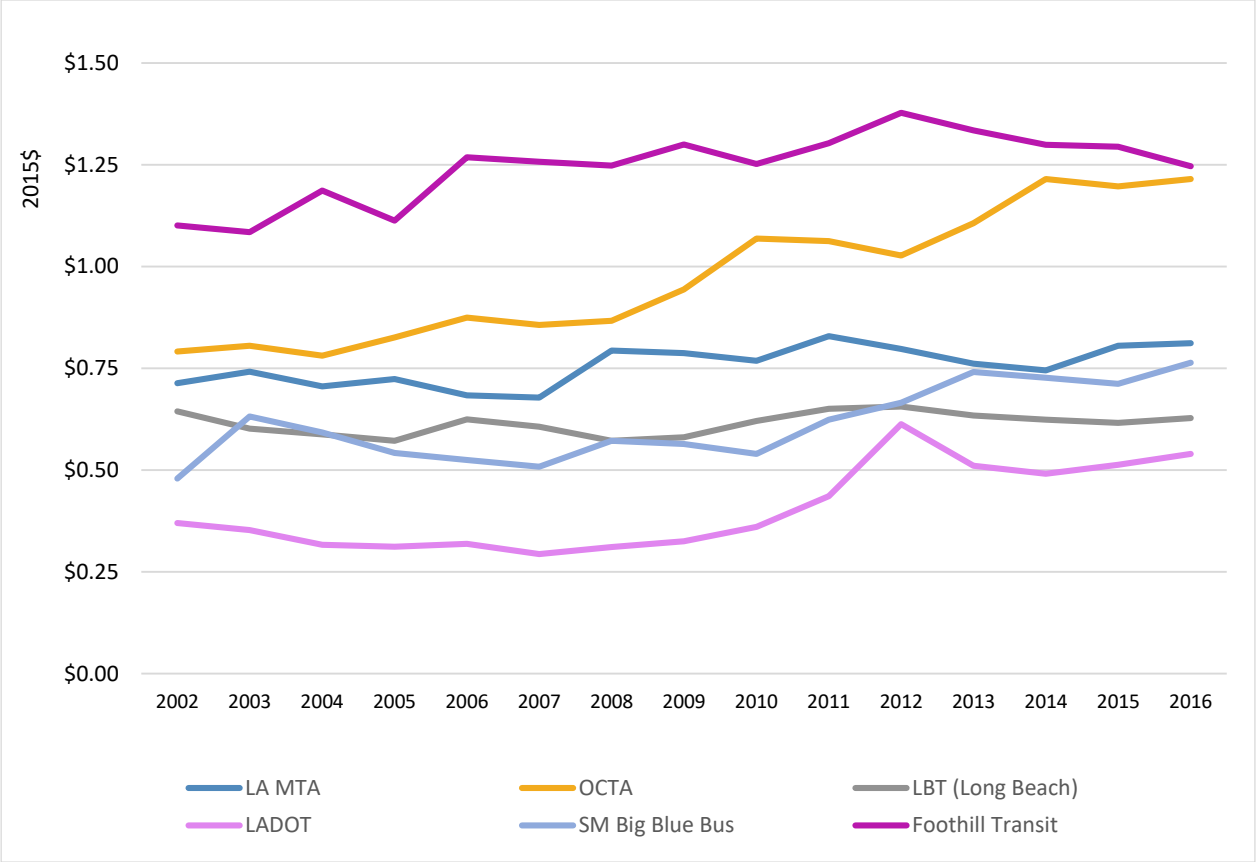


Figure 24. SCAG: Average fare per boarding for largest operators in 2015 dollars.
Inflation-adjusted average fares per boarding have increased the most rapidly for OCTA and LADOT.

Figure 25 shows the 14-year trend in real average fare paid per mile for the nation, California, and the SCAG region. Here we see that average fares paid per mile have remained largely unchanged in the U.S. and California, and in the SCAG region they have actually fallen. Despite being lower than average per mile fares in the state and nation, average per mile fares in the SCAG region have declined about 20 percent since 2009.

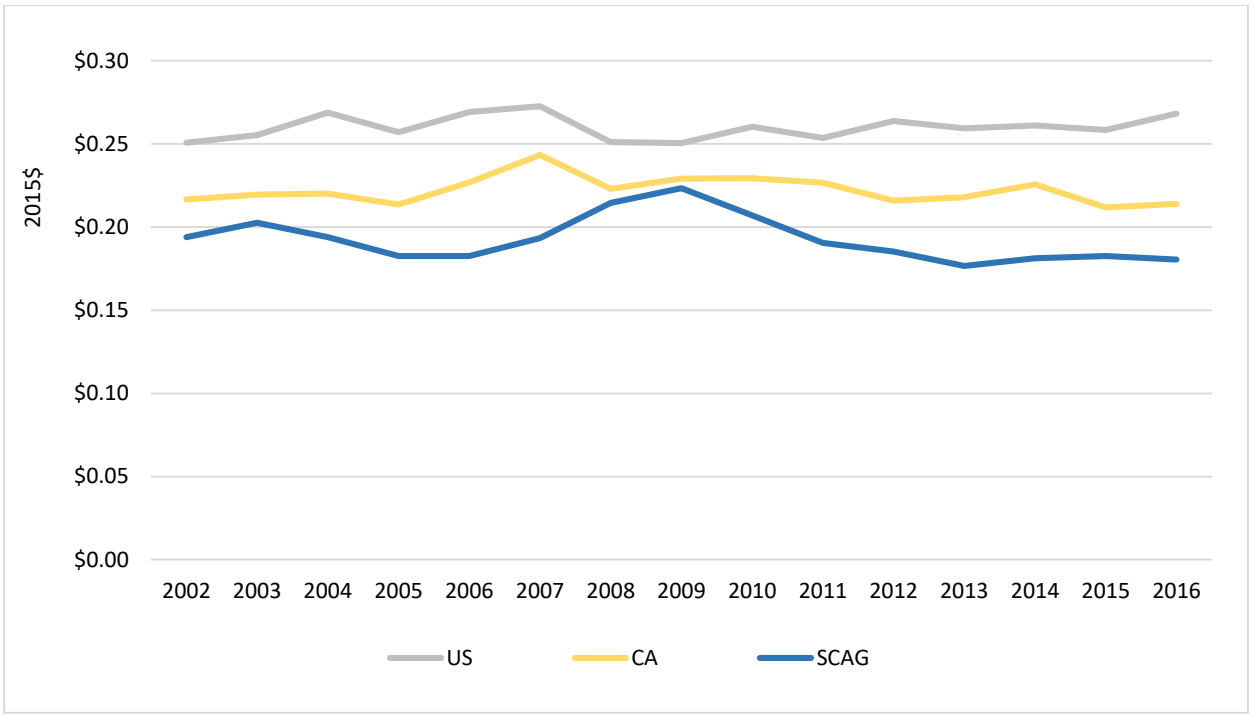


Figure 25. Average fare per passenger mile traveled in 2015 dollars. *Average fare per PMT remained fairly constant, and even declined a little since 2009.*

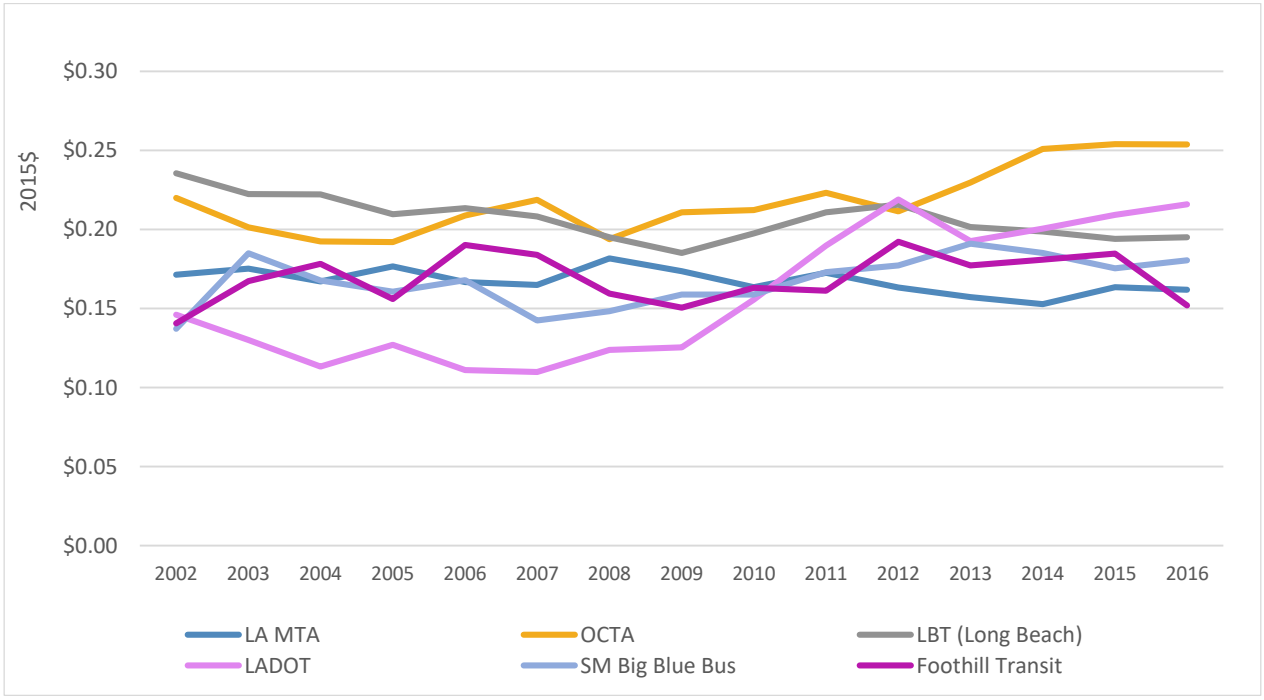


Figure 26. SCAG: Average fare per PMT for largest operators in 2015 dollars. *Average fare per PMT increased the most rapidly (about $0.07 per mile) for LADOT and slightly for OCTA ($0.04 per mile).*

If we zoom in on the six largest transit operators in the SCAG region, we see that inflation-adjusted fares per mile rose notably at two systems — LA DOT (+$0.07/mile) and OCTA (+$0.04/mile). On the Big Blue Bus and Foothill Transit per mile fares rose modestly, and at Long Beach Transit and LA Metro they fell (despite Metro's 2014 fare increase).

The most notable attribute of the figures above is the steep increase in fares for OCTA. OCTA's fares have risen over 50 percent since 2002, and OCTA is also the transit operator that has suffered the sharpest decline in ridership (about 35% since 2007). The transit industry's rule of thumb (sometimes called the Simpson-Curtin rule) suggests that a 10 percent increase in fares will be associated with about a 3 percent reduction in ridership. By this heuristic, OCTA's fare increases should have resulted in a 17 percent ridership decline.

To help isolate the association between fare increases and transit use, we estimated a multivariate regression statistical model using data for each transit operator in the SCAG region for each year between 2002 and 2016. Full details of this model are in the Appendix, but we used fixed effects to control for the panel nature of the data, and controlled for the level of service each operator provided, the average time between each bus or train arrival, and the density, size and population of the service area.

We find, after controlling for these factors, that higher fares are indeed associated with lower ridership, but by less than industry rules of thumb might suggest. Across the SCAG region over this time period, a 10 percent fare increase was associated with a roughly 1.6 percent decrease in ridership. This relationship is relatively "inelastic" (i.e. it suggests people are not very sensitive to prices) though it falls within the range of findings from other studies of how fare increases influence ridership (Cervero, 1990; Linsalata & Pham, 1991). Based on these results, we would expect OCTA patronage to have fallen about 8 percent since 2002, as a result of its fare increases.

It seems plausible, in light of these data, to suggest that fare increases played some role in OCTA's lost transit trips. But OCTA's losses, as large as they are, account for a small fraction of the SCAG region's total losses. The bulk of those losses were from LA Metro, and it is harder to suggest that fare increases played a big role in Metro's ridership decline.

Factors Outside Transit Operators' Control

Fuel Prices

Fuel prices are a large and highly salient operating cost of driving. As fuel prices rise people drive less, and as they fall people drive more. In general, a ten percent increase in the price of gasoline is associated with a long-run (5 year) one to three percent reduction in vehicle travel (Goodwin, Dargay, & Hanly, 2004). Driving more, however, is not the same as using transit less, since (again) the typical driver almost never uses transit. People who drive less when gas prices are high often walk, carpool, stay home, or drive to nearer destinations (e.g. a restaurant that is 2 miles away instead of 10). Similarly, for many regular transit riders changes in the price of gasoline are immaterial, because many transit users do not have access to private vehicles. As a result of these factors, much of the adjustment to fluctuating fuel gas prices that occurs in the U.S. has no bearing on transit use, and the relationship between fuel prices and transit ridership tends to be weaker than the relationship between fuel prices and driving.

"Weaker," however, is not "nonexistent," and in both Southern California and nationwide, fuel prices rose and fell sharply from the late 1990s through 2015. Prices increased at a record pace from 1998 to 2008, declined, and then rose sharply again until 2013, after which they plunged (Figure 27). Transit ridership also fell steeply from 2013 to 2016. It is reasonable to think that falling gas prices could contribute to falling transit ridership. A steep drop in gas prices could have lured some of the minority of transit riders who do have vehicles away from transit use. Even among riders without vehicles available, falling fuel prices could have an indirect impact. When fuel is cheap rides in cars become more available: Friends or family members who become more likely to drive, and people who might otherwise have used transit might start carpooling for some trips.

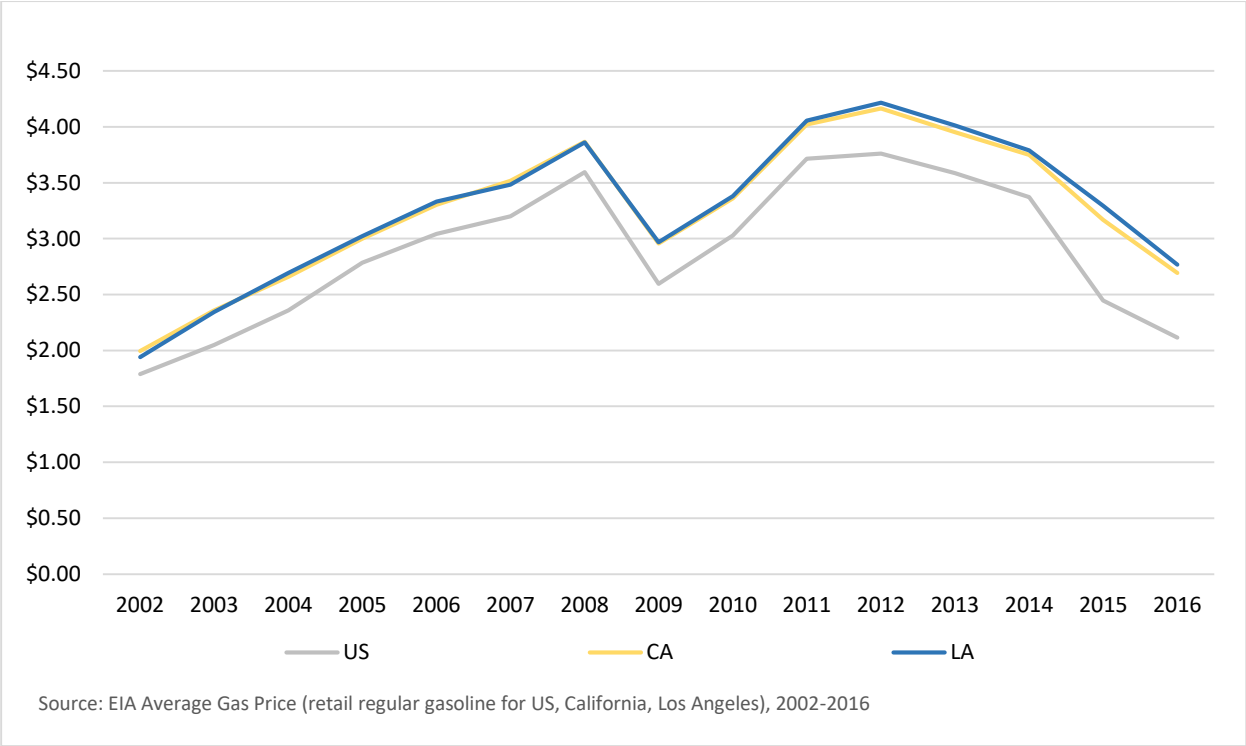
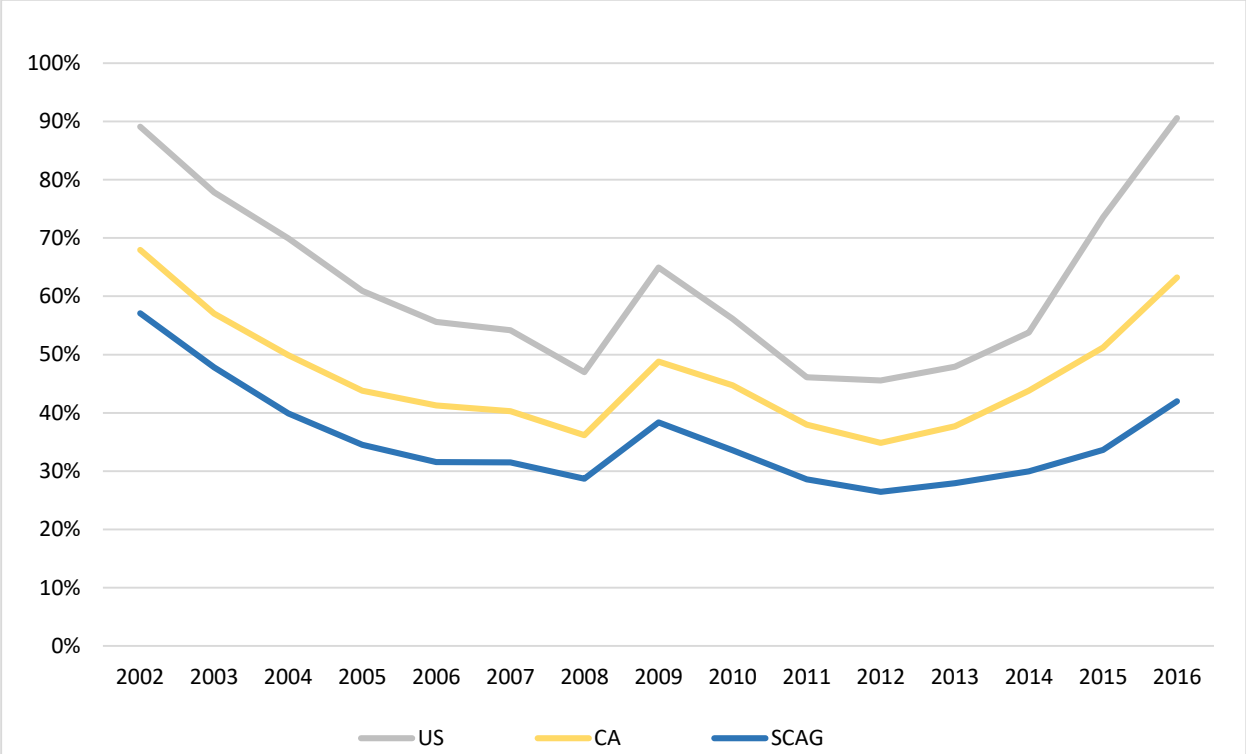


Figure 27. Average gas per gallon in 2015 dollars.

As to how much a steep drop in fuel prices might undermine transit use: the research literature reports a fairly wide array of elasticities (estimates of transit's sensitivity to gas price changes). These range from relatively large effects for commuter rail (0.37, when gasoline costs more than $3 per gallon) (Nowak & Savage, 2013) to much lower average estimates for bus ridership that range from -0.05 to 0.22 (Blanchard, 2009; Iseki & Ali, 2014; Mattson, 2008). Blanchard (2009) used gas price changes in LA County to estimate a bus ridership elasticity of 0.092, a subway elasticity of 0.011, a commuter rail elasticity of 0.126, and light rail elasticity of 0.071. Lane (2010), also studying LA, found similar results. All these estimates suggest that a 10 percent change in fuel prices is associated with about a half-percent change in transit use in the near term, and a 1 to 1.8 percent change in the longer-term. Gas prices fell 30 percent from 2012 to 2016,

which would imply a 3 percent reduction in bus ridership, and larger losses in rail and commuter rail, all else equal.

One way to consider this relationship of fuels prices to fares is to compare the ratio of average fare paid per boarding with the average price of gasoline in the SCAG region over this period (Figure 28). As with fares generally, we see that this fares-to-gas ratio is lower in the SCAG region than in California as a whole, and lower in California than the nation as a whole. Further, while the price of a transit trip relative to a gallon of gas has been climbing across all three geographies since about 2012, the ratio in the SCAG region today remains substantially lower than it was in 2002.



Source: NTD, 2002-2016; EIA Average Gas Price (retail regular gasoline), 2002-2016.
Note: Average LA gas prices are used for the SCAG region.

Figure 28. Average fare as a percent of region's average gas per gallon. *Average fare is consistently less than the cost of a gallon of gas, even as gas prices have been falling since 2014.*

Figure 29 plots the trend in gas prices against the trend in absolute and per capita transit ridership in the SCAG region (we use the Los Angeles Metropolitan Statistical Area average gas prices). The graph suggests a real but fairly modest relationship: Transit use does rise and fall with fuel prices, with a small lag. The response does not appear to be large, however, especially for ridership per capita. But with only one data point per year, we can only say so much about the role of gasoline prices. It would be surprising if falling gas prices did not contribute to the decline in transit ridership, but it is difficult to quantify their precise role. Overall, we consider falling fuel prices to be a real but probably minor driver in falling transit use.

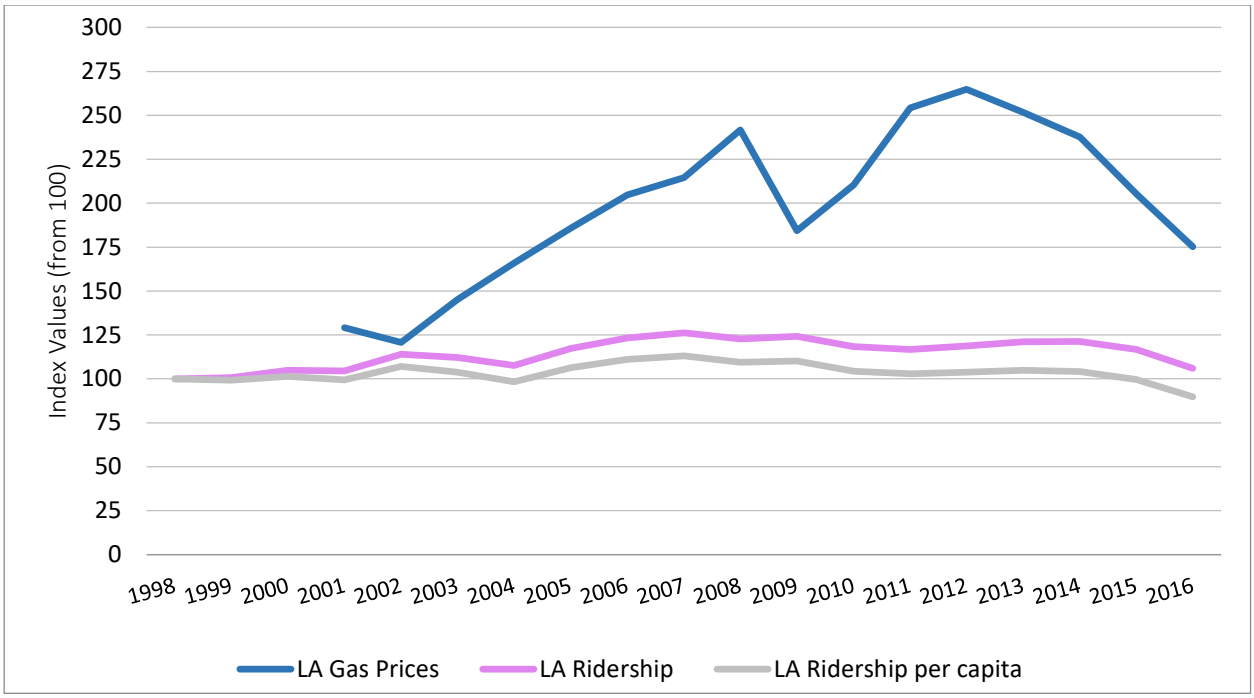


Figure 29. Transit ridership and gas prices in Los Angeles.

The Transportation Network Companies

The large absolute decline in transit ridership coincided not just with falling gas prices but also with the rise of Transportation Network Companies (TNC) like Lyft and Uber. TNCs are a plausible culprit in transit's decline. TNCs can offer the convenience of automobile travel to people who do not own automobiles, and could therefore become viable substitutes for public transportation. Any explanation for falling transit use that hinges on TNCs, however, faces a timing problem: TNCs began operating in Southern California in 2009, and did not begin serving people in large numbers until 2012. Per capita transit ridership began falling in 2007. So while the TNCs may affect transit use, they cannot by themselves explain transit's recent patronage decline.

Moreover, TNCs' influence on mode choice is theoretically ambiguous. On the one hand, TNCs let people purchase vehicle trips *a la carte*. If those trips are inexpensive, then TNCs can be a faster, more direct, less-crowded, and more comfortable substitute for transit. While some TNC trips are substantially more expensive than transit fares, the TNC shared ride services, like Lyft Line and Uber Pool, have sometimes seen fares fall low enough to be competitive with one-way transit fares. Given the speed and convenience these services offer, they could draw some riders away from transit, provided those riders have smartphones and credit cards.

On the other hand, TNCs could also *increase* transit use. TNCs could help solve first-mile/last mile problems, and get people to transit stops that are beyond walking distance. TNCs could also provide transit riders a form of insurance – if some people don't take transit because they worry an emergency might arise where they need a car (for instance, getting a sick child home from school) the option of calling

a TNC during one of those emergencies can lower the perceived risk of taking public transportation, and make it more attractive.

Finally, since most people in most regions do not use transit or even consider doing so, the average TNC trip may have little impact on transit ridership. If the typical Uber passenger has never used a bus and never considered doing so, Uber's growth cannot be blamed for transit's decline.

Because TNCs provide almost no operating data to the public, we do not have sufficient evidence to adjudicate between these scenarios. We do not know even basic information — such as the total number of TNC trips in the SCAG region year over year, or the general areas where those trips originate — that could cast light on the relationship between TNCs and public transportation (Transportation Research Board, & National Academies of Sciences, Engineering, and Medicine, 2016).[12]

What little evidence we do have suggests that most TNC trips do not replace transit trips. Surveys done by independent researchers and organizations suggest that the typical TNC user does not resemble the typical transit rider (TNC users are disproportionately college-educated and affluent), and that the most common times and places for TNC rides are Friday and Saturday nights in popular commercial districts, and trips to airports (Clewlow & Mishra, 2017; Feigon & Murphy, 2016; Rayle, Dai, Chan, Cervero, & Shaheen, 2016). Large surveys by Clewlow and Mishra (2017) and APTA (Murphy 2016) suggest that most TNC trips occur between 10 p.m. and 4 a.m., when transit runs infrequently and carries few riders. Clewlow and Mishra (2017) find that the majority of TNC users report no change in their use of other modes. All this evidence suggests little impact on transit.

The caveat attached to these findings, however, is that the subgroups most likely to take transit – low-income racial and ethnic minorities – are also difficult to survey. Even very large, well-funded surveys often struggle to get adequate coverage of poorer households. As such, we cannot rule out the possibility that actual TNC use in some poorer neighborhoods is higher than the current data suggest.

Moreover, as the pool of TNC users continues to expand, the TNCs' effect on transit use – both positive and negative – may well increase. These amplified effects will be still more likely if TNC prices fall, and TNC use grows disproportionately in dense, high transit ridership areas populated by residents with relatively low levels of household motor vehicle access. For this reason, the relationship between TNCs and transit should be monitored, and there may well be a public interest in letting transit agencies see at least basic data about the location and volume of TNC trips. But relatively little evidence suggests that TNCs are a big player in the current transit decline. The timing, again, does not match up well.

Neighborhood Change and Migration

Transit is heavily-supplied in a small proportion of places, and heavily used by a small proportion of people. This situation creates a potential matching problem. If the small group of people who use transit a lot becomes less likely to live in the small number of places that offers a lot of service, transit use could

[12] TNCs are required under California law to report a host of data on rides given, disability access, and drivers to the California Public Utilities Commission. Unlike transit data in the NTD, however, these TNC data are not public. The CPUC cannot easily turn those data over to the public or public agencies. Such conditions are common throughout the United States. For more - http://www.cpuc.ca.gov/General.aspx?id=3989

fall. Such a mismatch could occur for a number of reasons. The highest-profile explanation is gentrification-driven displacement. If gentrification pushes transit-riding lower-income households away from transit-rich neighborhoods, and replaces them with higher-income residents, transit use may fall. The new higher-income residents may use transit more than they did previously, but less than the lower-income residents they replace (Dominie, 2012).[13]

Gentrification and displacement, however, account for only a small portion of moves by poor and immigrant households. Most moves by such households are by choice, or for reasons unrelated to in-migration by the affluent—for example, a low-income resident might lose a job and be forced to move (either to find new work, or to find a place with lower rent), even if neighborhood rents are not rising (Freeman 2005; Freeman and Braconi 2004; Newman and Wyly 2006; Vigdor 2002). The relevant fact is that in recent years many poor households, when they move for whatever reason, relocate to the suburbs. As poor households suburbanize, they move farther from transit on average (Farrell, 2016; Kneebone, 2014; Kneebone & Garr, 2010; Singer, 2011; Zimmerman, Restrepo, Kates, & Joseph, 2015). Upon arriving in the suburbs, low-income people may well use transit more than other suburbanites, but less than they had used it when they lived in central-city neighborhoods. If they are not replaced in central-city neighborhoods by other people who ride at high rates, then as a result of their migration overall transit use could fall.

Ideally we could examine the extent to which migration influences transit use by following low-income households and their travel behavior over time and across neighborhoods. Unfortunately, the data that would allow us do this do not exist. What we can do instead is use census-tract level data to examine changes in the spatial location of transit commuters and in the characteristics of residents living in high-transit commuting neighborhoods. We approach this task in two ways: identifying tracts with transit-friendly built environments and seeing how they change over time, and identifying tracts with high levels of transit commuting, and examining change within those places over time. These approaches have limits, as we will explain, but in combination they show a decline in the number of transit commuters in many high-transit use neighborhoods in 2010 and 2015, a decline in transit mode share in these neighborhoods (particularly from 2000 to 2010), and a shift in the characteristics of neighborhood residents in ways that help to explain declining transit use.

We have two methods available to identify areas that are highly conducive to transit use. These are areas that, regardless of who lives in them, are transit-friendly, either because of their levels of transit service or attributes of their built environment. Our first measure of transit-conduciveness is SCAG's High Quality Transit Area designation. SCAG defines a High Quality Transit Area as an area within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses arrive at a frequency of every 15 minutes or less during peak commuting hours. SCAG last identified existing High Quality Transit Areas using data for 2012. These High Quality Transit Areas are located in 762 census tracts—about 45 percent of the region's total Census tracts.

Our second measure of transit-conduciveness comes from a typology of neighborhoods developed at the UCLA Institute of Transportation Studies for the US Federal Highway Administration (Voulgaris, Taylor, Blumenberg, Brown, & Ralph, 2016), using data from 2010-2013 (Ramsey & Bell, 2014; Voulgaris et al.,

[13] This outcome could well result in lower transit ridership but also lower VMT and GHG, because the higher income in-migrants are more likely to replace driving with their transit trips (see Chapple et al. 2016, Chapter 4).

2016). This typology characterizes neighborhoods based on their built environment and transportation system characteristics (e.g. density, land use mix, age of housing stock, resident turnover, street network characteristics, and transit supply), but not on the characteristics of the people living in these neighborhoods. In this way the typology can capture how transit-friendly a neighborhood's built environment is. We focus in particular on one neighborhood type called "Old Urban," which indicates very-high density neighborhoods with high-levels of transit supply. Old Urban neighborhoods are much less common than SCAG High Quality Transit Areas—in 2010 there were 719 Old Urban neighborhoods in the region.

For our purposes, the limitations of both the SCAG designation and the Old Urban designation are that the data used to construct them are from 2010 or after. As a result, we can track changes in these neighborhoods from 2010-2015, but we do not have a good measure of tract-level transit supply or transit-conduciveness from 2000 to 2010, the time period when transit use in the SCAG region began to fall.

To examine changes from 2000 forward, we examine the clustering of transit commuters. This method is imperfect, since as we have shown commuters are a minority of transit users, but we assume for this exercise that as regular transit users, commuters tend to cluster in areas conducive to transit use. This assumption is contestable, but we have no other Census tract-level data on transit use that stretches back to 2000. We identify high-transit commuter neighborhoods with data on transit commuters by Census tract from the 2000 Decennial Census, and the 2010 and 2015 ACS.[14] For each year, we rank order tracts by the number of transit commuters in them. As we discussed earlier, transit commuters are highly concentrated in a very small fraction of the SCAG region's land area; eighty percent of transit commuters live on less than five percent of the land area and in less than 40 percent of census tracts. This distribution changed very little from 2000 to 2015.

We examine changes over time using the rank-ordered transit commuting data from the 2000 Census. We identified the census tracts that most intensively host transit commuters; these tracts, which are 1.43 percent of all census tracts in the region and 0.02 percent of the region's land area, hold ten percent of the region's transit commuters. We call these "10% Tracts." The mean number of transit commuters in these tracts is almost 12 times the regional average. For comparison, we also extracted data on the tracts where the top 60 percent of transit commuters live; these neighborhoods comprise 20.6 percent of all census tracts and 0.86 percent of the land area. We call these "60% Tracts." The mean number of transit commuters in these neighborhoods is 4.5 times the regional average. The number of ten percent tracts is extremely small: in 2000, just 48. The number of tracts that hold 60 percent of the commuters, in contrast, is 743—roughly the same number as are in the Old Urban designation.

The tracts in the 10% and 60% designations in 2000 strongly overlap with the SCAG High Quality Transit Area and Old Urban designations. If we take the 10% Tracts in 2000 and follow them forward, we see that about 85 percent are Old Urban tracts, and all of them are SCAG High Quality Transit tracts. Similarly, of the tracts in the 60% designation in 2000, in 2010 55 percent of them are Old Urban, and 85 percent are

[14] Because we are using tract-level data, the ACS data are from the 5-year samples. The 2010 data are from the 2006-2010 ACS, and the 2015 data are from the 2011-2015 ACS.

High Quality Transit. As such, following the trajectory of the 10% and especially the 60% Tracts may be a rough-but-reasonable proxy for following the trajectory of transit-rich areas.

As a first step, we follow three of these four tract designations – 60% Tracts, Old Urban, and High Quality Transit – over time, to the extent we can. For the latter two designations, this means only tracking changes from 2000 to 2015. We follow the year 2000 60% Tracts from 2000 to 2010, and then to 2015. (We use the 60% Tracts, rather than the 10% Tracts, because their numbers are more comparable to the Old Urban tracts).

Figure 30 summarizes the results. Essentially, the 60% Tracts saw substantial changes between 2000 and 2010, and these changes are consistent with the idea that the people most likely to use transit migrated away from transit-rich areas. From 2000 to 2010, the poverty rate in these tracts fell by four percentage points, the share foreign born fell from 48 percentto 45 percent, and the share of households without vehicles fell from 23 percent to 17 percent. From 2010 to 2015, in contrast, relatively little changed, and that same pattern holds if we examine Old Urban tracts and SCAG High Quality Transit Areas. Across all three neighborhood typologies, poverty rose slightly, the share of foreign born fell slightly, and – perhaps most important, given the importance of vehicle access to transit use – the share of households without vehicles stayed at the point it had fallen to. (The same general pattern holds for the 10% Tracts, although to conserve space these are not shown in the figure).

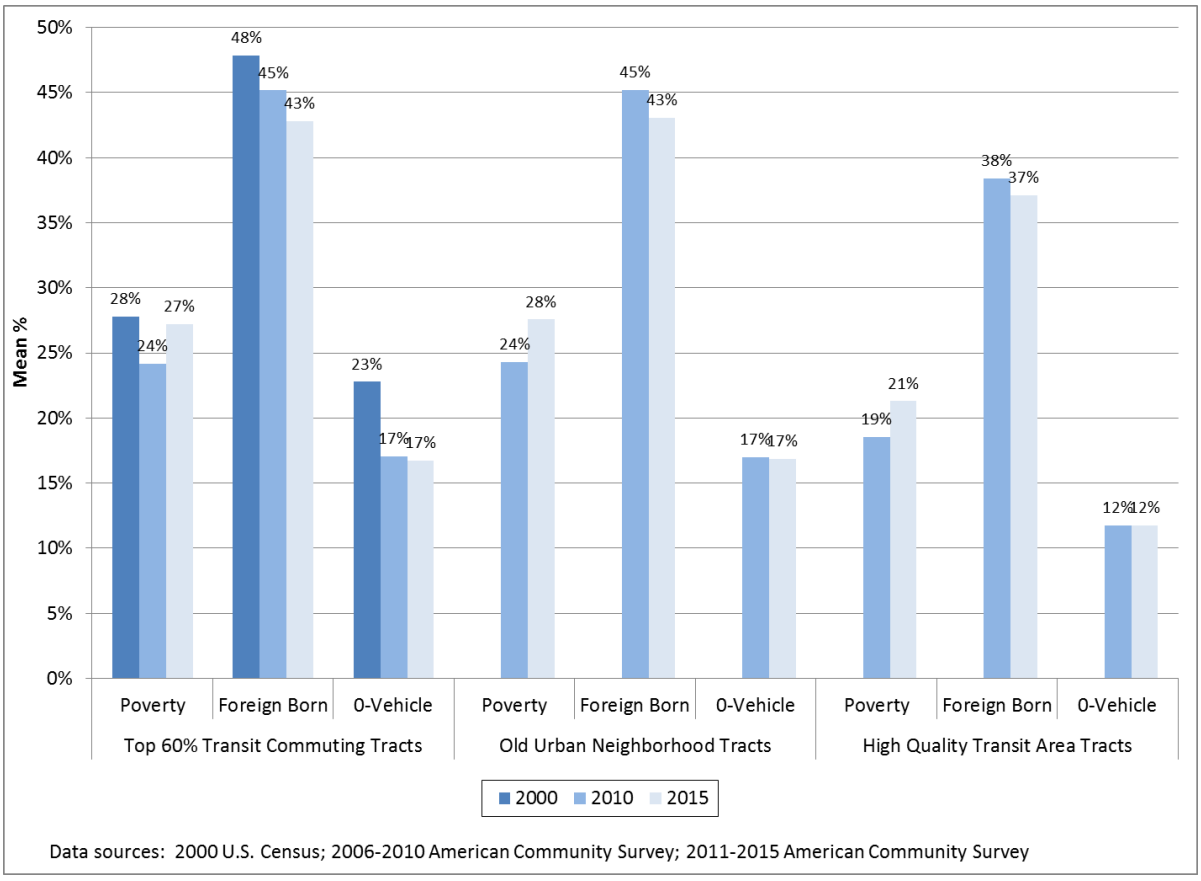


Figure 30. Characteristics of high-transit areas, 2000, 2010, and 2015 (2000 Census tracts over time)

Some additional data also suggest neighborhoods changing in ways not conducive to transit use. Figure 31, for example, shows that in both the 10% and 60% Tracts the transit commute mode share fell between 2000 and 2015 (with most of the decline occurring between 2000 and 2010.) Although not shown graphically, Census data also indicate that in these tracts, both the number of workers and overall earnings for workers rose, but earnings did *not* rise for those commuters using transit to get to work.

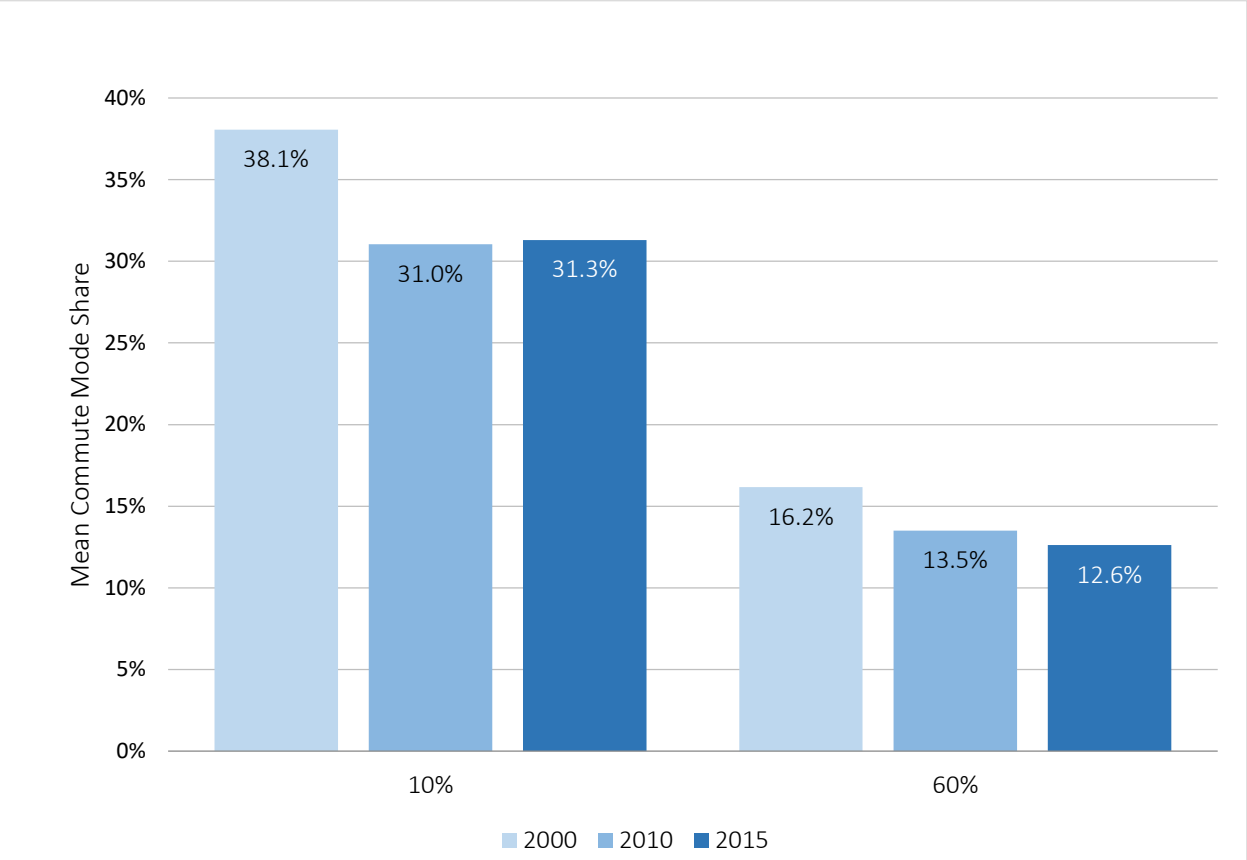


Figure 31. Mean transit commute mode share in high-transit neighborhoods, SCAG Region by year.

In summary, then, we observe changes in census tracts that in the year 2000 were most heavily-populated by transit commuters. These tracts, in turn, overlap substantially with tracts that we know in 2010 were rich in transit supply and/or had transit-friendly built environments, letting us infer (albeit with some uncertainty) that these neighborhoods were transit-rich in 2000 as well. Particularly between 2000 and 2010, in these neighborhoods we see falling transit commuting, falling population, a falling share of immigrants, falling poverty, more vehicle ownership, and higher earnings for workers overall but not those workers who commute via transit. All of this evidence is consonant with these neighborhoods becoming

more affluent, with that affluence being associated with less transit use, and with people left out of that affluence remaining on transit.

We emphasize that this story is far from conclusive. For the reasons we discussed above, the relationship between neighborhood change and transit use is very hard to measure. The data we have are consistent with neighborhood changes in the most transit-friendly SCAG-region neighborhoods contributing to falling transit use, but they are not conclusive. This is an area that warrants substantial further research.

Rising Vehicle Ownership

The defining attribute of regular transit riders is often a lack of vehicle access. Between 2000 and 2015, vehicle access in the SCAG region became much more common. Households in the SCAG region, and especially lower-income households, dramatically increased their levels of vehicle ownership. Census summary file data show that from 2000 to 2015, the SCAG region added 2.3 million people and 2.1 million household vehicles (or 0.95 vehicles per new resident). To put that growth in perspective, from 1990 to 2000 the region added 1.8 million people but only 456,000 household vehicles (0.25 vehicles per new resident). The growth of household vehicles in the last 15 years has been astonishing.

There are strong reasons to believe that this surge in vehicle ownership is largely responsible for the decline in transit use. A back of the envelope calculation can illustrate the magnitude of the problem this vehicle surge could pose for transit operators. Data from the US Consumer Expenditure Survey show that from 2000 to 2015, the average expenditure per household vehicle in LA County was about $3,729.[15] Since SCAG residents added 2.1 million vehicles in this time, a midrange estimate of private expenditures on household vehicle growth is $7.8 billion. Over the same period of time, LA Metro and Metrolink combined to spend about $6.4 billion opening new rail service, and about $7.4 billion on combined rail and Bus Rapid Transit service. Thus even a conservative estimate of private investment in vehicle growth shows it easily outpacing public investment in fixed-route, dedicated right-of-way transit— the type of transit that is supposed to be most competitive with driving. This level of increased vehicle ownership is in many ways incommensurate with robust transit use.

To be sure, much of this vehicle growth would not influence transit use. Because most SCAG residents had never used transit, increased vehicle ownership in most SCAG households would not contribute to transit's decline. The 2000s were when the Millennials, a demographically large cohort, reached ages when many would buy automobiles. Millennial car-buying could help explain the bulge in vehicle acquisition, but unless those Millennials would otherwise be on transit these additional vehicles would not necessarily explain falling transit use.

[15] The Consumer Expenditure Survey tracks the average net outlay per vehicle purchased. Data are not available for the other SCAG counties, but the average net outlays are probably similar across Southern California. Moreover, the $3,729 figure is the average of each annual average. Since more vehicles were purchased in the early to mid-2000s, and at higher prices, this figure likely underestimates the true average. See https://www.bls.gov/cex/csxmsa.htm

Some additional evidence, however, suggests that vehicle ownership did play a role in reducing ridership. When the OCTA surveyed its former riders in 2015, for example, 70 percent reported leaving transit because they had acquired a car (True North Research 2015).

Moreover, we have reason to think that the increase in vehicle ownership occurred disproportionately among populations that are more likely to take transit. Census data show that vehicle access increased most among lower-income households (we return to this point below, in Figure 40). Vehicle access also rose disproportionately among the foreign born. Table 4 shows changes in both zero-vehicle households and those with a vehicle "deficit" (that is, fewer vehicles than adults). Across the entire SCAG region, the share of households without vehicles fell 30 percent between 2000 and 2015, while the share of households with a vehicle deficit fell 14 percent. Among foreign-born households, these percent declines were larger — 42 percent and 22 percent — and among the foreign born from Mexico they were larger still. Among the foreign born from Mexico, the share of households without vehicles fell by two-thirds between 2000 and 2015, and the share with a vehicle deficit fell 28 percent. Thus car ownership rose across-the-board, but rose fastest among subgroups with a high propensity to ride transit. And these changes largely occurred between 2000 and 2010, which aligns with the timing of the transit downturn that began in 2007.

	All SCAG Share Households With:		Foreign Born Share Households With:		Mexican Foreign Born Share Households With:	
	No Vehicles	Vehicle Deficit	No Vehicles	Vehicle Deficit	No Vehicles	Vehicle Deficit
2000	10.2	30.1	14.1	47.1	15.7	57.2
2010	7.7	26.1	9.4	38.9	7.0	46.0
2015	7.1	25.9	8.2	36.6	5.4	41.6
Pct Change	-0.30	-0.14	-0.42	-0.22	-0.66	-0.27

Table 4. Vehicle ownership trends, SCAG region (US Census, Census IPUMs).

To refine our understanding of the association between vehicle ownership and transit use, we estimated a multivariate regression model. As a result of the data constraints we discussed earlier, this process involved two steps. Recall that our fundamental data obstacle was a mismatch between the availability of detailed, person-level information about travel behavior and our need to answer a question about changes over time. The CHTS provides detailed travel behavior, as well as demographic and socioeconomic data, but only for the year 2012. The Census provides detailed annual data, but for almost every category *except* travel behavior and transit use.

We resolve this problem by first using the CHTS to build a model that predicts total unlinked trips as a function of different demographic, socioeconomic, and neighborhood attributes. Importantly, all of these attributes – such as sex, nativity, income, vehicle ownership, and so on – are also tracked in 2000, 2010 and 2015 Census IPUMS microdata. This symmetry allows us to take the parameters of the CHTS model and apply them to time-series data from the Census. We use the CHTS, in short, to estimate the relationship between transit use and different social and economic characteristics, and then use the

Census to track how those characteristics have changed. Once we have measured that change in the Census, we can use the CHTS results to estimate how transit use would have changed as a result.

A core assumption of this approach is that the relationships between transit use and the socioeconomic and demographic attributes, which we can only measure in 2012, are relatively constant across time. We assume that changes in transit use from 2000 to 2015 are driven primarily by changes in the composition of the population, and not by changes in the propensity to use transit by people in different population groups. Our approach is more valid, for example, if transit use changes because there are more or fewer people in poverty, or with vehicles, and not because poor people or people with vehicles become more or less likely to use transit. The latter scenario is possible, but we cannot measure it.

We constructed models for California, the SCAG region, Los Angeles, and the SCAG region outside of Los Angeles. Figure 38 shows results from the first stage of our analysis: the major predictors of transit trips in in the SCAG region. Unsurprisingly, transit trips are highly associated with automobile ownership and access, even accounting for other potential determinants of transit use. Beyond automobile access, transit use is associated with lack of a driver's license, being nonwhite, and being foreign-born — especially being foreign-born and a new arrival.[16]

[16] While we experimented with different functional forms for the regression, we settled on a zero-inflated negative binomial regression. A negative binomial regression is a standard tool for analyzing overdispersed count data, and the zero-inflation corrects for bias that might otherwise be introduced when the value of the dependent variable is frequently zero, as it is with personal transit trips.

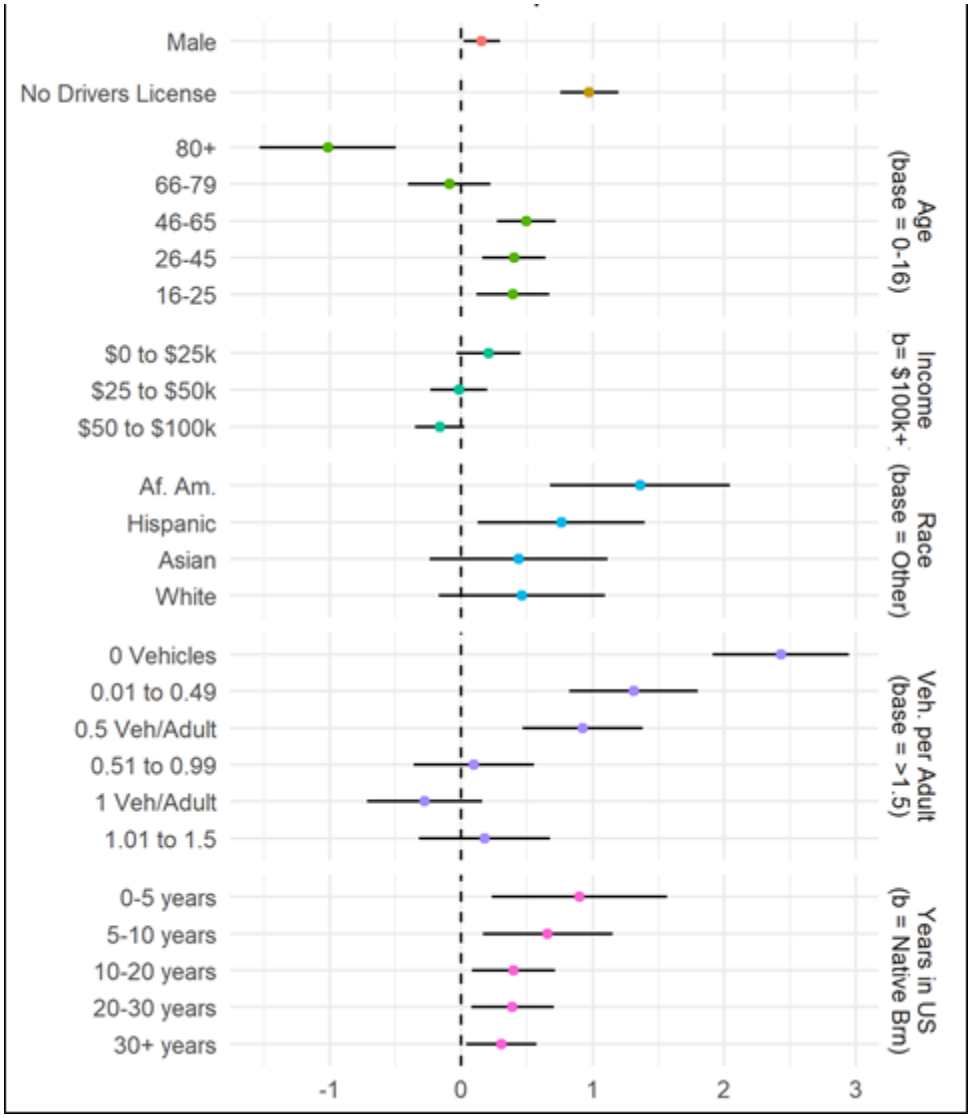


Figure 32. All SCAG unlinked trip predictors (CHTS).

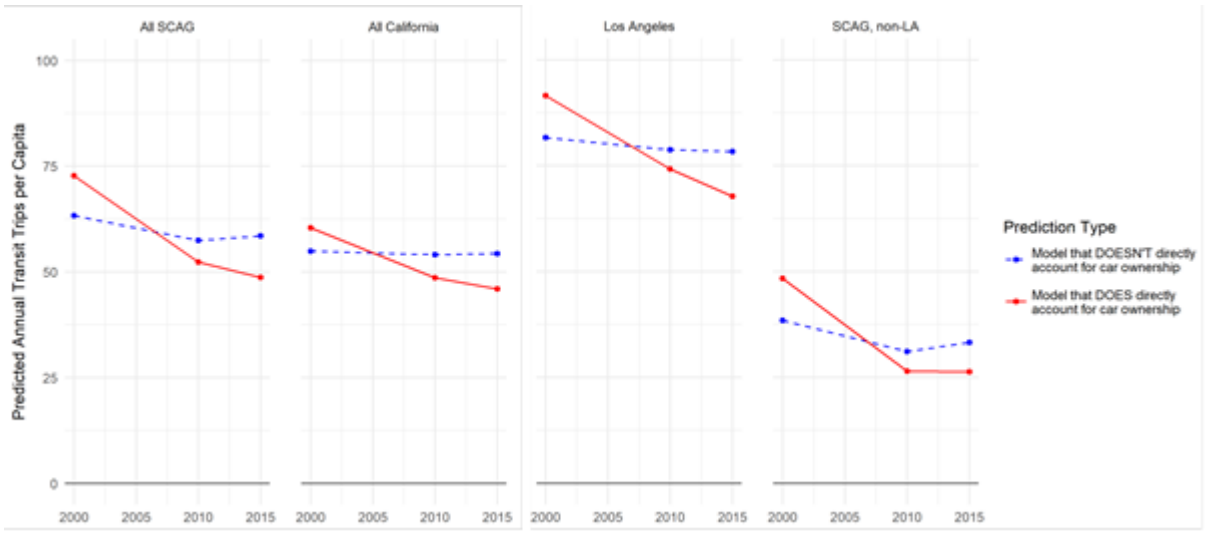


Figure 33. Relationship between increased vehicle ownership and falling transit trips (CHTS and US Census Bureau).

When we apply these parameters to Census IPUMS data from 2000, 2010 and 2015,[17] we see a powerful association between rising household vehicle access and falling transit trips. Figure 39 illustrates this relationship by graphing the results of two models. The first model, represented by the dashed line, predicts the change in county transit trips based on changes in all factors *except* vehicle access. In the SCAG region, the line has a mild negative slope from 2000 to 2010 and then a small positive slope from 2010 to 2015, suggesting that changes in these demographic, economic, and geographic factors would be associated with a small decline in transit use since 2000, albeit with a modest uptick between 2010 and 2015. The graphs for Los Angeles County and the SCAG region outside LA County suggest that this predicted modest uptick (which did not actually occur) would have taken place in SCAG's outlying counties. In Los Angeles County, transit trips were predicted to keep declining through 2015.

The second model, represented by the solid line, is identical to the first model but includes changes in automobile access. The difference in results is dramatic. This line starts at a higher point and falls sharply to a lower point, both of which suggest the important role automobile access has in influencing transit use. An absence of automobiles is associated with much more use, and the acquisition of automobiles is associated with much less. The line also suggests that many socioeconomic attributes play an essentially the intermediary role in mode choice. Income, nativity, age, location within the region, and many other factors can influence transit use, but they do so primarily by predicting people's access to private cars.

[17] A natural concern is that the CHTS might measure nativity, income, etc. differently than the Census. We validated our approach by first using the Census independent variables to replicate the CHTS estimates, suggesting this is not a problem.

Income alone, for example, does not take people off buses. Income helps people buy automobiles, and it is auto access that fuels an exodus from transit.[18]

Why did vehicle ownership rise so much? We cannot answer this question definitively, but as we discussed earlier in this report, vehicle ownership has both economic and non-economic determinants. The non-economic determinants include the growth or decline of immigrant groups who are less likely to acquire vehicles, and changes in licensure laws or other laws that surround owning and operating vehicles. The economic reasons can themselves be divided into two categories: changes in personal spending power, and changes in the price of vehicles themselves.

Since the foreign-born, and particularly the recently-arrived foreign-born, are less likely than the native-born to own vehicles, one possibility is that number or composition of immigrants changed. In absolute terms, the foreign-born population in the SCAG region grew between 2000 and 2015. However, it did not grow as fast as the overall population, so the region's share of foreign-born fell, albeit modestly (from 31% to just over 30%). This proportional decline occurred entirely within LA County, which has the most transit service. Every other SCAG county saw its share of foreign-born rise.

	Imperial	Los Angeles	Orange	Riverside	San Bernardino	Ventura	All SCAG
2000	32.2%	36.2%	29.9%	19.0%	18.6%	20.7%	31.0%
2010	31.9%	35.6%	30.5%	22.4%	21.6%	22.9%	31.0%
2015	32.6%	34.7%	30.5%	22.0%	21.3%	22.8%	30.4%
% Change	1.2%	-4.3%	2.0%	13.7%	12.6%	9.2%	-2.0%

Table 5. Share foreign born residents, Southern California counties (2000-2015). US Census.

The *composition* of immigrants, however, changed more dramatically. Table 6 shows that between 2000 and 2015 (and especially between 2000 and 2010), the share of the foreign-born from Asia rose 23 percent, while the share from Central America fell ten percent, and the share from Mexico fell over 13 percent. In 2000, 48 percent of SCAG immigrants were from Mexico, while by 2015 only 41 percent were. Because existing evidence suggests that immigrants from Mexico and Central America are less likely to have automobiles and drive than immigrants from other origin countries, this shift could contribute to rising auto use, especially among the foreign born (US Census ACS 2015).

[18] We should note that these models are *not* predictive models – their purpose is not to yield output that precisely matches the observed transit ridership in the SCAG region (and in fact our predictions do not match observed ridership). We do not build a predictive model for two reasons. First, we are not using the correct data to do so. Regional ridership counts come from annual reporting to the NTD. Because we need person-level data that includes socioeconomic attributes, we are using one-day travel diary data from the 2012 CHTS, and then matching that to person-level data from three Census years. Second and more important, the goal of the regressions is to test a particular hypothesis – that vehicle access is the decisive factor in transit use – not to predict transit ridership. Our output thus yields an estimate of the relative magnitude of the importance of auto access, *not* a precise measure of how many trips each additional increment of auto access actually cost the SCAG region.

	2000	2010	2015	Change
Asia	28.7%	33.9%	35.3%	23.0%
Americas	63.7%	59.1%	57.7%	-9.4%
Latin America	62.4%	58.0%	56.5%	-9.5%
Central America	58.8%	54.5%	53.0%	-9.9%
Mexico	47.7%	42.4%	41.3%	-13.4%
South America	2.6%	2.7%	2.7%	3.8%

Source: US Census Summary File Data. US Census Bureau classifies Mexico as part of Central America. Data on Caribbean Americas omitted.

Table 6. Composition of SCAG immigrants (2010-2015).

Moreover, among both the foreign-born overall and the foreign-born from Mexico, in data from the US Census IPUMs we see both an assimilation effect and a cohort effect reinforcing the trend toward more vehicles. More recent waves of immigrants are more likely to have vehicles shortly after arrival, and those who do not are faster to acquire them as time goes on.

In the year 2000, for example, 31 percent of the foreign-born households in the SCAG region that had emigrated from Mexico between 1990 and 1999 had no household vehicle, and 74 percent had a vehicle deficit. By 2010, just 9.3 percent of this same cohort of immigrant households had no vehicle, and only 51 percent had a vehicle deficit. By 2015, these figures were 7 percent and 41 percent. This is the assimilation effect; as time passes, immigrants begin to behave more like the native -born.

The cohort effect, however, is more notable. The more recent waves of immigrants to Southern California are more likely to own vehicles shortly after arrival, and as such they have not fully replenish the stock of zero-vehicle households that shrank as existing immigrants assimilated toward cars. In 2010, only 17 percent of the Mexican immigrant households in the SCAG region that had arrived in the US between 2000 and 2009 had no vehicles, compared to 31 percent for those that arrived between 1990 and 1999 in the year 2000. Similarly, only 62 percent of these 2000-2010 arrivals had a vehicle deficit in 2010; in 2000, 74 percent of Mexican immigrants who had arrived since 1990 had a vehicle deficit. By 2015 the share of zero-vehicle households in thepost-2000 cohort was down to 10 percent, and the share with vehicle deficits down to 49 percent. And by in 2015, only 11 percent of Mexican immigrant households that had arrived in 2010 or after did not have a vehicle. A similar pattern holds for the foreign-born overall. More recent waves of immigrants acquired more vehicles more quickly, meaning that as previous waves of immigrants acquired cars, the ranks of the carless were shrinking rather than being replenished.

In sum, immigrants overall are now a slightly smaller share of the population, but also more likely to own vehicles, and to own them earlier after arrival. Mexican immigrants, who are a mainstay of transit ridership in Southern California, remain more likely than the foreign-born overall to live in households without vehicles, but since 2000 they have both added household vehicles and become a smaller share of total immigrants.

It is not clear *why* the foreign-born began adding more cars. In 2015, California began issuing driver's licenses to undocumented immigrants. While licensure may have increased vehicle ownership, for a variety of reasons we do not think it played a large role. First, a license makes a vehicle more useful, but not more affordable; if the barrier to acquiring a vehicle is price, a license does little to overcome that. One might argue in response that legality and not price was the actual barrier, but existing evidence suggests this is simply not the case: many undocumented immigrants, even without licenses, were already driving (Lovejoy & Handy, 2008). Indeed, the prevalence of undocumented driving was the primary motivation for the law that authorized licensure. The decision to issue licenses was justified primarily on safety, not mobility, grounds – there were concerns, for example, that unlicensed undocumented drivers would flee the scene of accidents. It is possible that undocumented immigrants drove *less* – and took transit more – before being licensed, and that licensing did help depress transit use. Even this scenario, however, has its limits. A law that took effect in 2015 cannot explain a per capita ridership decline that began in 2007 or an explosion in vehicle ownership that began in the early 2000s.

Ruling out legal changes brings us to possible economic factors for increased vehicle ownership: Perhaps immigrants (and others) began acquiring more cars because they had more money. A small but persuasive literature on personal consumption shows that poorer people tend to convert even small increases in income into vehicle purchases – a testament to how valuable vehicle access can be (Aaronson, Agarwal, & French, 2012; Adams, Einav, & Levin, 2009; Leininger, Levy, & Schanzenbach, 2010; Parker, Souleles, Johnson, & McClelland, 2013; Souleles, 1999).

The 2000-2015 period was volatile economically, as the economy grew steadily before cratering during the Great Recession. During most of this time, furthermore, median wages and incomes were stagnant. Median household income in LA County, for example, was about $59,000 in both 2000 and 2015, and was slightly lower during the recession in 2010. The Census suggests that newer waves of immigrants are if anything slightly poorer than the cohorts that came before them: In 2000 average incomes of immigrants that had arrived since 1990 was slightly higher than the average income of immigrants in 2010 who had arrived after 2000. Finally, we can see in Figure 40 that vehicle growth occurred across all income groups, for both the foreign-born and the native-born. In 2000 just under 40 percent of households earning less than $25,000 per year had a vehicle-deficit, as did 60 percent of immigrant households in the same income bracket. In 2015 less than 30 percent of native-born households in the same income bracket had a vehicle-deficit, as did just over 50 percent of immigrant households. The pattern holds for households earning $25,000 to $50,000, and for more affluent households.

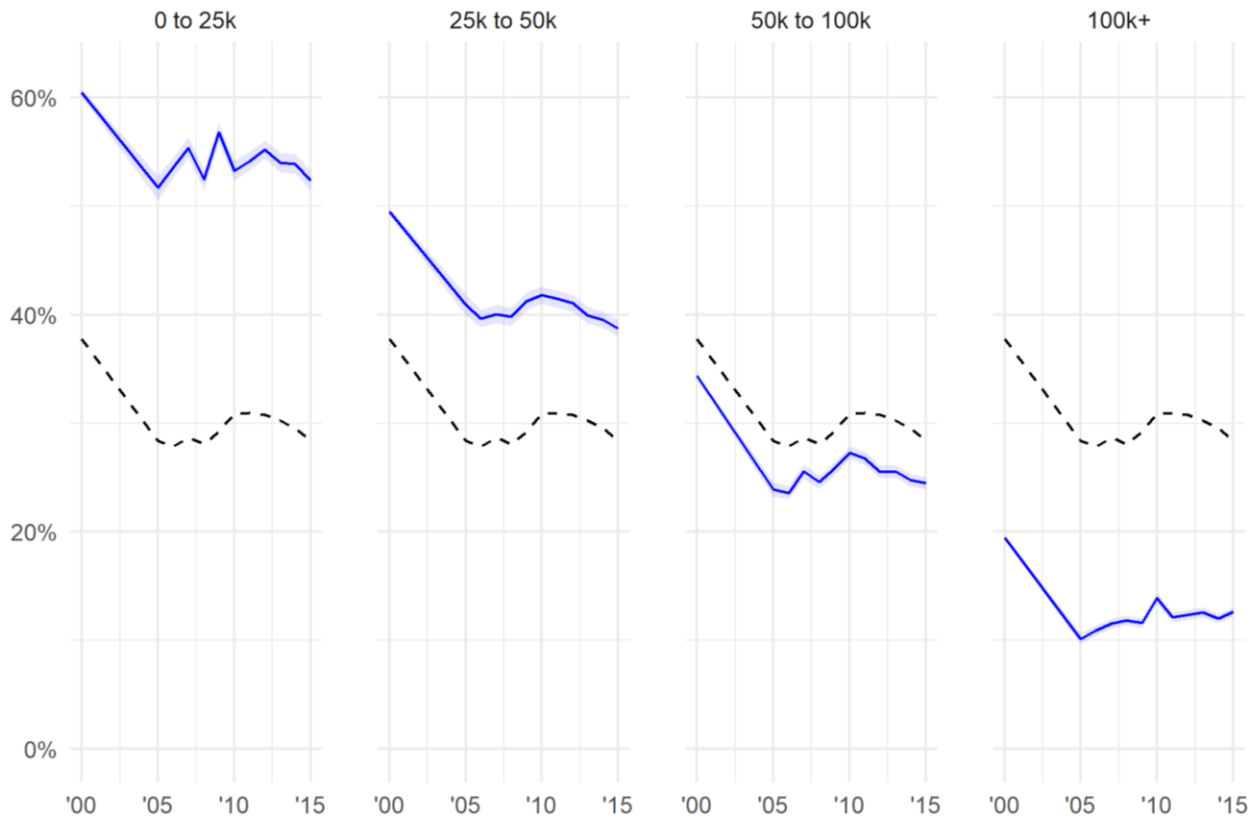


Figure 34. Share of households with vehicle deficits, by income and nativity, 2000-2015, US Census (solid line = foreign born, dashed line = native born).

It is therefore not obvious that rising incomes played a large role in rising vehicle ownership. Certainly the macro-economy played some role in changing levels of transit use. Transit use contracted during the Great Recession: A robust economy puts more people to work, which increases both commuting and discretionary travel. A faltering economy does the reverse. But these same economic trends do not appear to explain why people acquired so many more vehicles than they had in previous periods.

Even at constant incomes, households can acquire more vehicles if the effective price of those vehicles falls. The effective price reflects not the sticker price, but the actual outlay required of a consumer to drive the vehicle home. A large part of this outlay is often a down payment, meaning that vehicles can become more affordable not just if their price declines, but also if financing that price becomes easier.

Some evidence does suggest that vehicle finance became easier during this time. Although lost somewhat in the shadow of easy home-lending credit, automobile credit also surged in the run-up to the Great Recession. And unlike home lending, which tightened considerably after the crash, automobile lending has remained relatively loose. Consumers with good credit scores (typically above 700) can find auto loans with low- and sometimes even zero-interest rates. Since the recession, the share of SCAG-region residents with credit scores below 660 (considered subprime) has fallen (Figure 41), suggesting that consumers have gotten better access over time to low-interest loans (Federal Reserve Bank of New York and Equifax, various). Subprime auto loans also remain prevalent, allowing consumers with poor credit histories or low

incomes to finance vehicle purchases. U.S. auto loan originations among subprime consumers increased 140 percent from 2010 to 2015 (New York Fed Consumer Credit Panel / Equifax). We do not have local-level data on vehicle debt, but inflation-adjusted per capita vehicle debt in California rose 91 percent between 2000 and 2015 (Federal Reserve Bank of New York).[19]

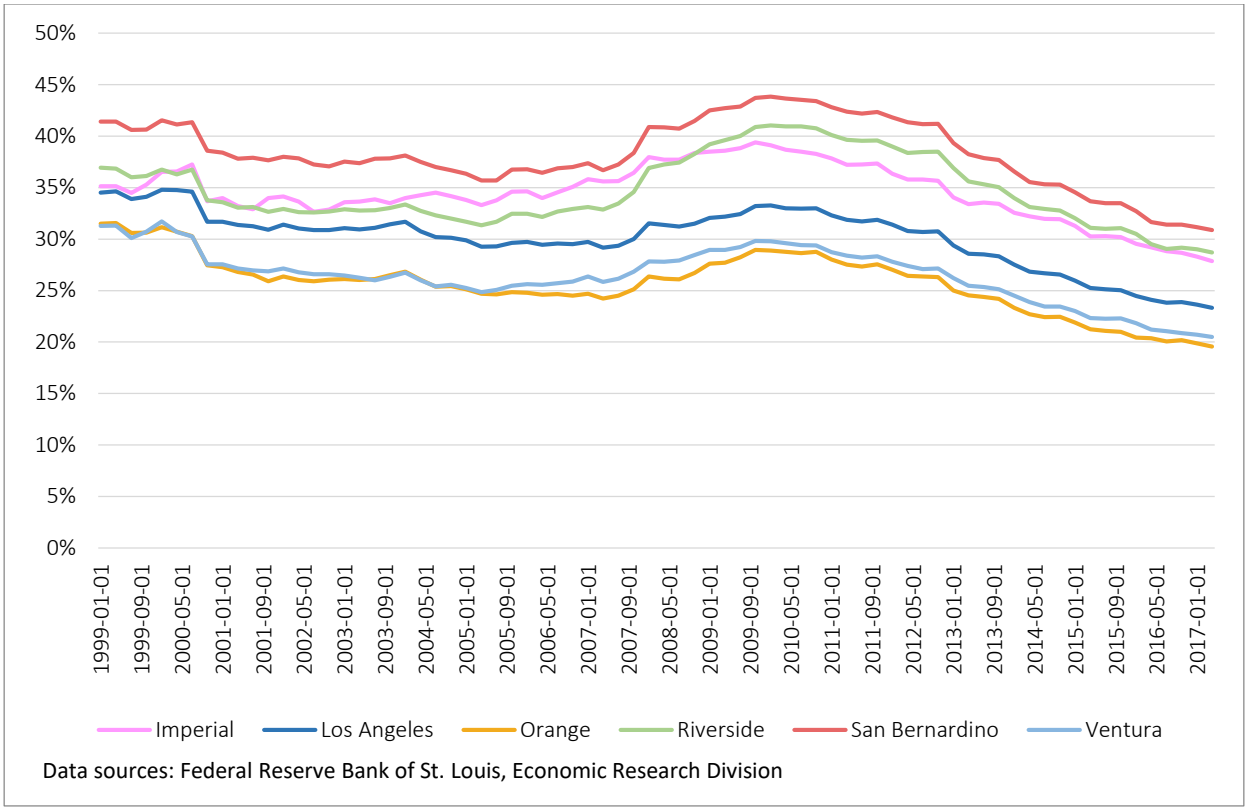


Figure 35. Percent of sample with credit scores below 660, by county in SCAG region.

CONCLUSION

Per capita transit ridership, long sluggish in Southern California, began to fall in 2007. In 2012 that per capita decline accelerated, and manifested as a more noticeable and more alarming absolute decline. The precise reasons for this decline are almost certainly manifold, and hard to disentangle. Gas prices fell sharply after rising steeply. The explosive growth of Uber and Lyft provided new mobility options to some people who had been mobility-constrained. In Orange County, fares rose substantially. On LA Metro, by at least some accounts, feelings of danger increased. Some of the people most likely to use transit moved to areas where transit was less prevalent. Especially in recent years, all these factors most likely contributed to transit's downturn.

[19] Data come from the New York Federal Reserve Bank's Consumer Credit Panel.

But in weighing the evidence, the overwhelming factor appears to be a dramatic increase in the stock of private automobiles. Between 2000 and 2015 Southern Californians acquired vehicles at nearly four times the rate they had between 1990 and 2000. This growth of the private vehicle stock lines up—in timing, in magnitude, and in theory—with the region's falling transit use. Vehicle access grew across all income levels and groups, but disproportionately among those groups, like the low-income and foreign-born, who are most likely to ride transit. Transit ridership in the SCAG region has long depended on a sizable minority of people who did not, largely for economic reasons, have access to cars. After 2000, many of these people acquired cars, and it should not surprise us that they started riding transit less.

To be sure, the case we build in reaching this conclusion is circumstantial. For reasons we have already enumerated, the data available to examine transit riders are scarce and fragmented, which leaves alternative explanations possible if not plausible. Certainly future research should emphasize more data collection. Given the data available today, however, in our judgement rising vehicle ownership is the best explanation for falling transit ridership.

If this explanation is sound, it poses a daunting problem for transit operators. When lower-income people graduate from transit to driving, transit agencies bear a cost, but the other side of that cost is a large benefit for both the people who start driving *and* for society overall. In the aggregate, Southern Californians drive too much, once the various costs of pollution, congestion and crashes are accounted for. But some Southern Californians – the poorest of them – drive *too little*, and both their lives and the region as a whole would be improved if they drove a bit more. The low-income person who acquires a vehicle often makes fewer trips than an affluent person (driving is expensive) and the trips they make are often essential, and have social benefits that exceed their social costs. A car trip by a low-income household is more likely than one by an affluent household to involve finding and keeping work, getting to school, or accessing better health and daycare options. These trips might modestly increase congestion and pollution, but they have large paybacks in employment, earnings, and overall well-being that exceed those costs. Affluent households, in contrast, make many more trips, and more trips whose social value is lower (they might increase congestion and pollution not just by driving to work, but also by driving to lunch, or to visit friends).

Given the powerful difference a car can make in the lives of low-income people, efforts by transit agencies to recapture low-income riders can have a perverse impact: they would target some of the highest-value vehicle trips in the region. Ideally, of course, transit agencies would pull people away from lower-value vehicle trips. It makes little sense to deprive a low-income person of their trip to work at a location poorly served by transit, when affluent people routinely drive for errands and visits that they could easily complete by foot or transit. A quick trip to a store a half mile away (or a trip to a store a mile away when a comparable store is a quarter mile away) is more likely to have social costs that exceed its benefits. And these trips are abundant.

Given this situation, and given the ambitious greenhouse gas reduction goals that California has assigned to transit, planners and operators may need to expand transit's target market. Transit should by no means abdicate its social service mission, but as we stated in the introduction, per capita transit use falls when current riders stop riding, and when new residents don't start. Transit today relies on a high rate of use by a narrow base of people. But if that narrow base of people is acquiring vehicles, transit's healthy future lies in reversing those circumstances, and striving for at least a low rate of use by a broad base of people. The SCAG region lost 72 million transit rides annually from 2012 to 2016. This number seems daunting,

but the region has 18.8 million people. According to the CHTS, about 77 percent of those people (roughly 14.5 million), ride transit rarely or never. Herein lies vast untapped potential. If one out of every four of those people replaced a single driving trip with a transit trip once every two weeks, annual ridership would grow by 96 million—more than compensating for the losses of recent years.

The obstacle to this outcome, however, is large and beyond the direct control of transit operators: driving is too cheap. The large subsidies given to transit in recent years pale next to the longstanding subsidies for automobiles that are hidden in unpriced road use, unpriced or underpriced street parking, high minimum parking requirements, and taxpayer- and developer-financed road-widenings. If public policy does not adequately confront underpriced driving, then transit ridership will likely continue to falter, and transit will not meet its ambitious environmental goals.

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Appendix A

Fare regression output.

Descriptive Data (data are in panel form; observations are agency-years). Route coverage = route miles/service area. Headways = route miles/ (revenue miles/service miles). The service area is in square miles. Service area and service population are the difference between UZA average level of service and service area/ service population.

Absolute Levels

	mean	sd	n
unlinked passenger trips	15,213,380	130,300,000	9,030
vehicle revenue hours	395,268	1,659,684	9,037
headway	33.07	51.01	6,954
route coverage	3.18	6.32	6,922
service area	713.2	8,963.3	9,793
service population	718,549	1,729,745	9,794
fare (2015$)	$1.71	$2.52	8,647

Change from Prior Year

	mean	sd	n
change in unlinked passenger trips	170,442	6,338,137	8,037
change in vehicle revenue hours	5,015	87,867	8,047
change in headway	0.02	18.81	6,277
change in route coverage	-0.07	5.45	6,255
change in service area	0.0	0.4	8,852
change in service population	0	0	8,853
change in fare (2015$)	$0.01	$0.64	7,702

Regression Output:
The regressions are linear and all variables are naturally log-transformed.
Models were run with the dependent variables being levels and changes.
Model 4 is the model discussed in the text.

* change from the prior year is calculated using absolute levels

y=passenger trips	(1)	(2)	(3)	(4)
VARIABLES	OLS	OLS	OLS	FE
vehicle revenue hours	1.264***	1.312***	1.289***	0.754***
	(0.00974)	(0.00950)	(0.00947)	(0.0108)
headway	-0.155***	-0.193***	-0.209***	-0.0152*
	(0.0128)	(0.0129)	(0.0116)	(0.00833)
route coverage	0.0416***	0.0635***	0.0824***	0.0164***
	(0.00809)	(0.00815)	(0.00697)	(0.00555)
service area (miles^2)	-0.126***	0.00594		
	(0.0129)	(0.0104)		
service pop	0.214***		0.139***	0.0380***
	(0.0128)		(0.0102)	(0.00679)
fare (2015$)	-0.0270**	-0.0105	-0.0249**	-0.162***
	(0.0106)	(0.0108)	(0.0107)	(0.00677)
Constant	0.0223	-0.434***	-0.134	5.708***
	(0.0918)	(0.0895)	(0.0910)	(0.123)
Observations	6,767	6,767	6,767	6,767
R-squared	0.868	0.862	0.866	0.498
Number of agencies				620

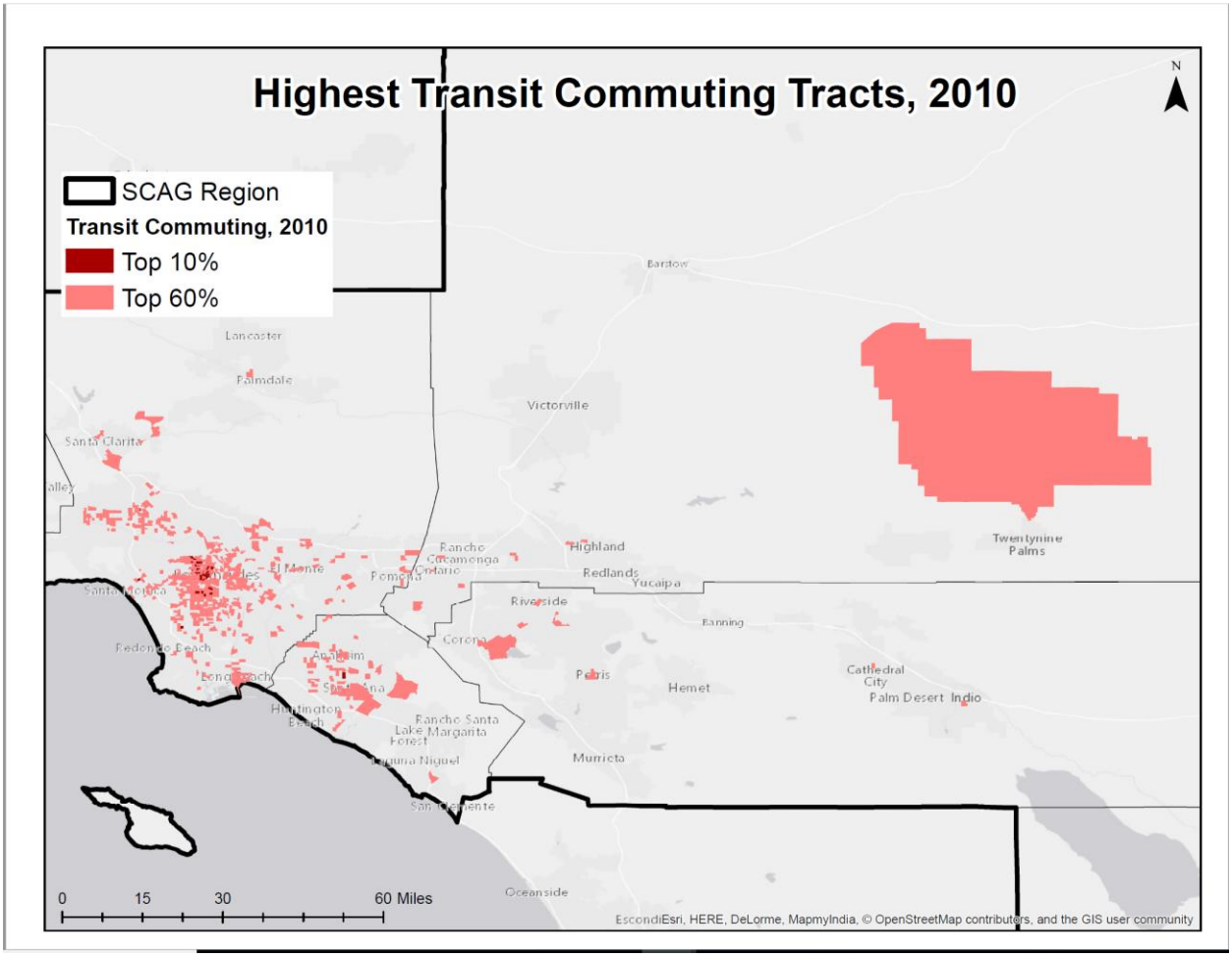
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

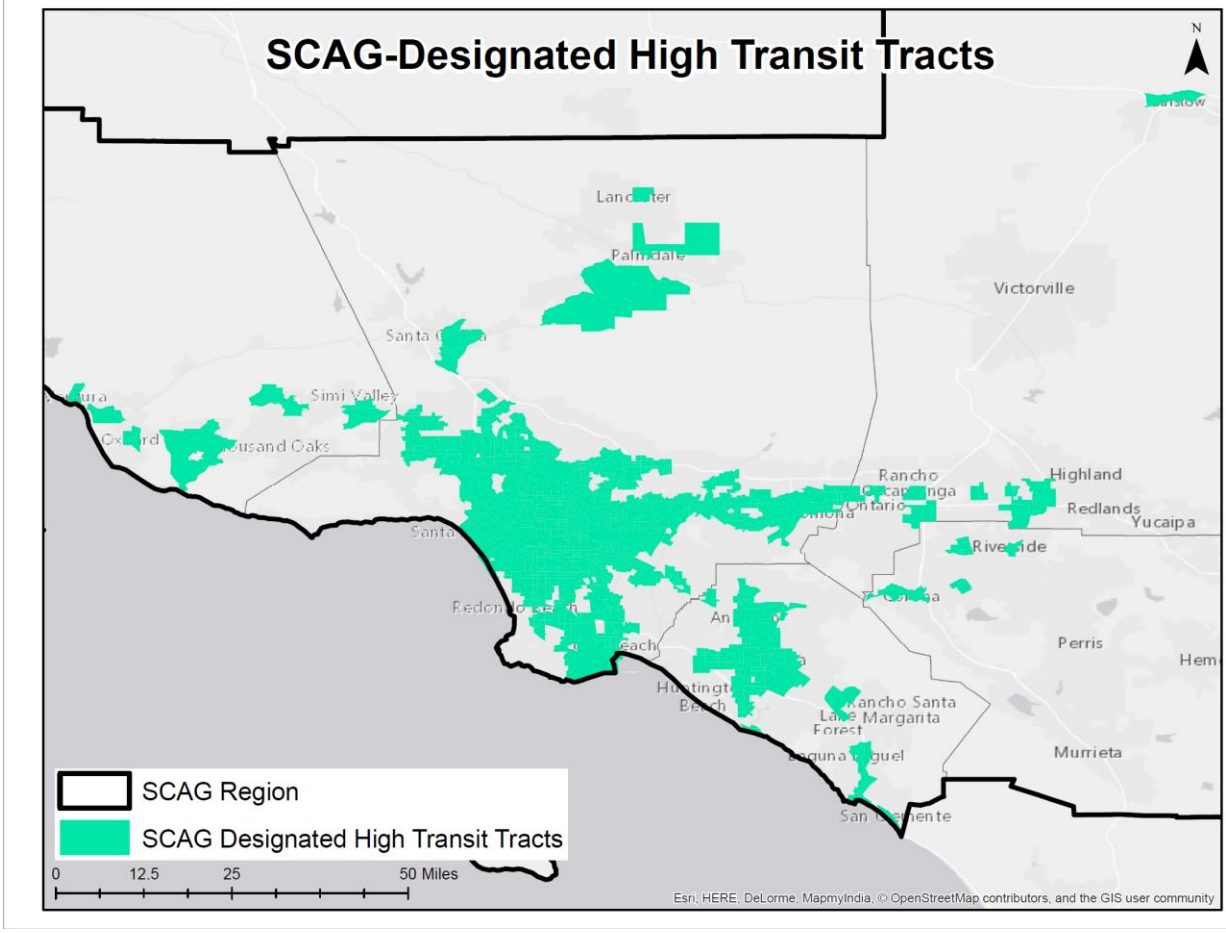
y=change in passenger trips	(1)	(2)	(3)	(4)
VARIABLES	OLS	OLS	OLS	FE
change in VRH	32.08***	32.08***	32.08***	27.19***
	(1.096)	(1.096)	(1.096)	(1.147)
change in headway	-12,979**	-12,973**	-13,133**	-9,162
	(5,995)	(5,994)	(5,981)	(6,095)
change in route coverage	28,528	28,498	29,237	18,718
	(20,642)	(20,637)	(20,554)	(21,703)
change in service area (miles^2)	-98,385	-95,007		
	(263,173)	(259,378)		
change in service pop	19,953		3,401	
	(262,368)		(258,587)	
change in fares (2015$)	-287,046*	-286,709*	-287,167*	-301,584*
	(172,940)	(172,869)	(172,928)	(178,218)
Constant	31,160	31,496	31,138	59,982
	(86,058)	(85,937)	(86,052)	(84,787)
Observations	6,102	6,102	6,102	6,102
R-squared	0.124	0.124	0.124	0.094
Number of agencies				602

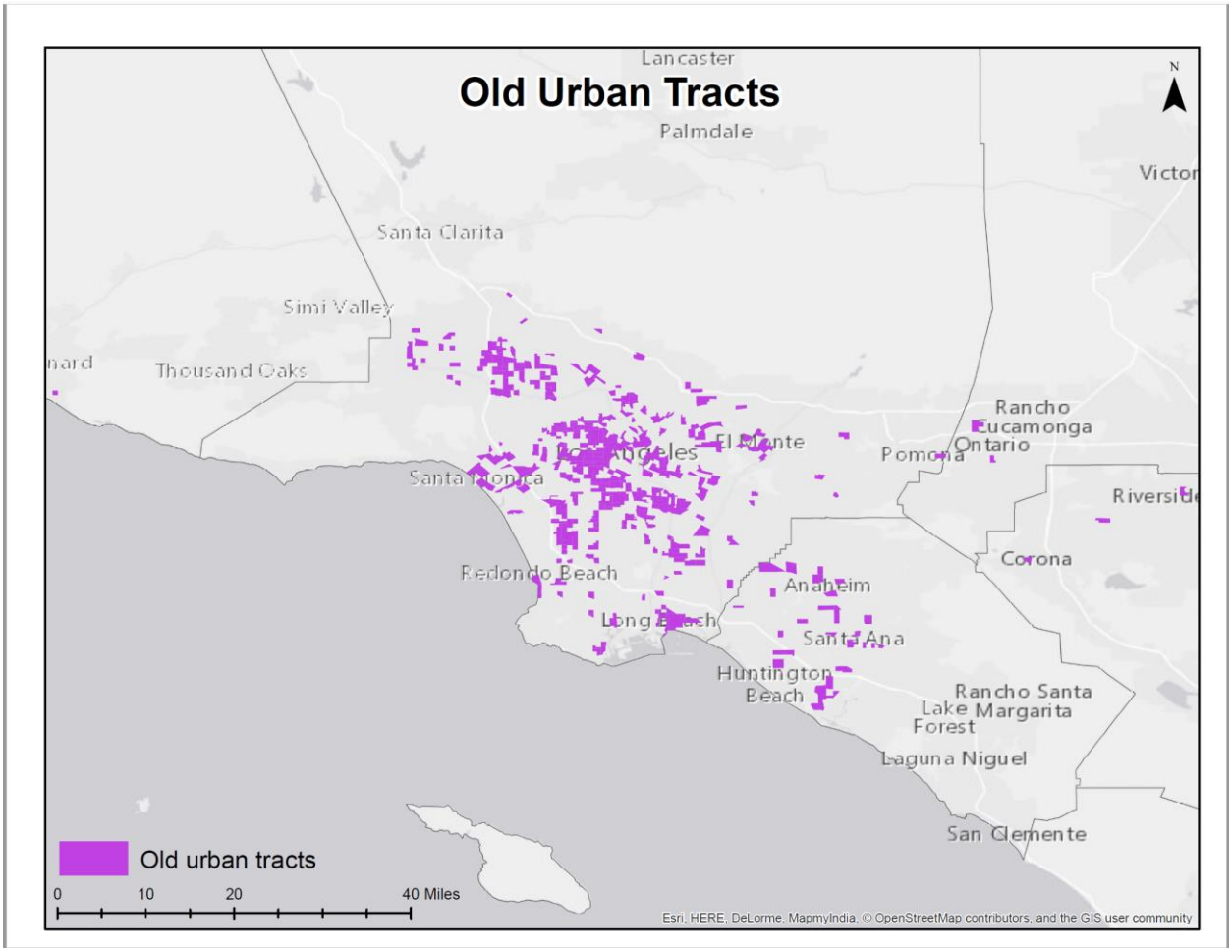
Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Appendix B

Neighborhood change attributes and locations.




SCAG-Designated High Transit Tracts
N
Victorville
Simi Valley
Rancho
Highland
Redlands
Yucaipa
Perris
Rancho Santa
Murrieta
SCAG Region
SCAG Designated High Transit Tracts
0
12.5
25
50 Miles
Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community

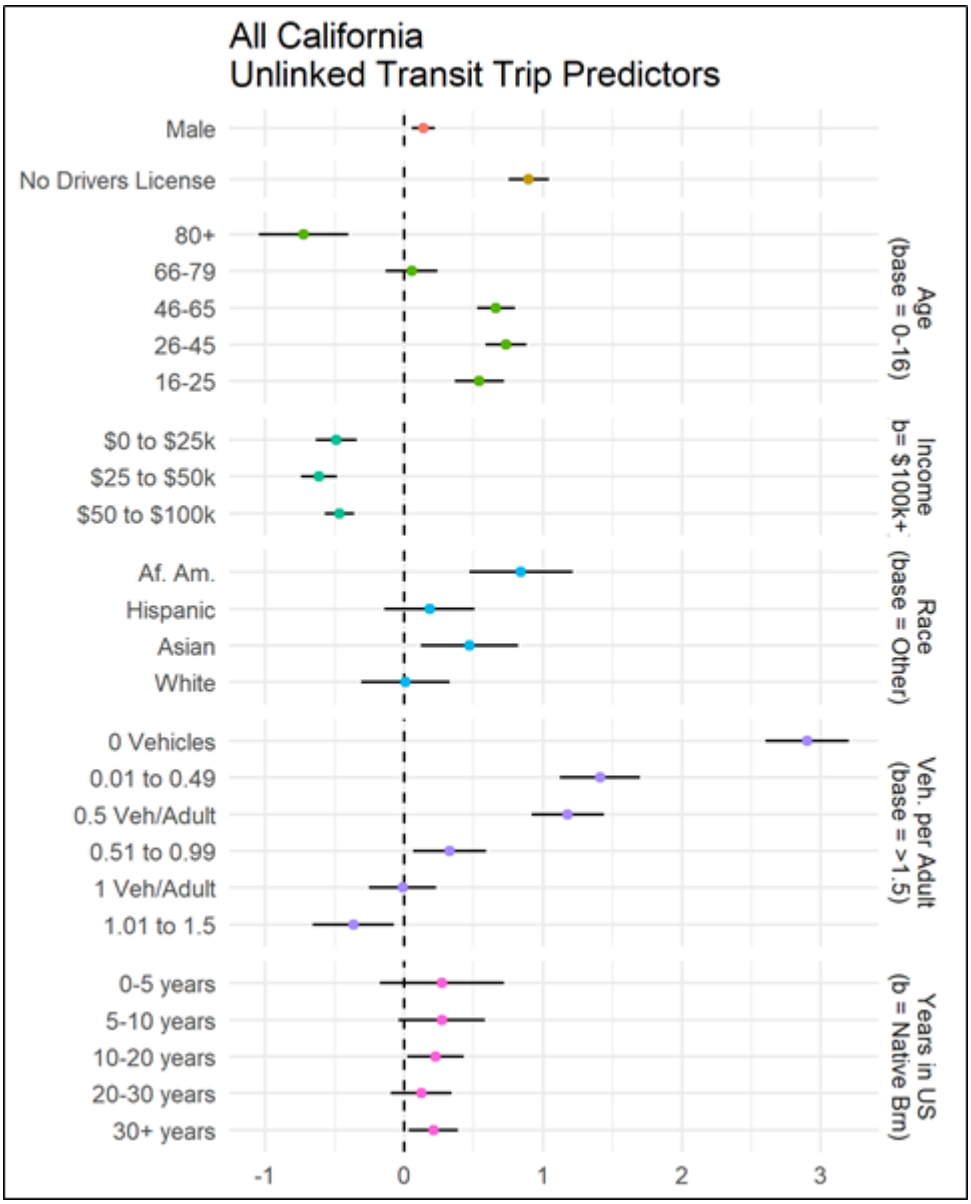


Mean Characteristics of Transit-Rich Neighborhoods:
Change over time in Tracts with High Concentrations of Transit Commuters in 2000

10 Percent	**2000**	**2010**	**2015**
% Transit Use	38%	33%	33%
% Poverty	38%	32%	36%
% Foreign Born	63%	62%	57%
% 0-Vehicle Households	43%	34%	34%
% NH White	9%	10%	8%
N Tracts	48	48	48
% of All Tracts in Region	1.4%	1.2%	1.2%
Total Tracts	3,393	3,954	3,953
60 Percent	**2000**	**2010**	**2015**
% Transit Use	16%	14%	13%
% Poverty	27.79	23.13	26.55
% Foreign Born	47.84	44.31	42.10
% 0-Vehicle Households	22.78%	15.76%	15.68%
% NH White	14.39	17.42	15.86
N Tracts	691	691	691
% of All Tracts in Region	20.4%	17.5%	17.5%
Total Tracts	3,393	3,954	3,953

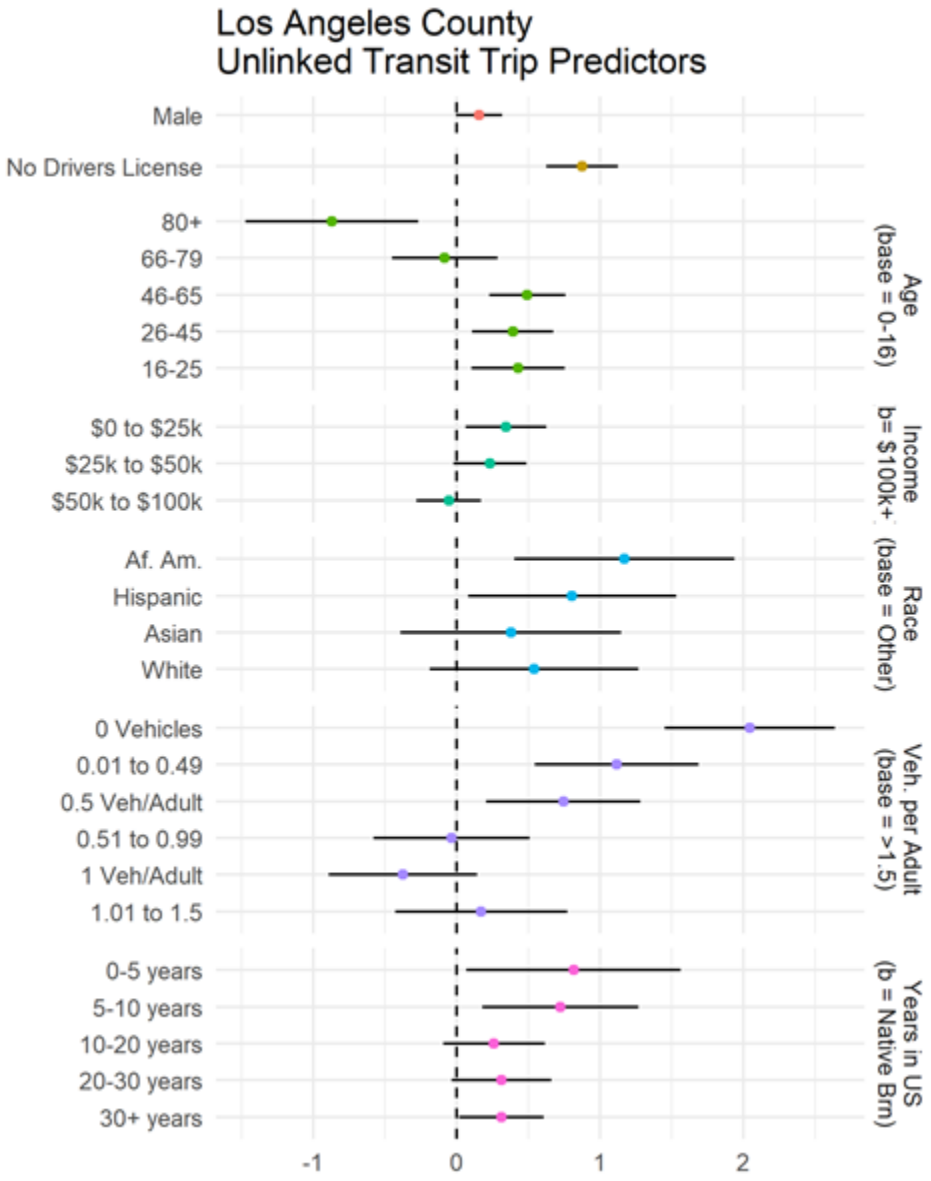
Sources: US Census 2000, ACS 2006-2010, ACS 2011-2015

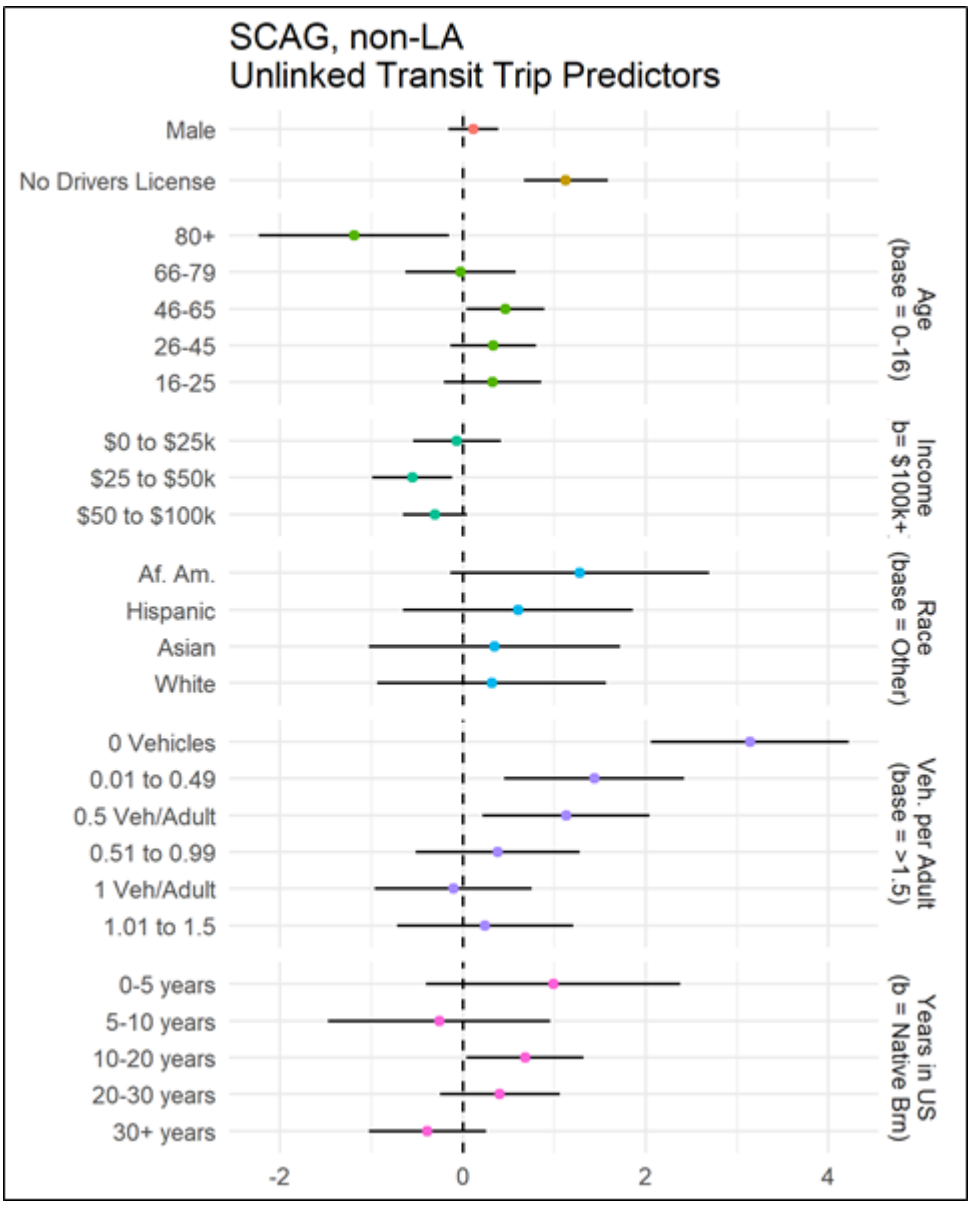
Appendix C

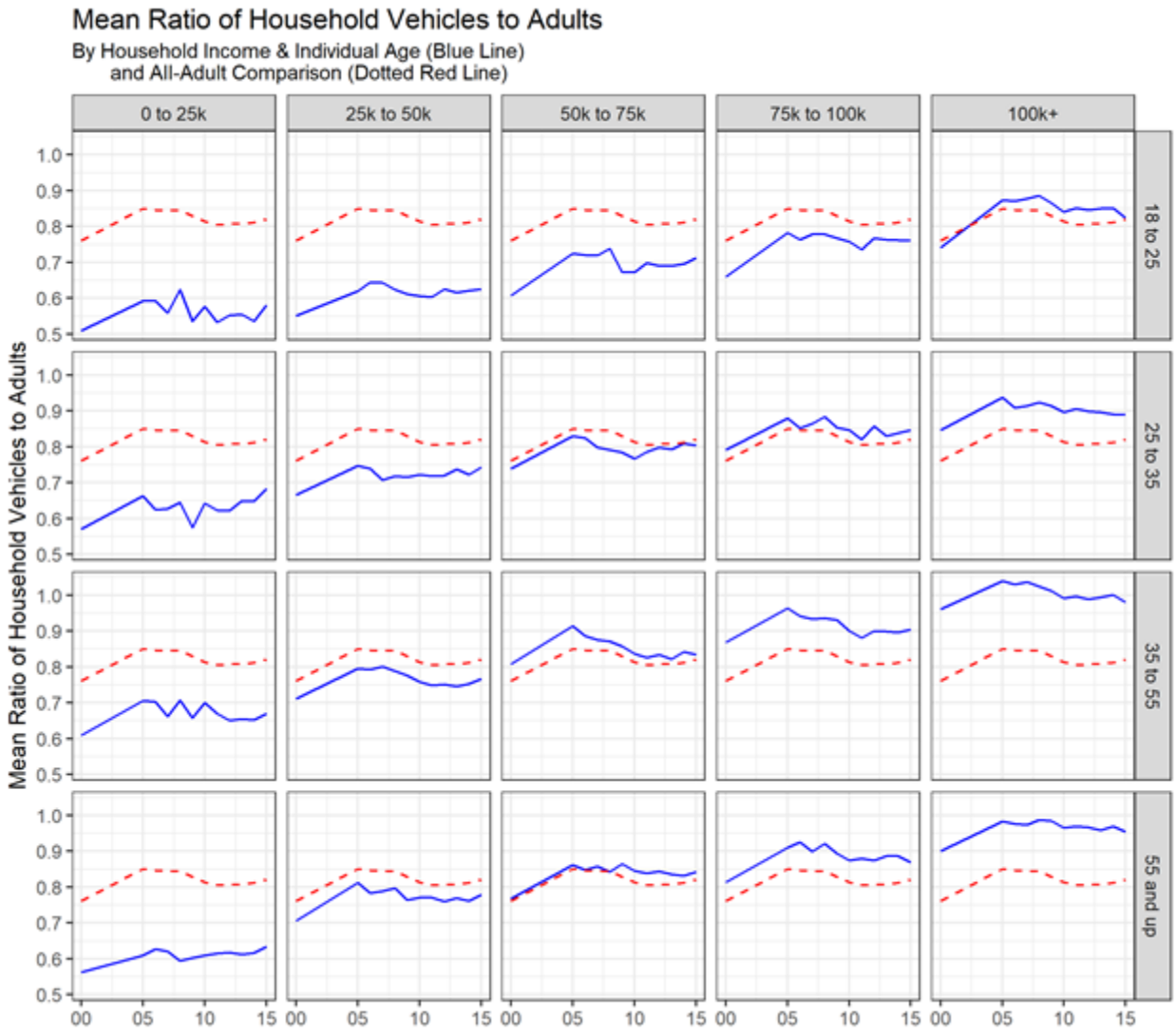

All California
Unlinked Transit Trip Predictors
Male
No Drivers License
80+
66-79
46-65
26-45
16-25
Age (base = 0-16)
$0 to $25k
$25 to $50k
$50 to $100k
Income (b= $100k+)
Af. Am.
Hispanic
Asian
White
Race (base = Other)
0 Vehicles
0.01 to 0.49
0.5 Veh/Adult
0.51 to 0.99
1 Veh/Adult
1.01 to 1.5
Veh. per Adult (base = >1.5)
0-5 years
5-10 years
10-20 years
20-30 years
30+ years
Years in US (b = Native Brn)
-1
0
1
2
3

Appendix D

Additional trip predictors and descriptive data.




SCAG, non-LA
Unlinked Transit Trip Predictors
Male
No Drivers License
80+
66-79
46-65
26-45
16-25
Age (base = 0-16)
$0 to $25k
$25 to $50k
$50 to $100k
Income b= $100k+
Af. Am.
Hispanic
Asian
White
Race (base = Other)
0 Vehicles
0.01 to 0.49
0.5 Veh/Adult
0.51 to 0.99
1 Veh/Adult
1.01 to 1.5
Veh. per Adult (base = >1.5)
0-5 years
5-10 years
10-20 years
20-30 years
30+ years
Years in US (b = Native Brn)
-2
0
2
4


Mean Ratio of Household Vehicles to Adults
By Household Income & Individual Age (Blue Line)
and All-Adult Comparison (Dotted Red Line)
0 to 25k
25k to 50k
50k to 75k
75k to 100k
100k+
18 to 25
25 to 35
35 to 55
55 and up
Mean Ratio of Household Vehicles to Adults
1.0
0.9
0.8
0.7
0.6
0.5
00
05
10
15

Appendix C

Fall 2021 Report Card for Riverside, CA
By The League of American Bicyclists

RIVERSIDE, CA

BICYCLE FRIENDLY COMMUNITY
Fall 2021
BRONZE
THE LEAGUE OF AMERICAN BICYCLISTS

TOTAL POPULATION
324,722

POPULATION DENSITY
3982

TOTAL AREA *(sq. miles)*
81.54

OF LOCAL BICYCLE FRIENDLY BUSINESSES 2

OF LOCAL BICYCLE FRIENDLY UNIVERSITIES 1

10 BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY

	Average Silver	*Riverside*
High Speed Roads with Bike Facilities	35%	51%
Total on- and off-road Bicycle Network Mileage to Total Road Network Mileage	48%	21%
Bicycle Education in Schools	GOOD	VERY GOOD
Share of Transportation Budget Spent on Bicycling	11%	10%
Bike Month and Bike to Work Events	GOOD	AVERAGE
Active Bicycle Advocacy Group	YES	YES
Active Bicycle Advisory Committee	MEETS EVERY TWO MONTHS	MEETS AT LEAST MONTHLY
Bicycle–Friendly Laws & Ordinances	GOOD	NEEDS IMPROVEMENT
Bike Plan is Current and is Being Implemented	YES	YES
Bike Program Staff to Population	1 PER 78K	1 PER 216.5K

CATEGORY SCORES

ENGINEERING *Bicycle network and connectivity*	4.7 /10
EDUCATION *Motorist awareness and bicycling skills*	3.9 /10
ENCOURAGEMENT *Mainstreaming bicycling culture*	3.6 /10
EVALUATION & PLANNING *Setting targets and having a plan*	5.0 /10

KEY OUTCOMES

	Average Silver	*Riverside*
RIDERSHIP *Percentage of Commuters who bike*	2.7%	0.71%
SAFETY MEASURES **CRASHES** *Crashes per 10k bicycle commuters*	537	758
SAFETY MEASURES **FATALITIES** *Fatalities per 10k bicycle commuters*	6.3	9.5



KEY STEPS TO SILVER



» Congratulations on recently adopting the Riverside PACT, including a Complete Streets Ordinance that directs transportation planners and engineers to routinely design and operate the entire right-of-way to enable safe access for all users. It is important to ensure that there is a strong implementation and compliance process for this new policy going forward. The PACT's components will serve as a blueprint for improvements and together have many great recommendations for a more connected network of safe and comfortable bicycle facilities.

» Continue to improve and expand the low-stress bike network for all ages and abilities, and ensure that your community follows a bicycle facility selection criteria that increases separation and protection of bicyclists based on levels of motor vehicle speed and volume.

» Increase the amount of high quality bicycle parking throughout the community. Conduct a bike parking study or audit to determine current conditions of bike parking, both in terms of quality and quantity. Develop community-wide Bicycle Parking Standards to ensure that APBP-compliant bicycle parking is available in areas near transit and urban activity centers. (See www.apbp.org/bicycle-parking-solutions)

» Continue efforts to re-launch a new public bike share system to replace the system that recently ceased operations. Bike sharing is a convenient, cost effective, and healthy way of encouraging locals and visitors to make short trips by bike, make bicycling more accessible to all, and to bridge the 'last mile' between public transit and destinations.

KEY STEPS CONTINUED ON PAGE 2...

RIVERSIDE, CA

Fall 2021

KEY STEPS TO SILVER CONTINUED

» Improve bicycle safety education for students of all ages by incorporating more on-bicycle education opportunities and by expanding the program to all K-12 schools. Providing bicycles in schools for on-bike education ensures that all students can learn to safely ride a bicycle regardless of the availability of a bicycle in their household. Work with the school district, local bicycle groups, and interested parents to expand and improve the Safe Routes to School program.

» Expand bicycle education opportunities for adults. Consider ways to target demographics who currently do not feel safe riding with classes or events that address their concerns and create an inclusive, welcoming environment.

» Host a League Cycling Instructor (LCI) seminar to increase the number of local LCIs in your community. Having several active instructors in the area will enable you to expand cycling education for youth and adults, recruit more knowledgeable cycling ambassadors, deliver Bicycle Friendly Driver education to motorists, and have experts available to assist in encouragement programs.

» Increase the amount of staff time spent on improving conditions for people who bike and walk, either by creating a new Bicycle & Pedestrian Coordinator position or expanding the responsibilities of current staff.

» Continue to develop a bicycle count program that utilizes several methods of data collection including automated bicycle counters to provide long-term data on bicycle use at fixed points and mobile counters to provide periodic or before/after data related to changes in your community's road or bicycle network. Observational counts and surveys can supplement automated data in order to collect demographic information and examine social equity goals.

» Adopt a goal to eliminate traffic fatalities and serious injuries and support this goal with a comprehensive road safety plan or a Vision Zero policy to identify specific strategies to reduce traffic crashes and deaths for all road users, including bicyclists and pedestrians. Introducing low stress bikeway facilities and lowering vehicle speeds through traffic calming treatments are important engineering components for addressing roadway safety.

» Continue efforts to examine and reconsider the City's policies regarding non-exclusively human powered devices on trails so that electric pedal assist bicycles can be used more freely on trails throughout the community.

MORE RESOURCES FOR IMPROVING YOUR COMMUNITY:

» **League of American Bicyclists: https://www.bikeleague.org**

» **Guide to the BFC Report Card: https://bikeleague.org/sites/default/files/Guide_to_the_Bicycle_Friendly_Community_Report_Card.pdf**

» **Resources for Building a Bicycle Friendly Community: https://bikeleague.org/BFC_Resources**

» **Building Blocks of a Bicycle Friendly Community: https://bikeleague.org/content/building-blocks-bicycle-friendly-communities**

» **About the BFC Application Process: https://bikeleague.org/content/about-bfc-application-process**

» **The Five E's: https://bikeleague.org/5-es**

» **Tips for Current and Aspiring BFCs: https://bikeleague.org/BFC-tips**

» **Smart Cycling Program: https://bikeleague.org/ridesmart**

» **Advocacy Reports and Resources: https://bikeleague.org/reports**

» **Bicycle Friendly Business Program: https://bikeleague.org/business**

» **National Bike Month: https://bikeleague.org/bikemonth**

RESOLUTION NO. 23-____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING TENTATIVE TRACT MAP NO. 38594 TO SUBDIVIDE AND DEVELOP 69.8 ACRES OF UNDEVELOPED PROPERTY INTO 65 BUILDABLE LOTS AND 19 LETTERED LOTS FOR CONDOMINIUM, MULTI-FAMILY RESIDENTIAL, COMMERCIAL, CIVIC, OPEN SPACE, AND PUBLIC RIGHT-OF-WAY PURPOSES, LOCATED AT THE NORTHWEST CORNER OF LIMONITE AVENUE AND HAMNER AVENUE, ASSESSOR'S PARCEL NUMBERS 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.

WHEREAS, the Planning Department of the City of Eastvale received an application (PLN22-20087) on December 21, 2022, from The New Home Company (the "Applicant") requesting Tentative Tract Map No. 38594 (the "Project") to subdivide and develop 69.8 acres of undeveloped property into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes; and

WHEREAS, the proposed project (Project No. PLN22-20087, 88, 89, 90, 91, and 92) is considered a "Project" as defined by the California Environmental Quality Act, Public Resources Code Section 21000 et seq.; and

WHEREAS, review of the proposed project with respect to the proposed uses was evaluated in the Addendum to the Program Environmental Impact Report (State Clearinghouse No. 2015031028) certified by City Council on May 11, 2022, for the Leal Master Plan project; Therefore, no additional environmental analysis is necessary; however, a Notice of Determination will be filed following any action taken on the project; and

WHEREAS, on September 10, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning PLN22-20087 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on September 20, 2023. In addition, on September 7, 2023, a public hearing notice was also mailed to commercial tenants and residents within a 600-foot radius of the projects site indicating time, date, and place of the public hearing for Tentative Tract Map 38594 (PLN22-20087); and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on September 20, 2023, at which time it received public testimony concerning Project NO. PLN22-20087, and considered proposed Tentative Tract Map 38594.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:

SECTION 1. ENVIRONMENTAL FINDINGS

Pursuant to the California Environmental Quality Act, including Public Resources Code Sections 21080(e) and 21082.2, and based on the record and/or as provided at the public hearing,

the Planning Commission hereby finds and determines that the project was adequately analyzed according to the CEQA Guidelines, as supported by the following Findings and Evidence:

Finding 1: The proposed project is exempt from further environmental review requirements.

Evidence: On May 11, 2022, the Eastvale City Council adopted an Addendum to the previously Certified Program Environmental Impact Report (PEIR) for approval of a Leal Master Plan Amendment, Tentative Tract Map 38290, and Major Development Review. The California Environmental Quality Act (CEQA) Statutes and Guidelines states that when an environmental impact report (EIR) has been certified for a project, no subsequent EIR shall be prepared unless the lead agency determines so on the basis of substantial change in the project which would require major revisions in the EIR. The requested approval of Tentative Tract Map 38594 requests to subdivide 69.8 acres of Tentative Tract Map 38290 into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes. As such, the proposed project does not exceed the maximum development assumptions of the certified PEIR and would not represent an increased development intensity within the overall approved project area. As such, no further CEQA documentation would be warranted for the proposed project pursuant to CEQA Guidelines Section 15168.

SECTION 2. FINDINGS FOR TENTATIVE TRACT MAP NO. 38594

Pursuant to Title 130 of the Eastvale Municipal Code, and in light of the record before it, including the staff report dated September 20, 2023, all evidence and testimony heard at the public hearing of this item, the Planning Commission hereby finds and determines as follows:

Finding 1: The proposed tentative tract map is consistent with the City's General Plan and any applicable specific plan as specified in Government Code Section 65451.

Evidence: Tentative Tract Map 38594 will be consistent with the City's General Plan in that it is compatible with the objectives, policies, general land uses and programs specified in the General Plan as well as the Leal Master Plan, including

(a) street alignments, grades, and widths;
(b) Drainage and sanitary facilities and utilities, including alignments and grades thereof;
(c) Location and size of all required easements and right-of-way;
(d) Lot size and configuration;
(e) Traffic access;
(f) Grading;
(g) Land to be dedicated for park or recreational purposes; and

(h) Such other specific requirements in the plan and configuration of the entire subdivision as may be necessary to insure conformity to or implementation of the General Plan and Leal Master Plan.

Finding 2: The design or improvement of the proposed subdivision is consistent with the City's General Plan and any applicable specific plan.

Evidence: The proposed Tentative Tract Map 38594 has been designed to meet all City standards applicable to subdivisions, including providing satisfactory pedestrian and vehicular circulation, including emergency vehicle access and on- and off-site public improvements. All streets, utilities, and drainage facilities had been designed and were required to be constructed in conformance with City standards.

Finding 3: The site is physically suitable for the type and proposed density of development.

Evidence: On site topography is generally flat without significant slopes and consists of approximately 69.8-acres of vacant land, which had been determined to be suitable for the development of single-family, multi-family, commercial, civic, open space, and public right-of-way purposes. The site includes an existing Southern California Edison (SCE) easement that includes a multipurpose trail and vehicular parking. On January 19, 2023, the Riverside County Airport Land Use Commission (ALUC) reviewed the project design as proposed in Tentative Tract Map No. 38594 and found that the proposed project is outside the airport influence area and therefore, consistent with the Chino Airport Land Use Compatibility Plan. Finally, the applicant has submitted a conceptual development plan which illustrates that the proposed project may be constructed on the site without adversely affecting the health, safety, or welfare of anyone who will utilized the development or anyone living within the surrounding community. Finally, the size, 69.8-acres will accommodate the proposed density of the Project.

Finding 4: The design of the subdivision or proposed improvements is not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

Evidence: CSL biologist conducted an analysis of biological resources and jurisdictional waters within the project area on June 9, 2021, and focused burrowing owl surveys and narrow endemic plant surveys were conducted on June 16, 23, July 1 and 13, 2021. Delhi Sands Flower Loving Fly Assessment was performed on June 18, 2021. Based on the updated 2021 detailed biological Surveys, the Project is not anticipated to have a greater impact than what was originally analyzed in the

2015 EIR and is not likely to cause substantial environmental damage or injust fish or wild life or their habitat.

Finding 5: The design of the subdivision or type of improvements is not likely to cause serious public health problems.

Evidence: The design of the subdivision is in conformance with the City's General Plan, Leal Master Plan Amendment, and City of Eastvale Subdivision Ordinance. The construction of all improvements on the site has been conditioned to comply with all applicable City of Eastvale ordinances, codes, and standards including, but not limited to, the California Uniform Building Code and the City's ordinances relating to stormwater runoff management and controls. In addition, the design and construction of all improvements for the subdivision have been conditioned to be in conformance with adopted public works standards. The City's ordinances, codes, and standards have been created based on currently accepted standards and practices for the preservation of the public health, safety, and welfare. Finally, the proposed street system throughout the subdivision will provide emergency vehicular access I the immediate neighborhood.

Finding 6: The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision.

Evidence: The SCE easement that bisects the project site will be improved to accommodate a new multipurpose trail and provide vehicular parking. Easement No. 4 will be vacated prior to construction of Planning Area 8. No other easements of record or easements established by judgement of a court of competent jurisdiction for public access across the site have been disclosed in a search of the title records for the site and the City does not otherwise have any constructive or actual knowledge of any such easements.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)

The project is found to be consistent with the MSHCP. The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of the MSHCP Mitigation Fee.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 3, the Planning Commission of the City of Eastvale hereby approves Tentative Tract Map 38594 (PLN22-20087) to subdivide and develop 69.8 acres of undeveloped property into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes, subject to the conditions of approval.

PASSED, APPROVED AND ADOPTED this 20th day of September, 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting held on the 20th day of September, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____

Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING THE OVERALL SITE PLANNING, MASTER LANDSCAPING, STREETSCAPE DESIGN, AND OPEN SPACE AMENITIES OF PHASE A (TENTATIVE TRACT MAP NO. 38594) OF THE NEW HOME DEVELOPMENT LOCATED AT THE NORTHWEST CORNER OF LIMONITE AVENUE AND HAMNER AVENUE, ASSESSOR'S PARCEL NUMBERS 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.

WHEREAS, the Planning Department of the City of Eastvale received an application (PLN22-20088) on December 21, 2022, from The New Home Company (the "Applicant") requesting Major Development Review for the overall site planning, master landscaping, streetscape design, and open space amenities of Tentative Tract Map No. 38594, referred as Phase A of the New Home Development (the "Project"); and

WHEREAS, the proposed project (Project No. PLN22-20088) is considered a "Project" as defined by the California Environmental Quality Act, Public Resources Code Section 21000 et seq.; and

WHEREAS, review of the proposed project with respect to the proposed uses was evaluated in the Addendum to the Program Environmental Impact Report (State Clearinghouse No. 2015031028) certified by City Council on May 11, 2022, for the Leal Master Plan project; therefore, no additional environmental analysis is necessary; however, a Notice of Determination will be filed following any action taken on the project; and

WHEREAS, on September 10, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning PLN22-20088 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on September 20, 2023. In addition, on September 7, 2023, a public hearing notice was also mailed to commercial tenants and residents within a 600-foot radius of the projects site indicating time, date, and place of the public hearing for PLN22-20088; and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on September 20, 2023, at which time it received public testimony concerning Project NO. PLN22-20088 and considered the proposed Major Development Review for the overall site planning, master landscaping, streetscape design, and open space amenities for Phase A (Tentative Tract Map 38290) of The New Home development.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:

SECTION 1. ENVIRONMENTAL FINDINGS

Pursuant to the California Environmental Quality Act, including Public Resources Code Sections 21080(e) and 21082.2, and based on the record and/or as provided at the public hearing, the Planning Commission hereby finds and determines that the project was adequately analyzed according to the CEQA Guidelines, as supported by the following Findings and Evidence:

Finding 1: The proposed project is exempt from further environmental review requirements.

Evidence: On May 11, 2022, the Eastvale City Council adopted an Addendum to the previously Certified Program Environmental Impact Report (PEIR) for approval of a Leal Master Plan Amendment, Tentative Tract Map 38290, and Major Development Review. The California Environmental Quality Act (CEQA) Statutes and Guidelines states that when an environmental impact report (EIR) has been certified for a project, no subsequent EIR shall be prepared unless the lead agency determines so on the basis of substantial change in the project which would require major revisions in the EIR. The requested approval of PLN22-20088 requests Major Development Review for the overall site planning, master landscaping, streetscape design, and open space amenities for Phase A (Tentative Tract Map 38290) of The New Home. As such, the proposed project does not exceed the maximum development assumptions of the certified PEIR and would not represent an increased development intensity within the overall approved project area. As such, no further CEQA documentation would be warranted for the proposed project pursuant to CEQA Guidelines Section 15168.

SECTION 2. FINDINGS FOR MAJOR DEVELOPMENT REVIEW PLN22-20088

Pursuant to Section 120.02.010(c)(6) of the Eastvale Municipal Code, and in light of the record before it, including the staff report dated September 20, 2023, and all evidence and testimony heard at the public hearing of this item, the Planning Commission hereby finds and determines as follows:

Finding 1: The proposed project is consistent with the objectives of the general Plan and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Leal Policy Area. The Leal Policy Area land use designation allows for the development of a downtown village with a mix of uses including retail, civic, residential, and recreational through heavily landscaped spaces, high-quality architecture and design, and ample access for pedestrians, bicyclist, and automobiles. Therefore, the proposed project would be consistent with the General Plan designation for the site and will further the objectives of the General Plan. Additionally, the proposed project is consistent with the Leal Master Plan Amendment site characteristics, design guidelines, and development standards for a vibrant mixed use downtown.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to comply with the development and design standards of the Leal Master Plan Amendment, such as providing memorable and enjoyable pedestrian experiences with the proposed urban forest and ample landscaping, wide sidewalks, multipurpose trails, decorative light fixtures, enhanced paving, and both active and passive open spaces. The proposed design is suitable for the mixed-use, downtown village, lifestyle center contemplated for the site in the General Plan and Leal Master Plan Amendment and will enhance the character of the neighborhood and community with novel architecture. For these reasons, the proposed project, as conditioned will enhance the character of the neighborhood and community.

Finding 3: The architecture, including the character, scale, and quality of design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting, and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The proposed architecture, including the character and quality of the design, are suitable for the purposes of a mixed-use, downtown village, lifestyle center by establishing a clear, unparalleled design concept to Eastvale. The project is designed for the pedestrian experience with the proposed urban forest and ample landscaping, wide sidewalks, multipurpose trails, decorative light fixtures, enhanced paving, and both active and passive open spaces. As conditioned, the proposed project will complement traditional architectural styles and introduce novel design features that will enhance the character of the buildings on adjoining and nearby properties.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have been designed to handle the type and quantity of vehicular traffic associated with the proposed project. Wide sidewalks, designated bike lanes, and changes in materials (i.e., asphalt, concrete, decorative pavers, and decomposed granite) clearly distinguish each mode of circulation reducing conflicts between motorized vehicles, pedestrians and bicyclist. Finally, the City Engineer and Riverside County Sheriff's Department have reviewed the proposed project access and on-site circulation design and do not have any concerns.

Finding 5: The proposed project is consistent with the most recently adopted version of the Chino Airport Land Use Compatibility Plan.

Evidence: The project site is not with the Chino Airport Influence Area.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)

The project is found to be consistent with the MSHCP. The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of the MSHCP Mitigation Fee.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 3, the Planning Commission of the City of Eastvale hereby approves Major Development Review No. PLN 22-20088 for the overall site planning, master landscaping, streetscape design, and open space amenities for Phase A (Tentative Tract Map 38290) of The New Home development, subject to the conditions of approval.

PASSED, APPROVED AND ADOPTED this 20th day of September, 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting held on the 20th day of September, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING THE MASTER SITE PLANNING AND ARCHITECTURE OF PLANNING AREA 1 (PA-1) OF THE LEAL MASTER PLAN TO ACCOMMODATE A 168-UNIT CONDOMINIUM AND TOWNHOME RESIDENTIAL COMMUNITY, WITH ASSOCIATED POOL/RECREATIONAL FACILITY, PARKING AREAS, LANDSCAPING, AND OPEN SPACE AMENITIES LOCATED AT THE NORTHWEST CORNER OF LIMONITE AVENUE AND HAMNER AVENUE, ASSESSOR'S PARCEL NUMBERS 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.

WHEREAS, the Planning Department of the City of Eastvale received an application (PLN22-20089) on December 21, 2022, from The New Home Company (the "Applicant") requesting Major Development Review for the master site planning and architecture of Planning Area 1 (PA-1) of the Leal Master Plan or Lots 1-20 and Lot N of proposed Tentative Tract Map 38594, to accommodate a 168-unit condominium and townhome residential community, with associated pool/recreational facility, parking areas, landscaping, and open space amenities (the "Project"); and

WHEREAS, the proposed project (Project No. PLN22-20089) is considered a "Project" as defined by the California Environmental Quality Act, Public Resources Code Section 21000 et seq.; and

WHEREAS, review of the proposed project with respect to the proposed uses was evaluated in the Addendum to the Program Environmental Impact Report (State Clearinghouse No. 2015031028) certified by City Council on May 11, 2022, for the Leal Master Plan project; therefore, no additional environmental analysis is necessary; however, a Notice of Determination will be filed following any action taken on the project; and

WHEREAS, on September 10, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning PLN22-20089 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on September 20, 2023. In addition, on September 7, 2023, a public hearing notice was also mailed to commercial tenants and residents within a 600-foot radius of the projects site indicating time, date, and place of the public hearing for PLN22-20089; and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on September 20, 2023, at which time it received public testimony concerning Project NO. PLN22-20089 and considered the proposed Major Development Review for the master site planning and architecture of PA-1 of the Leal Master.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:

SECTION 1. ENVIRONMENTAL FINDINGS

Pursuant to the California Environmental Quality Act, including Public Resources Code Sections 21080(e) and 21082.2, and based on the record and/or as provided at the public hearing, the Planning Commission hereby finds and determines that the project was adequately analyzed according to the CEQA Guidelines, as supported by the following Findings and Evidence:

Finding 1: The proposed project is exempt from further environmental review requirements.

Evidence: On May 11, 2022, the Eastvale City Council adopted an Addendum to the previously Certified Program Environmental Impact Report (PEIR) for approval of a Leal Master Plan Amendment, Tentative Tract Map 38290, and Major Development Review. The California Environmental Quality Act (CEQA) Statutes and Guidelines states that when an environmental impact report (EIR) has been certified for a project, no subsequent EIR shall be prepared unless the lead agency determines so on the basis of substantial change in the project which would require major revisions in the EIR. The requested approval of PLN22-20089 requests Major Development Review for the master site planning and architecture of PA-1 of the Leal Master Plan to accommodate a proposed 168-unit condominium and townhome residential community. As such, the proposed project does not exceed the maximum development assumptions of the certified PEIR and would not represent an increased development intensity within the overall approved project area. As such, no further CEQA documentation would be warranted for the proposed project pursuant to CEQA Guidelines Section 15168.

SECTION 2. FINDINGS FOR MAJOR DEVELOPMENT REVIEW PLN22-20089

Pursuant to Section 120.02.010(c)(6) of the Eastvale Municipal Code, and in light of the record before it, including the staff report dated September 20, 2023, and all evidence and testimony heard at the public hearing of this item, the Planning Commission hereby finds and determines as follows:

Finding 1: The proposed project is consistent with the objectives of the general Plan and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Leal Policy Area. The Leal Policy Area land use designation allows for the development of condominium and townhome residential communities. Therefore, the proposed project would be consistent with the General Plan designation for the site and will further the objectives of the General Plan. Additionally, the proposed project is consistent with the Leal Master Plan Amendment site characteristics, design guidelines, and

development standards for the condominium and townhome residential product time.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to comply with the development and design standards of the Leal Master Plan Amendment, such as providing identifiable entries with decorative paving, front entries oriented towards the street, paseos, and open space, building articulation with roof overhangs, balconies, and projections, and a consistent plant palette creating to an urban forest. The proposed architecture, site plan, and landscaping are suitable for the mixed-used downtown, lifestyle center contemplated for the site in the General Plan and Leal Master Plan Amendment and will enhance the character of the neighborhood and community with novel architecture. For these reasons, the proposed project, as conditioned will enhance the character of the neighborhood and community.

Finding 3: The architecture, including the character, scale, and quality of design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting, and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architecture of the proposed residential community has been designed to satisfy the development and design standards of the Leal Master Plan Amendment. The project includes building facades oriented towards the street, paseos, and open space. Buildings provide transitional spaces such as porches and covered entries for ground floor units and are accentuated with a minimum of three materials. All elevations of the building have been designed to create variation and visual interest with the use of various materials and colors. The residential units consist of Transitional Craftsman, Transitional Mediterranean, Vineyard, and Mediterranean with four distinct color schemes. Additionally, decorative street lighting and enhanced pavement at pedestrian crossing and community entry points add to the high quality design of the community. For these reasons, the proposed architecture is well-suited and is consistent with the character of the buildings on adjoining and nearby properties.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have been designed to handle the type and quantity of vehicular traffic associated with the proposed project. Wide sidewalks, designated bike lanes, and changes in materials (i.e., asphalt, concrete, decorative pavers, and decomposed granite) clearly distinguish each mode of circulation reducing conflicts between motorized vehicles, pedestrians and bicyclist. Finally, the City Engineer and Riverside County Sheriff's Department have reviewed the proposed project access and on-site circulation design and do not have any concerns.

Finding 5: The proposed project is consistent with the most recently adopted version of the Chino Airport Land Use Compatibility Plan.

Evidence: The project site is not with the Chino Airport Influence Area.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)

The project is found to be consistent with the MSHCP. The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of the MSHCP Mitigation Fee.

SECTION 5. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 3, the Planning Commission of the City of Eastvale hereby approves Major Development Review No. PLN 22-20089 for the master site planning and architecture of Planning Area 1 (PA-1) of the Leal Master Plan, subject to the conditions of approval.

PASSED, APPROVED AND ADOPTED this 20th day of September, 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting held on the 20th day of September, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING THE MASTER SITE PLANNING AND ARCHITECTURE OF PLANNING AREA 6 (PA-6) OF THE LEAL MASTER PLAN TO ACCOMMODATE A 100-UNIT ATTACHED SINGLE-FAMILY RESIDENTIAL COMMUNITY WITH ASSOCIATED PARKING AREAS AND LANDSCAPING LOCATED AT THE NORTHWEST CORNER OF LIMONITE AVENUE AND HAMNER AVENUE, ASSESSOR'S PARCEL NUMBERS 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.

WHEREAS, the Planning Department of the City of Eastvale received an application (PLN22-20090) on December 21, 2022, from The New Home Company (the "Applicant") requesting Major Development Review for the master site planning and architecture of Planning Area 6 (PA-6) of the Leal Master Plan or Lots 37-51 of proposed Tentative Tract Map 38594, to accommodate a 100-unit attached single-family residential community, with associated parking areas, and landscaping (the "Project"); and

WHEREAS, the proposed project (Project No. PLN22-20090) is considered a "Project" as defined by the California Environmental Quality Act, Public Resources Code Section 21000 et seq.; and

WHEREAS, review of the proposed project with respect to the proposed uses was evaluated in the Addendum to the Program Environmental Impact Report (State Clearinghouse No. 2015031028) certified by City Council on May 11, 2022, for the Leal Master Plan project; therefore, no additional environmental analysis is necessary; however, a Notice of Determination will be filed following any action taken on the project; and

WHEREAS, on September 10, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning PLN22-20090 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on September 20, 2023. In addition, on September 7, 2023, a public hearing notice was also mailed to commercial tenants and residents within a 600-foot radius of the projects site indicating time, date, and place of the public hearing for PLN22-20090; and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on September 20, 2023, at which time it received public testimony concerning Project NO. PLN22-20090 and considered the proposed Major Development Review for the master site planning and architecture of PA-6 of the Leal Master.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:

SECTION 1. ENVIRONMENTAL FINDINGS

Pursuant to the California Environmental Quality Act, including Public Resources Code Sections 21080(e) and 21082.2, and based on the record and/or as provided at the public hearing, the Planning Commission hereby finds and determines that the project was adequately analyzed according to the CEQA Guidelines, as supported by the following Findings and Evidence:

Finding 1: The proposed project is exempt from further environmental review requirements.

Evidence: On May 11, 2022, the Eastvale City Council adopted an Addendum to the previously Certified Program Environmental Impact Report (PEIR) for approval of a Leal Master Plan Amendment, Tentative Tract Map 38290, and Major Development Review. The California Environmental Quality Act (CEQA) Statutes and Guidelines states that when an environmental impact report (EIR) has been certified for a project, no subsequent EIR shall be prepared unless the lead agency determines so on the basis of substantial change in the project which would require major revisions in the EIR. The requested approval of PLN22-20090 requests Major Development Review for the master site planning and architecture of PA-6 of the Leal Master Plan to accommodate a proposed 100-unit attached single-family residential community. As such, the proposed project does not exceed the maximum development assumptions of the certified PEIR and would not represent an increased development intensity within the overall approved project area. As such, no further CEQA documentation would be warranted for the proposed project pursuant to CEQA Guidelines Section 15168.

SECTION 2. FINDINGS FOR MAJOR DEVELOPMENT REVIEW PLN22-20090

Pursuant to Section 120.02.010(c)(6) of the Eastvale Municipal Code, and in light of the record before it, including the staff report dated September 20, 2023, and all evidence and testimony heard at the public hearing of this item, the Planning Commission hereby finds and determines as follows:

Finding 1: The proposed project is consistent with the objectives of the general Plan and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Leal Policy Area. The Leal Policy Area land use designation allows for the development of attached single-family residential. Therefore, the proposed project would be consistent with the General Plan designation for the site and will further the objectives of the General Plan. Additionally, the proposed project is consistent with the Leal Master Plan Amendment site characteristics, design guidelines, and development standards for the attached single-family residential product time.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to comply with the development and design standards of the Leal Master Plan Amendment, such as providing identifiable entries with decorative paving, front entries oriented towards the street, paseos, and open space, building articulation with roof overhangs, balconies, and projections, and a consistent plant palette creating to an urban forest. The proposed architecture, site plan, and landscaping are suitable for the mixed-used downtown, lifestyle center contemplated for the site in the General Plan and Leal Master Plan Amendment and will enhance the character of the neighborhood and community with novel architecture. For these reasons, the proposed project, as conditioned will enhance the character of the neighborhood and community.

Finding 3: The architecture, including the character, scale, and quality of design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting, and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architecture of the proposed residential community has been designed to satisfy the development and design standards of the Leal Master Plan Amendment. The project displays articulated front building facades that promote individual unit identity and are oriented towards the street, paseos, and open space. All elevations of the building have been designed to create variation and visual interest with the use of various materials and colors. The residential units consist of Spanish, Vineyard, and Farmhouse architectural styles with three distinct color schemes. Additionally, decorative street lighting and enhanced pavement at pedestrian crossing and community entry points add to the high quality design of the community. For these reasons, the proposed architecture is well-suited and is consistent with the character of the buildings on adjoining and nearby properties.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have been designed to handle the type and quantity of vehicular traffic associated with the proposed project. Wide sidewalks, designated bike lanes, and changes in materials (i.e., asphalt, concrete, decorative pavers, and decomposed granite) clearly distinguish each mode of circulation reducing conflicts between motorized vehicles, pedestrians and bicyclist. Finally, the City

Engineer and Riverside County Sheriff's Department have reviewed the proposed project access and on-site circulation design and do not have any concerns.

Finding 5: The proposed project is consistent with the most recently adopted version of the Chino Airport Land Use Compatibility Plan.

Evidence: The project site is not with the Chino Airport Influence Area.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)

The project is found to be consistent with the MSHCP. The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of the MSHCP Mitigation Fee.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 3, the Planning Commission of the City of Eastvale hereby approves Major Development Review No. PLN 22-20090 for the master site planning and architecture of Planning Area 6 (PA-6) of the Leal Master Plan, subject to the conditions of approval.

PASSED, APPROVED AND ADOPTED this 20th day of September, 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting held on the 20th day of September, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING THE MASTER SITE PLANNING AND ARCHITECTURE OF PLANNING AREA 7A (PA-7A) OF THE LEAL MASTER PLAN TO ACCOMMODATE A 94-UNIT DETACHED SINGLE-FAMILY RESIDENTIAL COMMUNITY WITH ASSOCIATED PARKING AREAS, LANDSCAPING, AND OPEN SPACE AMENITIES LOCATED AT THE NORTHWEST CORNER OF LIMONITE AVENUE AND HAMNER AVENUE, ASSESSOR'S PARCEL NUMBERS 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.

WHEREAS, the Planning Department of the City of Eastvale received an application (PLN22-20091) on December 21, 2022, from The New Home Company (the "Applicant") requesting Major Development Review for the master site planning and architecture of Planning Area 7A (PA-7A) of the Leal Master Plan or Lots 21-36, Lot O, and Lot P of proposed Tentative Tract Map 38594, to accommodate a 94-unit detached single-family residential community, with associated parking areas, landscaping, and open space amenities (the "Project"); and

WHEREAS, the proposed project (Project No. PLN22-20091) is considered a "Project" as defined by the California Environmental Quality Act, Public Resources Code Section 21000 et seq.; and

WHEREAS, review of the proposed project with respect to the proposed uses was evaluated in the Addendum to the Program Environmental Impact Report (State Clearinghouse No. 2015031028) certified by City Council on May 11, 2022, for the Leal Master Plan project; therefore, no additional environmental analysis is necessary; however, a Notice of Determination will be filed following any action taken on the project; and

WHEREAS, on September 10, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning PLN22-20091 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on September 20, 2023. In addition, on September 7, 2023, a public hearing notice was also mailed to commercial tenants and residents within a 600-foot radius of the projects site indicating time, date, and place of the public hearing for PLN22-20091; and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on September 20, 2023, at which time it received public testimony concerning Project NO. PLN22-20091 and considered the proposed Major Development Review for the master site planning and architecture of PA-7A of the Leal Master.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:

SECTION 1. ENVIRONMENTAL FINDINGS

Pursuant to the California Environmental Quality Act, including Public Resources Code Sections 21080(e) and 21082.2, and based on the record and/or as provided at the public hearing, the Planning Commission hereby finds and determines that the project was adequately analyzed according to the CEQA Guidelines, as supported by the following Findings and Evidence:

Finding 1: The proposed project is exempt from further environmental review requirements.

Evidence: On May 11, 2022, the Eastvale City Council adopted an Addendum to the previously Certified Program Environmental Impact Report (PEIR) for approval of a Leal Master Plan Amendment, Tentative Tract Map 38290, and Major Development Review. The California Environmental Quality Act (CEQA) Statutes and Guidelines states that when an environmental impact report (EIR) has been certified for a project, no subsequent EIR shall be prepared unless the lead agency determines so on the basis of substantial change in the project which would require major revisions in the EIR. The requested approval of PLN22-20091 requests Major Development Review for the master site planning and architecture of PA-7A of the Leal Master Plan to accommodate a proposed 94-unit detached single-family residential community. As such, the proposed project does not exceed the maximum development assumptions of the certified PEIR and would not represent an increased development intensity within the overall approved project area. As such, no further CEQA documentation would be warranted for the proposed project pursuant to CEQA Guidelines Section 15168.

SECTION 2. FINDINGS FOR MAJOR DEVELOPMENT REVIEW PLN22-20091

Pursuant to Section 120.02.010(c)(6) of the Eastvale Municipal Code, and in light of the record before it, including the staff report dated September 20, 2023, and all evidence and testimony heard at the public hearing of this item, the Planning Commission hereby finds and determines as follows:

Finding 1: The proposed project is consistent with the objectives of the general Plan and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Leal Policy Area. The Leal Policy Area land use designation allows for the development of detached single-family residential. Therefore, the proposed project would be consistent with the General Plan designation for the site and will further the objectives of the General Plan. Additionally, the proposed project is consistent with the Leal Master Plan Amendment site characteristics, design guidelines, and development standards for the detached single-family residential product time.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to comply with the development and design standards of the Leal Master Plan Amendment, such as providing identifiable entries with decorative paving, front entries oriented towards the street, paseos, and open space, building articulation with roof overhangs, balconies, and projections, and a consistent plant palette creating to an urban forest. The proposed architecture, site plan, and landscaping are suitable for the mixed-used downtown, lifestyle center contemplated for the site in the General Plan and Leal Master Plan Amendment and will enhance the character of the neighborhood and community with novel architecture. For these reasons, the proposed project, as conditioned will enhance the character of the neighborhood and community.

Finding 3: The architecture, including the character, scale, and quality of design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting, and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architecture of the proposed residential community has been designed to satisfy the development and design standards of the Leal Master Plan Amendment. The project displays reloaded homes with front elevations oriented towards the street, paseos, and open space. All elevations of the building have been designed to create variation and visual interest with the use of various materials and colors. The residential units consist of Transitional Mediterranean, Transitional Craftsman, and Transitional Farmhouse architectural styles with twelve distinct color schemes. Additionally, decorative street lighting and enhanced pavement at pedestrian crossing and community entry points add to the high quality design of the community. For these reasons, the proposed architecture is well-suited and is consistent with the character of the buildings on adjoining and nearby properties.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have been designed to handle the type and quantity of vehicular traffic associated with the proposed project. Wide sidewalks, designated bike lanes, and changes in materials (i.e., asphalt, concrete, decorative pavers, and decomposed granite) clearly distinguish each mode of circulation reducing

conflicts between motorized vehicles, pedestrians and bicyclist. Finally, the City Engineer and Riverside County Sheriff's Department have reviewed the proposed project access and on-site circulation design and do not have any concerns.

Finding 5: The proposed project is consistent with the most recently adopted version of the Chino Airport Land Use Compatibility Plan.

Evidence: The project site is not with the Chino Airport Influence Area.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)

The project is found to be consistent with the MSHCP. The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of the MSHCP Mitigation Fee.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 3, the Planning Commission of the City of Eastvale hereby approves Major Development Review No. PLN 22-20091 for the master site planning and architecture of Planning Area 7A (PA-7A) of the Leal Master Plan, subject to the conditions of approval.

PASSED, APPROVED AND ADOPTED this 20th day of September, 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting held on the 20th day of September, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-____

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING THE MASTER SITE PLANNING AND ARCHITECTURE OF PLANNING AREA 8 (PA-8) OF THE LEAL MASTER PLAN TO ACCOMMODATE A 76-UNIT ATTACHED SINGLE-FAMILY RESIDENTIAL COMMUNITY WITH ASSOCIATED PARKING AREAS, LANDSCAPING, AND OPEN SPACES AMENITIES LOCATED AT THE NORTHWEST CORNER OF LIMONITE AVENUE AND HAMNER AVENUE, ASSESSOR'S PARCEL NUMBERS 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.

WHEREAS, the Planning Department of the City of Eastvale received an application (PLN22-20092) on December 21, 2022, from The New Home Company (the "Applicant") requesting Major Development Review for the master site planning and architecture of Planning Area 8 (PA-8) of the Leal Master Plan or Lots 52-61, and Lot Q of proposed Tentative Tract Map 38594, to accommodate a 76-unit attached single-family residential community, with associated parking areas, landscaping, and open space amenities (the "Project"); and

WHEREAS, the proposed project (Project No. PLN22-20092) is considered a "Project" as defined by the California Environmental Quality Act, Public Resources Code Section 21000 et seq.; and

WHEREAS, review of the proposed project with respect to the proposed uses was evaluated in the Addendum to the Program Environmental Impact Report (State Clearinghouse No. 2015031028) certified by City Council on May 11, 2022, for the Leal Master Plan project; therefore, no additional environmental analysis is necessary; however, a Notice of Determination will be filed following any action taken on the project; and

WHEREAS, on September 10, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning PLN22-20092 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on September 20, 2023. In addition, on September 7, 2023, a public hearing notice was also mailed to commercial tenants and residents within a 600-foot radius of the projects site indicating time, date, and place of the public hearing for PLN22-20092; and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on September 20, 2023, at which time it received public testimony concerning Project NO. PLN22-20092 and considered the proposed Major Development Review for the master site planning and architecture of PA-8 of the Leal Master.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:

SECTION 1. ENVIRONMENTAL FINDINGS

Pursuant to the California Environmental Quality Act, including Public Resources Code Sections 21080(e) and 21082.2, and based on the record and/or as provided at the public hearing, the Planning Commission hereby finds and determines that the project was adequately analyzed according to the CEQA Guidelines, as supported by the following Findings and Evidence:

Finding 1: The proposed project is exempt from further environmental review requirements.

Evidence: On May 11, 2022, the Eastvale City Council adopted an Addendum to the previously Certified Program Environmental Impact Report (PEIR) for approval of a Leal Master Plan Amendment, Tentative Tract Map 38290, and Major Development Review. The California Environmental Quality Act (CEQA) Statutes and Guidelines states that when an environmental impact report (EIR) has been certified for a project, no subsequent EIR shall be prepared unless the lead agency determines so on the basis of substantial change in the project which would require major revisions in the EIR. The requested approval of PLN22-20092 requests Major Development Review for the master site planning and architecture of PA-8 of the Leal Master Plan to accommodate a proposed 76-unit attached single-family residential community. As such, the proposed project does not exceed the maximum development assumptions of the certified PEIR and would not represent an increased development intensity within the overall approved project area. As such, no further CEQA documentation would be warranted for the proposed project pursuant to CEQA Guidelines Section 15168.

SECTION 2. FINDINGS FOR MAJOR DEVELOPMENT REVIEW PLN22-20092

Pursuant to Section 120.02.010(c)(6) of the Eastvale Municipal Code, and in light of the record before it, including the staff report dated September 20, 2023, and all evidence and testimony heard at the public hearing of this item, the Planning Commission hereby finds and determines as follows:

Finding 1: The proposed project is consistent with the objectives of the general Plan and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Leal Policy Area. The Leal Policy Area land use designation allows for the development of attached single-family residential. Therefore, the proposed project would be consistent with the General Plan designation for the site and will further the objectives of the General Plan. Additionally, the proposed project is consistent with the Leal Master Plan Amendment site characteristics, design guidelines, and development standards for the attached single-family residential product time.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to comply with the development and design standards of the Leal Master Plan Amendment, such as providing identifiable entries with decorative paving, front entries oriented towards the street, paseos, and open space, building articulation with roof overhangs, balconies, and projections, and a consistent plant palette creating to an urban forest. The proposed architecture, site plan, and landscaping are suitable for the mixed-used downtown, lifestyle center contemplated for the site in the General Plan and Leal Master Plan Amendment and will enhance the character of the neighborhood and community with novel architecture. For these reasons, the proposed project, as conditioned will enhance the character of the neighborhood and community.

Finding 3: The architecture, including the character, scale, and quality of design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting, and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architecture of the proposed residential community has been designed to satisfy the development and design standards of the Leal Master Plan Amendment. The project displays articulated front building facades that promote individual unit identity and are oriented towards the street, paseos, and open space. All elevations of the building have been designed to create variation and visual interest with the use of various materials and colors. The residential units consist of Spanish, Vineyard, and Farmhouse architectural styles with six distinct color schemes. Additionally, decorative street lighting and enhanced pavement at pedestrian crossing and community entry points add to the high quality design of the community. For these reasons, the proposed architecture is well-suited and is consistent with the character of the buildings on adjoining and nearby properties.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have been designed to handle the type and quantity of vehicular traffic associated with the proposed project. Wide sidewalks, designated bike lanes, and changes in materials (i.e., asphalt, concrete, decorative pavers, and decomposed granite) clearly distinguish each mode of circulation reducing conflicts between motorized vehicles, pedestrians and bicyclist. Finally, the City

Engineer and Riverside County Sheriff's Department have reviewed the proposed project access and on-site circulation design and do not have any concerns.

Finding 5: The proposed project is consistent with the most recently adopted version of the Chino Airport Land Use Compatibility Plan.

Evidence: The project site is not with the Chino Airport Influence Area.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN (MSHCP)

The project is found to be consistent with the MSHCP. The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of the MSHCP Mitigation Fee.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 3, the Planning Commission of the City of Eastvale hereby approves Major Development Review No. PLN 22-20092 for the master site planning and architecture of Planning Area 8 (PA-8) of the Leal Master Plan, subject to the conditions of approval.

PASSED, APPROVED AND ADOPTED this 20th day of September, 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting held on the 20th day of September, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN22-20087– Tentative Tract Map (TTM) No. 38594 to subdivide and develop 69.8 acres of undeveloped property into 65 buildable lots and 19 lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes, located at the northwest corner of Limonite Ave. and Hamner Avenue.
Assessor's Parcel Number: 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. The signed statement of acceptance is required and must be returned to the Planning Division prior to issuance of the first residential Building Permit. Applicant Signature Date	Prior to 1st Residential Building Permit	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City as provided for in the Development Agreement by and between the applicant and the City for the project (DA 003).	Ongoing	Planning Division	
3.	The applicant shall ensure the deposit account has a balance of at least $10,000 at the time that the applicant signs these conditions of approval (per Condition No. 1) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post- approval staff work and to halt work if the deposit account is exhausted. Make check payable to the City of Eastvale and include Project No. PLN21-20039 on the check.	Ongoing	Planning Division	
4.	Applicant understands and agrees that failure to comply with all conditions of approval may result in the City Council/Planning Commission taking action	Ongoing	Planning Divisions	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	resulting in modification of conditions of approval and/or suspension or revocation of the **Tentative Tract Map.**			
5.	Revisions to the Tentative Tract Map required shall be prepared by a California registered Land Surveyor or qualified Civil Engineer and submitted to the Planning and Engineering Division for review and approval. A Title Report prepared for subdivision guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Tract Map to the Engineering Division as part of the review of the Map.	Ongoing	Planning and Public Works Divisions	
6.	All applicable conditions of approval for Major Development Review (PLN22-20020 DR001), Tentative Tract Map 38290 (TTM 38290), and Leal Master Amendment (SPA001) under PLN21-20039 shall be incorporated herein by reference.	Ongoing	Planning Division	
7.	The updated Mitigation Monitoring and Reporting Program included with Addendum No. 1 for the Certified PEIR for the Leal Master Plan (State Clearinghouse No. 2015031028) shall be required for development of the proposed project (**PLN22-20089**) and shall be incorporated herein by reference.	Ongoing	Planning Division	
8.	The project shall be developed in accordance with the Major Development Review application approved by the Planning Commission on **October 18, 2023**, including the approved site plan, architectural elevations, conceptual landscape plan, etc. The applicant may request modifications or revisions to the approved project as outlined in Section 120.01.050(2) of the Eastvale Zoning Code.	Ongoing	Planning Division	
9.	For any conditions on this list that are contradicting or are inconsistent with any other conditions, the Development Agreement by and between the applicant and the City for the project(DA No. 003) shall take precedence.	Ongoing	Planning and Public Works Divisions	
Prior to Map Recordation				
10.	**TTM No. 38594** is approved as shown on the tentative tract map submitted to the Planning Division, and as approved by the **APPROVING AUTHORITY,** subject to all requirements of the Development Agreement by and between the applicant and the City for the project (DA No. 003) and/or the City of Eastvale Municipal Code, as applicable.	Prior to Map Recordation	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
11.	The applicant shall submit a proposed final tract map and all supporting documents to Public Works for review and recommendation of approval.	Prior to Map Recordation	Public Works Division	
12.	All public road dedications as part of this Conditions of Approval shall utilize the following design criteria to the satisfaction of the City Engineer: • 11 feet for left/right turn pockets on Scholar Way • 12 feet for general purpose travel lanes • 14 feet for general purpose travel lanes adjacent to the right curb • 14 feet for right turn pocket adjacent to curb on Limonite Avenue and Hamner Avenue • Southbound Hamner Avenue near Limonite Avenue shall have three (3) through lanes, two (2) left turn pockets, one (1) right turn pocket, plus all other amenities (trails, landscaping, and bike lanes) shown in TTM. • Southbound Hamner Avenue north of Eastvale Gateway shall have three (3) through lanes, one (1) left turn pocket, one (1) right turn pocket, plus all other amenities (trails, landscaping, and bike lanes) shown in TTM. • • Northbound Scholar Way near Limonite Avenue shall have one (1) through lane plus all other amenities (trails, landscaping, and bike lanes) shown in TTM in addition to the existing southbound two (2) through lanes, one (1) right turn pocket, and one (1) left turn pocket. • Northbound Scholar Way near LOT L (TTM 38594) shall have one (1) through lane, one (1) right turn pocket, plus all other amenities (trails, landscaping, and bike lanes) shown in TTM 38594.	Prior to Map Recordation	Public Works Division	
13.	Backbone streets “A”, “B”, and “C” shall consist of 76’ of right-of-way developed as follows: 2’ of landscaping, an 11’ concrete dual purpose trail (evenly delineated by striping), 7’ of landscaping, 36’ for two (2) general purpose travel lanes, 7’ of landscaping, an 8’ concrete sidewalk, and 5’ of landscaping.	Prior to Map Recordation	Planning and Public Works Divisions	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
14.	Provide plans (landscape, grading, etc.) showing a multipurpose trail/Class I trail/linear park fronting the property along Hamner, Limonite Ave, and Scholar Way.	Prior to Map Recordation	Planning and Public Works Divisions	
15.	Additional right of way widths than that are shown on TTM may be required to accommodate the improvements to accommodate additional turn-pockets as needed.	Prior to Map Recordation	Public Works Division	
16.	A Final Map prepared by a California licensed Land Surveyor or registered Civil Engineer authorized to practice land surveying (pre-1982, RCE #33965 and lower) and all supporting documents shall be submitted to the Public Works Division for review and approval. A Title Report prepared for subdivision guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Final Map to the Engineering Division as part of the review of the Final Map. The Final Map shall be approved by the City Council prior to recordation of the Final Map.	Prior to Map Recordation	Public Works Division	
17.	The Developer shall record appropriate easement(s) to the homeowner association in perpetuity and agreement(s) for the construction and maintenance of water quality basin(s) to meet the Storm Water Permit/Water Quality Management Plan requirements and in compliance with National Pollutant Discharge Elimination System requirements. Any retention/detention basin proposed within an area of public open space shall be undergrounded with useable public open space above ground to the satisfaction of the Community Development Director and Public Works Director.	Prior to Map Recordation	Public Works Division	
18.	At the discretion of the Developer, the development may be annexed into a new City of Eastvale owned and administered CFD and/or LMD for traffic signals, street lights, and landscape maintenance of raised landscape median and public parkways, trails, linear parks, which shall be to the satisfaction of the City Engineer, or Developer shall pay applicable fees.	Prior to Map Recordation	Public Works Division	
19.	Monument bond shall be posted with the City. The Developer shall provide a cost estimate to set monuments prepared by a California licensed Land	Prior to Map Recordation	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Surveyor or registered Civil Engineer to the Public Works Division for review and approval by the City Engineer.			
20.	The Developer shall enter into an agreement with the City for bonding and improvements of all public streets and public infrastructure.	Prior to Map Recordation	Public Works Division	
21.	Existing transportation and/or utility easements that conflict with proposed development shall be quitclaimed/abandoned on the Final Map.	Prior to Map Recordation	Public Works Division	
22.	The applicant shall submit to the City Engineer for review and approval of CC&Rs and/or Property Owners Association document to maintain and operate common areas and/or facilities including but not limited to water quality basins.	Prior to Map Recordation	Public Works Division	
23.	Show on the Final Map dedication of the public ROW for Hamner Ave, Limonite Ave, and Scholar Way in accordance with Tentative Tract Map No. 38594.	Prior to Map Recordation	Public Works Division	
24.	Provide an amendment to the Geotechnical Evaluation Report ("Subject: Preliminary Geotechnical Evaluation Including Near Surface Organic Content for the Proposed Approximately 160-Acre "Leal" Property, City of Eastvale, California", dated June 21, 2021), concurrently with street improvement plans and Final Map, for the amended evaluation to include the unimproved areas between existing street and subject property line along Scholar Way, Hamner Ave, and Limonite Ave for the tests shown in Figure 2, page 31 of 111, to the satisfaction of the City Engineer.	Prior to Map Recordation	Public Works Division	
25.	Water and electric meter for all CFD/LMD area shall be designed and located independently from non-CFD/non-LMD areas.	Prior to Map Recordation	Public Works Division	
26.	The applicant shall enter into a Subdivision Improvement Agreement with the City for each applicable “B” Map, and shall guarantee by posting security(ies) to include all public improvements, not including city owned or controlled parcels, shown on Tentative Tract Map 38594 that the developer is conditioned to construct.	Prior to Map Recordation	Public Works Division	
27.	Easement Number 4 shall be removed prior to development of TTM 38290 Lot 12 (or Lots 53-55 and Lot K of TTM 38594).	Prior to Map Recordation	Public Works Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
28.	Unidentified easement across lots 11 and 12 of TTM 38290 shall be removed prior to "B" map recordation.	Prior to Map Recordation	Public Works Division	
29.	All easements must be shown on cross sections of Final "B" Map.	Prior to Map Recordation	Public Works Division	
30.	In the event Development Agreement 003 is terminated or canceled in compliance with the terms of Development Agreement 003, park dedication and park improvement requirements and associated fees (if fees are required after dedication, improvement and receipt of associated credits) shall be those in effect at the time of building permit issuance (or earlier if vested under state law) and the park dedication and park improvement requirements and associated fees shall be calculated, assessed, and credited in accordance with the City's ordinances and resolutions in effect at that time (or earlier if vested under state law).	Prior to Map Recordation	Planning Division	
31.	A site-specific air toxics pollutant analysis shall be conducted in accordance with the SCAQMD (2008) Final Localized Significance Threshold Methodology for operational activities. If SCAQMD screening thresholds would be exceeded, air toxic reduction measures shall be identified in order to reduce potential impacts to a level that is less than significant. If it is the case that emissions remain in excess of SCAQMD localized significance thresholds despite the imposition of air toxic reduction measures, project-specific operations-related dispersion modeling acceptable to the SCAQMD shall be used to identify potential toxic air contaminant impacts, including diesel particulate matter generated by heavy-duty haul trucks. If SCAQMD risk thresholds would be exceeded, additional mitigation measures shall be identified in the air toxics analysis to address potential impacts and shall be based on site-specific information such as the distance to the nearest sensitive receptors, project site plan details, and merchandise delivery schedule. The City shall ensure that operations include all identified measures and that the measures reduce the health risk below SCAQMD risk thresholds. Operations-generated air toxic pollutant mitigation measures may include but not be limited to:	Prior to Grading Permit	Planning, Building and Safety, or Public Works Divisions	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	1. Redesigning the project site plan to locate proposed loading dock facilities as far from sensitive receptors as possible. 2. Posting signage stating the State-mandated prohibition on all project trucks idling in excess of 5 minutes under the Heavy-Duty Vehicle City of Eastvale Page 21 Leal Master Plan EIR Addendum No. 1 Idling Emission Reduction Program. 3. Restricting the number of daily heavy-duty haul truck deliveries. *(Mitigation Measure 3.3.5b Air Quality)*			
32.	The following mitigation measures shall be implemented and specified on all project construction plans: a) Clearing and construction activities shall be conducted outside of 6:00 p.m. and 6:00 a.m. during the months of June through September, and outside of 6:00 p.m. and 7:00 a.m. during the months of October through May (Municipal Code Chapter 8.52, Noise Regulation). b) All construction equipment shall be kept properly tuned and use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. c) Construction equipment staging areas shall be centrally located on the project site or located at the farthest distance possible from nearby residential land uses. d) All motorized construction equipment and vehicles shall be turned off when not in use. *(Mitigation Measure 3.6.4 Noise)*	Prior to Grading Permit	Planning, Public Works, and Building Divisions	
33.	MM 3.7.1 All construction and clearing activities shall be conducted outside of the avian nesting season (January 15– August 31), when feasible. If clearing and/or construction activities occur during the nesting season, preconstruction surveys for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a	Prior to Grading Permit	Planning and Public Works Divisions	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds. If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the project applicant shall establish an exclusion zone (no ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged. *(Mitigation Measures 3.7.1 Biological Resources)*			
34.	If cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered during grading or construction activities in the project area, work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery. The City shall consider mitigation recommendations presented by a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history for any unanticipated discoveries. The City and the project applicant of the site where the discovery is made shall consult and agree on implementation of a measure or measures that the City deems feasible. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project applicant shall be required to implement any mitigation necessary for the protection of cultural resources. *(Mitigation Measure 3.8.2 Biological Resources)*	Prior to Grading Permit	Planning Division	
35.	If human remains are discovered during any ground-disturbing activities in the project area, all work shall be halted immediately within 50 feet of the	Prior to Grading Permit	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	discovery, the City Planning Department shall be notified, and the Riverside County Coroner must be notified per California Public Resources Code Section 7050.5 and California Health and Safety Code Section 5097.98. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and I shall be followed. *(Mitigation Measure 3.8.3 Cultural Resources)*			
36.	Prior to issuance of a grading permit, a certified professional paleontologist will be retained by the developer to provide professional paleontological services, which will include survey, education of construction workers, onsite construction monitoring, appropriate recovery, and reporting. A paleontological monitor shall be present during ground disturbing activities in the eastern half of the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation). 1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols. 2. The paleontological monitor shall be present full-time during ground disturbance in the eastern half of the Project, including but not limited to grading, trenching, utilities, and offsite easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced. 3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered. 4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area.	Prior to Grading Permit	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	5. In consultation with the qualified paleontologist the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared. 6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately. 7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find. For the remaining portions of the Project site, if any paleontological resources (fossils) are discovered during grading or construction activities in the project area, work shall be halted immediately within 50 feet of the discovery, and the City Planning Department shall be immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist. The City shall consider the mitigation recommendations of the qualified paleontologist for any unanticipated discoveries of paleontological resources. The City and the project applicant shall consult and agree on implementation of a measure or measures that the City deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project applicant shall be required to implement any mitigation necessary for the protection of paleontological resources. *(Mitigation Measure 3.8.4 Cultural Resources)*			
37.	The project applicant shall conduct a Phase II ESA and shall follow its recommendations to remediate any potentially contaminated soil or groundwater. On-site contaminants must be addressed to the satisfaction of either Cal/EPA or the Riverside County Waste Management Department, with their approval of completion of activities/remedial action plans (RAP)	Prior to Grading Permit	Building and Planning Divisions	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	submitted to the Eastvale Department of Building and Construction prior to the issuance of a grading permit. *(Mitigation Measure 3.10.2b Hazards and Hazardous Materials)*			
38.	All trash and debris observed on-site shall be removed prior to construction activities and disposed of at a landfill or approved dumpsite. *(Mitigation Measure 3.10.2c Hazards and Hazardous Materials)*	Prior to Grading Permit	Building and Planning Divisions	
39.	The applicant shall provide approval documentation from Southern California Edison for any and all improvements within the SCE easement along the project's western boundary (Scholar Way), prior to construction of improvements within easement.	Prior to construction of improvements within easement	Planning Division	
40.	The Developer shall provide Will-Serve Letters from all utility agencies.	Prior to Building Permit	Public Works Division	
41.	The Precise Grading Plan shall be approved by the City Engineer prior to issuance of a Precise Grading Permit.	Prior to Precise Grading Permit	Public Works Division	
42.	Prior to the issuance of a Building Permit, the Developer shall pay all necessary fees as determined by the City Engineer including but not limited to Multiple Species Habitat Conservation Plan ("MSHCP") fees.	Prior to Building Permit	Public Works Division	
43.	MSHCP Standard Condition: The MSHCP requires that projects pay a mitigation fee. The following requirements of the MSHCP apply to the proposed project and will be required of all subsequent development plans and/or projects within the Leal Master Plan area: A. The project applicant shall submit fees to the City in accordance with the requirements of the MSHCP Mitigation Fee Ordinance (Chapter 4.62 of the City of Eastvale Municipal Code). As noted above, because the City has adopted the MSHCP and enforces its provisions, these requirements do not need to be included as mitigation measures. *Mitigation Measure 3.7.1 Biological Resources:* All construction and clearing activities shall be conducted outside of the avian nesting season (January 15–August 31), when feasible. If clearing and/or construction activities occur during the nesting season, preconstruction surveys for nesting raptors, special-	Prior to Building Permit	Public Works Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds. If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the project applicant shall establish an exclusion zone (no Ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged.			
44.	Grading in excess of 199 cubic yards will require performance security to be posted with the City.	Prior to Grading Permit	Public Works Division	
45.	A permit for the hauling of material to and from the project site shall be submitted to the City for approval.	Prior to Grading Permit	Public Works Division	
46.	Submit a California registered Civil Engineer prepared earthwork cut and fill certification letter to the Engineering Division for review. The applicant is required to pull an NPDES/Public Works permit prior to issuance of a Building Permit for record purposes.	Prior to Building Permit	Public Works Division	
47.	Development of the site is subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Permit for the City of Eastvale, under the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2010-0036. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval. The	Prior to Precise Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading/Paving Plan.			
48.	Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. 6 foot high tan colored perimeter screened fencing b. Contractor information signage including contact information along the street frontage. Post dust control signage with the following verbiage: "Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, please call the AQMD at 1-800-CUT-SMOG/1-800-228-7664"	Prior to Grading Permit	Public Works Division	
49.	A Notice of Intent ("NOI") to comply with the California General Construction Stormwater Permit is required via the California Regional Water Quality Control Board online Stormwater Multiple Application and Report Tracking System ("SMARTS"). A copy of the executed letter issuing a Waste Discharge Identification ("WDID") number shall be provided to the City Engineer. The Construction General Permit requires the Developer's contractor to prepare and maintain a Storm Water Pollution Prevention Plan ("SWPPP"). The SWPPP requires all appropriate measures be implemented to prevent erosion and water pollution during construction.	Prior to Grading Permit	Public Works Division	
50.	A California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Public Works Division with the first submittal of the Precise Grading/Offsite Street Improvement Plan.	Prior to Grading Permit	Public Works Division	Condition satisfied
51.	The project shall be developed in accordance with the approved Tentative Tract Map and Major Development Review, including the approved site plan, architectural elevations, conceptual landscape plan, and interim and ultimate improvements on Hamner Avenue, Limonite Avenue, Scholar Way, and	Prior to Building Permit	Public Works Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	"Backbone" Streets. The applicant may request modifications or revisions to the approved project as provided in the City of Eastvale Zoning Code.			
52.	The Developer must provide the JCSD with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	Prior to Grading Permit	Public Works Division	Condition satisfied
53.	The Developer shall submit street improvement plans prepared by a California registered Civil Engineer to the Public Works Division for review and approval. Unless otherwise approved, the street improvement plans shall be approved concurrently with any streetlight, landscape and irrigation, and traffic signal plans.	Prior to Grading Permit	Public Works Division	Condition satisfied
54.	An on-site circulation study for **Planning Area 3** per TTM 38594 is currently being prepared by the Public Works Division. Street improvement plans shall be updated according to the recommendations of the approved circulation study which may include adjustments to lane striping only. Conditional approval of the street improvement plans may be granted by the Public Works Division as required by JCSD and SCE to proceed with underground utility plan reviews.	Prior to Grading Permit	Public Works Division	
55.	Street names shall be approved by the Community Development Director. Suggested street names and alternatives shall be submitted in writing to the Community Development Director for approval. Phonic similarity with existing street names should be avoided.	Prior to Building Permit	Planning Division	
56.	All intersections shall include decorative pavers, including but not limited to crosswalks. Final design shall be subject to the review and approval of the Public Works and Community Development Director.	Prior to Precise Grading Permit	Planning and Public Works Divisions	
57.	All dedications and each applicable “B” Final Map recordation shall be completed.	Prior to Building Permit		
58.	Developer shall post performance bonds prior to the issuance of each grading permit for the area subject to the grading permit.	Prior to Grading Plan Review	Public Works Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Developer shall post performance and material bonds for Hamner, Limonite, and Scholar, for its offsite street improvements.			
59.	An accessible pedestrian path of travel shall be provided for Phase A, as required by applicable state and federal laws.	Prior to Building Permit Issuance	Planning and Public Works Divisions	
60.	Landscape plans for all landscaping improvements within existing or future right-of-way shall be submitted to Public Works and Planning Divisions.	Applicable Street Improvement Plans	Planning and Public Works Divisions	
Prior to Issuance of Encroachment Permit				
61.	Existing SCE easement at the intersection of Limonite Avenue and Scholar Way shall be quitclaimed/abandoned or SCE shall approve the widening of Limonite Avenue and Scholar Way through a Consent Agreement.	Prior to Issuance of Encroachment Permit	Public Works Division	
62.	The minimum pavement section for all on-site pavements shall be 4 inches asphalt concrete pavement over 8 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal. Otherwise, the pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
63.	Landscape plans for all landscaping improvements within existing or future right-of-way shall be submitted to the Public Works Division and Planning Division for review and approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
64.	Traffic Control Plan for any improvements in the public right of way prepared by a California registered Traffic Engineer shall be submitted to the City Engineer for review and approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
Prior to Issuance of Building Permit				
65.	In the event Development Agreement 003 is terminated or canceled in compliance with the terms of Development Agreement 003 the applicable development impact fees (DIF) shall be those in effect at the time of building permit issuance (or earlier if vested under state law), and the DIF shall be	Prior to Building Permit Issuance	Planning, Building and Safety, or Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	calculated, assessed, and credited in accordance with the City's DIF ordinances and resolutions in effect at that time (or earlier if vested under state law).			
66.	Fair Share of funding shall be paid for widening Limonite Avenue along the project frontage from two to three lanes in each direction. Funding shall be determined and paid via the Riverside County Transportation Uniform Mitigation Fee (TUMF). Project plans and/or phasing shall establish the timing of this improvement to ensure it is in place prior to LOS D operations and consistent with the Master Plan's infrastructure phasing provisions. *(Mitigation Measure 3.2.1a Transportation)*	Prior to Building Permit Issuance	Public Works Division	
67.	Hamner Avenue shall be widened in accordance with *Mitigation Measure 3.2.1c Transportation* as applicable to Phase A. *(Mitigation Measure 3.2.1c Transportation)*	Prior to Building Permit Issuance	Planning and Public Works Division	
68.	Nonglare glass shall be used in all nonresidential buildings to minimize and reduce impacts from glare. Buildings that are allowed to use semi-reflective glass must be oriented so that the reflection of sunlight is minimized. Types of nonglare glass shall be specified on final development plan. *(Mitigation Measure 3.5.1 Aesthetics, Light, and Glare)*	Prior to Building Permit Issuance	Planning Division	
69.	**Asbestos.** Prior to the issuance of any permit for the demolition or alteration of existing structure(s), a letter shall be provided to the Planning Department from a qualified asbestos abatement consultant indicating that no asbestos-containing materials (ACM) are present in the building. If ACMs are found to be present, they will need to be abated in compliance with the South Coast Air Quality Management District's Rule 1403 and all other applicable state and federal rules and regulations. **Lead Paint**. Prior to issuance of any permit for the demolition or alteration of the existing structure(s), a lead-based paint survey shall be performed to the written satisfaction of the Eastvale Building Safety and Inspection Department. Should lead-based paint materials be identified, standard	Prior to Building Permit	Building and Planning Divisions	Condition satisfied

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	handling and disposal practices shall be implemented pursuant to OSHA regulations. **Polychlorinated Biphenyls**. Prior to issuance of a demolition permit, a polychlorinated biphenyls (PCB) abatement contractor shall conduct a survey of the project site to identify and assist with compliance with applicable state and federal rules and regulations governing PCB removal and disposal. *(Mitigation Measure 3.10.2a Hazards and Hazardous Materials)*			
70.	**NOI PDF-1** Prior to the issuance of building permits, the Project will demonstrate that building construction will achieve the minimum interior noise standard of 45 dBA CNEL for all residential units located along arterial roadways and/or adjacent to commercial uses, per the California Building Standards Code. The following noise control measures may be required for dwelling units located near adjacent roadways: • Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources. • Install double-paned or upgraded STC sound rated windows. • Provide sound insulating exterior walls and roofing systems. • Locate and/or design attic vents to minimize sound propagation into each home. • Provide forced-air ventilation systems. • Provide the necessary setbacks for dwelling units fronting along major roadways. **NOI PDF-2** The Project will comply with California Title 24 building insulation requirements for exterior walls, roofs and common separating assemblies (e.g. floor/ceiling assemblies and demising walls).	Prior to Building Permit Issuance	Planning and Building Divisions	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	NOI PDF-3 For proper acoustical performance, all exterior windows, doors, and sliding glass doors will have a positive seal and leaks/cracks must be kept to a minimum. **NOI PDF-4** The final building plans will ensure that HVAC units are not located within an area of the Project site that would contribute to a noise level exceedance at any adjacent property line, per the City of Eastvale Municipal Code requirements. To meet the City's noise standards the following measures should be followed: • All HVAC equipment shall be shielded or enclosed from the line of sight of adjacent residential uses. • The combined noise level of all units operating simultaneously shall not exceed the City of Eastvale daytime and nighttime exterior standards at the nearest surrounding property lines. **NOI PDF-5** Future residents, property management personnel, and commercial tenants will be required to comply with the City of Eastvale Municipal Code Noise Regulations, Chapter 8.52, which specify that no person shall create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness. To help ensure compliance with the City's Noise Regulations, the following recommendations are provided: • Deliveries, loading and unloading activities, and trash pick-up hours should be limited to daytime hours only (8 a.m. – 10 p.m.).			

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	• Limit engine idling time for all delivery vehicles and moving trucks to 5 minutes or less. **NOI PDF-6** The Project will prepare a construction management plan and obtain a construction work permit from the City of Eastvale prior to starting construction. The construction management plan will ensure all contractors implement construction best management practices to reduce construction noise levels. Examples of best management practices may include the following: • All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields). • Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible. • If feasible, electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load. • Use electric air compressors and similar power tools rather than diesel equipment, where feasible. • Locate staging area, generators and stationary construction equipment as far from the adjacent residential homes as feasible. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. • Provide notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of			

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator. • Construction activities shall not take place between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. to 7:00 a.m. during the months of October through May. **NOI PDF-7** The Project will not include pile driving or blasting activities during construction. If impact pile driving or blasting is required, a follow-up noise and vibration impact assessment will be conducted prior to start of any activity.			
71.	The developer shall prepare an address blocking exhibit with the proposed addressing and street names for review and approval by the Planning Division. This plan, including updates to the plan, shall include addressing for buildings (primary address and units) and utilities such as but not limited to electrical/water/single/dual irrigation meter pedestal(s) or temporary power poles.	Prior to building permit issuance	Planning and Building Divisions	
72.	Provide pad elevation certifications for all building pads in conformance with the approved Precise Grading Plan to the Public Works Division prior to construction of any building foundation.	Prior to building permit issuance	Public Works Division	
73.	Any proposed revisions to the Tentative Tract Map required shall be prepared by a California licensed Land Surveyor or registered Civil Engineer and submitted to the Planning and Public Works Division for review and recommendation of approval. The revised Tentative Tract Map shall be approved by the Planning Commission prior to issuance of building permits.	Prior to building permit issuance	Public Works Division	
74.	The Developer shall connect to the JCSD sewer system and apply for a sewer connection account with JCSD. The project applicant, developer, or successor in interest shall provide written verification that the JCSD can and will provide sanitary sewer service to the project not including any city-owned or controlled parcels.	Prior to building permit issuance	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
75.	The Developer shall submit sewer improvement plans prepared by a California registered Civil Engineer to the JCSD/Public Works Division. The plans, not including any city-owned or controlled parcels shall be approved by the JCSD/City Engineer prior to issuance of any building permits.	Prior to building permit issuance	Public Works Division	
76.	The Developer is advised that domestic water service is provided by JCSD. The developer shall be responsible for coordinating with JCSD and complying with all requirements for establishing domestic water service to the property, not including any city-owned or controlled parcels.	Prior to building permit issuance	Public Works Division	
77.	The Developer shall submit water improvement plans prepared by a California registered Civil Engineer to the JCSD/Public Works Division. The plans shall be approved by the JCSD/City Engineer prior to issuance of any building permits, not including any city-owned or controlled parcels.	Prior to building permit issuance	Public Works Division	
78.	All off and on-site lighting shall be decorative in nature. Final design shall be approved by the City Engineer and Community Development Director.	Prior to building permit issuance	Planning and Public Works Divisions	
79.	Submit photometric plan of street lighting. All lights shall be Edison LS-3 tariff and utilize General Electric Evolve LED luminaires per City Specifications. The Developer shall be responsible for applying with Southern California Edison (“SCE”) for all appropriate service points and electrical meters early in the process to avoid delays. The Developer must pay for the electrical service of new meter pedestals installed until such time the improvements have been accepted and the underlying property is annexed into Community Facilities District ("CFD") or Landscaping Maintenance District ("LMD").	Prior to building permit issuance	Public Works Division	
80.	The Developer shall submit traffic striping and signage plans prepared by a California registered Civil Engineer, for review and approval by the City Engineer. All Phase A base-paved and “A” Street temp striping shall be completed to the satisfaction of the City Engineer.	Prior to first occupancy	Public Works Division	
81.	As applicable to Phase A, the Developer shall construct traffic signals. Unless otherwise approved, the traffic signal plans shall be approved concurrently with any street improvement, street light, landscape, and irrigation plans.	Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
82.	As applicable to Phase A, all off-site (back bone) utilities and meters shall be undergrounded to the satisfaction of the Public Works Director.	Prior to first certificate of occupancy issuance	Planning and Public Works Divisions	
83.	The applicant agrees to submit for review and approval by the Planning Division, final landscape plans to be in conformance to the extent feasible with the Limonite Gap Master Landscape and Street Lighting Plan, along the **frontage** of Limonite Ave. (**between Hamner Ave. and Scholar Ave**.) and Hamner Ave. (**between Limonite Ave. and 58th St.**) within Phase A to the satisfaction of the Public Works Director and Community Development Director. Landscaping shall be installed and verified consistent to the timing as set by Mitigation Measure 3.2.1c Transportation.	Prior to building permit issuance	Planning and Public Works Divisions	
84.	The applicant agrees to submit for review and approval by the Planning Division, final landscape plans to be in conformance to the extent feasible with the Limonite Gap Master Landscape and Street Lighting Plan, for the **landscape median** along Limonite Ave. (**between Mulan St. to Hamner Ave**.) and Hamner Ave. (**between Limonite Ave. to Eastvale Gateway**) within Phase A to the satisfaction of the Public Works Director and Community Development Director. Landscaping shall be installed and verified consistent to the timing as set by Mitigation Measure 3.2.1c Transportation.	Prior to building permit issuance	Planning and Public Works Divisions	
85.	Any future monumentation into the development shall be subject to review and approval by the Community Development Director and City Engineer.	Prior to last building permit issuance of Phase A	Planning and Public Works Divisions	
86.	All required parking area spaces shall meet the minimum dimensions of the Zoning Code Section 120.05.060 as existing prior to May 11, 2022.	Prior to building permit issuance	Planning Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
87.	All signs shall be in conformance Section 120.05.070 Signs of the Eastvale Zoning Code and Chapter 4.4 Signage of the Leal Master Plan as existing prior to May 11, 2022.	Prior to last building permit issuance of Phase A	Planning Division	
88.	Wall and fences shall meet the requirements Eastvale Zoning Code and Leal Master Plan as existing prior to May 11, 2022. Block walls and fencing shall be appropriately finished with decorative capping and blocks subject to review and approval of the Community Development Director.	Prior to building permit issuance	Planning Division	
89.	The Applicant shall submit a set of development plans, including a lighting plan, to the Eastvale Police Department for review and approval for appropriate safety measures including, but not limited to, the following: PROPERTY GATES AND KNOX BOX ENTRY a. The installation of the Knox Rapid Entry System if property gates are installed. This system permits law enforcement, fire, and first responders to obtain independent access to the property in the event of an emergency. The necessary order forms for the Knox Company may be obtained by contacting the Jurupa Valley Sheriff's Station Crime Prevention Programs Coordinator at (951) 955-9225. ADDRESS NUMBERING: b. Prominently displayed address numbering in size and contrasting in color from the building façade or on a fixed sign near the street/main entrances. The numbers need to be visible from the street and interior property sides for any approaching emergency vehicles. No obstructions should limit their visibility (i.e., landscaping). SECURITY AND LIGHTING PLAN	Prior to building permit issuance	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	c. Adequate crime prevention measures to assist with identifying any suspect(s) of any potential future vandalism or theft attempts. Due to the high possibility of theft/vandalism attempts during construction, additional security measures should be added during that time frame of proposed construction. All exterior access points should be properly illuminated to make clearly visible any person on or about the premises during the hours of darkness. Residential units shall be equipped with solid core doors and quality dead bolt locking devices at entry points.			
90.	All street lighting shall meet the equipment and illumination standards of the City to the satisfaction of the City Engineer.	Prior to building permit issuance	Public Works Division	
91.	Street Improvement Plans for all perimeter streets shall be submitted for plan check within Phase A at the following states of plan completion: - Limonite 100% plan complete - Hamner 100% plan complete - Scholar 60% plan complete - 58th Street 30% plan complete	Prior to first building permit within Phase 1	Public Works Division	
Prior to Issuance of Final Certificate of Occupancy				
92.	In the event Development Agreement 003 is terminated or canceled in compliance with Development Agreement 003, the public improvements that are shown on TTM 38594 and provided for in these conditions for Phase A shall be completed prior to final certificate of occupancy.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	
93.	The project Covenants Conditions and Restrictions (CC&Rs) shall be provided to the City for final review and approval and shall contain language stating compliance with the Leal Master Plan and Eastvale Zoning Code as existing prior to May 11, 2022.	Prior to Issuance of Certificate of Occupancy	Planning Division	
94.	The Developer shall submit to the City Engineer and Community Development Director for review and approval the Covenants, Conditions, and Restrictions ("CC&Rs") and/or a Property Owners Association document	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	to maintain and operate common areas and/or facilities including, but not limited to, private parking areas, private utilities, and water quality basins. This condition does not apply to city-owned or controlled parcels.			
95.	The applicant shall ensure development of the site incorporates post-construction Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The Applicant is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval.	Prior to building permit issuance	Public Works Division	
96.	The Applicant shall submit a Water Quality Management Plan identifying site specific Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading Plan. A WQMP Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer.	Prior to building permit issuance	Public Works Division	
97.	All existing overhead utility lines shall be undergrounded within the project frontage(s). Utility undergrounding shall extend to the nearest off-site power pole. Unless City Engineer approved, no new power poles shall be installed. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Precise Grading/Paving Plan, informing the City that they have been notified of the City's utility undergrounding requirement and their intent to commence design of utility undergrounding plans. When available, the utility undergrounding plan shall be submitted to the City Engineer identifying all above ground facilities in the area of the project to be undergrounded.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
98.	Underground all existing electrical and telecommunications distribution utilities fronting the property along Limonite.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
99.	Upon City Engineer approval of any improvement plan, the improvement plan shall be provided to the City in digital format, consisting of a DWG (AutoCAD drawing file), DXF (AutoCAD ASCII drawing exchange file), and PDF (Adobe Acrobat) formats. Variation of the type and format of the digital data to be submitted to the City may be authorized, upon prior City Engineer approval.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
100.	The original improvement plans prepared for the proposed development and approved by the City Engineer (if required) shall be documented with record drawing "as-built" information and returned to the Public Works Division prior to issuance of final Certificate of Occupancy. Any modifications or changes to approved improvement plans shall be submitted to the City Engineer for approval through an Request For Information (RFI).	Prior to Issuance of Certificate of Occupancy	Public Works Division	
101.	Mira Loma Road and Bridge Benefit Assessment District Fee ("MLRBA"), Transportation Uniform Mitigation Fee ("TUMF"), Area Drainage Plan ("ADP") fee, and any other regional pass-through fees shall be paid prior to issuance of Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
102.	Prior to issuance of a Certificate of Occupancy or final City approvals, demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
103.	Development Impact Fees and/or credits shall be in accordance with the Development Agreement between City of Eastvale and The New Home Company California, LLC dated May 11, 2022 (DA 003).	Prior to Issuance of Certificate of Occupancy	Public Works Division	
104.	All sewer mains constructed by the applicant and to become part of the public sewer system shall be pressure tested and digitally video recorded by the City's wastewater system operator JCSD prior to acceptance of the sewer system for maintenance by the City. The developer shall be responsible for all costs associated with testing and inspection services. Any defects of the sewer main shall be removed, replaced, or repaired to the satisfaction of the City Engineer prior to acceptance.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
105.	The sewer lines shall require connections to occur at a manhole and no direct lateral connections to the mainlines are allowed.	Prior to Issuance of first Occupancy	Public Works Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
106.	The Developer shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy, except city-owned or controlled parcels.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
107.	All water mains constructed by the applicant and to become part of the public water system shall be flushed, pressure tested, disinfected, Bact-T tested, and inspected by the City's water system operator JCSD prior to acceptance of the water system for maintenance by the City. The Developer shall be responsible for all costs associated with testing and inspection services. Any defects of the water main shall be removed, replaced, or repaired to the satisfaction of the City Engineer prior to acceptance.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
108.	All parkway landscaping shall be guaranteed for a period of one (1) year from the date of the City Engineer acceptance. Any landscaping that fails during the one (1) year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
109.	All damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and streetlights, caused by Developer of Phase A development shall be replaced as required by the City Engineer prior to issuance of a final Certificate of Occupancy for Phase A.	Prior to Issuance of final Certificate of Occupancy for Phase A	Public Works Division	TTM COA 70
110.	Construct a raised median island along frontage of property on Hamner Avenue and Limonite Avenue in accordance with the approved Street Improvement Plans.	Prior to Issuance of final Certificate of Occupancy of Phase A	Public Works Division	
111.	Construct a multipurpose trail consistent with the approved Street Improvement Plans and TTM 38594 along the project perimeter on Hamner Avenue, Limonite Avenue, and Scholar Way within Phase A.	Prior to Issuance of final Certificate of Occupancy of Phase A	Public Works Division	
112.	Construct a multipurpose trail consistent with the approved Street Improvement Plans and TTM 38594 along the interior "backbone" streets within Phase A.	Prior to Issuance of final Certificate of Occupancy of Phase A	Public Works Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
113.	The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve recent pavement improvements.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
114.	Construct an Americans with Disabilities Act ("ADA") compliant sidewalk along the entire frontage and interior streets in accordance with the approved Street Improvement Plans and TTM 38594.	Prior to Issuance of final Certificate of Occupancy of Phase A	Public Works Division	
115.	As applicable to Phase A, grind and overlay minimum half ROW width of Hamner Avenue and Scholar Way and up to raised median on Limonite Avenue within the project frontages.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
116.	As applicable to Phase A, install Class I bicycle lanes along Hamner Avenue, Limonite Avenue, as applicable to Phase A, Scholar Way consistent with the approved Street Improvement Plans and TTM 38594.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
117.	As applicable to Phase A, Install decorative streetlights with sleeves within private in-tract streets. Install streetlights consistent with SCE light standards along Hamner Avenue, Limonite Avenue, Scholar Way, and "Backbone" streets or as approved by the Public Works Division and Planning Division.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
118.	Install Pan-Tilt-Zoom ("PTZ") cameras at each signalized intersection adjacent to the Project boundaries to tie into the existing Citywide system to monitor traffic.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
119.	Install License Plate Reader ("LPR") cameras to tie into the existing Citywide system at all signalized intersections servicing the property along the project frontage on Hamner Avenue and Limonite Avenue.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
120.	Include assessment of traffic signal synchronization, LPR and cameras and streetlights in the CFD or LMD for ongoing maintenance.	Prior to Map Rerordation	Public Works Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
121.	Concurrent with each street improvement, install fiber optics conduit per City standard along property frontage and pull fiber through conduit along property frontage to support current and future synchronization, Intelligent Transportation Systems ("ITS"), and public safety upgrades to the satisfaction of the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
122.	As applicable to Phase A, relocate all necessary traffic signals and replace all necessary components to accommodate new street right-of-way along Hamner Avenue, Limonite Avenue, and Scholar Way to the satisfaction of the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
123.	The Developer shall be responsible for coordinating with Riverside Transit Authority ("RTA") regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The Developer shall design street, bus pad, and sidewalk improvements in accordance with the latest RTA bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act ("ADA") requirements. The Developer shall design all bus stops to accommodate the RTA Shelters. The Developer shall submit to Public Works verification from RTA acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
124.	A minimum of ten percent (10%) of the parking area shall be landscaped. One tree shall be planted for every five (5) parking spaces within the parking area. Fifty percent of the trees shall be a minimum size of fifteen (15) gallons and fifty percent of the trees shall be a minimum size of twenty-four (24) inch box, or as specified in the Master Plan.	Prior to Issuance of Certificate of Occupancy	Planning Division	
125.	Offsite street improvements along the entire Limonite frontage shall be completed prior to the first certificate of occupancy within Phase 1.	Prior to Issuance of First Certificate of Occupancy	Public Works Division	TTM COA 25
126.	Offsite street improvements along Hamner between Limonite and Eastvale Gateway shall be completed prior to the first certificate of occupancy of Phase 1.	Prior to Issuance of First Certificate of Occupancy	Public Works Division	TTM COA 26

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
127.	Prior to the issuance of the last certificate of occupancy in Phase 1 or the first building permit in Phase 2, whichever occurs first, all off-site street improvements shall be completed on Hamner between Eastvale Gateway and 58th Street.	Prior to last certificate of occupancy in Phase 1 or first building permit in Phase 2	Public Works Division	TTM COA 27
128.	Offsite street improvements along Scholar contiguous to Phase 1 as shown in the Master Plan Amendment shall be completed prior to the first certificate of occupancy in Phase 1.	Prior to first occupancy of Phase 1	Public Works Division	TTM COA 28
129.	Street improvements for Limonite, Scholar contiguous to Phase I and Hamner between Eastvale Gateway and Limonite shall be included in one performance bond (Phase I Off-Site Performance Bond) prior to the first certificate of occupancy in Phase 1. Upon ownership of the right-of-way of Hamner from Eastvale Gateway to 58th Street, either by the City or by the Developer, bonding for those street improvements will be incorporated into the Phase I Off-Site Performance Bond and the improvements shall be completed the earlier of the last occupancy of Phase 1 or the first building permit of Phase 2.	a. Prior to the first certificate of occupancy in Phase 1. b. The earlier of the last occupancy of Phase 1 or the first building permit of Phase 2	Public Works Division	TTM COA 34
Ongoing				
130.	The quality and ongoing maintenance of decomposed granite shall be to the satisfaction of the City Engineer.	Ongoing	Planning/Community Enhancement & Safety Divisions	
131.	All trails, landscape, pedestrian zone/linear park shall be maintained by the developer to the satisfaction of the City Engineer/ Planning Manager until CFD or Special District formation is completed and appropriate levies are collected. Developer shall continue maintaining areas around Phase 2 and Phase 3 until CFD levies for subject areas are collected.	Ongoing	Public Works Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
132.	Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.	Ongoing	Public Works Division	
133.	To reduce fugitive dust emissions, the contractor shall provide the City with sufficient proof of compliance with Rule 403 and other dust control measures including but not limited to: • Watering active sites three times daily. • Requiring the replacement of ground cover or the application of non-toxic soil stabilizers according to manufacturer specifications to unpaved roads and all inactive construction areas (previously graded areas inactive for 10 days or more, assuming no rain). • Requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered. • Suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour. • Posting contact information outside the property for the public to call if specific air quality issues arise; the individual charged with receipt of these calls shall respond to the caller within 24 hours and resolution of the air quality issue(s), if valid, or implementation of corrective action(s) will occur within 48 to 72 hours of the time that the issue first arose. • Sweeping of streets using SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks (utilizing recycled water if it becomes available) at the end of the day if visible soil material is carried over to adjacent streets. • Posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved roads. • Installing wheel washers or gravel pads at construction entrances where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip to prevent track-out.	Ongoing (during project construction)	Building and Public Works Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Paving of all roadways, driveways, sidewalks, etc., shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless soil stabilizers are used.			
134.	Direct release of on-site nuisance water or stormwater runoff shall not be permitted to the adjacent public streets. Provisions for the interception of nuisance water from entering adjacent public streets from the project site shall be provided through the use of a minor storm drain system that collects and conveys nuisance water to landscape or parkway areas, and in only a stormwater runoff condition, pass runoff directly to the streets through parkway or under sidewalk drains.	Ongoing	Public Works Division	TTM COA 65
135.	A City of Eastvale Encroachment Permit is required for any improvements within the public right-of-way.	Ongoing	Public Works Division	
136.	All street cuts for utilities shall be repaired in accordance with City Standard or as recommended; and any interim trench repairs shall consist of compacted backfill to the bottom of the pavement structural section followed by placement of standard base course material in accord by the City Engineer and with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.	Ongoing	Public Works Division	
137.	Any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development shall be backfilled and repaired in accordance with City of Eastvale Standard Drawings. The developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e. Jurupa Community Services District, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets resulting from the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site	Ongoing	Public Works Division	TTM COA 66

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	streets, at the discretion of the City Engineer. The pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.			
138.	Construction signing, lighting, and barricading shall be provided during all phases of construction in accordance with City Standards and the direction of the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 "Temporary Traffic Control" of the latest California Manual on Uniform Traffic Control Devices ("CA MUTCD"), or subsequent editions in effect at the time of construction.	Ongoing	Public Works Division	TTM COA 72

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are required by the City, other local agencies, or state and federal agencies, and are not conditions of approval of the project.

1. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned. Amended entitlement approvals may be necessary as a result.

2. Submit a final tract map and all supporting documents for review and approval to the satisfaction of the City Engineer and Public Works Department.

3. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

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CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN22-20088-20092 – Major Development Reviews (DR) for the overall site planning, master landscaping, streetscape design, and open space amenities of Phase A (Tentative Tract Map 38594) and the master site planning, architecture, landscaping, parking, and open space amenities of Planning Area 1, Planning Area 6, Planning Area 7A, and Planning Area 8 of the Leal Master Plan, located at the northwest corner of Limonite Avenue and Hamner Avenue.
Assessor's Parcel Number: 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013.
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. The signed statement of acceptance is required and must be returned to the Planning Division prior to issuance of first residential Building Permit. Applicant Signature Date	Prior to 1st Residential Building Permit	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City as provided for in the Development Agreement by and between the applicant and the City for the project (DA 003).	Ongoing	Planning Division	
3.	The applicant shall ensure the deposit account has a balance of at least $10,000 at the time that the applicant signs these conditions of approval (per Condition No. 1) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post- approval staff work and to halt work if the deposit account is exhausted. Make check payable to the City of Eastvale and include Project No. PLN21-20039 on the check.	Ongoing	Planning Division	
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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
5.	Applicant understands and agrees that failure to comply with all conditions of approval may result in the City Council/Planning Commission taking action resulting in modification of conditions of approval and/or suspension or revocation of the **project.**	Ongoing	Planning Division	
6.	**PLN22-20088-20092** is granted for the time period as provided for in the Development Agreement by and between the applicant and the City for the project (DA 003).	Ongoing	Planning Division	
7.	All applicable Major Development Review, Tentative Tract Map 38290, and Development Agreement conditions of approval for PLN21-20039 shall be incorporated herein by reference.	Ongoing	Planning Division	
8.	The project shall be developed in accordance with the Major Development Review applications approved by the Planning Commission on **October 18, 2023**, including the approved site plan, architectural elevations, conceptual landscape plans, etc. The applicant may request modifications or revisions to the approved project as outlined in Section 120.01.050(2) of the Eastvale Zoning Code, as existing prior to May 11, 2022.	Ongoing	Planning Division	
General **Prior to the Issuance of Grading Permit**				
9.	A site-specific air toxics pollutant analysis shall be conducted in accordance with the SCAQMD (2008) Final Localized Significance Threshold Methodology for operational activities. If SCAQMD screening thresholds would be exceeded, air toxic reduction measures shall be identified in order to reduce potential impacts to a level that is less than significant. If it is the case that emissions remain in excess of SCAQMD localized significance thresholds despite the imposition of air toxic reduction measures, project-specific operations-related dispersion modeling acceptable to the SCAQMD shall be used to identify potential toxic air contaminant impacts, including diesel particulate matter generated by heavy-duty haul trucks. If SCAQMD risk thresholds would be exceeded, additional mitigation measures shall be identified in the air toxics analysis to address potential impacts and shall be based on site-specific information such as the distance to the nearest sensitive receptors, project site plan details, and merchandise delivery schedule. The	Prior to Grading Permit	Planning, Building and Safety, or Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	City shall ensure that operations include all identified measures and that the measures reduce the health risk below SCAQMD risk thresholds. Operations-generated air toxic pollutant mitigation measures may include but not be limited to: 1. Redesigning the project site plan to locate proposed loading dock facilities as far from sensitive receptors as possible. 2. Posting signage stating the State-mandated prohibition on all project trucks idling in excess of 5 minutes under the Heavy-Duty Vehicle City of Eastvale Page 21 Leal Master Plan EIR Addendum No. 1 Idling Emission Reduction Program. 3. Restricting the number of daily heavy-duty haul truck deliveries. *(Mitigation Measure 3.3.5b Air Quality)*			
10.	The following Addendum No.1 to the Leal Master Plan EIR mitigation measures shall be implemented and specified on all project construction plans: a) Clearing and construction activities shall be conducted outside of 6:00 p.m. and 6:00 a.m. during the months of June through September, and outside of 6:00 p.m. and 7:00 a.m. during the months of October through May (Municipal Code Chapter 8.52, Noise Regulation). b) All construction equipment shall be kept properly tuned and use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. c) Construction equipment staging areas shall be centrally located on the project site or located at the farthest distance possible from nearby residential land uses. d) All motorized construction equipment and vehicles shall be turned off when not in use.	Prior to Grading Permit	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	(Mitigation Measure 3.6.4 Noise)			
11.	MM 3.7.1 All construction and clearing activities shall be conducted outside of the avian nesting season (January 15– August 31), when feasible. If clearing and/or construction activities occur during the nesting season, preconstruction surveys for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds. If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the project applicant shall establish an exclusion zone (no ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged. *(Mitigation Measures 3.7.1 Biological Resources)*	Prio to Grading Permit	Planning Division	
12.	If cultural resources (i.e., prehistoric sites, historic sites, and isolated artifacts) are discovered during grading or construction activities in the project area, work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history shall be retained to determine the significance of the discovery. The City shall consider mitigation recommendations presented by a professional archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in archaeology and/or history for any unanticipated discoveries. The City and the project applicant of the site where the discovery is made shall consult and agree on implementation of a measure or measures that the City deems feasible. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data	Prior to Grading Permit	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	recovery, or other appropriate measures. The project applicant shall be required to implement any mitigation necessary for the protection of cultural resources. *(Mitigation Measure 3.8.2 Cultural Resources)*			
13.	If human remains are discovered during any ground-disturbing activities in the project area, all work shall be halted immediately within 50 feet of the discovery, the City Planning Department shall be notified, and the Riverside County Coroner must be notified per California Public Resources Code Section 7050.5 and California Health and Safety Code Section 5097.98. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and I shall be followed. *(Mitigation Measure 3.8.3 Cultural Resources)*	Prior to Grading Permit	Planning Division	
14.	Prior to issuance of a grading permit, a certified professional paleontologist will be retained by the developer to provide professional paleontological services, which will include survey, education of construction workers, onsite construction monitoring, appropriate recovery, and reporting. A paleontological monitor shall be present during ground disturbing activities in the eastern half of the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation). 1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols. 2. The paleontological monitor shall be present full-time during ground disturbance in the eastern half of the Project, including but not limited to grading, trenching, utilities, and offsite easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced.	Prior to Grading Permit	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered. 4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. 5. In consultation with the qualified paleontologist the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared. 6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately. 7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find. For the remaining portions of the Project site, if If any paleontological resources (fossils) are discovered during grading or construction activities in the project area, work shall be halted immediately within 50 feet of the discovery, and the City Planning Department shall be immediately notified. At that time, the City will coordinate any necessary investigation of the discovery with a qualified paleontologist. The City shall consider the mitigation recommendations of the qualified paleontologist for any unanticipated discoveries of paleontological resources. The City and the project applicant shall consult and agree on implementation of a measure or measures that the City deems feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, data recovery, or other appropriate measures. The project applicant shall be required to implement any mitigation necessary for the protection of paleontological resources.			

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	(Mitigation Measure 3.8.4 Cultural Resources)			
15.	The project applicant shall conduct a Phase II ESA and shall follow its recommendations to remediate any potentially contaminated soil or groundwater. On-site contaminants must be addressed to the satisfaction of either Cal/EPA or the Riverside County Waste Management Department, with their approval of completion of activities/remedial action plans (RAP) submitted to the Eastvale Department of Building and Construction prior to the issuance of a grading permit. *(Mitigation Measure 3.10.2b Hazards and Hazardous Materials)*	Prior to Grading Permit	Building and Planning Divisions	
16.	All trash and debris observed on-site shall be removed prior to construction activities and disposed of at a landfill or approved dumpsite. *(Mitigation Measure 3.10.2c Hazards and Hazardous Materials)*	Prior to Grading Permit	Building and Planning Divisions	
17.	The applicant shall provide approval documentation from Southern California Edison for any and all improvements within the SCE easement along the project's western boundary (Scholar Way), prior to issuance of a Precise Grading Permit.	Prior to Precise Grading Permit	Planning Division	
18.	The Developer shall provide Will-Serve Letters from all utility agencies.	Prior to Building Permit	Public Works Division	
19.	The Precise Grading Plan shall be City Engineer approved prior to issuance of a Precise Grading Permit.	Prior to Precise Grading Permit	Public Works Division	
20.	Prior to the issuance of a Building Permit, the Developer shall pay all necessary fees as determined by the City Engineer including but not limited to Multiple Species Habitat Conservation Plan ("MSHCP") fees.	Prior to Building Permit	Public Works Division	
21.	MSHCP Standard Condition: The MSHCP requires that projects pay a mitigation fee. The following requirements of the MSHCP apply to the proposed project and will be required of all subsequent development plans and/or projects within the Leal Master Plan area: A. The project applicant shall submit fees to the City in accordance with the requirements of the MSHCP Mitigation Fee Ordinance (Chapter 4.62 of the City of Eastvale Municipal Code). As noted above, because the City has adopted the MSHCP and	Prior to Building Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	enforces its provisions, these requirements do not need to be included as mitigation measures. *Mitigation Measure 3.7.1 Biological Resources:* All construction and clearing activities shall be conducted outside of the avian nesting season (January 15–August 31), when feasible. If clearing and/or construction activities occur during the nesting season, preconstruction surveys for nesting raptors, special-status resident birds, and other migratory birds protected by the Migratory Bird Treaty Act shall be conducted by a qualified biologist, up to 3 days before initiation of construction activities. The qualified biologist shall survey the construction zone and a 250-foot radius surrounding the construction zone to determine whether the activities taking place have the potential to disturb or otherwise harm nesting birds. If an active nest is located within 100 feet (250 feet for raptors) of construction activities, the project applicant shall establish an exclusion zone (no Ingress of personnel or equipment at a minimum radius of 100 feet or 250 feet, as appropriate, around the nest). Alternative exclusion zones may be established through consultation with the CDFW and the USFWS, as necessary. The City shall be notified if altered exclusions zones widths are authorized by these agencies prior to the initiation of work. The exclusion zones shall remain in force until all young have fledged.			
22.	Grading in excess of 199 cubic yards will require performance security to be posted with the City.	Prior to Grading Permit	Public Works Division	
23.	A permit for the hauling of material to and from the project site shall be submitted to the City for approval.	Prior to Grading Permit	Public Works Division	
24.	Submit a California registered Civil Engineer prepared earthwork cut and fill certification letter to the Engineering Division for review. The applicant is required to pull an NPDES/Public Works permit prior to issuance of a Building Permit for record purposes.	Prior to Building Permit	Public Works Division	
25.	Development of the site is subject to the requirements of the National Pollution Discharge Elimination System (NPDES) Permit for the City of Eastvale, under the Santa Ana Regional Water Quality Control Board, Board	Prior to Precise Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Order No. R8-2010-0036. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading/Paving Plan.			
26.	Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. 6 foot high tan colored perimeter screened fencing b. Contractor information signage including contact information along the street frontage. c. Post dust control signage with the following verbiage: "Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, please call the AQMD at 1-800-CUT-SMOG/1-800-228-7664"	Prior to Grading Permit	Public Works Division	
27.	A Notice of Intent ("NOI") to comply with the California General Construction Stormwater Permit is required via the California Regional Water Quality Control Board online Stormwater Multiple Application and Report Tracking System ("SMARTS"). A copy of the executed letter issuing a Waste Discharge Identification ("WDID") number shall be provided to the City Engineer. The Construction General Permit requires the Developer's contractor to prepare and maintain a Storm Water Pollution Prevention Plan ("SWPPP"). The SWPPP requires all appropriate measures be implemented to prevent erosion and water pollution during construction.	Prior to Grading Permit	Public Works Division	
28.	A California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Public Works Division	Prior to Grading Permit	Public Works Division	Conditions satisfied

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	with the first submittal of the Precise Grading/Offsite Street Improvement Plan.			
29.	The project shall be developed in accordance with the approved Tentative Tract Map and Major Development Reviews, including the approved site plans, architectural elevations, conceptual landscape plans, and interim and ultimate improvements on Hamner Avenue, Limonite Avenue, Scholar Way, and "Backbone" Streets. The applicant may request modifications or revisions to the approved project as provided in the City of Eastvale Zoning Code.	Prior to Building Permit	Public Works Division	
30.	The Developer must provide JCSD with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	Prior to Grading Permit	Public Works Division	Condition satisfied
31.	Street names shall be approved by the Community Development Director. Suggested street names and alternatives shall be submitted in writing to the Community Development Director for approval. Phonic similarity with existing street names should be avoided.	Prior to Building Permit	Planning Division.	
General **Prior to Issuance of Encroachment Permit**				
32.	Landscape plans for all landscaping improvements within existing or future right-of-way shall be submitted to the Public Works Division and Planning Division for review and approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
General **Prior to Issuance of Building Permit**				
33.	Nonglare glass shall be used in all nonresidential buildings to minimize and reduce impacts from glare. Buildings that are allowed to use semi-reflective glass must be oriented so that the reflection of sunlight is minimized. Types of nonglare glass shall be specified on final development plan. *(Mitigation Measure 3.5.1 Aesthetics, Light, and Glare)*	Prior to Building Permit Issuance	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
34.	**Asbestos.** Prior to the issuance of any permit for the demolition or alteration of existing structure(s), a letter shall be provided to the Planning Department from a qualified asbestos abatement consultant indicating that no asbestos-containing materials (ACM) are present in the building. If ACMs are found to be present, they will need to be abated in compliance with the South Coast Air Quality Management District's Rule 1403 and all other applicable state and federal rules and regulations. **Lead Paint**. Prior to issuance of any permit for the demolition or alteration of the existing structure(s), a lead-based paint survey shall be performed to the written satisfaction of the Eastvale Building Safety and Inspection Department. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to OSHA regulations. **Polychlorinated Biphenyls**. Prior to issuance of a demolition permit, a polychlorinated biphenyls (PCB) abatement contractor shall conduct a survey of the project site to identify and assist with compliance with applicable state and federal rules and regulations governing PCB removal and disposal. *(Mitigation Measure 3.10.2a Hazards and Hazardous Materials)*	Prior to Building Permit	Building and Planning Divisions	
35.	**NOI PDF-1** Prior to the issuance of building permits, the Project will demonstrate that building construction will achieve the minimum interior noise standard of 45 dBA CNEL for all residential units located along arterial roadways and/or adjacent to commercial uses, per the California Building Standards Code. The following noise control measures may be required for dwelling units located near adjacent roadways: • Install sound barriers (masonry walls or walls with earth berms) between residences and noise sources. • Install double-paned or upgraded STC sound rated windows. • Provide sound insulating exterior walls and roofing systems. • Locate and/or design attic vents to minimize sound propagation into each	Prior to Building Permit	Building and Public Works Divisions	

Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
home. • Provide forced-air ventilation systems. • Provide the necessary setbacks for dwelling units fronting along major roadways. **NOI PDF-2** The Project will comply with California Title 24 building insulation requirements for exterior walls, roofs and common separating assemblies (e.g. floor/ceiling assemblies and demising walls). **NOI PDF-3** For proper acoustical performance, all exterior windows, doors, and sliding glass doors will have a positive seal and leaks/cracks must be kept to a minimum. **NOI PDF-4** The final building plans will ensure that HVAC units are not located within an area of the Project site that would contribute to a noise level exceedance at any adjacent property line, per the City of Eastvale Municipal Code requirements. To meet the City's noise standards the following measures should be followed: • All HVAC equipment shall be shielded or enclosed from the line of sight of adjacent residential uses. • The combined noise level of all units operating simultaneously shall not exceed the City of Eastvale daytime and nighttime exterior standards at the nearest surrounding property lines. **NOI PDF-5** Future residents, property management personnel, and commercial tenants			

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	will be required to comply with the City of Eastvale Municipal Code Noise Regulations, Chapter 8.52, which specify that no person shall create loud, unnecessary, or unusual noise that disturbs the peace or quiet of any neighborhood, or that causes discomfort or annoyance to any person of normal sensitiveness. To help ensure compliance with the City's Noise Regulations, the following recommendations are provided: • Deliveries, loading and unloading activities, and trash pick-up hours should be limited to daytime hours only (8 a.m. – 10 p.m.). • Limit engine idling time for all delivery vehicles and moving trucks to 5 minutes or less. **NOI PDF-6** The Project will prepare a construction management plan and obtain a construction work permit from the City of Eastvale prior to starting construction. The construction management plan will ensure all contractors implement construction best management practices to reduce construction noise levels. Examples of best management practices may include the following: • All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields). • Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible. • If feasible, electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load.			

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	• Use electric air compressors and similar power tools rather than diesel equipment, where feasible. • Locate staging area, generators and stationary construction equipment as far from the adjacent residential homes as feasible. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. • Provide notifications and signage in readily visible locations along the perimeter of construction sites that indicate the dates and duration of construction activities, as well as provide a telephone number where neighbors can enquire about the construction process and register complaints to a designated construction noise disturbance coordinator. • Construction activities shall not take place between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. to 7:00 a.m. during the months of October through May. **NOI PDF-7** The Project will not include pile driving or blasting activities during construction. If impact pile driving or blasting is required, a follow-up noise and vibration impact assessment will be conducted prior to start of any activity.			

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
36.	All construction shall comply with the most recently adopted City and State building codes: • 2022 California Building Code • 2022 California Residential Code • 2022 California Electrical Code • 2022 California Mechanical Code • 2022 California Plumbing Code • 2022 California Fire Code • 2022 California Green Code	Prior to building permit issuance	Building Division	
37.	Special Inspections – As indicated by California Building Code Section 1704, the owner shall employ one or more special inspectors who shall provide special inspections when required by CBC section 1704. Please contact the Building Division at the time of plan submittal to obtain an application for special inspections.	Prior to building permit issuance	Building Division	
38.	The Title Sheet of the plans shall include: • Occupancy Group • Occupant Load • Description of use • Type of Construction • Height of Building • Floor area of building(s) and/or occupancy group(s)	Prior to building permit issuance	Building Division	
39.	School impact fees shall be paid prior to building permit issuance.	Prior to building permit issuance	Building Division	
40.	Dimensioned building setbacks and property lines, street centerlines, and between buildings or other structures shall be dimensioned on the plot plan.	Prior to building permit issuance	Building Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
41.	All property lines and easements must be shown on the plot plan. A statement that such lines and easements are shown is required.	Prior to building permit issuance	Building Division	
42.	The project design will conform with energy conservation measures articulated in Title 24 of the California Code of Regulations and address measures to reduce energy consumption such as flow restrictors for toilets, low consumptions light fixtures, and insulation, and shall use to the extent feasible drought landscaping.	Prior to building permit issuance	Building Division	
43.	A design professional will be required at the time of construction drawings, to prepare plans for proposed improvements per the Business and Professions Code.	Prior to building permit issuance	Building Division	
44.	Public and private site improvements shall be designed in accordance with the Americans with Disabilities Act and Chapter 11 of the California Building Code. The site plan shall include a site accessibility plan identifying exterior routes of travel and detailing running slope, cross slope, width, pedestrian ramp, curb ramps, handrails, signage, and truncated domes. Path of travel shall be provided from the public right of way and accessible parking to the building. The design professional shall ensure that the site accessibility plan is in compliance with the latest Federal and State regulations.	Prior to building permit issuance	Building Division	
45.	The developer shall prepare an address blocking exhibit with the proposed addressing and street names for review and approval by the Planning Division. This plan, including updates to the plan, shall include addressing for buildings (primary address and units) and utilities such as but not limited to electrical/water/single/dual irrigation meter pedestal(s) or temporary power poles.	Prior to building permit issuance	Planning and Building Division.	
46.	The MDR has approved the overall architectural styles and enhanced elevations at specific locations as identified on the site plan for each planning area. During plan check, the City may request minor adjustments/enhancements to limited aspects of the architectural details, without wholesale change to the architectural style.	Prior to building permit issuance	Planning Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
47.	Construction and architectural detailing shall be in substantial conformance with the approved plans, including but not necessarily limited to elevation drawings and material/colors sample board submitted as a part of this application and as approved by the Planning Commission, except that any modification shall be subject to the discretion of the Community Development Director upon finding that any changes are comparable in substance and quality to the original approval.	Prior to building permit issuance	Planning Division	
48.	Any future modification to the building colors and materials approved by the Planning Commission shall be subject to review and approval by the Community Development Director. At the Community Development Director's discretion, proposed color and material modification may be referred to the Planning Commission for Major Development Plan review.	Prior to building permit issuance	Planning Division	
49.	AC units shall be screened to the extent feasible with a healthy and thriving hedge at all times. Where room limitations exist, the applicant shall provide a decorative screen panel to screen AC units from the public right-of-way to the extent feasible to the satisfaction of the Community Development Director	Prior to building permit issuance	Planning Division	
50.	Sectional garage doors with automatic openers shall be required where face of garage is less than eighteen feet (18') from back of sidewalk or back of curb when sidewalks are not provided.	Prior to building permit issuance	Planning Division	
51.	Any future monumentation into the development shall be subject to review and approval by the Community Development Director and City Engineer.	Prior to last building permit issuance of Phase A	Planning & Public Works Divisions	
52.	All signs and entry monumentation shall be illuminated and setback a minimum of five feet from the property line.	Prior to building permit issuance	Planning Division	
53.	All required parking area spaces shall meet the minimum dimensions of the Zoning Code Section 120.05.060, as existing prior to May 11, 2022.	Prior to building permit issuance	Planning Division	
54.	All signs shall be in conformance Section 120.05.070 Signs of the Eastvale Zoning Code and Chapter 4.4 Signage of the Leal Master Plan, as existing prior to May 11, 2022.	Prior to last building permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
		issuance of Phase A		
55.	Wall and fences shall meet the requirements Eastvale Zoning Code and Leal Master Plan, as existing prior to May 11, 2022. Block walls and fencing shall be appropriately finished with decorative capping and blocks subject to review and approval of the Community Development Director. Wall and fencing plan (or supplemental plan) shall distinguish patio/courtyard boundaries and identify public/open space vs. private areas. Subject to the Community Development Director, additional fencing and walls may be required for purposes of security and safety.	Prior to building permit issuance	Planning Division	
56.	The master conceptual wall and fence plans approved by the Planning Commission as part of **PLN22-20088-20092** shall serve as the master plan of development for community walls and fences within PA-1, PA-6, PA-7A, and PA-8. The final design and location of project walls and fences shall be subject to review and approval of the Community Development Director.	Prior to Certificate of Occupancy	Planning Division	
57.	The development shall be designed to include pet and animal waste receptacles along pedestrian pathways. Final design shall be approved by the Community Development Director.	Prior to Certificate of Occupancy	Planning Division	
58.	The final design of on and off-site amenities including, but not limited to, benches, trashcans, bike racks, pet waste receptacles, lighting, play equipment, art, furnishings, etc. shall be approved by the City Engineer and Community Development Director..	Prior to Certificate of Occupancy	Planning Division and Public Works	
59.	All off and on-site lighting shall be decorative in nature. Final design shall be approved by the City Engineer and Community Development Director.	Prior to Issuance of Building Permit	Planning and Public Works Division	
60.	Mailboxes shall be designed, installed and located by the developer to the satisfaction of the Community Development Director.	Prior to Certificate of Occupancy	Planning Division	
61.	All street lighting shall meet the equipment and illumination standards of the City to the satisfaction of the City Engineer.	Prior to Certificate of Occupancy	Public Works Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
62.	The Applicant shall submit a set of development plans, including a lighting plan, to the Eastvale Police Department for review and approval for appropriate safety measures including, but not limited to, the following: PROPERTY GATES AND KNOX BOX ENTRY a. The installation of the Knox Rapid Entry System if property gates are installed. This system permits law enforcement, fire, and first responders to obtain independent access to the property in the event of an emergency. The necessary order forms for the Knox Company may be obtained by contacting the Jurupa Valley Sheriff's Station Crime Prevention Programs Coordinator at (951) 955-9225. ADDRESS NUMBERING: b. Prominently displayed address numbering in size and contrasting in color from the building façade or on a fixed sign near the street/main entrances. The numbers need to be visible from the street and interior property sides for any approaching emergency vehicles. No obstructions should limit their visibility (i.e., landscaping). SECURITY AND LIGHTING PLAN c. Adequate crime prevention measures to assist with identifying any suspect(s) of any potential future vandalism or theft attempts. Due to the high possibility of theft/vandalism attempts during construction, additional security measures should be added during that time frame of proposed construction. All exterior access points should be properly illuminated to make clearly visible any person on or about the premises during the hours of darkness.	Prior to Certificate of Occupancy	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	d. Residential units shall be equipped with solid core doors and quality dead bolt locking devices at entry points.			
63.	Landscape construction plans shall be submitted to the Planning Division for review and approval. The plans shall be consistent with the Conceptual Landscape Plan approved by the Planning Commission on **October 18**, **2023**. The plan shall be certified by a licensed landscape architect as required, taking into account approved preliminary landscape plan (if any), adopted plant palette guides, applicable scenic and master/specific plan requirements, and water conservation measures. This submittal shall be made to the Planning Division with the appropriate Application and Fee.	Prior to building permit issuance	Planning Division	
64.	Landscape construction plans shall be designed to match and align with current WQMP and Best Management Practices (BMP) Facilities. Plans shall be designed and reviewed to ensure improvements will not conflict with underground structures, depressed basin, or park improvements.	Prior to building permit issuance	Planning and Public Works Divisions	
65.	Landscape and Civil construction plans shall be designed with any updated base (per the WQMP and BMP's) information. Applicant to include all maintenance access points such as vaults, manholes, etc. to verify their impact on planter areas.	Prior to building permit issuance	Planning and Public Works Divisions	
66.	"A," "B," and "C" Streets shall be considered Enhanced Parkways and require double row planting of trees at least 20' to 30' on center to create sufficient shade along pedestrian walkways, depending on the tree species, and subject to review by the city's landscape architect.	Prior Certificate of Occupancy	Planning and Public Works Divisions	
67.	Improved and decorative paving shall be provided at vehicular entry points, intersections, and areas of pedestrian connections to the satisfaction of the Community Development Director.	Prior to Certificate of Occupancy	Planning and Public Works Divisions	
68.	Overall landscape square footage and corresponding percentage (versus total developed area) shall be provided for verification of meeting city minimum objective standards.	Prior to building permit issuance	Planning and Public Works Divisions	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
69.	Interior parking areas shall include one (1) tree shall be planted for every five (5) parking spaces within parking areas.	Prior to Certificate of Occupancy	Planning and Public Works Divisions	
70.	All trees shall be a mix of 24" box minimum and 36" and 48" box maximum based on the current matrix. • Minimum size being 24" box- 50% of total, 36" box 30% of total, and 48" box 20% of total = 100% The minimum shrub or vine size for all areas visible from the public right-of-way shall be a mix of 1 and 5 gallons depending on availability, except for ground covers (1 gallon) or adjustments based on setback requirements for clearance for walks or drives. All ground cover located within the offsite/public areas shall be a minimum of 1 gallon. Shrubs and ground covers shall be designed for installation at reasonable spacing to allow for growth to relative maturity.	Certificate of Occupancy	Planning and Public Works Divisions	
71.	Landscape plans shall be designed to include concrete mow curbs or other approved separations for areas of landscape where separations or changes in maintenance responsibility exist. This shall be clearly defined on the plans for the purposes of understanding maintenance responsibility.	Prior to Certificate of Occupancy	Planning and Public Works Divisions	
72.	Any trees that are in conflict shall be relocated to other areas of the site, subject to the review and approval of the Community Development Director.	Prior to Certificate of Occupancy	Planning and Public Works Divisions	
73.	All landscape and irrigation plans shall be consistent with the City of Eastvale Zoning Code, with Section 5.4 Landscaping General Provisions, the City of Eastvale Design Standards and Guidelines, and the City of Eastvale Chapter	Prior to Certificate of Occupancy	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	14.24 Water Efficient Landscape Regulations, WUCOLS, and other current applicable codes and guides, in effect prior to May 11, 2022.			
74.	Planter areas shall contain a minimum width of 5 feet or greater of planting space, unless otherwise approved by the Community Development Director.	Prior to building permit issuance	Planning Division	
75.	To the extent tree species health and integrity are prioritized, mature specimen trees in 36-inch and/or 48-inch boxes shall be provided at prominent project entry statements and at major focal areas to the satisfaction of the Community Development Director.	Prior to building permit issuance	Planning Division	
76.	A top mulch layer of approved wood bark mulch shall be applied to the soil a minimum of 3 inches deep.	Prior to building permit issuance	Planning Division	
77.	To the extent tree species health and integrity are prioritized, root barriers shall be installed for all trees located within 5 feet of paving in 10 to 12 foot lengths. Trees located within 10 feet of curbs, city sidewalks, within planted parkways, and street medians shall utilize 20 lineal feet of root barrier.	Prior to building permit issuance	Planning Division	
78.	To the extent feasible, utility and trash enclosure walls shall be appropriately screened within planting areas at least 5 feet wide with shrubs and/or vines that mitigate the view of the walls and the equipment within the enclosure.	Prior to building permit issuance	Planning Division	
79.	A weather-based smart irrigation controller shall be installed. A rain shut off device or weather station shall be installed connected with the irrigation controller.	Prior to building permit issuance	Planning Division	
80.	All fertilizers and soil amendments used during planting preparation and installation shall be derived from organic based materials. Humate at 50 pounds per 1,000 square feet and mycorrhizae shall be included. Organic soil amendments at a ratio of 4 cubic yards per thousand square foot shall be incorporated into the planting preparation, unless otherwise recommended by the soil management plan.	Prior to building permit issuance	Planning Division	
81.	Provide pad elevation certifications for all building pads in conformance with the approved Precise Grading Plan to the Public Works Division prior to construction of any building foundation.	Prior to building permit issuance	Public Works Division	
General				

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
Prior/During Ground Disturbance and Construction				
82.	The City Landscape Architect shall be contacted to meet with the job site superintendent and the landscape contractor for a pre-job meeting. A copy of the soil fertility recommendations utilizing humate, mycorrhizae, and organic fertilizer shall be presented prior to the meeting. No landscaping shall occur prior to the meeting.	Prior to initiation of landscape construction	Planning Division	
General **Prior to Issuance of Final Certificate of Occupancy**				
83.	The developer shall have the following items on permanent and prominent display in the construction office where applicable: a. A copy of the approved and recorded tract map; b. A copy of the approved Major Development Review plot plans; c. A copy of the approved landscape architecture plans; d. A copy of the approved residential parking management plan; e. A map showing the boundaries of those areas to be maintained by the Homeowners Association; f. Applicable Codes, Covenants, and Restrictions (CC&Rs);	Prior to Issuance of Certificate of Occupancy	Planning Division	
84.	All required landscaping of Phase A shall be installed and verified prior to issuance of certificate of occupancy for the last residential unit of Phase A.	Prior to Issuance of Certificate of Occupancy for last unit of Phase A	Planning Division	
85.	A minimum of ten percent (10%) of the parking area shall be landscaped. One tree shall be planted for every five (5) parking spaces within the parking area (Tree diamonds may be used. Fifty percent of the trees shall be a minimum size of fifteen (15) gallons and fifty percent of the trees shall be a minimum size of twenty-four (24) inch box, or as specified in the Master Plan.	Prior to Issuance of Certificate of Occupancy	Planning Division	
86.	The Developer shall submit to the City Engineer and Community Development Director for review and approval the Covenants, Conditions, and Restrictions ("CC&Rs") and/or a Property Owners Association document and shall contain language stating compliance with the Leal Master Plan and	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Eastvale Zoning Code as existing prior to May 11, 2022. This condition does not apply to city-owned or controlled parcels			
87.	The CC&Rs shall address maintenance and operation of common areas and/or facilities including, but not limited to, private parking areas, private utilities, and water quality basins. The CC&Rs shall also prohibit landscaping within H.O.A.-maintained areas from being modified, trimmed, or removed in any way by the homeowner, without express authorization by the H.O.A. This condition does not apply to city-owned or controlled parcels	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	
88.	The project CC&Rs shall prohibit the use of dedicated covered resident parking for personal storage or any use other than for the parking of operable motor vehicles at all times to the satisfaction of the City Attorney and Community Development Director.	Prior to Issuance of Certificate of Occupancy	Planning Division	
89.	Parking restrictions resultant of minimum width streets, no overnight parking, and permit parking shall be identified in the project CC&Rs.	Prior to Issuance of Certificate of Occupancy	Planning Division	
90.	The applicant shall provide and future H.O.A shall enforce a parking management plan consistent with the Leal Master Plan Residential Parking Review and Parking Management Plan (PMP)-Phase A, City of Eastvale memorandum prepared by RK Engineering Group, Inc. dated September 13, 2023, for review and approval by the Community Development Director.	Prior to Issuance of Certificate of Occupancy	Planning Division	
91.	The original improvement plans prepared for the proposed development and approved by the City Engineer (if required) shall be documented with record drawing "as-built" information and returned to the Public Works Division prior to issuance of final Certificate of Occupancy. Any modifications or changes to approved improvement plans shall be submitted to the City Engineer for approval prior to final Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
92.	Mira Loma Road and Bridge Benefit Assessment District Fee ("MLRBA"), Transportation Uniform Mitigation Fee ("TUMF"), Area Drainage Plan ("ADP") fee, and any other regional pass-through fees shall be paid prior to issuance of Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
93.	Prior to issuance of a Certificate of Occupancy or final City approvals, demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
General **Ongoing**				
94.	The quality and ongoing maintenance of decomposed granite shall be to the satisfaction of the City Engineer.	Ongoing	Planning/Community Enhancement & Safety Divisions	
95.	To reduce fugitive dust emissions, the contractor shall provide the City with sufficient proof of compliance with Rule 403 and other dust control measures including but not limited to: • Watering active sites three times daily. • Requiring the replacement of ground cover or the application of non-toxic soil stabilizers according to manufacturer specifications to unpaved roads and all inactive construction areas (previously graded areas inactive for 10 days or more, assuming no rain). • Requiring trucks entering or leaving the site hauling dirt, sand, or soil, or other loose materials on public roads to be covered. • Suspending all excavating and grading operations when wind gusts (as instantaneous gust) exceed 25 miles per hour. • Posting contact information outside the property for the public to call if specific air quality issues arise; the individual charged with receipt of these calls shall respond to the caller within 24 hours and resolution of the air quality issue(s), if valid, or implementation of corrective action(s) will occur within 48 to 72 hours of the time that the issue first arose. • Sweeping of streets using SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks (utilizing recycled water	Ongoing (during project construction)	Building and Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	if it becomes available) at the end of the day if visible soil material is carried over to adjacent streets. • Posting and enforcement of traffic speed limits of 15 miles per hour or less on all unpaved roads. • Installing wheel washers or gravel pads at construction entrances where vehicles enter and exit unpaved roads onto paved roads,or wash off trucks and any equipment leaving the site each trip to prevent track-out. Paving of all roadways, driveways, sidewalks, etc., shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless soil stabilizers are used.			
96.	All HOA maintained landscaping shall be perpetually maintained and be in a healthy and thriving manner consistent with the approved construction landscape plans. Any changes and modifications made to the approved landscape design and ground coverage shall be required to be reviewed and approved by the Community Development Director.	Ongoing	Planning/Community Enhancement & Safety Divisions	
97.	All HOA amenities (such as, but not limited to mailboxes, trashcans, landscape, lighting, signage etc.) shall be continually maintained and operational in a manner consistent with the approved plans to the satisfaction of the Community Development Director.	Ongoing	Planning/Community Enhancement & Safety Divisions	
98.	Landscaped areas between buildings and garages shall be perpetually maintained with healthy and thriving landscaping. Such areas shall not be used for personal storage and shall be kept free from residential belongings, trash carts, as well as trash.	Ongoing	Planning/Community Enhancement & Safety Divisions	
99.	Adequate exterior night lighting shall be provided adjacent to doors and windows to the satisfaction of the Community Development Director.	Ongoing	Planning Division	
100.	Private streets shall be maintained in a clean and tidy manner at all times to remove trash and debris to the satisfaction of the City Engineer. Private street maintenance may include street sweeping, to the extent necessary, for	Ongoing	Public Works Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	consistency with the WQMP/SWPPP and the objective of maintaining clean and tidy streets.			
101.	Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.	Ongoing	Public Works Division	
102.	A City of Eastvale Encroachment Permit is required for any improvements within the public right-of-way.	Ongoing	Public Works Division	
103.	All street cuts for utilities shall be repaired in accordance with City Standard or as recommended; and any interim trench repairs shall consist of compacted backfill to the bottom of the pavement structural section followed by placement of standard base course material in accord by the City Engineer and with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.	Ongoing	Public Works Division	
104.	Any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development shall be backfilled and repaired in accordance with City of Eastvale Standard Drawings. The developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e. Jurupa Community Services District, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets resulting from the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site streets, at the discretion of the City Engineer. The pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.	Ongoing	Public Works Division	
105.	Construction signing, lighting, and barricading shall be provided during all phases of construction in accordance with City Standards and the direction of	Ongoing	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 "Temporary Traffic Control" of the latest California Manual on Uniform Traffic Control Devices ("CA MUTCD"), or subsequent editions in effect at the time of construction.			
106.	Utility locations (on or off-site) shall not obstruct multipurpose/pedestrian walks, trails, and paths.	Ongoing	Planning and Public Works Division	
General **Riverside County Fire Department**				
107.	Fire Department requires the following fire protection measures be provided in accordance with Riverside County Ordinances, the 2022 California Fire Code (CFC) as adopted and amended by the City of Eastvale Municipal Code and/or recognized fire protection standards as existing prior to May 11, 2022.	Prior to Building Permit Issuance	Fire Department	
108.	Fire Protection Water Supplies/Fire Flow - Minimum fire flow for the construction of all buildings is required per CFC Appendix B, or other approved method. Prior to building permit issuance for new construction, the applicant shall provide documentation to the Fire Department to show there exists a water system capable of delivering the required fire flow. Specific design features may increase or decrease the required fire flow. Reference CFC 507.3	Prior to Building Permit Issuance	Fire Department	
109.	Fire Protection Water Supplies/Hydrants - The minimum number of fire hydrants required, as well as the location and spacing of fire hydrants, shall comply with the CFC Appendix C. Fire hydrants shall be located no more than 600 feet from all portions of the exterior of the building along an approved route on a fire apparatus access road, unless otherwise approved by the Fire Department. Additionally, hydrants shall be spaced no more than 500 feet apart in any direction so that no point on the street is more than 250 feet from a hydrant. Where new water mains are extended along streets where hydrants are not needed for protection of structures, standard fire hydrants shall be provided at spacing not to exceed 1000 feet along streets for transportation hazards. Fire hydrants shall be provided at street intersections. The size and number of outlets required for the approved fire hydrants are 6" x 4" x 2 ½".	Prior to Building Permit Issuance	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Final fire hydrant locations shall be determined during the fire water construction plan review. Reference CFC 507.5 and CFC Appendix C, as amended through the City of Eastvale Municipal Code.			
110.	Tract Water Plans: If fire hydrants are required to be installed, applicant/developer shall furnish two copies of the water system fire hydrant plans to Fire Department for review and approval prior to building permit issuance. Plans shall be signed by a registered civil engineer, and shall confirm hydrant type, location, spacing, and minimum fire flow. Once plans are signed and approved by the local water authority, the originals shall be presented to the Fire Department for review and approval. Reference CFC 105.4.1	Prior to Building Permit Issuance	Fire Department	
111.	Fire Department Access - Fire apparatus access roads shall be provided to within 300 feet of all exterior portions of buildings, unless otherwise approved by the Fire Department. Fire apparatus access roads shall have an unobstructed width of not less than 24 feet. Dead-end fire apparatus access roads in excess of 150 feet shall be provided with an approved turn around. The minimum required turning radius of a fire apparatus access road is 38 feet outside radius and 14 feet inside radius. The construction of the fire apparatus access roads shall be all weather and capable of sustaining 75,000 lbs. Unless otherwise approved, the grade of a fire apparatus access road shall not exceed 16 percent and the cross slope shall not exceed 2.5 percent. The angles of approach and departure for fire apparatus access roads shall be a maximum of 6 percent grade change for 25 feet of approach/departure. Reference CFC 503.1.1, 503.2.1 as amended by the County of Riverside and Riverside County Office of the Fire Marshal Technical Policy #TP22-002	Prior to Building Permit Issuance	Fire Department	
112.	Fire Department Access Turn Around - Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with a bulb turnaround at the terminus measuring a minimum of 38 feet outside radius and 14 feet inside radius. Parallel parking around the perimeter of the bulb is acceptable provided the bulb outside turning radius is increased by 8 feet. In-lieu of a bulb, a hammer-head type turnaround is acceptable where the top of the "T" dimension is 120 feet with the stem in the center. Additional turnaround designs may be acceptable as approved by the Fire Department. Reference	Prior to Building Permit Issuance	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	CFC 503.1.1, 503.2.1 as amended by the County of Riverside and Riverside County Office of the Fire Marshal Technical Policy #TP22-002			
113.	Secondary Access – Unless otherwise approved by the Fire Department, dead end fire apparatus access roads shall not exceed 1,320 feet. Secondary egress/access fire apparatus access roads shall provide independent egress/access from/to the area or as otherwise approved by the Fire Department. Secondary egress/access fire apparatus access roads shall be as remote as practical from the primary fire apparatus access road to reduce the possibility that both routes will be obstructed by a single emergency. Additional fire apparatus access roads based on the potential for impairment by vehicle congestion, condition of terrain, climatic conditions, anticipated magnitude of a potential incident, or other factors that could limit access may be required by the Fire Department. Reference CFC 503.1.2 and Riverside County Office of the Fire Marshal Technical Policy #TP22-002	Prior to Building Permit Issuance	Fire Department	
114.	Parking is not permitted on fire apparatus access roads that are less than 28 feet in width. Parking on one side is permitted on a road that is at least 28 feet but less than 36 feet in width. Parking on two sides is permitted on a road that is 36 feet or more in width.	Prior to Building Permit Issuance	Fire Department	
115.	Fire Department Building Construction Permit Review - Submittal of construction plans to the Fire Department will be required. Final fire and life safety conditions will be addressed when the Fire Department reviews these plans. These conditions will be based on California Fire Code, California Building Code (CBC), and related codes/standards adopted at the time of construction plan submittal. Reference CFC 105.1	Prior to Building Permit Issuance	Fire Department	
116.	Residential Fire Sprinklers - Residential fire sprinklers are required in all one and two-family dwellings per the California Residential Code (CRC). Plans must be submitted to the Office of the Fire Marshal for review and approval prior to installation. Reference CRC 313.2	Prior to Building Permit Issuance	Fire Department	
117.	Phased Construction Access and Water Supply: If construction is phased, an approved phasing plan shall be approved by the Fire Department. Each phase shall provide approved access and water supply for fire protection prior to any construction. Reference CFC 503.1, 507.1, 3310 and 3312	Prior to Building Permit Issuance	Fire Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
118.	Prior to building plan approval and construction, applicant/developer shall route a copy of the Water Improvement Plans (offsite) to the Fire Department for review of private hydrant placement only. Water Improvement Plans (offsite) will not be reviewed or approved for the installation of onsite Private Fire Service Mains, private hydrants, or fire sprinkler system supplies. The installing contractor shall submit a separate set of working plans designed in accordance with NFPA 13 and NFPA 24 to the Fire Department for a permit to install private water mains.	Prior to Building Permit Issuance	Fire Department	
119.	New motorized gates shall be provided with means to be automatically opened remotely by emergency vehicles in accordance with Riverside County standards and policies. The system shall be compatible, but not limited to, the detection of the following manufacturers of emergency vehicle preemption: Federal Signal, Whelen, and Tomar. Upon installation of the system, compliance testing shall be completed by the Riverside County Fire Department. (RVC Amendment to CFC 503.6.1)	Prior to Building Permit Issuance	Fire Department	
120.	Provide specific fire department conditions on plans for building permit submittal.	Prior to Building Permit Issuance	Fire Department	
General **Jurupa Community Services District (JCSD)**				
121.	This project will be subject to compliance with Jurupa Community Services District's (District) rules, regulations, conditions, requirements, and payment of applicable fees for the proposed project.	Prior to Building Permit Issuance	JCSD	
122.	The applicant is required to coordinate with Jurupa Community Services District during the entire development process for their project. The District provided a Board of Directors approved water and sewer availability letter dated 5/22/2023. The Developer is required to prepare the water, sewer, and recycled water improvement plans for the District's approval.	Prior to Building Permit Issuance	JCSD	
Riverside County Flood Control				

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
123.	This project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension a District's facility, the District would consider accepting ownership of such facilities on written request by the City. The Project Applicant shall enter into a cooperative agreement establishing the terms and conditions of inspection, operation, and maintenance with the District and any other maintenance partners. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required. The regulatory permits' terms and conditions shall be approved by the District prior to improvement plan approval, map recordation, or finalization of the regulatory permits. There shall be no unreasonable constraint upon the District's ability to operate and maintain the flood control facility(ies) to protect public health and safety.	Prior to Building Permit Issuance	Riverside County Flood Control	
124.	An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, Eastvale Master Drainage Plan, Lines D-3 and D-5. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact the District's Encroachment Permit Section at 951.955.1266.	Prior to Encroachment Permit	Riverside County Flood Control	
125.	This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt. If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy.	Ongoing	Riverside County Flood Control	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	The project proponent shall bear the responsibility for complying with all applicable mitigation measures defined in the California Environmental Quality Act (CEQA) document (i.e., Negative Declaration, Mitigated Negative Declaration, Environmental Impact Report) and/or Mitigation Monitoring and Reporting Program, if a CEQA document was prepared for the project. The project proponent shall also bear the responsibility for complying with all other federal, state, and local environmental rules and regulations that may apply. If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and a Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.			
Overall Major Development Plan				
126.	A decomposed granite (DG) trail of at least four (4) feet shall be constructed adjacent to the walkway along Scholar Way.	Prior to Certificate of Occupancy	Planning and Public Works Division	
127.	Within the SCE Easement along Scholar Way, the landscape construction plans shall include pocket park design on the north and south sides of "B" Street, between "B" Street and the parking areas. The pocket parks shall include enhanced landscaping, benches, dog station, and/or similar features to create a pocket park setting.	Prior to Certificate of Occupancy	Planning and Public Works Divisions	
128.	As applicable to Phase A, construct a raised and landscaped median island along frontage of property on Hamner Avenue and Limonite Avenue in accordance with approved Street Improvement Plans.	Prior to Issuance of final Certificate	Public Works Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
		of Occupancy of Phase A		
129.	As applicable to Phase A, construct a multipurpose trail approved by the Public Works Department and Planning Division along the project perimeter on Hamner Avenue, Limonite Avenue, and Scholar Way.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Divisions	
130.	As applicable to Phase A, construct a multipurpose trail along the interior "backbone" streets, to the satisfaction of the City Engineer and Community Development Director.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Divisions	
131.	As applicable to Phase A, install Class I bicycle lanes along Hamner Avenue, Limonite Avenue, and Scholar Way.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
132.	As applicable to Phase A, install decorative streetlights with sleeves along Hamner Avenue, Limonite Avenue, Scholar Way, and "Backbone" streets or as approved by the Public Works Division and Planning Division.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Divisions	
Planning Area 1				
133.	Wall and Fence plan shall indicate security measures to mitigate concerns of safety and transients around HOA pool area.	Prior to building permit issuance	Planning and Public Works Divisions	
134.	The developer shall work with staff to provide enhanced landscaping during the plan check process at the intersections of “A” and “B” Streets	Prior to Certificate of Occupancy	Planning and Public Works Divisions	
135.	All chairs, loungers, cabanas, barbeques, tables, foosball tables or equivalents shall be clean and in good working order and available for resident use at all times.	Ongoing	Planning/ Community Enhancement and Safety Divisions	
Planning Area 6				

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
136.	The developer is required to obtain and submit to the Building Division prior to occupancy the following signed statement by the purchasers of homes and/or prepared lots within PA - 6 (i.e., Buildings 23-32) within Tentative Tract Map 38594. "In purchasing the home located in Planning Area 6 of Tract 38594, I understand that the vacant property located adjacent to the north as well as the east boundary of Planning Area 6 may be developed for use as a recreation and/or other civic/public use. Signed _____ (Purchaser)	Prior to Issuance of Certificate of Occupancy	Planning Division	
Planning Area 7A				
137.	Lot O and Lot P shall be consistently maintained to be free of trash, debris, and graffiti with neat, non-washed out compacted decomposed granite. Additionally, string lighting and ping pong tables shall be in good working order and available for resident use at all times.	Ongoing	Planning/Community Enhancement & Safety Divisions	
Planning Area 8				
138.	The developer is required to obtain and submit to the Building Division prior to occupancy the following signed statement by the purchasers of homes and/or prepared lots within PA -8 (i.e., Buildings 51-61) within Tentative Tract Map 38594. "In purchasing the home located in Planning Area 8 of Tract 38594, I understand that the vacant property located adjacent to the south as well as the west boundary of Planning Area 8 may be developed for use as a recreation and/or other civic/public use Signed _____ (Purchaser)	Prior to Issuance of Certificate of Occupancy	Planning Division	

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are required by the City, other local agencies, or state and federal agencies, and are not conditions of approval of the project.

1. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned. Amended entitlement approvals may be necessary as a result.

2. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

DRAFT

CITY OF EASTVALE
PLANNING COMMISSION NOTICE OF PUBLIC HEARING FOR PROJECT NO. PLN22-20087, PLN22-20088, PLN22-20089, PLN22-20090, PLN22-20091 AND PLN22-20092 FOR TENTATIVE TRACT MAP NO. 38594 AND MAJOR DEVELOPMENT REVIEWS FOR PHASE A OF THE EASTWALK DEVELOPMENT (THE NEW HOME COMPANY)

NOTICE IS HEREBY GIVEN that the City of Eastvale Planning Commission will hold a public hearing on **Wednesday, September 20, 2023**, at 6:00 p.m. at the Eastvale City Hall Council Chambers located at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752, to consider the following projects:

1. **Tentative Parcel Map No. 38594 (PLN22-20087)** for the subdivision of 69.8 acres into sixty-five (65) buildable lots and nineteen (19) lettered lots;

2. **Major Development Review (PLN22-20088)** for the overall site planning, master landscaping, streetscape design, and open space amenities of Phase A of the Eastwalk residential community;

3. **Major Development Review (PLN22-20089)** for the master building architecture and site planning of 168 townhomes and condominiums with associated open space, on-site parking and landscaping amenities within Planning Area 1;

4. **Major Development Review (PLN22-20090)** for the master building architecture and site planning of 100 attached single-family residential units with associated on-site parking, and landscaping amenities within Planning Area 6;

5. **Major Development Review (PLN22-20091)** for the master building architecture and site planning of 94 detached single-family residential units with associated open space, on-site parking, and landscaping amenities within Planning Area 7A; and

6. **Major Development Review (PLN22-20092)** for the master building architecture and site planning of 76 attached single-family residential units with associated on-site parking and landscaping amenities within Planning Area 8.

PROJECT DESCRIPTION: The proposed project includes the subdivision of 69.8 acres of undeveloped land, formally used for agricultural purposes, into sixty-five (65) buildable lots and nineteen (19) lettered lots for condominium, multi-family residential, commercial, civic, open space, and public right-of-way purposes. Additionally, Major Development Reviews are requested for the overall site planning, landscaping, and open space amenities of Phase A of the Eastwalk development constructed by The New Home Company and the master architecture, site planning, associated open space, on-site parking, and landscaping amenities within PA-1 (i.e., 168 townhomes and condominiums), PA-6 (i.e.,100 attached single-family residential units), PA 7A (i.e.,94 detached single-family residential units), and PA 8 (i.e., 76 attached single-family residential units) of Eastwalk Phase A.

PROJECT LOCATION: Assessor's Parcel Number: 164-030-043, 164-030-046, 164-030-010, 164-030-044, & 164-030-013; Leal Master Plan (Planning Areas 1, 2, 3, 5, 6, 7A, 8, J, L, M, P, Q) located

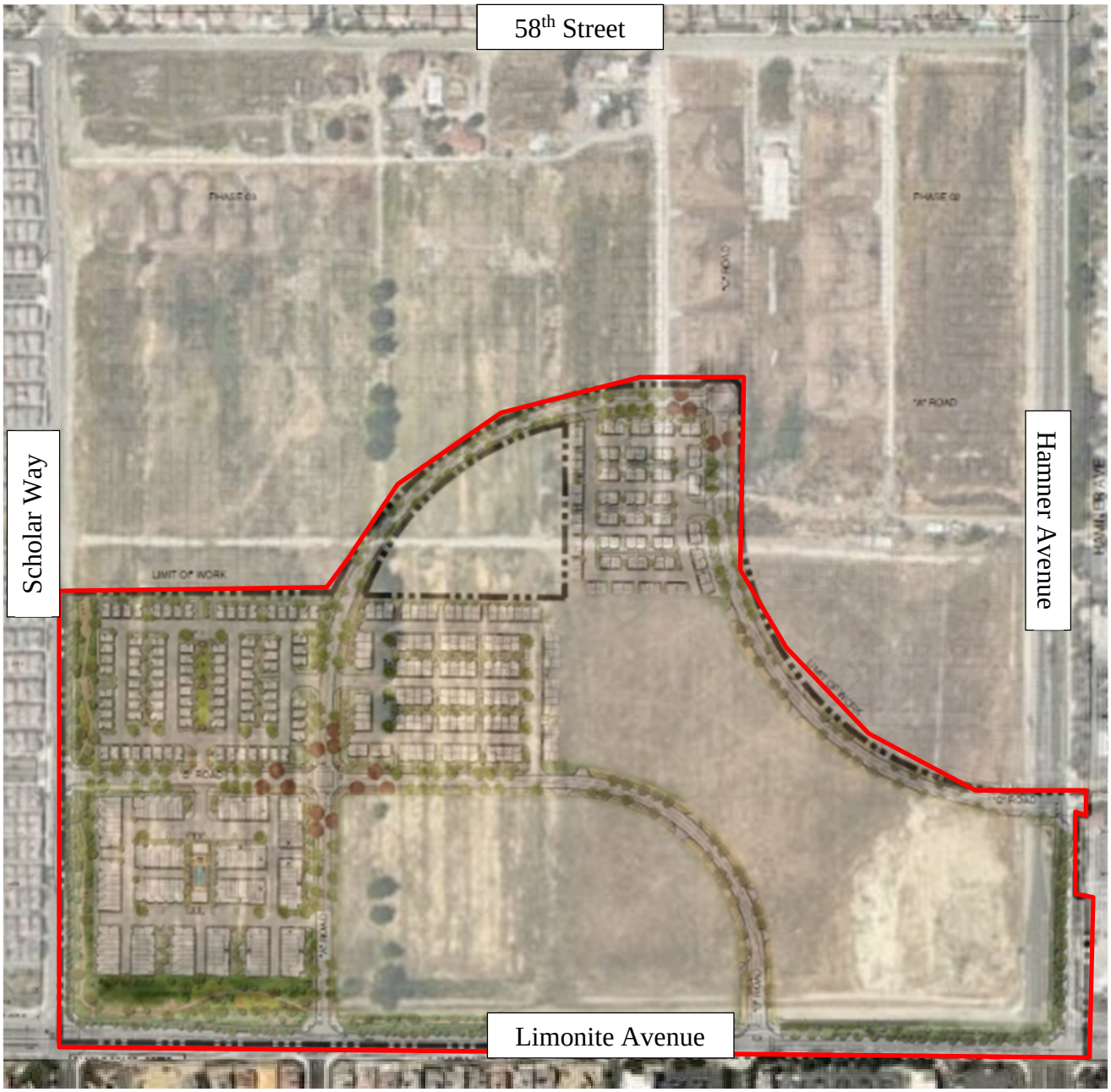
north of Limonite Avenue, south of 58th Street, west of Hamner Avenue, and east of Scholar Avenue. The project site is not located on a hazardous materials site listed under Government Code Section 65962.5.

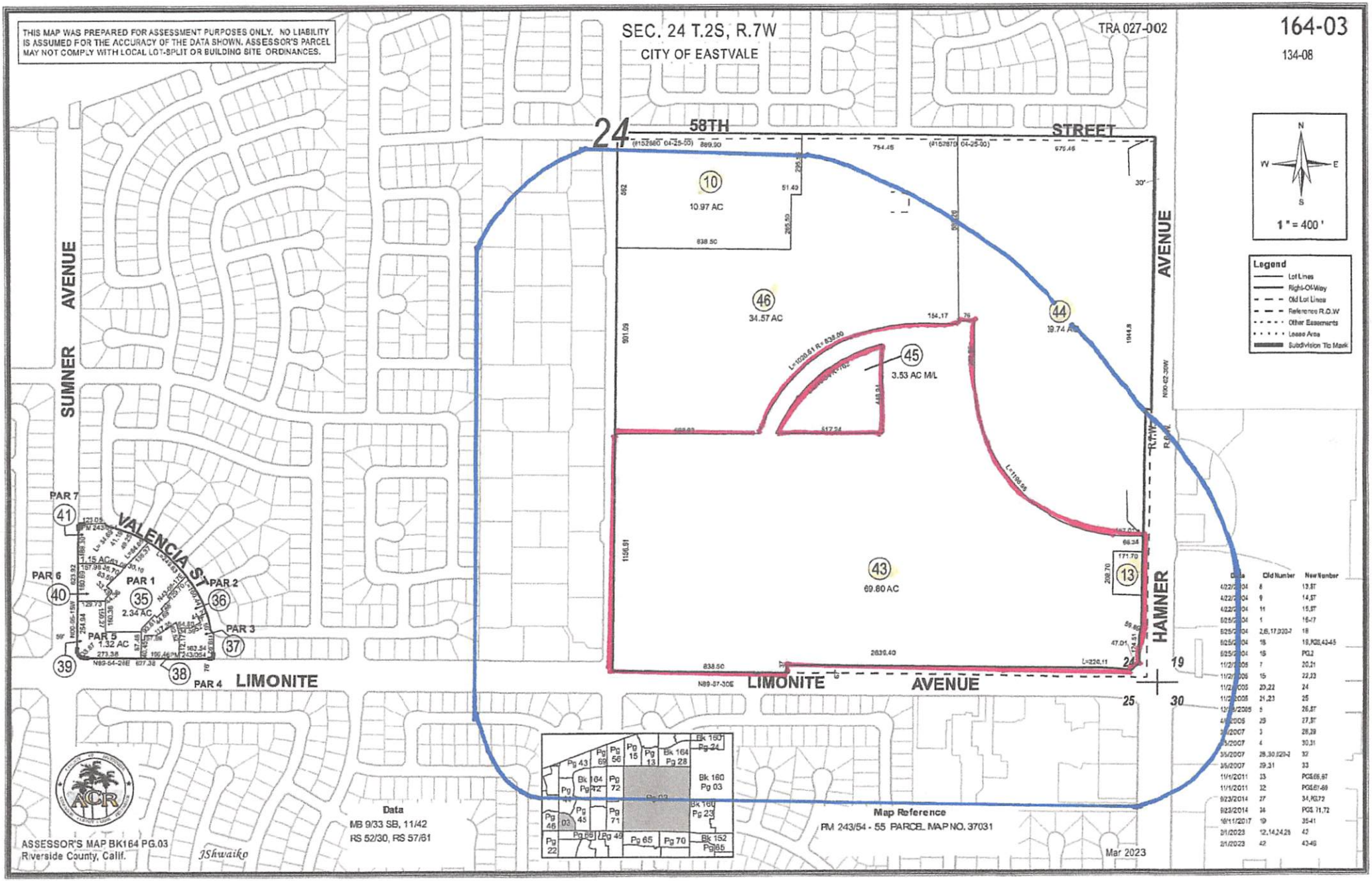
ENVIRONMENTAL: Up to 2,500 residential units and 595,000 square feet of commercial space including a hotel, a civic center (i.e., City Hall, Library, Police Station) and Fire Station were contemplated in the Leal Master Plan Amendment and fully evaluated in the Addendum to the Leal Master Plan PEIR (SCH# 2015031028) certified by the City Council via Resolution No-22-25 on May 11, 2022. Staff has reviewed the environmental analysis in the Addendum to the Leal Master Plan PEIR and believes that it remains valid for the proposed project. The proposed project would not exceed the previously analyzed development in terms of size or intensity of use. Development of the proposed project would remain consistent with the analysis of the Addendum to the Leal Master Plan PEIR and would not require a change to the site's land use designation or zoning. Therefore, staff has determined the project is within the scope of the Leal Master Plan PEIR and Addendum pursuant to CEQA Guidelines Section 15168 and no additional environmental analysis is necessary. Applicable mitigation measures included in the Addendum to the Leal Master Plan PEIR would be required for the development of the proposed project, however a Notice of Determination shall be filed following any action taken on the project.

Any person may submit written comments prior to the public hearing or may appear in person before the Planning Commission to be heard. Written comments may be mailed to the City of Eastvale Planning Division located at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752 or via email to Jamie K. Cerda, at jcerda@eastvaleca.gov. **For the comments to be presented to the Planning Commission at the meeting, all comments made in writing or via e-mail prior to the public hearing must be received by the City of Eastvale Planning Division no later than Wednesday, September 20, 2023, at 5:00 p.m.** Oral and written comments may be submitted directly to the Planning Commission at the public hearing. If you challenge the project in court, you may be limited to raising only those issues you raised at the public hearing as described in this notice or in written correspondence delivered to the Eastvale Planning Commission prior to or at the public hearing.

If you have any questions on the project, contact Jamie K. Cerda at (951) 703-4432 or jcerda@eastvaleca.gov.

Project Vicinity Map





Date	Old Number	New Number
4/22/2004	8	13,ST
4/22/2004	9	14,ST
4/22/2004	11	15,ST
5/25/2004	1	16-17
5/25/2004	2,6,17,20-7	18
5/25/2004	18	18,PGS,42-45
5/25/2004	19	PG2
11/2/2005	7	20,21
11/2/2005	15	22,23
11/2/2005	20,22	24
11/2/2005	21,23	25
12/[illegible]/2005	5	26,ST
4/[illegible]/2006	25	27,ST
3/[illegible]/2007	3	28,29
3/[illegible]/2007	4	30,31
3/5/2007	28,30,32-J	32
3/5/2007	29,31	33
11/1/2011	13	PGS,66,67
11/1/2011	32	PGS,67-69
9/23/2014	27	34,HG72
9/23/2014	34	PGS 71,72
10/11/2017	19	35-41
2/1/2023	12,14,24,26	42
2/1/2023	42	43-46

From: Atul Singh Deora
To: Jamie Cerda
Subject: Planning commission meeting
Date: Sunday, September 17, 2023 11:57:58 AM

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Hello Jamie,
I am a resident of Eastvale with a request for you to answer the query most of the Eastvale residents have in their mind and also raised in the past with no action being taken.

The question being, how the current limited number of schools going to accommodate additional 2500 families going to start living in the new proposed construction?

Specially the Roosevelt high school which is already over populated.
I hope City doesn't just divert this question over to CNUSD because it is at first the city staff who needs to understand the problem rather than blaming CNUSD for not taking decision.

I hope you will address this concern of ours during the September 20th meeting.

Thanks,
Atul Deora.

CITY OF EASTVALE

AGENDA STAFF REPORT

Planning Commission Meeting
PUBLIC HEARINGS
Agenda Item No. 8.2
October 18, 2023

PLN23-20018, PLN23-20019, PLN23-20020, and PLN23-20021 – Tentative Parcel Map 37653, Major Development Reviews and Conditional Use Permits for the proposed Chandler and Archibald Commercial Retail Center

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Prepared By:
Allen Lim

Recommended Action(s)

Staff recommends that the Planning Commission take the following actions:

1. Adopt an Addendum to a previously approved 2021 Mitigated Negative Declaration (2021 MND), and find that all impacts were adequately analyzed pursuant to applicable legal standards in the previously approved Mitigated Negative Declaration, consistent with CEQA Guidelines Section 15162 through 15164;
2. Approve Tentative Parcel Map (TPM) No. 37653, PLN23-20018, to subdivide a 2.70-acre site into three (3) parcels, with one (1) parcel for each proposed land use: drive-through coffee shop, drive-through carwash, and sit-down restaurant, subject to conditions of approval;
3. Approve a Major Development Review (DR) and Conditional Use Permit (CUP), PLN23-20019, for the development and operation of a 950 square-foot drive-through coffee shop (dba Dutch Bros), subject to conditions of approval;
4. Approve a Major Development Review (DR) and Conditional Use Permit (CUP), PLN23-20020, for the development and operation of a 3,598 square-foot drive-through carwash (dba Quick Quack), subject to conditions of approval; and
5. Approve a Major Development Review (DR), PLN23-20021, for the development of a 3,450 square-foot sit down restaurant, subject to conditions of approval.

Summary

The applicant (Schneider REA) is requesting that the Planning Commission approve a Tentative Parcel Map (TPM), two (2) Conditional Use Permits (CUP)s, and three (3) Major Development Reviews (DR) to allow the development of a new commercial retail center with a 950 square-foot drive-through coffee shop (dba Dutch Bros), a 3,598 square-foot drive-through car wash (dba Quick Quack), and a 3,500 square-footage sit-down restaurant (dba Zendejas) on a 2.70 acres site at the northwest corner of Chandler Street and Archibald Avenue. As detailed in the draft Addendum to the 2021 Initial Study/Mitigated Negative Declaration (2021 IS/MND), and as detailed in the staff report below, with implementation of the conditions of approval and mitigation measures, the requested Major DRs and CUPs are consistent with the General Plan, applicable Zoning Code Regulations and compatible with the existing surrounding uses while bringing additional services in the southwest portion of the City.

Background

In May of 2015, the City Council adopted the Chandler Area Community Vision Plan, which envisioned the properties located on the north side of Chandler Street between Selby and Archibald Avenues to have the most change from its existing land uses. The plan supports retail uses at the proposed project location.

On April 21, 2021, the Planning Commission voted to recommend that City Council, adopt a Mitigated Negative Declaration (MND), approve a General Plan Amendment (GPA) to change the land use designation from Low Density Residential to Commercial Retail, approve a Change of Zone (COZ) from Light Agriculture (A-1) to General Commercial (C-1/C-P), approve a drive-through restaurant, approve a sit-down restaurant (with on-sale alcohol – ABC Type 47), and deny the proposed gas station with off-sale beer and wine.

On August 25, 2021, the City Council upheld the Planning Commission's recommendation adopting the MND (via Resolution 21-35), approving the GPA, COZ, TPM, drive-through restaurant (dba McDonalds), sit-down restaurant (dba Zendejas with on-sale alcohol), and denied the gas station (dba Circle K) with off-sale beer and wine.

Location

The project site is located at the northwest corner of Archibald Avenue and Chandler Street within the City of Eastvale and consists of four parcels (APNs: 144-130-004, -011, -012, -013, and -004) on 2.70 acres. The project site is bounded by the Riverside County Flood Control District Flood Channel to the north, Chandler Street to the south, Archibald Avenue to the east, and a single-family residence to the west.

Project Description

As shown in the proposed site plan (**Attachment 2 – Development Plan**), the applicant is proposing to develop a new commercial retail center consisting of a 950 square-foot drive-through coffee shop, a 3,598 square-foot drive-through car wash, and a 3,450 square-foot sit-down restaurant on a 2.70-acre site at the northwest corner of Chandler Street and Archibald Avenue. Below indicates the hours of operation and number of employees for each of the proposed uses.

Business	Hours of Operation	# of Employees per Shift	Max # of Employees per Use
Dutch Bros	5:00 a.m. to 11:00 p.m., seven days a week	7-10	40
Quick Quack	7:00 a.m. to 9:00 p.m., seven days a week	2-4	18
Zendejas	11:00 a.m. to 10:00 p.m., seven days a week	12	21

Analysis

General Plan and Zoning Consistency

The General Plan land use designation for the subject site is Commercial Retail (CR) which allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office and visitor-oriented commercial uses (Figure 3 of Attachment 1). The zoning for the project site is General Commercial (C-1/C-P) which would allow a coffee shop, carwash, and sit-down restaurant, subject to the approval of a CUP for their drive-through operations (Figure 4 of Attachment 1). The applicant has filed CUP applications for the proposed coffee shop and car wash uses to establish the operation of a drive-through for each use and ensure the project is evaluated at a public hearing for potential environmental impacts, and that conditions of approval and mitigation measures may be imposed to ensure the project does not impact the health, safety, and well-being of the residents of the City. As such the proposed project is consistent with the General Plan and Zoning, subject to the recommended conditions of approval.

Compliance with the General Plan and development standards of the Zoning Code are described below.

	Existing General Plan Land Use Designation	Existing Zoning	Existing Land Use
Project Site	Commercial Retail	General Commercial (C-1/C-P)	Vacant
North (across water channel)	Medium Density Residential	One-Family Dwellings (R-1)	Single-Family Residential
South	Medium Density Residential	Planned Residential Developments (PRD)	Single-Family Residential
East	Medium-High Density Residential	Specific Plan (SP Zone)	Single-Family Residential

West	Low Density Residential	Light Agricultural (A-1)	Single-Family Residential

Major Development Review

The proposed project has been reviewed for compliance with the applicable development standards and required findings for a Major Development Review as set forth in Section 120.02.010 (C)(5) of the Zoning Code. The required findings are detailed in **Attachment 4 through 9 – Draft Resolutions.**

Compliance with Development Standards			
Standard	**Required**	**Proposed**	**Meets Standard**
Lot Size	None	2.70 acres	Yes
Lot Width	75 ft. minimum	112 ft.	Yes
Street Frontage **Building Setback**	None	Chandler: 59 ft. Archibald: 35 ft.	Yes
Building Height	50 ft. maximum	29 ft.	Yes
Off-Street Parking	Coffee (Drive-Through) Restaurant: 1 space/45 sf of serving area = 0 sf/45 sf = 0 spaces Employee: 1 space per: 2 employees = 10 employees/2 = 5 spaces Total Spaces Req. = 5 spaces	Total Provided: **13 spaces**	Yes
	Carwash (Drive-Through) Employee: 1 space: 3 employees = 4 employee/3 = 2 spaces Total Spaces Req. = 2 spaces	Total Provided: **4 spaces**	Yes
	Restaurant (Sit-Down) General: 1 space: 45 sf = 1,485 sf /45 sf = 33 spaces Employee: 1 space :2 employees = 12 employees/2 = 6 spaces Total Spaces Req. = 39 spaces	Total Provided: **38 spaces**	Yes, as conditioned for shared parking

Drive-Through Coffee Shop (Dutch Bros): Design and Architecture

The proposed building (i.e., approximately 24.5’ wide and 49.5’ long) is situated towards the corner of Chandler and Archibald with the double lane drive-through wrapping the building along the southern elevation (fronting Chandler Avenue). The site also includes a striped area along the

eastern property line (Archibald Avenue) in which patrons would be directed to pull into to wait for their order or use the area to bypass other patrons once drink orders have been dropped off to the customers vehicle.

The proposed elevations of the drive-through coffee shop (Dutch Bros) show architectural details with stone veneer along the wainscoting and columns, vertical and horizontal metal ribbed siding, and contrasting colors of blue and varying grays. In addition, the proposed project includes features such as metal awnings throughout the perimeter of the building, a covered outdoor patio for in-person orders, and outdoor seating with umbrellas for shade. In general, staff is supportive of the proposed elevations and believes the proposed building is consistent with the City's adopted Design Guidelines; however, the project has been conditioned to require the applicant to work with the staff prior to submittal of building plan check to ensure that the elevations are enhanced where possible to maintain a high level of architectural quality.

Drive-Through Carwash (Quick Quack): Design and Architecture

The proposed building (i.e. approximately 34' wide and 114' long) is situated towards the center of the retail center with its main frontage and drive-through oriented towards Archibald Avenue. The triple drive-through stacking lanes flank the building's eastern elevation allowing vehicles to queue prior to merging into the building's single wide drive-through where vehicles are washed. Vehicles enter the carwash from the building's north elevation in a singular lane being washed as they progress in a southerly direction through the building, with the option for patrons to exit toward Chandler Avenue or U-turn back northerly to access the 20 available vacuum bays.

The proposed elevations of the drive-through carwash (Quick Quack) show architectural details with stone veneer along the wainscoting and prominent edges and columns, horizontal fiberboard cladding, varying colored stucco, anodize glass windows, varying rooflines, and contrasting earth tone colors. In addition, the proposed project includes features such as metal awnings throughout the perimeter of the building and metal shade canopies for the 20 vacuum bays. Staff is supportive of the proposed elevations and believes the proposed building is consistent with the City's adopted Design Guidelines.

Sit-Down Restaurant (Zendejas): Design and Architecture

The sit-down restaurant (Zendejas) design was previously approved by City Council on August 25, 2021. Included as part of the updated proposal, Zendejas has adjusted the elevations to accommodate additional decorative elements on the structure. The proposed elevations show architectural details with stone veneer along the wainscoting, horizontal fiberwood cladding, score lined stucco, varying rooflines, contrasting earth tone colors, and decorative breaks with use of steel framed panels. While the design of the massing and footprint of this building provide good articulation, staff recommends that the applicant work with staff to enhance the building's outdoor dining area with additional shading and a larger patio cover to compliment the proposed retail center and provide a more elevated dining experience for patrons. Given these reasons, staff is generally supportive of the proposed elevations and believes the proposed building is consistent with City's adopted Design Guidelines with the changes made as mentioned above. The project has been conditioned to require the applicant to work with staff prior to submittal for building plan check to ensure that the recommended changes above are incorporated into the proposed project.

Circulation and Drive-Through

As shown in **Figure 2 of Attachment 1**, the proposed project would provide three restricted access driveways: two right-turn in/out only driveways at Archibald Avenue and one right-turn in/out only driveway at Chandler Street. All internal drive aisles within the commercial development meet the minimum 25-foot drive aisle requirement and provide access to a total of 55 parking spaces across the three parcels (which excludes vacuum stall parking).

In addition, the project has been designed to consider a future expansion of the commercial retail center to include the properties to the west. Access to a future development would be provided at the westerly terminus of the drive aisle along the northerly property line behind Zendejas and at a future access point adjacent to the entrance of the Dutch Bros drive-through along the westerly property line. This design would improve overall circulation between the two areas and reduce traffic impacts to the surrounding circulation system.

Further, the Addendum to the 2021 MND, analyzed and compared the on and off-site traffic impacts to the previously approved project (PLN19-20000). As described above, the proposed project would provide three (3) restricted access driveways, and with proposed site access improvements, the project would ensure that access is maintained for fire trucks, police units, and ambulance/paramedic vehicles. In addition, the Addendum to the 2021 MND, evaluated the anticipated trips generated in which the proposed project is forecasted to generate an estimated 3,185 fewer daily vehicle trips compared to the previous approved project. As such, the current proposed project would not exceed the trip generation assumption and would not represent an increased development intensity in this regard.

The Eastvale Zoning Code requires that all drive-through operations provide a minimum stacking of six (6) vehicles prior to the menu board, in conjunction with approval of a CUP. The proposed Dutch Bros has been designed with a double drive through (two lanes) to accommodate an 18-car stack to the order menu board (without encumbering traffic on adjacent access drive aisles or public streets) and an additional eight (8) vehicles to the pick-up window, for an overall capacity of 27 vehicles. A queuing analysis performed for the project, conducted surveys at the existing Dutch Bros location in Eastvale (13322 Limonite Ave.) on Thursday, September 22, 2022, and Saturday, September 24, 2022, where longer queues were observed on the weekend survey. The survey had reported an average queue of 24 vehicles, a 95th percentile of 27 vehicles, and a maximum of 28 vehicles. In addition, the queuing data provided information which surveyed a total of six (6) Dutch Bros coffee shops in Apple Valley, La Quinta, and Indio, illustrating that longer drive-through queues were associated with having a Dutch Bros coffee shop further from the next nearest location. As such, Dutch Bros anticipates constructing four (4) new stores (i.e., Norco, Ontario, Corona, and Rancho Cucamonga) within a 10-mile radius of the project site which has been identified in the report as a means of alleviating the maximum queues observed at the existing (13322 Limonite Avenue) and proposed Dutch Bros location in Eastvale. Based on the information provided in the prepared queuing analysis, the proposed Dutch Bros site, with staff recommended conditions of approval would provide adequate accommodation of queuing.

The same requirement would apply to the proposed drive-through carwash, where a minimum stacking of six (6) vehicles prior to the menu board, in conjunction with approval of a CUP would be required. The proposed Quick Quack will be implementing a membership program that utilizes license plate readers and an automated gate system which allows the carwash to run more efficiently as carwash members are able to pull through with a pre-selected carwash option that has already been paid through their subscription. Also, the carwash has been designed with three (3)

queue lanes which narrows to one (1) to accommodate a 23-car stack to the ordering kiosk and an additional six (6) vehicles before entering the car washing structure, for an overall capacity of 29 vehicles. As part of the queuing analysis report, surveys were conducted at the existing Quick Quack location (5116 Hamner Ave.) on Thursday, September 22, 2022, and Saturday, September 24, 2022, where longer queues were observed on the weekend survey. The results of the survey had reported an average queue of 17 vehicles, a 95th-percentile of 29 vehicles, and a maximum queue of 31 vehicles (which briefly occurred during one 5-minute interval). In summary, the queuing analysis performed for the Quick Quack project determined that the site as designed could accommodate adequate queuing for the 95th percentile; however, with the recommended conditions of approval, staff believes the proposed project would provide adequate queuing capacity. Similar to the Dutch Bros, the Queuing Analysis notes that queues are expected to result in lower than the maximum observed at the existing Eastvale Quick Quack facility.

To ensure the proposed drive-throughs will not result in the stacking of vehicles that would obstruct site drive aisles and public right-of-ways, as seen at the existing Eastvale locations, staff recommends adding additional conditions of approval. Staff recommends that should either Dutch Bros or Quick Quack drive-through queuing exceed the maximum onsite queue length on their respective sites, the drive-through operator (i.e., Dutch Bros and Quick Quack) would be required to temporarily close their drive-through lane until queuing subsides. This condition would require continual monitoring of the drive-through queue and staff resources to direct vehicles away from the drive-through should the queue exceed the maximum on-site queue length. Additionally, mitigation measure TRA-1 has been recommended as part of the conditions of approval which would require the project applicant and/or the drive-through operators to prepare a Final Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer (prior to the initiation of construction) to ensure that drive-throughs will not result in stacking of vehicles that would obstruct site drive-aisles and public rights-of-way (streets, drives, walks, etc.). Also, as is common in commercial retail centers, staff recommends a shared parking and reciprocal access agreement between all parcels to ensure adequate circulation and parking is maintained for the entire center. Finally, staff recommends a six (6) month and one (1) year review from the start of operations to ensure the Planning Commission is made aware of any complaints, code enforcement cases, compliance with the conditions of approval, and whether revisions to the drive-through operation are needed.

With the recommended conditions of approval, staff believes the proposed drive-through facilities meet the requirements of the Eastvale Zoning Code and required CUP findings.

Landscaping and Screening

The conceptual landscape plan (**Figure 8 of Attachment 1**) is consistent with the design and landscape standards as referenced to Municipal Code. The proposed landscaping provides sufficient coverage while exceeding the minimum 10% landscape requirement. A variety of plant materials, such as Crape Myrtle and Arbutus trees and Texas Ranger, Mexican Sage, and Fortnight Lilies are proposed to further enhance the aesthetics of the project site and surrounding area. In lieu of a standard six foot tall block wall to minimize the visual impacts of the proposed retail center onto the adjacent residential property to the west, staff recommends that a dense evergreen screen hedge be provided along the entire westerly property line, a condition of approval has been included to reflect this in **Attachment 11, 13, 15**. A final landscape plan will be reviewed during the building permit process to ensure that the details of the proposed landscape plan comply with the City landscape regulations.

Noise

On December 16, 2022, the Archibald and Chandler Noise Impact Analysis was prepared and incorporated in the Addendum to the 2021 MND. As part of the analysis, noise level information was gathered with consideration to the Municipal Code, General Plan, and state noise requirements. Survey data captured project-related operational noise sources (drive-through queues, carwash turbine/drying system, vacuums, outdoor dining area, vehicle movements, etc. to range from 46 to 54 decibels and is not expected to exceed the General Plan noise level standard of 60 decibels or exceed the Municipal Code standard of 55 decibels. Further, project operations would be subject to the standards identified in City Municipal Code Section 8.52.040 (General Sound Level Standards) to regulate potential exterior daytime and nighttime noise levels that may result in disturbance to off-site sensitive uses and ensure that noise levels do not exceed established noise level thresholds at the property line. Mitigation measures have been included as part of the conditions of approval to ensure noise impacts as a result of construction are reduced to less than significant. Additionally, conditions have been included to ensure compliance with the City Municipal Code Noise Ordinance and for the developer to provide dense landscape screening along the western property line to ensure added visual and auditory screening. With the following data collected, mitigation measures, and conditions of approval, noise impacts are anticipated to remain less than significant and would not exceed established noise level thresholds at the property line.

Tentative Parcel Map

The applicant has filed Tentative Parcel Map (TPM) No. 37653 to consolidate four parcels totaling 3.02 acres (gross) into three parcels totaling 2.70 acres (net). The sizes of the proposed parcels are shown in the table below.

Parcel	Area	Acreage	Lot Width
1	32,592 sq. ft.	0.75	112.60 ft.
2	52,315 sq. ft.	1.20	206.51 ft.
3	32,425 sq. ft.	0.74	197.00 ft.

The C-1/C-P Zone requires a minimum lot with of 75 feet but does not require a minimum parcel size for commercial uses in this zone. As such, the proposed TPM is consistent with the C-1/C-P Zone.

ALUC – Airport Influence Area

The project site is located within the Chino Airport influence area and is subject to consistency with the Airport Land Use Compatibility Plan (ALUCP). Riverside ALUCP ("RALUCP") Policy 3.1.4(b) states that "[n]o single acre of a project site shall exceed the number of people per acre indicated in Policy 4.2.5(b) which is "intended to limit the number of people at risk in a concentrated area." The purpose of calculating usage intensity is not to establish an occupancy level but to merely estimate the expected number of persons anticipated to be in a given acre. This estimate is arrived at by using differing methodologies and assumptions, all specifically allowed for under the RALUCP (and other ALUCPs). Staff has included a table below which calculates the intensity requirements pursuant to ALUCP Policy CH 2.6.1. with consideration that the proposed project is located within Zone D of the compatibility plan.

ALUC Consistency Calculation

Business	Required	Site Calculations	Meets Standard
Dutch Bros Coffee	Coffee (Drive-Through) Zone D = Max 300 per single acre	**Coffee (Drive-Through)** 0 sf serving area/ 15 sf per occupant = 0 people (serving area) + 27 people in drive-thru area + 10 employees = 37 people max/ 0.75 acres = **49 people max per single acre**	Yes
Quick Quak Carwash Zendeja's Restaurant	Carwash (Drive-Through) Zone D = Max 300 per single acre	**Carwash (Drive-Through)** 4 employees + 20 people at vacuum stalls + 29 in queuing lane = 53 people max = 53 max / 1.2 acres = **44 people max per single acre**	Yes
	Restaurant (Sit-Down) Zone D = Max 300 per single acre	**Restaurant (Sit-Down)** 1,485 sf serving area / 15 sf per occupant = 99 people max = 99 max/ 0.75 acres = **132 people max per single acre**	Yes

Based on the information calculated in the table above, it has been determined that the entire 2.70-acre project site would accommodate 189 persons or an average of 70 people per acre. These numbers are less than the average of 100 people per acre allowed on a site and 300 people allowed to occupy any single acre of the site, pursuant to ALUCP Policy CH 2.6.1. As such, the project meets the ALUCP single and average acre intensity requirements.

The Riverside County Airport Land Use Commission (ALUC) acts in an advisory capacity when reviewing development projects for compatibility with the ALUCP and local jurisdictions are not required to adhere to the overruling process if they elect to approve a project without incorporating design changes or conditions suggested by the ALUC. Nonetheless, a condition of approval is included as part of the project's approval requiring the applicant to submit an application to ALUC and obtain an official consistency determination on the project prior to building permit issuance.

Public Hearing Notification and Comment

The project requires a minimum 10-day public hearing notification period for property owners and tenants within a 600-foot radius of the project site. The public hearing notice was published in the Press Enterprise newspaper on October 8, 2023, for the Planning Commission meeting on October 18, 2023, and mailing notices were mailed on October 6, 2023. The Notice of Public Hearing and a map showing the properties that received notification are included as **Attachment 17 and 18**. At the time of staff report preparation, one comment (**Attachment 19**) was received citing concerns regarding traffic and public safety.

Environmental

Pursuant to the provisions of the California Environmental Quality Act (CEQA California Public Resources Code, Sections 21000, et seq.) and CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000, et seq.), an Addendum to the to the previously approved 2021 Initial Study/Mitigated Negative Declaration ("2021 IS/MND") has been prepared for the proposed project. The Addendum reevaluates the revised project's environmental impacts due to changes in the approved project's (PLN19-20000) tenant makeup and layout. The addendum does not set forth policy for the City of Eastvale about the proposed Project's desirability. Rather, it is an information document to be used by the decision-makers, public agencies, and the public, in accordance with CEQA. As documented herein as**Attachment 16 (Draft Addendum and Technical Appendices**) of this report, the revised project would not cause new significant environmental effects or substantially increase the severity of previously identified effects disclosed in the 2021 IS/MND. Accordingly, the revised project would not trigger expanded environmental review, beyond this Addendum nor would require the preparation of subsequent IS/MND.

Strategic Plan Action - Priority Level: 1 | Target #: B | Goal #: B

Priority Level: 1 | Target #: B | Goal #: B Create "Destination Eastvale".

Fiscal Impact

There is no direct fiscal impact to the City for the processing of this project. The applicant is responsible for paying for staff time required to process the project and paying for all necessary modifications or improvements to the project site.

Prior City Council/Commission Action

In May of 2015, the City Council adopted the Chandler Area Community Vision Plan, which envisioned the properties located on the north side of Chandler Street between Selby and Archibald Avenues to have the most change from its existing land uses. The plan supports retail uses at the proposed project location.

On April 21, 2021, the Planning Commission voted to recommend that City Council, adopt a Mitigated Negative Declaration (MND), approve a General Plan Amendment (GPA) to change the land use designation from Low Density Residential to Commercial Retail, approve a Change of Zone (COZ) from Light Agriculture (A-1) to General Commercial (C-1/C-P), approve a drive-through restaurant, approve a sit-down restaurant (with on-sale alcohol – ABC Type 47), and deny the proposed gas station with off-sale beer and wine.

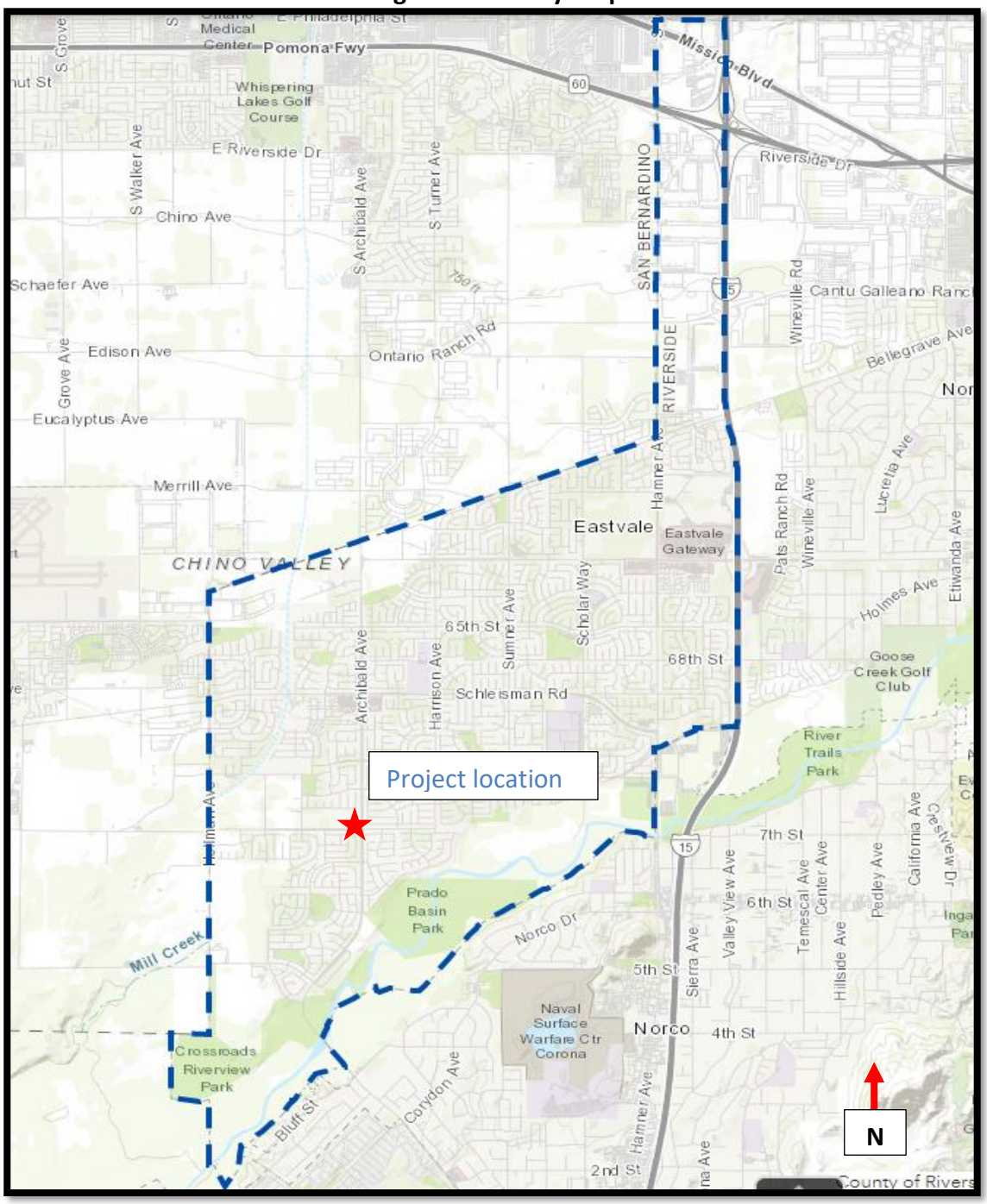
On August 25, 2021, the City Council upheld the Planning Commission's recommendation adopting the MND (via Resolution 21-35), approving the GPA, COZ, TPM, drive-through restaurant (dba McDonalds), sit-down restaurant (dba Zendejas with on-sale alcohol), and denied the gas station (dba Circle K) with off-sale beer and wine.

Attachment(s)

Attachment 1 - Exhibits
Attachment 2 - Development Plans
Attachment 3 - Tentative Parcel Map 37653

Attachment 4 - Resolution TPM 37653
Attachment 5 - Draft Resolution - DR (Dutch) - PLN23-20019
Attachment 6 - Draft Resolution - CUP (Dutch) PLN23-20019
Attachment 7 - Draft Resolution - DR (Quick Quack) - PLN23-20020
Attachment 8 - Draft Resolution - CUP (Quick Quack) PLN23-20020
Attachment 9 - Draft Resolution - DR (Zendejas) - PLN23-20021
Attachment 10 - Draft COA TPM No. 37653 - PLN23-20018.pdf
Attachment 11 - Draft COA DR - Dutch Bros - PLN23-20019
Attachment 12 - Draft COA CUP - Dutch Bros - PLN23-20019
Attachment 13 - Draft COA DR - Quick Quack - PLN23-20020
Attachment 14 - Draft COA - CUP Quick Quack - PLN23-20020
Attachment 15 - Draft COA DR - Zendejas - PLN23-20021
Attachment 16 - Draft Addendum and Technical Apendices
Attachment 17 - Notice of Public Hearing (Mailing)
Attachment 18 - Radius Map 600'
Attachment 19 - Public Comment

Figure 1: Vicinity Map



Return to Agenda

Figure 2: Center Location



Figure 2: Site Plan

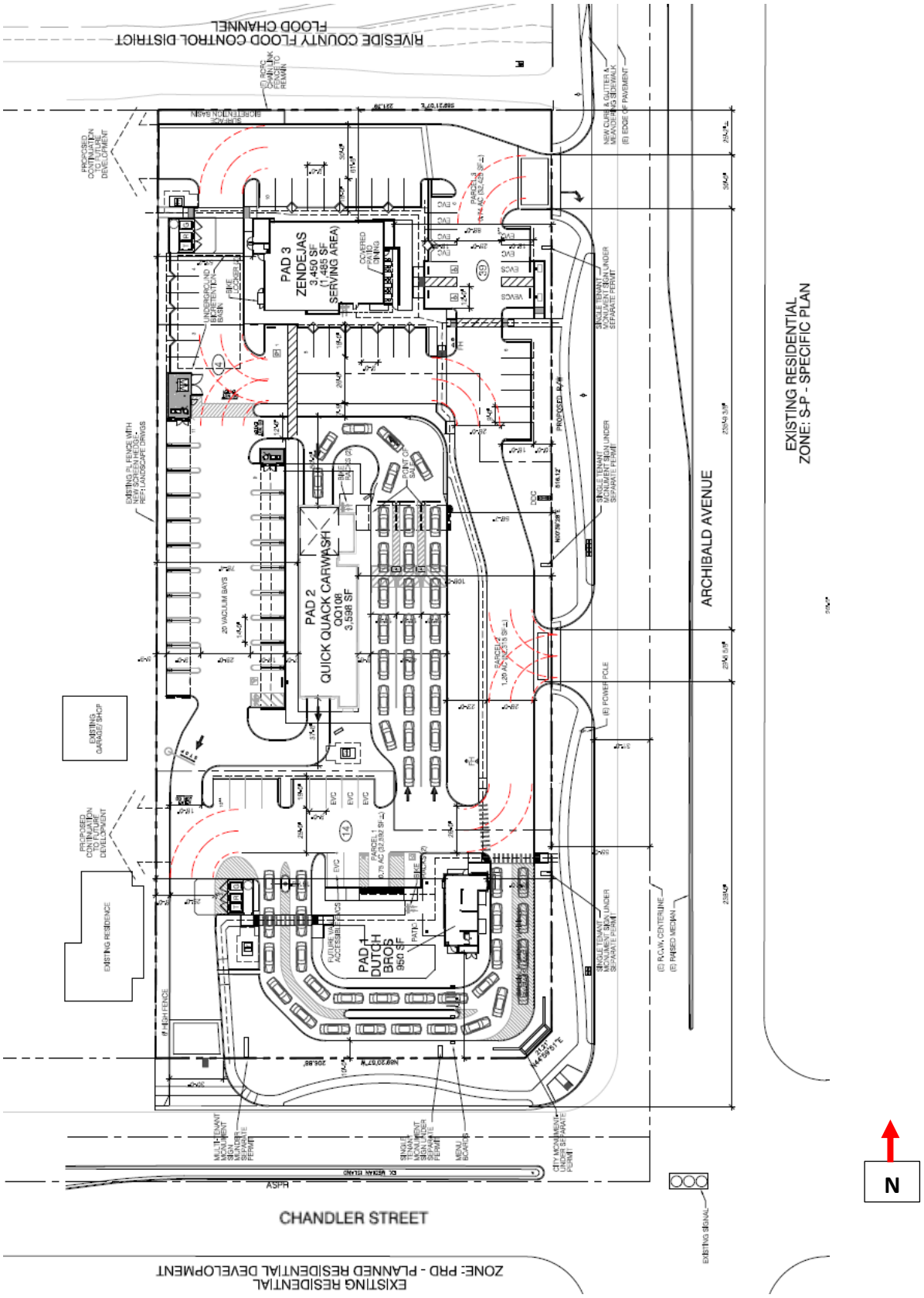


Figure 3: General Plan – Land Use Map

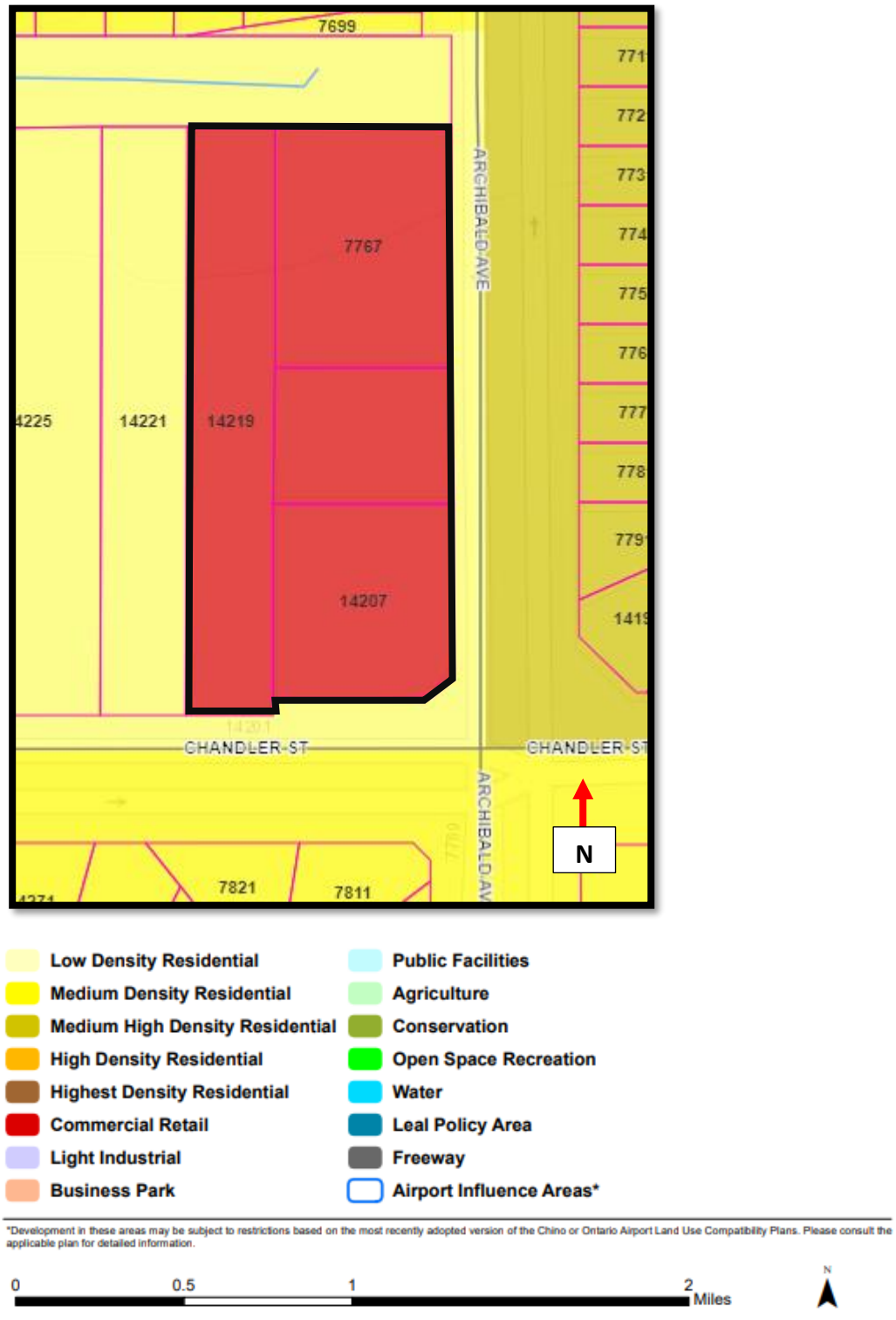


Figure 4: Zoning Map

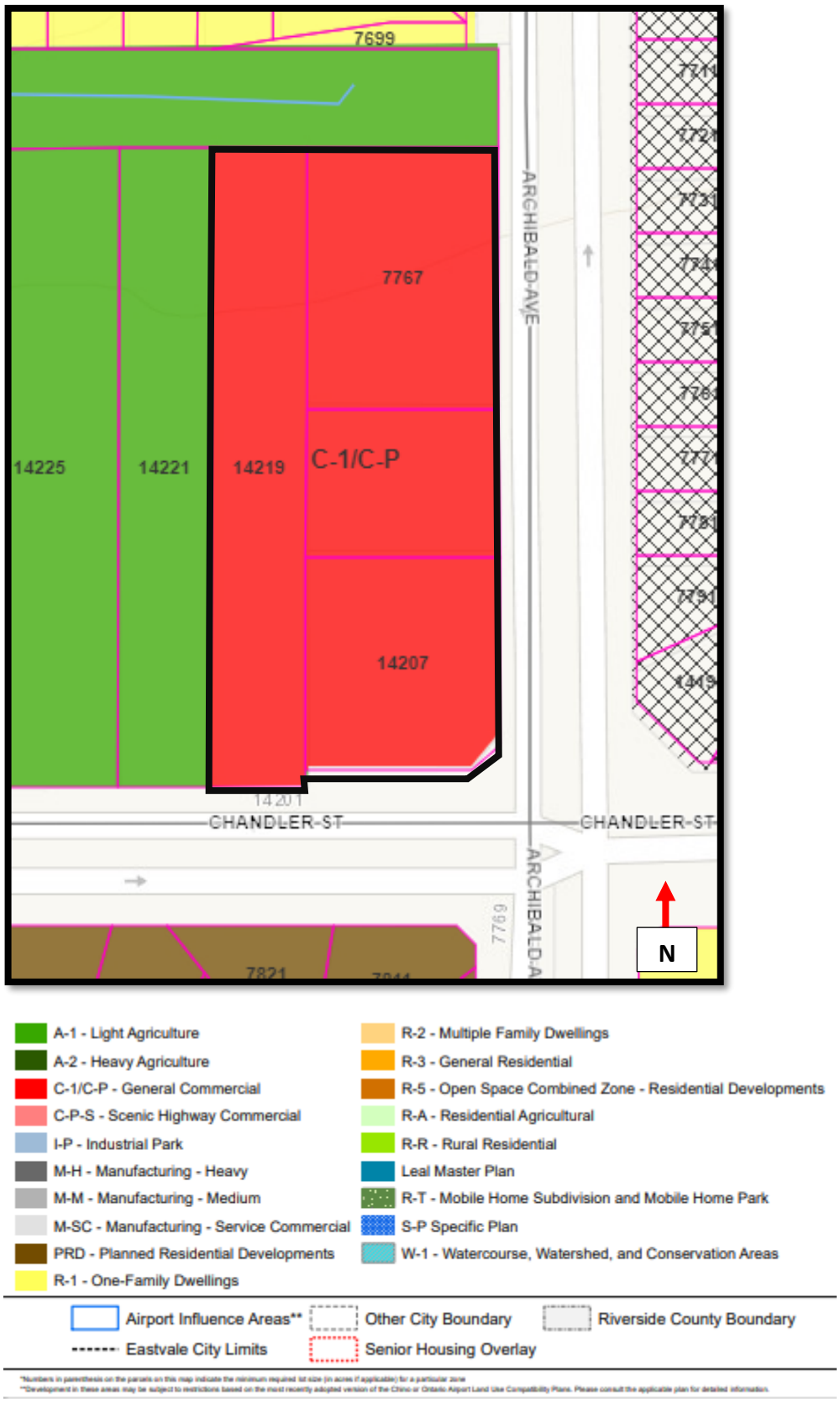


Figure 5: Elevations/Renderings – Dutch Bros (Drive-Through Coffee)

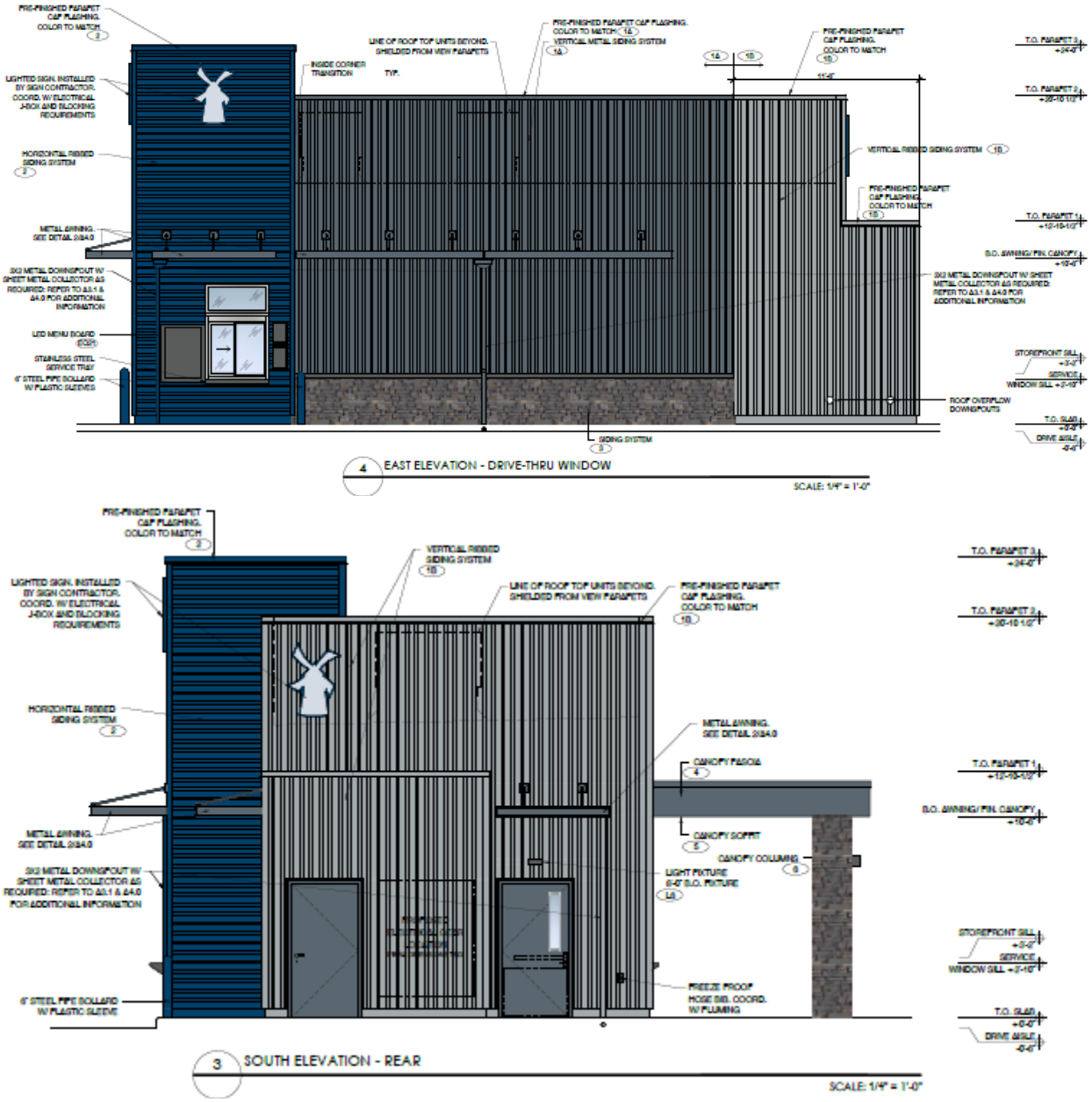


Figure 5: Dutch Bros - Continued



Figure 5: Dutch Bros - Continued

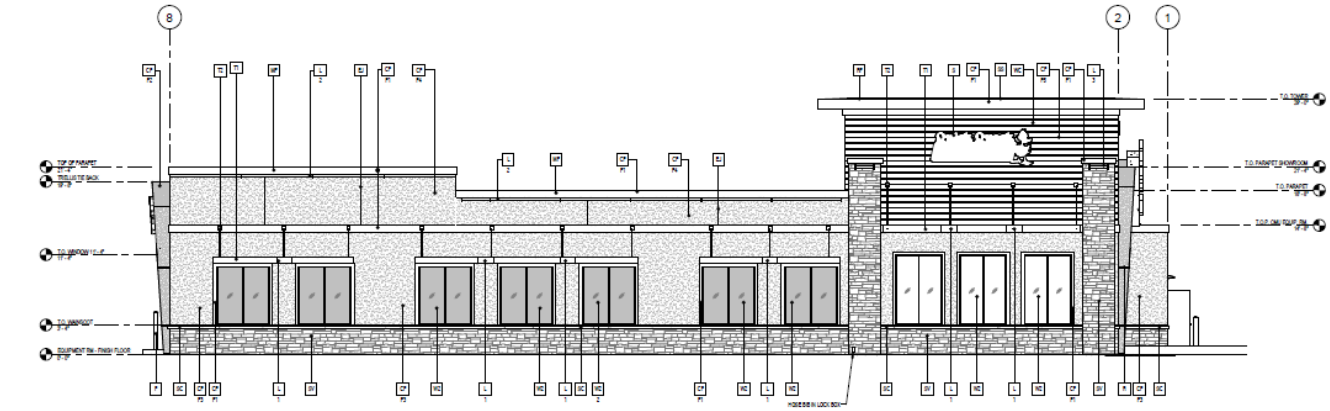
View: Parking Area



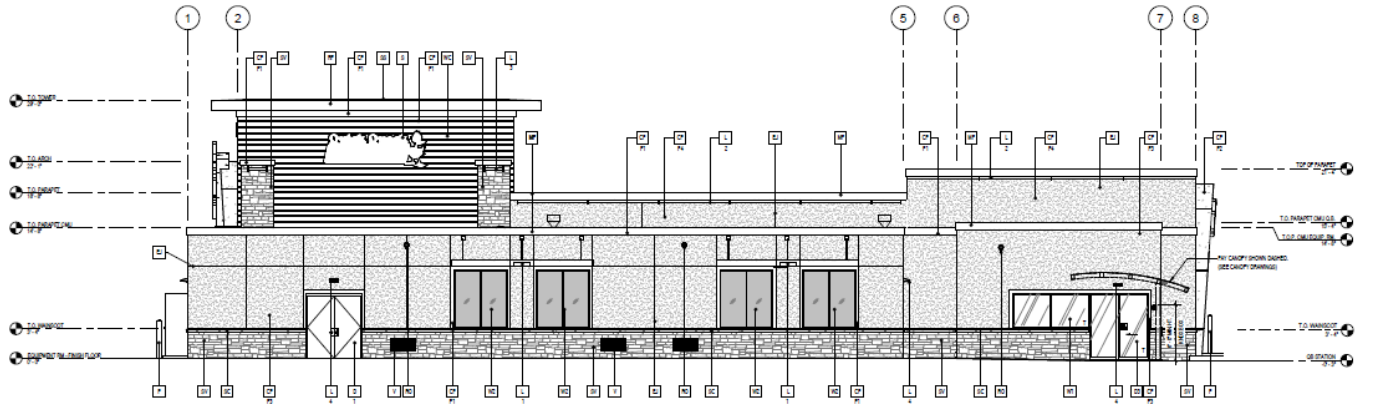
View: Chandler and Archibald



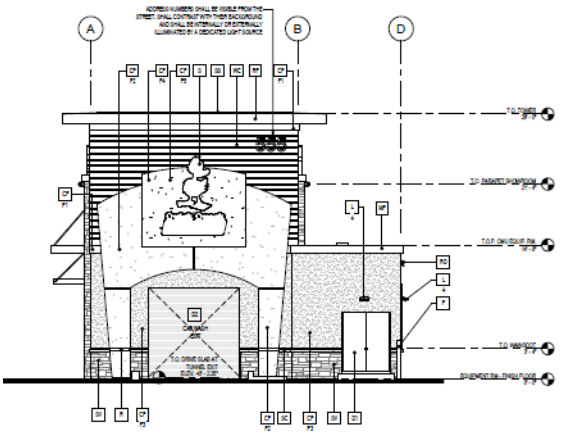
Figure 6: Elevations/Renderings – Quick Quack (Drive-Through Carwash)



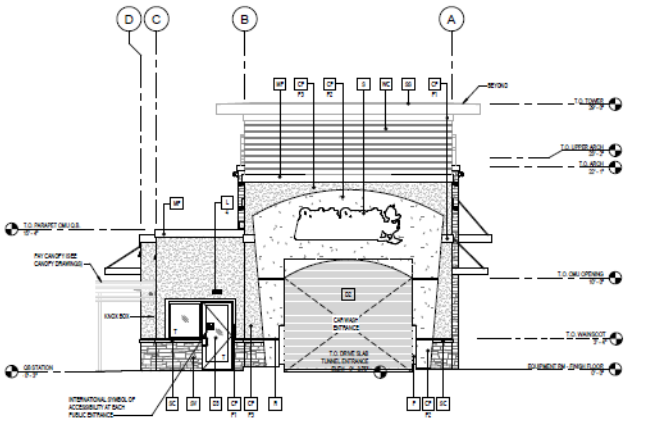
WEST ELEVATION



EAST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION

Figure 6: Quick Quack - Continued

View: East Property Line

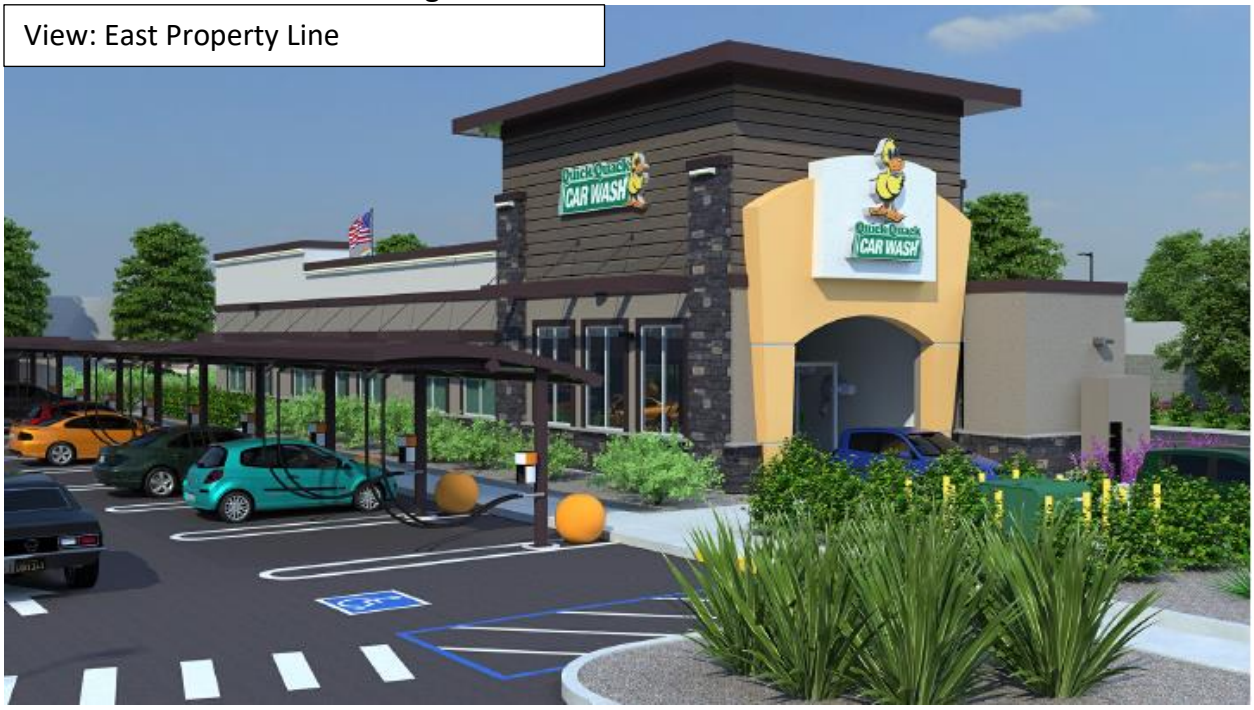


Figure 7: Elevations/Renderings – Zendejas (Sit-Down Restaurant)

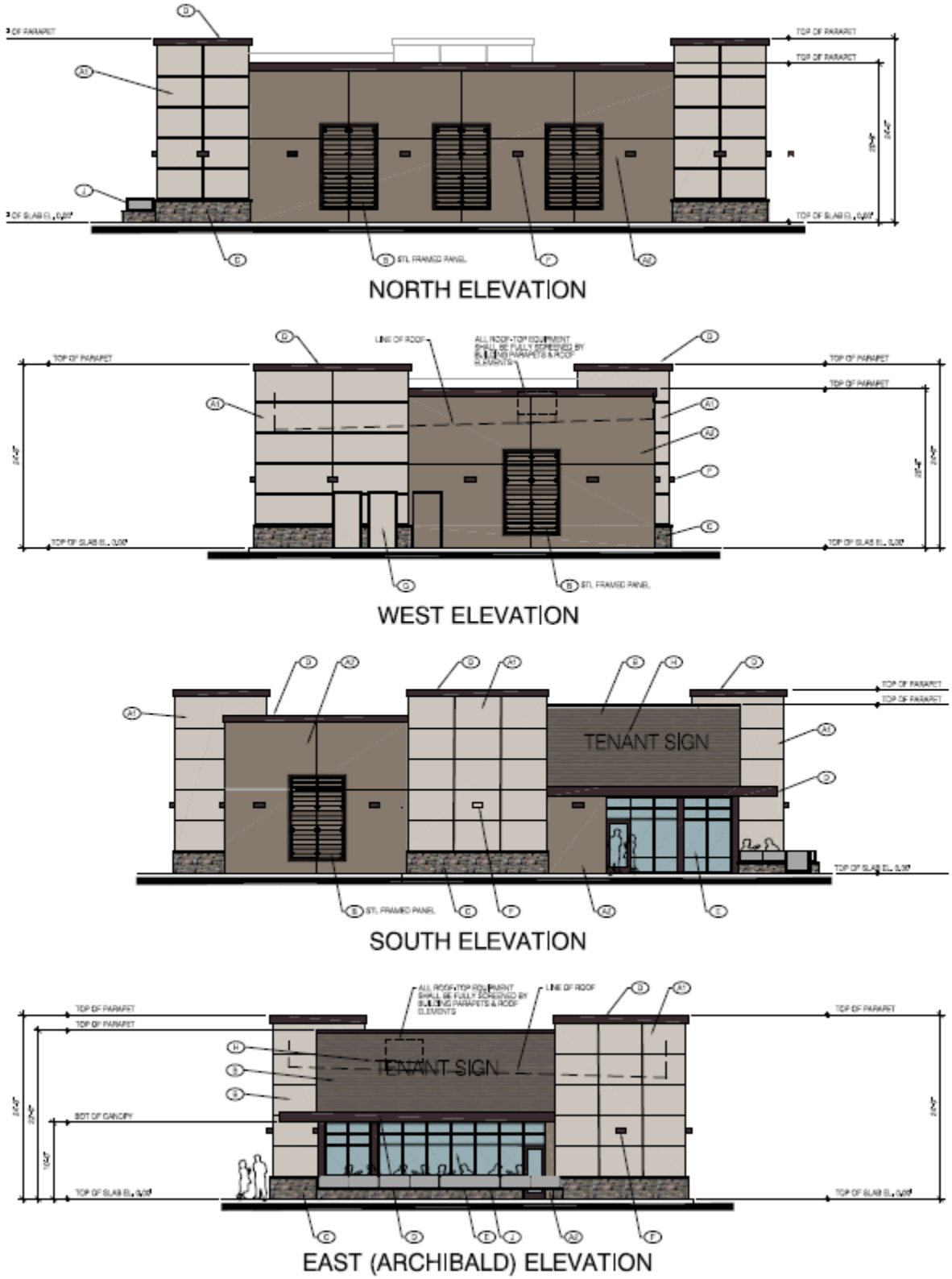
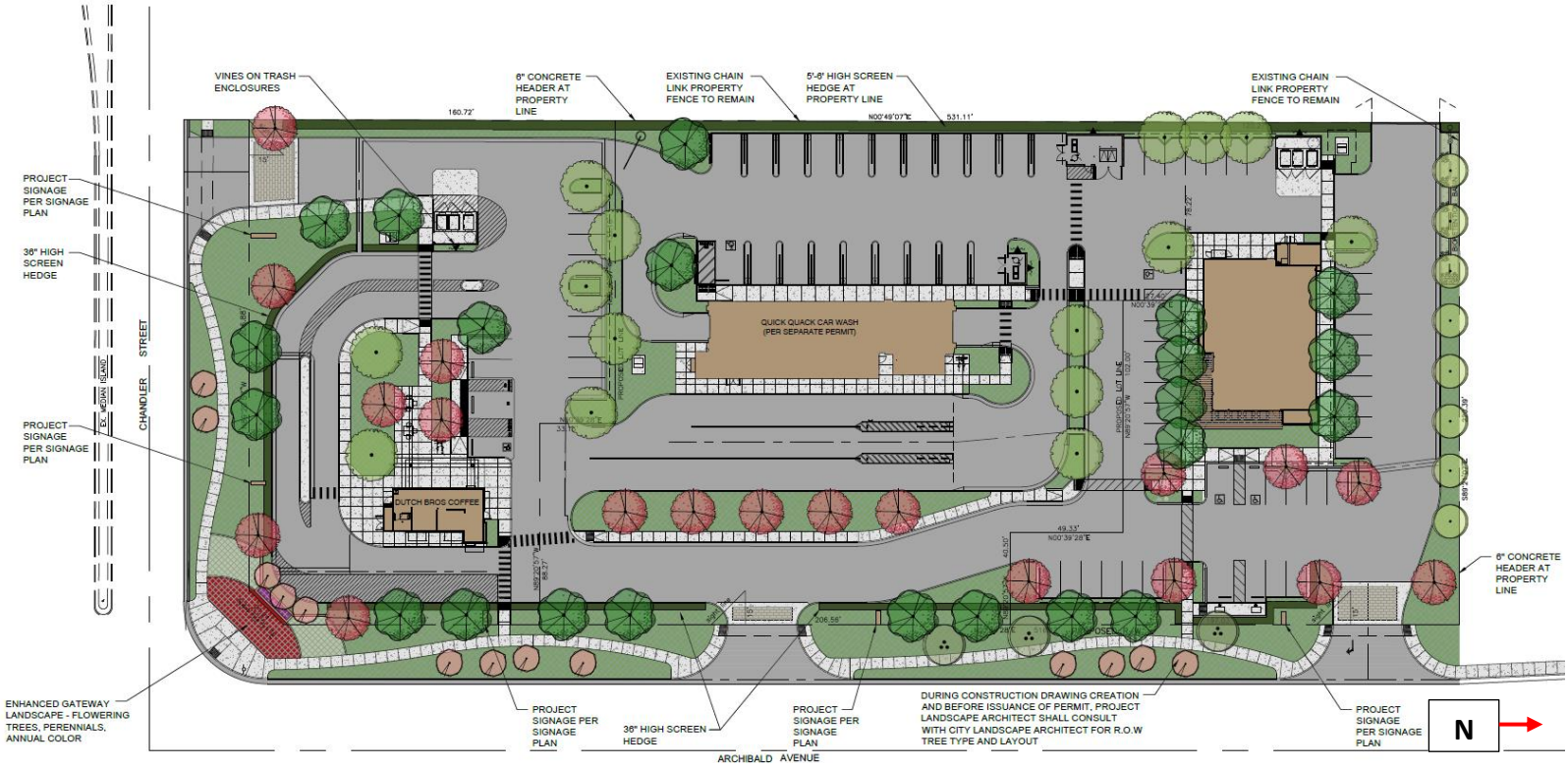


Figure 7: Zendejas Continued

View: West Property Line (Parking)



Figure 8: Conceptual Landscape Plan (Overall)



EXISTING RESIDENTIAL
ZONE: PRD - PLANNED RESIDENTIAL DEVELOPMENT

CHANDLER STREET

ASPH

EX. MEDIAN ISLAND

EXISTING RESIDENCE

PROPOSED CONTINUATION TO FUTURE DEVELOPMENT

EXISTING GARAGE/ SHOP

EXISTING PL FENCE WITH NEW SCREEN HEDGE- REF: LANDSCAPE DRWGS

6' HIGH FENCE

MULTI-TENANT MONUMENT SIGN MUNDER SEPARATE PERMIT

SINGLE TENANT MONUMENT SIGN UNDER SEPARATE PERMIT

MENU BOARDS

CITY MONUMENT- UNDER SEPARATE PERMIT

PAD 1
DUTCH BROS
950 SF

PATIO

BIKE RACKS (2)

FUTURE VAN ACCESSIBLE EVCS

EVC

PARCEL 1
0.75 AC (32,592 SF±)

SPECIALTY ORDER WAITING/ BYPASS LANE

PAD 2
QUICK QUACK CARWASH
QQ108
3,598 SF

20 VACUUM BAYS

BIKE RACKS (2)

POINT OF SALE

PARCEL 2
1.20 AC (52,315 SF±)

PAD 3
ZENDEJAS
3,450 SF
(1,485 SF SERVING AREA)

COVERED PATIO DINING

PARCEL 3
0.74 AC (32,425 SF±)

UNDERGROUND BIORETENTION BASIN

BIKE LOCKER (2)

SURFACE BIORETENTION BASIN

PROPOSED CONTINUATION TO FUTURE DEVELOPMENT

(E) RCFC CHAIN LINK FENCE TO REMAIN

RIVERSIDE COUNTY FLOOD CONTROL DISTRICT
FLOOD CHANNEL

DDC

FDC

FH

VEVCS

EVCS

PROPOSED R/W

(E) DRIVEWAY

SL

NEW CURB & GUTTER & MEANDERING SIDEWALK

(E) EDGE OF PAVEMENT

SOUTHERN LIMIT OF EXISTING STREET IMPROVEMENTS

(E) POWER POLE

(E) R.O.W. CENTERLINE

(E) RAISED MEDIAN

EXISTING SIGNAL

ARCHIBALD AVENUE

238'-0" | 29'-5 5/8" | 235'-9 3/8" | 30'-0" | 25'-2"±

PARKING EMC SEC. 120.05.060

REQUIRED PARKING:

PAD 1 COFFEE DRIVE-THRU:	
(1: 2 EMPLOYEES):	5 STALLS
PATIO (1:100):	5 STALLS
EXPRESS CARWASH:	
(1: EMPLOYEE):	4 STALLS
RESTAURANT:	
(1:45 SERVING AREA- 1,485 SF):	33 STALLS
(1 SPACE/ 2 EMPLOYEES):	6 STALLS
TOTAL PARKING REQUIRED:	55 STALLS
TOTAL PARKING PROVIDED:	57 STALLS**

ELECTRICAL VEHICLE CAPABLE SPACES & EVSE SPACES

2022 CAL GREEN
TABLE 5.106.5.2

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV CAPABLE SPACES	NUMBER OF EVCS (EV CAPABLE SPACES PROVIDED WITH EVSE)
0- 9	0	0
10- 25	4	0
26- 50	8	2

PAD 1 TOTAL PARKING PROVIDED:	14 STALLS
TOTAL EV CAPABLE PARKING SPACES REQUIRED:	4
TOTAL EVSE PARKING SPACES REQUIRED (OF TOTAL):	0
TOTAL EV CAPABLE PARKING SPACES PROVIDED:	4
TOTAL EVSE PARKING SPACES PROVIDED:	0
PAD 2 TOTAL PARKING PROVIDED:	4 STALLS
TOTAL EV CAPABLE PARKING SPACES REQUIRED:	0
TOTAL EVSE PARKING SPACES REQUIRED (OF TOTAL):	0
TOTAL EV CAPABLE PARKING SPACES PROVIDED:	0
TOTAL EVSE PARKING SPACES PROVIDED:	0
PAD 3 TOTAL PARKING PROVIDED:	39 STALLS
TOTAL EV CAPABLE PARKING SPACES REQUIRED:	8
TOTAL EVSE PARKING SPACES REQUIRED (OF TOTAL):	2
TOTAL EV CAPABLE PARKING SPACES PROVIDED:	6
TOTAL EVSE PARKING SPACES PROVIDED:	2

ELECTRICAL VEHICLE CHARGING STATIONS FOR PUBLIC USE & COMMON USE

2022 CBC
TABLE 11B-228.3.2.1

TOTAL NUMBER OF EVCS AT A FACILITY	VAN ACCESSIBLE	STANDARD ACCESSIBLE	AMBULATORY
1- 4	1	0	0
5-25	1	1	0

PAD 1 EVC SPACES REQUIRED:	4 STALLS
FUTURE ACCESSIBLE SPACES REQD (OF TOTAL):	
VAN ACCESSIBLE:	1 STALL
STANDARD ACCESSIBLE:	0 STALLS
AMBULATORY:	0 STALLS
PAD 3 EVC SPACES REQUIRED:	8 STALLS
ACCESSIBLE SPACES REQD (OF TOTAL):	
VAN ACCESSIBLE:	1 STALL
STANDARD ACCESSIBLE:	1 STALLS
AMBULATORY:	0 STALLS

EVSE NOTES:

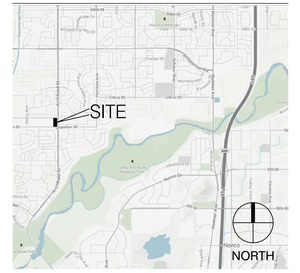
1. ALL EV CAPABLE PARKING SPACES SHALL BE PROVIDED WITH INFRASTRUCTURE FOR THE ADDITION OF FUTURE ELECTRIC VEHICLE CHARGING STATIONS AS REQUIRED BY CALGREEN SECTION 5.106.5.3.
2. **AB1100 CHAPTER 819, SECTION 22511.12 (b) AN ACCESSIBLE PARKING SPACE SERVED BY AN ACCESS AISLE SERVED BY ELECTRIC VEHICLE SUPPLY EQUIPMENT OR AN ACCESSIBLE PARKING SPACE WITH AN AISLE DESIGNATED AS A FUTURE ELECTRIC VEHICLE PARKING SPACE SHALL COUNT AS AT LEAST TWO STANDARD AUTOMOBILE PARKING SPACES FOR THE PURPOSE OF COMPLYING WITH ANY MINIMUM PARKING SPACE REQUIREMENTS ESTABLISHED BY A LOCAL JURISDICTION.

BICYCLE PARKING

BICYCLE PARKING SHALL BE IN COMPLIANCE WITH CAL GREEN SECTION 5.106.4.1

PAD A (DUTCH BROS)	
VISITOR PARKING:	5 STALLS
TENANT PARKING:	5 STALLS
SHORT TERM BICYCLE PARKING REQUIRED (5% VISITOR PARKING- (2 MIN)):	2 BICYCLES
LONG TERM BICYCLE PARKING NOT REQUIRED FOR LESS THAN 10 TENANT OCCUPANTS	0 BICYCLES
SHORT TERM BICYCLE PARKING PROVIDED:	2 RACKS
LONG TERM BICYCLE PARKING PROVIDED:	0 LOCKERS
PAD B (QUICK QUACK)	
VISITOR PARKING:	0 STALLS
TENANT PARKING:	4 STALLS
SHORT TERM BICYCLE PARKING REQUIRED (5% VISITOR PARKING- (2 MIN)):	0 BICYCLES
LONG TERM BICYCLE PARKING NOT REQUIRED FOR LESS THAN 10 TENANT OCCUPANTS	0 BICYCLES
SHORT TERM BICYCLE PARKING PROVIDED:	2 RACKS
LONG TERM BICYCLE PARKING PROVIDED:	0 LOCKERS
PAD C (ZENDEJAS)	
VISITOR PARKING:	33 STALLS
TENANT PARKING:	6 STALLS
SHORT TERM BICYCLE PARKING REQUIRED (5% VISITOR PARKING):	2 BICYCLES
LONG TERM BICYCLE PARKING REQUIRED (5% TENANT PARKING):	1 BICYCLE
SHORT TERM BICYCLE PARKING PROVIDED:	2 RACKS
LONG TERM BICYCLE PARKING PROVIDED:	2 LOCKERS

VICINITY



ZONING

GENERAL PLAN:	LOW DENSITY RESIDENTIAL PROPOSED: COMMERCIAL RETAIL
ZONING:	A-1 LIGHT AGRICULTURE PROPOSED: C-1/ C-P GENERAL COMMERCIAL
SETBACKS:	
FRONT:	10'
SIDE:	0'
SIDE (ADJ. TO STREET):	10'
REAR (ADJ. TO RESIDENTIAL ZONE):	0'
MAXIMUM BUILDING HEIGHT:	50'
MAXIMUM BUILDING COVERAGE:	%

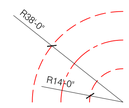
PROJECT SUMMARY

LAND AREA:	2.69 AC (117,332 SF±)
PAD 1 COFFEE DRIVE-THRU:	950 SF
PAD 2 EXPRESS CARWASH:	3,598 SF
PAD 3 RESTAURANT:	3,450 SF
TOTAL BUILDING AREA:	7,998 SF
BUILDING COVERAGE:	6.8%

LEGEND & SYMBOLS

VAN	VAN ACCESSIBLE PARKING SPACE
CAV	CLEAN AIR VEHICLE PARKING SPACE- SPACES SHALL BE IDENTIFIED IN 12" LETTERING, "CLEAN AIR/ VAN POOL/ EV" PER 2019 CAL GREEN 5.106.5.2.1 SUCH THAT THE LOWER EDGE OF THE LAST WORD ALIGNS WITH THE END OF THE STALL STRIPING.
EVCS	FUTURE ELECTRICAL VEHICLE CHARGING PARKING SPACE
DDC	DOUBLE DETECTOR CHECK VALVE- REF: CIVIL DRAWINGS
FDC	FIRE DEPARTMENT CONNECTION- REF: CIVIL DRAWINGS
FH	FIRE HYDRANT- REF: CIVIL DRAWINGS PROVIDE BLUE REFLECTOR @ CL DRIVEWAY PER FIRE DEPT REQUIREMENTS
G	GREEN WASTE DUMPSTER
GM	GAS METER LOCATION- REF: PLUMBING & GAS UTILITY DRAWINGS
PIV	POST INDICATOR VALVE- REF: CIVIL DRAWINGS
R	RECYCLE DUMPSTER
T	TRASH DUMPSTER
TR	TRANSFORMER- REF ELECTRICAL UTILITY DRAWINGS
WM	WATER METER- REF: CIVIL DRAWINGS
SS	STOP SIGN
AP	ACCESSIBLE PATH SIGN
SE	SITE ENTRANCE SIGN

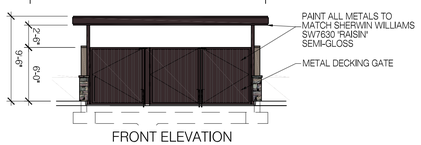
ACCESSIBLE PEDESTRIAN PATHWAY



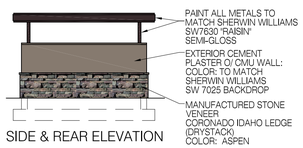
FIRE TRUCK TURNING RADIUS

NOTE:
BUILDING AREAS AND LAND COVERAGE ARE PRELIMINARY AND SUBJECT TO ADJUSTMENT. ANY PROPOSED DEVELOPMENT IS SUBJECT TO APPROVAL OF GOVERNMENT OR OTHER AGENCIES HAVING JURISDICTION. ALL DIMENSIONS AND SITE CONDITIONS ARE SUBJECT TO VERIFICATION.

EXISTING RESIDENTIAL
ZONE: S-P - SPECIFIC PLAN



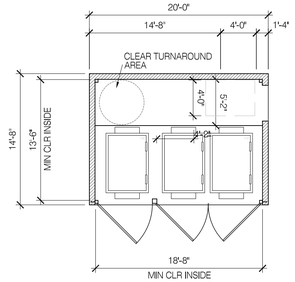
FRONT ELEVATION



SIDE & REAR ELEVATION



ACCESSIBLE SIDE ELEVATION



FLOOR PLAN

TRASH ENCLOSURE NOTES:

1. TRASH ENCLOSURES MAY VARY IN CONFIGURATION TO MEET THE REQUIREMENTS OF THE TENANT THEY SERVE. REFER TO SITE PLAN.
2. ALL TRASH ENCLOSURES SHALL HAVE METAL DECKING ROOFS.
3. ALL TRASH ENCLOSURES SHALL BE UNIFIED IN MATERIALS & FINISHES.

TYPICAL TRASH/ EQUIPMENT ENCLOSURE

0 15' 30' 60'

SCALE: 1" = 30.00'

NORTH

NWC ARCHIBALD & CHANDLER

EASTVALE, CALIFORNIA

CONCEPTUAL SITE PLAN
SCHEME Nv9

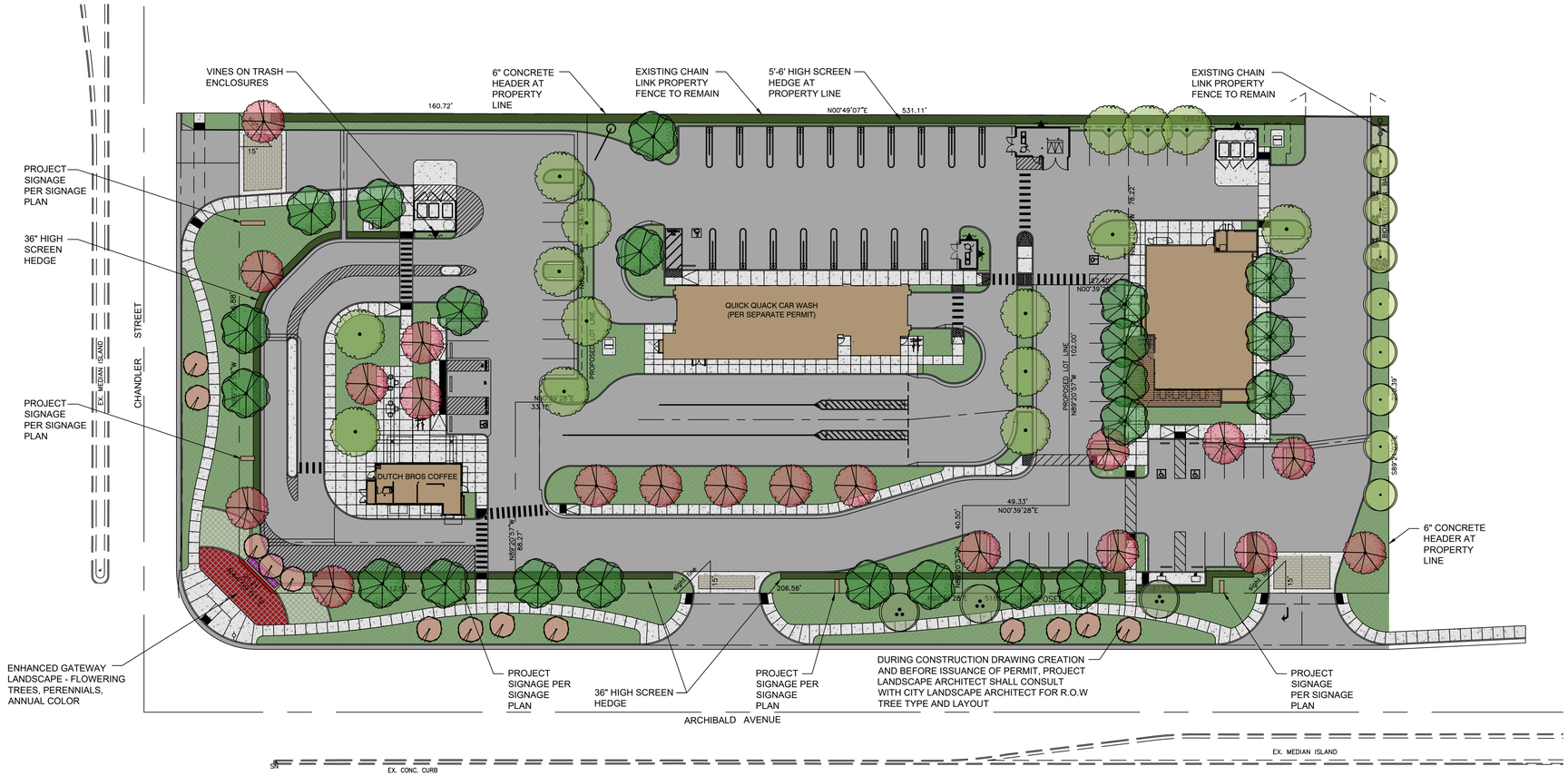
NWC ARCHIBALD & CHANDLER
EASTVALE, CA

GKPA PROJECT #18114.01
2 OCTOBER 2023

EASTVALE LP
c/o SCHNEIDER REA
1257 W. COLTON
REDLANDS, CA 92374
909.363.4698

GK PIERCE ARCHITECTS
3 OVERTURE
ALISO VIEJO, CA 92656
T 949.344.2710
F 949.344.2720

©GK PIERCE ARCHITECTS, INC. 2023



PLANT PALETTE

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	WUCOLS
TREES					
	TREES SHALL INCLUDE A MIX OF SIZES WITH MINIMUM SIZE BEING 24" BOX-50% OF TOTAL, 36" BOX-30% OF TOTAL, AND 48" BOX-20% OF TOTAL				
	Lophostemon confertus	Brisbane Box	24" Box	45'	M
	Magnolia grandiflora 'DD Blanchard'	Magnolia Tree	24" Box 36" Box 48 Box	50'	M
	Ulmus parvifolia 'Drake'	Evergreen Elm	24" Box 36" Box	50'	M
	Lagerstroemia indica	Crape Myrtle	24" Box 36" Box	25'	M
	Arbutus x 'Marina'	Arbutus	24" Box 36" Box	30'	L
	Pyrus calleryana 'Autumn Blaze'	Callery Pear	24" Box 48" Box	30'	M
SHRUBS					
	100% OF SHRUBS SHALL BE INSTALLED AT 5 GALLON SIZE UNLESS THE SHRUB'S MATURE SIZE IS SUCH THAT NURSERIES DO NOT SELL STOCK LARGER THAN 1 GALLON SIZE. SHRUBS SHALL BE PLACED AT A MAXIMUM OF 36" APART ON AVERAGE				
	Baccharis pilularis 'Twin Peaks'	Coyote Brush	1 Gal	2'	L
	Bougainvillea 'Oo-La-La'	Groundcover Bougainvillea	5 Gal	2'	L
	Callistemon citrinus 'Little John'	Dwarf Bottlebrush	5 Gal	3'	L
	Carex pansa	California Meadow Sedge	1 Gal	1'	M
	Ceanothus spp	California Lilac	1 Gal	1'-3'	L
	Cistus x purpureus	Orchid Rockrose	5 Gal	4'	L
	Coprosma repens 'Marble Queen'	NCN	1 Gal	3'	M
	Dietes vegeta	Fortnight Lily	5 Gal	3'	M
	Lavandula spp	Lavender	1 Gal	3'	L
	Leucophyllum frutescens	Texas Ranger	5 Gal	4'	L
	Ligustrum japonicum 'Texanum'	Texas Privet	5 Gal	3'	M
	Myoporum parvifolium 'Pink'	Myoporum	1 Gal	18"	L
	Myrtus communis 'Compacta'	Dwarf Myrtle	5 Gal	3'	L
	Phormium tenax cvr	New Zealand Flax	5 Gal	3'	M
	Pittosporum tobira 'Creme de Mint'	Dwarf Variegated Mock Orange	5 Gal	2'	M
	Rhaphiolepis indica cvr.	Indian Hawthorne	5 Gal	4'	M
	Rosmarinus officinalis 'Tuscan Blue'	Tuscan Blue Rosemary	5 Gal	5'	L
	Rosa 'White Meidland'	Groundcover Rose	5 Gal	3'	M
	Salvia spp	Salvia	1 Gal	2'-4'	L
	Verbena lilacina	Lilac Verbena	1 Gal	18"	L
	Westringia fruticosa cvr	Coast Rosemary	5 Gal	4'	L
VINES					
	Parthenocissus tricuspidata	Boston Ivy	5 Gal	Vine	M
BIOFILTRATION BASINS					
	Carex pansa	California Meadow Sedge	1 Gal	1'	M
	Juncus effusus 'Quartz Creek'	Quartz Creek Soft Rush	1 Gal	3'	M
	Muhlenbergia rigens	Deer Grass	1 Gal	4'	M

HARDSCAPE LEGEND

SYMBOL	MATERIAL
	NATURAL GREY CONCRETE MEDIUM BROOM FINISH
	CONCRETE PAVERS 1
	CONCRETE PAVERS 2

LANDSCAPE NOTES

1. LANDSCAPE PLANS AND INSTALLATIONS SHALL COMPLY WITH CITY OF EASTVLE MUNICIPAL CODE, THE SPECIFIC PLAN, AND CITY OF EASTVALE LANDSCAPE DESIGN GUIDELINES.
2. VINES OR OTHER LANDSCAPE SCREENING SHALL BE PLANTED AROUND TRASH ENCLOSURES.
3. LANDSCAPE SCREENING SHALL BE PROVIDED FOR ABOVE GROUND UTILITY EQUIPMENT INCLUDING BACKFLOW PREVENTERS, DOUBLE CHECK DETECTOR ASSEMBLIES, AND OTHER UTILITY STRUCTURES.
4. PLANT MATERIAL MAY BE ADDED OR REMOVED DURING THE CONSTRUCTION DOCUMENT PHASE SUBJECT TO APPROVAL BY THE CITY OF EASTVALE.

LANDSCAPE CALCULATIONS:

PROJECT SITE AREA (GROSS): 117,986 SF
LANDSCAPE AREA: 23,463 SF
LANDSCAPE PERCENTAGE: 19.9%

PARKING LOT AREA: 41,873 SF
PARKING LOT LANDSCAPE AREA: 5,969 SF
PARKING LOT LANDSCAPE PERCENTAGE: 14.3% (10% REQUIRED)

PARKING LOT STALL AREA: 8,861 SF
PARKING LOT STALL SHADED AREA: 4,472 SF
PARKING LOT STALL SHADE PERCENTAGE: 50.5% (50% REQUIRED)

IRRIGATION SYSTEM DESIGN STATEMENT

A PERMANENT AUTOMATIC IRRIGATION SYSTEM SHALL BE DESIGNED AND INSTALLED TO IRRIGATE ALL PLANTING AREAS. THE IRRIGATION CONTROLLER(S) SHALL BE EQUIPPED FROM THE MANUFACTURER WITH WEATHER/EVAPOTRANSPIRATION (ET) SENSING CAPABILITIES TO AUTOMATICALLY ADJUST WATERING SCHEDULES AND AMOUNTS. THE DESIGN OF THE IRRIGATIONS SYSTEMS SHALL EMPHASIZE WATER CONSERVATION AND PROVIDE EFFICIENT AND UNIFORM DISTRIBUTIONS OF IRRIGATION WATER.

DRIP AND/OR BUBBLER IRRIGATION, OR OTHER LOW-VOLUME, LOW-PRESSURE, MICRO-IRRIGATION SYSTEM, AS APPROVED BY THE CITY OF EASTVALE, SHALL BE INSTALLED IN PLANTER AREAS TO PROVIDE WATER DIRECTLY TO THE ROOT ZONE OF PLANTS. THE IRRIGATION SYSTEM MAY UTILIZE EFFICIENT ROTATOR NOZZLES IN LARGE PLANTING AREAS,SUBJECT TO THE APPROVAL OF THE CITY. THE AUTOMATIC IRRIGATION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH THE CITY OF EASTVALE ORDINANCE AND LANDSCAPE STANDARDS.

FOR SITES UTILIZING POTABLE WATER FOR LANDSCAPE IRRIGATION, A REDUCED PRESSURE BACKFLOW PREVENTOR SHALL BE INSTALLED AFTER THE WATER METER TO PROTECT THE POTABLE WATER SUPPLY IN ACCORDANCE WITH STATE OF CALIFORNIA AND CITY OF EASTVALE STANDARDS AND REQUIREMENTS.

MAXIMUM ANNUAL WATER ALLOWANCE

MAWA = (Eto) (0.62) ((0.45) (LA) + (0.55) (SLA)) = GAL/YR

MAWA = (54.6) (0.62) ((0.45) (23,463 SF) + (0.55) (0)) = 357,421 GAL/YR

ESTIMATED ANNUAL WATER USE

EAWU = (Eto) (0.62) (PF) (LA) = GAL/YR

EAWU = (54.6) (0.62) (0.4) (23,463 SF) = 317,708 GAL/YR

Pacific Landscape Studio
LANDSCAPE ARCHITECTURE
SITE PLANNING
2523 ANTLERS WAY, SAN MARCOS, CA 92078
P: 760.330.7720
PLS PROJECT #18011.1

CONCEPTUAL LANDSCAPE PLAN SCHEME Nv9

NWC ARCHIBALD & CHANDLER
EASTVALE, CA

GKPA PROJECT #18114.01
02 OCTOBER 2023

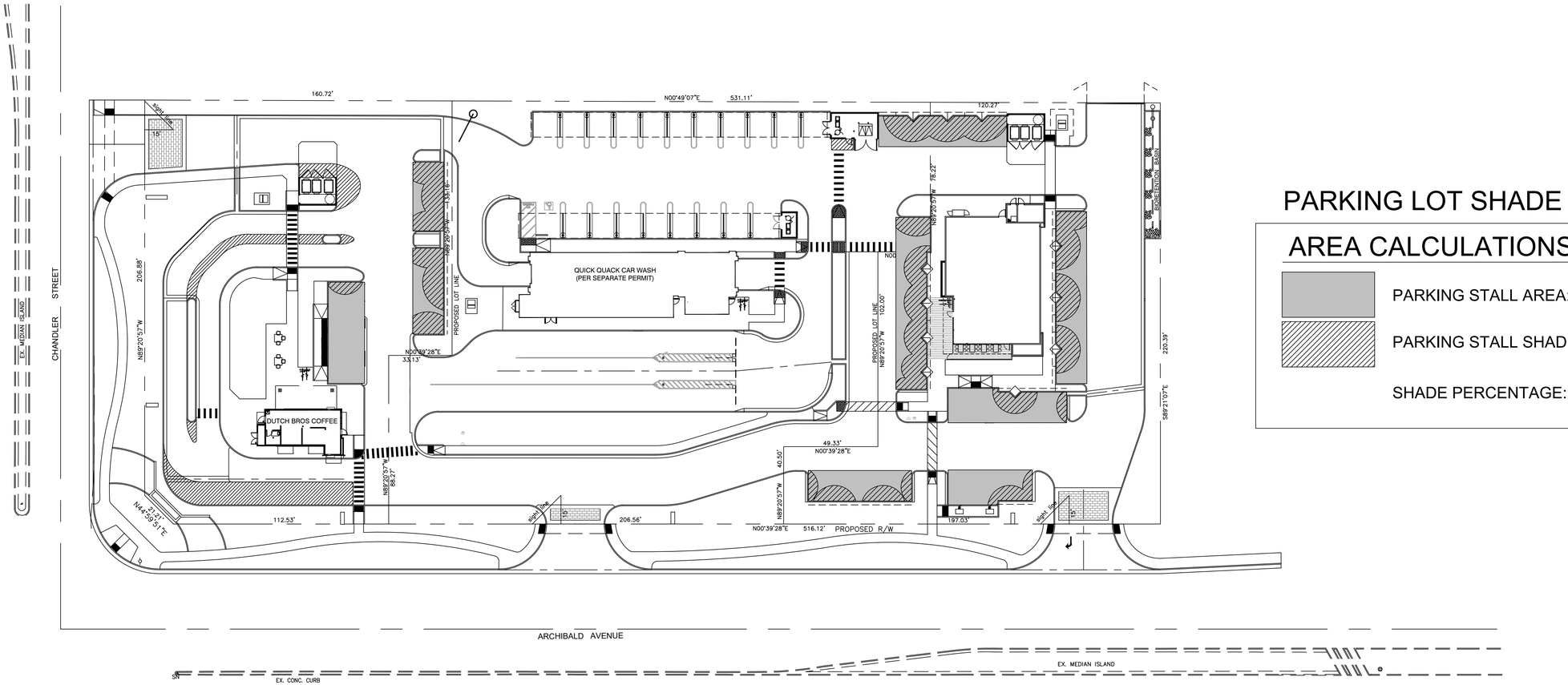
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NORTH

NWC ARCHIBALD & CHANDLER
EASTVALE, CALIFORNIA

EASTVALE LP
c/o SCHNEIDER REA
1257 W. COLTON
REDLANDS, CA 92374
909.363.4698

GK PIERCE ARCHITECTS
3 OVERTURE
ALISO VIEJO, CA 92656
T 949.344.2710
F 949.344.2720

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PARKING LOT SHADE EXHIBIT

AREA CALCULATIONS:

PARKING STALL AREA: 8,861 SF

PARKING STALL SHADED AREA: 4,472 SF

SHADE PERCENTAGE: 50.5%

0 15' 30' 60'

SCALE: 1" = 30.00'

NORTH

NWC ARCHIBALD & CHANDLER

EASTVALE, CALIFORNIA

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CONCEPTUAL
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TREES



ARBUTUS X 'MARINA'
ARBUTUS



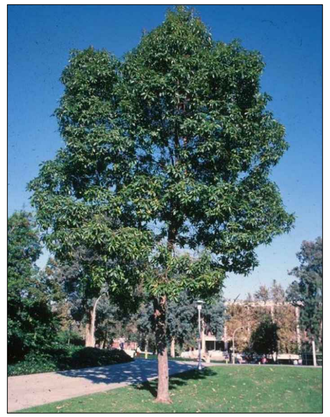
PYRUS CALLERYANA 'AUTUMN BLAZE'
CALLERY PEAR



LAGERSTROEMIA INDICA
CRAPE MYRTLE



MAGNOLIA 'DD BLANCHARD'
MAGNOLIA TREE



LOPOHOSETMON CONFERTUS
BRISBANE BOX



ULMUS PARVIFOLIUS 'DRAKE'
EVERGREEN ELM

BACKGROUND



LEUCOPHYLLUM FRUTESCENS
TEXAS RANGER



LIGUSTRUM JAPONICUM 'TEXANUM'
TEXAS PRIVET



MYRTUS COMMUNIS 'COMPACTA'
COMPACT MYRTLE



RHAPHIOLEPIS INDICA
INDIAN HAWTHORNE



WESTRINGIA FRUTICOSA
COAST ROSEMARY

MID-GROUND



CALLISTEMON CITRINUS 'LITTLE JOHN'
DWARF BOTTLEBRUSH



CISTUS X PURPUREUS
ORCHID ROCKROSE

MID-GROUND



COPROSMA REPENS 'MARBLE QUEEN'
NCN



DIETES VEGETA
FORTNIGHT LILY



PHORMIUM TENAX
NEW ZEALAND FLAX



ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY



SALVIA LEUCANTHA 'SANTA BARBARA'
MEXICAN SAGE

PLANT PALETTE IMAGERY

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LANDSCAPE ARCHITECTURE
SITE PLANNING

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P: 760.330.7720

PLS PROJECT #18011.1

CONCEPTUAL
LANDSCAPE PLAN
SCHEME Nv9

NWC ARCHIBALD & CHANDLER
EASTVALE, CA

GKPA PROJECT #18114.01
02 OCTOBER 2023

0 15' 30' 60'

SCALE: 1" = 30.00'

NORTH

NWC ARCHIBALD & CHANDLER

EASTVALE, CALIFORNIA

EASTVALE LP
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FOREGROUND



BOUGAINVILLEA 'OOH-LA-LA'
GROUNDCOVER BOUGAINVILLEA



LAVANDULA 'HIDCOTE'
HIDCOTE LAVENDER



PITTOSPORUM 'CREME DE MINT'
DWARF VARIEGATED MOCK ORANGE



ROSA 'WHITE MEIDLAND'
GROUNDCOVER ROSE



VERBENA LILACINA
LILAC VERBENA

VINE



PARTHENOCISSUS TRICUSPIDATA
BOSTON IVY

GROUNDCOVER



BACCHARIS PILULARIS 'TWIN PEAKS'
COYOTE BRUSH



CEANOTHUS 'YANKEE POINT'
CALIFORNIA LILAC



MYOPORUM PARVIFOLIUM 'PINK'
NCN

BIODETENTION BASINS



CAREX PANSA
CALIFORNIA MEADOW SEDGE



JUNCUS EFFUSUS 'QUARTZ CREEK'
QUARTZ CREEK SOFT RUSH



MUHLENBERGIA RIGENS
DEER GRASS

PLANT PALETTE IMAGERY

0 15' 30' 60'

SCALE: 1" = 30.00'

NORTH

NWC ARCHIBALD & CHANDLER

EASTVALE, CALIFORNIA

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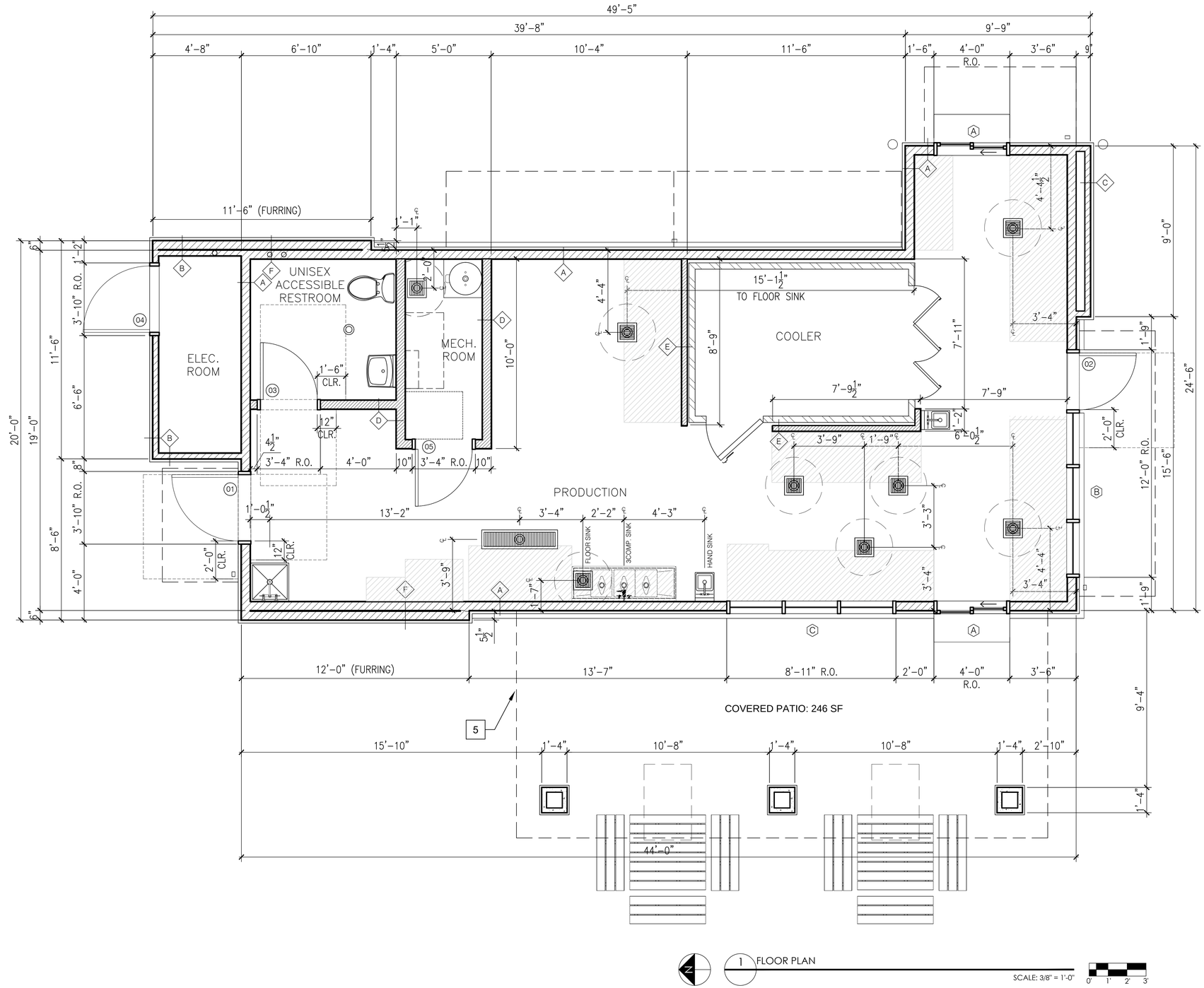
CONCEPTUAL
LANDSCAPE PLAN
SCHEME Nv9

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02 OCTOBER 2023

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ARCHITECTS
3 OVERTURE
ALISO VIEJO, CA 92656
T 949.344.2710
F 949.344.2720

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DUTCH BROS

ARMÉT DAVIS NEWLOVE & ASSOCIATES, AIA ARCHITECTS

1330 OLYMPIC BLVD.
SANTA MONICA, CALIFORNIA 90404
PH 310 452-5533 FAX 310 450-4742

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LICENSED ARCHITECT
PAUL W. DEPPE
C-28602
RE: 1-31-25
STATE OF CALIFORNIA

Project No: CA6301

Dutch Bros Coffee - New Freestanding Store
DB2550-A2

ARCHIBALD AVENUE & CHANDLER STREET
EASTVALE, CA 92880

DATE: 03/17/2023

REV:	DATE:	DESCRIPTION:

SHEET NAME:

FLOOR PLAN/
DETAILS/ SCHEDULES

SHEET NUMBER:

A1.0

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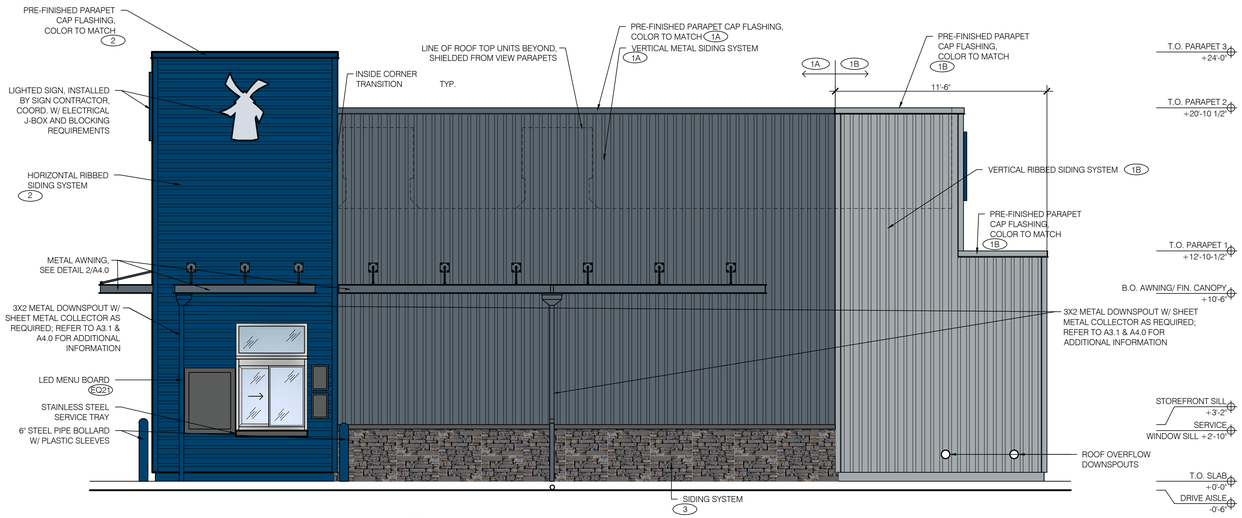
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Plotted By: Sylvia Trejo(Auto Arch) - CA301 NEC Archibald & Chandler, Eastvale, CA\Drawing\CA6301 - A2.0 - FLOOR PLAN - A2.dwg
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EXTERIOR FINISH SCHEDULE

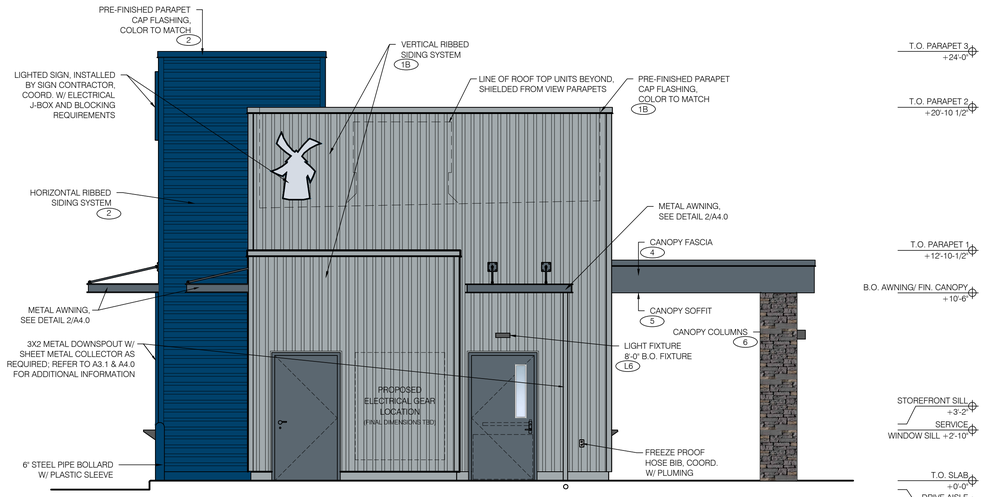
ID TAG	MATERIAL	MANUFACTURER	MODEL	REMARKS
ZONE 1 (BODY)				
1A	METAL PANEL	WESTERN STATES METAL ROOFING	WESTERN WAVE, 24 ga.	ORIENTATION: VERTICAL; COLOR: BLDG DB DARK GRAY
1B	METAL PANEL	WESTERN STATES METAL ROOFING	WESTERN WAVE, 24 ga.	ORIENTATION: VERTICAL COLOR: BLDG DB LIGHT GRAY
ZONE 2 (TOWER)				
2	METAL PANEL	WESTERN STATES METAL ROOFING	WESTERN WAVE, 24 ga.	ORIENTATION: HORIZONTAL; COLOR: BLDG DB BLUE
ZONE 3 (BASE & COLUMNS)				
3	STONE VENEER	ELDORADO STONE	CLIFFSTONE; BANFF SPRINGS	
	STONE VENEER SILL	ELDORADO STONE	SNAPPED EDGE WAINSCOT SILL; PEWTER	
ZONE 4 (FRAMED CANOPY)				
4	FASCIA	WESTERN STATES METAL ROOFING	METAL FASCIA	COLOR TO MATCH DUTCH BROS DARK GRAY
5	SOFFIT	HEWN ELEMENTS	NATURAL NORTHWESTERN SPRUCE	1X6, T&G, $\frac{3}{4}$" REVEAL
6	COLUMNS	ELDORADO STONE	CLIFFSTONE; BANFF SPRINGS	

NOTE: PROVIDE 3"X2" SMOOTH DOWNSPOUTS AND ALL NECESSARY ADAPTORS AT AWNING AND CANOPY LOCATIONS; DOWNSPOUT COLOR TO MATCH BODY MATERIAL PER ELEVATION



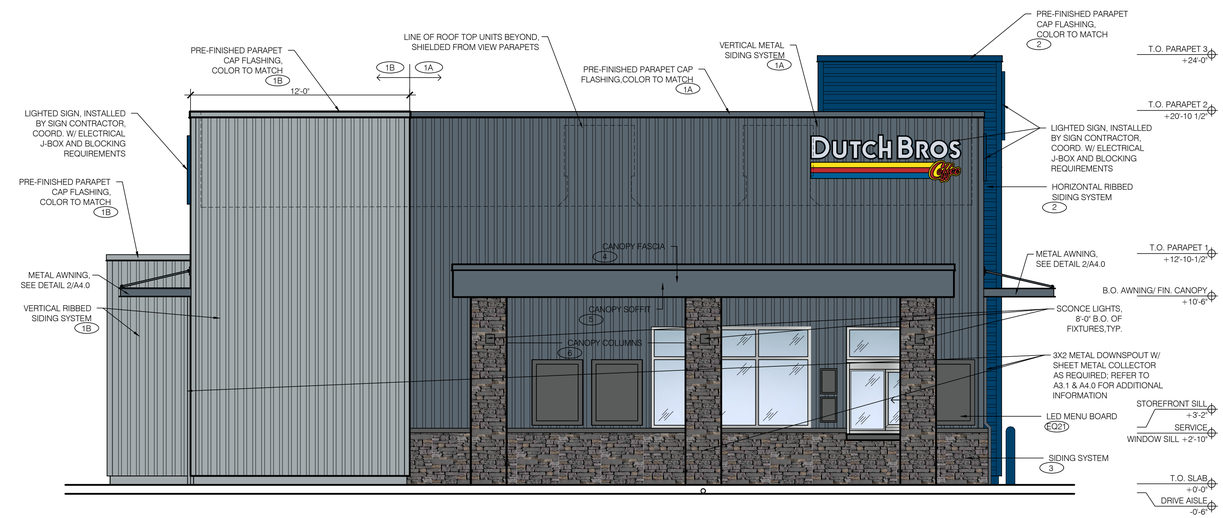
4 EAST ELEVATION - DRIVE-THRU WINDOW

SCALE: 1/4" = 1'-0"



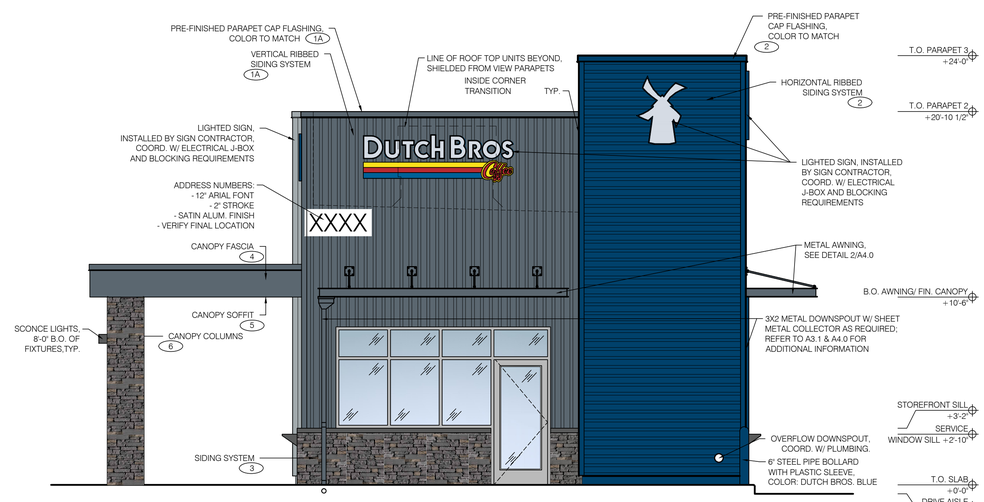
3 SOUTH ELEVATION - REAR

SCALE: 1/4" = 1'-0"



2 WEST ELEVATION - WALK-UP WINDOW

SCALE: 1/4" = 1'-0"



1 NORTH ELEVATION - FRONT

SCALE: 1/4" = 1'-0"

ARMÉT DAVIS NEWLOVE & ASSOCIATES, AIA ARCHITECTS

1330 OLYMPIC BLVD.
SANTA MONICA, CALIFORNIA 90404
PH 310 452-5533 FAX 310 450-4742

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LICENSED ARCHITECT PAUL W. DEPPE C-28602 RE 1-31-25 STATE OF CALIFORNIA

Project No: CA6301

Dutch Bros Coffee - New Freestanding Store

DB2550-A2

ARCHIBALD AVENUE & CHANDLER STREET
EASTVALE, CA 92880

DATE: 03/17/2023

REV:	DATE:	DESCRIPTION:

SHEET NAME:

BUILDING ELEVATIONS COLOR

SHEET NUMBER:

A6.1

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Y:\Active Projects\Dutch Bros\22 - CA6301 NEC Archibald & Chandler, Eastvale, CA\Drawing\CA6301 - A6.0 - BUILDING ELEVATIONS - A2.dwg
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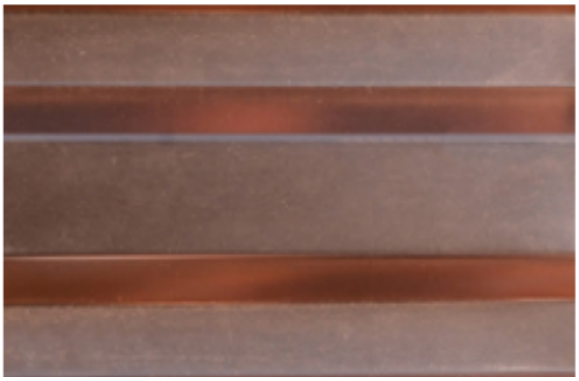
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Plot Date/Time: Tue, Sep 05, 2023 - 2:01pm



STONE VENEER AT WAINSCOT
ELDORADO STONE
COLOR: BANFF SPRINGS



WAINSCOT SILL
ELDORADO STONE - SNAPPED EDGE
COLOR: PEWTER



METAL PANEL AT TOWER:
WESTERN STATES METAL - WESTERN WAVE, 24 GA
ORIENTATION: HORIZONTAL



COLOR: DUTCH BROS BLUE



METAL PANEL AT BUILDING:
WESTERN STATES METAL - WESTERN WAVE, 24 GA
ORIENTATION: VERTICAL



COLOR: DUTCH BROS DARK GRAY



COLOR: DUTCH BROS LIGHT GRAY

DUTCH BROS Coffee

Dutch Bros Coffee CA6301
NEC Archibald Ave. & Chandler St.
Eastvale, CA

ARMET DAVIS NEWLOVE ARCHITECTS
PHONE: 310-773-7772

DUTCH BROS Coffee

OUTDOOR

TABLE & BENCH PICNIC SET (Square)

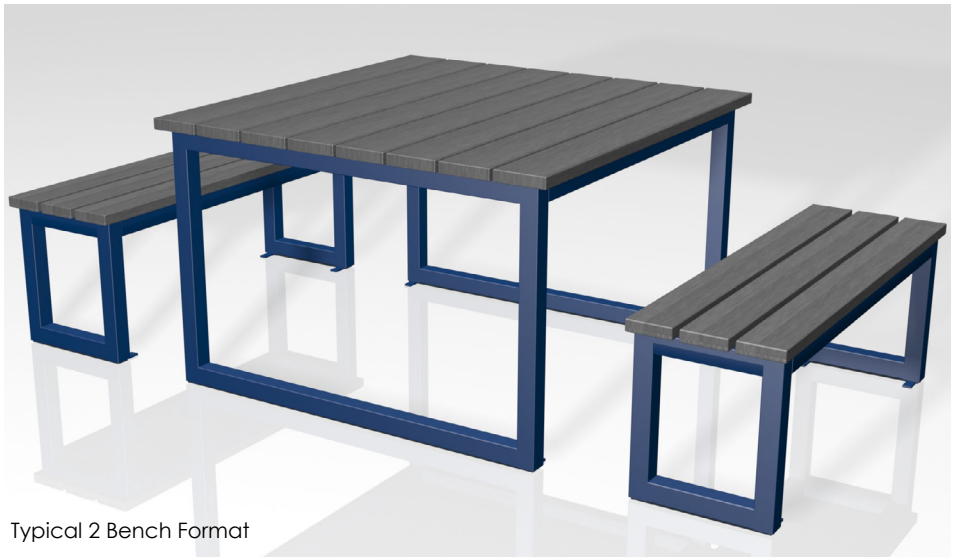
Table Top / Seat Top: Recycled Plastic Lumber

Support Frame: Powder Coated Mild Steel

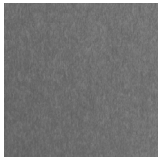
Bolt Down

Weather Resistant Materials for Outdoor Use

*ADA Compliant with Open Side



Typical 2 Bench Format



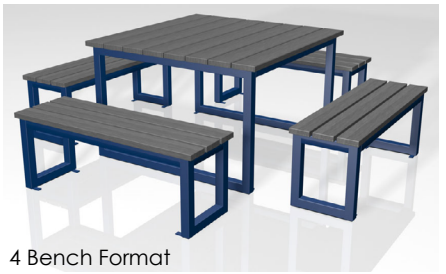
Recycled Plastic Lumber: Gray



Custom DB Blue Powder Coat to match exterior paint



Clear Side for ADA Compliance



4 Bench Format

Short Description	Part Number	Dimensions
Outdoor Table, bolt-down	FOT48-DB	48" x 48" x 30"H
Outdoor Bench, bolt-down	FOB48-DB	18" x 48" x 18" H

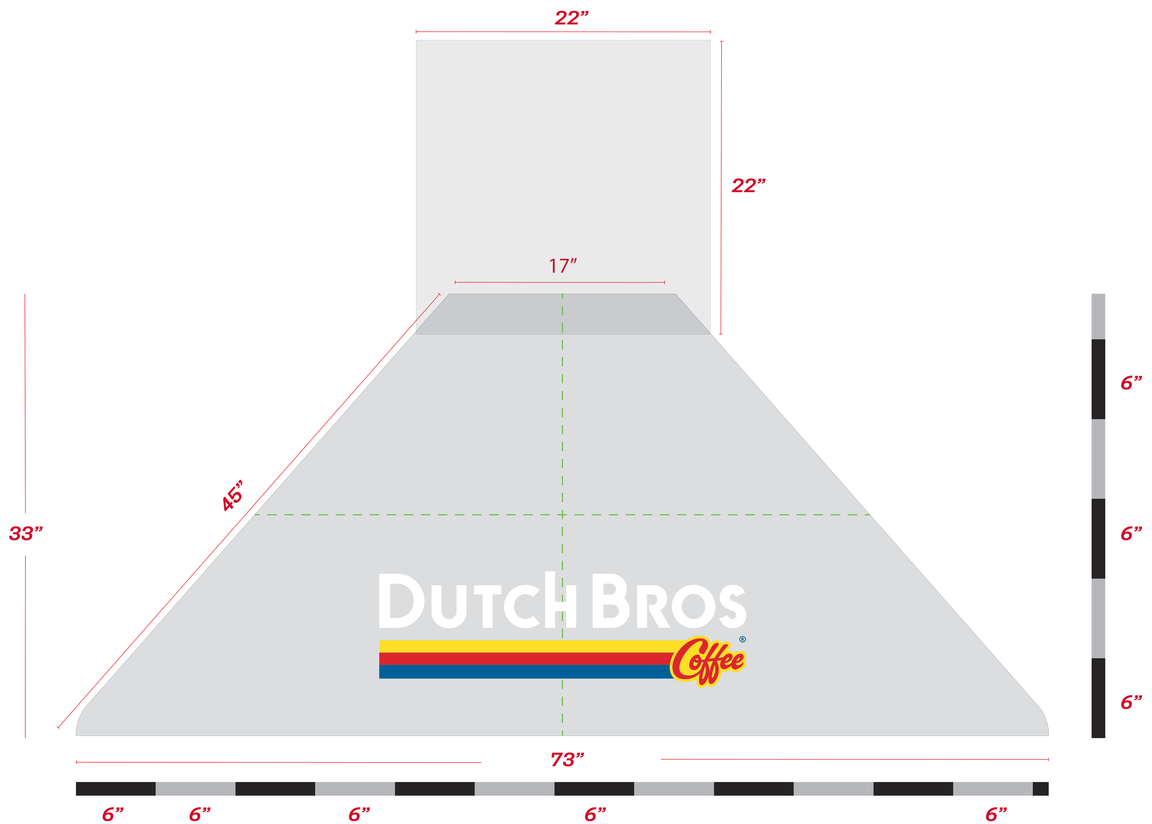
TABLE OF CONTENTS



454: 6.5’ - 4 Rib - Square Frame

PANTONE

	107C	1795C	7691C



SHOWN: 864FM-SR-NBA
11' / Fiberglass Pulley Lift Market Umbrella / Polished Silver Anodized Finish / 9 oz. Marine Grade Navy Blue Acrylic

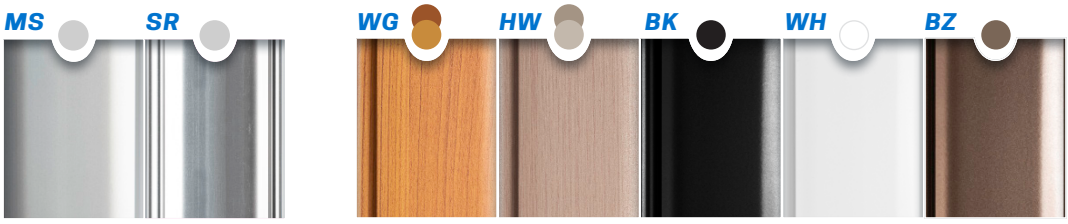


FEATURES

*ENGINEERED TO WITHSTAND **40 MPH WINDS.***

- *Smooth and effortless pulley system.*
- *1/2" fiberglass ribs and struts for maximum strength and flexibility.*
- *1.5" diameter center pole with a 1/8" aluminum wall thickness provides incredible strength and durability.*
- *4-Layer fabric protection and closed stitching pocket.*
- *Solid TPU Co-Polymer finial design.*
- *Stainless-steel hardware throughout.*
- *Mounting options include permanent, semi-permanent, and free-standing bases for installation on any surface.*

FRAME FINISHES



MATTE SILVER ANODIZED | *POLISHED SILVER ANODIZED* | *GOLDEN OAK* | *HEATHER WILLOW* | *MATTE BLACK* | *MATTE WHITE* | *MATTE BRONZE*



845FM - *7.5' / 2.3M OCT.*

- **A.** *overall height: 94" / 238cm*
- **B.** *clearance: 76" / 193cm*
- **C.** *closed clearance: 44" / 111cm*
- **MAST:** *1.5" / 38mm*
- **WEIGHT:** *16 lbs. / 7 kg.*



854FM - *9' / 2.7M OCT.*

- **A.** *overall height: 97" / 236cm*
- **B.** *clearance: 77" / 195cm*
- **C.** *closed clearance: 41" / 104cm*
- **MAST:** *1.5" / 38mm*
- **WEIGHT:** *18 lbs. / 8 kg.*



864FM - *11' / 3.5M OCT.*

- **A.** *overall height: 107" / 271cm*
- **B.** *clearance: 82" / 208cm*
- **C.** *closed clearance: 39" / 99cm*
- **MAST:** *1.5" / 38mm*
- **WEIGHT:** *22 lbs. / 10 kg.*



454FM-SQ - *6.5' / 2M SQ.*

- **A.** *overall height: 97" / 236cm*
- **B.** *clearance: 77" / 195cm*
- **C.** *closed clearance: 41" / 104cm*
- **MAST:** *1.5" / 38mm*
- **WEIGHT:** *16 lbs. / 7 kg.*



464FM-SQ - *7.5' / 2.3M SQ.*

- **A.** *overall height: 107" / 271cm*
- **B.** *clearance: 82" / 208cm*
- **C.** *closed clearance: 39" / 99cm*
- **MAST:** *1.5" / 38mm*
- **WEIGHT:** *17 lbs. / 8 kg.*

FINIAL OPTIONS

Finial color will default to frame finish selection



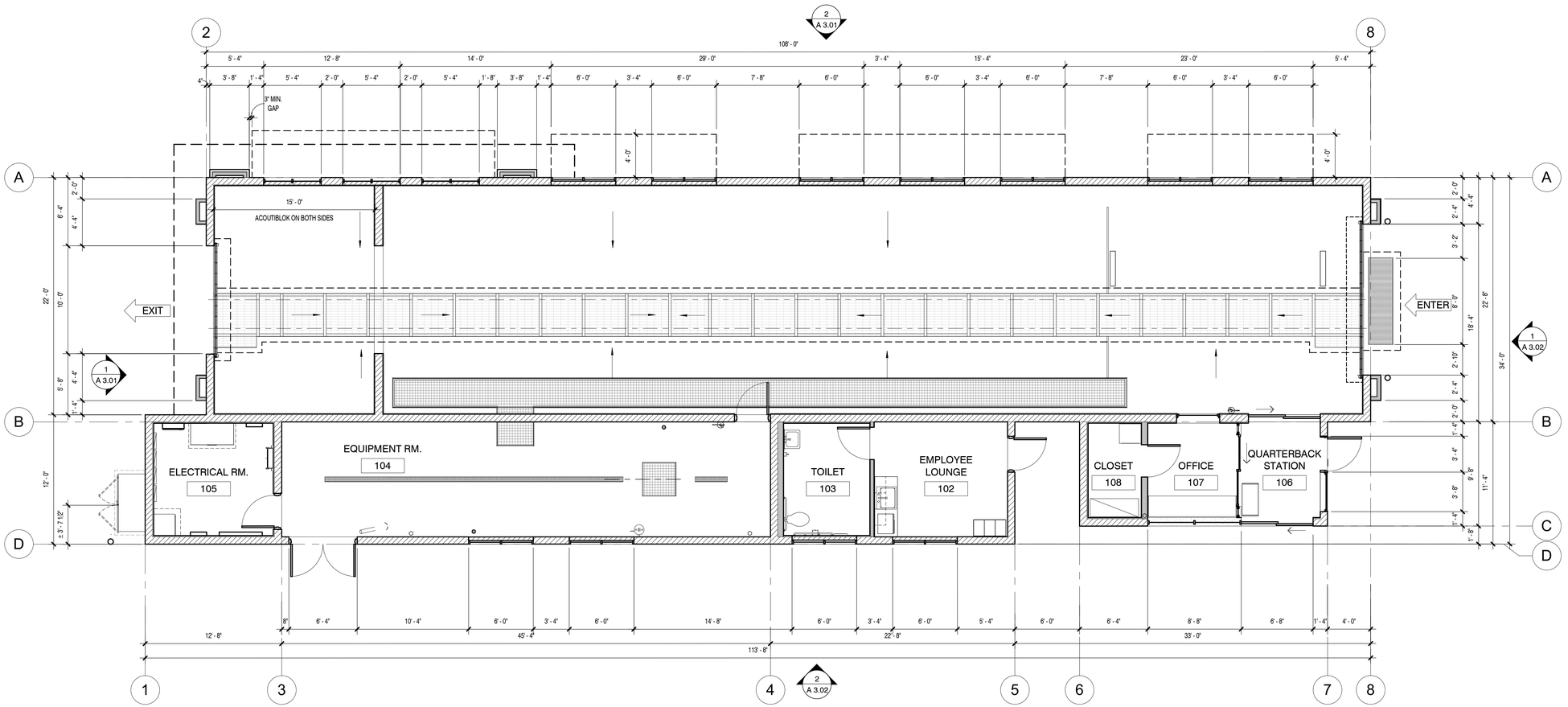
BF CLASSIC BALL
default style



VF VERTEX

Umbrella clearance dimensions are measured while not mounted in a base. Depending on the selected base, these clearance measurements will change. All dimensions and weights have a +/-5" tolerance based on multiple variables; pin placement height, crank tautness and fabric weight.

Please see our "Umbrella Base Guide by Application" on page 42 for recommended base options, based on the umbrella size and desired application (table use or free-standing).



FLOOR PLAN | SCALE 3/16" = 1'-0" | 1

LA Design Group, Inc.
21671 GATEWAY CENTER DRIVE, STE. 213
DIAMOND BAR, CA 91765
(T) 909.860.1010

Seal:

LICENSED ARCHITECT
FARIBA SHORAVI SHANTIAI
C 25558
EXP. 03/31/25
STATE OF CALIFORNIA

NOTE: This information is conceptual in nature and is subject to adjustments pending further verification and Client, Tenant, and Governmental Agency comments/ approvals. No warranties or guaranties of any kind are given or implied by the Architect.

A Project for:

Quick Quack CAR WASH

(PROJECT NO. 44-308)
NEC ARCHIBALD AVE. & CHANDLER ST.
EASTVALE, CA 92880

Client:

QUICK QUACK CAR WASH

1380 LEAD HILL BLVD., STE. 208
ROSEVILLE, CA 95661

Revisions:

No.	Description	Date
	UPDATED ENT. SUBMITTAL	06/09/2023
	ENTITLEMENT SUBMITTAL	01/23/2023

Project No.:	220103
Drawn By:	RP
Reviewed By:	--
Scale:	3/16" = 1'-0"
Date:	01/20/23
Filename:	--

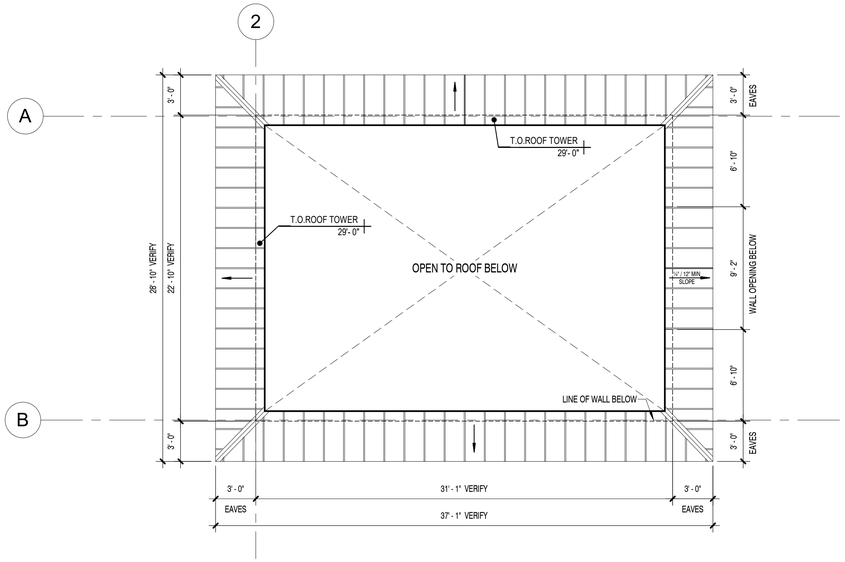
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FLOOR PLAN

Sheet #:

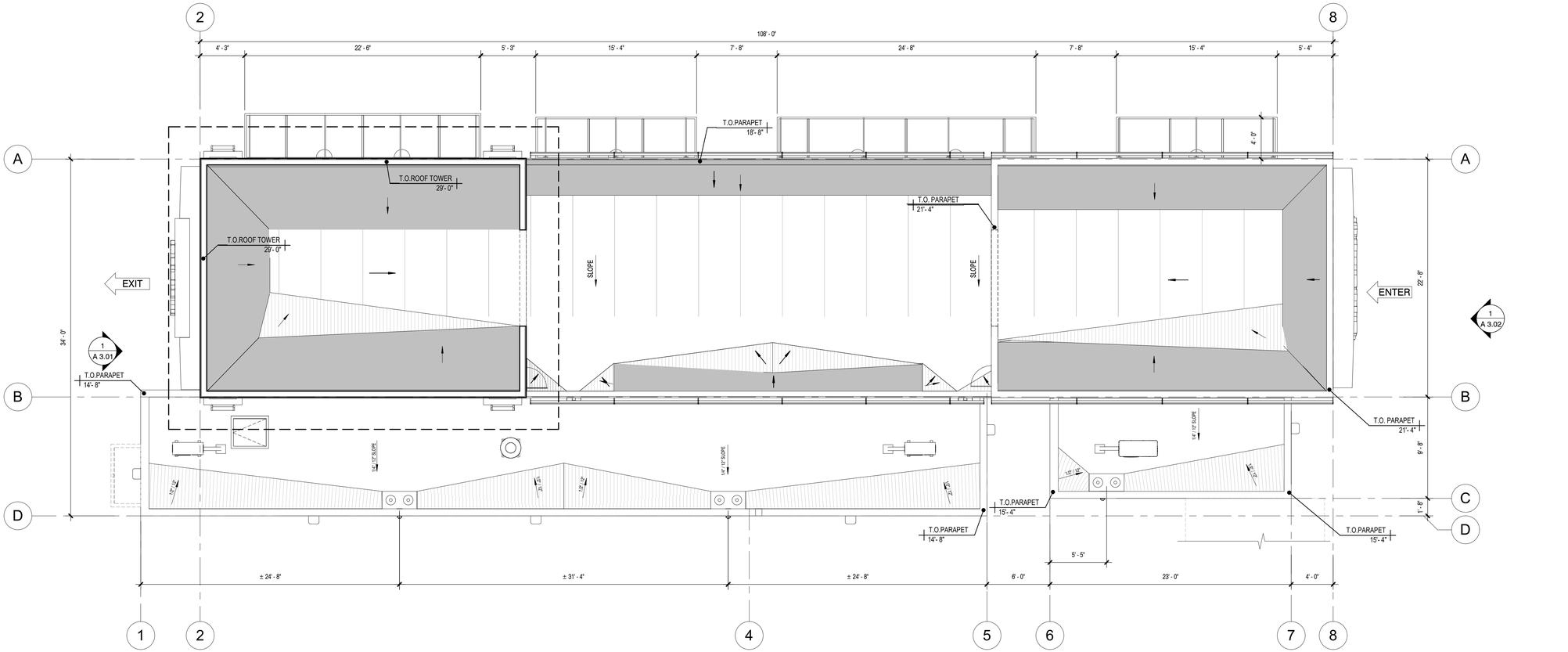
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UPPER ROOF AT EXIT TOWER\

SCALE	
3/16" = 1'-0"	2



ROOF PLAN

SCALE	
3/16" = 1'-0"	1

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21671 GATEWAY CENTER DRIVE, STE. 213
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Seal:

LICENSED ARCHITECT
FARIBA SHORAVI SHAMTAI
C 25558
EXP. 03/31/25
STATE OF CALIFORNIA

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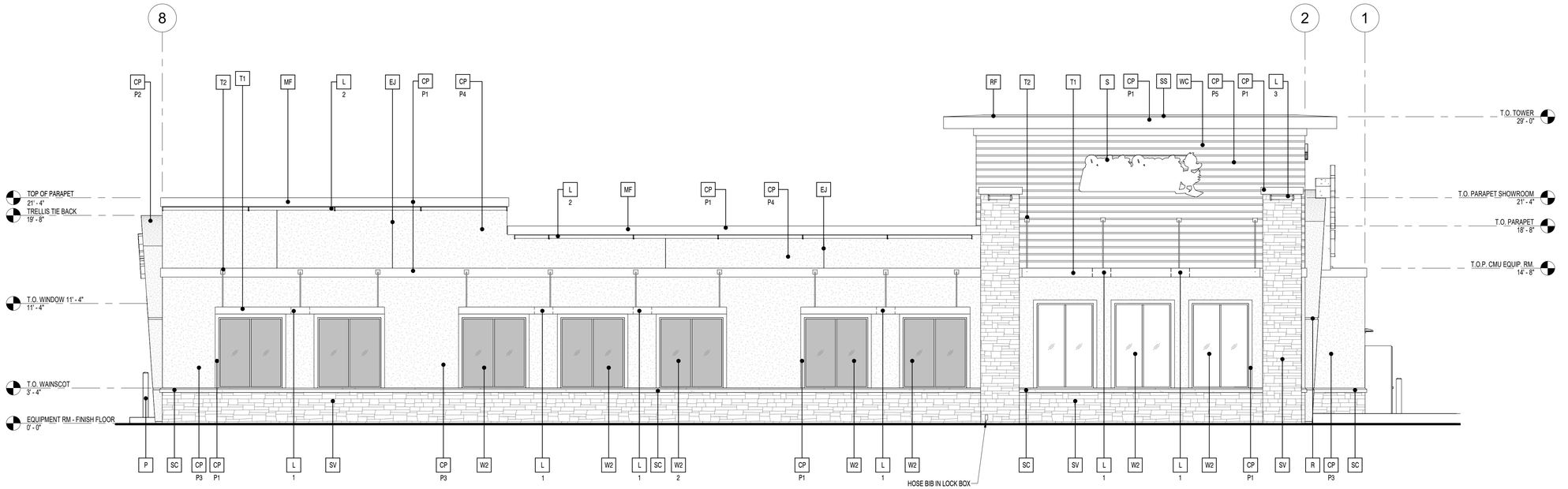
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ROOF PLAN

Sheet #:

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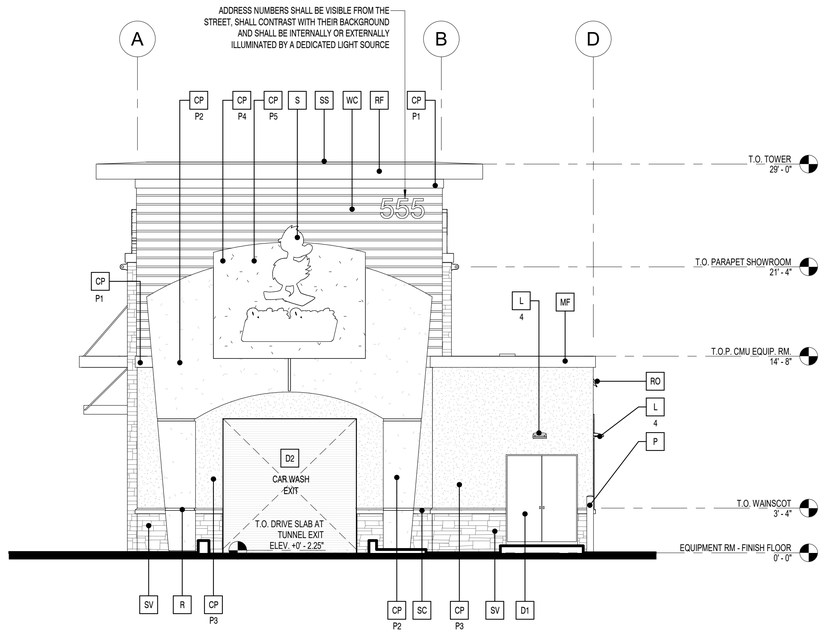


WEST ELEVATION | SCALE 3/16" = 1'-0" | 2

EXTERIOR ELEVATION KEYNOTES

SV	STONE VENEER - BORVAL STONE COUNTRY LEDGESTONE BLACK RUNDLE
SC	STONE CAP TO MATCH STONE VENEER
CP / P	ACRYLIC PLASTER COLOR COAT COLOR DESIGNATION: P1 = MATCH SHERWIN WILLIAMS #7630 "RASIN" P2 = MATCH SHERWIN WILLIAMS #6374 "TORCHLIGHT" P3 = MATCH SHERWIN WILLIAMS #7022 "ALPACA" P4 = MATCH SHERWIN WILLIAMS #7004 "SNOWBOUND" P5 = MATCH SHERWIN WILLIAMS #SW7025 "BACKDROP" PLASTER COLOR COAT TO BE SAND FINISH
WC	FIBERON CLADDING - WILDWOOD CLADDING KOA
D1	HOLLOW METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
D2	OVERHEAD METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
D3	CLEAR ANODIZED ALUMINUM COMMERCIAL GRADE STOREFRONT GLASS DOOR
DS	8" X 16" THROUGH WALL SCUPPER, COLLECTOR AND DOWNSPOUT. PAINT TO MATCH ADJACENT SURFACE
EJ	1/4" DEEP REVEAL EXPANSION JOINT
L / 1	LIGHT FIXTURE TYPE: L1 = LED RADIAL WALL SCONCE (DOWN ONLY) L2 = LINEAR FACADE WALL LIGHT (DOWN ONLY) L3 = 2 FOOT LED PILASTER LIGHT (DOWN ONLY) L4 = WALL PACK (DOWN ONLY) CONTACT STEVE FRIEDMAN 1.847.830.1444 WITH HERMITAGE LIGHTING FOR ORDERING LIGHTING. (NO EXCEPTIONS)
MF	METAL FASCIA - PAINT TO MATCH SHERWIN WILLIAMS - #7630 "RASIN"
P	6" PIPE BOLLARD FILLED WITH CONCRETE - MATCH SHERWIN WILLIAMS #6903 "CHEERFUL" (YELLOW)
R	2" WIDE X 1/4" DEEP CLEAR ANODIZED ALUMINUM PLASTER REVEAL
RF	METAL ROOF FASCIA - MATCH SHERWIN WILLIAMS - #7630 "RASIN"
RO	3" DIA. PVC ROOF OVERFLOW SCUPPER - PAINT TO MATCH ADJACENT FINISH
S	SIGNAGE BY OTHERS SHOWN DASHED- FOR REFERENCE ONLY UNDER SEPARATE PERMIT. GENERAL CONTRACTOR TO COORDINATE WITH SIGN COMPANY.
SS	STANDING SEAM METAL ROOF FIRESTONE SW7630 RASIN
T1	METAL WALL CANOPY SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS - #7630 "RASIN"
T2	WALL CANOPY TIE-BACK SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS - #7630 "RASIN"
V	32" WIDE X 16" HIGH VENT - PAINT TO MATCH ADJACENT FINISH
W1	EXTERIOR WINDOW ASSEMBLY - TEMPERED GLASS CLEAR ANODIZED ALUMINUM STOREFRONT
W2	EXTERIOR FAUX WINDOW ASSEMBLY - WITH BLACK CERAMIC FRIT TEMPERED SPANDREL GLASS CLEAR ANODIZED ALUMINUM STOREFRONT

NOTE:
TENANT WALL SIGNAGE SHALL BE UNDER A SEPARATE PERMIT.



NORTH ELEVATION | SCALE 3/16" = 1'-0" | 1

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Seal:

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C 25558
EXP. 03/31/25
STATE OF CALIFORNIA

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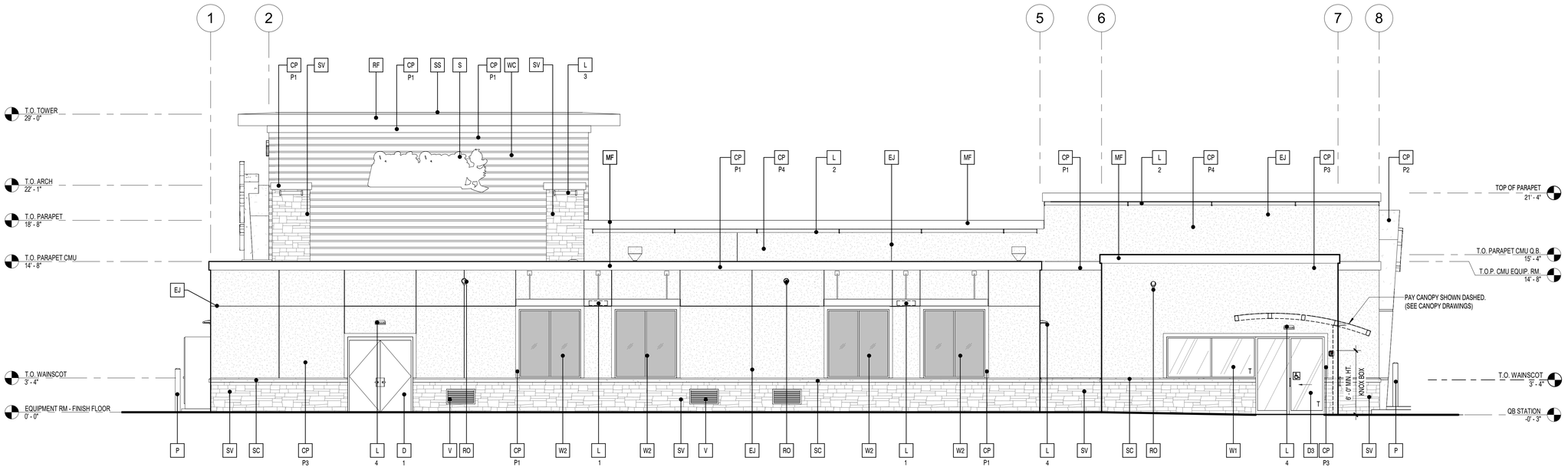
Project No.:	220103
Drawn By:	--
Reviewed By:	--
Scale:	As indicated
Date:	
Filename:	--
Sheet Title:	

N & W EXTERIOR ELEVATIONS

Sheet #:

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EAST ELEVATION | SCALE 3/16" = 1'-0" | 2

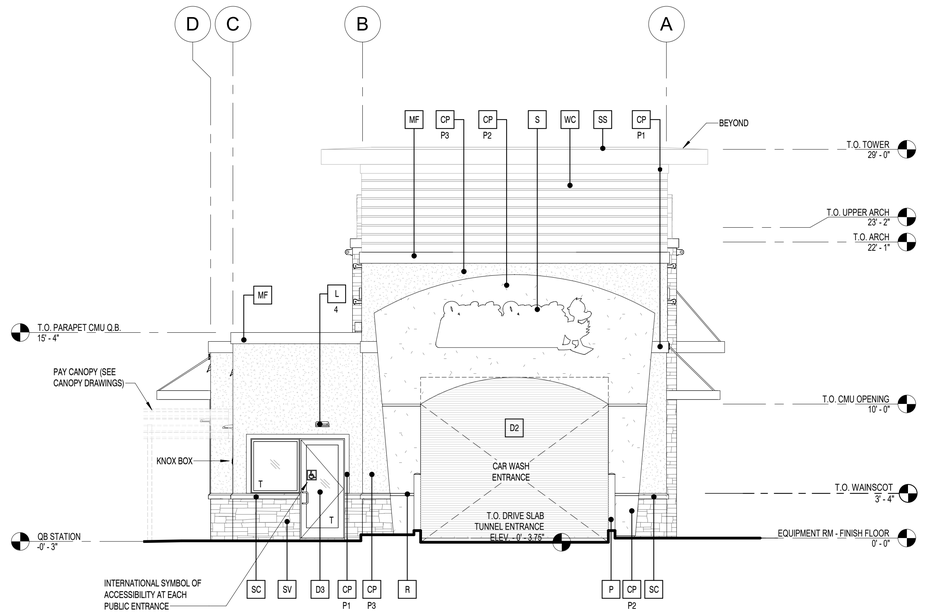
EXTERIOR ELEVATION KEYNOTES

- SV — STONE VENEER - BORVAL STONE COUNTRY LEDGESTONE BLACK RUNDLE
- SC — STONE CAP TO MATCH STONE VENEER
- CP / P — ACRYLIC PLASTER COLOR COAT; COLOR DESIGNATION:
  - P1 = MATCH SHERWIN WILLIAMS #7630 "RASIN"
  - P2 = MATCH SHERWIN WILLIAMS #6374 "TORCHLIGHT"
  - P3 = MATCH SHERWIN WILLIAMS #7022 "ALPACA"
  - P4 = MATCH SHERWIN WILLIAMS #7004 "SNOWBOUND"
  - P5 = MATCH SHERWIN WILLIAMS #SW7025 "BACKDROP"

  PLASTER COLOR COAT TO BE SAND FINISH
- WC — FIBERON CLADDING - WILDWOOD CLADDING KOA
- D1 — HOLLOW METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
- D2 — OVERHEAD METAL DOOR - PAINT TO MATCH SHERWIN WILLIAMS #7025 "BACKDROP"
- D3 — CLEAR ANODIZED ALUMINUM COMMERCIAL GRADE STOREFRONT GLASS DOOR
- DS — 8" X 16" THROUGH WALL SCUPPER, COLLECTOR AND DOWNSPOUT. PAINT TO MATCH ADJACENT SURFACE
- EJ — 1/4" DEEP REVEAL EXPANSION JOINT
- L / 1 — LIGHT FIXTURE; TYPE:
  - L1 = LED RADIAL WALL SCONCE (DOWN ONLY)
  - L2 = LINEAR FACADE WALL LIGHT (DOWN ONLY)
  - L3 = 2 FOOT LED PILASTER LIGHT (DOWN ONLY)
  - L4 = WALL PACK (DOWN ONLY)

  CONTACT STEVE FRIEDMAN 1.847.830.1444 WITH HERMITAGE LIGHTING FOR ORDERING LIGHTING. (NO EXCEPTIONS)
- MF — METAL FASCIA - PAINT TO MATCH SHERWIN WILLIAMS - #7630 "RASIN"
- P — 6" PIPE BOLLARD FILLED WITH CONCRETE - MATCH SHERWIN WILLIAMS #6903 "CHEERFUL" (YELLOW)
- R — 2" WIDE X 1/4" DEEP CLEAR ANODIZED ALUMINUM PLASTER REVEAL
- RF — METAL ROOF FASCIA - MATCH SHERWIN WILLIAMS - #7630 "RASIN"
- RO — 3" DIA. PVC ROOF OVERFLOW SCUPPER - PAINT TO MATCH ADJACENT FINISH
- S — SIGNAGE BY OTHERS SHOWN DASHED- FOR REFERENCE ONLY UNDER SEPARATE PERMIT. GENERAL CONTRACTOR TO COORDINATE WITH SIGN COMPANY.
- SS — STANDING SEAM METAL ROOF FIRESTONE SW7630 RASIN
- T1 — METAL WALL CANOPY SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS - #7630 "RASIN"
- T2 — WALL CANOPY TIE-BACK SYSTEM - COLOR TO MATCH SHERWIN WILLIAMS - #7630 "RASIN"
- V — 32" WIDE X 16" HIGH VENT - PAINT TO MATCH ADJACENT FINISH
- W1 — EXTERIOR WINDOW ASSEMBLY - TEMPERED GLASS CLEAR ANODIZED ALUMINUM STOREFRONT
- W2 — EXTERIOR FAUX WINDOW ASSEMBLY - WITH BLACK CERAMIC FRIT TEMPERED SPANDREL GLASS CLEAR ANODIZED ALUMINUM STOREFRONT

NOTE:
TENANT WALL SIGNAGE SHALL BE UNDER A SEPARATE PERMIT.



SOUTH ELEVATION | SCALE 3/16" = 1'-0" | 1

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Seal:

LICENSED ARCHITECT
FARIBA SHORAVI SHANTIAI
C 25558
EXP. 03/31/25
STATE OF CALIFORNIA

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EASTVALE, CA 92880

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1380 LEAD HILL BLVD., STE. 208
ROSEVILLE, CA 95661

Revisions:

No.	Description	Date
	ENTITLEMENT RE-SUBMITTAL	08/31/2023
	ENTITLEMENT RE-SUBMITTAL	06/09/2023
	ENTITLEMENT SUBMITTAL	01/23/2023

Project No.:	220103
Drawn By:	-
Reviewed By:	--
Scale:	As indicated
Date:	
Filename:	--
Sheet Title:	

S & E EXTERIOR ELEVATIONS

Sheet #:

A 3.02

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ILLUSTRATIVE PERSPECTIVE | SCALE N.T.S | 2



ILLUSTRATIVE PERSPECTIVE | SCALE N.T.S | 1

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Project No.:	220103
Drawn By:	---
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Sheet Title:

ILLUSTRATIVE PERSPECTIVES

Sheet #:

A 3.03

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ILLUSTRATIVE PERSPECTIVE | SCALE N.T.S | 2



ILLUSTRATIVE PERSPECTIVE | SCALE N.T.S | 1

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Reviewed By:	---
Scale:	AS NOTED
Date:	-----
Filename:	--

Sheet Title:

ILLUSTRATIVE PERSPECTIVES

Sheet #:

A 3.04

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FINISH AND MATERIAL BOARD

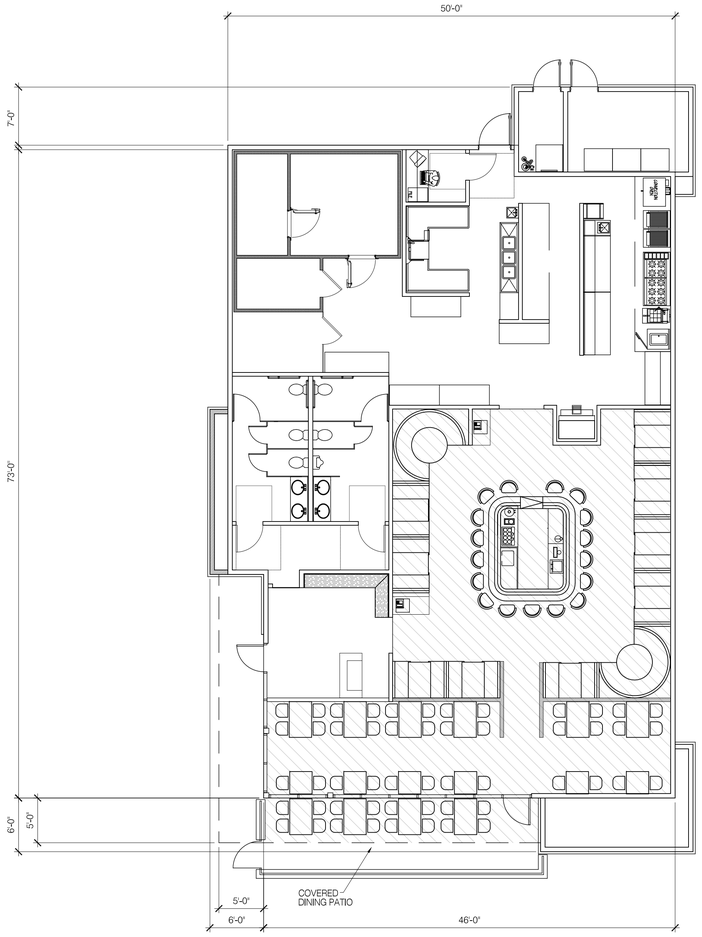
LADG | LA Design Group, Inc.
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QUICK QUACK CAR WASH

NEC ARCHIBALD AVE. & CHANDLER ST.
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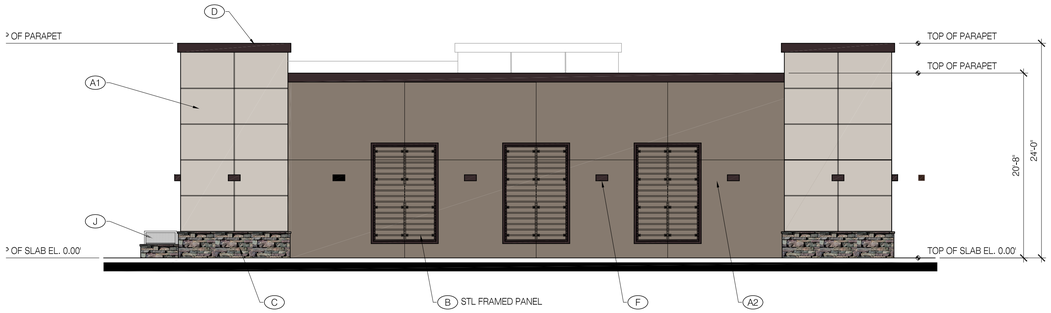
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DATE:	06/09/2023
REVISIONS:	



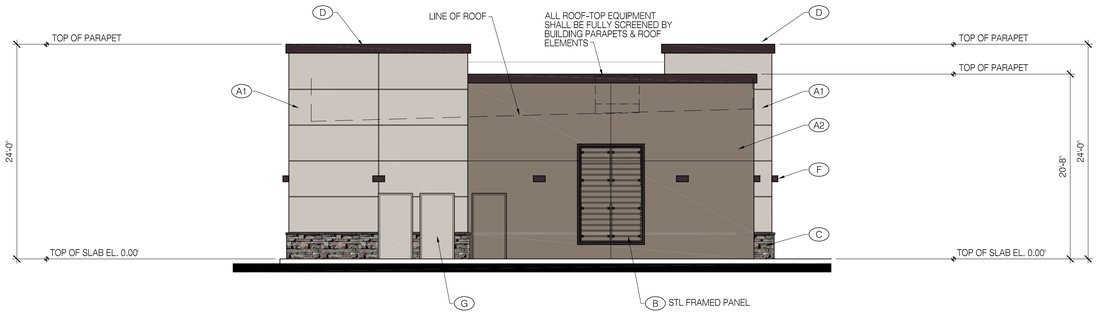
RESTAURANT
3,450 SF
(1,485 SF SERVING AREA)

FLOOR PLAN

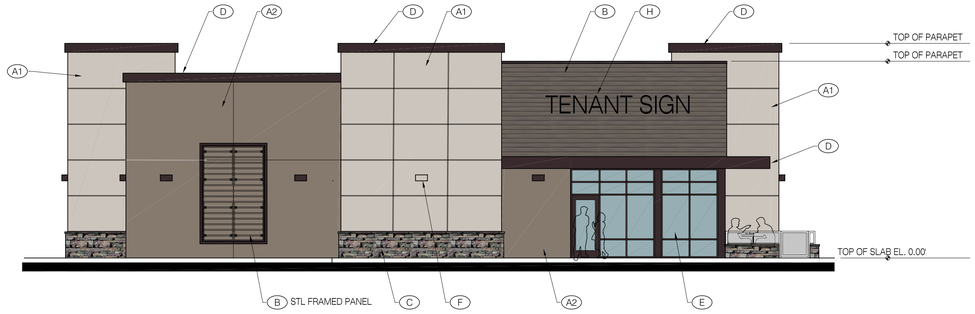
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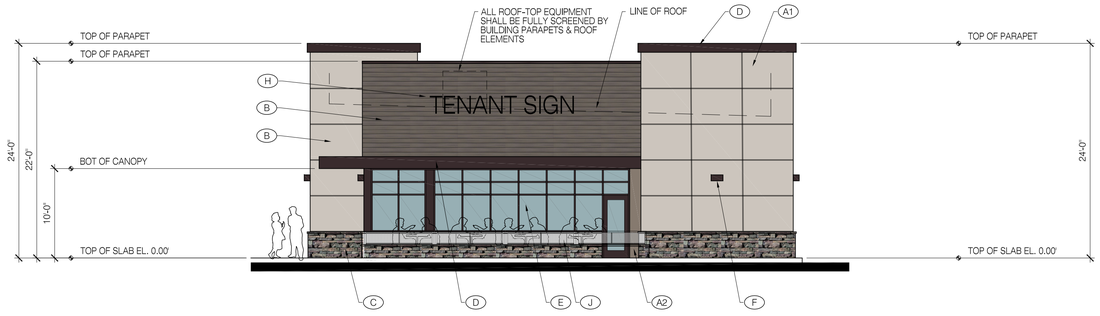
NORTH ELEVATION



WEST ELEVATION



SOUTH ELEVATION



EAST (ARCHIBALD) ELEVATION

COLORS & MATERIALS



A1 EXTERIOR CEMENT PLASTER (PAINTED)-
FINE SAND FINISH
COLOR TO MATCH: SHERWIN WILLIAMS
SW 7022 ALPACA



A2 EXTERIOR CEMENT PLASTER (PAINTED)-
FINE SAND FINISH
COLOR TO MATCH: SHERWIN WILLIAMS
SW 7025 BACKDROP



B **FIBERON WILDWOOD**
COMPOSITE CLADDING
PROFILE: 1 X 6 OPEN-JOINT
COLOR: PALO



C MANUFACTURED STONE VENEER
CORONADO IDAHO LEDGE (DRYSTACK)
COLOR: ASPEN



D ALUMINUM COPING & CANOPY
COLOR TO MATCH: SHERWIN WILLIAMS
SW7360 "RAISIN"



E ALUMINUM STOREFRONT SYSTEM
CUDTOM FINISH TO MATCH SHERWIN
WILLIAMS SW7360 "RAISIN"



F WALL SCONCE-
SECURITY LIGHTING RWSC
PAINT TO MATCH ITEM D

G METAL DOORS & FRAMES-
COLOR TO MATCH ADJACENT SURFACE

H TENANT SIGNAGE-
REFER TO SIGN PROGRAM

J METAL MESH PATIO SCREEN O/
STONE BASE WALL-
MESH COLOR TO MATCH ITEM E

PAD 3
ZENDEJAS
MEXICAN GRILL

NWC ARCHIBALD & CHANDLER
EASTVALE, CA

GKPA PROJECT #18114.01
2 OCTOBER 2023

0 4' 8' 16'

SCALE: 1/8" = 1'-0"

NWC ARCHIBALD & CHANDLER

EASTVALE, CALIFORNIA

EASTVALE LP
c/o SCHNEIDER REA
1257 W. COLTON
REDLANDS, CA 92374
909.363.4698

GK PIERCE ARCHITECTS
3 OVERTURE
ALISO VIEJO, CA 92656
949.344.2710
gkparchitecture.com

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VIEW TO NORTHWEST

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PAD 3
ZENDEJAS
MEXICAN GRILL

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GKPA PROJECT #18114.01
2 OCTOBER 2023

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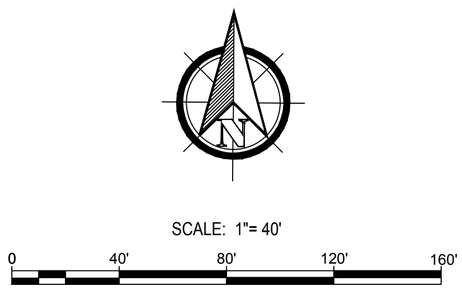
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IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE,

TENTATIVE PARCEL MAP NO. 37653

BEING A SUBDIVISION OF A PORTION OF LOT 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN IN BOOK 12, PAGE 98 OF MAPS, AND PARCELS 1, 2 AND 3 OF PARCEL MAP NO. 9292, AS SHOWN IN BOOK 43, PAGES 50 AND 51 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, IN SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, S.B.M.

LN CIVIL ENGINEERS, INC., JULY 2023



FIRST AMERICAN TITLE COMPANY

ORDER NUMBER: NHSC-638067
DATE: SEPTEMBER 15, 2020

LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL A: (APN: 144-130-004)

PARCEL 1:

THE EAST 81 FEET OF THE WEST 110 FEET OF LOT 75 OF PERSIMMON REPUBLIC ACRES, IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12, PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING THEREFROM PARCEL 2230-33 AS SHOWN ON RECORD OF SURVEY FILED DECEMBER 15, 1971, IN RECORDS OF SURVEY BOOK 57, PAGES 94 TO 97, INCLUSIVE, OFFICE OF THE RECORDER, RIVERSIDE COUNTY, AS CONVEYED TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT BY DEED RECORDED MAY 26, 1972 AS INSTRUMENT NO. 69126 OF OFFICIAL RECORDS.

PARCEL 2:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS OVER THE EAST 10 FEET OF THE WEST 120 FEET OF THE SOUTH 240 FEET OF LOT 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN BY MAP ON FILE IN BOOK 12, PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS.

PARCEL 3:

A NON-EXCLUSIVE EASEMENT FOR DOMESTIC PIPE LINE PURPOSES OVER THE NORTH 10 FEET OF THE SOUTH 145 FEET OF THE EAST 21 FEET OF LOT 73 AND OVER THE NORTH 10 FEET OF THE SOUTH 145 FEET OF LOTS 74 AND 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS, AND OVER THE NORTH 10 FEET OF THE SOUTH 175 FEET OF THE EAST 161 FEET OF SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO BASE AND MERIDIAN, AS PER MAP OF JURUPA RANCHO RECORDED IN BOOK 9 PAGE 33 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

EXCEPTING THAT PORTION LYING WITHIN THE EAST 81 FEET OF THE WEST 110 FEET OF LOT 75.

PARCEL 4:

A NON-EXCLUSIVE EASEMENT FOR PIPE LINE PURPOSES OVER THE NORTH 10 FEET OF THE SOUTH 250 FEET OF THE EAST 21 FEET OF LOT 73 AND OVER THE NORTH 10 FEET OF THE SOUTH 250 FEET OF LOTS 74 AND 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN BY MAP ON FILE IN BOOK 12, PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS AND OVER THE NORTH 10 FEET OF THE SOUTH 280 FEET OF THE EAST 181 FEET OF SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO BASE AND MERIDIAN AS PER MAP OF JURUPA RANCHO RECORDED IN BOOK 9 PAGE 33 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

EXCEPTING THAT PORTION LYING WITHIN THE EAST 81 FEET OF THE WEST 110 FEET OF LOT 75.

PARCEL 5:

AN UNDIVIDED 1/7TH INTEREST IN TWO WELL SITES LOCATED WITHIN THE NORTH 10 FEET OF THE. SOUTH 280 FEET, AND WITHIN THE NORTH 10 FEET OF THE SOUTH 175 FEET OF THE EAST 161 FEET OF SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO BASE AND MERIDIAN, AS PER MAP OF JURUPA RANCHO RECORDED IN BOOK 9 PAGE 33 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

TOGETHER WITH AN UNDIVIDED 1/7TH INTEREST IN AND TO THE WELL AND EQUIPMENT AND PIPES APPURTENANT THERETO.

PARCEL B: (APN 144-130-011 (PARCEL 1) AND 144-130-012 (PARCEL 2))

PARCELS 1 AND 2 OF PARCEL MAP NO. 9292, AS RECORDED IN BOOK 43, PAGES 50 AND 51 OF PARCEL MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING FROM PARCEL 2 AN UNDIVIDED 4/7TH INTEREST IN THOSE PORTIONS SHOWN AS WELL SITES PER DEED RECORDED FEBRUARY 19, 1970 AS INSTRUMENT NO. 16029.

PARCEL C: (APN 144-130-013)

PARCEL NO. 3 OF PARCEL MAP NO. 9292, AS RECORDED IN BOOK 43, PAGES 50 AND 51 OF PARCEL MAPS, RIVERSIDE COUNTY RECORDS

AREA CALCULATIONS:

PARENT PARCEL: 131,592 S.F., 3.021 AC. GROSS

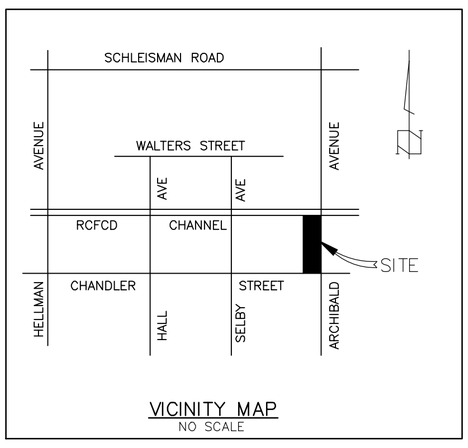
EXISTING PARCELS:

APN 144-130-004 (PARCEL A): 44,153.74 S.F. (1.0136 AC.)
APN 144-130-011&012 (PARCEL B): 57,706.90 S.F. (1.3258 AC.)
APN 144-130-013 (PARCEL C): 29,731.73 (0.6825 AC.)

PROPOSED PARCELS:

PARCEL 1: 32,592 S.F. (0.748 AC.) NET
PARCEL 2: 52,315 S.F. (1.201 AC.) NET
PARCEL 3: 32,425 S.F. (0.744 AC.) NET

NOTES:
1. TENTATIVE MAP INCLUDES ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER
2. IMPROVEMENT SCHEDULE " "
3. SITE IS SUBJECT TO MODERATE TO HIGH POTENTIAL FOR LIQUEFACTION UNDER SEISMIC CONDITIONS.



VICINITY MAP
NO SCALE

OWNERS:

A.P.N. 144-130-011 AND 144-130-012
EASTVALE LP, A CALIFORNIA LIMITED PARTNERSHIP
425 S. SAN GABRIEL BLVD. #900
SAN GABRIEL, CA 91776
(626)374-4727

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EASTVALE LP, A CALIFORNIA LIMITED PARTNERSHIP
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A.P.N. 144-130-004
EASTVALE LP, A CALIFORNIA LIMITED PARTNERSHIP
425 S. SAN GABRIEL BLVD. #900
SAN GABRIEL, CA 91776
(626)374-4727

REPRESENTATIVE:

LN CIVIL ENGINEERS, INC.
12188 HUMBOLT PLACE
CHINO, CA 91710
(909) 465-3286
LONG NGUYEN
Lncivilengineersinc@gmail.com

NO.	DATE	REVISIONS			
			DESIGNED BY:	WSC	PREPARED UNDER THE SUPERVISION OF:
			DRAFTED BY:	WSC	
			CHECKED BY:	MN	Longuyen — 7/24/23
			DATE: 7/24/23		LONG NGUYEN R.C.E. 46771 — DATE

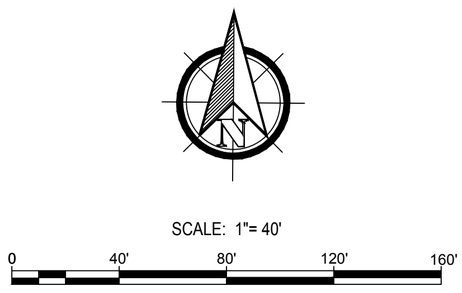
REGISTERED PROFESSIONAL ENGINEER
LONG M. NGUYEN
No. 46771
Exp 6-30-2025
CIVIL
STATE OF CALIFORNIA

IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE,

TENTATIVE PARCEL MAP NO. 37653

BEING A SUBDIVISION OF A PORTION OF LOT 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN IN BOOK 12, PAGE 98 OF MAPS, AND PARCELS 1, 2 AND 3 OF PARCEL MAP NO. 9292, AS SHOWN IN BOOK 43, PAGES 50 AND 51 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, IN SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, S.B.M.

LN CIVIL ENGINEERS, INC., JULY 2023



FIRST AMERICAN TITLE COMPANY

ORDER NUMBER: NHSC-638067
DATE: SEPTEMBER 15, 2020

LEGAL DESCRIPTION

REAL PROPERTY IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL A: (APN: 144-130-004)

PARCEL 1:

THE EAST 81 FEET OF THE WEST 110 FEET OF LOT 75 OF PERSIMMON REPUBLIC ACRES, IN THE CITY OF EASTVALE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12, PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING THEREFROM PARCEL 2230-33 AS SHOWN ON RECORD OF SURVEY FILED DECEMBER 15, 1971, IN RECORDS OF SURVEY BOOK 57, PAGES 94 TO 97, INCLUSIVE, OFFICE OF THE RECORDER, RIVERSIDE COUNTY, AS CONVEYED TO RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT BY DEED RECORDED MAY 26, 1972 AS INSTRUMENT NO. 69126 OF OFFICIAL RECORDS.

PARCEL 2:

A NON-EXCLUSIVE EASEMENT FOR INGRESS AND EGRESS OVER THE EAST 10 FEET OF THE WEST 120 FEET OF THE SOUTH 240 FEET OF LOT 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN BY MAP ON FILE IN BOOK 12, PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS.

PARCEL 3:

A NON-EXCLUSIVE EASEMENT FOR DOMESTIC PIPE LINE PURPOSES OVER THE NORTH 10 FEET OF THE SOUTH 145 FEET OF THE EAST 21 FEET OF LOT 73 AND OVER THE NORTH 10 FEET OF THE SOUTH 145 FEET OF LOTS 74 AND 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS, AND OVER THE NORTH 10 FEET OF THE SOUTH 175 FEET OF THE EAST 161 FEET OF SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO BASE AND MERIDIAN, AS PER MAP OF JURUPA RANCHO RECORDED IN BOOK 9 PAGE 33 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

EXCEPTING THAT PORTION LYING WITHIN THE EAST 81 FEET OF THE WEST 110 FEET OF LOT 75.

PARCEL 4:

A NON-EXCLUSIVE EASEMENT FOR PIPE LINE PURPOSES OVER THE NORTH 10 FEET OF THE SOUTH 250 FEET OF THE EAST 21 FEET OF LOT 73 AND OVER THE NORTH 10 FEET OF THE SOUTH 250 FEET OF LOTS 74 AND 75 OF PERSIMMON REPUBLIC ACRES, AS SHOWN BY MAP ON FILE IN BOOK 12, PAGE 98 OF MAPS, RIVERSIDE COUNTY RECORDS AND OVER THE NORTH 10 FEET OF THE SOUTH 280 FEET OF THE EAST 181 FEET OF SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO BASE AND MERIDIAN AS PER MAP OF JURUPA RANCHO RECORDED IN BOOK 9 PAGE 33 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

EXCEPTING THAT PORTION LYING WITHIN THE EAST 81 FEET OF THE WEST 110 FEET OF LOT 75.

PARCEL 5:

AN UNDIVIDED 1/7TH INTEREST IN TWO WELL SITES LOCATED WITHIN THE NORTH 10 FEET OF THE. SOUTH 280 FEET, AND WITHIN THE NORTH 10 FEET OF THE SOUTH 175 FEET OF THE EAST 161 FEET OF SECTION 34, TOWNSHIP 2 SOUTH, RANGE 7 WEST, SAN BERNARDINO BASE AND MERIDIAN, AS PER MAP OF JURUPA RANCHO RECORDED IN BOOK 9 PAGE 33 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

TOGETHER WITH AN UNDIVIDED 1/7TH INTEREST IN AND TO THE WELL AND EQUIPMENT AND PIPES APPURTENANT THERETO.

PARCEL B: (APN 144-130-011 (PARCEL 1) AND 144-130-012 (PARCEL 2))

PARCELS 1 AND 2 OF PARCEL MAP NO. 9292, AS RECORDED IN BOOK 43, PAGES 50 AND 51 OF PARCEL MAPS, RIVERSIDE COUNTY RECORDS.

EXCEPTING FROM PARCEL 2 AN UNDIVIDED 4/7TH INTEREST IN THOSE PORTIONS SHOWN AS WELL SITES PER DEED RECORDED FEBRUARY 19, 1970 AS INSTRUMENT NO. 16029.

PARCEL C: (APN 144-130-013)

PARCEL NO. 3 OF PARCEL MAP NO. 9292, AS RECORDED IN BOOK 43, PAGES 50 AND 51 OF PARCEL MAPS, RIVERSIDE COUNTY RECORDS

AREA CALCULATIONS:

PARENT PARCEL: 131,592 S.F., 3.021 AC. GROSS

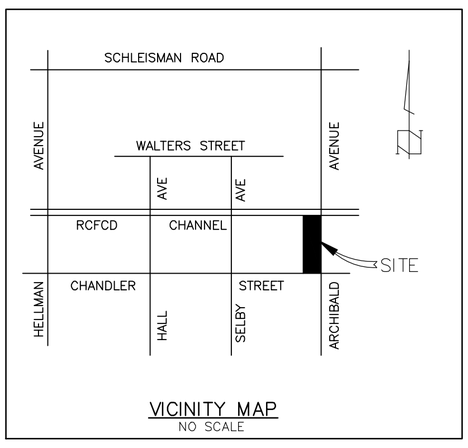
EXISTING PARCELS:

APN 144-130-004 (PARCEL A): 44,153.74 S.F. (1.0136 AC.)
APN 144-130-011&012 (PARCEL B): 57,706.90 S.F. (1.3258 AC.)
APN 144-130-013 (PARCEL C): 29,731.73 (0.6825 AC.)

PROPOSED PARCELS:

PARCEL 1: 32,592 S.F. (0.748 AC.) NET
PARCEL 2: 52,315 S.F. (1.201 AC.) NET
PARCEL 3: 32,425 S.F. (0.744 AC.) NET

NOTES:
1. TENTATIVE MAP INCLUDES ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER
2. IMPROVEMENT SCHEDULE " "
3. SITE IS SUBJECT TO MODERATE TO HIGH POTENTIAL FOR LIQUEFACTION UNDER SEISMIC CONDITIONS.



VICINITY MAP
NO SCALE

OWNERS:

A.P.N. 144-130-011 AND 144-130-012
EASTVALE LP, A CALIFORNIA LIMITED PARTNERSHIP
425 S. SAN GABRIEL BLVD. #900
SAN GABRIEL, CA 91776
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A.P.N. 144-130-013
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SAN GABRIEL, CA 91776
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REPRESENTATIVE:

LN CIVIL ENGINEERS, INC.
12188 HUMBOLT PLACE
CHINO, CA 91710
(909) 465-3286
LONG NGUYEN
Lncivilengineersinc@gmail.com

NO.	DATE	REVISIONS			
			DESIGNED BY:	WSC	PREPARED UNDER THE SUPERVISION OF:
			DRAFTED BY:	WSC	
			CHECKED BY:	MN	Longuyen — 7/24/23
			DATE: 7/24/23		LONG NGUYEN R.C.E. 46771 — DATE

REGISTERED PROFESSIONAL ENGINEER
LONG M. NGUYEN
No. 46771
Exp 6-30-2025
CIVIL
STATE OF CALIFORNIA

RESOLUTION NO. 23-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING PROJECT NO. PLN23-20018, TENTATIVE PARCEL MAP NO. 37653 LOCATED AT THE NORTHWEST CORNER OF CHANDLER AVENUE AND ARCHIBALD AVENUE, ASSESSOR'S PARCEL NUMBER 144-130-004, -011, -012, -013, AND -004

WHEREAS, the applicant, Schneider REA, submitted Planning Application No. PLN23-20018, Tentative Parcel Map No. 37653 to subdivide the 2.70-acre project site into three (3) parcels, located on the northwest corner of Chandler Avenue and Archibald Avenue. Assessor's Parcel Number 144-130-004, -011, -012, -013, and -004; and

WHEREAS, the proposed project (Project No. PLN23-20018) is considered a "project" as defined by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.; and

WHEREAS, a Mitigated Declaration (MND) was adopted by City Council on August 25, 2021 (via Resolution 21-35), that addressed physical development of the subject site; and

WHEREAS, pursuant to Section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the city conducted an analysis of the proposed project that concluded there were no new significant environmental effects, or a substantial increase in the severity of identified significant effects previously identified in the Mitigated Negative Declaration;

WHEREAS, the City determined that none of the findings of Section 15162 of the State CEQA Guidelines required preparation of a Subsequent Environmental Impact Report (EIR) or Negative Declaration and prepared an Addendum to the Mitigated Negative Declaration consistent with State CEQA Guidelines Section 15162; and

WHEREAS, the Planning Division evaluated the project for consistency with the City's General Plan, City of Eastvale Municipal Code Title 120 (Planning and Zoning), and all other applicable state and local regulations; and

WHEREAS, on October 8, 2023, the City of Eastvale City Clerk published a legal notice concerning Project No. PLN23-20018 in the Press Enterprise, a local newspaper of general circulation, regarding the Planning Commission meeting on October 18, 2023. In addition, on October 6, 2022, a public hearing notice was mailed to each property owner and commercial tenant within a 600-foot radius of the project site, indicating time and place of the public hearing for Project No. PLN23-20018; and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on October 18, 2023, at which public testimony was received concerning Project No. PLN23-20018, and at which time the Commission considered proposed Project No. PLN23-20018.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE DOES HEREBY RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. ENVIRONMENTAL FINDINGS

Pursuant to CEQA, within the meaning of Public Resources Code Sections 21080(e) and 21082.2 within the record and/or provided at the public hearing, the Planning Commission hereby finds and determines that the project was adequately analyzed according to the CEQA Guidelines, as supported by the following Findings and Evidence:

Finding: The proposed project is exempt from further environmental review requirements.

Evidence: Pursuant to the provisions of the California Environmental Quality Act (CEQA California Public Resources Code, Sections 21000, et seq.) and CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000, et seq.), an Addendum to the to the previously approved 2021 Initial Study/Mitigated Negative Declaration ("2021 IS/MND") was prepared for the proposed project. The Addendum reevaluates the revised project's environmental impacts due to changes in the approved project's (PLN19-20000) tenant makeup and layout. The addendum does not set forth policy for the City of Eastvale about the proposed Project's desirability. Rather, it is an information document to be used by the decision-makers, public agencies, and the public, in accordance with CEQA. The revised project would not cause new significant environmental effects or substantially increase the severity of previously identified effects disclosed in the 2021 IS/MND. Accordingly, the revised project would not trigger expanded environmental review, beyond this Addendum nor would require the preparation of subsequent IS/MND.

SECTION 2. MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Finding: The project is found to be consistent with the Multiple Species Habitat Conservation Plan (MSHCP).

Evidence: The project is located outside of any MSHCP criteria area.

SECTION 3. FINDINGS FOR TENTATIVE PARCEL MAP:

Finding 1: The proposed map is consistent with the City's General Plan and any applicable specific plan as specified in Government Code Section 65451.

Evidence: The General Plan land use designation for the subject site is Commercial Retail (CR) which allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office

and visitor-oriented commercial uses. The proposed Tentative Parcel Map 37653 is a land division to subdivide a 2.70 acre site into three (3) parcels to facilitate the development of a new commercial retail center. The proposed project would be consistent with the surrounding area and is consistent with the General Plan designation for the site of Commercial Retail and will further the objectives and policies of the General Plan. Further, the zoning for the project site is General Commercial (C-1/C-P) which would allow a commercial retail center; therefore, the proposed project is in compliance with the Zoning Code.

Finding 2: The design of the proposed project is consistent with the City's General Plan and any applicable specific plan.

Evidence: A site plan is proposed with Tentative Parcel Map No. 37653. The proposed site layout has been designed by the applicant to comply with the development standards provided in the Zoning Code, such as providing and exceeding the requirement of the minimum lot width, depth, lot size, and density. For these reasons, the proposed project, as conditioned, will enhance the character of the neighborhood and community.

Finding 3: The site is physically suitable for the type and proposed density of development.

Evidence: The site is physically suitable for the type of development proposed in that the infrastructure and utilities either already serve the site or can be readily expanded to serve the site, and there are no intractable topographical peculiarities associated with the physical character of the property that may prevent the development of three (3) commercial lots. Further the site is physically suitable for the proposed commercial retail center in that the applicant has submitted a conceptual development plan with illustrates that commercial retail can be constructed on this 2.70-acre site without adversely affecting the health, safety, or welfare of anyone within the community. All future development would be required to undergo analysis by the City and would be required to meet City design standards.

Finding 4: The design of the subdivision or proposed improvements is not likely to cause significant environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

Evidence: An Addendum to the to the previously approved 2021 Initial Study/Mitigated Negative Declaration ("2021 IS/MND") was prepared for the proposed project, and a Mitigation and Monitoring program was prepared for the project accordingly. As such, potential impacts to the environment or fish or wildlife will be monitored and mitigated accordingly.

Finding 5: The design of the subdivision or type of improvements is not likely to cause serious public health problems.

Evidence: The design of the subdivision is in conformance with the City's General Plan, Zoning Code, Specific Plan, and Subdivision Ordinance. Accordingly, the subdivision and improvements will comply with all applicable local, state, and federal laws to ensure the public's general health, safety, and welfare.

Finding 6: The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision.

Evidence: The City Engineer has reviewed the subdivision map, as well as conferred with relevant agencies. As such, the requested map would not conflict with any access through or use of the property.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the City Council's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the Planning Department of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk's Office of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 3, the Planning Commission of the City of Eastvale hereby approves Tentative Parcel Map No. 37653 for the subdivision of a 2.70-acre project area into three (3) parcels located at the northwest corner of Chandler Avenue and Archibald Avenue, subject to the conditions of approval.

PASSED, APPROVED AND ADOPTED this 18th day of October 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting thereof held on the 18th day of October, 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING MAJOR DEVELOPMENT REVIEW PLN23-20019 TO CONSTRUCT A NEW 950 SQUARE-FOOT COFFEE SHOP (DBA DUTCH BROS), A DOUBLE LANE DRIVE-THROUGH, ASSOCIATED OUTDOOR SEATING AREA, AND SITE IMPROVEMENTS ON A 0.75-ACRE VACANT LOT LOCATED AT THE NORTHWEST CORNER OF CHANDLER AVENUE AND ARCHIBALD AVENUE

WHEREAS, Major Development Review PLN23-20019 is requested by the applicant, Schneider REA, to construct a new 950 square-foot coffee shop (dba Dutch Bros), with a double lane drive-through, associated outdoor seating area, and site improvements on a 0.75-acre vacant lot of a proposed retail center; and

WHEREAS, Major Development Review PLN23-20019 is considered a "Project" as defined by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.; and

WHEREAS, a Mitigated Negative Declaration was adopted on August 25, 2021, that addressed physical development of the subject site; and

WHEREAS, pursuant to Section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the city conducted an analysis of the proposed project that concluded there were no new significant environmental effects, or a substantial increase in the severity of identified significant effects previously identified in the Mitigated Negative Declaration; and

WHEREAS, the City determined that none of the findings of Section 15162 of the State CEQA Guidelines required preparation of a Subsequent Environmental Impact Report (EIR) or Negative Declaration and prepared an Addendum to the Mitigated Negative Declaration consistent with State CEQA Guidelines Section 15162; and

WHEREAS, on October 8, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning Major Development Review PLN23-20019 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on October 18, 2023. In addition, on October 6, 2023, a public hearing notice was mailed to each property owner and commercial tenant within a 600-foot radius of the project site, indicating time, date, and place of the public hearing for Major Development Review PLN23-20019.

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on October 18, 2023, at which public testimony was received concerning Major Development Review PLN23-20019, and at which time the Planning Commission considered proposed Project No. PLN23-20019.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY RESOLVE, DECLARE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. FINDINGS FOR CEQA:

The California Environmental Quality Act (Section 2100, et. Seq. of the California Public Resources Code, hereafter CEQA) requires analysis of agency approvals of discretionary projects. A "project", under CEQA is defined as "the whole of an action which has a potential for resulting in either a direct physical change in environment." The proposed project is a project under CEQA.

The city evaluated the potential environmental impacts of the proposed revised project against the criteria set forth in CEQA Guidelines Section 15162, 15163, 15164, and 15168(c). The city acting as the Lead Agency, has determined that substantial evidence throughout the Addendum supports the determination that the project would not have any reasonable foreseeable environmental consequences beyond that analyzed in the Mitigated Negative Declaration and its associated administrative record. There are no substantial changes to the project, no substantial changes in the circumstances under which the project is being undertaken, and no new information of substantial importance that was not known to the Lead Agency at the time the Mitigated Negative Declaration was adopted that trigger any of the conditions identified in Public Resources Code Section 21166 or State CEQA Guidelines Section 15162, which would require subsequent or supplemental CEQA documentation. The proposed changes do not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects discussed in the previous Initial Study/Mitigated Negative Declaration. The previous identified mitigation measures remain valid and adequate to reduce potential impacts to less than significant levels. Therefore, an Addendum to the previously adopted Mitigated Negative Declaration is appropriate, and no further environmental review is required.

SECTION 2. MAJOR DEVELOPMENT REVIEW FINDINGS

The criteria and required findings for a Major Development Review are outlined in Section 120.02.010 "Development Review." The Planning Commission may approve a Major Development Review, with or without conditions, only after first making specific findings. The required findings and an analysis of the merits of the Major Development Review application are listed below:

Finding 1: The proposed project is consistent with the objectives of the general plan, and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Commercial Retail (CR). The Commercial Retail land use designation allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office and visitor-oriented commercial uses. The proposed commercial retail would be consistent with the surrounding area and is consistent with the General Plan designation and Zoning.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to conform to the logical pattern of development as envisioned by the Eastvale General Plan and has been designed to satisfy the General Plan design policies. The project has been designed to meet the requirements and development standards of the Eastvale Zoning Code.

Finding 3: The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architectural theme of the proposed drive-through coffee shop is compatible with the current design of the proposed retail center. These standards focus on high quality design and articulation to provide visual interest and variety (both vertically and horizontally). The building includes stone veneer, metal siding, colored and scored stucco, and metal awnings as examples of the variation of materials designed to complement the exterior plaster and building finishes. Thus, the proposed design is consistent with the Eastvale Zoning Code and the General Plan.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have also been designed to handle the type and quantity of vehicular traffic associated with the project proposal. As conditioned, the project will include sidewalks and pedestrian and bicycle connections that will not create conflicts with motorized vehicles.

Finding 5: If the project is located within the Chino Airport influence area, the proposed project is consistent with the most recently adopted version of the airport land use compatibility plan.

Evidence: The project site is located within the Chino Airport influence area and is subject to consistency with the Airport Land Use Compatibility Plan (ALUCP). The Riverside County Airport Land Use Commission (ALUC) acts in an advisory capacity when reviewing development projects for compatibility with the ALUCP. The project has been reviewed with consideration of the intensity requirements pursuant to ALUCP Policy CH 2.6.1, the site would be able to sufficiently accommodate the intensity requirements. Conditions have also

been included as part of the project requirements for the applicant to submit an application to ALUC and obtain an official consistency determination on the project prior to building permit issuance.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Finding: The project is found to be consistent with the Multiple Species Habitat Conservation Plan.

Evidence: The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of MSHCP Mitigation Fees.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the environmental documents, staff reports, as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 4. DETERMINATION

Based upon the findings outlined in Sections 1 to 3 above, the Planning Commission of the City of Eastvale hereby approves Major Development Review PLN23-20019 to construct a new 950 square-foot coffee shop, with a double lane drive-through, associated outdoor seating area, and site improvements, subject to conditions of approval.

PASSED, APPROVED AND ADOPTED this 18th day of October 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington

ATTEST:

_____
Whitney Mayo

Assistant City Attorney

Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a meeting held on the 18th day of October 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING CONDITIONAL USE PERMIT PLN23-20019 FOR THE ESTABLISHMENT AND OPERATION OF A DOUBLE-LANE DRIVE THROUGH AT A NEW 950 SQUARE-FOOT COFFEE SHOP (DBA DUTCH BROS), LOCATED AT THE NORTHWEST CORNER OF CHANDLER AVENUE AND ARCHIBALD AVENUE

WHEREAS, Conditional Use Permit PLN23-20019 is requested by the applicant, Schneider REA, to allow the establishment and operation of a double-lane drive through at a new 950 square-foot coffee shop (dba Dutch Bros) on a 0.75-acre vacant lot of a proposed retail center; and

WHEREAS, Conditional Use Permit PLN23-20019 is considered a "Project" as defined by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.; and

WHEREAS, a Mitigated Negative Declaration was adopted on August 25, 2021, that addressed physical development of the subject site; and

WHEREAS, pursuant to Section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the city conducted an analysis of the proposed project that concluded there were no new significant environmental effects, or a substantial increase in the severity of identified significant effects previously identified in the Mitigated Negative Declaration; and

WHEREAS, the City determined that none of the findings of Section 15162 of the State CEQA Guidelines required preparation of a Subsequent Environmental Impact Report (EIR) or Negative Declaration and prepared an Addendum to the Mitigated Negative Declaration consistent with State CEQA Guidelines Section 15162; and

WHEREAS, on October 8, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning Conditional Use Permit PLN23-20019 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on October 18, 2023. In addition, on October 6, 2023, a public hearing notice was mailed to each property owner and commercial tenant within a 600-foot radius of the project site, indicating time, date, and place of the public hearing for Major Development Review PLN23-20019.

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on October 18, 2023 at which public testimony was received concerning Conditional Use Permit PLN23-20019, and at which time the Planning Commission considered proposed Conditional Use Permit Project No. PLN23-20019.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY RESOLVE, DECLARE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. FINDINGS FOR CEQA:

The California Environmental Quality Act (Section 2100, et. Seq. of the California Public Resources Code, hereafter CEQA) requires analysis of agency approvals of discretionary projects. A "project", under CEQA is defined as "the whole of an action which has a potential for resulting in either a direct physical change in environment." The proposed project is a project under CEQA.

The city evaluated the potential environmental impacts of the proposed revised project against the criteria set forth in CEQA Guidelines Section 15162, 15163, 15164, and 15168(c). The city acting as the Lead Agency, has determined that substantial evidence throughout the Addendum supports the determination that the project would not have any reasonable foreseeable environmental consequences beyond that analyzed in the Mitigated Negative Declaration and its associated administrative record. There are no substantial changes to the project, no substantial changes in the circumstances under which the project is being undertaken, and no new information of substantial importance that was not known to the Lead Agency at the time the Mitigated Negative Declaration was adopted that trigger any of the conditions identified in Public Resources Code Section 21166 or State CEQA Guidelines Section 15162, which would require subsequent or supplemental CEQA documentation. The proposed changes do not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects discussed in the previous Initial Study/Mitigated Negative Declaration. The previous identified mitigation measures remain valid and adequate to reduce potential impacts to less than significant levels. Therefore, an Addendum to the previously adopted Mitigated Negative Declaration is appropriate, and no further environmental review is required.

SECTION 2. CONDITIONAL USE PERMIT FINDINGS

The criteria and required findings for a Conditional Use Permit are outlined in Section 120.02.020 "Conditional Use Permits". The Planning Commission may approve a Conditional Use Permit, with or without conditions, only after first making specific findings. The required findings and an analysis of the merits of the Conditional Use Permit application are listed below:

Finding 1: The proposed use is consistent with the General Plan and all applicable provisions of this title.

Evidence: The General Plan land use designation of the proposed site is Commercial Retail (CR). The Commercial Retail land use designation allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office and visitor-oriented commercial uses. The proposed project would be consistent with the surrounding area and is consistent with the General Plan designation and Zoning. The project consists of

a drive-through facility where vehicle queuing will occur within the proposed project site and will therefore not affect any public roadway.

Finding 2: The establishment, maintenance or operation of the use applied for will not, under the circumstances of the particular case (location, size, design, and operating characteristics), be detrimental to the health, safety, peace, morals, comfort, or general welfare of persons residing or working in the neighborhood of such use, or the general welfare of the city.

Evidence: The proposed use will not be detrimental or injurious to property in the vicinity nor to the public health, safety, and general welfare because staff has reviewed plans and recommended conditions of approval as preventative measures. The proposed coffee shop with a drive-through operation, subject to its conditions of approval, will integrate with the overall retail center, which has been designed to provide adequate parking, circulation, and access to major roadway systems that provide local and regional connectivity. Existing driveways for the retail center have been designed with sufficient length and width to accommodate vehicles entering and exiting the parking areas, including for the commercial retail building.

The proposed drive-through accommodates a maximum of 27 cars from the pickup window and up to 18 cars from the ordering menu board. This design, subject to the conditions, satisfies the requirement of a minimum stacking of six (6) cars to the order menu board per the City of Eastvale Zoning Code. Furthermore, in that there is sufficient queuing capacity to accommodate peak drive-through queues entirely within the drive-through lane, based on the empirical evidence provided in the queuing analysis prepared by Ganddini Group on September 19, 2023, thus maintaining unimpeded drive aisles, and allowing vehicle to circulate efficiently throughout the site as well as on public roadways. To further ensure the proposed drive-through will not be detrimental or injurious to property in the vicinity nor the public health and safety and general welfare staff has added conditions of approval requiring Dutch Bros staff to temporarily restrict access to the drive-through in the event the drive-through queue exceeds its queuing capacity as well as submit a Traffic Management Plan for review and approval by staff. Based off the Addendum to the 2021 MND, found the limited addition of project vehicle trips to existing traffic already generated by patrons traveling to and from the existing on-site retail use would not substantially increase area traffic or adversely affect local circulation patterns.

Additionally, the project operational noise, as analyzed in the Noise Impact Analysis, prepared by the Ganddini Group on December 16, 2022, would not result in significant impacts. Based off the Addendum to the 2021 MND, no mitigation is required and the project as conditioned, would not be detrimental to the health, safety, peace, morals, comfort, or general welfare of persons residing or working the neighborhood or such use or the general welfare of the

city.

Finding 3: If the project is located within the Chino Airport Influence Area, the proposed project is consistent with the most recently adopted version of the Airport Land Use Compatibility Plan.

Evidence: The project site is located within the Chino Airport influence area and is subject to consistency with the Airport Land Use Compatibility Plan (ALUCP). The Riverside County Airport Land Use Commission (ALUC) acts in an advisory capacity when reviewing development projects for compatibility with the ALUCP. The project has been reviewed with consideration of the intensity requirements pursuant to ALUCP Policy CH 2.6.1, the site would be able to sufficiently accommodate the intensity requirements. Conditions have also been included as part of the project requirements for the applicant to submit an application to ALUC and obtain an official consistency determination on the project prior to building permit issuance.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Finding: The project is found to be consistent with the Multiple Species Habitat Conservation Plan (MSHCP).

Evidence: The project is located outside of any MSHCP criteria area with no evidence of sensitive biological resources.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the environmental documents, staff reports, as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 to 3 above, the Planning Commission of the City of Eastvale hereby approves Conditional Use Permit PLN23-20019 for the establishment and operation of a double-lane drive-through coffee shop (dba Dutch Bros) on a vacant lot within a newly proposed retail center, subject to conditions of approval.

PASSED, APPROVED AND ADOPTED this 18th day of October, 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

ATTEST:

_____
Chad Herrington
Assistant City Attorney

_____
Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a meeting held on the 18th day of October 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING MAJOR DEVELOPMENT REVIEW PLN23-20020 TO CONSTRUCT A NEW 3,598 SQUARE-FOOT CARWASH (DBA QUICK QUACK), A TRIPLE LANE DRIVE-THROUGH, ASSOCIATED OUTDOOR SEATING AREA, AND SITE IMPROVEMENTS ON A 1.20-ACRE VACANT LOT LOCATED AT THE NORTHWEST CORNER OF CHANDLER AVENUE AND ARCHIBALD AVENUE

WHEREAS, Major Development Review PLN23-20020 is requested by the applicant, Schneider REA, to construct a new 3,598 square-foot carwash (dba Quick Quack), with a triple lane drive-through, associated outdoor seating area, and site improvements on a 1.20-acre vacant lot of a proposed retail center; and

WHEREAS, Major Development Review PLN23-20020 is considered a "Project" as defined by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.; and

WHEREAS, a Mitigated Negative Declaration was adopted on August 25, 2021, that addressed physical development of the subject site; and

WHEREAS, pursuant to Section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the city conducted an analysis of the proposed project that concluded there were no new significant environmental effects, or a substantial increase in the severity of identified significant effects previously identified in the Mitigated Negative Declaration; and

WHEREAS, the City determined that none of the findings of Section 15162 of the State CEQA Guidelines required preparation of a Subsequent Environmental Impact Report (EIR) or Negative Declaration and prepared an Addendum to the Mitigated Negative Declaration consistent with State CEQA Guidelines Section 15162; and

WHEREAS, on October 8, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning Major Development Review PLN23-20020 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on October 18, 2023. In addition, on October 6, 2023, a public hearing notice was mailed to each property owner and commercial tenant within a 600-foot radius of the project site, indicating time, date, and place of the public hearing for Major Development Review PLN23-20020.

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on October 18, 2023, at which public testimony was received concerning Major Development Review PLN23-20020, and at which time the Planning Commission considered proposed Project No PLN23-20020.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY RESOLVE, DECLARE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. FINDINGS FOR CEQA:

The California Environmental Quality Act (Section 2100, et. Seq. of the California Public Resources Code, hereafter CEQA) requires analysis of agency approvals of discretionary projects. A "project", under CEQA is defined as "the whole of an action which has a potential for resulting in either a direct physical change in environment." The proposed project is a project under CEQA.

The city evaluated the potential environmental impacts of the proposed revised project against the criteria set forth in CEQA Guidelines Section 15162, 15163, 15164, and 15168(c). The city acting as the Lead Agency, has determined that substantial evidence throughout the Addendum supports the determination that the project would not have any reasonable foreseeable environmental consequences beyond that analyzed in the Mitigated Negative Declaration and its associated administrative record. There are no substantial changes to the project, no substantial changes in the circumstances under which the project is being undertaken, and no new information of substantial importance that was not known to the Lead Agency at the time the Mitigated Negative Declaration was adopted that trigger any of the conditions identified in Public Resources Code Section 21166 or State CEQA Guidelines Section 15162, which would require subsequent or supplemental CEQA documentation. The proposed changes do not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects discussed in the previous Initial Study/Mitigated Negative Declaration. The previous identified mitigation measures remain valid and adequate to reduce potential impacts to less than significant levels. Therefore, an Addendum to the previously adopted Mitigated Negative Declaration is appropriate, and no further environmental review is required.

SECTION 2. MAJOR DEVELOPMENT REVIEW FINDINGS

The criteria and required findings for a Major Development Review are outlined in Section 120.02.010 "Development Review." The Planning Commission may approve a Major Development Review, with or without conditions, only after first making specific findings. The required findings and an analysis of the merits of the Major Development Review application are listed below:

Finding 1: The proposed project is consistent with the objectives of the general plan, and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Commercial Retail (CR). The Commercial Retail land use designation allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office and visitor-oriented commercial uses. The proposed commercial retail would be consistent with the surrounding area and is consistent with the General Plan designation and Zoning.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to conform to the logical pattern of development as envisioned by the Eastvale General Plan and has been designed to satisfy the General Plan design policies. The project has been designed to meet the requirements and development standards of the Eastvale Zoning Code.

Finding 3: The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architectural theme of the proposed drive-through carwash is compatible with the current design of the proposed retail center. These standards focus on high quality design and articulation to provide visual interest and variety (both vertically and horizontally). The building includes stone veneer, metal siding, colored and scored stucco, and metal awnings as examples of the variation of materials designed to complement the exterior plaster and building finishes. Thus, the proposed design is consistent with the Eastvale Zoning Code and the General Plan.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have also been designed to handle the type and quantity of vehicular traffic associated with the project proposal. As conditioned, the project will include sidewalks and pedestrian and bicycle connections that will not create conflicts with motorized vehicles.

Finding 5: If the project is located within the Chino Airport influence area, the proposed project is consistent with the most recently adopted version of the airport land use compatibility plan.

Evidence: The project site is located within the Chino Airport influence area and is subject to consistency with the Airport Land Use Compatibility Plan (ALUCP). The Riverside County Airport Land Use Commission (ALUC) acts in an advisory capacity when reviewing development projects for compatibility with the ALUCP. The project has been reviewed with consideration of the intensity requirements pursuant to ALUCP Policy CH 2.6.1, the site would be able to sufficiently accommodate the intensity requirements. Conditions have also

been included as part of the project requirements for the applicant to submit an application to ALUC and obtain an official consistency determination on the project prior to building permit issuance.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Finding: The project is found to be consistent with the Multiple Species Habitat Conservation Plan (MSHCP). The project is located outside of any MSHCP criteria area with no evidence of sensitive biological resources.

Evidence: The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of MSHCP Mitigation Fees.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the environmental documents, staff reports, as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 4. DETERMINATION

Based upon the findings outlined in Sections 1 to 3 above, the Planning Commission of the City of Eastvale hereby approves Major Development Review PLN23-20020 to construct a new 3,598 square-foot carwash (dba Quick Quack), with a triple lane drive-through, associated outdoor seating area, and site improvements, subject to conditions of approval.

PASSED, APPROVED AND ADOPTED this 18th day of October 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington

ATTEST:

_____
Whitney Mayo

Assistant City Attorney

Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a meeting held on the 18th day of October 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING CONDITIONAL USE PERMIT PLN23-20020 FOR THE ESTABLISHMENT AND OPERATION OF A TRIPLE-LANE DRIVE THROUGH AT A NEW 3,598 SQUARE-FOOT CARWASH (DBA QUICK QUACK), LOCATED AT THE NORTHWEST CORNER OF CHANDLER AVENUE AND ARCHIBALD AVENUE

WHEREAS, Conditional Use Permit PLN23-20020 is requested by the applicant, Schneider REA, to allow the establishment and operation of a triple-lane drive through at a new 3,598 square-foot carwash (dba Quick Quack) on a 1.20-acre vacant lot of a proposed retail center; and

WHEREAS, Conditional Use Permit PLN23-20020 is considered a "Project" as defined by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.; and

WHEREAS, a Mitigated Negative Declaration was adopted on August 25, 2021, that addressed physical development of the subject site; and

WHEREAS, pursuant to Section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the city conducted an analysis of the proposed project that concluded there were no new significant environmental effects, or a substantial increase in the severity of identified significant effects previously identified in the Mitigated Negative Declaration; and

WHEREAS, the City determined that none of the findings of Section 15162 of the State CEQA Guidelines required preparation of a Subsequent Environmental Impact Report (EIR) or Negative Declaration and prepared an Addendum to the Mitigated Negative Declaration consistent with State CEQA Guidelines Section 15162; and

WHEREAS, on October 8, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning Conditional Use Permit PLN23-20020 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on October 18, 2023. In addition, on October 6, 2023, a public hearing notice was mailed to each property owner and commercial tenant within a 600-foot radius of the project site, indicating time, date, and place of the public hearing for Major Development Review PLN23-20020.

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on October 18, 2023 at which public testimony was received concerning Conditional Use Permit PLN23-20020, and at which time the Planning Commission considered proposed of Conditional Use Permit PLN23-20020.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY RESOLVE, DECLARE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. FINDINGS FOR CEQA:

The California Environmental Quality Act (Section 2100, et. Seq. of the California Public Resources Code, hereafter CEQA) requires analysis of agency approvals of discretionary projects. A "project", under CEQA is defined as "the whole of an action which has a potential for resulting in either a direct physical change in environment." The proposed project is a project under CEQA.

The city evaluated the potential environmental impacts of the proposed revised project against the criteria set forth in CEQA Guidelines Section 15162, 15163, 15164, and 15168(c). The city acting as the Lead Agency, has determined that substantial evidence throughout the Addendum supports the determination that the project would not have any reasonable foreseeable environmental consequences beyond that analyzed in the Mitigated Negative Declaration and its associated administrative record. There are no substantial changes to the project, no substantial changes in the circumstances under which the project is being undertaken, and no new information of substantial importance that was not known to the Lead Agency at the time the Mitigated Negative Declaration was adopted that trigger any of the conditions identified in Public Resources Code Section 21166 or State CEQA Guidelines Section 15162, which would require subsequent or supplemental CEQA documentation. The proposed changes do not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects discussed in the previous Initial Study/Mitigated Negative Declaration. The previous identified mitigation measures remain valid and adequate to reduce potential impacts to less than significant levels. Therefore, an Addendum to the previously adopted Mitigated Negative Declaration is appropriate, and no further environmental review is required.

SECTION 2. CONDITIONAL USE PERMIT FINDINGS

The criteria and required findings for a Conditional Use Permit are outlined in Section 120.02.020 "Conditional Use Permits". The Planning Commission may approve a Conditional Use Permit, with or without conditions, only after first making specific findings. The required findings and an analysis of the merits of the Conditional Use Permit application are listed below:

Finding 1: The proposed use is consistent with the General Plan and all applicable provisions of this title.

Evidence: The General Plan land use designation of the proposed site is Commercial Retail (CR). The Commercial Retail land use designation allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office and visitor-oriented commercial uses. The proposed project would be consistent with the surrounding area and is consistent with the General Plan designation and Zoning. The project consists of a drive-through facility where vehicle queuing will occur within the proposed project site and will therefore not affect any public roadway.

Finding 2: The establishment, maintenance or operation of the use applied for will not, under the circumstances of the particular case (location, size, design, and operating characteristics), be detrimental to the health, safety, peace, morals, comfort, or general welfare of persons residing or working in the neighborhood of such use, or the general welfare of the city.

Evidence: The proposed use will not be detrimental or injurious to property in the vicinity nor to the public health, safety, and general welfare because staff has reviewed plans and recommended conditions of approval as preventative measures. The proposed carwash with a drive-through operation, subject to its conditions of approval, will integrate with the overall retail center, which has been designed to provide adequate parking, circulation, and access to major roadway systems that provide local and regional connectivity. Existing driveways for the retail center have been designed with sufficient length and width to accommodate vehicles entering and exiting the parking areas, including for the commercial retail building.

The proposed drive-through accommodates a maximum of 29 cars before entering the carwash structure and up to 23 cars from the ordering kiosk. This design, subject to the conditions, satisfies the requirement of a minimum stacking of six (6) cars to the order menu board per the City of Eastvale Zoning Code. Furthermore, in that there is sufficient queuing capacity to accommodate peak drive-through queues entirely within the drive-through lane, based on the empirical evidence provided in the queuing analysis prepared by Ganddini Group on September 19, 2023, thus maintaining unimpeded drive aisles, and allowing vehicle to circulate efficiently throughout the site as well as public roadways. To further ensure the proposed drive-through will not be detrimental or injurious to property in the vicinity nor the public health and safety and general welfare, staff has added conditions of approval requiring Quick Quack staff to temporarily restrict access to the drive-through in the event the drive-through queue exceeds its queuing capacity as well as submit a Traffic Management Plan for review and approval by staff. Based off the Addendum to the 2021 MND, limited addition of project vehicle trips to existing traffic already generated by patrons traveling to and from the existing on-site retail use would not substantially increase area traffic or adversely affect local circulation patterns.

Additionally, the project operational noise as analyzed in the Noise Impact Analysis, prepared by the Ganddini Group on December 16, 2022 would not result in significant impacts, similar to that identified in the 2021 IS/MND. Therefore, no mitigation is required and the project as conditioned, would not be detrimental to the health, safety, peace, morals, comfort, or general welfare of persons residing or working the neighborhood or such use or the general welfare of the city.

Finding 3: If the project is located within the Chino Airport Influence Area, the proposed project is consistent with the most recently adopted version of the Airport Land Use Compatibility Plan.

Evidence: The project site is located within the Chino Airport influence area and is subject to consistency with the Airport Land Use Compatibility Plan (ALUCP). The Riverside County Airport Land Use Commission (ALUC) acts in an advisory capacity when reviewing development projects for compatibility with the ALUCP. The project has been reviewed with consideration of the intensity requirements pursuant to ALUCP Policy CH 2.6.1, the site would be able to sufficiently accommodate the intensity requirements. Conditions have also been included as part of the project requirements for the applicant to submit an application to ALUC and obtain an official consistency determination on the project prior to building permit issuance.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Finding: The project is found to be consistent with the Multiple Species Habitat Conservation Plan (MSHCP).

Evidence: The project is located outside of any MSHCP criteria area with no evidence of sensitive biological resources.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the environmental documents, staff reports, as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 to 3 above, the Planning Commission of the City of Eastvale hereby approves Conditional Use Permit PLN23-20020 for the establishment and operation of a triple-lane drive-through carwash (dba Quick Quack) on a vacant lot within a newly proposed retail center, subject to conditions of approval.

PASSED, APPROVED AND ADOPTED this 18th day of October 2023.

_____

Kevin Mensen
Chairman

APPROVED AS TO FORM:

ATTEST:

_____

Chad Herrington
Assistant City Attorney

_____

Whitney Mayo
Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a meeting held on the 18th day of October 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

RESOLUTION NO. 23-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING MAJOR DEVELOPMENT REVIEW PLN23-20021 TO CONSTRUCT A NEW 3,450 SQUARE-FOOT SIT-DOWN RESTAURANT (DBA ZENDEJAS), ASSOCIATED OUTDOOR SEATING AREA, AND SITE IMPROVEMENTS ON A 0.74-ACRE VACANT LOT LOCATED AT THE NORTHWEST CORNER OF CHANDLER AVENUE AND ARCHIBALD AVENUE

WHEREAS, Major Development Review PLN23-20021 is requested by the applicant, Schneider REA, to construct a new 3,450 square-foot sit-down restaurant (dba Zendejas), associated outdoor seating area, and site improvements on a 0.74-acre vacant lot of a proposed retail center; and

WHEREAS, Major Development Review PLN23-20021 is considered a "Project" as defined by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.; and

WHEREAS, a Mitigated Negative Declaration was adopted on August 25, 2021, that addressed physical development of the subject site; and

WHEREAS, pursuant to Section 15162 of the California Environmental Quality Act (CEQA) Guidelines, the city conducted an analysis of the proposed project that concluded there were no new significant environmental effects, or a substantial increase in the severity of identified significant effects previously identified in the Mitigated Negative Declaration; and

WHEREAS, the City determined that none of the findings of Section 15162 of the State CEQA Guidelines required preparation of a Subsequent Environmental Impact Report (EIR) or Negative Declaration and prepared an Addendum to the Mitigated Negative Declaration consistent with State CEQA Guidelines Section 15162; and

WHEREAS, on October 8, 2023, the City of Eastvale City Clerk published a legal notice in compliance with state law concerning Major Development Review PLN23-20021 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on October 18, 2023. In addition, on October 6, 2023, a public hearing notice was mailed to each property owner and commercial tenant within a 600-foot radius of the project site, indicating time, date, and place of the public hearing for Major Development Review PLN23-20021.

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on October 18, 2023 at which public testimony was received concerning Major Development Review PLN23-20021, and at which time the Planning Commission considered proposed Project No. PLN23-20021.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE, DOES HEREBY RESOLVE, DECLARE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. FINDINGS FOR CEQA:

The California Environmental Quality Act (Section 2100, et. Seq. of the California Public Resources Code, hereafter CEQA) requires analysis of agency approvals of discretionary projects. A "project", under CEQA is defined as "the whole of an action which has a potential for resulting in either a direct physical change in environment." The proposed project is a project under CEQA.

The city evaluated the potential environmental impacts of the proposed revised project against the criteria set forth in CEQA Guidelines Section 15162, 15163, 15164, and 15168(c). The city acting as the Lead Agency, has determined that substantial evidence throughout the Addendum supports the determination that the project would not have any reasonable foreseeable environmental consequences beyond that analyzed in the Mitigated Negative Declaration and its associated administrative record. There are no substantial changes to the project, no substantial changes in the circumstances under which the project is being undertaken, and no new information of substantial importance that was not known to the Lead Agency at the time the Mitigated Negative Declaration was adopted that trigger any of the conditions identified in Public Resources Code Section 21166 or State CEQA Guidelines Section 15162, which would require subsequent or supplemental CEQA documentation. The proposed changes do not involve new significant environmental effects or a substantial increase in the severity of previously identified significant effects discussed in the previous Initial Study/Mitigated Negative Declaration. The previous identified mitigation measures remain valid and adequate to reduce potential impacts to less than significant levels. Therefore, an Addendum to the previously adopted Mitigated Negative Declaration is appropriate, and no further environmental review is required.

SECTION 2. MAJOR DEVELOPMENT REVIEW FINDINGS

The criteria and required findings for a Major Development Review are outlined in Section 120.02.010 "Development Review." The Planning Commission may approve a Major Development Review, with or without conditions, only after first making specific findings. The required findings and an analysis of the merits of the Major Development Review application are listed below:

Finding 1: The proposed project is consistent with the objectives of the general plan, and complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Commercial Retail (CR). The Commercial Retail land use designation allows for the development of commercial retail uses at a neighborhood, community, and regional level, as well as for professional office and visitor-oriented commercial uses. The proposed restaurant would be consistent with the surrounding area and is

consistent with the General Plan designation and Zoning.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to conform to the logical pattern of development as envisioned by the Eastvale General Plan and has been designed to satisfy the General Plan design policies. The project has been designed to meet the requirements and development standards of the Eastvale Zoning Code.

Finding 3: The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architectural theme of the proposed restaurant is compatible with the current design of the proposed retail center. These standards focus on high quality design and articulation to provide visual interest and variety (both vertically and horizontally). The building includes stone veneer, decorative panels, colored and scored stucco, and metal awnings as examples of the variation of materials designed to complement the exterior plaster and building finishes. Thus, the proposed design is consistent with the Eastvale Zoning Code and the General Plan.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have also been designed to handle the type and quantity of vehicular traffic associated with the project proposal. As conditioned, the project will include sidewalks and pedestrian and bicycle connections that will not create conflicts with motorized vehicles.

Finding 5: If the project is located within the Chino Airport influence area, the proposed project is consistent with the most recently adopted version of the airport land use compatibility plan.

Evidence: The project site is located within the Chino Airport influence area and is subject to consistency with the Airport Land Use Compatibility Plan (ALUCP). The Riverside County Airport Land Use Commission (ALUC) acts in an advisory capacity when reviewing development projects for compatibility with the ALUCP. The project has been reviewed with consideration of the intensity requirements pursuant to ALUCP Policy CH 2.6.1, the site would be able to

sufficiently accommodate the intensity requirements. Conditions have also been included as part of the project requirements for the applicant to submit an application to ALUC and obtain an official consistency determination on the project prior to building permit issuance.

SECTION 3. MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Finding: The project is found to be consistent with the Multiple Species Habitat Conservation Plan (MSHCP).

Evidence: The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of MSHCP Mitigation Fees.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the environmental documents, staff reports, as well as all materials that support the staff reports for the proposed project, are located in the City Clerk's office of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 4. DETERMINATION

Based upon the findings outlined in Sections 1 to 3 above, the Planning Commission of the City of Eastvale hereby approves Major Development Review PLN23-20021 to construct a new 3,450 square-foot, with sit-down restaurant (dba Zendejas), associated outdoor seating area, and site improvements, subject to conditions of approval.

PASSED, APPROVED AND ADOPTED this 18th day of October 2023.

_____
Kevin Mensen
Chairman

APPROVED AS TO FORM:

_____
Chad Herrington

ATTEST:

_____
Whitney Mayo

Assistant City Attorney

Deputy City Clerk

STATE OF CALIFORNIA)
COUNTY OF RIVERSIDE) §
CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a meeting held on the 18th day of October 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo
Deputy City Clerk

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN23-20018– Tentative Parcel Map (TPM) No. 37653 to subdivide approximately a 2.70-acre site into three (3) parcels located at the retail development on the northwest corner of Archibald Ave. and Chandler Ave.
Assessor's Parcel Number: 144-130-004, -011, -012, and -013
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. Project approval is not final until a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative, or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent jurisdiction. It is expressly agreed that the City shall have the right to approve,	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
3.	Any approval shall not be final until and unless the applicant's deposit account with the Planning Division has a balance of at least **$2,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20018** on the check.	On-Going	Planning Division	
4.	Any approval shall not be final until and unless the applicant's deposit account with the Public Works Division has a balance of at least $10,000 to cover staff time to follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to half work if the deposit account is exhausted.	On-Going	Public Works Division	
5.	Applicant understands and agrees that failure to comply with all conditions of approval may result in the City Council/Planning Commission taking action resulting in modification of conditions of approval and/or suspension or revocation of the **Tentative Parcel Map.**	On-Going	Planning Divisions	
Mitigation Measures				
6.	**BIO-1:** Prior to the issuance of a grading permit, a preconstruction burrowing owl clearance survey shall be completed by a qualified biologist within 30 days prior to ground disturbance to avoid direct take of burrowing owls. Once complete, a written report summarizing the results of the clearance survey shall be prepared and submitted to the City of Eastvale for review and concurrence. · If no burrowing owls are detected, construction may proceed. If construction is delayed or suspended for more than 30 days during the	Prior to Issuance of Grading Permit/ Within 30 days prior to ground disturbance	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	breeding season (March 1 to August 31), the project site or work area shall be resurveyed. · If burrowing owls are detected on the project site during the breeding season (March 1 to August 31), a 300-foot "no work" buffer shall be established around the active burrow and all work within the buffer shall be halted until the qualified biologist has determined through non-intrusive methods that the nesting effort is complete (i.e., all young have fledged). Once the nesting effort is complete or if a burrowing owl burrow is detected on-site during the non- breeding season (September 1 to February 28), passive and/or active relocation of burrowing owls may be implemented by a qualified biologist following consultation and approval from the City of Eastvale, the Western Riverside County Regional Conservation Authority, and the California Department of Fish and Wildlife.			
7.	**BIO-2:** Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally **extends from February 1 through August 31**, but can vary slightly from year to year based on seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a preconstruction clearance survey for nesting birds shall be conducted within 30 days of the start of any ground-disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptors and special- status species, this buffer will be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.	Prior to Issuance of Grading Permit/ Within 30 days of the start of any ground-disturbing activities	Planning Division	
8.	**CUL-1**: If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting	Prior to Issuance of Grading Permit/	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.	During ground-disturbing activities		
9.	**TCR-1:** Tribal Monitoring. Prior to the issuance of a grading permit, **the project applicant** shall contact the consulting tribe(s) with notification of the proposed grading and shall make a good-faith effort, as determined by the City's Development Director, to enter into a Tribal Cultural Resources Monitoring Agreement with each tribe that determines its tribal cultural resources may be present on the site. The agreements shall include, but not be limited to, outlining provisions and requirements for addressing the handling of tribal cultural resources; Project grading and development scheduling; terms of compensation for the tribal monitors; and establishing on-site monitoring provisions and/or requirements for professional tribal monitors during all ground-disturbing activities. The terms of the agreements shall not conflict with any of these mitigation measures. A copy/copies of the agreement(s) shall be provided to the City of Eastvale Planning Department prior to the issuance of a grading permit.	Prior to Issuance of Grading Permit	Planning Division	
10.	**TCR-2:** Archaeological Monitoring. At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the project applicant shall retain a Secretary of Interior Standards-qualified, Registered Professional Archaeologist (RPA), as an archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Ground-disturbing activities may include, but are not limited to, pavement removal, potholing or auguring, grubbing, weed abatement, boring, grading, excavation, drilling, and trenching. The on-site archaeological monitoring would end when the project site grading and excavation activities are completed, or when the monitor has indicated that the site has a low potential for archeological resources. The Project Registered Professional archaeologist, in consultation with consulting	At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities.	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Tribe(s) identified above, and the developer, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site and provide the plan to the City for approval. Details in the plan shall include: A. Project grading and development scheduling. B. The development of a rotating or simultaneous schedule in coordination with the project applicant and the project archeologist for designated Native American tribal monitors from the consulting tribes during grading, excavation and ground-disturbing activities on the site. C. The safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists. D. The protocols and stipulations that the developer, tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.			
11.	**TCR-3:** Treatment and Disposition of Cultural Resources. If tribal cultural resources are inadvertently discovered during ground disturbing activities for this project. The following procedures will be carried out for treatment and disposition of the discoveries: A. Temporary Curation and Storage. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process. B. Treatment and Final Disposition. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the	Prior to Issuance of Grading Permit / During Ground Disturbing Activities	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City Planning Department with documentation of same: i. Reburial on-site. Accommodate the process for on-site reburial of the discovered items with the consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed. ii. Curation. A curation agreement with an appropriate qualified repository within Riverside County that meets Federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation. iii. Disposition Dispute. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center. iv. Final Report. At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall: o Document the impacts to the known resources on the property; o Describe how each mitigation measure was fulfilled; o Document the type of cultural resources recovered and the disposition of such resources;			

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	o Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; o In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. o All reports produced will be submitted to the City, Eastern Information Center and consulting tribes.			
12.	**TCR-4:** Discovery of Human Remains. If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains. The following procedures as set forth in the California Environmental Quality Act (CEQA), Section 15064.5(e), the California Public Resources Code (PRC) (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall then be undertaken: If human remains or funerary/sacred items are encountered, the archaeological monitor or tribal monitor will halt work within the immediate area and any nearby area reasonably suspected to overlie adjacent remains, establish an Environmentally Sensitive Area (ESA) boundary to protect the find from impact, and immediately notify the City Archaeologist. Project work outside the established ESA may continue. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, s/he shall notify the NAHC in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the	Prior to Issuance of Grading Permit / During Ground-Disturbing Activities	Planning Division / Archeological Monitor	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.			
13.	**GHG-1:** The project shall incorporate the following California Air Pollution Control Officers Association-based reduction measures and regulatory compliance: · Utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen Standards. · Implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341). · Incorporate the following land use and site enhancement reduction measures: LUT-1 Increase Density, LUT-4 Improve Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network.	Prior to Issuance of Building Permit/ Construction	Planning Division	
14.	**GHG-2:** The project shall incorporate the following design features: · The project applicant shall require that all faucets, toilets, and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen standards. · The project applicant shall require recycling programs that reduce waste to landfills by a minimum 75 percent per AB 341. · The project applicant shall provide sidewalks on-site and connecting off-site.	Prior to Issuance of Building Permit/ Construction	Planning Division	
15.	**NOI-1:** The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receptors nearest the project site.	Prior to Issuance of Building Permit/ Construction	Building Division	
16.	**NOI-2:** The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).	Prior to Issuance of Building Permit/ Construction	Building Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
17.	**NOI-3:** The contractor shall install temporary construction noise barriers/blankets along the western boundary. The barrier/blankets shall be solid with no cracks or holes and shall also reach to the ground.	Prior to Issuance of Building Permit/ Construction	Building Division	
18.	**NOI-4:** During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from applicable noise level specifications.	Prior to Issuance of Building Permit/ Construction	Building Division	
19.	**NOI-5:** The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary.	Prior to Issuance of Building Permit/ Construction	Building Division	
Tentative Parcel Map (TPM)				
20.	TPM No. 37653 is approved to subdivide a 2.70 acre parcel into three (3) parcels of land located at the northwest corner of Archibald Ave. and Chandler Ave. in the C-1/C-P (General Commercial) Zone to facilitate the development of a 950 sf drive-through coffee shop, a 3,598 sf drive-through carwash, and a 3,450 sf sit-down restaurant, as shown on the tentative parcel map submitted to the Planning Division, and as approved by the **APPROVING AUTHORITY,** subject to all requirements of the City of Eastvale Municipal Code. If the Conditions of Approval specified herein are not satisfied or otherwise completed, the Project shall be subject to revocation.	On-Going	Planning Divisions	
21.	The Developer shall enter into a Subdivision Improvement Agreement with the City, and shall guarantee by posting security(ies) to include all public improvements that the developer is conditioned to construct as part of this approval.	Prior to Map Recordation	Public Works Division	
22.	Dedicate City Engineer approved additional right-of-way along the entire frontage as may be required to provide a property line at ultimate right-of-way in accordance with the City General Plan, any applicable Specific Plan and/or as requested by the City Engineer. Dedicate 25 feet of right-of-way along	Prior to Map Recordation	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Archibald Avenue and 14 feet of right-of-way along Chandler Street to the City for public right-of-way purposes.			
23.	A Final Map prepared by a California licensed Land Surveyor or registered Civil Engineer authorized to practice land surveying (pre-1982, RCE #33965 and lower) and all supporting documents to the Public Works Division for review and approval. A Title Report prepared for subdivision guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Final Map to the Engineering Division as part of the review of the Final Map. The Final Map shall be approved by the City Council prior to recordation of the Final Map.	Prior to Map Recordation	Public Works Division	
24.	Provide a reciprocal access easement between Parcel 1 & Parcel 2 and Parcel 2 & Parcel 3. The applicant shall provide a copy of a reciprocal access agreement, shared parking agreement, and documentation showing the responsible entity for maintaining the parking areas (including landscaping) for the entire site including the landscaped areas along the Chandler Avenue and Archibald frontages to the City Engineer for review and approval.	Prior to Map Recordation	Planning and Public Works Divisions	
25.	Monument bond shall be posted with the City. The Developer shall provide a cost estimate to set monuments prepared by a California licensed Land Surveyor or registered Civil Engineer to the Public Works Division for review and approval by the City Engineer.	Prior to Map Recordation	Public Works Division	
26.	The Developer shall enter into an agreement with the City for bonding and improvements of all public streets, public infrastructure, private streets, and private infrastructure.	Prior to Map Recordation	Public Works Division	
27.	Various blanket and specific transportation and/or utility easements that are no longer in use are to be quitclaimed/abandoned on the Final Map.	Prior to Map Recordation	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
28.	Show on the Final Map dedication of the public right-of-way for, Archibald Avenue and Chandler Avenue, in accordance with the City of Eastvale Road Improvement Standards & Specification, Improvement Plan Check Policies and Guidelines, to the satisfaction of the City Engineer, and in coordination with the adjacent agencies as applicable.	Prior to map recordation	Public Works Division	
29.	The applicant shall provide will-serve letters from all utility agencies.	Prior to map recordation	Public Works Division	
30.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements.	Prior to map recordation	Public Works Division	
31.	Provide on project plans (grading, site plan, etc.) design for the roundabout to be constructed east of Cucamonga creek.	Prior to map recordation	Public Works Division	
32.	Provide safe, functional pedestrian pathways throughout the site.	Prior to map recordation	Public Works Division	
33.	The project site shall include two cross access easements to allow internal circulation with the future development of the properties located to the west.	Prior to map recordation	Planning Division	
34.	All existing overhead utility lines shall be undergrounded within the project frontage(s). Utility undergrounding shall extend to the nearest off-site power pole. Unless City Engineer approved, no new power poles shall be installed. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Precise Grading/Paving Plan, informing the City that they have been notified of the City's utility undergrounding requirement and their intent to commence design of utility undergrounding plans. When available, the utility undergrounding plan shall be submitted to the City Engineer identifying all above ground facilities in the area of the project to be undergrounded.	Prior to Issuance of Grading Permit	Public Works Division	
35.	All transmission line poles on Archibald Avenue shall be relocated unless it is demonstrated to the satisfaction of the City Engineer that such poles can	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	remain without impacting street improvements, vehicular circulation, and public safety. Distribution lines along Archibald which are attached to transmission line poles are allowed to remain. Distribution lines and communication lines along Chandler Street shall be undergrounded and all non-transmission poles along the property frontage shall be removed. However, any overhead distribution and communication lines shall be undergrounded across the intersection of Archibald Avenue and Chandler Street.			
36.	Prior to the issuance of a Grading Permit, the Developer shall pay all necessary fees as determined by the City Engineer including, but not limited to Multiple Species Habitat Conservation Plan ("MSHCP") fees and grading permit fees.	Prior to Issuance of Grading Permit	Public Works Division	
37.	Grading in excess of 199 cubic yards will require performance security to be posted with the City	Prior to Issuance of Grading Permit	Public Works Division	
38.	A permit for the hauling of material to and from the project site shall be submitted to the City for approval.	Prior to Issuance of Grading Permit	Public Works Division	
39.	Submit a California registered Civil Engineer prepared earthwork cut and fill certification letter to the Engineering Division for review. If the required earthwork in cubic yards is 50 CY or less, a Precise Grading/Paving Plan will not be required; however, the applicant is required to pull an NPDES/Public Works permit prior to issuance of a Building Permit for record purposes.	Prior to Issuance of Grading Permit	Public Works Division	
40.	Development of the site is subject to the requirements of the National Pollution Discharge Elimination System ("NPDES") Permit for the City of Eastvale, under the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2010-0036. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
41.	Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. 6 foot high tan colored perimeter screened fencing b. Contractor information signage including contact information along the street frontage. c. Post dust control signage with the following verbiage: "Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, please call the AQMD at 1-800-CUT-SMOG/1-800-228-7664"	Prior to Issuance of Grading Permit	Public Works Division	
42.	A Notice of Intent ("NOI") to comply with the California General Construction Stormwater Permit is required via the California Regional Water Quality Control Board online Stormwater Multiple Application and Report Tracking System ("SMARTS"). A copy of the executed letter issuing a Waste Discharge Identification ("WDID") number shall be provided to the City Engineer. The Construction General Permit requires the Developer's contractor to prepare and maintain a Storm Water Pollution Prevention Plan ("SWPPP"). The SWPPP requires all appropriate measures be implemented to prevent erosion and water pollution during construction.	Prior to Issuance of Grading Permit	Public Works Division	
43.	A California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Engineering Division with the first submittal of the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	
44.	All stormwater runoff passing through the site shall be accepted and conveyed across the property in a manner acceptable to the City Engineer. All on-site City Engineer approved retention or other facilities are required to contain the increase stormwater runoff generated from the proposed development. Provide a hydrology study to determine the volume of increased stormwater runoff due to development of the site, and to determine required stormwater runoff mitigation measures for the proposed development. The City Engineer must approve the final retention basin sizing and other stormwater runoff	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	mitigation measures determined upon review and approval of the hydrology and may require redesign or changes to site configuration or layout consistent with the findings of the final hydrology study. The existing "pre-developed" condition compared to the proposed "developed" condition shall be used to calculate the volume of increased stormwater runoff to retain on-site under the 100-year frequency storm.			
45.	Direct release of on-site nuisance water or stormwater runoff shall not be permitted to the adjacent public streets. Provisions for the interception of nuisance water from entering adjacent public streets from the project site shall be provided through the use of a minor storm drain system that collects and conveys nuisance water to landscape or parkway areas, and in only a stormwater runoff condition, pass runoff directly to the streets through parkway or under sidewalk drains.	Prior to Issuance of Grading Permit	Public Works Division	
46.	The Developer shall connect to the JCSD sewer system and apply for a sewer connection account with JCSD. The project applicant, developer, or successor in interest shall provide written verification that the JCSD can and will provide sanitary sewer service to the project.	Prior to Issuance of Grading Permit	Public Works Division	
47.	The Developer shall submit sewer improvement plans prepared by a California registered Civil Engineer to the JCSD/Public Works Division. The plans shall be approved by the JCSD/City Engineer prior to issuance of any building permits.	Prior to Issuance of Grading Permit	Public Works Division	
48.	The Developer shall submit street improvement plans prepared by a California registered Civil Engineer to the Public Works Division for review and approval. Unless otherwise approved, the street improvement plans shall be approved concurrently with any street light, landscape and irrigation, and traffic signal plans.	Prior to Issuance of Grading Permit	Public Works Division	
49.	The Developer shall submit traffic striping and signage plans prepared by a California registered Civil Engineer, for review and approval by the City Engineer. All required traffic striping and signage improvements shall be completed concurrently with required street improvements, to the satisfaction of the City Engineer, and prior to issuance of a Building Permit.	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
50.	An accessible pedestrian path of travel shall be provided throughout the site, as required by applicable state and federal laws.	Prior to Issuance of Grading Permit	Planning and Public Works Division	
51.	The minimum pavement section for all on-site pavements shall be 3 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
52.	Traffic Control Plan prepared by a California registered Civil Engineer or Traffic Engineer shall be submitted to the City Engineer for review and approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
53.	Transportation Mitigation Measure 1 (TRA-1) - Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with state standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
54.	Submit photometric plan of street lighting. All lights shall be Edison LS-3 tariff and utilize General Electric Evolve LED luminaires per City Specifications. The Developer shall be responsible for applying with Southern California Edison ("SCE") for all appropriate service points and electrical meters early in the process to avoid delays. The Developer must pay for the electrical service of new meter pedestals installed until such time the improvements have been accepted and the underlying property is annexed into	Prior to Issuance of Building Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Community Facilities District ("CFD") or Landscaping Maintenance District ("LMD").			
55.	The public street improvements outlined in these Conditions of Approval are intended to convey to the developer an accurate scope of required improvements; however, the City Engineer reserves the right to require reasonable additional improvements as may be determined in the course of the review and approval of street improvement plans required herein.	Prior to Issuance of Building Permit	Public Works Division	
56.	The Precise Grading/Paving Plan shall be City Engineer approved prior to issuance of a building permit.	Prior to Issuance of Building Permit	Public Works Division	
57.	A WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be approved prior to issuance of a Building Permit and shall be recorded by the Developer at the Riverside County Recorder's Office with a recorded copy provided to the Public Works Division prior to issuance of a Certificate of Occupancy.	Prior to Issuance of Building Permit	Public Works Division	
58.	Provide pad elevation certifications for all building pads in conformance with the approved Precise Grading Plan to the Public Works Division prior to construction of any building foundation.	Prior to Issuance of Building Permit	Public Works Division	
59.	The Developer is advised that domestic water service is provided by JCSD. The developer shall be responsible for coordinating with JCSD and complying with all requirements for establishing domestic water service to the property.	Prior to Issuance of Building Permit	Public Works Division	
60.	Prior to issuance of a building permit, the developer is required to pay Traffic Impact Analysis Project Fair Share Contribution fees.	Prior to Issuance of Building Permit	Public Works Division	
61.	Prior to issuance of building permit, installation of conduit fiber optic along property frontages shall be required.	Prior to Issuance of Building Permit	Public Works Division	
62.	The Applicant shall pay all applicable development impact fees in accordance with the City of Eastvale fee ordinance in effect at the time the fees are due, prior to the issuance of any building permits related to the Project.	Prior to Issuance of Building Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
63.	Applicant shall add details of city entry gateway feature/monument including color architectural elevations and perspective views as seen coming from the corner of Chandler Avenue and Archibald Avenue to communicate scale, impact and finishes.	Prior to Issuance of Building Permit	Planning Division	
64.	The detention basin shall be hand-planted and landscaped to conform with the overall plant palette and for flexibility to seasonal water usage. Trees, shrubs, ground covers and ornamental grasses shall be included. The detention basin shall include a barrier to keep unauthorized personal from entering. Barrier shall be review and reviewed to the satisfaction of the Community Development Director and Planning Division.	Prior to Issuance of Building Permit	Planning Division	
65.	Applicant shall submit an application to ALUC and obtain an official consistency determination on the project.	Prior to Issuance of Building Permit	Planning Division	
66.	All parkway landscaping shall be guaranteed for a period of one (1) year from the date of the City Engineer acceptance. Any landscaping that fails during the one (1) year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer, and shall be subject to a subsequent one (1) year landscape maintenance period.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	
67.	The development shall be annexed into all applicable City of Eastvale owned and administered Community Facilities Districts (CFDs) and/or Landscaping Maintenance Districts (LMDs) for On-Going maintenance of traffic signals, traffic signal synchronization, street lights, full capture systems for all storm drains, and landscape maintenance of raised landscaped median and public parkways, to the satisfaction of the City Engineer or otherwise form a district where one is not currently in place.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
68.	Upon City Engineer approval of any improvement plan, the improvement plan shall be provided to the City in digital format, consisting of a DWG (AutoCAD drawing file), DXF (AutoCAD ASCII drawing exchange file), and PDF (Adobe Acrobat) formats. Variation of the type and format of the digital data to be submitted to the City may be authorized, upon prior City Engineer approval.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
69.	Mira Loma Road and Bridge Benefit Assessment District Fee ("MLRBA"), Transportation Uniform Mitigation Fee ("TUMF"), Area Drainage Plan ("ADP") fee, and any other regional pass-through fees in effect at that time shall be paid prior to issuance of Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
70.	The Developer shall submit to the City Engineer for review and approval the Covenants, Conditions, and Restrictions ("CC&Rs") and/or a Property Owners Association document to maintain and operate common areas and/or facilities including, but not limited to, parking areas, private utilities, and water quality basins.	Prior to Issuance of Certificate of Occupancy	Public Works and Planning Division	
71.	Prior to issuance of a Certificate of Occupancy or final City approvals, demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
72.	The Developer shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
73.	All damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and street lights, associated with the proposed development shall be replaced.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
74.	Remove existing, and construct new pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, to the existing right edge line along the entire street frontage in accordance with City of Eastvale Standard Drawings. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve recent pavement improvements.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
75.	Construct an Americans with Disabilities Act ("ADA") compliant sidewalk behind curb along the entire frontage and interior streets in accordance with the General Plan, any Specific Plan, the City of Eastvale Standard Drawings, subject to the approval of the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
76.	Construct City Engineer approved commercial driveway approaches in accordance with City of Eastvale Standard Drawings. The driveway approach shall be constructed so the top of "X" is 5 feet from the property line. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
77.	Construct a curb ramp meeting current California State Accessibility standard along both sides of the commercial driveway approaches. The developer shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the driveway, and shall adjust the location of the access ramps, if necessary, to meet ADA guidelines, subject to the approval of the City Engineer. If necessary, additional pedestrian and sidewalk easements shall be provided on-site to construct a path of travel meeting ADA guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
78.	Grind and overlay half ROW width of Archibald Avenue and Chandler Street within the project frontages up to the existing median.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
79.	Install Class II bicycle lanes along Archibald Avenue to connect to the existing Class II bicycle lanes to the north.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
80.	Install Pan-Tilt-Zoom ("PTZ") cameras at each intersection to tie into the existing Citywide system to monitor traffic.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
81.	Install License Plate Reader ("LPR") cameras to tie into the existing Citywide system at each traffic signal servicing the property.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
82.	Upgrade traffic signals within 100 feet of the property to provide signal synchronization.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
83.	Applicant, at its sole option and cost, may install a traffic signal at the intersection of Archibald Avenue and Fairchild Drive, pending signal warrant analysis approved by the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
84.	The Developer shall be responsible for coordinating with Riverside Transit Authority ("RTA") regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The Developer shall design street, bus pad, and sidewalk improvements in accordance with the latest RTA bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act ("ADA") requirements. The Developer shall design all bus stops to accommodate the RTA Shelters. The Developer shall submit to Public Works verification from RTA acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
85.	The Developer shall employ staff to assist with management of the drive through queue during peak periods. Specifically, staff should periodically walk along the drive through lanes encouraging vehicles to pull forward and maximize efficiently of the available storage. A Traffic Management Plan for operations and special events shall be submitted to the Public Works and Planning Divisions for review and approval and be made a part of each businesses' Standard Operating Procedures.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
86.	Grand openings for the Dutch Bros and Quick Quack Car Wash tenants shall be held a minimum of one week apart from each other.	Prior to Issuance of Certificate of Occupancy	Public Works and Planning Division	
87.	The original improvement plans prepared for the proposed development and approved by the City Engineer (if required) shall be documented with record drawing “as-built” information and returned to the Public Works Division prior to issuance of a final certificate of occupancy. Any modifications or	Prior to Certificate of Occupancy	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	changes to approved improvement plans shall be submitted to the City Engineer for approval prior to construction.			
88.	All conditions of approval for TPM No. 37653 shall be completed to the satisfaction of the City Engineer prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	
89.	All sewer mains constructed by the applicant and to become part of the public sewer system shall be pressure tested and digitally video recorded by the City's wastewater system operator JSCD prior to acceptance of the sewer system for maintenance by the City. The developer shall be responsible for all costs associated with testing and inspection services. Any defects of the sewer main shall be removed, replaced, or repaired to the satisfaction of the City Engineer prior to acceptance.	Prior to Certificate of Occupancy	Public Works Division	
90.	The Applicant shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	
91.	The sewer lines shall require connections to occur at a manhole and no direct lateral connections to the mainlines are allowed.	Prior to Issuance of Grading Permit	Public Works Division	
92.	The applicant must provide the District with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	Prior to Issuance of Grading Permit	Public Works Division	
93.	The Applicant shall submit a Water Quality Management Plan identifying site specific Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading Plan. A WQMP Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer.	Prior to Issuance of Grading Permit	Public Works Division	
94.	Provide street sweeping services for onsite and offsite within project frontages weekly.	On-Going	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
95.	Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.	On-Going	Public Works Division	
96.	A City of Eastvale Encroachment Permit is required for any improvements within the public right-of-way.	On-going	Public Works Division	
97.	All street cuts for utilities shall be repaired in accordance with City Standard or as recommended; and any interim trench repairs shall consist of compacted backfill to the bottom of the pavement structural section followed by placement of standard base course material in accord by the City Engineer and with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.	On-going	Public Works Division	
98.	In accordance with City's Moratorium policy to preserve newly paved streets, any and all street and/or trench cuts in newly paved streets will be prohibited or be subject to moratorium street repair standards as reference in Section 12.08.260 of the Eastvale Municipal Code.	On-going	Public Works Division	
99.	Any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development shall be backfilled and repaired in accordance with City of Eastvale Standard Drawings. The Developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e. Jurupa Community Services District, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets resulting from the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site streets, at the discretion of the City Engineer. The pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.	On-going	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
100.	Construction signing, lighting and barricading shall be provided during all phases of construction in accordance with City Standards and the direction of the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 "Temporary Traffic Control" of the latest California Manual on Uniform Traffic Control Devices, or subsequent editions in force at the time of construction.	On-Going	Public Works Division	
101.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements	On-Going	Planning and Public Works Division	
102.	A notice from Riverside County Airport Land Use Commission noting the site's location near the Chino Airport shall be recorded (ALUC condition).	On-Going	Planning and Public Works Division	
103.	The project shall be developed in accordance with the approved Tentative Parcel Map and Major Development Review, including the approved site plan, architectural elevations, conceptual landscape plan, and interim and ultimate improvements on Chandler Ave. and Archibald Avenue. The applicant may request modifications or revisions to the approved project as provided in the Eastvale Zoning Code.	On-Going	Planning and Public Works Division	
104.	Revisions to the Tentative Parcel Map required shall be prepared by a California registered Land Surveyor or qualified Civil Engineer and submitted to the Planning and Engineering Division for review and approval. A Title Report prepared for subdivision guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Parcel Map to the Engineering Division as part of the review of the Map. The Final Parcel Map shall be approved by the City Engineer and the City Council prior to issuance of any building permits.	On-Going	Public Works and Planning Division	
105.	**Expiration/Renewal of Approval:** **Tentative Parcel Map No. 37653** shall expire 36 months after such approval unless within that period of time a final map shall have been approved and	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	filed with the county recorder. Prior to the expiration date, the land divider may apply in writing for an extension of time. Each application shall be made to the planning director **30 days prior** to expiration date of the tentative map and shall be accompanied by the fee.			

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are required by the City, other local agencies, or state and federal agencies, and are not conditions of approval of the project.

1. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned. Amended entitlement approvals may be necessary as a result.

2. Submit a final parcel map and all supporting documents for review and approval to the satisfaction of the City Engineer and Public Works Department.

3. Applicants are responsible for all costs associated with off-site right-of-way acquisition, including any costs associated with the eminent domain process, if necessary.

4. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN23-20019– Major Development Review for the development of a 950 square-foot drive-through coffee shop (dba Dutch Bros) on the northwest corner of Archibald Ave. and Chandler Ave.
Assessor's Parcel Number: 144-130-004, -011, -012, and -013
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. Project approval is not final until a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative, or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	jurisdiction. It is expressly agreed that the City shall have the right to approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
3.	Any approval shall not be final until and unless the applicant's deposit account with the Planning Division has a balance of at least **$2,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20019** on the check.	On-Going	Planning Division	
4.	Any approval shall not be final until and unless the applicant's deposit account with the Public Works Division has a balance of at least $10,000 to cover staff time to follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to half work if the deposit account is exhausted.	On-Going	Public Works Division	
5.	Applicant understands and agrees that failure to comply with all conditions of approval may result in the City Council/Planning Commission taking action resulting in modification of conditions of approval and/or suspension or revocation of the Major Development Review.	On-Going	Planning Division	
6.	Major Development Review PLN23-20019 is granted contingent upon approval of PLN23-20018 (TTM 37653). Failure to approve PLN23-20018 (TTM37653) shall render any approval of Major Development Review PLN23-20019 null and void.	On-Going	Planning Division	
7.	PLN23-20019 is granted for a period of two years and shall become void as of October 18, 2025, unless building permits have been issued and construction is commenced and diligently pursued towards completion, or a time extension is requested in writing prior to that date.	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
8.	The project shall be developed in accordance with the Major Development Review application approved by the Planning Commission on October 18, 2023,, including the approved site plan, architectural elevations, conceptual landscape plan, etc. The applicant may request modifications or revisions to the approved project as outlined in Section 120.01.050(c) the Eastvale Zoning Code. A change of tenancy of any portion of the approved project requires review and approval by the original approving authority.	On-Going	Planning Division	
9.	Applicable mitigation measures included in the Addendum to the IS/MND shall be required for development of the proposed project and shall be incorporated herein by reference.	On-Going	Planning Division	
10.	The cover sheet of the building construction drawings shall include a blue line print of the City's conditions of approval and shall be attached to each set of plans submitted for City approval.	On-Going	Planning Division	
11.	PAD 3 (Sit-Down Restaurant) shall receive Certificate of Occupancy prior to or concurrently with PAD 1 (Coffee Shop) and PAD 2 (Carwash).	On-Going	Planning Division	
Prior to Map Recordation				
12.	The Developer shall enter into a Subdivision Improvement Agreement with the City, and shall guarantee by posting security(ies) to include all public improvements that the developer is conditioned to construct as part of this approval.	Prior to Map Recordation	Public Works Division	
13.	Dedicate City Engineer approved additional right-of-way along the entire frontage as may be required to provide a property line at ultimate right-of-way in accordance with the City General Plan, any applicable Specific Plan and/or as requested by the City Engineer. Dedicate 25 feet of right-of-way along Archibald Avenue and 14 feet of right-of-way along Chandler Street to the City for public right-of-way purposes.	Prior to Map Recordation	Public Works Division	
14.	A Final Map prepared by a California licensed Land Surveyor or registered Civil Engineer authorized to practice land surveying (pre-1982, RCE #33965	Prior to Map Recordation	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	and lower) and all supporting documents to the Public Works Division for review and approval. A Title Report prepared for subdivision guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Final Map to the Engineering Division as part of the review of the Final Map. The Final Map shall be approved by the City Council prior to recordation of the Final Map.			
15.	Provide a reciprocal access easement between Parcel 1 & Parcel 2 and Parcel 2 & Parcel 3. The applicant shall provide a copy of a reciprocal access agreement, shared parking agreement, and documentation showing the responsible entity for maintaining the parking areas (including landscaping) for the entire site including the landscaped areas along the Chandler Avenue and Archibald frontages to the City Engineer for review and approval.	Prior to Map Recordation	Planning and Public Works Divisions	
16.	Monument bond shall be posted with the City. The Developer shall provide a cost estimate to set monuments prepared by a California licensed Land Surveyor or registered Civil Engineer to the Public Works Division for review and approval by the City Engineer.	Prior to Map Recordation	Public Works Division	
17.	The Developer shall enter into an agreement with the City for bonding and improvements of all public streets, public infrastructure, private streets, and private infrastructure.	Prior to Map Recordation	Public Works Division	
18.	Various blanket and specific transportation and/or utility easements that are no longer in use are to be quitclaimed/abandoned on the Final Map.	Prior to Map Recordation	Public Works Division	
19.	Show on the Final Map dedication of the public right-of-way for, Archibald Avenue and Chandler Avenue, in accordance with the City of Eastvale Road Improvement Standards & Specification, Improvement Plan Check Policies and Guidelines, to the satisfaction of the City Engineer, and in coordination with the adjacent agencies as	Prior to map recordation	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	applicable.			
20.	The applicant shall provide will-serve letters from all utility agencies.	Prior to map recordation	Public Works Division	
21.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements.	Prior to map recordation	Public Works Division	
22.	Provide on project plans (grading, site plan, etc.) design for the roundabout to be constructed east of Cucamonga creek.	Prior to map recordation	Public Works Division	
23.	Provide safe, functional pedestrian pathways throughout the site.	Prior to map recordation	Public Works Division	
24.	The project site shall include two cross access easements to allow internal circulation with the future development of the properties located to the west.	Prior to map recordation	Planning Division	
25.	A shared parking agreement and reciprocal access agreement for the entire site shall be submitted for Planning Division review. The shared parking agreement shall include all parcels included in the parcel map.	Prior to map recordation	Planning Division	
Prior to Issuance of Grading Permit				
26.	Prior to submittal for grading plan check, the site plan shall be revised to show a pathway that provides pedestrians with safe unobstructed access to the adjacent retail and restaurant pads. Pavement on all pathways and entryways shall be decorative in nature with texture, stamped concrete or pavers.	Prior to Issuance of Grading Permit	Planning Division	
27.	Prior to submittal for grading plan check, the site plan shall be revised to show one (1) loading space area for the coffee shop.	Prior to Issuance of Grading Permit	Planning Division	
28.	**BIO-1:** Prior to the issuance of a grading permit, a preconstruction burrowing owl clearance survey shall be completed by a qualified biologist within 30 days prior to ground disturbance to avoid direct take of burrowing owls. Once complete, a written report summarizing the results of the clearance survey shall be prepared and submitted to the City of Eastvale for review and concurrence.	Prior to Issuance of Grading Permit/ Within 30 days prior to ground disturbance	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	· If no burrowing owls are detected, construction may proceed. If construction is delayed or suspended for more than 30 days during the breeding season (March 1 to August 31), the project site or work area shall be resurveyed. · If burrowing owls are detected on the project site during the breeding season (March 1 to August 31), a 300-foot "no work" buffer shall be established around the active burrow and all work within the buffer shall be halted until the qualified biologist has determined through non-intrusive methods that the nesting effort is complete (i.e., all young have fledged). Once the nesting effort is complete or if a burrowing owl burrow is detected on-site during the non- breeding season (September 1 to February 28), passive and/or active relocation of burrowing owls may be implemented by a qualified biologist following consultation and approval from the City of Eastvale, the Western Riverside County Regional Conservation Authority, and the California Department of Fish and Wildlife.			
29.	**BIO-2:** Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally **extends from February 1 through August 31**, but can vary slightly from year to year based on seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a preconstruction clearance survey for nesting birds shall be conducted within 30 days of the start of any ground-disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptors and special- status species, this buffer will be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.	Prior to Issuance of Grading Permit/ Within 30 days of the start of any ground-disturbing activities	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
30.	**CUL-1**: If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.	Prior to Issuance of Grading Permit/ During ground-disturbing activities	Planning Division	
31.	**TCR-1:** Tribal Monitoring. Prior to the issuance of a grading permit, **the project applicant** shall contact the consulting tribe(s) with notification of the proposed grading and shall make a good-faith effort, as determined by the City's Development Director, to enter into a Tribal Cultural Resources Monitoring Agreement with each tribe that determines its tribal cultural resources may be present on the site. The agreements shall include, but not be limited to, outlining provisions and requirements for addressing the handling of tribal cultural resources; Project grading and development scheduling; terms of compensation for the tribal monitors; and establishing on-site monitoring provisions and/or requirements for professional tribal monitors during all ground-disturbing activities. The terms of the agreements shall not conflict with any of these mitigation measures. A copy/copies of the agreement(s) shall be provided to the City of Eastvale Planning Department prior to the issuance of a grading permit.	Prior to Issuance of Grading Permit	Planning Division	
32.	**TCR-2:** Archaeological Monitoring. At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the project applicant shall retain a Secretary of Interior Standards-qualified, Registered Professional Archaeologist (RPA), as an archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Ground-disturbing activities may include, but are not limited to, pavement removal, potholing or auguring, grubbing, weed abatement, boring, grading, excavation, drilling, and trenching. The on-site archaeological monitoring would end when the project site grading and excavation activities are completed, or when the monitor has indicated that	At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities.	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	the site has a low potential for archeological resources. The Project Registered Professional archaeologist, in consultation with consulting Tribe(s) identified above, and the developer, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site and provide the plan to the City for approval. Details in the plan shall include: A. Project grading and development scheduling. B. The development of a rotating or simultaneous schedule in coordination with the project applicant and the project archeologist for designated Native American tribal monitors from the consulting tribes during grading, excavation and ground-disturbing activities on the site. C. The safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists. D. The protocols and stipulations that the developer, tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.			
33.	**TCR-3:** Treatment and Disposition of Cultural Resources. If tribal cultural resources are inadvertently discovered during ground disturbing activities for this project. The following procedures will be carried out for treatment and disposition of the discoveries: A. Temporary Curation and Storage. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process.	Prior to Issuance of Grading Permit / During Ground Disturbing Activities	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	B. Treatment and Final Disposition. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City Planning Department with documentation of same: i. Reburial on-site. Accommodate the process for on-site reburial of the discovered items with the consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed. ii. Curation. A curation agreement with an appropriate qualified repository within Riverside County that meets Federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation. iii. Disposition Dispute. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center. iv. Final Report. At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall: o Document the impacts to the known resources on the property;			

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	o Describe how each mitigation measure was fulfilled; o Document the type of cultural resources recovered and the disposition of such resources; o Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; o In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. o All reports produced will be submitted to the City, Eastern Information Center and consulting tribes.			
34.	**TCR-4:** Discovery of Human Remains. If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains. The following procedures as set forth in the California Environmental Quality Act (CEQA), Section 15064.5(e), the California Public Resources Code (PRC) (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall then be undertaken: If human remains or funerary/sacred items are encountered, the archaeological monitor or tribal monitor will halt work within the immediate area and any nearby area reasonably suspected to overlie adjacent remains, establish an Environmentally Sensitive Area (ESA) boundary to protect the find from impact, and immediately notify the City Archaeologist. Project work outside the established ESA may continue. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, s/he shall notify the NAHC in Sacramento within 48 hours. In	Prior to Issuance of Grading Permit / During Ground-Disturbing Activities	Planning Division / Archeological Monitor	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.			
35.	All existing overhead utility lines shall be undergrounded within the project frontage(s). Utility undergrounding shall extend to the nearest off-site power pole. Unless City Engineer approved, no new power poles shall be installed. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Precise Grading/Paving Plan, informing the City that they have been notified of the City's utility undergrounding requirement and their intent to commence design of utility undergrounding plans. When available, the utility undergrounding plan shall be submitted to the City Engineer identifying all above ground facilities in the area of the project to be undergrounded.	Prior to Issuance of Grading Permit	Public Works Division	
36.	All transmission line poles on Archibald Avenue shall be relocated unless it is demonstrated to the satisfaction of the City Engineer that such poles can remain without impacting street improvements, vehicular circulation, and public safety. Distribution lines along Archibald which are attached to transmission line poles are allowed to remain. Distribution lines and communication lines along Chandler Street shall be undergrounded and all non-transmission poles along the property frontage shall be removed. However, any overhead distribution and communication lines shall be undergrounded across the intersection of Archibald Avenue and Chandler Street.	Prior to Issuance of Grading Permit	Public Works Division	
37.	Prior to the issuance of a Grading Permit, the Developer shall pay all necessary fees as determined by the City Engineer including, but not limited to Multiple Species Habitat Conservation Plan ("MSHCP") fees and grading permit fees.	Prior to Issuance of Grading Permit	Public Works Division	
38.	Grading in excess of 199 cubic yards will require performance security to be posted with the City	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
39.	A permit for the hauling of material to and from the project site shall be submitted to the City for approval.	Prior to Issuance of Grading Permit	Public Works Division	
40.	Submit a California registered Civil Engineer prepared earthwork cut and fill certification letter to the Engineering Division for review. If the required earthwork in cubic yards is 50 CY or less, a Precise Grading/Paving Plan will not be required; however, the applicant is required to pull an NPDES/Public Works permit prior to issuance of a Building Permit for record purposes.	Prior to Issuance of Grading Permit	Public Works Division	
41.	Development of the site is subject to the requirements of the National Pollution Discharge Elimination System ("NPDES") Permit for the City of Eastvale, under the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2010-0036. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	
42.	Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. 6 foot high tan colored perimeter screened fencing b. Contractor information signage including contact information along the street frontage. c. Post dust control signage with the following verbiage: "Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, please call the AQMD at 1-800-CUT-SMOG/1-800-228-7664"	Prior to Issuance of Grading Permit	Public Works Division	
43.	A Notice of Intent ("NOI") to comply with the California General Construction Stormwater Permit is required via the California Regional Water	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Quality Control Board online Stormwater Multiple Application and Report Tracking System ("SMARTS"). A copy of the executed letter issuing a Waste Discharge Identification ("WDID") number shall be provided to the City Engineer. The Construction General Permit requires the Developer's contractor to prepare and maintain a Storm Water Pollution Prevention Plan ("SWPPP"). The SWPPP requires all appropriate measures be implemented to prevent erosion and water pollution during construction.			
44.	A California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Engineering Division with the first submittal of the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	
45.	All stormwater runoff passing through the site shall be accepted and conveyed across the property in a manner acceptable to the City Engineer. All on-site City Engineer approved retention or other facilities are required to contain the increase stormwater runoff generated from the proposed development. Provide a hydrology study to determine the volume of increased stormwater runoff due to development of the site, and to determine required stormwater runoff mitigation measures for the proposed development. The City Engineer must approve the final retention basin sizing and other stormwater runoff mitigation measures determined upon review and approval of the hydrology and may require redesign or changes to site configuration or layout consistent with the findings of the final hydrology study. The existing "pre-developed" condition compared to the proposed "developed" condition shall be used to calculate the volume of increased stormwater runoff to retain on-site under the 100-year frequency storm.	Prior to Issuance of Grading Permit	Public Works Division	
46.	Direct release of on-site nuisance water or stormwater runoff shall not be permitted to the adjacent public streets. Provisions for the interception of nuisance water from entering adjacent public streets from the project site shall be provided through the use of a minor storm drain system that collects and conveys nuisance water to landscape or parkway areas, and in only a stormwater runoff condition, pass runoff directly to the streets through parkway or under sidewalk drains.	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
47.	The Developer shall connect to the JCSD sewer system and apply for a sewer connection account with JCSD. The project applicant, developer, or successor in interest shall provide written verification that the JCSD can and will provide sanitary sewer service to the project.	Prior to Issuance of Grading Permit	Public Works Division	
48.	The Developer shall submit sewer improvement plans prepared by a California registered Civil Engineer to the JCSD/Public Works Division. The plans shall be approved by the JCSD/City Engineer prior to issuance of any building permits.	Prior to Issuance of Grading Permit	Public Works Division	
49.	The Developer shall submit street improvement plans prepared by a California registered Civil Engineer to the Public Works Division for review and approval. Unless otherwise approved, the street improvement plans shall be approved concurrently with any street light, landscape and irrigation, and traffic signal plans.	Prior to Issuance of Grading Permit	Public Works Division	
50.	The Developer shall submit traffic striping and signage plans prepared by a California registered Civil Engineer, for review and approval by the City Engineer. All required traffic striping and signage improvements shall be completed concurrently with required street improvements, to the satisfaction of the City Engineer, and prior to issuance of a Building Permit.	Prior to Issuance of Grading Permit	Public Works Division	
51.	An accessible pedestrian path of travel shall be provided throughout the site, as required by applicable state and federal laws.	Prior to Issuance of Grading Permit	Planning and Public Works Division	
52.	The sewer lines shall require connections to occur at a manhole and no direct lateral connections to the mainlines are allowed.	Prior to Issuance of Grading Permit	Public Works Division	
53.	The applicant must provide the District with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	Prior to Issuance of Grading Permit	Public Works Division	
54.	The Applicant shall submit a Water Quality Management Plan identifying site specific Best Management Practices (“BMPs”) in accordance with the Model Water Quality Management Plan (“WQMP”) approved for use for the Santa Ana River Watershed. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading Plan. A WQMP Maintenance Agreement shall be required, obligating the property owner(s) to	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer.			
Prior to Issuance of Encroachment Permit				
55.	An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, Chandler Street Channel. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact the District's Encroachment Permit Section at 951.955.1266.	Prior to Issuance of Encroachment Permit	Riverside County Flood Control	
56.	A City of Eastvale Encroachment Permit is required for any improvements within the public right-of-way.	Prior to Issuance of Encroachment Permit/On-going	Public Works Division	
57.	The minimum pavement section for all on-site pavements shall be 3 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal. The pavement section shall be determined using appropriate Traffic Index (“TI”) accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
58.	Traffic Control Plan prepared by a California registered Civil Engineer or Traffic Engineer shall be submitted to the City Engineer for review and approval.	Prior to Issuance of Encroachment Permit	Public Works	
59.	Transportation Mitigation Measure 1 (TRA-1) - Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with state standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid	Prior to Issuance of Encroachment Permit	Public Works	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.			
Prior to Issuance of Building Permit				
60.	**GHG-1:** The project shall incorporate the following California Air Pollution Control Officers Association-based reduction measures and regulatory compliance: · Utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen Standards. · Implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341). · Incorporate the following land use and site enhancement reduction measures: LUT-1 Increase Density, LUT-4 Improve Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network.	Prior to Issuance of Building Permit/ Construction	Planning Division	
61.	**GHG-2:** The project shall incorporate the following design features: · The project applicant shall require that all faucets, toilets, and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen standards. · The project applicant shall require recycling programs that reduce waste to landfills by a minimum 75 percent per AB 341. · The project applicant shall provide sidewalks on-site and connecting off-site.	Prior to Issuance of Building Permit/ Construction	Planning Division	
62.	**NOI-1:** The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receptors nearest the project site.	Prior to Issuance of Building Permit/ Construction	Building Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
63.	**NOI-2:** The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).	Prior to Issuance of Building Permit/ Construction	Building Division	
64.	**NOI-3:** The contractor shall install temporary construction noise barriers/blankets along the western boundary. The barrier/blankets shall be solid with no cracks or holes and shall also reach to the ground.	Prior to Issuance of Building Permit/ Construction	Building Division	
65.	**NOI-4:** During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from applicable noise level specifications.	Prior to Issuance of Building Permit/ Construction	Building Division	
66.	**NOI-5:** The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary.	Prior to Issuance of Building Permit/ Construction	Building Division	
67.	A revised (site plan, floor plan, and building elevations) which incorporate(s) the Conditions of Approval listed herein shall be submitted to the Planning Division prior to submittal for building and/or grading plan check.	Prior to Issuance of Building Permit	Planning Division	
68.	All construction shall comply with the most recently adopted City and State building codes: • 2022 California Building Code • 2022 California Residential Code • 2022 California Electrical Code • 2022 California Mechanical Code • 2022 California Plumbing Code • 2022 California Fire Code • 2022 California Green Code	Prior to Issuance of Building Permit	Building Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
69.	Special Inspections – As indicated by California Building Code Section 1704, the owner shall employ one or more special inspectors who shall provide special inspections when required by CBC Section 1704. Please contact the Building Division at the time of plan submittal to obtain an application for special inspections.	Prior to Issuance of Building Permit	Building Division	
70.	The Title Sheet of the plans shall include: • Occupancy Group • Occupant Load • Description of use • Type of Construction • Height of Building Floor area of building(s) and/or occupancy group(s)	Prior to Issuance of Building Permit	Building Division	
71.	School impact fees shall be paid prior to permit issuance.	Prior to Issuance of Building Permit	Building Division	
72.	Dimensioned building setbacks and property lines, street centerlines, and between buildings or other structures shall be designed on the plot plan.	Prior to Issuance of Building Permit	Building Division	
73.	All property lines and easements must be shown on the plot plan. A statement that such lines and easements are shown is required.	Prior to Issuance of Building Permit	Building Division	
74.	The project design will conform with energy conservation measures articulated in Title 24 of the California Code of Regulations and address measures to reduce energy consumption such as flow restrictors for toilets, low consumptions light fixtures, and insulation, and shall use to the extent feasible drought landscaping.	Prior to Issuance of Building Permit	Building Division	
75.	A design professional will be required at the time of construction drawings, to prepare plans for proposed improvements per the Business and Professions Code.	Prior to Issuance of Building Permit	Building Division	
76.	Public and private site improvements shall be designed in accordance with the Americans with Disabilities Act and Chapter 11 of the California Building Code. The site plan shall include a site accessibility plan identifying exterior routes of travel and detailing running slope, cross slope, width, pedestrian	Prior to Issuance of Building Permit	Building Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	ramp, curb ramps, handrails, signage, and truncated domes. Path of travel shall be provided from the public right of way and accessible parking to the building. The design professional shall ensure that the site accessibility plan is in compliance with the latest Federal and State regulations.			
77.	All projects including food service or public pools and/or spas shall be checked and approved by the County Health Department as part of the building department plan review process.	Prior to Issuance of Building Permit	Building Division	
78.	The developer is responsible for requesting from the Planning Division any addresses needed for any building(s) and/or any electrical/water single/dual irrigation meter pedestal(s). An address map shall be prepared and submitted by the applicant for review and approval by the Planning Division.	Prior to Issuance of Building Permit	Planning and Building Division	
79.	All drive-thru aisles adjacent to the public right-of-way or ingress and egress points of vehicular access must include Planning Division approved screening along the perimeter.	Prior to Issuance of Building Permit	Planning and Public Works Division	
80.	The project shall incorporate fully defined architecture on all facades facing the public right of way including windows, doors and other architectural details.	Prior to Issuance of Building Permit	Planning Division	
81.	Construction and architectural detailing shall be in substantial conformance with the approved plans, including but not necessarily limited to elevation drawings and material/colors sample board submitted as a part of this application and as approved by the Planning Commission, except that any modification shall be subject to the discretion of the Community Development Director upon finding that any changes are comparable in substance and quality to the original approval.	Prior to Issuance of Building Permit	Planning Division	
82.	Elevations shall be enhanced along building frontages facing Chandler Avenue and Archibald Avenue to the satisfaction of the Community Development Director. To add architectural interest to the building visible to the public right-of-way, artwork shall be provided on the south and east	Prior to issuance of Building Permit	Planning Division	

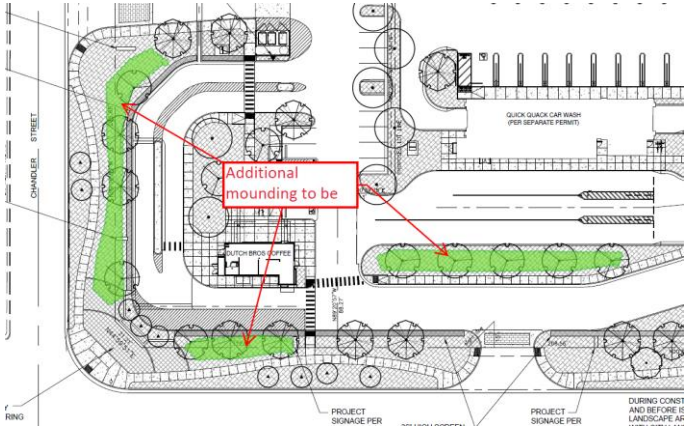
Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	elevation. Proposed artwork shall be submitted to the Community Development Director and Planning Division for review and approval.			
83.	Site Plan and elevations shall be revised to show decorative lighting of the pedestrian walkways, entryways, and exterior doors	Prior to Issuance of Building Permit	Planning Division	
84.	There shall be no roof-mounted equipment extending above the mansard roof or parapet wall of the building.	Prior to Issuance of Building Permit	Planning Division	
85.	Trash receptacles shall be provided nearby customer entrances/exits to buildings for all commercial developments.	Prior to Issuance of Building Permit	Planning Division	
86.	Elevations for trash enclosure shall be provided prior to issuance of building permit. Trash enclosures shall be covered and shall be architecturally consistent with the proposed development. Trash enclosure elevations shall be reviewed and approved by the Planning Division.	Prior to Issuance of Building Permit	Planning Division	
87.	Any proposed signage must be reviewed and approved by the Planning Division and must comply with the City's Sign Ordinance.	Prior to Issuance of Building Permit	Planning Division	
88.	Any future monumentation into the development shall be subject to review and approval by the Community Development Director and City Engineer.	Prior to Issuance of Building Permit	Planning & Public Works Divisions	
89.	All required parking area spaces shall meet the minimum dimensions of the Zoning Code Section 120.05.060.	Prior to Issuance of Building Permit	Planning Division	
90.	Prior to the issuance of a building permit for each building, the final site plan shall indicate the location of bicycle parking installation using Class I lockers or Class II racks in an enclosed lockable area, as follows for each building (C-Store and Restaurants): • Minimum of Two (2) bicycle parking spaces for visitors and two (2) bicycle parking spaces for employees. • The location of bicycle parking is subject to approval by the Planning Department.	Prior to Issuance of Building Permit	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Applicant shall submit a design alternative to the loop-wave and ribbon rack design. Final design of bike parking shall be approved by the Planning Division prior to issuance of building permit.			
91.	Prior to the issuance of a building permit, the applicant shall submit a photometric lighting plan for review and approval to ensure that proper outdoor lighting, pursuant to City of Eastvale Municipal Code Section 120.05.050 and subject to Riverside County Sheriff's review and approval, shall be provided. In order to minimize light trespass on abutting residential property, illumination measured at the nearest residential structure or rear yard setback line shall not exceed the moon's potential ambient illumination of one-tenth footcandle through use of light shielding and through additional landscaping.	Prior to Issuance of Building Permit	Planning, Building, Public Works, and Sheriff	
92.	**Prior to the issuance of a building permit, the applicant shall submit a set of development plans to the Eastvale Sheriff's Department for review and approval to ensure compliance with the following**: PROPERTY GATES AND KNOX BOX ENTRY a) The installation of the Knox Rapid Entry System if property gates are installed. This system permits law enforcement, fire, and first responders to obtain independent access to the property in the event of an emergency. The necessary order forms for the Knox Company may be obtained by contacting the Jurupa Valley Sheriff's Station Crime Prevention Programs Coordinator at (951) 955-9225. PROPERTY SIGN b) Proper display of "No Trespassing or Loitering" signs prominently around business and any exterior perimeter fencing and adhere to City of Eastvale Municipal Code Section 120.05.070, Signs. ADDRESS NUMBERING: c) Prominently displayed address numbering in size and contrasting in color from the building façade or on a fixed sign near the street/main entrances. The numbers need to be visible from the street and interior property sides for any approaching emergency vehicles. No obstructions should limit their visibility (i.e., landscaping).	Prior to issuance of building permit	Planning, Building and Sheriff Departments	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	SECURITY PLAN Adequate crime prevention measures, such as security cameras, shall be installed to assist with identifying any suspect(s) of any potential future vandalism or theft attempts. Due to the high possibility of theft/vandalism attempts during construction, additional security measures should be added during that time frame of the proposed construction. All exterior access points should be properly secured and illuminated to make clearly visible any person on or about the premises during the hours of darkness.			
93.	A minimum of one (1) Electric Vehicle charging station per parcel shall be installed.	Prior to issuance of building permit	Planning Division	
94.	Landscape plans shall be submitted to the Planning Division for review and approval. The plan shall be certified by a licensed landscape architect as required, taking into account approved preliminary landscape plan (if any), adopted plant palette guides, applicable scenic and specific plan requirements, and water conservation measures. **This submittal shall be made to the Planning Division with the appropriate Application and Fee.**	Prior to Issuance of Building Permit	Planning Division	
95.	The above-described plans shall be in substantial conformance with the conceptual plans as requested for modification and as approved by the City Landscape Architect, City Administrative Staff, Planning Commission and/or City Council. Notes, details, and specifications shall be included.	Prior to issuance of building permit	Planning Division	
96.	Prior to the issuance of a building permit, final landscape plans shall be reviewed and approved by the Planning Division. Landscaping shall be installed and verified prior to issuance of certificate of occupancy.	Plans must be reviewed and approved prior to issuance of building permit. Landscaping shall be installed and verified prior to certificate of occupancy	Planning Division	
97.	All landscape and irrigation plans shall be consistent with the City of Eastvale Zoning Code, with Section 5.4 Landscaping General Provisions, the City of	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Eastvale Design Standards and Guidelines, and the City of Eastvale Chapter 14.24 Water Efficient Landscape Regulations, and other applicable codes and guides.			
98.	Landscape plans shall be drawn at a scale of 20 feet equal to 1 foot or larger.	Prior to Issuance of Building Permit	Planning Division	
99.	All planting areas shall be a minimum of 5 feet wide. Tree well planting areas shall contain 25 square feet or more.	Prior to Issuance of Building Permit	Planning Division	
100.	The drive through lanes shall be appropriately screened from the Public ROW using 15-gallon shrubs spaced at between 3 and 4 feet on center.	Prior to Issuance of Building Permit	Planning Division	
101.	The trash enclosure shall include landscape screening on all 3 enclosure walls.	Prior to Issuance of Building Permit	Planning Division	
102.	Street trees shall be installed from 24-inch box container at 30 feet on center along Archibald Avenue and Chandler Street.	Prior to Issuance of Building Permit	Planning Division	
103.	Mature specimen trees in 36-inch or 48-inch boxes shall be supplied in sufficient quantity to provide a prominent project entry statement at the corner of Chandler Street and Archibald Avenue, at entry drives from the streets and other major focal areas.	Prior to Issuance of Building Permit	Planning Division	
104.	Shrubs shall be installed from a minimum of 5-gallon containers unless approved by the City of Eastvale Landscape Architect for appropriateness. Shrubs and ground covers shall be designed for installation at reasonable spacing to allow for growth and relative maturity.	Prior to Issuance of Building Permit	Planning Division	
105.	The applicant shall install and maintain dense evergreen screen hedge to provide sufficient privacy for the immediate adjacent properties to the west. The size of plants utilized and spacing shall be at the recommendation and approval of the Landscape Architect and Community Development Director and shall be maintained at 8-feet tall. The species of landscape selected shall be of a fast-growing variety such that they will attain effective screening within a 1-2 year timeframe to the satisfaction of the Community Development Director.	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
106.	Above ground utility locations shall be located in shrub areas and screened from public view. Transformers shall be screened with a minimum of 3 foot wide planting area located outside the SCE setback to the transformer.	Prior to Issuance of Building Permit	Planning Division	
107.	No light fixture, electric transformer, fire detector check or fire hydrant shall be designed for any location in a planting area, which would make it necessary to eliminate a tree. All overhead light fixtures and utilities shall be identified on the site plan.	Prior to Issuance of Building Permit	Planning Division	
108.	All ground covers shall be installed from living plant materials. Spacing shall be such to allow plants grow to maturity in 2 years from the time of installation.	Prior to Issuance of Building Permit	Planning Division	
109.	No plants with thorns, those that would freeze, or those which do not thrive in the local environment may be used, including Lophostemon, Bougainvillea, and Phormium.	Prior to Issuance of Building Permit	Planning Division	
110.	No plant container shall be installed within 18 inches of a sidewalk, curb, patio, walkway, or equal, unless approved by the City Landscape Architect for appropriateness.	Prior to Issuance of Building Permit	Planning Division	
111.	Plant materials within planting areas shall be hydro-zoned using WUCOLS IV, Region 4 as a general guide.	Prior to Issuance of Building Permit	Planning Division	
112.	Root barriers shall be installed for all trees located within 5 feet of paving in 10 to 12 foot lengths. Trees located within 10 feet of curbs or city sidewalks and within planted parkways shall utilize 20 lineal feet of root barrier.	Prior to Issuance of Building Permit	Planning Division	
113.	A weather-based smart irrigation controller shall be installed. A rain shut off or weather station device shall be connected with the irrigation controller.	Prior to Issuance of Building Permit	Planning Division	
114.	Parking lot lighting and/or water quality design shall not prevent tree or shrub placement (used for shading) nor reduce overall tree counts per the preliminary plans. The addition of tree diamonds or other solutions for maintain tree counts presented will be required if space or conflicts arise during design development.	Prior to Issuance of Building Permit	Planning Division	
115.	Applicant shall retain the stated landscape coverage percentage throughout the design development process and final installation/project completion	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
116.	Applicant shall install temporary curb and planter continuing screen at northwest corner of the property that shall remain in place until prospective adjacent phase is completed.	Prior to Issuance of Building Permit	Planning Division	
117.	Applicant shall screen all utilities and mechanical infrastructure in planter areas with increased sized shrub material as required by the Community Development Director or Landscape Architect.	Prior to Issuance of Building Permit	Planning Division	
118.	Landscaping shall be perpetually maintained in a healthy and thriving manner.	Prior to Issuance of Building Permit	Planning Division	
119.	Applicant shall add mounding to planter areas that will screen vehicular stacking/queuing lanes that front Chandler Avenue and Archibald Avenue. Exhibit included below:  	Prior to Issuance of Building Permit	Planning Division	
120.	Applicant shall add details of city entry gateway feature/monument including color architectural elevations and perspective views as seen coming from the corner of Chandler Avenue and Archibald Avenue to communicate scale, impact and finishes.	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
121.	The City Landscape Architect shall be contacted to meet with the job site superintendent and the landscape contractor for a pre-job meeting. A copy of the soil fertility recommendations utilizing humate, mycorrhizae, and organic fertilizer shall be presented prior to the meeting. No landscaping shall occur prior to the meeting.	Prior to Initiation of Landscape Construction	Planning Division	
122.	Submit photometric plan of street lighting. All lights shall be Edison LS-3 tariff and utilize General Electric Evolve LED luminaires per City Specifications. The Developer shall be responsible for applying with Southern California Edison ("SCE") for all appropriate service points and electrical meters early in the process to avoid delays. The Developer must pay for the electrical service of new meter pedestals installed until such time the improvements have been accepted and the underlying property is annexed into Community Facilities District ("CFD") or Landscaping Maintenance District ("LMD").	Prior to Issuance of Building Permit	Public Works Division	
123.	The public street improvements outlined in these Conditions of Approval are intended to convey to the developer an accurate scope of required improvements; however, the City Engineer reserves the right to require reasonable additional improvements as may be determined in the course of the review and approval of street improvement plans required herein.	Prior to Issuance of Building Permit	Public Works Division	
124.	The Precise Grading/Paving Plan shall be City Engineer approved prior to issuance of a building permit.	Prior to Issuance of Building Permit	Public Works Division	
125.	A WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be approved prior to issuance of a Building Permit and shall be recorded by the Developer at the San Bernardino County Recorder's Office with a recorded copy provided to the Public Works Division prior to issuance of a Certificate of Occupancy.	Prior to Issuance of Building Permit	Public Works Division	
126.	Provide pad elevation certifications for all building pads in conformance with the approved Precise Grading Plan to the Public Works Division prior to construction of any building foundation.	Prior to Issuance of Building Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
127.	The Developer is advised that domestic water service is provided by JCSD. The developer shall be responsible for coordinating with JCSD and complying with all requirements for establishing domestic water service to the property.	Prior to Issuance of Building Permit	Public Works Division	
128.	Prior to issuance of a building permit, the developer is required to pay Traffic Impact Analysis Project Fair Share Contribution fees.	Prior to Issuance of Building Permit	Public Works Division	
129.	Prior to issuance of building permit, installation of conduit fiber optic along property frontages shall be required.	Prior to Issuance of Building Permit	Public Works Division	
130.	The Applicant shall pay all applicable development impact fees in accordance with the City of Eastvale fee ordinance in effect at the time the fees are due, prior to the issuance of any building permits related to the Project.	Prior to Issuance of Building Permit	Building and Public Works Division	
131.	Applicant shall submit an application to ALUC and obtain an official consistency determination on the project.	Prior to Issuance of Building Permit	Planning Division	
132.	A water system (hydrants - commercial with one 4” outlet and two 2-1/2” outlets) capable of delivering the required fire flow shall be provided in accordance with Appendix B and C of the California Fire Code shall be provided. A reduction of 50% is permitted in buildings equipped with fire sprinklers in accordance with City Municipal Code. On-site water supply must be available before any combustible material is placed on the construction site. No portion of a building can be more than 400 feet from a hydrant.	Prior to Issuance of Building Permit	Fire Department	
133.	Prior to building plan approval and construction, applicant/developer shall route a copy of the Water Improvement Plans (offsite) to the Fire Department for review of private hydrant placement only. Water Improvement Plans (offsite) will not be reviewed or approved for the installation of onsite Private Fire Service Mains, private hydrants, or fire sprinkler system supplies. The installing contractor shall submit a separate set of working plans designed in accordance with NFPA 13 and NFPA 24 to the Fire Department for a permit to install private water mains.	Prior to Issuance of Building Permit	Fire Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
134.	Fire apparatus access roads shall be at least 24 feet wide and comply with Riverside County Fire Department Standard number 06-05. Access roads shall be located outside of truck docks and between 15 and 40 feet from the building. Access roads shall not have a grade more than 16% and shall have an unobstructed vertical clearance not less than 13 feet and 6 inches. Access lanes will be designed to withstand the weight of 75,000 thousand pounds over 2 axles and shall be all-weather surface capable. Fire apparatus access roads shall have a turning radius capable of accommodating fire apparatus.	Prior to Issuance of Building Permit	Fire Department	
135.	Parking is not permitted on fire apparatus access roads that are less than 28 feet in width. Parking on one side is permitted on a road that is at least 28 feet but less than 36 feet in width. Parking on two sides is permitted on a road that is 36 feet or more in width.	Prior to Issuance of Building Permit	Fire Department	
136.	Fire apparatus access roads shall be constructed with a surface to provide all-weather driving capabilities during construction.	Prior to Issuance of Building Permit	Fire Department	
137.	Dead-end fire apparatus access roads more than 150 feet in length shall be provided with an approved area for turning around fire apparatus.	Prior to Issuance of Building Permit	Fire Department	
138.	Driveway loops, fire apparatus access lanes and entrance curb radius should be designed to adequately allow access of emergency fire vehicles. The applicant or developer shall include in the building plans the required fire lanes and include the appropriate lane printing and/or signs.	Prior to Issuance of Building Permit	Fire Department	
139.	Buildings more than 3,600 square feet shall be equipped with a fire sprinkler system. The PIV and FDC shall be located to the front, within 100 feet of a hydrant. FDC shall be located so that fire apparatus and hose connected to supply the system will not obstruct roadway access for other fire apparatus. FDCs are not allowed in the rear of any building.	Prior to Issuance of Building Permit	Fire Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
140.	A fire sprinkler monitoring system is required in all sprinklered buildings.	Prior to Issuance of Building Permit	Fire Department	
141.	A manual and automatic fire alarm system may be required, depending on the use and/or occupant load of the building.	Prior to Issuance of Building Permit	Fire Department	
142.	Commercial cooking equipment that produces grease-laden vapors shall be provided with a Type I hood and an automatic fire extinguishing system.	Prior to Issuance of Building Permit	Fire Department	
143.	An approved Fire Department access key lock box (minimum Knox 3200 series) shall be installed at the main entrance to any sprinklered building. Gate switches or padlocks shall be installed at each automatic or manual gate. Locations shall be shown on plans submitted for a building permit.	Prior to Issuance of Building Permit	Fire Department	
144.	New motorized gates shall be provided with means to be automatically opened remotely by emergency vehicles in accordance with Riverside County standards and policies. The system shall be compatible, but not limited to, the detection of the following manufacturers of emergency vehicle preemption: Federal Signal, Whelen, and Tomar. Upon installation of the system, compliance testing shall be completed by the Riverside County Fire Department. (RVC Amendment to CFC 503.6.1)	Prior to Issuance of Building Permit	Fire Department	
145.	The location of address numbers shall be indicated on the building plans. Street numbers shall be displayed in a prominent location on the street or fire apparatus access side of buildings. Numbers and letters shall be a minimum of 12” in height with a minimum stroke of .05 inch. Where access is by means of a private road and the building cannot be viewed from a public way, a monument, pole, or other sign shall be used to identify the structure in accordance with Riverside County Standard 07-01. Address must be legible, of a contrasting color, and adequately illuminated to be visible from the street at all hours.	Prior to Issuance of Building Permit	Fire Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
146.	No hazardous materials shall be stored and/or used within the building which exceeds quantities listed in the California Fire Code, without first obtaining a permit.	Prior to Issuance of Building Permit	Fire Department	
147.	Exit signs, door hardware, and exit path marking shall be as required by the California Building Code.	Prior to Issuance of Building Permit	Fire Department	
148.	Fire sprinkler riser door shall be posted "FIRE RISER" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
149.	Electrical room door shall be posted "ELECTRICAL ROOM" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
150.	Fire alarm control panel door shall be posted "FACU" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
151.	Roof access door shall be posted "ROOF ACCESS" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
152.	Provide specific fire department conditions on plans for building permit submittal.	Prior to Issuance of Building Permit	Fire Department	
Prior to Issuance of Certificate of Occupancy				
153.	All parkway landscaping shall be guaranteed for a period of one (1) year from the date of the City Engineer acceptance. Any landscaping that fails during the one (1) year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer, and shall be subject to a subsequent one (1) year landscape maintenance period.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	
154.	The development shall be annexed into all applicable City of Eastvale owned and administered Community Facilities Districts (CFDs) and/or Landscaping Maintenance Districts (LMDs) for On-Going maintenance of traffic signals, traffic signal synchronization, street lights, full capture systems for all storm drains, and landscape maintenance of raised landscaped median and public	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	parkways, to the satisfaction of the City Engineer or otherwise form a district where one is not currently in place.			
155.	Upon City Engineer approval of any improvement plan, the improvement plan shall be provided to the City in digital format, consisting of a DWG (AutoCAD drawing file), DXF (AutoCAD ASCII drawing exchange file), and PDF (Adobe Acrobat) formats. Variation of the type and format of the digital data to be submitted to the City may be authorized, upon prior City Engineer approval.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
156.	Mira Loma Road and Bridge Benefit Assessment District Fee ("MLRBA"), Transportation Uniform Mitigation Fee ("TUMF"), Area Drainage Plan ("ADP") fee, and any other regional pass-through fees in effect at that time shall be paid prior to issuance of Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
157.	The Developer shall submit to the City Engineer for review and approval the Covenants, Conditions, and Restrictions ("CC&Rs") and/or a Property Owners Association document to maintain and operate common areas and/or facilities including, but not limited to, parking areas, private utilities, and water quality basins.	Prior to Issuance of Certificate of Occupancy	Public Works and Planning Division	
158.	Prior to issuance of a Certificate of Occupancy or final City approvals, demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
159.	The Developer shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
160.	All damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and street lights, associated with the proposed development shall be replaced.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
161.	Remove existing, and construct new pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, to the existing right edge line along the entire street frontage in	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	accordance with City of Eastvale Standard Drawings. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve recent pavement improvements.			
162.	Construct an Americans with Disabilities Act ("ADA") compliant sidewalk behind curb along the entire frontage and interior streets in accordance with the General Plan, any Specific Plan, the City of Eastvale Standard Drawings, subject to the approval of the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
163.	Construct City Engineer approved commercial driveway approaches in accordance with City of Eastvale Standard Drawings. The driveway approach shall be constructed so the top of "X" is 5 feet from the property line. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
164.	Construct a curb ramp meeting current California State Accessibility standard along both sides of the commercial driveway approaches. The developer shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the driveway, and shall adjust the location of the access ramps, if necessary, to meet ADA guidelines, subject to the approval of the City Engineer. If necessary, additional pedestrian and sidewalk easements shall be provided on-site to construct a path of travel meeting ADA guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
165.	Grind and overlay half ROW width of Archibald Avenue and Chandler Street within the project frontages up to the existing median.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
166.	Install Class II bicycle lanes along Archibald Avenue to connect to the existing Class II bicycle lanes to the north.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
167.	Install Pan-Tilt-Zoom ("PTZ") cameras at each intersection to tie into the existing Citywide system to monitor traffic.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
168.	Install License Plate Reader ("LPR") cameras to tie into the existing Citywide system at each traffic signal servicing the property.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
169.	Upgrade traffic signals within 100 feet of the property to provide signal synchronization.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
170.	Applicant, at its sole option and cost, may install a traffic signal at the intersection of Archibald Avenue and Fairchild Drive, pending signal warrant analysis approved by the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
171.	The Developer shall be responsible for coordinating with Riverside Transit Authority ("RTA") regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The Developer shall design street, bus pad, and sidewalk improvements in accordance with the latest RTA bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act ("ADA") requirements. The Developer shall design all bus stops to accommodate the RTA Shelters. The Developer shall submit to Public Works verification from RTA acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
172.	The Developer shall employ staff to assist with management of the drive through queue during peak periods. Specifically, staff should periodically walk along the drive through lanes encouraging vehicles to pull forward and maximize efficiently of the available storage and temporarily close drive-through access when drive-through queue exceeds drive-through queueing capacity. A Traffic Management Plan for operations and special events shall be submitted to the Public Works and Planning Divisions for review and approval and be made a part of each businesses' Standard Operating Procedures.	Prior to Issuance of Certificate of Occupancy	Planning & Public Works Division s	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
173.	Grand openings for the Dutch Bros and Quick Quack Car Wash tenants shall be held a minimum of one week apart from each other.	Prior to Issuance of Certificate of Occupancy	Planning & Public Works Divisions	
174.	The original improvement plans prepared for the proposed development and approved by the City Engineer (if required) shall be documented with record drawing "as-built" information and returned to the Public Works Division prior to issuance of a final certificate of occupancy. Any modifications or changes to approved improvement plans shall be submitted to the City Engineer for approval prior to construction.	Prior to Certificate of Occupancy	Public Works Division	
175.	All conditions of approval for TPM No. 37653 shall be completed to the satisfaction of the City Engineer prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	
176.	All sewer mains constructed by the applicant and to become part of the public sewer system shall be pressure tested and digitally video recorded by the City's wastewater system operator JSCD prior to acceptance of the sewer system for maintenance by the City. The developer shall be responsible for all costs associated with testing and inspection services. Any defects of the sewer main shall be removed, replaced, or repaired to the satisfaction of the City Engineer prior to acceptance.	Prior to Certificate of Occupancy	Public Works Division	
177.	The Applicant shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	
178.	A City business registration shall be required prior to issuance of a Certificate of Occupancy or final permits.	Prior to issuance of certificate of occupancy	Planning Division	
179.	The development shall conform to all other applicable State and local laws and ordinances and the applicant shall obtain all necessary approvals and operating permits from all State and local agencies prior to the issuance of a Certificate of Occupancy or final permits.	Prior to issuance of certificate of occupancy	Planning Division	
180.	Any missing or damaged landscaping shall be replanted to the satisfaction of the Community Development Director and Planning Division.	Prior to issuance of certificate of	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
		occupancy / Ongoing		
181.	Prior to the final landscape inspection a water audit shall be conducted by an independent water auditor and WELO documentation shall be provided to the City Planning Department and City Landscape Architect via email.	Prior to issuance of certificate of occupancy	Planning Division	
182.	All required landscaping and irrigation systems shall be installed in a condition acceptable to the City. If the Project Landscape Architect has provided inspection of the landscaping, the Project Landscape Architect shall provide the City with a Certificate of Compliance stating that the landscaping was installed per the approved plans. The City will review the Certificate of Compliance and conduct inspections to ensure that the landscape installation is in compliance with the approved landscape plans.	Prior to issuance of certificate of occupancy	Planning Division	
On-Going/During Operations				
183.	Provide street sweeping services for onsite and offsite within project frontages weekly.	On-Going	Public Works Division	
184.	Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.	On-Going	Public Works Division	
185.	All street cuts for utilities shall be repaired in accordance with City Standard or as recommended; and any interim trench repairs shall consist of compacted backfill to the bottom of the pavement structural section followed by placement of standard base course material in accord by the City Engineer and with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.	On-going	Public Works Division	
186.	In accordance with City's Moratorium policy to preserve newly paved streets, any and all street and/or trench cuts in newly paved streets will be prohibited or be subject to moratorium street repair standards as reference in Section 12.08.260 of the Eastvale Municipal Code.	On-going	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
187.	Any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development shall be backfilled and repaired in accordance with City of Eastvale Standard Drawings. The Developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e. Jurupa Community Services District, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets resulting from the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site streets, at the discretion of the City Engineer. The pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.	On-going	Public Works Division	
188.	Construction signing, lighting and barricading shall be provided during all phases of construction in accordance with City Standards and the direction of the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 "Temporary Traffic Control" of the latest California Manual on Uniform Traffic Control Devices, or subsequent editions in force at the time of construction.	On-Going	Public Works Division	
189.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements.	On-Going	Planning and Public Works Divisions	
190.	All landscaped setbacks and planter areas shall be permanently maintained at the site and kept free of debris.	On-Going	Planning and CES Divisions	
191.	To regulate excess noise levels throughout various times of the day (day/nighttime) the operation shall not create any sound, or allow the creation of any sound on the subject property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in	On-Going	Planning and CES Divisions	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Section 8.52.040 – "General Sound Level Standards" of the City of Eastvale Municipal Code.			
192.	A notice from Riverside County Airport Land Use Commission noting the site's location near the Chino Airport shall be recorded (ALUC condition).	On-Going	Planning and Public Works Divisions	
193.	The project shall be developed in accordance with the approved Tentative Parcel Map and Major Development Review, including the approved site plan, architectural elevations, conceptual landscape plan, and interim and ultimate improvements on Chandler Ave. and Archibald Avenue. The applicant may request modifications or revisions to the approved project as provided in the Eastvale Zoning Code.	On-Going	Planning and Public Works Divisions	
194.	A safety officer or designee may enter and inspect the site at any reasonable time without prior notice for the purpose of investigating an actual complaint or for a health and safety inspection.	On-Going	Planning and CES Divisions	
195.	Landscaping and ground coverage shall be continually maintained as consistent with the approved landscape plan. Any request or changes which deviate from the approved plan shall require a minor development review.	On-Going	Planning and CES Divisions	
196.	The outdoor dining areas, furniture, and pavement must be maintained in clean and tidy conditions at all times, free from food scrapes, refuse, etc.	On-Going	Planning and CES Divisions	
197.	The applicant must also maintain the adjacent areas and keep them free of any waste generated by outdoor dining.	On-Going	Planning and CES Divisions	
198.	Outdoor furniture must be safe, comfortable, of sturdy construction, hygienic and designed for outdoor use. Surface tops should be non-reflective and be of a design which inhibits the collection of food particles.	On-Going	Planning and CES Divisions	
199.	The District reviewed the water and sewer atlas maps to identify the nearest main lines for potential service connections. Water facilities consist of an existing 12-inch diameter water line on Chandler Street and an existing 21-inch diameter waterline on Archibald Avenue. The applicant must provide the District with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	On-Going	JCSD	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
200.	Sewer service is available from an existing 21-inch diameter sewer line on Archibald Avenue. Gravity flow to the existing sewer line is contingent upon the final grading of the site, and sewer service is contingent upon the quantity and quality of wastewater generated by the project. The sewer line will require connections to occur at a manhole, and no direct lateral connections to the mainline are allowed.	On-Going	JCSD	
201.	The District is investigating the potential use of non-potable water for the project area and will require the developer to participate in the final adopted program for parks and greenbelt areas.	On-Going	JCSD	
202.	The applicant will be required to contact Jurupa Community Services District to start the development processes for the project. The applicant must submit plans and fees for sewer and water services.	On-Going	JCSD	

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are required by the City, other local agencies, or state and federal agencies, and are not conditions of approval of the project.

1. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned. Amended entitlement approvals may be necessary as a result.

2. Submit a final parcel map and all supporting documents for review and approval to the satisfaction of the City Engineer and Public Works Department.

3. Applicants are responsible for all costs associated with off-site right-of-way acquisition, including any costs associated with the eminent domain process, if necessary.

4. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN23-20019 – Conditional Use Permit to allow the establishment and operation of a double lane drive-through for a new coffee shop (Dutch Bros) at the northwest corner of Chandler Ave. and Archibald Ave.
Assessor's Parcel Number: 144-130-004, -011, -012, and -013
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. Project approval is not final until a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative, or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	jurisdiction. It is expressly agreed that the City shall have the right to approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
3.	Any approval shall not be final until and unless the applicant's deposit account with the Planning Division has a balance of at least **$2,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20019** on the check.	On-Going	Planning Division	
4.	Applicant understands and agrees that failing to comply with all Conditions of Approval, may result in the Planning Commission or Community Development Director taking action, resulting in modification of the Conditions of Approval and/or suspension or revocation of any conditional use permit.	On-Going	Planning Division	
5.	Applicable mitigation measures included in the Addendum to the IS/MND shall be required for development of the proposed project and shall be incorporated herein by reference.	On-Going	Planning Division	
6.	Conditional Use Permit PLN23-20019 is granted contingent upon approval of PLN23-20018 (TPM 37653) and Major Development Review PLN23-20019. Failure to approve PLN23-20018 (TPM37653) and Major Development Review PLN23-20019 shall render any approval of Conditional Use Permit PLN23-20019 null and void.	On-Going	Planning Division	
7.	All applicable Major Development Review conditions of approval (PLN 23-20019) and Tentative Parcel Map 37653 (PLN23-20018) shall be incorporated herein by reference.	On-Going	Planning Division	
8.	PLN23-20019 is granted for a period of two years and shall become void as of October 18, 2025, unless building permits have been issued and construction is	On-Going	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	commenced and diligently pursued towards completion, or a time extension is requested in writing prior to that date.			
Conditional Use Permit – Drive-Through Operation				
9.	Applicant understands and agrees that the operation of the drive-through shall not result in stacking of vehicles in such a manner that would cause obstruction to any access aisles or parking spaces for other tenants in the retail center, the main drive aisles for the retail center, and/or public streets/ROW (Chandler Ave. and Archibald Ave., drives, sidewalks, etc.). • If the drive-through operation fails to comply with this condition of approval herein, the Community Development Director and/or Public Works Director shall require revised site design or operational alternatives for City review and approval, to remedy any stacking or site circulation issues.	On-Going	Planning and Public Works Divisions	
10.	To prevent stacking in the drive-through lane from impacting adjacent tenants, drive-aisles, or public streets, additional measures shall be implemented, including but not limited to: • **Traffic Control Measures**: Occupant's managers and staff members shall be trained to direct drive-through traffic to line up along the parking aisle such that car stacking does not overflow onto drive aisles of the retail center. • **Use of Tablets**: Occupant's staff members shall take food orders and non-cash payments at the drive-through lanes with tablets to speed up orders in the drive-through lanes during the restaurant's peak hours. • **Online Order**: An Occupant staff member shall set up temporary parking signs for online order pickup as necessary during high demand online orders.	On-Going	Planning, Public Works, and Divisions	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	• **Temporary Drive-Through Closure**: Operators shall restrict drive-through access to customers when drive-through queue exceeds drive-through queue capacity. Operators shall close drive-through utilizing on-site cones, signage, or other measures, to the satisfaction of the Community Development Director until vehicle queuing can be accommodated/contained solely within drive-through lanes identified on the approved site plan. Cones, signage, and/or other measures shall not be placed in the public right of way			
11.	Six (6) months and one (1) year from the start of operations, the Planning Department will report to the Planning Commission on the drive-through, including any complaints, code enforcement cases, compliance with the conditions of approval, and whether revisions to the drive-through operation are needed. Continual six (6) month reviews to the Planning Commission may be required as determined by the Community Development Director.	Six (6) months and One (1) year from Start of Operations	Planning Division	
12.	The Final approved Queuing/Traffic Management Plan shall be kept onsite and made available to the store manager for implementation as required.	On-Going	Planning Division	
13.	The drive-through operator shall be required to provide notice to the City of any promotional or special events.	On-Going	Planning Division	
14.	Off duty police officers shall be used to manage traffic on-site for a minimum of one (1) week during the grand opening event and all special events/promotions.	On-Going	Planning Division	
15.	A safety officer or designee may enter and inspect the site at any reasonable time without prior notice for the purpose of investigating an actual complaint or for a health and safety inspection.	On-Going	CES and Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
16.	Grand openings/Special Events for the Dutch Bros and Quick Quack Car Wash tenants shall be held a minimum of one week apart from each other.	On-Going	Public Works and Planning Division	
Prior to Issuance of Building Permit				
17.	The Final Queuing/Traffic Management Plan shall be submitted, reviewed, and approved by the Community Development Director and/or Public Works Director prior to grading permit issuance. This plan shall include detailed information to ensure visitor vehicles shall remain completely on-site and shall not impede any public rights-of-way (streets, drives, walks, etc.), drive aisles, parking spaces, etc. Mitigation and control measures shall include but not be limited to: • **Traffic Control Measures**: Occupant's managers and staff members shall be trained to direct drive-through traffic to line up along the parking aisle such that car stacking does not overflow onto drive aisles of the retail center. • **Use of Tablets**: Occupant's staff members shall take food orders and non-cash payments at the drive-through lanes with tablets to speed up orders in the drive-through lanes during the restaurant's peak hours. • **Online Order**: An Occupant staff member shall set up temporary parking signs for online order pickup as necessary during high demand online orders. • **Temporary Drive-Through Closure**: Operators shall restrict drive-through access to customers when drive-through queue exceeds drive-through queue capacity. Operators shall close drive-through utilizing on-site cones, signage, or other measures, to the satisfaction of the Community Development Director until vehicle queuing can be accommodated/contained solely within drive-through lanes identified on the approved site plan. Cones, signage, and/or other measures shall not be placed in the public right of way.	Prior to Issuance of Building Permit	Public Works and Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	• **Office Duty Police Officers**: Off duty police officers shall be used to manage traffic for a minimum of one (1) week during the grand openings and all special events/promotions.			
18.	A directional signage and striping plan shall be submitted for review and approval to ensure that directional signs are located in appropriate locations for directing drive-through customers and to make sure that intersections of parking aisles are not blocked.	Prior to Issuance of Building Permit	Public Works and Planning Division	
Prior to Certificate of Occupancy				
19.	Prior to the issuance of certificate of occupancy, all signage and striping shall be installed per the approved signage and striping plan.	Prior to Issuance of Certificate of Occupancy	Public Works and Planning Division	

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are generally required for all projects by City ordinances, other local agencies, and state or federal agencies. PLEASE NOTE: This list is not comprehensive. The project is subject to all applicable standards, fees, policies, rules, and regulations for Eastvale and many other agencies, including but not limited to the Jurupa Community Services District, Jurupa Area Recreation and Park District, Riverside County Flood Control District, and state and federal agencies.

Developer and applicant are used interchangeably below.

1. No obstruction shall be placed which would conflict with any existing easement except with the documented approval of the easement holder(s).
2. The developer shall make best efforts to obtain written permission from the affected property owners allowing the proposed grading and/or facilities to be installed outside of the project boundaries.
3. All connection to flood control facilities shall be reviewed and permitted by the Riverside County Flood Control and Water Conservation District and shall be submitted through the City of Eastvale, unless otherwise directed by the City Engineer.
4. The developer shall prepare and submit to the City for review and approval all required development plans including but not limited to Grading (Rough and/or Precise), Street Improvement, On-Site Lighting, and Storm Drain. All applicable processing and review fees and/or deposits shall be submitted with the first plan submittal.

5. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN23-20020– Major Development Review for the development of a 950 square-foot drive-through coffee shop (dba Quick Quack) on the northwest corner of Archibald Ave. and Chandler Ave.
Assessor's Parcel Number: 144-130-004, -011, -012, and -013
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. Project approval is not final until a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative, or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	jurisdiction. It is expressly agreed that the City shall have the right to approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
3.	Any approval shall not be final until and unless the applicant's deposit account with the Planning Division has a balance of at least **$2,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20020** on the check.	On-Going	Planning Division	
4.	Any approval shall not be final until and unless the applicant's deposit account with the Public Works Division has a balance of at least $10,000 to cover staff time to follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to half work if the deposit account is exhausted.	On-Going	Public Works Division	
5.	Applicant understands and agrees that failure to comply with all conditions of approval may result in the City Council/Planning Commission taking action resulting in modification of conditions of approval and/or suspension or revocation of the Major Development Review.	On-Going	Planning Divisions	
6.	Major Development Review PLN23-20020 is granted contingent upon approval of PLN23-20018 (TPM 37653). Failure to approve PLN23-20018 (TPM37653) shall render any approval of Major Development Review PLN23-20020 null and void.	On-Going	Planning Division	
7.	PLN23-20020 is granted for a period of two years and shall become void as of October 18, 2025, unless building permits have been issued and construction is commenced and diligently pursued towards completion, or a time extension is requested in writing prior to that date.	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
8.	The project shall be developed in accordance with the Major Development Review application approved by the Planning Commission on October 18, 2023,, including the approved site plan, architectural elevations, conceptual landscape plan, etc. The applicant may request modifications or revisions to the approved project as outlined in Section 120.01.050(c) the Eastvale Zoning Code. A change of tenancy of any portion of the approved project requires review and approval by the original approving authority.	On-Going	Planning Division	
9.	Applicable mitigation measures included in the Addendum to the IS/MND shall be required for development of the proposed project and shall be incorporated herein by reference.	On-Going	Planning Division	
10.	The cover sheet of the building construction drawings shall include a blue line print of the City's conditions of approval and shall be attached to each set of plans submitted for City approval.	On-Going	Planning Division	
11.	PAD 3 (Sit-Down Restaurant) shall receive Certificate of Occupancy prior to or concurrently with PAD 1 (Coffee Shop) and PAD 2 (Carwash).	On-Going	Planning Division	
Prior to Map Recordation				
12.	The Developer shall enter into a Subdivision Improvement Agreement with the City, and shall guarantee by posting security(ies) to include all public improvements that the developer is conditioned to construct as part of this approval.	Prior to Map Recordation	Public Works Division	
13.	Dedicate City Engineer approved additional right-of-way along the entire frontage as may be required to provide a property line at ultimate right-of-way in accordance with the City General Plan, any applicable Specific Plan and/or as requested by the City Engineer. Dedicate 25 feet of right-of-way along Archibald Avenue and 14 feet of right-of-way along Chandler Street to the City for public right-of-way purposes.	Prior to Map Recordation	Public Works Division	
14.	A Final Map prepared by a California licensed Land Surveyor or registered Civil Engineer authorized to practice land surveying (pre-1982, RCE #33965	Prior to Map Recordation	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	and lower) and all supporting documents to the Public Works Division for review and approval. A Title Report prepared for subdivision guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Final Map to the Engineering Division as part of the review of the Final Map. The Final Map shall be approved by the City Council prior to recordation of the Final Map.			
15.	Provide a reciprocal access easement between Parcel 1 & Parcel 2 and Parcel 2 & Parcel 3. The applicant shall provide a copy of a reciprocal access agreement, shared parking agreement, and documentation showing the responsible entity for maintaining the parking areas (including landscaping) for the entire site including the landscaped areas along the Chandler Avenue and Archibald frontages to the City Engineer for review and approval.	Prior to Map Recordation	Planning and Public Works Divisions	
16.	Monument bond shall be posted with the City. The Developer shall provide a cost estimate to set monuments prepared by a California licensed Land Surveyor or registered Civil Engineer to the Public Works Division for review and approval by the City Engineer.	Prior to Map Recordation	Public Works Division	
17.	The Developer shall enter into an agreement with the City for bonding and improvements of all public streets, public infrastructure, private streets, and private infrastructure.	Prior to Map Recordation	Public Works Division	
18.	Various blanket and specific transportation and/or utility easements that are no longer in use are to be quitclaimed/abandoned on the Final Map.	Prior to Map Recordation	Public Works Division	
19.	Show on the Final Map dedication of the public right-of-way for, Archibald Avenue and Chandler Avenue, in accordance with the City of Eastvale Road Improvement Standards & Specification, Improvement Plan Check Policies and Guidelines, to the satisfaction of the City Engineer, and in coordination with the adjacent agencies as applicable.	Prior to map recordation	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
20.	The applicant shall provide will-serve letters from all utility agencies.	Prior to map recordation	Public Works Division	
21.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements.	Prior to map recordation	Public Works Division	
22.	Provide on project plans (grading, site plan, etc.) design for the roundabout to be constructed east of Cucamonga creek.	Prior to map recordation	Public Works Division	
23.	Provide safe, functional pedestrian pathways throughout the site.	Prior to map recordation	Public Works Division	
24.	The project site shall include two cross access easements to allow internal circulation with the future development of the properties located to the west.	Prior to map recordation	Planning Division	
25.	A shared parking agreement and reciprocal access agreement for the entire site shall be submitted for Planning Division review. The shared parking agreement shall include all parcels included in the parcel map.	Prior to map recordation	Planning Division	
Prior to Issuance of Grading Permit				
26.	Prior to submittal for grading plan check, the site plan shall be revised to show a pathway that provides pedestrians with safe unobstructed access to the adjacent retail and restaurant pads. Pavement on all pathways and entryways shall be decorative in nature with texture, stamped concrete or pavers.	Prior to Issuance of Grading Permit	Planning Division	
27.	**BIO-1:** Prior to the issuance of a grading permit, a preconstruction burrowing owl clearance survey shall be completed by a qualified biologist within 30 days prior to ground disturbance to avoid direct take of burrowing owls. Once complete, a written report summarizing the results of the clearance survey shall be prepared and submitted to the City of Eastvale for review and concurrence. · If no burrowing owls are detected, construction may proceed. If construction is delayed or suspended for more than 30 days during the	Prior to Issuance of Grading Permit/ Within 30 days prior to ground disturbance	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	breeding season (March 1 to August 31), the project site or work area shall be resurveyed. · If burrowing owls are detected on the project site during the breeding season (March 1 to August 31), a 300-foot "no work" buffer shall be established around the active burrow and all work within the buffer shall be halted until the qualified biologist has determined through non-intrusive methods that the nesting effort is complete (i.e., all young have fledged). Once the nesting effort is complete or if a burrowing owl burrow is detected on-site during the non- breeding season (September 1 to February 28), passive and/or active relocation of burrowing owls may be implemented by a qualified biologist following consultation and approval from the City of Eastvale, the Western Riverside County Regional Conservation Authority, and the California Department of Fish and Wildlife.			
28.	**BIO-2:** Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally **extends from February 1 through August 31**, but can vary slightly from year to year based on seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a preconstruction clearance survey for nesting birds shall be conducted within 30 days of the start of any ground-disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptors and special- status species, this buffer will be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.	Prior to Issuance of Grading Permit/ Within 30 days of the start of any ground-disturbing activities	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
29.	**CUL-1**: If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.	Prior to Issuance of Grading Permit/ During ground-disturbing activities	Planning Division	
30.	**TCR-1:** Tribal Monitoring. Prior to the issuance of a grading permit, **the project applicant** shall contact the consulting tribe(s) with notification of the proposed grading and shall make a good-faith effort, as determined by the City's Development Director, to enter into a Tribal Cultural Resources Monitoring Agreement with each tribe that determines its tribal cultural resources may be present on the site. The agreements shall include, but not be limited to, outlining provisions and requirements for addressing the handling of tribal cultural resources; Project grading and development scheduling; terms of compensation for the tribal monitors; and establishing on-site monitoring provisions and/or requirements for professional tribal monitors during all ground-disturbing activities. The terms of the agreements shall not conflict with any of these mitigation measures. A copy/copies of the agreement(s) shall be provided to the City of Eastvale Planning Department prior to the issuance of a grading permit.	Prior to Issuance of Grading Permit	Planning Division	
31.	**TCR-2:** Archaeological Monitoring. At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the project applicant shall retain a Secretary of Interior Standards-qualified, Registered Professional Archaeologist (RPA), as an archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Ground-disturbing activities may include, but are not limited to, pavement removal, potholing or auguring, grubbing, weed abatement, boring, grading, excavation, drilling, and trenching. The on-site archaeological monitoring would end when the project site grading and excavation activities are completed, or when the monitor has indicated that	At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities.	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	the site has a low potential for archeological resources. The Project Registered Professional archaeologist, in consultation with consulting Tribe(s) identified above, and the developer, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site and provide the plan to the City for approval. Details in the plan shall include: A. Project grading and development scheduling. B. The development of a rotating or simultaneous schedule in coordination with the project applicant and the project archeologist for designated Native American tribal monitors from the consulting tribes during grading, excavation and ground-disturbing activities on the site. C. The safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists. D. The protocols and stipulations that the developer, tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.			
32.	**TCR-3:** Treatment and Disposition of Cultural Resources. If tribal cultural resources are inadvertently discovered during ground disturbing activities for this project. The following procedures will be carried out for treatment and disposition of the discoveries: A. Temporary Curation and Storage. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process.	Prior to Issuance of Grading Permit / During Ground Disturbing Activities	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	B. Treatment and Final Disposition. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City Planning Department with documentation of same: i. Reburial on-site. Accommodate the process for on-site reburial of the discovered items with the consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed. ii. Curation. A curation agreement with an appropriate qualified repository within Riverside County that meets Federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation. iii. Disposition Dispute. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center. iv. Final Report. At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall: o Document the impacts to the known resources on the property;			

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	o Describe how each mitigation measure was fulfilled; o Document the type of cultural resources recovered and the disposition of such resources; o Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; o In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. o All reports produced will be submitted to the City, Eastern Information Center and consulting tribes.			
33.	**TCR-4:** Discovery of Human Remains. If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains. The following procedures as set forth in the California Environmental Quality Act (CEQA), Section 15064.5(e), the California Public Resources Code (PRC) (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall then be undertaken: If human remains or funerary/sacred items are encountered, the archaeological monitor or tribal monitor will halt work within the immediate area and any nearby area reasonably suspected to overlie adjacent remains, establish an Environmentally Sensitive Area (ESA) boundary to protect the find from impact, and immediately notify the City Archaeologist. Project work outside the established ESA may continue. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, s/he shall notify the NAHC in Sacramento within 48 hours. In	Prior to Issuance of Grading Permit / During Ground-Disturbing Activities	Planning Division / Archeological Monitor	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.			
34.	All existing overhead utility lines shall be undergrounded within the project frontage(s). Utility undergrounding shall extend to the nearest off-site power pole. Unless City Engineer approved, no new power poles shall be installed. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Precise Grading/Paving Plan, informing the City that they have been notified of the City's utility undergrounding requirement and their intent to commence design of utility undergrounding plans. When available, the utility undergrounding plan shall be submitted to the City Engineer identifying all above ground facilities in the area of the project to be undergrounded.	Prior to Issuance of Grading Permit	Public Works Division	
35.	All transmission line poles on Archibald Avenue shall be relocated unless it is demonstrated to the satisfaction of the City Engineer that such poles can remain without impacting street improvements, vehicular circulation, and public safety. Distribution lines along Archibald which are attached to transmission line poles are allowed to remain. Distribution lines and communication lines along Chandler Street shall be undergrounded and all non-transmission poles along the property frontage shall be removed. However, any overhead distribution and communication lines shall be undergrounded across the intersection of Archibald Avenue and Chandler Street.	Prior to Issuance of Grading Permit	Public Works Division	
36.	Prior to the issuance of a Grading Permit, the Developer shall pay all necessary fees as determined by the City Engineer including, but not limited to Multiple Species Habitat Conservation Plan ("MSHCP") fees and grading permit fees.	Prior to Issuance of Grading Permit	Public Works Division	
37.	Grading in excess of 199 cubic yards will require performance security to be posted with the City	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
38.	A permit for the hauling of material to and from the project site shall be submitted to the City for approval.	Prior to Issuance of Grading Permit	Public Works Division	
39.	Submit a California registered Civil Engineer prepared earthwork cut and fill certification letter to the Engineering Division for review. If the required earthwork in cubic yards is 50 CY or less, a Precise Grading/Paving Plan will not be required; however, the applicant is required to pull an NPDES/Public Works permit prior to issuance of a Building Permit for record purposes.	Prior to Issuance of Grading Permit	Public Works Division	
40.	Development of the site is subject to the requirements of the National Pollution Discharge Elimination System ("NPDES") Permit for the City of Eastvale, under the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2010-0036. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	
41.	Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. 6 foot high tan colored perimeter screened fencing b. Contractor information signage including contact information along the street frontage. c. Post dust control signage with the following verbiage: "Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, please call the AQMD at 1-800-CUT-SMOG/1-800-228-7664"	Prior to Issuance of Grading Permit	Public Works Division	
42.	A Notice of Intent ("NOI") to comply with the California General Construction Stormwater Permit is required via the California Regional Water	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Quality Control Board online Stormwater Multiple Application and Report Tracking System ("SMARTS"). A copy of the executed letter issuing a Waste Discharge Identification ("WDID") number shall be provided to the City Engineer. The Construction General Permit requires the Developer's contractor to prepare and maintain a Storm Water Pollution Prevention Plan ("SWPPP"). The SWPPP requires all appropriate measures be implemented to prevent erosion and water pollution during construction.			
43.	A California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Engineering Division with the first submittal of the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	
44.	All stormwater runoff passing through the site shall be accepted and conveyed across the property in a manner acceptable to the City Engineer. All on-site City Engineer approved retention or other facilities are required to contain the increase stormwater runoff generated from the proposed development. Provide a hydrology study to determine the volume of increased stormwater runoff due to development of the site, and to determine required stormwater runoff mitigation measures for the proposed development. The City Engineer must approve the final retention basin sizing and other stormwater runoff mitigation measures determined upon review and approval of the hydrology and may require redesign or changes to site configuration or layout consistent with the findings of the final hydrology study. The existing "pre-developed" condition compared to the proposed "developed" condition shall be used to calculate the volume of increased stormwater runoff to retain on-site under the 100-year frequency storm.	Prior to Issuance of Grading Permit	Public Works Division	
45.	Direct release of on-site nuisance water or stormwater runoff shall not be permitted to the adjacent public streets. Provisions for the interception of nuisance water from entering adjacent public streets from the project site shall be provided through the use of a minor storm drain system that collects and conveys nuisance water to landscape or parkway areas, and in only a stormwater runoff condition, pass runoff directly to the streets through parkway or under sidewalk drains.	Prior to Issuance of Grading Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
46.	The Developer shall connect to the JCSD sewer system and apply for a sewer connection account with JCSD. The project applicant, developer, or successor in interest shall provide written verification that the JCSD can and will provide sanitary sewer service to the project.	Prior to Issuance of Grading Permit	Public Works Division	
47.	The Developer shall submit sewer improvement plans prepared by a California registered Civil Engineer to the JCSD/Public Works Division. The plans shall be approved by the JCSD/City Engineer prior to issuance of any building permits.	Prior to Issuance of Grading Permit	Public Works Division	
48.	The Developer shall submit street improvement plans prepared by a California registered Civil Engineer to the Public Works Division for review and approval. Unless otherwise approved, the street improvement plans shall be approved concurrently with any street light, landscape and irrigation, and traffic signal plans.	Prior to Issuance of Grading Permit	Public Works Division	
49.	The Developer shall submit traffic striping and signage plans prepared by a California registered Civil Engineer, for review and approval by the City Engineer. All required traffic striping and signage improvements shall be completed concurrently with required street improvements, to the satisfaction of the City Engineer, and prior to issuance of a Building Permit.	Prior to Issuance of Grading Permit	Public Works Division	
50.	An accessible pedestrian path of travel shall be provided throughout the site, as required by applicable state and federal laws.	Prior to Issuance of Grading Permit	Planning and Public Works Division	
51.	The sewer lines shall require connections to occur at a manhole and no direct lateral connections to the mainlines are allowed.	Prior to Issuance of Grading Permit	Public Works Division	
52.	The applicant must provide the District with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	Prior to Issuance of Grading Permit	Public Works Division	
53.	The Applicant shall submit a Water Quality Management Plan identifying site specific Best Management Practices (“BMPs”) in accordance with the Model Water Quality Management Plan (“WQMP”) approved for use for the Santa Ana River Watershed. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading Plan. A WQMP Maintenance Agreement shall be required, obligating the property owner(s) to	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer.			
Prior to Issuance of Encroachment Permit				
54.	An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, Chandler Street Channel. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact the District's Encroachment Permit Section at 951.955.1266.	Prior to Issuance of Encroachment Permit	Riverside County Flood Control	
55.	A City of Eastvale Encroachment Permit is required for any improvements within the public right-of-way.	Prior to Issuance of Encroachment Permit/On-going	Public Works Division	
56.	The minimum pavement section for all on-site pavements shall be 3 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal. The pavement section shall be determined using appropriate Traffic Index (“TI”) accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
57.	Traffic Control Plan prepared by a California registered Civil Engineer or Traffic Engineer shall be submitted to the City Engineer for review and approval.	Prior to Issuance of Encroachment Permit	Public Works	
58.	Transportation Mitigation Measure 1 (TRA-1) - Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with state standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid	Prior to Issuance of Encroachment Permit	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.			
Prior to Issuance of Building Permit				
59.	**GHG-1:** The project shall incorporate the following California Air Pollution Control Officers Association-based reduction measures and regulatory compliance: · Utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen Standards. · Implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341). · Incorporate the following land use and site enhancement reduction measures: LUT-1 Increase Density, LUT-4 Improve Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network.	Prior to Issuance of Building Permit/ Construction	Planning Division	
60.	**GHG-2:** The project shall incorporate the following design features: · The project applicant shall require that all faucets, toilets, and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen standards. · The project applicant shall require recycling programs that reduce waste to landfills by a minimum 75 percent per AB 341. · The project applicant shall provide sidewalks on-site and connecting off-site.	Prior to Issuance of Building Permit/ Construction	Planning Division	
61.	**NOI-1:** The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receptors nearest the project site.	Prior to Issuance of Building Permit/ Construction	Building Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
62.	**NOI-2:** The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).	Prior to Issuance of Building Permit/ Construction	Building Division	
63.	**NOI-3:** The contractor shall install temporary construction noise barriers/blankets along the western boundary. The barrier/blankets shall be solid with no cracks or holes and shall also reach to the ground.	Prior to Issuance of Building Permit/ Construction	Building Division	
64.	**NOI-4:** During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from applicable noise level specifications.	Prior to Issuance of Building Permit/ Construction	Building Division	
65.	**NOI-5:** The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary.	Prior to Issuance of Building Permit/ Construction	Building Division	
66.	**All construction shall comply with the most recently adopted City and State building codes:** • **2022 California Building Code** • **2022 California Residential Code** • **2022 California Electrical Code** • **2022 California Mechanical Code** • **2022 California Plumbing Code** • **2022 California Fire Code** • **2022 California Green Code**	Prior to Issuance of Building Permit	Building Division	
67.	**Special Inspections – As indicated by California Building Code Section 1704, the owner shall employ one or more special inspectors who shall provide special inspections when required by CBC Section 1704. Please contact the Building Division at the time of plan submittal to obtain an application for special inspections.**	Prior to Issuance of Building Permit	Building Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
68.	**The Title Sheet of the plans shall include:** • **Occupancy Group** • **Occupant Load** • **Description of use** • **Type of Construction** • **Height of Building** • **Floor area of building(s) and/or occupancy group(s)**	Prior to Issuance of Building Permit	Building Division	
69.	**School impact fees shall be paid prior to permit issuance.**	Prior to Issuance of Building Permit	Building Division	
70.	**Dimensioned building setbacks and property lines, street centerlines, and between buildings or other structures shall be designed on the plot plan.**	Prior to Issuance of Building Permit	Building Division	
71.	**All property lines and easements must be shown on the plot plan. A statement that such lines and easements are shown is required.**	Prior to Issuance of Building Permit	Building Division	
72.	**The project design will conform with energy conservation measures articulated in Title 24 of the California Code of Regulations and address measures to reduce energy consumption such as flow restrictors for toilets, low consumptions light fixtures, and insulation, and shall use to the extent feasible drought landscaping.**	Prior to Issuance of Building Permit	Building Division	
73.	**A design professional will be required at the time of construction drawings, to prepare plans for proposed improvements per the Business and Professions Code.**	Prior to Issuance of Building Permit	Building Division	
74.	**Public and private site improvements shall be designed in accordance with the Americans with Disabilities Act and Chapter 11 of the California Building Code. The site plan shall include a site accessibility plan identifying exterior routes of travel and detailing running slope, cross slope, width, pedestrian ramp, curb ramps, handrails, signage, and truncated domes. Path of travel shall be provided from the public right of way and accessible parking to the building. The design professional shall ensure that the site accessibility plan is in compliance with the latest Federal and State regulations.**	Prior to Issuance of Building Permit	Building Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
75.	**All projects including food service or public pools and/or spas shall be checked and approved by the County Health Department as part of the building department plan review process.**	Prior to Issuance of Building Permit	Building Division	
76.	The developer is responsible for requesting from the Planning Division any addresses needed for any building(s) and/or any electrical/water single/dual irrigation meter pedestal(s). An address map shall be prepared and submitted by the applicant for review and approval by the Planning Division.	Prior to Issuance of Building Permit	Planning and Building Division	
77.	All drive-thru isles adjacent to the public right-of-way or ingress and egress points of vehicular access must include Planning Division approved screening along the perimeter.	Prior to Issuance of Building Permit	Planning and Public Works Division	
78.	A revised (site plan, floor plan, and building elevations) which incorporate(s) the Conditions of Approval listed herein shall be submitted to the Planning Division prior to submittal for building and/or grading plan check.	Prior to Issuance of Building Permit	Planning Division	
79.	The project shall incorporate fully defined architecture on all facades facing the public right of way including windows, doors and other architectural details.	Prior to Issuance of Building Permit	Planning Division	
80.	Construction and architectural detailing shall be in substantial conformance with the approved plans, including but not necessarily limited to elevation drawings and material/colors sample board submitted as a part of this application and as approved by the Planning Commission, except that any modification shall be subject to the discretion of the Community Development Director upon finding that any changes are comparable in substance and quality to the original approval.	Prior to Issuance of Building Permit	Planning Division	
81.	Elevations shall be enhanced along building frontages facing Archibald Avenue to the satisfaction of the Community Development Director. Applicant to add architectural interest to the building visible to the public right-of-way.	Prior to issuance of Building Permit	Planning Division	

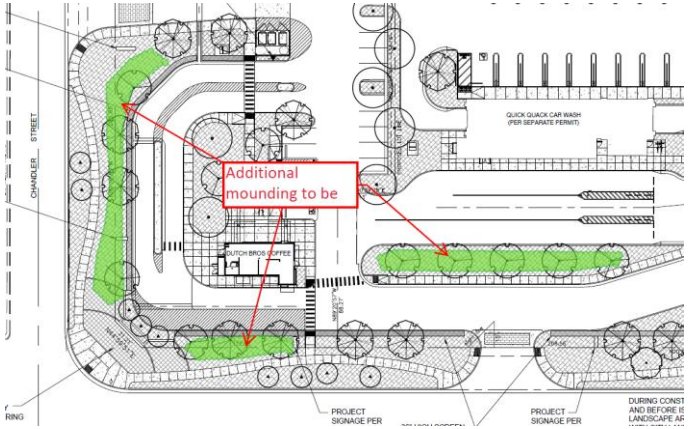
Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
82.	Site Plan and elevations shall be revised to show decorative lighting of the pedestrian walkways, entryways, and exterior doors	Prior to Issuance of Building Permit	Planning Division	
83.	There shall be no roof-mounted equipment extending above the mansard roof or parapet wall of the building.	Prior to Issuance of Building Permit	Planning Division	
84.	Trash receptacles shall be provided nearby customer entrances/exits to buildings for all commercial developments.	Prior to Issuance of Building Permit	Planning Division	
85.	Elevations for trash enclosure shall be provided prior to issuance of building permit. Trash enclosures shall be covered and shall be architecturally consistent with the proposed development. Trash enclosure elevations shall be reviewed and approved by the Planning Division.	Prior to Issuance of Building Permit	Planning Division	
86.	Any proposed signage must be reviewed and approved by the Planning Division and must comply with the City's Sign Ordinance.	Prior to Issuance of Building Permit	Planning Division	
87.	Any future monumentation into the development shall be subject to review and approval by the Community Development Director and City Engineer.	Prior to Issuance of Building Permit	Planning & Public Works Divisions	
88.	All required parking area spaces shall meet the minimum dimensions of the Zoning Code Section 120.05.060.	Prior to Issuance of Building Permit	Planning Division	
89.	Prior to the issuance of a building permit for each building, the final site plan shall indicate the location of bicycle parking installation using Class I lockers or Class II racks in an enclosed lockable area, as follows for each building (C-Store and Restaurants): • Minimum of Two (2) bicycle parking spaces for visitors and two (2) bicycle parking spaces for employees. • The location of bicycle parking is subject to approval by the Planning Department. Applicant shall submit a design alternative to the loop-wave and ribbon rack design. Final design of bike parking shall be approved by the Planning Division prior to issuance of building permit.	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
90.	Prior to the issuance of a building permit, the applicant shall submit a photometric lighting plan for review and approval to ensure that proper outdoor lighting, pursuant to City of Eastvale Municipal Code Section 120.05.050 and subject to Riverside County Sheriff's review and approval, shall be provided. In order to minimize light trespass on abutting residential property, illumination measured at the nearest residential structure or rear yard setback line shall not exceed the moon's potential ambient illumination of one-tenth footcandle through use of light shielding and through additional landscaping.	Prior to Issuance of Building Permit	Planning, Building, Public Works, and Sheriff	
91.	**Prior to the issuance of a building permit, the applicant shall submit a set of development plans to the Eastvale Sheriff's Department for review and approval to ensure compliance with the following**: PROPERTY GATES AND KNOX BOX ENTRY a) The installation of the Knox Rapid Entry System if property gates are installed. This system permits law enforcement, fire, and first responders to obtain independent access to the property in the event of an emergency. The necessary order forms for the Knox Company may be obtained by contacting the Jurupa Valley Sheriff's Station Crime Prevention Programs Coordinator at (951) 955-9225. PROPERTY SIGN b) Proper display of "No Trespassing or Loitering" signs prominently around business and any exterior perimeter fencing and adhere to City of Eastvale Municipal Code Section 120.05.070, Signs. ADDRESS NUMBERING: c) Prominently displayed address numbering in size and contrasting in color from the building façade or on a fixed sign near the street/main entrances. The numbers need to be visible from the street and interior property sides for any approaching emergency vehicles. No obstructions should limit their visibility (i.e., landscaping). SECURITY PLAN Adequate crime prevention measures, such as security cameras, shall be installed to assist with identifying any suspect(s) of any potential future	Prior to issuance of building permit	Planning, Building and Sheriff Departments	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	vandalism or theft attempts. Due to the high possibility of theft/vandalism attempts during construction, additional security measures should be added during that time frame of the proposed construction. All exterior access points should be properly secured and illuminated to make clearly visible any person on or about the premises during the hours of darkness.			
92.	A minimum of one (1) Electric Vehicle charging station per parcel shall be installed.	Prior to issuance of building permit	Planning Division	
93.	Landscape plans shall be submitted to the Planning Division for review and approval. The plan shall be certified by a licensed landscape architect as required, taking into account approved preliminary landscape plan (if any), adopted plant palette guides, applicable scenic and specific plan requirements, and water conservation measures. **This submittal shall be made to the Planning Division with the appropriate Application and Fee.**	Prior to Issuance of Building Permit	Planning Division	
94.	The above-described plans shall be in substantial conformance with the conceptual plans as requested for modification and as approved by the City Landscape Architect, City Administrative Staff, Planning Commission and/or City Council. Notes, details, and specifications shall be included.	Prior to issuance of building permit	Planning Division	
95.	Prior to the issuance of a building permit, final landscape plans shall be reviewed and approved by the Planning Division. Landscaping shall be installed and verified prior to issuance of certificate of occupancy.	Plans must be reviewed and approved prior to issuance of building permit. Landscaping shall be installed and verified prior to certificate of occupancy	Planning Division	
96.	All landscape and irrigation plans shall be consistent with the City of Eastvale Zoning Code, with Section 5.4 Landscaping General Provisions, the City of Eastvale Design Standards and Guidelines, and the City of Eastvale Chapter 14.24 Water Efficient Landscape Regulations, and other applicable codes and guides.	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
97.	Landscape plans shall be drawn at a scale of 20 feet equal to 1 foot or larger.	Prior to Issuance of Building Permit	Planning Division	
98.	All planting areas shall be a minimum of 5 feet wide. Tree well planting areas shall contain 25 square feet or more.	Prior to Issuance of Building Permit	Planning Division	
99.	The drive through lanes shall be appropriately screened from the Public ROW using 15-gallon shrubs spaced at between 3 and 4 feet on center.	Prior to Issuance of Building Permit	Planning Division	
100.	The trash enclosure shall include landscape screening on all 3 enclosure walls.	Prior to Issuance of Building Permit	Planning Division	
101.	Street trees shall be installed from 24-inch box container at 30 feet on center along Archibald Avenue and Chandler Street.	Prior to Issuance of Building Permit	Planning Division	
102.	Mature specimen trees in 36-inch or 48-inch boxes shall be supplied in sufficient quantity to provide a prominent project entry statement at the corner of Chandler Street and Archibald Avenue, at entry drives from the streets and other major focal areas.	Prior to Issuance of Building Permit	Planning Division	
103.	Shrubs shall be installed from a minimum of 5-gallon containers unless approved by the City of Eastvale Landscape Architect for appropriateness. Shrubs and ground covers shall be designed for installation at reasonable spacing to allow for growth and relative maturity.	Prior to Issuance of Building Permit	Planning Division	
104.	The applicant shall install and maintain dense evergreen screen hedge to provide sufficient privacy for the immediate adjacent properties to the west. The size of plants utilized and spacing shall be at the recommendation and approval of the Landscape Architect and Community Development Director and shall be maintained at 8-feet tall. The species of landscape selected shall be of a fast-growing variety such that they will attain effective screening within a 1-2 year timeframe to the satisfaction of the Community Development Director.	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
105.	Above ground utility locations shall be located in shrub areas and screened from public view. Transformers shall be screened with a minimum of 3 foot wide planting area located outside the SCE setback to the transformer.	Prior to Issuance of Building Permit	Planning Division	
106.	No light fixture, electric transformer, fire detector check or fire hydrant shall be designed for any location in a planting area, which would make it necessary to eliminate a tree. All overhead light fixtures and utilities shall be identified on the site plan.	Prior to Issuance of Building Permit	Planning Division	
107.	All ground covers shall be installed from living plant materials. Spacing shall be such to allow plants grow to maturity in 2 years from the time of installation.	Prior to Issuance of Building Permit	Planning Division	
108.	No plants with thorns, those that would freeze, or those which do not thrive in the local environment may be used, including Lophostemon, Bougainvillea, and Phormium.	Prior to Issuance of Building Permit	Planning Division	
109.	No plant container shall be installed within 18 inches of a sidewalk, curb, patio, walkway, or equal, unless approved by the City Landscape Architect for appropriateness.	Prior to Issuance of Building Permit	Planning Division	
110.	Plant materials within planting areas shall be hydro-zoned using WUCOLS IV, Region 4 as a general guide.	Prior to Issuance of Building Permit	Planning Division	
111.	Root barriers shall be installed for all trees located within 5 feet of paving in 10 to 12 foot lengths. Trees located within 10 feet of curbs or city sidewalks and within planted parkways shall utilize 20 lineal feet of root barrier.	Prior to Issuance of Building Permit	Planning Division	
112.	A weather-based smart irrigation controller shall be installed. A rain shut off or weather station device shall be connected with the irrigation controller.	Prior to Issuance of Building Permit	Planning Division	
113.	Parking lot lighting and/or water quality design shall not prevent tree or shrub placement (used for shading) nor reduce overall tree counts per the preliminary plans. The addition of tree diamonds or other solutions for maintain tree counts presented will be required if space or conflicts arise during design development.	Prior to Issuance of Building Permit	Planning Division	
114.	Applicant shall retain the stated landscape coverage percentage throughout the design development process and final installation/project completion	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
115.	Applicant shall install temporary curb and planter continuing screen at northwest corner of the property that shall remain in place until prospective adjacent phase is completed.	Prior to Issuance of Building Permit	Planning Division	
116.	Applicant shall screen all utilities and mechanical infrastructure in planter areas with increased sized shrub material as required by the Community Development Director or Landscape Architect.	Prior to Issuance of Building Permit	Planning Division	
117.	Landscaping shall be perpetually maintained in a healthy and thriving manner.	Prior to Issuance of Building Permit	Planning Division	
118.	Applicant shall add mounding to planter areas that will screen vehicular stacking/queuing lanes that front Chandler Avenue and Archibald Avenue. Exhibit included below:  	Prior to Issuance of Building Permit	Planning Division	
119.	Applicant to increase density of tree planting along easterly planter area (abutting drive-through queuing area) to the satisfaction of the Community Development Direct and Landscape Architect.	Prior to Issuance of Building Permit	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
120.	The City Landscape Architect shall be contacted to meet with the job site superintendent and the landscape contractor for a pre-job meeting. A copy of the soil fertility recommendations utilizing humate, mycorrhizae, and organic fertilizer shall be presented prior to the meeting. No landscaping shall occur prior to the meeting.	Prior to Initiation of Landscape Construction	Planning Division	
121.	The City Landscape Architect shall be contacted to meet with the job site superintendent and the landscape contractor for a pre-job meeting. A copy of the soil fertility recommendations utilizing humate, mycorrhizae, and organic fertilizer shall be presented prior to the meeting. No landscaping shall occur prior to the meeting.	Prior to Initiation of Landscape Construction	Planning Division	
122.	Submit photometric plan of street lighting. All lights shall be Edison LS-3 tariff and utilize General Electric Evolve LED luminaires per City Specifications. The Developer shall be responsible for applying with Southern California Edison (“SCE”) for all appropriate service points and electrical meters early in the process to avoid delays. The Developer must pay for the electrical service of new meter pedestals installed until such time the improvements have been accepted and the underlying property is annexed into Community Facilities District ("CFD") or Landscaping Maintenance District ("LMD").	Prior to Issuance of Building Permit	Public Works Division	
123.	The public street improvements outlined in these Conditions of Approval are intended to convey to the developer an accurate scope of required improvements; however, the City Engineer reserves the right to require reasonable additional improvements as may be determined in the course of the review and approval of street improvement plans required herein.	Prior to Issuance of Building Permit	Public Works Division	
124.	The Precise Grading/Paving Plan shall be City Engineer approved prior to issuance of a building permit.	Prior to Issuance of Building Permit	Public Works Division	
125.	A WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be approved prior to issuance of a Building Permit and shall be recorded by the Developer at the San Bernardino County	Prior to Issuance of Building Permit	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Recorder's Office with a recorded copy provided to the Public Works Division prior to issuance of a Certificate of Occupancy.			
126.	Provide pad elevation certifications for all building pads in conformance with the approved Precise Grading Plan to the Public Works Division prior to construction of any building foundation.	Prior to Issuance of Building Permit	Public Works Division	
127.	The Developer is advised that domestic water service is provided by JCSD. The developer shall be responsible for coordinating with JCSD and complying with all requirements for establishing domestic water service to the property.	Prior to Issuance of Building Permit	Public Works Division	
128.	Prior to issuance of a building permit, the developer is required to pay Traffic Impact Analysis Project Fair Share Contribution fees.	Prior to Issuance of Building Permit	Public Works Division	
129.	Prior to issuance of building permit, installation of conduit fiber optic along property frontages shall be required.	Prior to Issuance of Building Permit	Public Works Division	
130.	The Applicant shall pay all applicable development impact fees in accordance with the City of Eastvale fee ordinance in effect at the time the fees are due, prior to the issuance of any building permits related to the Project.	Prior to Issuance of Building Permit	Building and Public Works Division	
131.	Applicant shall submit an application to ALUC and obtain an official consistency determination on the project.	Prior to Issuance of Building Permit	Planning Division	
132.	A water system (hydrants - commercial with one 4" outlet and two 2-1/2" outlets) capable of delivering the required fire flow shall be provided in accordance with Appendix B and C of the California Fire Code shall be provided. A reduction of 50% is permitted in buildings equipped with fire sprinklers in accordance with City Municipal Code. On-site water supply must be available before any combustible material is placed on the construction site. No portion of a building can be more than 400 feet from a hydrant.	Prior to Issuance of Building Permit	Fire Department	
133.	Prior to building plan approval and construction, applicant/developer shall route a copy of the Water Improvement Plans (offsite) to the Fire Department for review of private hydrant placement only. Water Improvement Plans (offsite) will not be reviewed or approved for the	Prior to Issuance of Building Permit	Fire Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	installation of onsite Private Fire Service Mains, private hydrants, or fire sprinkler system supplies. The installing contractor shall submit a separate set of working plans designed in accordance with NFPA 13 and NFPA 24 to the Fire Department for a permit to install private water mains.			
134.	Fire apparatus access roads shall be at least 24 feet wide and comply with Riverside County Fire Department Standard number 06-05. Access roads shall be located outside of truck docks and between 15 and 40 feet from the building. Access roads shall not have a grade more than 16% and shall have an unobstructed vertical clearance not less than 13 feet and 6 inches. Access lanes will be designed to withstand the weight of 75,000 thousand pounds over 2 axles and shall be all-weather surface capable. Fire apparatus access roads shall have a turning radius capable of accommodating fire apparatus.	Prior to Issuance of Building Permit	Fire Department	
135.	Parking is not permitted on fire apparatus access roads that are less than 28 feet in width. Parking on one side is permitted on a road that is at least 28 feet but less than 36 feet in width. Parking on two sides is permitted on a road that is 36 feet or more in width.	Prior to Issuance of Building Permit	Fire Department	
136.	Fire apparatus access roads shall be constructed with a surface to provide all-weather driving capabilities during construction.	Prior to Issuance of Building Permit	Fire Department	
137.	Dead-end fire apparatus access roads more than 150 feet in length shall be provided with an approved area for turning around fire apparatus.	Prior to Issuance of Building Permit	Fire Department	
138.	Driveway loops, fire apparatus access lanes and entrance curb radius should be designed to adequately allow access of emergency fire vehicles. The applicant or developer shall include in the building plans the required fire lanes and include the appropriate lane printing and/or signs.	Prior to Issuance of Building Permit	Fire Department	
139.	Buildings more than 3,600 square feet shall be equipped with a fire sprinkler system. The PIV and FDC shall be located to the front, within 100 feet of a	Prior to Issuance of Building Permit	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	hydrant. FDC shall be located so that fire apparatus and hose connected to supply the system will not obstruct roadway access for other fire apparatus. FDCs are not allowed in the rear of any building.			
140.	A fire sprinkler monitoring system is required in all sprinklered buildings.	Prior to Issuance of Building Permit	Fire Department	
141.	A manual and automatic fire alarm system may be required, depending on the use and/or occupant load of the building.	Prior to Issuance of Building Permit	Fire Department	
142.	Commercial cooking equipment that produces grease-laden vapors shall be provided with a Type I hood and an automatic fire extinguishing system.	Prior to Issuance of Building Permit	Fire Department	
143.	An approved Fire Department access key lock box (minimum Knox 3200 series) shall be installed at the main entrance to any sprinklered building. Gate switches or padlocks shall be installed at each automatic or manual gate. Locations shall be shown on plans submitted for a building permit.	Prior to Issuance of Building Permit	Fire Department	
144.	New motorized gates shall be provided with means to be automatically opened remotely by emergency vehicles in accordance with Riverside County standards and policies. The system shall be compatible, but not limited to, the detection of the following manufacturers of emergency vehicle preemption: Federal Signal, Whelen, and Tomar. Upon installation of the system, compliance testing shall be completed by the Riverside County Fire Department. (RVC Amendment to CFC 503.6.1)	Prior to Issuance of Building Permit	Fire Department	
145.	The location of address numbers shall be indicated on the building plans. Street numbers shall be displayed in a prominent location on the street or fire apparatus access side of buildings. Numbers and letters shall be a minimum of 12” in height with a minimum stroke of .05 inch. Where access is by means of a private road and the building cannot be viewed from a public way, a monument, pole, or other sign shall be used to identify the structure	Prior to Issuance of Building Permit	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	in accordance with Riverside County Standard 07-01. Address must be legible, of a contrasting color, and adequately illuminated to be visible from the street at all hours.			
146.	No hazardous materials shall be stored and/or used within the building which exceeds quantities listed in the California Fire Code, without first obtaining a permit.	Prior to Issuance of Building Permit	Fire Department	
147.	Exit signs, door hardware, and exit path marking shall be as required by the California Building Code.	Prior to Issuance of Building Permit	Fire Department	
148.	Fire sprinkler riser door shall be posted "FIRE RISER" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
149.	Electrical room door shall be posted "ELECTRICAL ROOM" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
150.	Fire alarm control panel door shall be posted "FACU" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
151.	Roof access door shall be posted "ROOF ACCESS" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
152.	Provide specific fire department conditions on plans for building permit submittal.	Prior to Issuance of Building Permit	Fire Department	
Prior to Issuance of Certificate of Occupancy				
153.	All parkway landscaping shall be guaranteed for a period of one (1) year from the date of the City Engineer acceptance. Any landscaping that fails during the one (1) year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer, and shall be subject to a subsequent one (1) year landscape maintenance period.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
154.	The development shall be annexed into all applicable City of Eastvale owned and administered Community Facilities Districts (CFDs) and/or Landscaping Maintenance Districts (LMDs) for On-Going maintenance of traffic signals, traffic signal synchronization, street lights, full capture systems for all storm drains, and landscape maintenance of raised landscaped median and public parkways, to the satisfaction of the City Engineer or otherwise form a district where one is not currently in place.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
155.	Upon City Engineer approval of any improvement plan, the improvement plan shall be provided to the City in digital format, consisting of a DWG (AutoCAD drawing file), DXF (AutoCAD ASCII drawing exchange file), and PDF (Adobe Acrobat) formats. Variation of the type and format of the digital data to be submitted to the City may be authorized, upon prior City Engineer approval.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
156.	Mira Loma Road and Bridge Benefit Assessment District Fee ("MLRBA"), Transportation Uniform Mitigation Fee ("TUMF"), Area Drainage Plan ("ADP") fee, and any other regional pass-through fees in effect at that time shall be paid prior to issuance of Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
157.	The Developer shall submit to the City Engineer for review and approval the Covenants, Conditions, and Restrictions ("CC&Rs") and/or a Property Owners Association document to maintain and operate common areas and/or facilities including, but not limited to, parking areas, private utilities, and water quality basins.	Prior to Issuance of Certificate of Occupancy	Public Works and Planning Division	
158.	Prior to issuance of a Certificate of Occupancy or final City approvals, demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
159.	The Developer shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
160.	All damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and street lights, associated with the proposed development shall be replaced.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
161.	Remove existing, and construct new pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, to the existing right edge line along the entire street frontage in accordance with City of Eastvale Standard Drawings. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve recent pavement improvements.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
162.	Construct an Americans with Disabilities Act ("ADA") compliant sidewalk behind curb along the entire frontage and interior streets in accordance with the General Plan, any Specific Plan, the City of Eastvale Standard Drawings, subject to the approval of the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
163.	Construct City Engineer approved commercial driveway approaches in accordance with City of Eastvale Standard Drawings. The driveway approach shall be constructed so the top of "X" is 5 feet from the property line. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
164.	Construct a curb ramp meeting current California State Accessibility standard along both sides of the commercial driveway approaches. The developer shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the driveway, and shall adjust the location of the access ramps, if necessary, to meet ADA guidelines, subject to the approval of the City Engineer. If necessary, additional pedestrian and sidewalk easements shall be provided on-site to construct a path of travel meeting ADA guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
165.	Grind and overlay half ROW width of Archibald Avenue and Chandler Street within the project frontages up to the existing median.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
166.	Install Class II bicycle lanes along Archibald Avenue to connect to the existing Class II bicycle lanes to the north.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
167.	Install Pan-Tilt-Zoom ("PTZ") cameras at each intersection to tie into the existing Citywide system to monitor traffic.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
168.	Install License Plate Reader ("LPR") cameras to tie into the existing Citywide system at each traffic signal servicing the property.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
169.	Upgrade traffic signals within 100 feet of the property to provide signal synchronization.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
170.	Applicant, at its sole option and cost, may install a traffic signal at the intersection of Archibald Avenue and Fairchild Drive, pending signal warrant analysis approved by the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
171.	The Developer shall be responsible for coordinating with Riverside Transit Authority ("RTA") regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The Developer shall design street, bus pad, and sidewalk improvements in accordance with the latest RTA bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act ("ADA") requirements. The Developer shall design all bus stops to accommodate the RTA Shelters. The Developer shall submit to Public Works verification from RTA acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
172.	The Developer shall employ staff to assist with management of the drive through queue during peak periods. Specifically, staff should periodically walk along the drive through lanes encouraging vehicles to pull forward and maximize efficiently of the available storage and temporarily close drive-through access when drive-through queue exceeds drive-through queueing capacity. A Traffic Management Plan for operations and special events shall be submitted to the Public Works and Planning Divisions for review and approval and be made a part of each businesses' Standard Operating Procedures.	Prior to Issuance of Certificate of Occupancy	Planning & Public Works Divisions	
173.	Grand openings for the Quick Quack and Quick Quack Car Wash tenants shall be held a minimum of one week apart from each other.	Prior to Issuance of Certificate of Occupancy	Planning & Public Works Divisions	
174.	The original improvement plans prepared for the proposed development and approved by the City Engineer (if required) shall be documented with record drawing "as-built" information and returned to the Public Works Division prior to issuance of a final certificate of occupancy. Any modifications or changes to approved improvement plans shall be submitted to the City Engineer for approval prior to construction.	Prior to Certificate of Occupancy	Public Works Division	
175.	All conditions of approval for TPM No. 37653 shall be completed to the satisfaction of the City Engineer prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	
176.	All sewer mains constructed by the applicant and to become part of the public sewer system shall be pressure tested and digitally video recorded by the City's wastewater system operator JSCD prior to acceptance of the sewer system for maintenance by the City. The developer shall be responsible for all costs associated with testing and inspection services. Any defects of the sewer main shall be removed, replaced, or repaired to the satisfaction of the City Engineer prior to acceptance.	Prior to Certificate of Occupancy	Public Works Division	
177.	The Applicant shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
178.	A City business registration shall be required prior to issuance of a Certificate of Occupancy or final permits.	Prior to issuance of certificate of occupancy	Planning Division	
179.	The development shall conform to all other applicable State and local laws and ordinances and the applicant shall obtain all necessary approvals and operating permits from all State and local agencies prior to the issuance of a Certificate of Occupancy or final permits.	Prior to issuance of certificate of occupancy	Planning Division	
180.	Any missing or damaged landscaping shall be replanted to the satisfaction of the Community Development Director and Planning Division.	Prior to issuance of certificate of occupancy / Ongoing	Planning Division	
181.	Prior to the final landscape inspection a water audit shall be conducted by an independent water auditor and WELO documentation shall be provided to the City Planning Department and City Landscape Architect via email.	Prior to issuance of certificate of occupancy	Planning Division	
182.	All required landscaping and irrigation systems shall be installed in a condition acceptable to the City. If the Project Landscape Architect has provided inspection of the landscaping, the Project Landscape Architect shall provide the City with a Certificate of Compliance stating that the landscaping was installed per the approved plans. The City will review the Certificate of Compliance and conduct inspections to ensure that the landscape installation is in compliance with the approved landscape plans.	Prior to issuance of certificate of occupancy	Planning Division	
On-Going/During Operations				
183.	Provide street sweeping services for onsite and offsite within project frontages weekly.	On-Going	Public Works Division	
184.	Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.	On-Going	Public Works Division	
185.	All street cuts for utilities shall be repaired in accordance with City Standard or as recommended; and any interim trench repairs shall consist of compacted backfill to the bottom of the pavement structural section followed by placement of standard base course material in accord by the City Engineer and	On-going	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.			
186.	In accordance with City's Moratorium policy to preserve newly paved streets, any and all street and/or trench cuts in newly paved streets will be prohibited or be subject to moratorium street repair standards as reference in Section 12.08.260 of the Eastvale Municipal Code.	On-going	Public Works Division	
187.	Any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development shall be backfilled and repaired in accordance with City of Eastvale Standard Drawings. The Developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e. Jurupa Community Services District, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets resulting from the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site streets, at the discretion of the City Engineer. The pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.	On-going	Public Works Division	
188.	Construction signing, lighting and barricading shall be provided during all phases of construction in accordance with City Standards and the direction of the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 "Temporary Traffic Control" of the latest California Manual on Uniform Traffic Control Devices, or subsequent editions in force at the time of construction.	On-Going	Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
189.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements.	On-Going	Planning and Public Works Division	
190.	All landscaped setbacks and planter areas shall be permanently maintained at the site and kept free of debris.	On-Going	Planning and CES Division	
191.	To regulate excess noise levels throughout various times of the day (day/nighttime) the operation shall not create any sound, or allow the creation of any sound on the subject property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Section 8.52.040 – "General Sound Level Standards" of the City of Eastvale Municipal Code.	On-Going	Planning and CES Division	
192.	There shall be no "amplified music" allowed that would disturb any adjacent business tenants or residential properties at any time. The carwash operator shall post signs throughout the property alerting customers of this regulation. Complaints of amplified music shall be verified by the Community Development Director, or their designee, and addressed accordingly. Continued violation of this condition shall be grounds for revocation of the conditional use permit.	On-Going	Planning Division	
193.	A notice from Riverside County Airport Land Use Commission noting the site's location near the Chino Airport shall be recorded (ALUC condition).	On-Going	Planning and Public Works Division	
194.	The project shall be developed in accordance with the approved Tentative Parcel Map and Major Development Review, including the approved site plan, architectural elevations, conceptual landscape plan, and interim and ultimate improvements on Chandler Ave. and Archibald Avenue. The applicant may request modifications or revisions to the approved project as provided in the Eastvale Zoning Code.	On-Going	Planning and Public Works Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
195.	A safety officer or designee may enter and inspect the site at any reasonable time without prior notice for the purpose of investigating an actual complaint or for a health and safety inspection.	On-Going	CES and Planning Division	
196.	Vehicle detailing and vacuum parking stalls must be maintained in clean and tidy conditions at all times. The applicant must also maintain the adjacent areas and keep them free of any waste generated by vehicle cleaning	On-Going	Planning Division	
197.	Trash receptacles shall be provided nearby vehicle detailing and vacuum parking stalls.	On-Going	Planning Division	
198.	Overhead canopies provided for vehicle detailing and vacuum parking stalls shall be maintained in good order, free from sun damage or fading.	On-Going	Planning Division	
199.	Landscaping and ground coverage shall be continually maintained as consistent with the approved landscape plan. Any request or changes which deviate from the approved plan shall require a minor development review.	On-Going	Planning Division	
200.	The District reviewed the water and sewer atlas maps to identify the nearest main lines for potential service connections. Water facilities consist of an existing 12-inch diameter water line on Chandler Street and an existing 21-inch diameter waterline on Archibald Avenue. The applicant must provide the District with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	On-Going	JCSD	
201.	Sewer service is available from an existing 21-inch diameter sewer line on Archibald Avenue. Gravity flow to the existing sewer line is contingent upon the final grading of the site, and sewer service is contingent upon the quantity and quality of wastewater generated by the project. The sewer line will require connections to occur at a manhole, and no direct lateral connections to the mainline are allowed.	On-Going	JCSD	
202.	The District is investigating the potential use of non-potable water for the project area and will require the developer to participate in the final adopted program for parks and greenbelt areas.	On-Going	JCSD	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
203.	The applicant will be required to contact Jurupa Community Services District to start the development processes for the project. The applicant must submit plans and fees for sewer and water services.	On-Going	JCSD	
Jurupa Community Services District				

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are required by the City, other local agencies, or state and federal agencies, and are not conditions of approval of the project.

1. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned. Amended entitlement approvals may be necessary as a result.

2. Submit a final parcel map and all supporting documents for review and approval to the satisfaction of the City Engineer and Public Works Department.

3. Applicants are responsible for all costs associated with off-site right-of-way acquisition, including any costs associated with the eminent domain process, if necessary.

4. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN23-20020 – Conditional Use Permit to allow the establishment and operation of a triple lane drive-through for a carwash (Quick Quack) at the northwest corner of Chandler Ave. and Archibald Ave.
Assessor's Parcel Number: 144-130-004, -011, -012, and -013
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. Project approval is not final until a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative, or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	jurisdiction. It is expressly agreed that the City shall have the right to approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
3.	Any approval shall not be final until and unless the applicant's deposit account with the Planning Division has a balance of at least **$2,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20020** on the check.	On-Going	Planning Division	
4.	Applicant understands and agrees that failing to comply with all Conditions of Approval, may result in the Planning Commission or Community Development Director taking action, resulting in modification of the Conditions of Approval and/or suspension or revocation of any conditional use permit.	On-Going	Planning Division	
5.	Applicable mitigation measures included in the Addendum to the IS/MND shall be required for development of the proposed project and shall be incorporated herein by reference.	On-Going	Planning Divisions	
6.	Conditional Use Permit PLN23-20020 is granted contingent upon approval of PLN23-20018 (TPM 37653) and Major Development Review PLN23-20020. Failure to approve PLN23-20018 (TPM37653) and Major Development Review PLN23-20020 shall render any approval of Conditional Use Permit PLN23-20020 null and void.	On-Going	Planning Division	
7.	All applicable Major Development Review conditions of approval (PLN 23-20020) and Tentative Parcel Map 37653 (PLN23-20018) shall be incorporated herein by reference.	On-Going	Planning Division	
8.	PLN23-20020 is granted for a period of two years and shall become voide as of October 18, 2025, unless building permits have been issued and construction is	On-Going	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	commenced and diligently pursued towards completion, or a time extension is requested in writing prior to that date.			
Conditional Use Permit – Drive-Through Operation				
9.	Applicant understands and agrees that the operation of the drive-through shall not result in stacking of vehicles in such a manner that would cause obstruction to any access aisle or parking spaces for other tenants in the retail center, the main drive aisles for the retail center, and/or public streets/ROW (Chandler Ave. and Archibald Ave., drives, sidewalks, etc.). If the drive-through operation fails to comply with this condition of approval herein, the Community Development Director and/or Public Works Director shall require revised site design or operational alternatives for City review and approval, to remedy any stacking or site circulation issues.	On-Going	Planning and Public Works Divisions	
10.	To prevent stacking in the drive-through lane from impacting adjacent tenants, drive-aisles, or public streets, additional measures shall be implemented, including but not limited to: • **Traffic Control Measures**: Occupant's managers and staff members shall be trained to direct drive-through traffic to line up along the parking aisle such that car stacking does not overflow onto the drive aisles of the retail center. • **Use of Tablets**: Occupant's staff members shall take food orders and non-cash payments at the drive-through lanes with tablets to speed up orders in the drive-through lanes during the restaurant's peak hours. • **Online Order**: An Occupant staff member shall set up temporary parking signs for online order pickup as necessary during high demand online orders. • **Temporary Drive-Through Closure**: Operators shall restrict drive-through access to customers when drive-through queue exceeds	On-Going	CES and Planning, Public Works, CES Divisions	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	drive-through queue capacity. Operators shall close drive-through utilizing on-site cones, signage, or other measures, to the satisfaction of the Community Development Director until vehicle queuing can be accommodated/contained solely within drive-through lanes identified on the approved site plan. Cones, signage, and/or other measures shall not be placed in the public right of way			
11.	Six (6) months and one (1) year from the start of operations, the Planning Department will report to the Planning Commission on the drive-through, including any complaints, code enforcement cases, compliance with the conditions of approval, and whether revisions to the drive-through operation are needed. Continual six (6) month reviews to the Planning Commission may be required as determined by the Community Development Director.	Six (6) months and One (1) year from Start of Operations	Planning Division	
12.	The Final approved Queuing/Traffic Management Plan shall be kept onsite and made available to the store manager for implementation as required.	On-Going	Planning Division	
13.	The drive-through operator shall be required to provide notice to the City of any promotional or special events.	On-Going	Planning Division	
14.	Off duty police officers shall be used to manage traffic on-site for a minimum of one (1) week during the grand opening event and all special events/promotions.	On-Going	Planning Division	
15.	There shall be no “amplified music” allowed that would disturb any adjacent business tenants or residential properties at any time. The carwash operator shall post signs throughout the property alerting customers of this regulation. Complaints of amplified music shall be verified by the Community Development Director, or their designee, and addressed accordingly. Continued violation of this condition shall be grounds for revocation of the conditional use permit.	On-Going	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
16.	A safety officer or designee may enter and inspect the site at any reasonable time without prior notice for the purpose of investigating an actual complaint or for a health and safety inspection.	On-Going	Planning Division	
17.	Grand openings/Special Events for the Dutch Bros and Quick Quack Car Wash tenants shall be held a minimum of one week apart from each other.	On-Going	Planning Division	
Prior to Issuance of Building Permit				
18.	The Final Queuing/Traffic Management Plan shall be submitted, reviewed, and approved by the Community Development Director and/or Public Works Director prior to grading permit issuance. This plan shall include detailed information to ensure visitor vehicles shall remain completely on-site and shall not impede any public rights-of-way (streets, drives, walks, etc.), drive aisles, parking spaces, etc. Mitigation and control measures shall include but not be limited to: • **Traffic Control Measures**: Occupant's managers and staff members shall be trained to direct drive-through traffic to line up along the parking aisle such that car stacking does not overflow onto drive aisles of the retail center. • **Use of Tablets**: Occupant's staff members shall take food orders and non-cash payments at the drive-through lanes with tablets to speed up orders in the drive-through lanes during the restaurant's peak hours. • **Online Order**: An Occupant staff member shall set up temporary parking signs for online order pickup as necessary during high demand online orders. • **Temporary Drive-Through Closure**: Operators shall restrict drive-through access to customers when drive-through queue exceeds drive-through queue capacity. Operators shall close drive-through utilizing on-site cones, signage, or other measures, to the satisfaction of the Community Development Director until vehicle queuing can be accommodated/contained solely within drive-through lanes	Prior to Issuance of Building Permit	Public Works and Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	identified on the approved site plan. Cones, signage, and/or other measures shall not be placed in the public right of way. • **Office Duty Police Officers**: Off duty police officers shall be used to manage traffic for a minimum of one (1) week during the grand openings and all special events/promotions.			
19.	A directional signage and striping plan shall be submitted for review and approval to ensure that directional signs are located in appropriate locations for directing drive-through customers and to make sure that intersections of parking aisles are not blocked.	Prior to Issuance of Building Permit	Public Works and Planning Division	
Prior to Certificate of Occupancy				
20.	Prior to the issuance of certificate of occupancy, all signage and striping shall be installed per the approved signage and striping plan.	Prior to Issuance of Certificate of Occupancy	Public Works and Planning Division	

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are generally required for all projects by City ordinances, other local agencies, and state or federal agencies. PLEASE NOTE: This list is not comprehensive. The project is subject to all applicable standards, fees, policies, rules, and regulations for Eastvale and many other agencies, including but not limited to the Jurupa Community Services District, Jurupa Area Recreation and Park District, Riverside County Flood Control District, and state and federal agencies.

Developer and applicant are used interchangeably below.

1. No obstruction shall be placed which would conflict with any existing easement except with the documented approval of the easement holder(s).
2. The developer shall make best efforts to obtain written permission from the affected property owners allowing the proposed grading and/or facilities to be installed outside of the project boundaries.
3. All connection to flood control facilities shall be reviewed and permitted by the Riverside County Flood Control and Water Conservation District and shall be submitted through the City of Eastvale, unless otherwise directed by the City Engineer.

4. The developer shall prepare and submit to the City for review and approval all required development plans including but not limited to Grading (Rough and/or Precise), Street Improvement, On-Site Lighting, and Storm Drain. All applicable processing and review fees and/or deposits shall be submitted with the first plan submittal.
5. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. PLN23-20021– Major Development Review for the development of a 3,450 square-foot sit down restaurant (dba Zendejas) on the northwest corner of Archibald Ave. and Chandler Ave.
Assessor's Parcel Number: 144-130-004, -011, -012, and -013
Planning Commission Review Date: October 18, 2023

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Division. Project approval is not final until a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative, or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent jurisdiction. It is expressly agreed that the City shall have the right to	On-Going	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
3.	Any approval shall not be final until and unless the applicant's deposit account with the Planning Division has a balance of at least **$2,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20021** on the check.	On-Going	Planning Division	
4.	Any approval shall not be final until and unless the applicant's deposit account with the Public Works Division has a balance of at least $10,000 to cover staff time to follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to half work if the deposit account is exhausted.	On-Going	Public Works Division	
5.	Applicant understands and agrees that failure to comply with all conditions of approval may result in the City Council/Planning Commission taking action resulting in modification of conditions of approval and/or suspension or revocation of the **Major Development Review.**	On-Going	Planning Divisions	
6.	Major Development Review PLN23-20021 is granted contingent upon approval of PLN23-20018 (TPM 37653). Failure to approve PLN23-20018 (TPM37653) shall render any approval of Major Development Review PLN23-20020 null and void.	On-Going	Planning Division	
7.	PLN23-20021 is granted for a period of two years and shall become void as of October 18, 2025, unless building permits have been issued and construction is commenced and diligently pursued towards completion, or a time extension is requested in writing prior to that date.	On-Going	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
8.	The project shall be developed in accordance with the Major Development Review application approved by the Planning Commission on October 18, 2023, including the approved site plan, architectural elevations, conceptual landscape plan, etc. The applicant may request modifications or revisions to the approved project as outlined in Section 120.01.050(c) the Eastvale Zoning Code. A change of tenancy of any portion of the approved project requires review and approval by the original approving authority.	On-Going	Planning Division	
9.	Applicable mitigation measures included in the Addendum to the IS/MND shall be required for development of the proposed project and shall be incorporated herein by reference.	On-Going	Planning Division	
10.	The cover sheet of the building construction drawings shall include a blue line print of the City's conditions of approval and shall be attached to each set of plans submitted for City approval.	On-Going	Planning Division	
11.	PAD 3 (Sit-Down Restaurant) shall receive Certificate of Occupancy prior to or concurrently with PAD 1 (Coffee Shop) and PAD 2 (Carwash).	On-Going	Planning Division	
Prior to Map Recordation				
12.	The Developer shall enter into a Subdivision Improvement Agreement with the City, and shall guarantee by posting security(ies) to include all public improvements that the developer is conditioned to construct as part of this approval.	Prior to Map Recordation	Public Works Division	
13.	Dedicate City Engineer approved additional right-of-way along the entire frontage as may be required to provide a property line at ultimate right-of-way in accordance with the City General Plan, any applicable Specific Plan and/or as requested by the City Engineer. Dedicate 25 feet of right-of-way along Archibald Avenue and 14 feet of right-of-way along Chandler Street to the City for public right-of-way purposes.	Prior to Map Recordation	Public Works Division	
14.	A Final Map prepared by a California licensed Land Surveyor or registered Civil Engineer authorized to practice land surveying (pre-1982, RCE #33965 and lower) and all supporting documents to the Public Works Division for review and approval. A Title Report prepared	Prior to Map Recordation	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	for subdivision guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Final Map to the Engineering Division as part of the review of the Final Map. The Final Map shall be approved by the City Council prior to recordation of the Final Map.			
15.	Provide a reciprocal access easement between Parcel 1 & Parcel 2 and Parcel 2 & Parcel 3. The applicant shall provide a copy of a reciprocal access agreement, shared parking agreement, and documentation showing the responsible entity for maintaining the parking areas (including landscaping) for the entire site including the landscaped areas along the Chandler Avenue and Archibald frontages to the City Engineer for review and approval.	Prior to Map Recordation	Planning and Public Works Divisions	
16.	Monument bond shall be posted with the City. The Developer shall provide a cost estimate to set monuments prepared by a California licensed Land Surveyor or registered Civil Engineer to the Public Works Division for review and approval by the City Engineer.	Prior to Map Recordation	Public Works Division	
17.	The Developer shall enter into an agreement with the City for bonding and improvements of all public streets, public infrastructure, private streets, and private infrastructure.	Prior to Map Recordation	Public Works Division	
18.	Various blanket and specific transportation and/or utility easements that are no longer in use are to be quitclaimed/abandoned on the Final Map.	Prior to Map Recordation	Public Works Division	
19.	Show on the Final Map dedication of the public right-of-way for, Archibald Avenue and Chandler Avenue, in accordance with the City of Eastvale Road Improvement Standards & Specification, Improvement Plan Check Policies and Guidelines, to the satisfaction of the City Engineer, and in coordination with the adjacent agencies as applicable.	Prior to map recordation	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
20.	The applicant shall provide will-serve letters from all utility agencies.	Prior to map recordation	Public Works Division	
21.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements.	Prior to map recordation	Public Works Division	
22.	Provide on project plans (grading, site plan, etc.) design for the roundabout to be constructed east of Cucamonga creek.	Prior to map recordation	Public Works Division	
23.	Provide safe, functional pedestrian pathways throughout the site.	Prior to map recordation	Public Works Division	
24.	The project site shall include two cross access easements to allow internal circulation with the future development of the properties located to the west.	Prior to map recordation	Planning Division	
25.	A shared parking agreement and reciprocal access agreement for the entire site shall be submitted for Planning Division review. The shared parking agreement shall include all parcels included in the parcel map.	Prior to map recordation	Planning Division	
Prior to Issuance of Grading Permit				
26.	Prior to submittal for grading plan check, the site plan shall be revised to show a pathway that provides pedestrians with safe unobstructed access to the adjacent retail and restaurant pads. Pavement on all pathways and entryways shall be decorative in nature with texture, stamped concrete or pavers.	Prior to Issuance of Grading Permit	Planning Division	
27.	Prior to submittal for grading plan check, the site plan shall be revised to show one (1) loading space area for the restaurant.	Prior to Issuance of Grading Permit	Planning Division	
28.	**BIO-1:** Prior to the issuance of a grading permit, a preconstruction burrowing owl clearance survey shall be completed by a qualified biologist within 30 days prior to ground disturbance to avoid direct take of burrowing owls. Once complete, a written report summarizing the	Prior to Issuance of Grading Permit/ Within 30 days	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	results of the clearance survey shall be prepared and submitted to the City of Eastvale for review and concurrence. · If no burrowing owls are detected, construction may proceed. If construction is delayed or suspended for more than 30 days during the breeding season (March 1 to August 31), the project site or work area shall be resurveyed. · If burrowing owls are detected on the project site during the breeding season (March 1 to August 31), a 300-foot "no work" buffer shall be established around the active burrow and all work within the buffer shall be halted until the qualified biologist has determined through non-intrusive methods that the nesting effort is complete (i.e., all young have fledged). Once the nesting effort is complete or if a burrowing owl burrow is detected on-site during the non- breeding season (September 1 to February 28), passive and/or active relocation of burrowing owls may be implemented by a qualified biologist following consultation and approval from the City of Eastvale, the Western Riverside County Regional Conservation Authority, and the California Department of Fish and Wildlife.	prior to ground disturbance		
29.	**BIO-2:** Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally **extends from February 1 through August 31**, but can vary slightly from year to year based on seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a preconstruction clearance survey for nesting birds shall be conducted within 30 days of the start of any ground-disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptors and special- status species, this buffer will be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.	Prior to Issuance of Grading Permit/ Within 30 days of the start of any ground-disturbing activities	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
30.	**CUL-1**: If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.	Prior to Issuance of Grading Permit/ During ground-disturbing activities	Planning Division	
31.	**TCR-1:** Tribal Monitoring. Prior to the issuance of a grading permit, **the project applicant** shall contact the consulting tribe(s) with notification of the proposed grading and shall make a good-faith effort, as determined by the City's Development Director, to enter into a Tribal Cultural Resources Monitoring Agreement with each tribe that determines its tribal cultural resources may be present on the site. The agreements shall include, but not be limited to, outlining provisions and requirements for addressing the handling of tribal cultural resources; Project grading and development scheduling; terms of compensation for the tribal monitors; and establishing on-site monitoring provisions and/or requirements for professional tribal monitors during all ground-disturbing activities. The terms of the agreements shall not conflict with any of these mitigation measures. A copy/copies of the agreement(s) shall be provided to the City of Eastvale Planning Department prior to the issuance of a grading permit.	Prior to Issuance of Grading Permit	Planning Division	
32.	**TCR-2:** Archaeological Monitoring. At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the project applicant shall retain a Secretary of Interior Standards-qualified, Registered Professional Archaeologist (RPA), as an archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Ground-disturbing activities may include, but are not limited to, pavement removal, potholing or auguring, grubbing, weed abatement, boring, grading, excavation, drilling, and trenching. The on-site archaeological monitoring would end when the project site grading and excavation activities are completed, or when the monitor has indicated that the site has a low potential for archeological resources. The Project Registered Professional archaeologist, in consultation with consulting Tribe(s) identified above, and the developer,	At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities.	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site and provide the plan to the City for approval. Details in the plan shall include: A. Project grading and development scheduling. B. The development of a rotating or simultaneous schedule in coordination with the project applicant and the project archeologist for designated Native American tribal monitors from the consulting tribes during grading, excavation and ground-disturbing activities on the site. C. The safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists. D. The protocols and stipulations that the developer, tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.			
33.	**TCR-3:** Treatment and Disposition of Cultural Resources. If tribal cultural resources are inadvertently discovered during ground disturbing activities for this project. The following procedures will be carried out for treatment and disposition of the discoveries: A. Temporary Curation and Storage. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process. B. Treatment and Final Disposition. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the	Prior to Issuance of Grading Permit / During Ground Disturbing Activities	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	following methods and provide the City Planning Department with documentation of same: i. Reburial on-site. Accommodate the process for on-site reburial of the discovered items with the consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed. ii. Curation. A curation agreement with an appropriate qualified repository within Riverside County that meets Federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation. iii. Disposition Dispute. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center. iv. Final Report. At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall: o Document the impacts to the known resources on the property; o Describe how each mitigation measure was fulfilled; o Document the type of cultural resources recovered and the disposition of such resources; o Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting;			

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	o In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. o All reports produced will be submitted to the City, Eastern Information Center and consulting tribes.			
34.	**TCR-4:** Discovery of Human Remains. If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains. The following procedures as set forth in the California Environmental Quality Act (CEQA), Section 15064.5(e), the California Public Resources Code (PRC) (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall then be undertaken: If human remains or funerary/sacred items are encountered, the archaeological monitor or tribal monitor will halt work within the immediate area and any nearby area reasonably suspected to overlie adjacent remains, establish an Environmentally Sensitive Area (ESA) boundary to protect the find from impact, and immediately notify the City Archaeologist. Project work outside the established ESA may continue. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, s/he shall notify the NAHC in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.	Prior to Issuance of Grading Permit / During Ground-Disturbing Activities	Planning Division / Archeological Monitor	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
35.	All existing overhead utility lines shall be undergrounded within the project frontage(s). Utility undergrounding shall extend to the nearest off-site power pole. Unless City Engineer approved, no new power poles shall be installed. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Precise Grading/Paving Plan, informing the City that they have been notified of the City's utility undergrounding requirement and their intent to commence design of utility undergrounding plans. When available, the utility undergrounding plan shall be submitted to the City Engineer identifying all above ground facilities in the area of the project to be undergrounded.	Prior to Issuance of Grading Permit	Public Works Division	
36.	All transmission line poles on Archibald Avenue shall be relocated unless it is demonstrated to the satisfaction of the City Engineer that such poles can remain without impacting street improvements, vehicular circulation, and public safety. Distribution lines along Archibald which are attached to transmission line poles are allowed to remain. Distribution lines and communication lines along Chandler Street shall be undergrounded and all non-transmission poles along the property frontage shall be removed. However, any overhead distribution and communication lines shall be undergrounded across the intersection of Archibald Avenue and Chandler Street.	Prior to Issuance of Grading Permit	Public Works Division	
37.	Prior to the issuance of a Grading Permit, the Developer shall pay all necessary fees as determined by the City Engineer including, but not limited to Multiple Species Habitat Conservation Plan ("MSHCP") fees and grading permit fees.	Prior to Issuance of Grading Permit	Public Works Division	
38.	Grading in excess of 199 cubic yards will require performance security to be posted with the City	Prior to Issuance of Grading Permit	Public Works Division	
39.	A permit for the hauling of material to and from the project site shall be submitted to the City for approval.	Prior to Issuance of Grading Permit	Public Works Division	
40.	Submit a California registered Civil Engineer prepared earthwork cut and fill certification letter to the Engineering Division for review. If the required earthwork in cubic yards is 50 CY or less, a Precise Grading/Paving Plan will not be required; however, the applicant is	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	required to pull an NPDES/Public Works permit prior to issuance of a Building Permit for record purposes.			
41.	Development of the site is subject to the requirements of the National Pollution Discharge Elimination System ("NPDES") Permit for the City of Eastvale, under the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2010-0036. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices ("BMPs") in accordance with the Model Water Quality Management Plan ("WQMP") approved for use for the Santa Ana River Watershed. The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted to the City Engineer for review and approval. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	
42.	Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. 6 foot high tan colored perimeter screened fencing b. Contractor information signage including contact information along the street frontage. c. Post dust control signage with the following verbiage: "Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, please call the AQMD at 1-800-CUT-SMOG/1-800-228-7664"	Prior to Issuance of Grading Permit	Public Works Division	
43.	A Notice of Intent ("NOI") to comply with the California General Construction Stormwater Permit is required via the California Regional Water Quality Control Board online Stormwater Multiple Application and Report Tracking System ("SMARTS"). A copy of the executed letter issuing a Waste Discharge Identification ("WDID") number shall be provided to the City Engineer. The Construction General Permit requires the Developer's contractor to prepare and maintain a Storm Water Pollution Prevention Plan ("SWPPP"). The SWPPP requires all appropriate measures be implemented to prevent erosion and water pollution during construction.	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
44.	A California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Engineering Division with the first submittal of the Precise Grading/Paving Plan.	Prior to Issuance of Grading Permit	Public Works Division	
45.	All stormwater runoff passing through the site shall be accepted and conveyed across the property in a manner acceptable to the City Engineer. All on-site City Engineer approved retention or other facilities are required to contain the increase stormwater runoff generated from the proposed development. Provide a hydrology study to determine the volume of increased stormwater runoff due to development of the site, and to determine required stormwater runoff mitigation measures for the proposed development. The City Engineer must approve the final retention basin sizing and other stormwater runoff mitigation measures determined upon review and approval of the hydrology and may require redesign or changes to site configuration or layout consistent with the findings of the final hydrology study. The existing "pre-developed" condition compared to the proposed "developed" condition shall be used to calculate the volume of increased stormwater runoff to retain on-site under the 100-year frequency storm.	Prior to Issuance of Grading Permit	Public Works Division	
46.	Direct release of on-site nuisance water or stormwater runoff shall not be permitted to the adjacent public streets. Provisions for the interception of nuisance water from entering adjacent public streets from the project site shall be provided through the use of a minor storm drain system that collects and conveys nuisance water to landscape or parkway areas, and in only a stormwater runoff condition, pass runoff directly to the streets through parkway or under sidewalk drains.	Prior to Issuance of Grading Permit	Public Works Division	
47.	The Developer shall connect to the JCSD sewer system and apply for a sewer connection account with JCSD. The project applicant, developer, or successor in interest shall provide written verification that the JCSD can and will provide sanitary sewer service to the project.	Prior to Issuance of Grading Permit	Public Works Division	
48.	The Developer shall submit sewer improvement plans prepared by a California registered Civil Engineer to the JCSD/Public Works Division. The plans shall be approved by the JCSD/City Engineer prior to issuance of any building permits.	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
49.	The Developer shall submit street improvement plans prepared by a California registered Civil Engineer to the Public Works Division for review and approval. Unless otherwise approved, the street improvement plans shall be approved concurrently with any street light, landscape and irrigation, and traffic signal plans.	Prior to Issuance of Grading Permit	Public Works Division	
50.	The Developer shall submit traffic striping and signage plans prepared by a California registered Civil Engineer, for review and approval by the City Engineer. All required traffic striping and signage improvements shall be completed concurrently with required street improvements, to the satisfaction of the City Engineer, and prior to issuance of a Building Permit.	Prior to Issuance of Grading Permit	Public Works Division	
51.	An accessible pedestrian path of travel shall be provided throughout the site, as required by applicable state and federal laws.	Prior to Issuance of Grading Permit	Planning and Public Works Division	
52.	The sewer lines shall require connections to occur at a manhole and no direct lateral connections to the mainlines are allowed.	Prior to Issuance of Grading Permit	Public Works Division	
53.	The applicant must provide the District with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	Prior to Issuance of Grading Permit	Public Works Division	
54.	The Applicant shall submit a Water Quality Management Plan identifying site specific Best Management Practices (“BMPs”) in accordance with the Model Water Quality Management Plan (“WQMP”) approved for use for the Santa Ana River Watershed. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading Plan. A WQMP Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Maintenance Agreement shall be approved prior to issuance of a building permit, unless otherwise allowed by the City Engineer.	Prior to Issuance of Grading Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
Prior to Issuance of Encroachment Permit				
55.	An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely, Chandler Street Channel. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact the District's Encroachment Permit Section at 951.955.1266.	Prior to Issuance of Encroachment Permit	Riverside County Flood Control	
56.	A City of Eastvale Encroachment Permit is required for any improvements within the public right-of-way.	Prior to Issuance of Encroachment Permit/On-going	Public Works Division	
57.	The minimum pavement section for all on-site pavements shall be 3 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval.	Prior to Issuance of Encroachment Permit	Public Works Division	
58.	Traffic Control Plan prepared by a California registered Civil Engineer or Traffic Engineer shall be submitted to the City Engineer for review and approval.	Prior to Issuance of Encroachment Permit	Public Works	
59.	Transportation Mitigation Measure 1 (TRA-1) - Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with state standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.	Prior to Issuance of Encroachment Permit	Public Works	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
Prior to Issuance of Building Permit				
60.	**GHG-1:** The project shall incorporate the following California Air Pollution Control Officers Association-based reduction measures and regulatory compliance: · Utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen Standards. · Implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341). · Incorporate the following land use and site enhancement reduction measures: LUT-1 Increase Density, LUT-4 Improve Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network.	Prior to Issuance of Building Permit/ Construction	Planning Division	
61.	**GHG-2:** The project shall incorporate the following design features: · The project applicant shall require that all faucets, toilets, and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen standards. · The project applicant shall require recycling programs that reduce waste to landfills by a minimum 75 percent per AB 341. · The project applicant shall provide sidewalks on-site and connecting off-site.	Prior to Issuance of Building Permit/ Construction	Planning Division	
62.	**NOI-1:** The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receptors nearest the project site.	Prior to Issuance of Building Permit/ Construction	Building Division	
63.	**NOI-2:** The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).	Prior to Issuance of Building Permit/ Construction	Building Division	
64.	**NOI-3:** The contractor shall install temporary construction noise barriers/blankets along the western boundary. The barrier/blankets shall be solid with no cracks or holes and shall also reach to the ground.	Prior to Issuance of Building Permit/ Construction	Building Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
65.	**NOI-4:** During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from applicable noise level specifications.	Prior to Issuance of Building Permit/ Construction	Building Division	
66.	**NOI-5:** The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary.	Prior to Issuance of Building Permit/ Construction	Building Division	
67.	All construction shall comply with the most recently adopted City and State building codes: • 2022 California Building Code • 2022 California Residential Code • 2022 California Electrical Code • 2022 California Mechanical Code • 2022 California Plumbing Code • 2022 California Fire Code • 2022 California Green Code	Prior to Issuance of Building Permit	Building Division	
68.	Special Inspections – As indicated by California Building Code Section 1704, the owner shall employ one or more special inspectors who shall provide special inspections when required by CBC Section 1704. Please contact the Building Division at the time of plan submittal to obtain an application for special inspections.	Prior to Issuance of Building Permit	Building Division	
69.	The Title Sheet of the plans shall include: • Occupancy Group • Occupant Load • Description of use • Type of Construction • Height of Building Floor area of building(s) and/or occupancy group(s)	Prior to Issuance of Building Permit	Building Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
70.	School impact fees shall be paid prior to permit issuance.	Prior to Issuance of Building Permit	Building Division	
71.	Dimensioned building setbacks and property lines, street centerlines, and between buildings or other structures shall be designed on the plot plan.	Prior to Issuance of Building Permit	Building Division	
72.	All property lines and easements must be shown on the plot plan. A statement that such lines and easements are shown is required.	Prior to Issuance of Building Permit	Building Division	
73.	The project design will conform with energy conservation measures articulated in Title 24 of the California Code of Regulations and address measures to reduce energy consumption such as flow restrictors for toilets, low consumptions light fixtures, and insulation, and shall use to the extent feasible drought landscaping.	Prior to Issuance of Building Permit	Building Division	
74.	A design professional will be required at the time of construction drawings, to prepare plans for proposed improvements per the Business and Professions Code.	Prior to Issuance of Building Permit	Building Division	
75.	Public and private site improvements shall be designed in accordance with the Americans with Disabilities Act and Chapter 11 of the California Building Code. The site plan shall include a site accessibility plan identifying exterior routes of travel and detailing running slope, cross slope, width, pedestrian ramp, curb ramps, handrails, signage, and truncated domes. Path of travel shall be provided from the public right of way and accessible parking to the building. The design professional shall ensure that the site accessibility plan is in compliance with the latest Federal and State regulations.	Prior to Issuance of Building Permit	Building Division	
76.	All projects including food service or public pools and/or spas shall be checked and approved by the County Health Department as part of the building department plan review process.	Prior to Issuance of Building Permit	Building Division	
77.	The developer is responsible for requesting from the Planning Division any addresses needed for any building(s) and/or any electrical/water single/dual irrigation meter pedestal(s). An address map shall be prepared and submitted by the applicant for review and approval by the Planning Division.	Prior to Issuance of Building Permit	Planning and Building Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
78.	All drive aisles adjacent to the public right-of-way or ingress and egress points of vehicular access must include Planning Division approved screening along the perimeter.	Prior to Issuance of Building Permit	Planning and Public Works Division	
79.	A revised (site plan, floor plan, and building elevations) which incorporate(s) the Conditions of Approval listed herein shall be submitted to the Planning Division prior to submittal for building and/or grading plan check.	Prior to Issuance of Building Permit	Planning Division	
80.	The project shall incorporate fully defined architecture on all facades facing the public right of way including windows, doors and other architectural details.	Prior to Issuance of Building Permit	Planning Division	
81.	Revised elevations with accurate color and materials table shall be submitted for review and approval by the Community Development Director and the Planning Division prior to submittal of Building Plan check. The revised elevations shall include the use of wall artwork, landscaping (green screen), or other alternative interesting material to decorate the tower feature closest to Archibald Ave.	Prior to issuance of Building Permit	Planning Division	
82.	A revised site and floor plan shall be submitted to the Planning Division for review and approval to ensure appropriate shading is provided for the outdoor dining area. Enhancements shall be made to enlarge the patio cover to additional provide shading.	Prior to issuance of Building Permit	Planning Division	
83.	Site Plan and elevations shall be revised to show decorative lighting of the pedestrian walkways, entryways, and exterior doors	Prior to Issuance of Building Permit	Planning Division	
84.	There shall be no roof-mounted equipment extending above the mansard roof or parapet wall of the building.	Prior to Issuance of Building Permit	Planning Division	
85.	Trash receptacles shall be provided nearby customer entrances/exits to buildings for all commercial developments.	Prior to Issuance of Building Permit	Planning Division	
86.	Elevations for trash enclosure shall be provided prior to issuance of building permit. Trash enclosures shall be covered and shall be architecturally consistent with the proposed development. Trash enclosure elevations shall be reviewed and approved by the Planning Division.	Prior to Issuance of Building Permit	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
87.	Any proposed signage must be reviewed and approved by the Planning Division and must comply with the City's Sign Ordinance.	Prior to Issuance of Building Permit	Planning Division	
88.	Any future monumentation into the development shall be subject to review and approval by the Community Development Director and City Engineer.	Prior to Issuance of Building Permit	Planning Division	
89.	All required parking area spaces shall meet the minimum dimensions of the Zoning Code Section 120.05.060.	Prior to Issuance of Building Permit	Planning Division	
90.	Prior to the issuance of a building permit for each building, the final site plan shall indicate the location of bicycle parking installation using Class I lockers or Class II racks in an enclosed lockable area, as follows for each building (C-Store and Restaurants): • Minimum of Two (2) bicycle parking spaces for visitors and two (2) bicycle parking spaces for employees. • The location of bicycle parking is subject to approval by the Planning Department. Applicant shall submit a design alternative to the loop-wave and ribbon rack design. Final design of bike parking shall be approved by the Planning Division prior to issuance of building permit.	Prior to Issuance of Building Permit	Planning Division	
91.	Prior to the issuance of a building permit, the applicant shall submit a photometric lighting plan for review and approval to ensure that proper outdoor lighting, pursuant to City of Eastvale Municipal Code Section 120.05.050 and subject to Riverside County Sheriff's review and approval, shall be provided. In order to minimize light trespass on abutting residential property, illumination measured at the nearest residential structure or rear yard setback line shall not exceed the moon's potential ambient illumination of one-tenth footcandle through use of light shielding and through additional landscaping.	Prior to Issuance of Building Permit	Planning, Building, Public Works, and Sheriff	
92.	**Prior to the issuance of a building permit, the applicant shall submit a set of development plans to the Eastvale Sheriff's Department for review and approval to ensure compliance with the following**: PROPERTY GATES AND KNOX BOX ENTRY	Prior to issuance of building permit	Planning, Building and Sheriff	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	a) The installation of the Knox Rapid Entry System if property gates are installed. This system permits law enforcement, fire, and first responders to obtain independent access to the property in the event of an emergency. The necessary order forms for the Knox Company may be obtained by contacting the Jurupa Valley Sheriff's Station Crime Prevention Programs Coordinator at (951) 955-9225. PROPERTY SIGN b) Proper display of "No Trespassing or Loitering" signs prominently around business and any exterior perimeter fencing and adhere to City of Eastvale Municipal Code Section 120.05.070, Signs. ADDRESS NUMBERING: c) Prominently displayed address numbering in size and contrasting in color from the building façade or on a fixed sign near the street/main entrances. The numbers need to be visible from the street and interior property sides for any approaching emergency vehicles. No obstructions should limit their visibility (i.e., landscaping). SECURITY PLAN Adequate crime prevention measures, such as security cameras, shall be installed to assist with identifying any suspect(s) of any potential future vandalism or theft attempts. Due to the high possibility of theft/vandalism attempts during construction, additional security measures should be added during that time frame of the proposed construction. All exterior access points should be properly secured and illuminated to make clearly visible any person on or about the premises during the hours of darkness.		Departments	
93.	A minimum of one (1) Electric Vehicle charging station per parcel shall be installed.	Prior to issuance of building permit	Planning Division	
94.	Landscape plans shall be submitted to the Planning Division for review and approval. The plan shall be certified by a licensed landscape architect as required, taking into account approved preliminary landscape plan (if any), adopted plant palette guides, applicable scenic and specific plan requirements, and water conservation measures. **This submittal shall be made to the Planning Division with the appropriate Application and Fee.**	Prior to Issuance of Building Permit	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
95.	The above-described plans shall be in substantial conformance with the conceptual plans as requested for modification and as approved by the City Landscape Architect, City Administrative Staff, Planning Commission and/or City Council. Notes, details, and specifications shall be included.	Prior to issuance of building permit	Planning Division	
96.	Prior to the issuance of a building permit, final landscape plans shall be reviewed and approved by the Planning Division. Landscaping shall be installed and verified prior to issuance of certificate of occupancy.	Plans must be reviewed and approved prior to issuance of building permit. Landscaping shall be installed and verified prior to certificate of occupancy	Planning Division	
97.	All landscape and irrigation plans shall be consistent with the City of Eastvale Zoning Code, with Section 5.4 Landscaping General Provisions, the City of Eastvale Design Standards and Guidelines, and the City of Eastvale Chapter 14.24 Water Efficient Landscape Regulations, and other applicable codes and guides.	Prior to Issuance of Building Permit	Planning Division	
98.	Landscape plans shall be drawn at a scale of 20 feet equal to 1 foot or larger.	Prior to Issuance of Building Permit	Planning Division	
99.	All planting areas shall be a minimum of 5 feet wide. Tree well planting areas shall contain 25 square feet or more.	Prior to Issuance of Building Permit	Planning Division	
100.	The trash enclosure shall include landscape screening on all 3 enclosure walls.	Prior to Issuance of Building Permit	Planning Division	
101.	The detention basin shall be hand-planted and landscaped to conform with the overall plant palette and for flexibility to seasonal water usage. Trees, shrubs, ground covers and ornamental grasses shall be included. The detention basin shall include a barrier to keep	Prior to Issuance of Building Permit	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	unauthorized personal from entering. Barrier shall be review and reviewed to the satisfaction of the Community Development Director and Planning Division.			
102.	Street trees shall be installed from 24-inch box container at 30 feet on center along Archibald Avenue and Chandler Street.	Prior to Issuance of Building Permit	Planning Division	
103.	Mature specimen trees in 36-inch or 48-inch boxes shall be supplied in sufficient quantity to provide a prominent project entry statement at the corner of Chandler Street and Archibald Avenue, at entry drives from the streets and other major focal areas.	Prior to Issuance of Building Permit	Planning Division	
104.	Shrubs shall be installed from a minimum of 5 gallon containers unless approved by the City of Eastvale Landscape Architect for appropriateness. Shrubs and ground covers shall be designed for installation at reasonable spacing to allow for growth and relative maturity.	Prior to Issuance of Building Permit	Planning Division	
105.	The applicant shall install and maintain dense evergreen screen hedge to provide sufficient privacy for the immediate adjacent properties to the west. The size of plants utilized and spacing shall be at the recommendation and approval of the Landscape Architect and Community Development Director and shall be maintained at 8-feet tall. The species of landscape selected shall be of a fast-growing variety such that they will attain effective screening within a 1-2 year timeframe to the satisfaction of the Community Development Director.	Prior to Issuance of Building Permit	Planning Division	
106.	Above ground utility locations shall be located in shrub areas and screened from public view. Transformers shall be screened with a minimum of 3 foot wide planting area located outside the SCE setback to the transformer.	Prior to Issuance of Building Permit	Planning Division	
107.	No light fixture, electric transformer, fire detector check or fire hydrant shall be designed for any location in a planting area, which would make it necessary to eliminate a tree. All overhead light fixtures and utilities shall be identified on the site plan.	Prior to Issuance of Building Permit	Planning Division	
108.	All ground covers shall be installed from living plant materials. Spacing shall be such to allow plants grow to maturity in 2 years from the time of installation.	Prior to Issuance of Building Permit	Planning Division	
109.	No plants with thorns, those that would freeze, or those which do not thrive in the local environment may be used, including Lophostemon, Bougainvillea, and Phormium.	Prior to Issuance of Building Permit	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
110.	No plant container shall be installed within 18 inches of a sidewalk, curb, patio, walkway, or equal, unless approved by the City Landscape Architect for appropriateness.	Prior to Issuance of Building Permit	Planning Division	
111.	Plant materials within planting areas shall be hydro-zoned using WUCOLS IV, Region 4 as a general guide.	Prior to Issuance of Building Permit	Planning Division	
112.	Root barriers shall be installed for all trees located within 5 feet of paving in 10 to 12 foot lengths. Trees located within 10 feet of curbs or city sidewalks and within planted parkways shall utilize 20 lineal feet of root barrier.	Prior to Issuance of Building Permit	Planning Division	
113.	A weather-based smart irrigation controller shall be installed. A rain shut off or weather station device shall be connected with the irrigation controller.	Prior to Issuance of Building Permit	Planning Division	
114.	Parking lot lighting and/or water quality design shall not prevent tree or shrub placement (used for shading) nor reduce overall tree counts per the preliminary plans. The addition of tree diamonds or other solutions for maintain tree counts presented will be required if space or conflicts arise during design development.	Prior to Issuance of Building Permit	Planning Division	
115.	Applicant shall retain the stated landscape coverage percentage throughout the design development process and final installation/project completion	Prior to Issuance of Building Permit	Planning Division	
116.	Applicant shall install temporary curb and planter continuing screen at northwest corner of the property that shall remain in place until prospective adjacent phase is completed.	Prior to Issuance of Building Permit	Planning Division	
117.	Applicant shall screen all utilities and mechanical infrastructure in planter areas with increased sized shrub material as required by the Community Development Director or Landscape Architect.	Prior to Issuance of Building Permit	Planning Division	
118.	Landscaping shall be perpetually maintained in a healthy and thriving manner.	Prior to Issuance of Building Permit	Planning Division	
119.	Parking lot lighting and/or water quality design shall not prevent tree or shrub placement (used for shading) nor reduce overall tree counts per the preliminary plans. The addition of tree diamonds or other solutions for maintain tree counts presented will be required if space or conflicts arise during design development.	Prior to Issuance of Building Permit	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
120.	Applicant shall retain the stated landscape coverage percentage throughout the design development process and final installation/project completion	Prior to Issuance of Building Permit	Planning Division	
121.	The City Landscape Architect shall be contacted to meet with the job site superintendent and the landscape contractor for a pre-job meeting. A copy of the soil fertility recommendations utilizing humate, mycorrhizae, and organic fertilizer shall be presented prior to the meeting. No landscaping shall occur prior to the meeting.	Prior to Initiation of Landscape Construction	Planning Division	
122.	Submit photometric plan of street lighting. All lights shall be Edison LS-3 tariff and utilize General Electric Evolve LED luminaires per City Specifications. The Developer shall be responsible for applying with Southern California Edison ("SCE") for all appropriate service points and electrical meters early in the process to avoid delays. The Developer must pay for the electrical service of new meter pedestals installed until such time the improvements have been accepted and the underlying property is annexed into Community Facilities District ("CFD") or Landscaping Maintenance District ("LMD").	Prior to Issuance of Building Permit	Public Works Division	
123.	The public street improvements outlined in these Conditions of Approval are intended to convey to the developer an accurate scope of required improvements; however, the City Engineer reserves the right to require reasonable additional improvements as may be determined in the course of the review and approval of street improvement plans required herein.	Prior to Issuance of Building Permit	Public Works Division	
124.	The Precise Grading/Paving Plan shall be City Engineer approved prior to issuance of a building permit.	Prior to Issuance of Building Permit	Public Works Division	
125.	A WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be required, obligating the property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be approved prior to issuance of a Building Permit and shall be recorded by the Developer at the San Bernardino County Recorder's Office with a recorded copy provided to the Public Works Division prior to issuance of a Certificate of Occupancy.	Prior to Issuance of Building Permit	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
126.	Provide pad elevation certifications for all building pads in conformance with the approved Precise Grading Plan to the Public Works Division prior to construction of any building foundation.	Prior to Issuance of Building Permit	Public Works Division	
127.	The Developer is advised that domestic water service is provided by JCSD. The developer shall be responsible for coordinating with JCSD and complying with all requirements for establishing domestic water service to the property.	Prior to Issuance of Building Permit	Public Works Division	
128.	Prior to issuance of a building permit, the developer is required to pay Traffic Impact Analysis Project Fair Share Contribution fees.	Prior to Issuance of Building Permit	Public Works Division	
129.	Prior to issuance of building permit, installation of conduit fiber optic along property frontages shall be required.	Prior to Issuance of Building Permit	Public Works Division	
130.	The Applicant shall pay all applicable development impact fees in accordance with the City of Eastvale fee ordinance in effect at the time the fees are due, prior to the issuance of any building permits related to the Project.	Prior to Issuance of Building Permit	Building and Public Works Division	
131.	Applicant shall submit an application to ALUC and obtain an official consistency determination on the project.	Prior to Issuance of Building Permit	Planning Division	
132.	Decorative block wall shall be provided along the northern property line subject to the review and approval of the Community Development Director.	Prior to Issuance of Building Permit	Planning Division	
133.	A water system (hydrants - commercial with one 4” outlet and two 2-1/2” outlets) capable of delivering the required fire flow shall be provided in accordance with Appendix B and C of the California Fire Code shall be provided. A reduction of 50% is permitted in buildings equipped with fire sprinklers in accordance with City Municipal Code. On-site water supply must be available before any combustible material is placed on the construction site. No portion of a building can be more than 400 feet from a hydrant.	Prior to Issuance of Building Permit	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
134.	Prior to building plan approval and construction, applicant/developer shall route a copy of the Water Improvement Plans (offsite) to the Fire Department for review of private hydrant placement only. Water Improvement Plans (offsite) will not be reviewed or approved for the installation of onsite Private Fire Service Mains, private hydrants, or fire sprinkler system supplies. The installing contractor shall submit a separate set of working plans designed in accordance with NFPA 13 and NFPA 24 to the Fire Department for a permit to install private water mains.	Prior to Issuance of Building Permit	Fire Department	
135.	Fire apparatus access roads shall be at least 24 feet wide and comply with Riverside County Fire Department Standard number 06-05. Access roads shall be located outside of truck docks and between 15 and 40 feet from the building. Access roads shall not have a grade more than 16% and shall have an unobstructed vertical clearance not less than 13 feet and 6 inches. Access lanes will be designed to withstand the weight of 75,000 thousand pounds over 2 axles and shall be all-weather surface capable. Fire apparatus access roads shall have a turning radius capable of accommodating fire apparatus.	Prior to Issuance of Building Permit	Fire Department	
136.	Parking is not permitted on fire apparatus access roads that are less than 28 feet in width. Parking on one side is permitted on a road that is at least 28 feet but less than 36 feet in width. Parking on two sides is permitted on a road that is 36 feet or more in width.	Prior to Issuance of Building Permit	Fire Department	
137.	Fire apparatus access roads shall be constructed with a surface to provide all-weather driving capabilities during construction.	Prior to Issuance of Building Permit	Fire Department	
138.	Dead-end fire apparatus access roads more than 150 feet in length shall be provided with an approved area for turning around fire apparatus.	Prior to Issuance of Building Permit	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
139.	Driveway loops, fire apparatus access lanes and entrance curb radius should be designed to adequately allow access of emergency fire vehicles. The applicant or developer shall include in the building plans the required fire lanes and include the appropriate lane printing and/or signs.	Prior to Issuance of Building Permit	Fire Department	
140.	Buildings more than 3,600 square feet shall be equipped with a fire sprinkler system. The PIV and FDC shall be located to the front, within 100 feet of a hydrant. FDC shall be located so that fire apparatus and hose connected to supply the system will not obstruct roadway access for other fire apparatus. FDCs are not allowed in the rear of any building.	Prior to Issuance of Building Permit	Fire Department	
141.	A fire sprinkler monitoring system is required in all sprinklered buildings.	Prior to Issuance of Building Permit	Fire Department	
142.	A manual and automatic fire alarm system may be required, depending on the use and/or occupant load of the building.	Prior to Issuance of Building Permit	Fire Department	
143.	Commercial cooking equipment that produces grease-laden vapors shall be provided with a Type I hood and an automatic fire extinguishing system.	Prior to Issuance of Building Permit	Fire Department	
144.	An approved Fire Department access key lock box (minimum Knox 3200 series) shall be installed at the main entrance to any sprinklered building. Gate switches or padlocks shall be installed at each automatic or manual gate. Locations shall be shown on plans submitted for a building permit.	Prior to Issuance of Building Permit	Fire Department	
145.	New motorized gates shall be provided with means to be automatically opened remotely by emergency vehicles in accordance with Riverside County standards and policies. The system shall be compatible, but not limited to, the detection of the following manufacturers of emergency vehicle preemption: Federal Signal, Whelen, and Tomar. Upon installation	Prior to Issuance of Building Permit	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	of the system, compliance testing shall be completed by the Riverside County Fire Department. (RVC Amendment to CFC 503.6.1)			
146.	The location of address numbers shall be indicated on the building plans. Street numbers shall be displayed in a prominent location on the street or fire apparatus access side of buildings. Numbers and letters shall be a minimum of 12" in height with a minimum stroke of .05 inch. Where access is by means of a private road and the building cannot be viewed from a public way, a monument, pole, or other sign shall be used to identify the structure in accordance with Riverside County Standard 07-01. Address must be legible, of a contrasting color, and adequately illuminated to be visible from the street at all hours.	Prior to Issuance of Building Permit	Fire Department	
147.	No hazardous materials shall be stored and/or used within the building which exceeds quantities listed in the California Fire Code, without first obtaining a permit.	Prior to Issuance of Building Permit	Fire Department	
148.	Exit signs, door hardware, and exit path marking shall be as required by the California Building Code.	Prior to Issuance of Building Permit	Fire Department	
149.	Fire sprinkler riser door shall be posted "FIRE RISER" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
150.	Electrical room door shall be posted "ELECTRICAL ROOM" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
151.	Fire alarm control panel door shall be posted "FACU" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
152.	Roof access door shall be posted "ROOF ACCESS" on the outside of the door.	Prior to Issuance of Building Permit	Fire Department	
153.	Provide specific fire department conditions on plans for building permit submittal.	Prior to Issuance of Building Permit	Fire Department	
Prior to Issuance of Certificate of Occupancy				
154.	All parkway landscaping shall be guaranteed for a period of one (1) year from the date of the City Engineer acceptance. Any landscaping that fails during the one (1) year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer, and shall be subject to a subsequent one (1) year landscape maintenance period.	Prior to Issuance of Certificate of Occupancy	Planning and Public Works Division	
155.	The development shall be annexed into all applicable City of Eastvale owned and administered Community Facilities Districts (CFDs) and/or Landscaping Maintenance Districts (LMDs) for On-Going maintenance of traffic signals, traffic signal synchronization, street lights, full capture systems for all storm drains, and landscape maintenance of raised landscaped median and public parkways, to the satisfaction of the City Engineer or otherwise form a district where one is not currently in place.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
156.	Upon City Engineer approval of any improvement plan, the improvement plan shall be provided to the City in digital format, consisting of a DWG (AutoCAD drawing file), DXF (AutoCAD ASCII drawing exchange file), and PDF (Adobe Acrobat) formats. Variation of the type and format of the digital data to be submitted to the City may be authorized, upon prior City Engineer approval.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
157.	Mira Loma Road and Bridge Benefit Assessment District Fee ("MLRBA"), Transportation Uniform Mitigation Fee ("TUMF"), Area Drainage Plan ("ADP") fee, and any other regional pass-through fees in effect at that time shall be paid prior to issuance of Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
158.	The Developer shall submit to the City Engineer for review and approval the Covenants, Conditions, and Restrictions ("CC&Rs") and/or a Property Owners Association document to maintain and operate common areas and/or facilities including, but not limited to, parking areas, private utilities, and water quality basins.	Prior to Issuance of Certificate of Occupancy	Public Works and Planning Division	
159.	Prior to issuance of a Certificate of Occupancy or final City approvals, demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
160.	The Developer shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
161.	All damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and street lights, associated with the proposed development shall be replaced.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
162.	Remove existing, and construct new pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, to the existing right edge line along the entire street frontage in accordance with City of Eastvale Standard Drawings. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve recent pavement improvements.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
163.	Construct an Americans with Disabilities Act ("ADA") compliant sidewalk behind curb along the entire frontage and interior streets in accordance with the General Plan, any Specific Plan, the City of Eastvale Standard Drawings, subject to the approval of the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
164.	Construct City Engineer approved commercial driveway approaches in accordance with City of Eastvale Standard Drawings. The driveway approach shall be constructed so the top of "X" is 5 feet from the property line. Nothing shall be constructed or planted in the corner cut-off area which does or will exceed 30 inches in height required to maintain an appropriate corner sight distance.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
165.	Construct a curb ramp meeting current California State Accessibility standard along both sides of the commercial driveway approaches. The developer shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the driveway, and shall adjust the location of the access ramps, if necessary, to meet ADA guidelines, subject to the approval of the City Engineer. If necessary, additional pedestrian and sidewalk easements shall be provided on-site to construct a path of travel meeting ADA guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
166.	Grind and overlay half ROW width of Archibald Avenue and Chandler Street within the project frontages up to the existing median.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
167.	Install Class II bicycle lanes along Archibald Avenue to connect to the existing Class II bicycle lanes to the north.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
168.	Install Pan-Tilt-Zoom ("PTZ") cameras at each intersection to tie into the existing Citywide system to monitor traffic.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
169.	Install License Plate Reader ("LPR") cameras to tie into the existing Citywide system at each traffic signal servicing the property.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
170.	Upgrade traffic signals within 100 feet of the property to provide signal synchronization.	Prior to Issuance of Certificate of Occupancy	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
171.	Applicant, at its sole option and cost, may install a traffic signal at the intersection of Archibald Avenue and Fairchild Drive, pending signal warrant analysis approved by the City Engineer.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
172.	The Developer shall be responsible for coordinating with Riverside Transit Authority ("RTA") regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The Developer shall design street, bus pad, and sidewalk improvements in accordance with the latest RTA bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act ("ADA") requirements. The Developer shall design all bus stops to accommodate the RTA Shelters. The Developer shall submit to Public Works verification from RTA acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines.	Prior to Issuance of Certificate of Occupancy	Public Works Division	
173.	The original improvement plans prepared for the proposed development and approved by the City Engineer (if required) shall be documented with record drawing "as-built" information and returned to the Public Works Division prior to issuance of a final certificate of occupancy. Any modifications or changes to approved improvement plans shall be submitted to the City Engineer for approval prior to construction.	Prior to Certificate of Occupancy	Public Works Division	
174.	All conditions of approval for TPM No. 37653 shall be completed to the satisfaction of the City Engineer prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	
175.	All sewer mains constructed by the applicant and to become part of the public sewer system shall be pressure tested and digitally video recorded by the City's wastewater system operator JSCD prior to acceptance of the sewer system for maintenance by the City. The developer shall be responsible for all costs associated with testing and inspection services. Any defects of the sewer main shall be removed, replaced, or repaired to the satisfaction of the City Engineer prior to acceptance.	Prior to Certificate of Occupancy	Public Works Division	
176.	The Applicant shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
177.	A City business registration shall be required prior to issuance of a Certificate of Occupancy or final permits.	Prior to issuance of certificate of occupancy	Planning Division	
178.	The development shall conform to all other applicable State and local laws and ordinances and the applicant shall obtain all necessary approvals and operating permits from all State and local agencies prior to the issuance of a Certificate of Occupancy or final permits.	Prior to issuance of certificate of occupancy	Planning Division	
179.	Any missing or damaged landscaping shall be replanted to the satisfaction of the Community Development Director and Planning Division.	Prior to issuance of certificate of occupancy / Ongoing	Planning Division	
180.	Prior to the final landscape inspection a water audit shall be conducted by an independent water auditor and WELO documentation shall be provided to the City Planning Department and City Landscape Architect via email.	Prior to issuance of certificate of occupancy	Planning Division	
181.	All required landscaping and irrigation systems shall be installed in a condition acceptable to the City. If the Project Landscape Architect has provided inspection of the landscaping, the Project Landscape Architect shall provide the City with a Certificate of Compliance stating that the landscaping was installed per the approved plans. The City will review the Certificate of Compliance and conduct inspections to ensure that the landscape installation is in compliance with the approved landscape plans.	Prior to issuance of certificate of occupancy	Planning Division	
On-Going/During Operations				
182.	Provide street sweeping services for onsite and offsite within project frontages weekly.	On-Going	Public Works Division	
183.	Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.	On-Going	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
184.	All street cuts for utilities shall be repaired in accordance with City Standard or as recommended; and any interim trench repairs shall consist of compacted backfill to the bottom of the pavement structural section followed by placement of standard base course material in accord by the City Engineer and with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.	On-going	Public Works Division	
185.	In accordance with City's Moratorium policy to preserve newly paved streets, any and all street and/or trench cuts in newly paved streets will be prohibited or be subject to moratorium street repair standards as reference in Section 12.08.260 of the Eastvale Municipal Code.	On-going	Public Works Division	
186.	Any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development shall be backfilled and repaired in accordance with City of Eastvale Standard Drawings. The Developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e. Jurupa Community Services District, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets resulting from the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site streets, at the discretion of the City Engineer. The pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.	On-going	Public Works Division	
187.	Construction signing, lighting and barricading shall be provided during all phases of construction in accordance with City Standards and the direction of the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 "Temporary Traffic Control" of the latest California Manual on Uniform Traffic Control Devices, or subsequent editions in force at the time of construction.	On-Going	Public Works Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
188.	The applicant shall record appropriate easement(s) and agreement(s) for the construction and maintenance of water quality to meet the Storm Water Permit/Water Quality Management Plan Requirements	On-Going	Planning and Public Works Divisions	
189.	All landscaped setbacks and planter areas shall be permanently maintained at the site and kept free of debris.	On-Going	Planning and CES Divisions	
190.	To regulate excess noise levels throughout various times of the day (day/nighttime) the operation shall not create any sound, or allow the creation of any sound on the subject property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Section 8.52.040 – "General Sound Level Standards" of the City of Eastvale Municipal Code.	On-Going	Planning and CES Divisions	
191.	A notice from Riverside County Airport Land Use Commission noting the site's location near the Chino Airport shall be recorded (ALUC condition).	On-Going	Planning and Public Works Divisions	
192.	The project shall be developed in accordance with the approved Tentative Parcel Map and Major Development Review, including the approved site plan, architectural elevations, conceptual landscape plan, and interim and ultimate improvements on Chandler Ave. and Archibald Avenue. The applicant may request modifications or revisions to the approved project as provided in the Eastvale Zoning Code.	On-Going	Planning and Public Works Divisions	
193.	A safety officer or designee may enter and inspect the site at any reasonable time without prior notice for the purpose of investigating an actual complaint or for a health and safety inspection.	On-Going	Planning and CES Divisions	
194.	Landscaping and ground coverage shall be continually maintained as consistent with the approved landscape plan. Any request or changes which deviate from the approved plan shall require a minor development review.	On-Going	Planning and CES Divisions	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
195.	The outdoor dining areas, furniture, and pavement must be maintained in clean and tidy conditions at all times, free from food scrapes, refuse, etc.	On-Going	Planning and CES Divisions	
196.	The applicant must also maintain the adjacent areas and keep them free of any waste generated by outdoor dining.	On-going	Planning and CES Divisions	
197.	Outdoor furniture must be safe, comfortable, of sturdy construction, hygienic and designed for outdoor use. Surface tops should be non-reflective and be of a design which inhibits the collection of food particles.	On-Going	Planning and CES Divisions	
198.	The District reviewed the water and sewer atlas maps to identify the nearest main lines for potential service connections. Water facilities consist of an existing 12-inch diameter water line on Chandler Street and an existing 21-inch diameter waterline on Archibald Avenue. The applicant must provide the District with fire flow requirements from the Fire Department to determine the adequacy of the existing water system.	On-Going	JCSD	
199.	Sewer service is available from an existing 21-inch diameter sewer line on Archibald Avenue. Gravity flow to the existing sewer line is contingent upon the final grading of the site, and sewer service is contingent upon the quantity and quality of wastewater generated by the project. The sewer line will require connections to occur at a manhole, and no direct lateral connections to the mainline are allowed.	On-Going	JCSD	
200.	The District is investigating the potential use of non-potable water for the project area and will require the developer to participate in the final adopted program for parks and greenbelt areas.	On-Going	JCSD	
201.	The applicant will be required to contact Jurupa Community Services District to start the development processes for the project. The applicant must submit plans and fees for sewer and water services.	On-Going	JCSD	

General Compliance Items/Requirements and Information

The following items are noted for the applicant's information. These items are required by the City, other local agencies, or state and federal agencies, and are not conditions of approval of the project.

1. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned. Amended entitlement approvals may be necessary as a result.

2. Submit a final parcel map and all supporting documents for review and approval to the satisfaction of the City Engineer and Public Works Department.

3. Applicants are responsible for all costs associated with off-site right-of-way acquisition, including any costs associated with the eminent domain process, if necessary.

4. Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION ADDENDUM

Chandler/Archibald Retail Development

Northwest Corner of Chandler Street and
Archibald Avenue
(PLN23-20019, PLN23-20020, and PLN23-20021)

Project Proponent:
Schneider REA / Eastvale LP

Lead Agency:
CITY OF EASTVALE
Planning Department
12363 Limonite Avenue, Suite 910
Eastvale, CA 91752

August 2023

DRAFT

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Appendix B: Noise Study

Appendix C-1: Trip Generation Analysis

Appendix C-2: Queuing Study

1 INTRODUCTION

This document is an Addendum to the previously approved 2021 Initial Study/Mitigated Negative Declaration ("2021 IS/MND") for the Chandler/Archibald Retail Development ("project"). The City of Eastvale ("City"), acting as lead agency under the California Environmental Quality Act ("CEQA"), is reevaluating the revised project's environmental impacts due to changes in the approved project's tenant makeup and layout.

This Addendum evaluates whether the environmental effects of the proposed changes to the approved project would require the preparation of a subsequent or supplemental 2021 IS/MND. As documented herein, the revised project would not cause new significant environmental effects or substantially increase the severity of previously identified significant effects disclosed in the 2021 IS/MND. Accordingly, the revised project would not trigger expanded environmental review, beyond this Addendum.

1.1 CEQA GUIDELINES

This Addendum has been prepared in accordance with CEQA (California Public Resources Code, Sections 21000, et seq.) and CEQA Guidelines (California Code of Regulations, Title 14, Sections 15000, et seq.).

CEQA Guidelines Sections 15162 through 15164 set forth the criteria for determining the appropriate additional environmental documentation, if any, to be completed when there is a previously certified environmental impact report covering a project for which a subsequent discretionary action is required. CEQA Guidelines Sections 15162(a) and 15163 state that when a negative declaration has been adopted or an EIR certified for a project, no subsequent or supplemental EIR or subsequent negative declaration shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole public record, one or more of the following:

(1) Substantial project changes are proposed that will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(2) Substantial changes would occur with respect to the circumstances under which the project is undertaken that require major revisions to the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

(3) New information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified or the negative declaration was adopted shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration.

(B) Significant effects previously examined will be substantially more severe than identified in the previous EIR.

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponent declines to adopt the mitigation measures or alternatives.

(D) Mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponent declines to adopt the mitigation measures or alternatives.

CEQA Guidelines Section 15164(a) states that an addendum to a previously certified EIR may be prepared if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of subsequent or supplemental EIR have occurred. If the conditions listed in CEQA Guidelines Sections 15162, 15163, or 15164 have not occurred or are not met, no changes to the previously certified EIR or previously adopted negative declaration are necessary.

1.2 BACKGROUND

The City of Eastvale adopted the 2021 IS/MND on Wednesday, April 21, 2021 (Appendix A). The approved project included the following entitlements:

- General Plan Amendment to change the land use designation from Low Density Residential (LDR) to Commercial Retail (CR).
- Change of Zone from Light Agricultural (A-1) to General Commercial (C-1/C-P).
- Major Development Review for the development of a 3,700-square-foot convenience store with a 3,144-square-foot 10-fueling position gas station, a 4,456-square-foot drive-through restaurant, and a 3,500-square-foot fast casual restaurant.
- Conditional Use Permit for development and operation of a gas station and convenience store with the off-sale of beer and wine (ABC License Type 20).
- Conditional Use Permit for the development and operation of a drive-through fast food restaurant.
- Conditional Use Permit for the on-sale of general alcohol in conjunction with a restaurant. (ABC License Type 47).
- Tentative Parcel Map to subdivide 2.71 acres of land into three parcels.

These entitlements are hereby referred to as the "approved project," in this document.

The approved project 2021 IS/MND determined that impacts to biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, noise, transportation, and tribal cultural resources had the potential to be significant. Mitigation measures to these environmental factors were included within the 2021 IS/MND, reducing impacts to less than significant.

1.3 ADDENDUM PROCESS

The City of Eastvale is the CEQA lead agency for the revised project. Pursuant to CEQA Guidelines Section 15367, a lead agency has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment. The City, as the lead agency, has the authority to approve the revised project and its environmental documentation.

As documented herein, the revised project refines the tenants and layout of the approved project and does not create new or increase the severity of significant adverse environmental effects disclosed in the 2021IS/MND nor does it require the adoption of new or considerably different mitigation measures or alternatives. Therefore, the City has elected to streamline the CEQA process with the preparation of this Addendum to the 2021 IS/MND. The conditions specified in Section 15162(a) are not present and no changes to the 2021 IS/MND are necessary. Therefore, the revised project does not require the preparation of a subsequent IS/MND.

This Addendum is the primary reference document for the formulation and implementation of a mitigation monitoring plan for the revised project. All applicable measures from the mitigation monitoring program have been incorporated into this document. This Addendum is intended to provide sufficient information to allow the City and any other permitting agencies to evaluate the potential impacts from implementation of the revised project.

2 ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

The project site is located in the City of Eastvale on the northwest corner of Archibald Avenue and Chandler Street. The project site consists of four parcels, identified as Assessor Parcel Numbers 144-13-04, 144-13-11, 144-13--12, and 144-13-13. The project site is currently vacant with no existing structures. The regional and local vicinity of the project site are shown in ***Exhibit 1, Regional Vicinity***, and ***Exhibit 2, Project Location***.

2.1 EXISTING CONDITIONS

2.1.1 Land Use

The project site is currently designated by the Eastvale General Plan as Commercial Retail (CR). Refer to ***Exhibit 3, Land Use Map***.

2.1.2 Zoning

The project site is zoned General Commercial (C-1/C-P). Refer to ***Exhibit 4, Zoning Map.***

2.1.3 Surrounding Land Uses and Zoning

Land uses to the north, south, and east have been fully developed with single-family residential neighborhoods consistent with their respective permitted densities and complete with right of way improvements such as sidewalks, lighting, and landscaping. Parcels to the west along Chandler Street are zoned Light Agriculture (A-1). The neighborhood to the north is zoned One-Family Dwellings (R-1), the neighborhood to the east is classified as a Specific Plan (SP), and the neighborhood to the south is classified as a Planned Residential Development (PRD). Properties along Chandler Street have been partially improved with an asphalt sidewalk and limited lighting; there is no parkway landscaping.

EXHIBIT 1: REGIONAL VICINITY

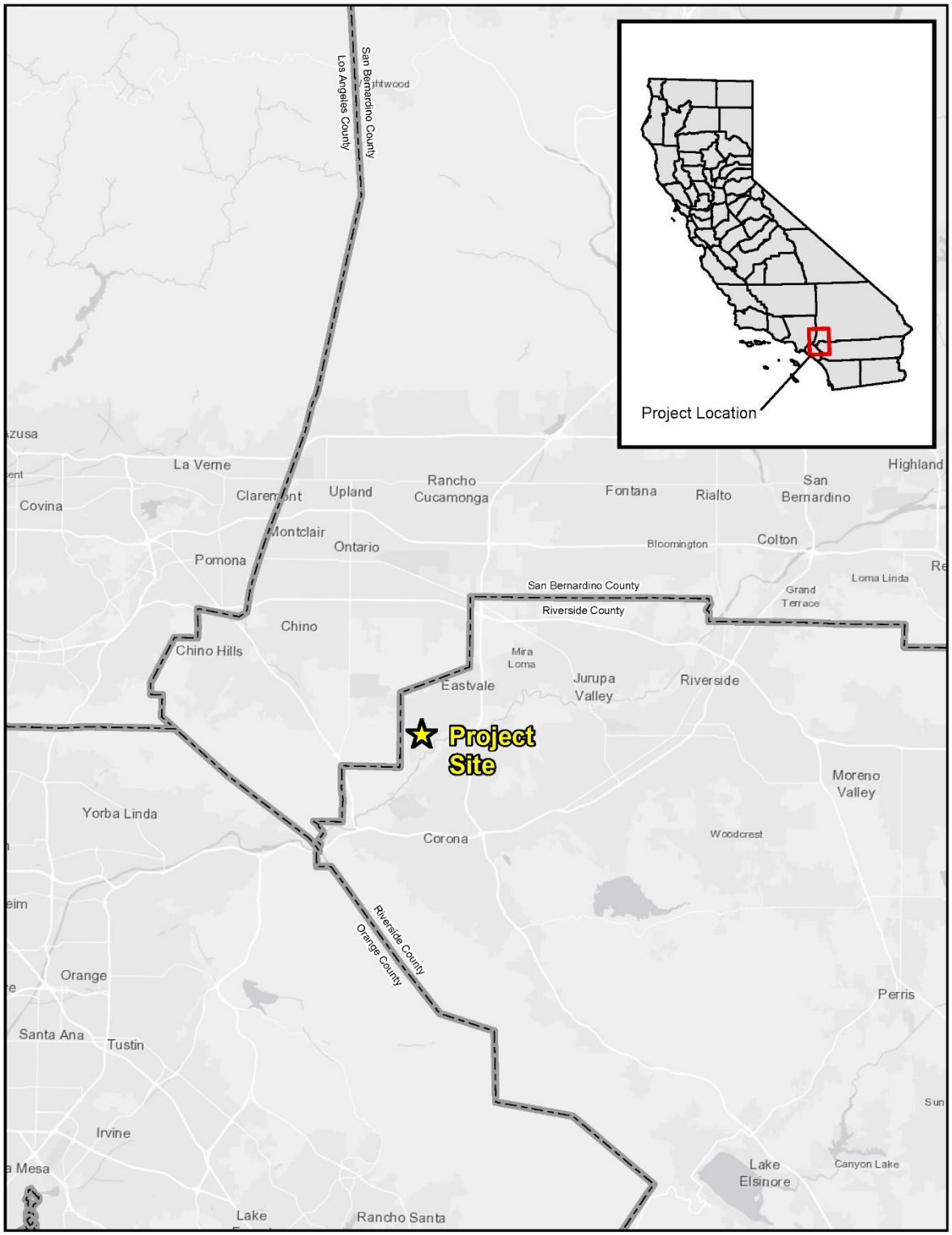
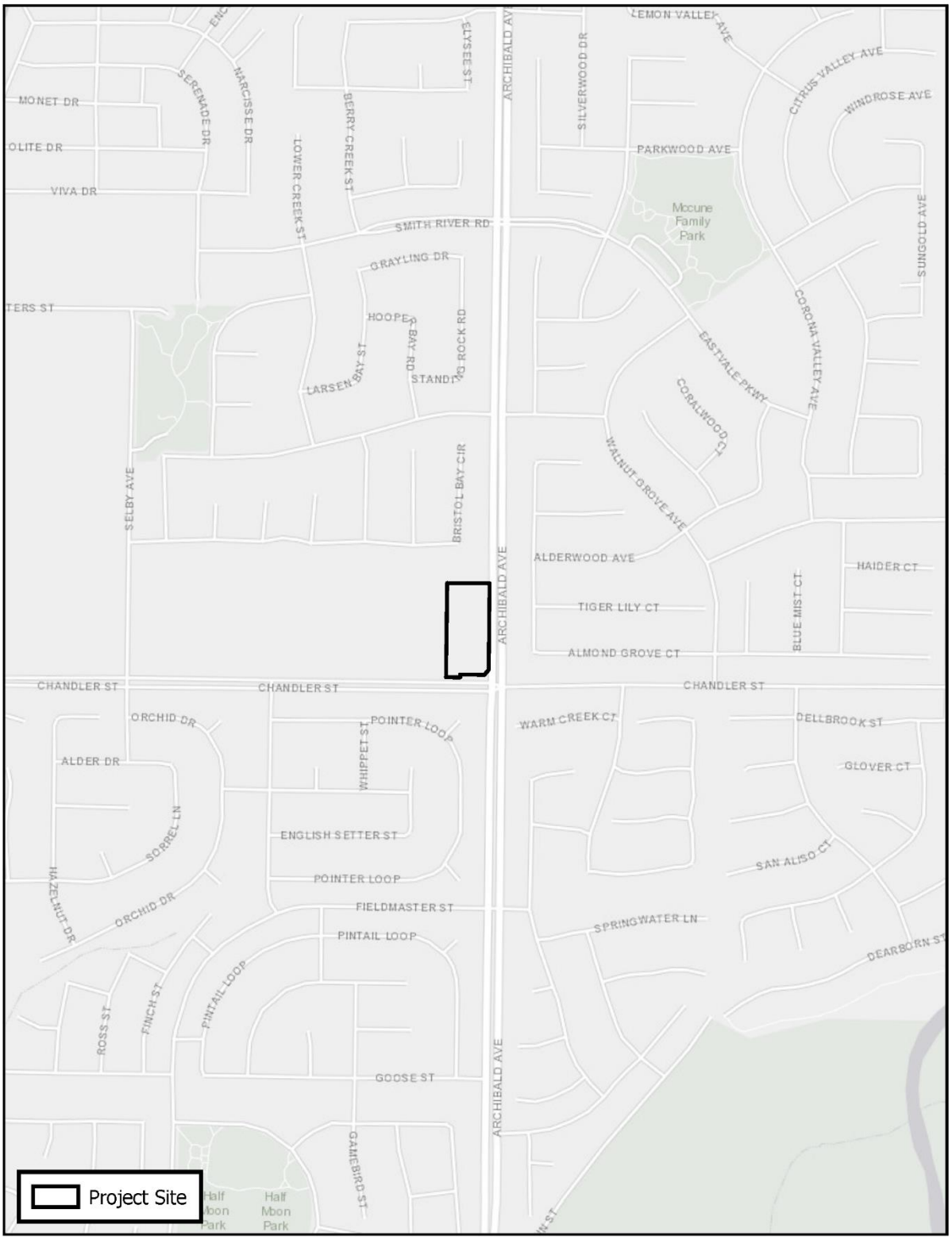


EXHIBIT 2: PROJECT LOCATION



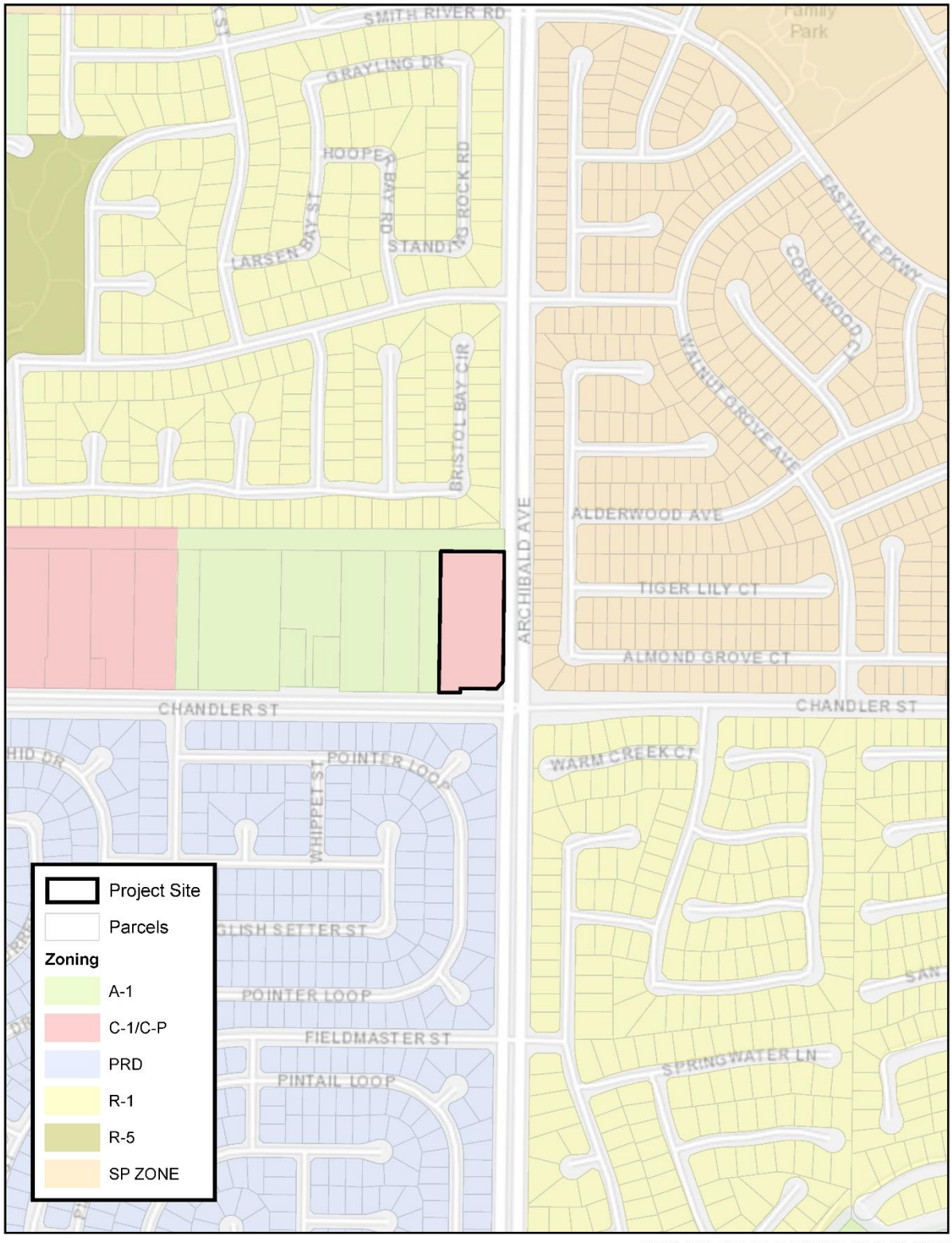
CITY OF EASTVALE ISMND PLN 19-2000

Project Location

EXHIBIT 3: LAND USE MAP



EXHIBIT 4: ZONING MAP



3 PROJECT DESCRIPTION

3.1 CHANGES AS COMPARED TO THE APPROVED PROJECT

Since approval of the 2021 IS/MND, the project has been modified to replace the drive-through fast food restaurant to a drive-through coffeeshop, and to replace the gas station and convenience store with a carwash. The approved project's General Plan Amendment, Change of Zone, and Tentative Parcel map have already been processed, and are no longer included in the revised project. A detailed description of the revised project components is included below.

3.2 REVISED PROJECT COMPONENTS

The revised project consists of the following discretionary permits to allow the proposed development of a carwash, a coffeeshop with a drive-through, and a fast-casual restaurant. The entitlements are discussed individually in the bulleted list below and illustrated in ***Exhibit 5, Conceptual Site Plan*****.**

- **Conditional Use Permit** for the operation of a drive-through coffeeshop.
- **Conditional Use Permit** for development and operation of a carwash.
- **Minor Development Review** for the development of:
  - 950-square-foot Dutch Brothers Coffee with associated drive through,
  - 3,598-square-foot Quick Quack Carwash,
  - 3,500-square-foot Zendejas restaurant.

Development Concept

Between the three proposed buildings, the total building area for the revised project would be 8,048 square feet with a building coverage (floor area ratio) of 6.8 percent. The maximum building height would be 50 feet. The revised project would be constructed to conform with Chapter 5, *Development Standards*, of the City's Zoning Code and the City's adopted *Design Standards and Guidelines*, which include design standards related to building size, height, setback, and materials, as well as landscaping, signage, and other considerations. The revised project would be constructed in a single phase.

All revised project access and circulation improvements would be designed and constructed consistent with City design and engineering standards. Roadways adjacent to the revised project, site access points, and site-adjacent intersections would be constructed consistent with the identified roadway classifications and respective cross-sections in the City of Eastvale General Plan Circulation Plan. Specifically, the revised project would provide three restricted access driveways. Two right-turn in/out only driveways are proposed at Archibald Avenue and one right-turn in/out only driveway is proposed at Chandler Street.

The revised project would include a total of 50 parking stalls, the minimum number required in accordance with Chapter 5, *Development Standards*, of the City's Zoning Code. Of the 50 parking stalls, 4 parking stalls would be designated for accessible parking and 12 parking stalls would be designated for clean air vehicle parking. All clean air vehicle parking stalls would be provided with infrastructure for the addition of future

electric vehicle charging stations. A total of 8 parking stalls would be designated as future electric vehicle charging station stalls and would be constructed to meet current accessibility standards along accessible routes or have the ability to be modified without affecting required parking space quantities.

Ornamental water-efficient landscaping, including a variety of trees, shrubs, and vines, would be installed throughout the revised project site. Planting materials would be selected in accordance with Chapter 5, *Development Standards*, of the City's Zoning Code and the City's adopted *Design Standards and Guidelines*. Of the total 117,986-square-foot revised project site area, the total landscape coverage would be 25,018 square feet, equating to 21.2 percent of the revised project site.

Utilities and Drainage

The following utilities/infrastructure systems and services are available to the revised project.

- *Water and Sewer*. Water and sewer services would be provided to the revised project by the Jurupa Community Services District (JCSD).
- *Drainage*. The drainage system that would serve the revised project site is under the jurisdiction of Riverside County in accordance with the County's Master Drainage Plan (MDP).
- *Dry Utilities*. Electricity and natural gas services would be provided by Southern California Edison (SCE) and Southern California Gas Company (SoCalGas), respectively.

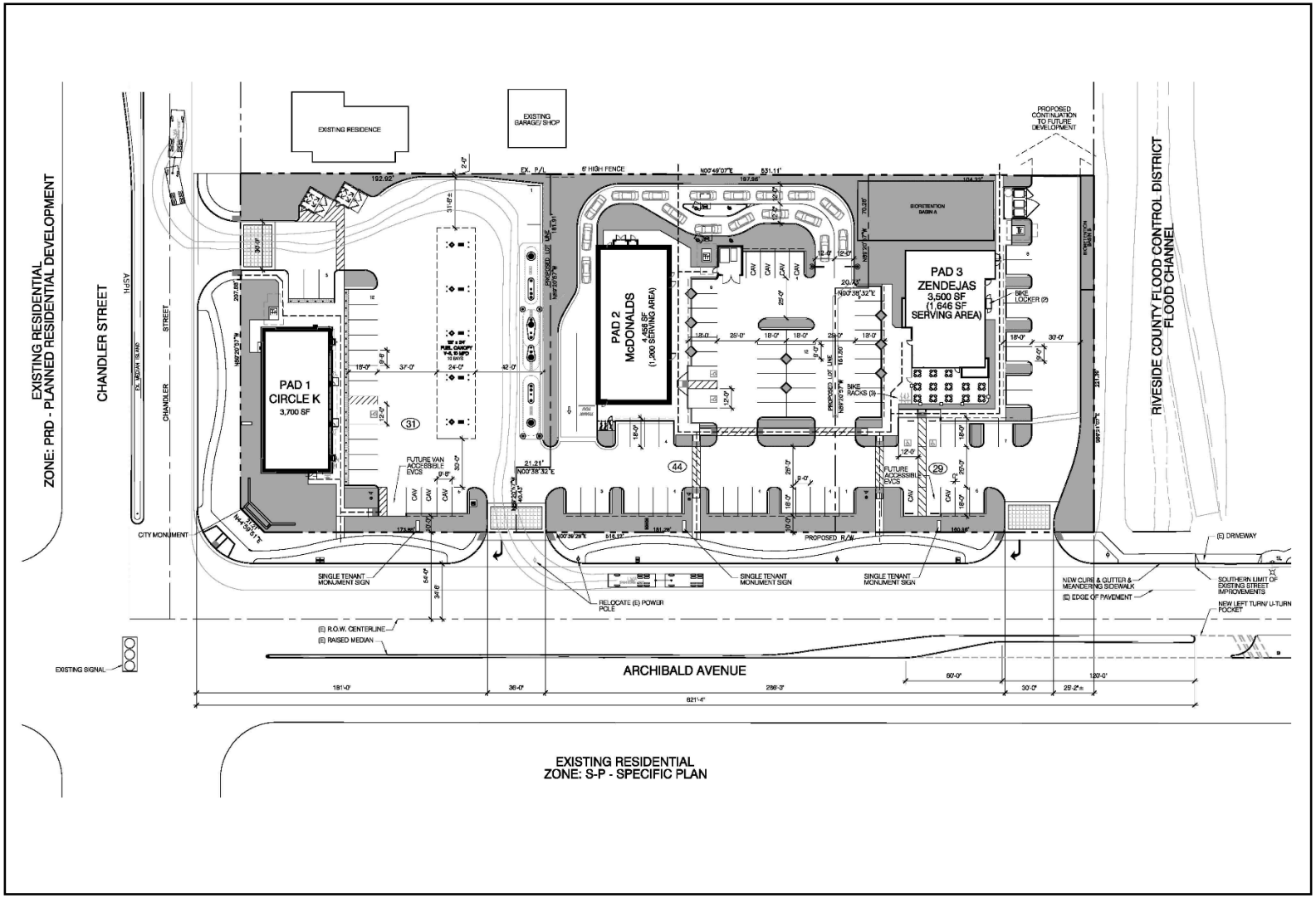
3.3 PROJECT ACTIONS/APPROVALS

This Addendum to the 2021 IS/MND is intended to enable the City as the lead agency, and other agencies, make informed decisions with respect to the potential changes in the environmental effects of the overall Approved Project. Table 1: Project Approvals and Activities, lists the anticipated approvals required for the Revised Project.

TABLE 1: PROJECT APPROVALS AND ACTIVITIES

Agency	Actions
City of Eastvale	Conditional Use Permits Minor Development Reviews
Jurupa Community Service Department	Water and wastewater connection permits
Santa Ana Regional Water Quality Control Board	Water Quality Management Plan (WQMP) Approval
State Water Resources Control Board	Stormwater Pollution Prevention Plan (SWPPP) Approval

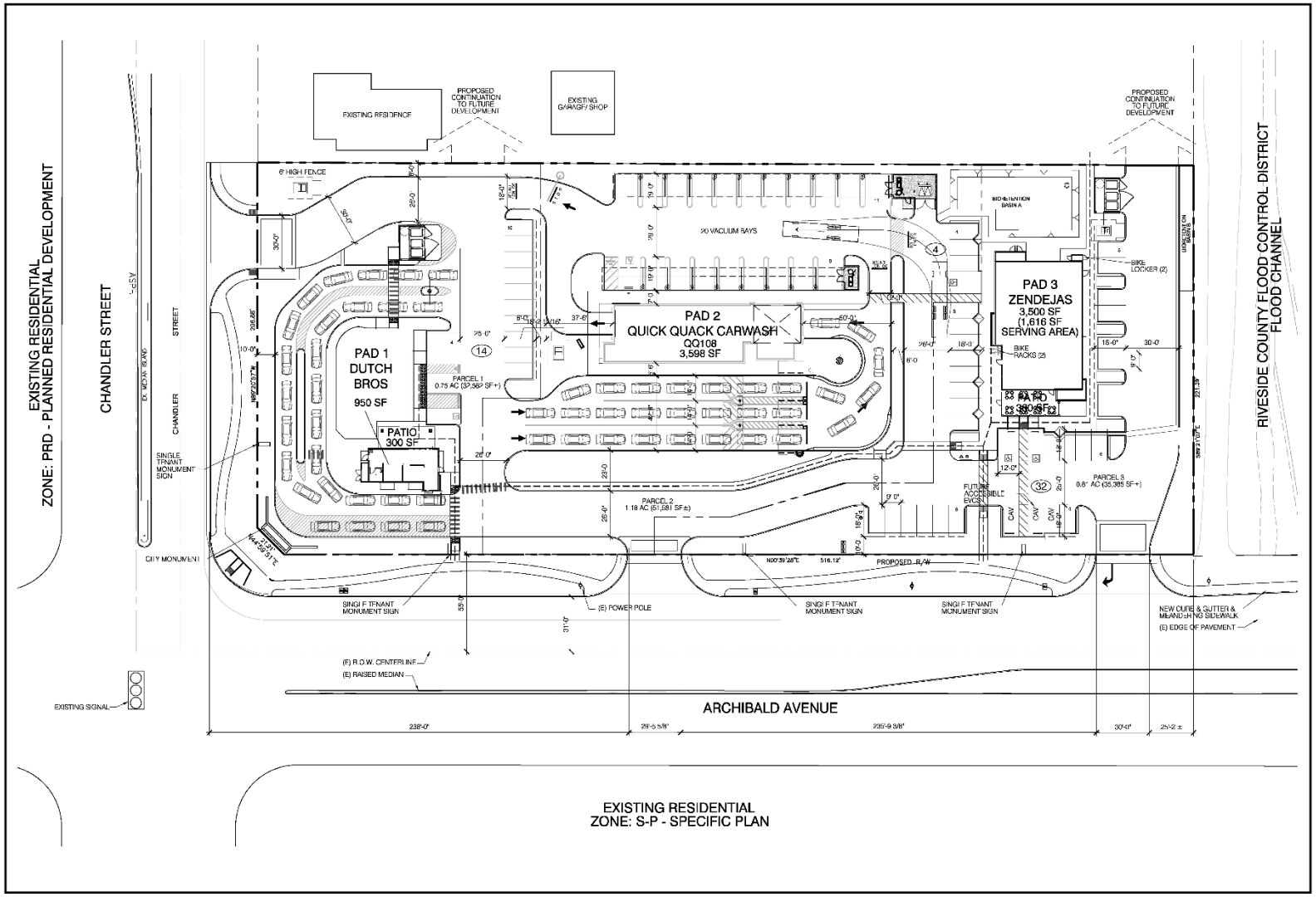
EXHIBIT 5: APPROVED SITE PLAN



Michael Baker INTERNATIONAL | NOT TO SCALE

CITY OF EASTVALE ISMND PLN 19-2000
Approved Site Plan

EXHIBIT 6: REVISED SITE PLAN



Michael Baker INTERNATIONAL | NOT TO SCALE

CITY OF EASTVALE ISMND PLN 19-2000

Revised Site Plan

4 ENVIRONMENTAL ANALYSIS

The following environmental analysis focuses on environmental topic areas that were identified as potentially significant within the 2021 IS/MND (Biological Resources, Cultural Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Noise, Transportation, and Tribal Cultural Resources). The revised project involves the same project footprint as analyzed in the 2021 IS/MND and would allow for the development of a commercial retail project involving three commercial uses. In addition, the revised project is consistent with the site's existing land use designation of Commercial Retail (CR) and General Commercial (C-1/C-P) zoning. Thus, impacts related to all remaining CEQA environmental topic areas would not be greater than identified in the 2021 IS/MND.

Summaries of the potentially significant environmental impacts of the 2021 IS/MND provided for each environmental topic evaluated in the IS/MND, followed by the revised project's impacts and a determination on whether the project or circumstances would require changes to the adopted IS/MND or if there is new information causing potentially new or increased impacts not discussed in the 2021 IS/MND or are substantially more severe than discussed in the 2021 IS/MND. Mitigation measures from the 2021 IS/MND are listed, updated, and refined, as necessary, to reflect the revised project and any new circumstances. Changes to the mitigation measures are shown in ~~strikeout text~~ to indicate deletions and underline text to signify additions and will be incorporated into the final mitigation monitoring program for the revised project.

4.1 BIOLOGICAL RESOURCES

4.1.1 Summary of Impacts in the Adopted IS/MND

Impacts to biological resources were analyzed in Section 4, Biological Resources, of the adopted IS/MND.

The analysis discussed permanent direct and on-site impacts, as well as temporary, indirect, and off-site impacts on special-status species, including threatened and endangered wildlife species, and nesting birds; riparian habitat and sensitive natural communities; jurisdictional waters including wetlands; and local policies, ordinances and adopted plans. Mitigation measures BIO-1 and BIO-2, as well as standard conditions and requirements, were identified to reduce impacts to less than significant on burrowing owl, as well as migratory bird species. With implementation of the identified mitigation measures, the adopted IS/MND identified less than significant impacts to biological resources.

The analysis and findings for the approved project were based on the *Habitat Assessment for Burrowing Owl and Narrow Endemic Plant Species; MSHCP Consistency Analysis; (Assessor's Parcel Nos. 144-130-013, -012, -011, -004) Riverside County, California* (Habitat Assessment), prepared by Osborne Biological Consulting, dated July 2, 2018.

4.1.2 Impacts Associated with the Revised Project

Since adoption of the 2021 IS/MND, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to biological resources including: adverse effects on any sensitive natural community

(including riparian habitat or other sensitive natural community) or species identified as a candidate, sensitive, or special status species in a local or regional plan, policy, or regulation, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; adverse effects on State or Federally protected wetlands; interference with the movement of any native resident or migratory fish or wildlife species or with wildlife corridors, or impeding the use of native wildlife nursery sites; conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or conflicts with the provisions of any adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional or State habitat conservation plan?

Yes	No
☐	☑

On-site conditions remain similar to that previously identified and include annual grass/forbland dominated by species such as wall barley, milk thistle, cheeseweed, goosefoot, and prickly Russian thistle, which are weedy species typical of highly disturbed conditions. Historical agricultural practices and residential uses have removed natural on-site vegetation, thereby limiting the quality and availability of habitat for wildlife. No narrow endemic plant species are present nor expected to have the potential to occur on-site, and no sensitive vegetation species are present; no impacts would occur in this regard. Further, no riparian habitat, vernal pools, jurisdictional waters, or wetlands occur on-site; therefore, no impacts would occur to such resources.

As indicated in the adopted IS/MND, there are no designated wildlife corridors on or adjacent to the project site. Although the site is located in an urbanized area and supports low quality, disturbed habitat, the proposed improvements, as with the approved project, would require removal of existing on-site trees that may have the potential to provide suitable nesting opportunities for nesting birds. The Migratory Bird Treaty Act (MBTA) governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. All raptors and their nests are protected from take or disturbance under the MBTA (16 United States Code [USC] Section 703 et seq.) and California statute (CFGC Section 3503.5). To reduce potential impacts to nesting birds, mitigation measure BIO-2 would be implemented to require a preconstruction nesting bird clearance survey to determine the presence/absence, location, and status of any active nests on or adjacent to the project site. If the nesting bird clearance survey indicates the presence of nesting birds and observance of buffers to ensure protections pursuant to MBTA requirements. implementation of mitigation measure BIO-2 would reduce impacts to less than significant, similar to the approved project.

No local policies or ordinances with respect to biological resources apply to the project site. The revised project would therefore not conflict with local policies or ordinances protecting biological resources. No impact would occur, similar to the finding identified in the adopted IS/MND.

The project site is located within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) administered by the Western Riverside County Regional Conservation Authority (RCA). The RCA MSHCP Information Map shows the project site is not located within a cell group, criteria cell, in the Stephen's Kangaroo Rat Plan Fee area or an area that requires surveys for amphibians,

criteria area species, or mammals. However, the site is located in an area requiring burrowing owl, San Diego ambrosia, Brand's phacelia, and San Miguel savory habitat assessments and surveys, if suitable habitat is present. Burrowing owl is designated as a species of special concern by the California Department of Fish and Wildlife. The project site primarily consists of disturbed land with patches of ruderal vegetation and habitat on-site is not considered to be suitable for the three narrow endemic plant species identified above. No burrowing owl individuals, surrogate burrows, or burrowing owls sign were found during prior field investigation with the approved project. Nonetheless, to ensure that burrowing owls are not adversely affected by implementation of the revised project, mitigation measure BIO-1 would be implemented to require a pre-construction survey to ensure that burrowing owl is not present on-site, similar to the approved project. Impacts would be less than significant with mitigation incorporated.

Project implementation would not cause new or substantially more severe significant impacts to biological resources compared with the significance determination in the adopted IS/MND. However, mitigation measures would be implemented to reduce potential impacts to less than significant.

4.1.3 Adopted Mitigation Measures Applicable to the Revised Project

The following mitigation measures were identified in the adopted IS/MND. Applicability of each mitigation measure has been evaluated. The mitigation measures have been modified where appropriate to reflect the revised project. Additionally, the revised project would be required to conform to Standard Conditions and Requirements relative to biological resources, as identified in the adopted IS/MND.

BIO-1 Prior to the issuance of a grading permit, a preconstruction burrowing owl clearance survey shall be completed by a qualified biologist within 30 days prior to ground disturbance to avoid direct take of burrowing owls. Once complete, a written report summarizing the results of the clearance survey shall be prepared and submitted to the City of Eastvale for review and concurrence.

- If no burrowing owls are detected, construction may proceed. If construction is delayed or suspended for more than 30 days during the breeding season (March 1 to August 31), the project site or work area shall be resurveyed.

- If burrowing owls are detected on the project site during the breeding season (March 1 to August 31), a 300-foot "no work" buffer shall be established around the active burrow and all work within the buffer shall be halted until the qualified biologist has determined through non-intrusive methods that the nesting effort is complete (i.e., all young have fledged). Once the nesting effort is complete or if a burrowing owl burrow is detected on-site during the nonbreeding season (September 1 to February 28), passive and/or active relocation of burrowing owls may be implemented by a qualified biologist following consultation and approval from the City of Eastvale, the Western Riverside County Regional Conservation Authority, and the California Department of Fish and Wildlife.

BIO-2 Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, but can vary

slightly from year to year based on seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a preconstruction clearance survey for nesting birds shall be conducted within 30 days of the start of any ground-disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptors and special status species, this buffer will be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.

4.1.4 Level of Significance After Mitigation

Mitigation measures BIO-1 and BIO-2 as identified in the adopted IS/MND are applicable to the revised project. With the implementation of these mitigation measures, project impacts would be less than significant and would not be greater than those identified in the adopted IS/MND.

4.2 CULTURAL RESOURCES

4.2.1 Summary of Impacts in the Adopted IS/MND

Impacts to cultural resources were analyzed in Section 5, Cultural Resources, of the adopted IS/MND. The adopted IS/MND analyzed impacts to cultural resources and concluded that development of the approved project could result in the loss of unknown archaeological resources during ground disturbing activities. The adopted IS/MND determined that impacts to cultural resources would be reduced to less than significant with implementation of mitigation measure CUL-1.

The analysis and findings for the approved project were based on the *Phase I Cultural Resources Survey for Proposed Retail Development at the Corner of Archibald and Chandler* (Cultural Resources Survey) prepared by EnviroPro Consulting, LLC, dated October 17, 2018.

4.2.2 Impacts Associated with the Revised Project

Since adoption of the 2021 IS/MND, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to cultural resources including: causing a change in the significance of a historical or archaeological resource as defined in State CEQA Guidelines Section 15064.5; and/or disturbing any human remains, including those interred outside of dedicated cemeteries?

Yes	No
☐	☑

A Sacred Lands File search with the Native American Heritage Commission; review of cultural resource records held by Soboba Cultural Resources Department; standard review of the National Register of

Historic Places and the Office of Historic Preservation Historic Property Directory; field survey conducted as part of the Cultural Resources Survey; and records search for surveys or sites within one mile of the subject site were conducted for the approved project. Such investigations did not identify any historic or prehistoric cultural resources or records within the project boundaries.

As evaluated in the adopted IS/MND, the project site is vacant, undeveloped land with no built resources. Project implementation would not result in any alterations of a historical resource, as defined by CEQA Guidelines Section 15064.5, as no such resources are present. No impacts to historical resources would occur, similar to the approved project.

Based on the records search results, the potential for cultural resources to be buried within the project site is considered low, as no indications were observed during the survey that would suggest the presence of historic or prehistoric features or artifacts. However, similar to the approved project, if previously undocumented cultural resources are identified during earthmoving activities, mitigation measure CUL-1 would be implemented to reduce potential impacts to unknown historical and archaeological resources to less than significant.

Similar to the approved project, the potential exists that human remains may be unearthed during grading and excavation activities associated with construction of the revised project. As with the approved project, standard protocols would be followed in the event that human remains are discovered during grading or excavation associated with the revised project, allowing for all work in the affected area to be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the find. A less than significant impact would occur in this regard.

There would not be new or substantially more severe impacts to cultural resources compared with the significance determination in the adopted IS/MND. No new mitigation measures are required.

4.2.3 Adopted Mitigation Measures Applicable to the Revised Project

The following mitigation measure was identified in the adopted IS/MND. Applicability of the mitigation measure has been evaluated for the current project. Additionally, the revised project would be required to conform to Standard Conditions and Requirements relative to cultural resources, as identified in the adopted IS/MND.

CUL-1 If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.

4.2.4 Level of Significance After Mitigation

Mitigation measure CUL-1 as identified in the adopted IS/MND is applicable to the revised project. With implementation of this mitigation measure, impacts resulting with the revised project would be less than significant and would not be greater than those identified in the adopted IS/MND.

4.3 GREENHOUSE GAS EMISSIONS

4.3.1 Summary of Impacts in the 2021 IS/MND

Section 8, Greenhouse Gas Emissions, of the 2021 IS/MND analyzes impacts relative to greenhouse gas (GHG) emissions associated with the approved project. The 2021 IS/MND determined that GHG emissions resulting with the approved project would total 3,672.91 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year. Per City of Eastvale guidance, a significant cumulative impact relative to global climate change would occur if project emissions from ongoing operations exceed the SCAQMD screening threshold of 3,000 $MTCO_2e$ per year for all land uses. Implementation of mitigation measures GHG-1 and GHG-2 were therefore required to reduce such impacts resulting with the approved project to a less than significant level. Further, the approved project was determined to be in conformance with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs; impacts were identified as less than significant in this regard.

The analysis and findings for the approved project were based on the *Archibald at Chandler Commercial Project Air Quality, Global Climate Change, TAC and Energy Impact Analysis*, prepared by Ganddini Group, Inc., dated November 18, 2020.

4.3.2 Impacts Associated with the Revised Project

Since adoption of the 2021 IS/MND, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or that result in conflict with applicable plans, policies or regulations adopted for the purpose of reducing greenhouse gas emissions?

Yes	No
☐	☑

Similar to the approved project, construction and operational activities associated with the revised project would generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. Due to construction requirements assumed for the revised land uses resulting with the revised project, GHG emissions are anticipated to be similar to that calculated for the approved project. However, operation of the revised project would generate fewer metric tons CO_2e of GHG emissions than that analyzed in the 2021 IS/MND, largely due to the decrease in mobile-source emissions as a result of the land uses proposed and resulting trip generation (refer also to Section 4.6, Transportation, for additional discussion). However, emissions generated by the revised project are anticipated to similarly exceed the significance threshold of 3,000 $MTCO_2e$ per year during operation. As with the approved project, implementation of mitigation measures GHG-1 and GHG-2 would similarly be required with the revised project to reduce GHG emissions to below a level of significance.

As GHG emissions would be reduced below the significance threshold with incorporation of mitigation, the revised project would not interfere with applicable plans, policies, or regulations aimed at reducing

GHG emissions, including the State's goal to reduce GHG emissions under Executive Order S-3-05, to 80 percent below 1990 levels by the year 2050. As the project's emissions would meet the threshold for compliance with Executive Order S-3-05, project emissions would also comply with the goals of Assembly Bill (AB) 32 and the Western Riverside Council of Government Climate Action Plan. Additionally, as the project would meet current interim emissions targets/thresholds established by SCAQMD, the revised project would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 as mandated by Senate Bill (SB) 32. For these reasons, the revised project is not anticipated to conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Impacts would remain less than significant in this regard, similar to the approved project.

Therefore, revised project impacts relative to GHG emissions would not be greater than those analyzed in the 2021 IS/MND. No new mitigation measures are required.

4.3.3 Adopted Mitigation Measures Applicable to the Revised Project

The following mitigation measures were identified in the 2021 IS/MND. Applicability of each mitigation measure has been evaluated. Additionally, the revised project would be required to conform to Standard Conditions and Requirements relative to greenhouse gas emissions, as identified in the 2021 IS/MND.

GHG-1 The project shall incorporate the following California Air Pollution Control Officers Association-based reduction measures and regulatory compliance:

- Utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen Standards.
- Implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341).
- Incorporate the following land use and site enhancement reduction measures: LUT-1 Increase Density, LUT-4 Improve Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network.

GHG-2 The project shall incorporate the following design features:

- The project applicant shall require that all faucets, toilets, and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen standards.
- The project applicant shall require recycling programs that reduce waste to landfills by a minimum 75 percent per AB 341.
- The project applicant shall provide sidewalks on-site and connecting off-site

4.3.4 Level of Significance After Mitigation

Mitigation measures GHG-1 and GHG-2 as identified in the 2021 IS/MND are applicable to the revised project. With implementation of these mitigation measures, impacts resulting with the revised project would be less than significant and would not be greater than those identified in the 2021 IS/MND.

4.4 HAZARDS AND HAZARDOUS MATERIALS

4.4.1 Summary of Impacts in the Adopted IS/MND

Section 9, Hazards and Hazardous Materials, of the adopted IS/MND analyzes potential impacts relative to hazard and hazardous materials. The adopted IS/MND concluded that project construction and operation would result in less than significant impacts relative to routine transport, use, and/or disposal of hazardous materials and/or through accidental release of hazardous materials; compliance with applicable Federal, State, and local regulations would ensure that such impacts would remain less than significant. Due to distance, the project was determined to not result in hazardous emissions within proximity to an existing school, nor would the project be located on a site identified as a hazards materials site per Government Code Section 65962.5. The site is located within the Influence Area of the Chino Airport and would be subject to review by the Riverside County Airport Land Use Commission (ALUC) to reduce potential safety hazards to less than significant. The project was also determined to result in a less than significant impact from exposure of people or structures relative to exposure of people or structures to wildland fires. However, the adopted IS/MND identified a significant impact due to the potential for project construction to interfere with emergency evacuation during project construction; mitigation measure TRA-1 (see 4.6, Transportation) was identified to require preparation of a traffic management plan to reduce potential impacts to less than significant.

The analysis provided in this section was based in part on the *Phase I Environmental Site Assessment, NWC Archibald Avenue and Chandler Street, Eastvale, CA 92880* (Phase I ESA) prepared by S&S Commercial Services, Inc., dated July 30, 2018.

4.4.2 Impacts Associated with the Revised Project

Since adoption of the 2021 IS/MND, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from hazards and hazardous materials including: creation of a significant hazard to the public or the environment through the routine transport, storage, use, or disposal of hazardous materials; creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; production of hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 creating a hazard to the public or the environment; location within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport or within the vicinity of a private airstrip resulting in a safety hazard for people residing or working in the project area; impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or

exposure of people or structures to a significant risk of loss, injury or death involving wild land fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Yes	No
☐	☑

Similar to the approved project, construction and operation of the revised project would be anticipated to involve small quantities of hazardous materials such as fuels, greases, paints, and cleaning materials. Similarly, project operations would require the use of small amounts of cleansers, paints, and pesticides for cleaning and maintenance purposes. The transport, use, storage, disposal, and handling of hazardous materials are governed by regulations that are enforced by the Department of Toxic Substances Control (DTSC), Environmental Protection Agency, Occupational Safety and Health Administration, and Riverside County Department of Environmental Health. Further, no recognized environmental conditions (RECs), historical recognized conditions (HRECs), other environmental hazards have been identified on-site (S&S Environmental Services 2018); no changes have occurred in such conditions since adoption of the 2021 IS/MND.

The project applicant(s) and associated construction contractors would comply with Federal, State, and local regulations concerning the handling, transport, storage and disposal of all hazardous materials and wastes during project construction and operation. As with the approved project, potential hazards to the public and environment through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment would be less than significant.

There are no existing or proposed schools within 0.25-mile of the project site. The closest school is Rondo Elementary, approximately one mile to the northwest at 14977 Walters Street in the City of Eastvale. Any potential hazardous substances used at the site during construction or operation would occur in accordance with existing regulations. The potential for an accidental release that would adversely impact area school operations would be less than significant, similar to the approved project.

Under current conditions, the revised project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No impact would occur in this regard, similar to the approved project.

The Riverside County Airport Land Use Compatibility Plan (ALUCP) identifies the project site as located within the Chino Airport Influence Area, although it is not located within any of the Compatibility Zones (Riverside County 2008). The ALUCP establishes various policies and compatibility maps for individual airports. Prior to City approval, the project applicant(s) would be required to document review and approval of the project by the Riverside County ALUC. Any project revisions or limitations required by the ALUC would be incorporated in the project prior to City approval. Compliance with this requirement would ensure that impacts remain less than significant.

Activities associated with the revised project would not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. The project would not substantially alter the

existing circulation system or construct sharp curves or dangerous intersections that would introduce incompatible conditions with area roadways. Partial lane closures may be required as part of project construction activities. As with the approved project, a traffic management plan would be implemented (mitigation measure TRA-1) to minimize congestion and ensure safe travel, including emergency access in the project vicinity, ensuring that impacts are reduced to less than significant.

The project site is located in an urbanized area and is currently surrounded by existing residential and commercial uses. As identified in the adopted IS/MND, the site is not located in a zone designated as Very High Fire Hazard by the California Department of Forestry and Fire Protection. The revised project would be required to adhere to building codes and any conditions identified by the Riverside County Fire Department during project review. Similar to the approved project, the revised project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Impacts would remain less than significant.

Project impacts regarding hazards and hazardous materials would not be greater than those analyzed in the adopted IS/MND with implementation of mitigation measure TRA-1.

4.4.3 Adopted Mitigation Measures Applicable to the Revised Project

The following mitigation measure was identified in the adopted IS/MND. The mitigation measure has been evaluated for applicability to the revised project.

> Refer to mitigation measure TRA-1 in Section 4.6, Transportation.

4.4.4 Level of Significance After Mitigation

A traffic management plan has been prepared for the project; therefore, mitigation measure TRA-1 has been satisfied. With implementation of mitigation measure TRA-1, potentially significant impacts related to hazards and hazardous materials would remain less than significant and would not be greater than those identified in the adopted IS/MND.

4.5 NOISE

4.5.1 Summary of Impacts in the 2021 IS/MND

The 2021 IS/MND provides an analysis of noise impacts in Section 13, Noise. Impacts associated with noise were found to be less than significant with the implementation of mitigation measures.

The approved project was found to have a significant impact resulting from construction noise level increases which would exceed the City's established threshold at adjacent sensitive receptor locations during the daytime hours. Mitigation measures NOI-1 to NOI-4 were identified to reduce such impacts to less than significant. Additionally, operational noise levels with the addition of the project were determined to be below the allowable increase in ambient noise levels, and therefore, impacts were determined to be less than significant. Ground-borne vibration levels resulting with project construction were determined to be potentially significant, and mitigation measure NOI-5, restricting the use of certain construction equipment of the western property boundary, was identified to reduce impacts to less than

significant. Further, the project site would not be exposed to excessive noise from airport operations; impacts were determined to be less than significant.

The analysis and findings in the 2021 IS/MND were based on the *Archibald at Chandler Commercial Project Noise Impact Analysis,* prepared by Ganddini Group, Inc., dated November 17, 2020.

4.5.2 Impacts Associated with the Revised Project

The analysis in this section is based in part on the following technical report:

- *Archibald and Chandler Car Wash and Coffee Shop - Noise Impact Analysis,* City of Eastvale. December 16, 2022.

Complete copies of the report are included in Appendix B of this Addendum.

Since adoption of the 2021 IS/MND, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in one or more effects from noise including: generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies; generation of excessive groundborne vibration or groundborne noise levels; or, for projects located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, or for projects within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Yes	No
☐	☑

Construction Noise. The revised project would cause temporary noise increases from on-site construction activities. Construction activities were estimated on a worst-case basis at levels that may occur at the nearest noise-sensitive receptors. Due to the temporary, short-term nature of noise-generating construction activities, the temporary or periodic noise level increases over the existing ambient conditions due to construction activities were considered under CEQA Guideline A for the revised project. The California Department of Transportation Traffic Noise Analysis Protocol 12 dBA L_{eq} substantial noise level increase threshold was used to assess temporary noise level increases (dBA = A-weighted decibel is the relative loudness of sounds as perceived by the human ear; L_{eq} = equivalent continuous sound pressure level is the consistent noise level that would result in the same total sound energy being produced over a given period).

As analyzed in the noise impact analysis prepared for the revised project (see Appendix B), the proposed commercial uses would result in construction-related noise level increases that range between 6 and 23.5 dBA L_{eq} at nearby receiver locations. Since the revised project-related construction noise levels would generate a temporary noise level increase above the existing ambient noise levels of up to 12 dBA L_{eq}, the revised project construction noise level increases would be considered a potentially significant impact. Adherence to exempt hours of operation and implementation of the mitigation measures presented

below would reduce construction noise levels at nearby receiver locations would no longer result in increases that exceed 12 dBA L_{eq}. Revised project construction noise impacts would be further reduced to less than significant with incorporation of mitigation measures as identified in the 2021 IS/MND (mitigation measures NOI-1 to NOI-4).

Groundborne Vibration. Increases in groundborne vibration levels attributable to the revised project would be primarily associated with short-term construction activities. Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. As identified for the Approved Project, depending on the construction equipment used, the Approved Project would generate unmitigated vibration levels below the City of Eastvale's 0.0787 inches per second (in/sec) PPV threshold with exception of at the western property line. As such, mitigation measure NOI-5 was identified to reduce potential vibration levels to a less than significant level.

Similarly, the noise impact analysis prepared for the revised project (see Appendix B) determined that ground-borne vibration from project construction activities (use of heavy construction equipment and trucks) would cause only intermittent, localized intrusion. Based on the reference vibration levels provided by the Federal Transportation Authority, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec PPV at 25 feet (PPV = peak particle velocity which refers to the movement within the ground of molecular particles; used to evaluate the potential for building damage). At distances ranging from 10 to 150 feet from the project construction activities, construction vibration velocity levels are expected to range from 0.000 to 0.492 in/sec PPV. Based on the City of Eastvale vibration standard of 0.0787 in/sec PPV, the revised project construction activities would generate unmitigated vibration levels that remain below the 0.0787 in/sec PPV threshold at all identified receivers with exception of existing backyards of residential uses located to the west of the project site (Receiver 4); refer to Figure 7, Receiver Locations, in Appendix B. To satisfy the City of Eastvale vibration standard of 0.0787 in/sec PPV, mitigation measure NOI-5 would be required to restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary (Receiver 4), similar to that required with the approved project. With implementation of mitigation measure NOI-5, impacts would be reduced to less than significant.

Off-Site Traffic Noise. In order to quantify the increase in vehicle noise associated with operation of the revised project, changes in traffic noise levels were modeled along roadway segments expected to be affected by the project (refer also to Section 4.6, Transportation). Traffic noise was modeled using traffic forecasts provided in the *Archibald at Chandler Commercial Project Traffic Impact Analysis* (October 28, 2022; refer to Appendix C-2 for a detailed discussion). The analysis determined that the unmitigated project-related traffic noise level increases under all traffic scenarios would be less than significant. No increase in impacts relative to that identified in the 2021 IS/MND would occur with the revised project.

Operational Noise. Noise levels associated with project operational noise sources are expected to range from 46 to 54 dBA L_{eq} and would not exceed the daytime General Plan L_{eq} noise level standard of 60 dBA L_{eq} or exceed the City's Municipal Code standard of 55 dBA L_{max} (L_{max} = maximum sound pressure level or greatest instantaneous sound pressure level observed during a single noise measurement interval). The

project would operate between the hours of 7:00 AM and 10:00 PM and therefore, would not result in any exceedances of nighttime noise standards. Operational impacts in this regard would be less than significant and no mitigation is required.

As identified in the noise impact analysis for the revised project (see Appendix B), the existing measured CNEL is 61 dB (CNEL = community noise equivalent level, or weighted average of noise level over time). Operational noise generated by the revised project during daytime hours would add approximately 1 dB to each hour. The existing plus project CNEL would still be 61 dBA with project operational noise. Residential construction methods typically provide 20 dB of exterior to interior noise reduction with provision of heating, ventilation, and air conditioning to allow for a windows-closed condition. Project operation would not result in interior noise levels that exceed the 45 dBA CNEL noise standard. Impacts in this regard would be less than significant, and no mitigation is required.

Operation of the revised project would result in increases in ambient noise levels of up to 5 dB but would not exceed any of the applicable thresholds due to relatively quiet ambient noise levels. Project operational noise would not result in significant impacts, similar to that identified in the 2021 IS/MND for the Approved Project. Therefore, no mitigation is required.

Additionally, the project site is not located within an airport land use plan or two miles of an airport; the closest airport is the Chino Airport, approximately 2.15 miles northwest of the site. Project implementation would not affect airport operations or increase exposure of noise-sensitive uses to aircraft noise. Impacts would remain less than significant with the revised project.

Project impacts relative to noise and vibration would not be greater than those analyzed in the 2021 IS/MND, and no new mitigation measures would be required.

4.5.3 Adopted Mitigation Measures Applicable to the Revised Project

The following mitigation measures were identified in the 2021 IS/MND. Applicability of each mitigation measure has been evaluated. Additionally, the revised project would be required to conform to Standard Conditions and Requirements relative to noise, as identified in the 2021 IS/MND.

NOI-1 The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receptors nearest the project site.

NOI-2 The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).

NOI-3 The contractor shall install temporary construction noise barriers/blankets along the western boundary. The barrier/blankets shall be solid with no cracks or holes and shall also reach to the ground.

NOI-4 During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers

or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from applicable noise level specifications.

NOI-5 The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary.

4.5.4 Level of Significance After Mitigation

Noise and vibration impacts resulting with the revised project would be less than significant with mitigation measures incorporated. The revised project would not result in a new or substantially more severe significant impact compared with the significance determination as documented in the 2021 IS/MND.

4.6 TRANSPORTATION

4.6.1 Summary of Impacts in the 2021 IS/MND

The 2021 IS/MND provides an analysis of transportation/traffic impacts in Section 17, Transportation. As analyzed, the approved project was estimated to generate a worst-case scenario of 4,871 average daily trips, including 141 net new trips during the AM peak hour and 179 net new trips during the PM peak hour. State CEQA Guidelines Section 15064.3 currently governs the approach for determination of significance for transportation impacts based on a vehicle miles traveled (VMT) instead of congestion (such as level of service, or LOS). However, as Eastvale General Plan Policy C-10 requires that the City maintain a LOS C on all City maintained roadways, and a LOS D in employment and commercial areas, a discussion relative to project consistency with Policy C-10 was included in the 2021 IS/MND. The IS/MND determined that under all scenarios analyzed, an acceptable LOS would be maintained for all affected roadways and intersections with project implementation.

Additionally, the 2021 IS/MND determined that a less than significant impact would occur relative to vehicle miles traveled pursuant to CEQA Guidelines section 15064.3, and that the project as designed would not substantially increase hazards due to design features or incompatible uses. A significant impact was identified as project construction activities were determined to have the potential to result in temporary impacts to emergency access and evacuation routes during construction; mitigation measure TRA-1 was identified to require preparation of a traffic management plan to reduce such impacts to less than significant (Note: mitigation measure TRA-1 has been implemented to date).

The analysis and findings of this section in the 2021 IS/MND were based on the *Archibald at Chandler Commercial Project Traffic Impact Analysis* prepared by Ganddini Group, Inc., dated October 28, 2020.

4.6.2 Impacts Associated with the Revised Project

The analysis in this section is generally based in part on the following technical reports:

- *Trip Generation Analysis for the Archibald/Chandler Car Wash and Coffee Shop* (PLN22-20055). Ganddini Group, Inc. December 16, 2022.

- *Drive Through Queuing Study for the Archibald/Chandler Car Wash and Coffee Shop* (PLN22-20055). Ganddini Group, Inc. July 25, 2023.

Complete copies of these studies are included in Appendices C-1 and C-2 of this Addendum.

Since adoption of the 2021 IS/MND, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause effects to transportation/traffic including: conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities; conflict or inconsistency with CEQA Guidelines Section 15064.3, subdivision (b); increased hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or, inadequate emergency access?

Yes	No
☐	☑

As noted, the project has since been revised to propose the parcellation and development of new commercial uses which would include a 950 square foot Dutch Bros. coffee shop, drive through lane with sufficient queue storage for 27 vehicles, and ancillary parking stalls, trash enclosure, and landscaping on Pad 1. The revised project also includes development of a 3,598 square foot Quick Quack Carwash with carwash tunnel, vacuums, and parking on Pad 2; and a 3,500 square foot Zendejas restaurant on Pad 3 (refer to Exhibit 6, Revised Conceptual Site Plan). The proposed coffee shop and car wash developments proposed on Pad 1 and Pad 2 of the project site are not consistent with land uses considered in the adopted 2021 IS/MND (gas station and fast food restaurant) and therefore, are further analyzed herein to determine whether potential transportation-related impacts would be increased under the current development scenario.

The land use proposed for Pad 3 (3,500-square foot Zendejas fast food restaurant) of the commercial center would remain consistent with that analyzed in the 2021 IS/MND. Therefore, an increase in vehicle trips generated by the use would not occur under the project as currently proposed, and no new or substantially more severe significant environmental impacts compared with the impacts disclosed in the approved 2021 IS/MND are anticipated.

To analyze the potential effects of the change in land uses described above, a supplemental trip generation study and drive-through queuing analysis were prepared; refer to Appendix C-1 and Appendix C-2, respectively. The 2020 traffic impact analysis (TIA) prepared for the approved project considered development of the subject site consisting of a 3,700 square foot gas station with 10 vehicle fueling positions and convenience market on Pad 1; a 4,365 square foot fast food restaurant with drive-through window on Pad 2; and a 3,500 square foot fast casual restaurant (Zendejas) on Pad 3. The proposed uses were forecast to generate a total of 4,871 daily vehicle trips. As currently proposed, the Dutch Bros. coffee shop is forecast to generate a total of 446 daily vehicle trips; the proposed carwash is forecast to generate a total of 900 daily vehicle trips. Therefore, overall, the mix of uses proposed under the revised (current) project would generate an estimated 3,185 fewer daily vehicle trips compared to the approved project as evaluated in the 2020 TIA. As such, the revised project would not exceed the trip generation assumptions in the adopted 2021 IS/MND and would not represent an increased development intensity in this regard.

The City of Eastvale has adopted Resolution No. 20-44 which establishes VMT impact thresholds for assessing consistency with CEQA Guidelines section 15064.3, subdivision (b). Resolution No. 20-44 includes screening criteria for certain types of projects that are local-serving in nature or generate a low number of vehicle trips and may be presumed to have a less than significant impact. Such projects include local-serving retail projects, defined as retail developments with less than 50,000 square feet. Local-serving retail projects generally redistribute shopping trips rather than creating new trips, and thereby tend to shorten trips and reduce VMT. The revised project meets the definition of local-serving retail as it consists of retail uses totaling less than 50,000 square feet. Therefore, similar to the approved project, the revised project satisfies the project type screening criteria for local-serving retail and, as such, would result in a less than significant VMT impact.

Similar to the approved project, the revised project does not involve any unusual conditions, or hazardous design features, such as sharp curves or dangerous intersections, or incompatible uses. All recommended improvements would be constructed to be consistent with the identified roadway classifications and respective cross-sections in the City of Eastvale General Plan Circulation and Infrastructure Element, and all project driveways and signage, buildings, and landscaping would be designed in accordance with City standards to ensure adequate sight distance for drivers entering and exiting the site. With implementation such measures, the revised project would not substantially increase hazards due to a design feature or incompatible use. Impacts would remain less than significant, similar to the approved project.

As with the approved project, access and circulation features on the project site would accommodate emergency ingress and egress and would be designed to ensure that access is maintained for fire trucks, police units, and ambulance/paramedic vehicles. All emergency access features are subject to and must satisfy the City of Eastvale design requirements and be approved by the Fire Department. As with the approved project, the revised project would implement a Traffic Management Plan (TPM) to minimize temporary impacts to emergency access and evacuation routes during the construction process; refer to mitigation measure TRA-1. With implementation of mitigation measure TRA-1, the revised project would not result in inadequate emergency access and impacts would be less than significant, similar to the approved project.

Additionally, a queuing study was prepared for the revised project to address project effects resulting with on-site vehicle circulation (see Appendix C-2). Due to the nature of the revised commercial uses and the potential for queuing to occur during peak operational hours, it is recommended that the proposed drive through facilities provide sufficient drive through storage length to accommodate the 95th-percentile queue. In statistics, the 95th percentile describes the value at which 95 percent of the samples are distributed at or below. Providing sufficient queue storage to accommodate the 95th percentile queue would ensure that drive through lane queue overflow occurs less than 5 percent of the time. Based on the queue surveys, it is recommended that the coffee shop provide sufficient queue storage for 27 vehicles. Assuming 20 feet of queue length per vehicle, the proposed drive through lane would provide storage capacity for approximately 27 vehicles, which is sufficient to accommodate the recommended 95th percentile queue of 27 vehicles. The revised project's coffee shop would provide a total drive through lane storage length of approximately 557 feet. Based on the findings of the queuing studies, the revised project as currently designed is anticipated to provide adequate drive through storage capacity to accommodate

peak queues and maintain adequate circulation/site access and to ensure that public safety in the area is not adversely affected due to project-generated vehicles encroaching onto local streets or blocking sidewalks.

Additionally, the proposed coffee shop would employ staff to assist with management of the drive-through queue during peak periods. Specifically, staff would periodically walk along the drive through lanes encouraging vehicles to pull forward and maximize efficiency of the available storage areas. In addition, use of the area east of the proposed building shall be maximized; this area is intended as a waiting area for large or complicated orders that may take longer to prepare. However, the area would be used for regular orders during peak periods to minimize queue overflow beyond the drive through lane, if necessary. To further ensure that grand openings do not create circulation issues, the revised project would require that the grand opening for the Dutch Bros and Quick Quack Car Wash tenants be held a minimum of one week apart from each other as a condition of project approval.

Further, the 2021 IS/MND identified mitigation measure TRA-1 which required preparation of a TMP to maximize drive-through operations, facilitate drive-through vehicles, and minimize the drive-through queues. As the TPM has been prepared to date, this mitigation measure has been fulfilled.

For the reasons above, it is anticipated that the revised project would not result in new or substantially more severe significant environmental impacts compared with the impacts disclosed in the approved 2021 IS/MND. No mitigation measures would be required.

4.6.3 Adopted Mitigation Measures Applicable to the Revised Project

The following mitigation measure was identified in the 2021 IS/MND. Applicability of the mitigation measure has been evaluated for the current project. As the mitigation measure has been fulfilled to date, the language has been modified as appropriate to reflect the revised project.

~~**TRA-1** Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.~~

4.6.4 Level of Significance After Mitigation

Impacts to transportation/traffic would be less than significant as mitigation measure TRA-1 has already been implemented to date. Traffic control measures, as identified in the Traffic Management Plan, have been incorporated into project design specifications and would be further implemented during the construction phase. The revised project would not result in a new or substantially more severe significant impact compared with the significance determination as documented in the 2021 IS/MND.

4.7 TRIBAL CULTURAL RESOURCES

4.7.1 Summary of Impacts in the Adopted IS/MND

Assembly Bill 52 (AB 52), which requires that tribal cultural resources be evaluated under CEQA, became effective on July 1, 2015. Projects that require a Notice of Preparation of an EIR or Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration on or after July 1, 2015, are subject to AB 52.

Section 18, Tribal Cultural Resources, of the 2021 IS/MND provides an analysis of tribal cultural resources. As indicated in the adopted IS/MND, pursuant to AB 52 requirements, the City of Eastvale commenced consultation with the appropriate and potentially affected Tribal Historic Preservation Officers. City staff consulted with representatives from the Soboba Band of Luiseño Indians and met to discuss the project, including mitigation for potential tribal cultural resources. As a result, requested mitigation measures were incorporated into the IS/MND. Further, the adopted IS/MND indicated that the subject site contains limited known cultural resources. To mitigate potential impacts to resources that could be discovered during project construction, mitigation measures TCR-1 to TCR-4 were identified to reduce potential impacts to tribal cultural resources to less than significant levels.

4.7.2 Impacts Associated with the Revised Project

Since adoption of the 2021 IS/MND, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that cause one or more effects to tribal cultural resources including: causing a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resource Code Section 21074?

Yes	No
☐	☑

Consultation requirements under AB 52 do not apply to the revised project as the document is an Addendum, not a Negative Declaration, Mitigated Negative Declaration, or EIR; therefore, the results of prior consultation efforts are considered to be complete. Additionally, the project site is not listed in the California Register of Historical Resource Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).

As noted in the adopted IS/MND, the project area is known to be sensitive for tribal cultural resources. As a result, there is the potential for discovery of subsurface resources on the project site during the construction phase. Mitigation measures TCR-1 to TCR-4 from the adopted IS/MND would be implemented to require monitoring during ground-disturbing activities by a tribal monitor and Registered Professional Archaeologist. In the event that unique archaeological resources are identified, including tribal cultural resources, the archaeologist would take appropriate actions to comply with State law. Therefore, potential impacts related to undiscovered tribal cultural resources would be reduced to less than significant, and no additional mitigation is required.

4.7.3 Adopted Mitigation Measures Applicable to the Revised Project

The following mitigation measures were identified in the adopted IS/MND. Applicability of each mitigation measure has been evaluated.

TCR-1 **Tribal Monitoring.** Prior to the issuance of a grading permit, the project applicant shall contact the consulting tribe(s) with notification of the proposed grading and shall make a good-faith effort, as determined by the City's Development Director, to enter into a Tribal Cultural Resources Monitoring Agreement with each tribe that determines its tribal cultural resources may be present on the site. The agreements shall include, but not be limited to, outlining provisions and requirements for addressing the handling of tribal cultural resources; project grading and development scheduling; terms of compensation for the tribal monitors; and establishing on-site monitoring provisions and/or requirements for professional tribal monitors during all ground-disturbing activities. The terms of the agreements shall not conflict with any of these mitigation measures. A copy/copies of the agreement(s) shall be provided to the City of Eastvale Planning Department prior to the issuance of a grading permit.

TCR-2 **Archaeological Monitoring.** At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the project applicant shall retain a Secretary of Interior Standards-qualified, Registered Professional Archaeologist (RPA), as an archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Ground-disturbing activities may include, but are not limited to, pavement removal, potholing or auguring, grubbing, weed abatement, boring, grading, excavation, drilling, and trenching. The on-site archaeological monitoring would end when the project site grading and excavation activities are completed, or when the monitor has indicated that the site has a low potential for archeological resources.

The Project Registered Professional archaeologist, in consultation with consulting Tribe(s) identified above, and the developer, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site and provide the plan to the city for approval. Details in the plan shall include:

A. Project grading and development scheduling.

B. The development of a rotating or simultaneous schedule in coordination with the project applicant and the project archeologist for designated Native American tribal monitors from the consulting tribes during grading, excavation and ground-disturbing activities on the site.

C. The safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists.

D. The protocols and stipulations that the developer, tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

TCR-3 Treatment and Disposition of Cultural Resources. If tribal cultural resources are inadvertently discovered during ground disturbing activities for this project. The following procedures will be carried out for treatment and disposition of the discoveries:

A. **Temporary Curation and Storage**. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process.

B. **Treatment and Final Disposition.** The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City Planning Department with documentation of same:

i. Reburial on-site. Accommodate the process for on-site reburial of the discovered items with the consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.

ii. **Curation.** A curation agreement with an appropriate qualified repository within Riverside County that meets Federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

iii. **Disposition Dispute**. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center.

iv. **Final Report.** At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall:

- o Document the impacts to the known resources on the property;
- o Describe how each mitigation measure was fulfilled;
- o Document the type of cultural resources recovered and the disposition of such resources;
- o Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting;
- o In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist.

o All reports produced will be submitted to the city, Eastern Information Center and consulting tribes.

TCR-4 Discovery of Human Remains. If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains. The following procedures as set forth in the California Environmental Quality Act (CEQA), Section 15064.5(e), the California Public Resources Code (PRC) (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall then be undertaken:

If human remains or funerary/sacred items are encountered, the archaeological monitor or tribal monitor will halt work within the immediate area and any nearby area reasonably suspected to overlie adjacent remains, establish an Environmentally Sensitive Area (ESA) boundary to protect the find from impact, and immediately notify the City Archaeologist. Project work outside the established ESA may continue. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, s/he shall notify the NAHC in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

4.7.4 Level of Significance After Mitigation

With implementation of mitigation measures TCR-1 to TCR-4, potential impacts to tribal cultural resources would be less than significant. The revised project would not result in a new or substantially more severe significant impact compared with the significance determination as documented in the 2021 IS/MND.

4.8 MANDATORY FINDINGS OF SIGNIFICANCE

Since the 2021 IS/MND was adopted, are there any changes in the project, changes in circumstances under which the project is undertaken and/or "new information of substantial importance" that result in any mandatory finding of significance listed below?

Does the project degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable

when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Yes	No
☐	☑

The revised project would require implementation of mitigation measures identified in the 2021 2021 IS/MND (see also Section 5, Mitigation Monitoring and Reporting Program) to reduce potentially significant impacts to below a level of significance. The mitigation measures would reduce impacts to biological resources, cultural and tribal cultural resources, hazards/hazardous materials (traffic safety), and transportation (traffic safety). With the implementation of the mitigation measures, combined with project design features and standard conditions, the revised project would not degrade the quality of the environment, eliminate important examples of California history or prehistory, cause cumulatively considerable effects, or cause adverse effects on human beings. The revised project would not create any significant effects beyond what was identified in the 2021 IS/MND. Therefore, preparation of a subsequent IS/MND is not required.

5 MITIGATION MONITORING AND REPORTING

The City of Eastvale is required to adopt a program for monitoring or reporting on the implementation of the mitigation measures it has imposed to mitigate or avoid significant environmental effects. As allowed under CEQA Guidelines Section 15097(a), the City, as lead agency, may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation, including but not limited to the project's construction contractor. However, until the mitigation measures have been completed, the City remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.

The mitigation measures, as modified from the previously 2021 IS/MND (~~strikethrough~~ for deletion and underline for addition), that are applicable to the revised project are listed in the following table, Mitigation Monitoring and Reporting Plan, which has been prepared in conformance with CEQA Guidelines Section 15097. The table identifies the required mitigation measures, the entity(ies) responsible for implementing the mitigation measures, when the mitigation measures should be conducted, the entity responsible for ensuring the mitigation measures are implemented, and space for the monitor's signature and date to record when the measure was completed.

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
Biological Resources					
BIO-1	Prior to the issuance of a grading permit, a preconstruction burrowing owl clearance survey shall be completed by a qualified biologist within 30 days prior to ground disturbance to avoid direct take of burrowing owls. Once complete, a written report summarizing the results of the clearance survey shall be prepared and submitted to the City of Eastvale for review and concurrence. • If no burrowing owls are detected, construction may proceed. If construction is delayed or suspended for more than 30 days during the breeding season (March 1 to August 31), the project site or work area shall be resurveyed. • If burrowing owls are detected on the project site during the breeding season (March 1 to August 31), a 300-foot "no work" buffer shall be established around the active burrow and all work within the buffer shall be halted until the qualified biologist has	Prior to the issuance of a grading permit, within 30 days prior to ground disturbance	Qualified Biologist		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	determined through non-intrusive methods that the nesting effort is complete (i.e., all young have fledged). Once the nesting effort is complete or if a burrowing owl burrow is detected on-site during the non- breeding season (September 1 to February 28), passive and/or active relocation of burrowing owls may be implemented by a qualified biologist following consultation and approval from the City of Eastvale, the Western Riverside County Regional Conservation Authority, and the California Department of Fish and Wildlife.				
BIO-2	Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based on	Within 30 days of the start of any ground-disturbing activities	Qualified Biologist		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a preconstruction clearance survey for nesting birds shall be conducted within 30 days of the start of any ground-disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptors and special- status species, this buffer will be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.				
Cultural Resources					

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
CUL-1	If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.	During ground-disturbing activities	Qualified Archaeologist		
Greenhouse Gas Emissions					
GHG-1	The project shall incorporate the following California Air Pollution Control Officers Association-based reduction measures and regulatory compliance: • Utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen Standards. • Implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341).	Prior to construction	City Planning Department		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	• Incorporate the following land use and site enhancement reduction measures: LUT-1 Increase Density, LUT-4 Improve Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network.				
GHG-2	The project shall incorporate the following design features: • The project applicant shall require that all faucets, toilets, and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen standards. • The project applicant shall require recycling programs that reduce waste to landfills by a minimum 75 percent per AB 341. • The project applicant shall provide sidewalks	Prior to construction	City Planning Department		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	on-site and connecting off-site.				
Hazards and Hazardous Materials					
~~TRA-1~~	~~Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.~~	~~Prior to the initiation of construction~~	~~City of Eastvale Traffic Engineer~~		
Noise					
NOI-1	The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise-	During construction activities	City of Eastvale Building Safety Division		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	sensitive receptors nearest the project site.				
NOI-2	The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).	During construction activities	City of Eastvale Building Safety Division		
NOI-3	The contractor shall install temporary construction noise barriers/blankets along the western boundary. The barrier/blankets shall be solid with no cracks or holes and shall also reach to the ground.	During construction activities	City of Eastvale Building Safety Division		
NOI-4	During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from applicable noise level specifications.	During construction activities	City of Eastvale Building Safety Division		
NOI-5	The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and	During construction activities	City of Eastvale Building Safety Division		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	large bulldozers within 28 feet of the residential structure located at the western project boundary.				
Transportation					
~~TRA-1~~	~~Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.~~	~~Prior to the initiation of construction~~	~~City of Eastvale Traffic Engineer~~		
Tribal Cultural Resources					
TCR-1	Tribal Monitoring. Prior to the issuance of a grading permit, the project applicant shall contact the	Prior to the issuance of a grading permit	Project Applicant, City of Eastvale		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	consulting tribe(s) with notification of the proposed grading and shall make a good-faith effort, as determined by the City's Development Director, to enter into a Tribal Cultural Resources Monitoring Agreement with each tribe that determines its tribal cultural resources may be present on the site. The agreements shall include, but not be limited to, outlining provisions and requirements for addressing the handling of tribal cultural resources; Project grading and development scheduling; terms of compensation for the tribal monitors; and establishing on-site monitoring provisions and/or requirements for professional tribal monitors during all ground-disturbing activities. The terms of the agreements shall not conflict with any of these mitigation measures. A copy/copies of the agreement(s) shall be provided to the City of Eastvale Planning Department prior to the issuance of a grading permit.		Development Director		
TCR-2	Archaeological Monitoring. At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take	At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities	Project applicant, Secretary of Interior Standards-qualified,		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	place, the project applicant shall retain a Secretary of Interior Standards-qualified, Registered Professional Archaeologist (RPA), as an archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Ground-disturbing activities may include, but are not limited to, pavement removal, potholing or auguring, grubbing, weed abatement, boring, grading, excavation, drilling, and trenching. The on-site archaeological monitoring would end when the project site grading and excavation activities are completed, or when the monitor has indicated that the site has a low potential for archeological resources. The Project Registered Professional archaeologist, in consultation with consulting Tribe(s) identified above, and the developer, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site and provide the plan to the City for approval. Details in the plan shall include:		Registered Professional Archaeologist (RPA), and Tribal Monitor		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	A. Project grading and development scheduling. B. The development of a rotating or simultaneous schedule in coordination with the project applicant and the project archeologist for designated Native American tribal monitors from the consulting tribes during grading, excavation and ground-disturbing activities on the site. C. The safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists. D. The protocols and stipulations that the developer, tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.				
TCR-3	Treatment and Disposition of Cultural Resources. If tribal cultural resources are inadvertently discovered during ground disturbing activities for this project.	During ground- disturbing activities	Project Applicant, Tribal Monitor, Project Archaeologist,		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	The following procedures will be carried out for treatment and disposition of the discoveries: A. Temporary Curation and Storage. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process. B. Treatment and Final Disposition. The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City Planning Department with documentation of same: i. Reburial on-site. Accommodate the process for on-site reburial of the discovered items with the		City Planning Department		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed. ii. Curation. A curation agreement with an appropriate qualified repository within Riverside County that meets Federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation. iii. Disposition Dispute. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center. iv. Final Report. At the completion of grading, excavation and				

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall: o Document the impacts to the known resources on the property; o Describe how each mitigation measure was fulfilled; o Document the type of cultural resources recovered and the disposition of such resources; o Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; o In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. o All reports produced will be submitted to the City, Eastern Information Center and consulting tribes.				

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
TCR-4	Discovery of Human Remains. If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains. The following procedures as set forth in the California Environmental Quality Act (CEQA), Section 15064.5(e), the California Public Resources Code (PRC) (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall then be undertaken: If human remains or funerary/sacred items are encountered, the archaeological monitor or tribal monitor will halt work within the immediate area and any nearby area reasonably suspected to overlie adjacent remains, establish an Environmentally Sensitive Area (ESA) boundary to protect the find from impact, and immediately notify the City Archaeologist. Project work outside the established ESA may continue. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No	During ground-disturbing activities	Archaeological Monitor or Tribal Monitor		

Mitigation Measure	Timing	Monitoring		Date Completed	Signature
	further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, s/he shall notify the NAHC in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.				

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- David Christie, AICP, Planning Associate

Appendix A
2021 IS/MND

Appendix B
Noise Study

Appendix C-1
Trip Generation Analysis

Appendix C-2
Queuing Study

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

Chandler/Archibald Retail Development

Northwest Corner of Chandler Street and
Archibald Avenue
(PROJECT 19-20000)

Project Proponent:

Schneider REA / Eastvale LP

Lead Agency:

CITY OF EASTVALE
Planning Department
12363 Limonite Avenue, Suite 910
Eastvale, CA 91752

March 2021

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I. INTRODUCTION AND PROJECT DESCRIPTION

A.PURPOSE AND PROJECT OVERVIEW

The City of Eastvale is processing several land use entitlements including a General Plan Amendment, Zone Change, Major Development Review, multiple Conditional Use Permits (CUP), and Tentative Parcel Map, collectively referred to as PLN19-20000, for the development of a gas station/convenience store, a drive-through restaurant, and a fast casual restaurant on 2.71 acres on the northwest corner of Archibald Avenue and Chandler Street. The project will also include CUP applications for alcohol sales at the proposed convenience store and casual dining restaurant. PLN19-20000 is further described in Section I.C, below.

This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA; California Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.).

B.PROJECT LOCATION AND DESCRIPTION OF SURROUNDING AREA

The project site is located in the City of Eastvale on the northwest corner of Archibald Avenue and Chandler Street. The project site consists of four parcels, identified as Assessor Parcel Numbers 144-13-04, -11, -12, -13. The project site is currently vacant with no existing structures. The regional and local vicinity of the project site are shown in ***Exhibit 1, Regional Vicinity*****,** and ***Exhibit 2, Project Location***.

The project site is currently designated by the Eastvale General Plan as Low Density Residential (LDR) and is bounded by LDR to the west and Medium Density Residential (MDR) to the north and south, and Medium High Density Residential (MHDR) to the east. Refer to ***Exhibit 3, Land Use Map***. Land uses to the north, south, and east have been fully developed with single-family residential neighborhoods consistent with their respective permitted densities and complete with right of way improvements such as sidewalks, lighting, and landscaping. Parcels to the west of the project site are developed with single-family residential dwellings, consistent with the General Plan land use designation of LDR. Properties along Chandler Street have been partially improved with an asphalt sidewalk and limited lighting; there is no parkway landscaping.

The project site and parcels to the west along Chandler Street are zoned Light Agriculture (A-1). The neighborhood to the north is zoned One-Family Dwellings (R-1), the neighborhood to the east is classified as a Specific Plan (SP), and the neighborhood to the south is classified as a Planned Residential Development (PRD). Refer to ***Exhibit 4, Zoning Map*** and ***Section III.9, Surrounding Land Use Designations and Zoning***, below.

C.PROJECT DESCRIPTION

The project, identified as PLN19-20000, consists of six discretionary permits to allow the proposed development of a gas station with convenience store, a drive-through restaurant, and a fast-casual restaurant. The entitlements are discussed individually in the bulleted list below and illustrated in ***Exhibit 5, Conceptual Site Plan*****.**

- **General Plan Amendment** on 2.71 acres to change the land use designation from Low Density Residential (LDR) to Commercial Retail (CR) to facilitate a proposed change of zone.
- **Change of Zone** on 2.71 acres from Light Agricultural (A-1) to General Commercial (C-1/C-P).
- **Conditional Use Permit** for the operation of a drive-through fast food restaurant.
- **Conditional Use Permit** for development and operation of a gas station and convenience store with the off-sale of beer and wine (ABC License Type 20).
- **Conditional Use Permit** for the on-sale of general alcohol in conjunction with a restaurant. (ABC License Type 47).
- **Major Development Review** for the development of:
  - A 3,700-square-foot convenience store with a 3,144-square-foot 10-fueling position gas station
  - A 4,456-square-foot drive-through restaurant
  - A 3,500-square-foot fast casual restaurant
- **Tentative Parcel Map** to subdivide the 2.71 net acres into three parcels: one parcel for each proposed land use: the gas station, drive-through, and fast casual restaurant.

Additionally, the project involves grading of the project site, and the installation of right-of-way improvements, including sidewalk, street lighting, and parkway landscaping.

Development Concept

Between the three proposed buildings and fuel canopy, the total building area for the project would be 14,800 square feet with a building coverage (floor area ratio) of 12.5 percent. The maximum building height would be 50 feet. The project would be constructed to conform with Chapter 5, *Development Standards*, of the City's Zoning Code and the City's adopted *Design Standards and Guidelines*, which include design standards related to building size, height, setback, and materials, as well as landscaping, signage, and other considerations. Refer to ***Appendix 1, Architectural Plan Set***.

Utilities

The following utilities/infrastructure systems and services are available to the project. Refer to ***Appendix 2, Preliminary Water and Sewer Plan*** and ***Appendix 3, Preliminary Grading and Drainage Plan***.

- *Water and Sewer*. Water and sewer services would be provided to the project by the Jurupa Community Services District (JCSD).
- *Drainage*. The drainage system that would serve the project site is under the jurisdiction of Riverside County in accordance with the County's Master Drainage Plan (MDP).
- *Dry Utilities*. Electricity and natural gas services would be provided by Southern California

Edison (SCE) and Southern California Gas Company (SoCalGas), respectively.

Access and Circulation

All project access and circulation improvements would be designed and constructed consistent with City design and engineering standards. Roadways adjacent to the project, site access points, and site-adjacent intersections would be constructed consistent with the identified roadway classifications and respective cross-sections in the City of Eastvale General Plan Circulation Plan. Specifically, the project would provide three restricted access driveways. Two right-turn in/out only driveways are proposed at Archibald Avenue and one right-turn in/out only driveway is proposed at Chandler Street. Refer to ***Appendix 4, Preliminary Street Improvement Plan***.

Parking

The project would include a total of 104 parking stalls, which would exceed the City's minimum parking requirement of 78 parking stalls, in accordance with Chapter 5, *Development Standards*, of the City's Zoning Code. Of the 104 parking stalls, 5 parking stalls would be designated for accessible parking and 11 parking stalls would be designated for clean air vehicle parking. All clean air vehicle parking stalls would be provided with infrastructure for the addition of future electric vehicle charging stations. A total of 8 parking stalls would be designated as future electric vehicle charging station stalls and would be constructed to meet current accessibility standards along accessible routes or have the ability to be modified without affecting required parking space quantities. Refer to ***Exhibit 5, Conceptual Site Plan*****.**

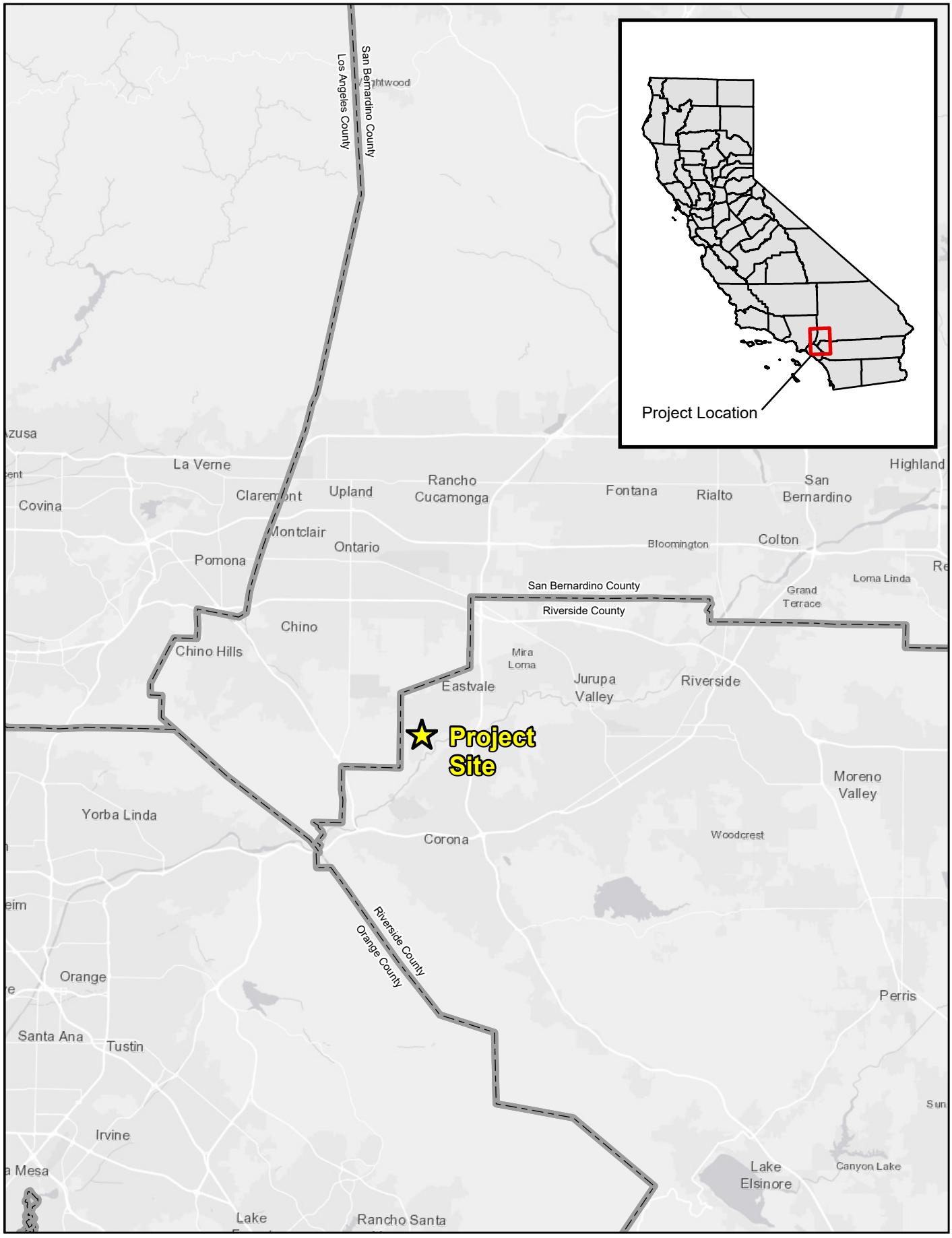
Landscaping

Ornamental water-efficient landscaping, including a variety of trees, shrubs, and vines, would be installed throughout the project site. Planting materials would be selected in accordance with Chapter 5, *Development Standards*, of the City's Zoning Code and the City's adopted *Design Standards and Guidelines.* Of the total 117,986-square-foot project site area, the total landscape coverage would be 25,654 square feet, equating to 21.7 percent of the project site. Refer to ***Appendix 5, Conceptual Landscape Plan*****.**

Project Construction and Phasing

The project would be constructed in a single phase. Construction is estimated to occur in mid 2021 with operation planned for early 2022.

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0 2.5 5 Miles

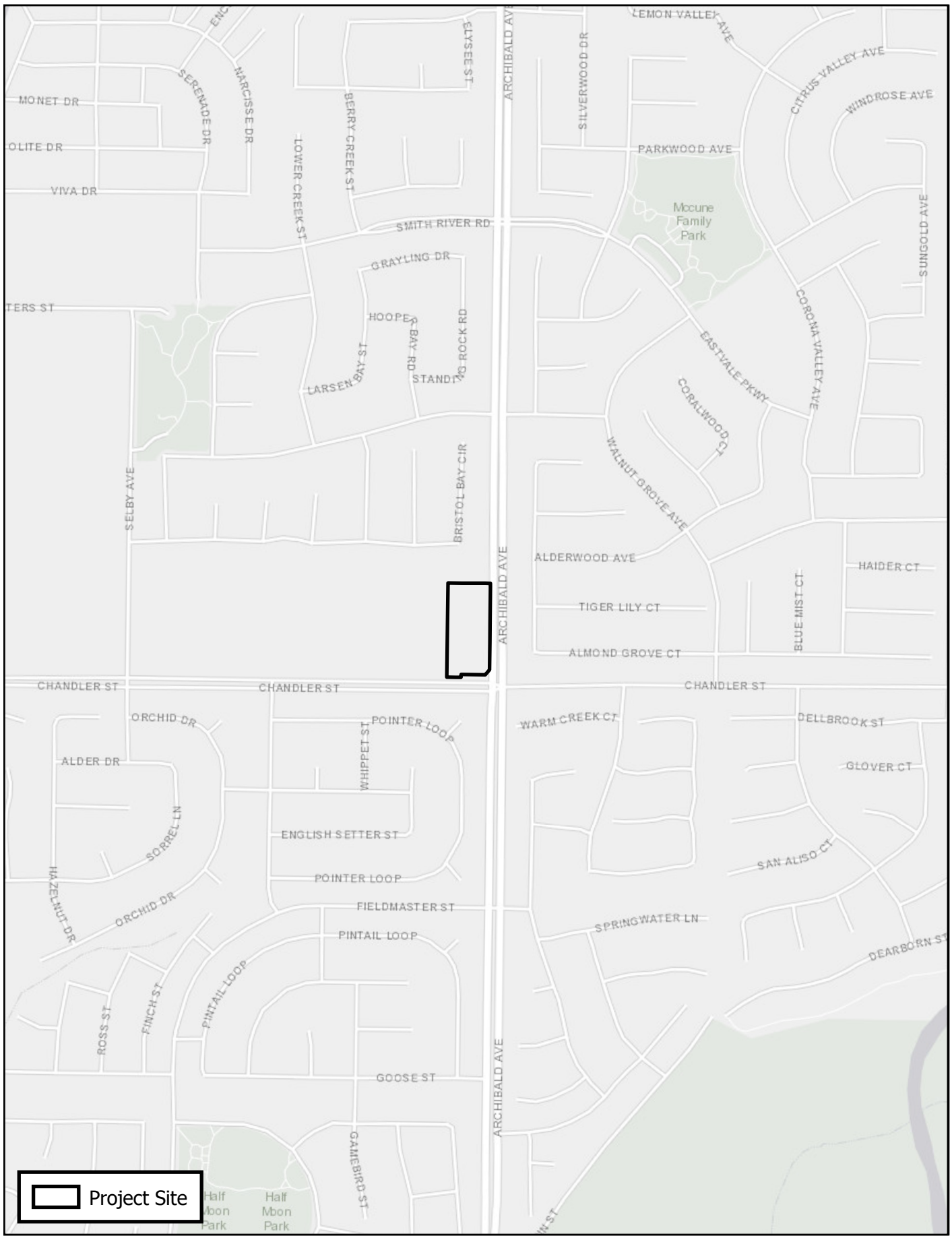
Source: ESRI

CITY OF EASTVALE ISMND PLN 19-2000

Regional Vicinity

Exhibit 1

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0 500 1,000 Feet

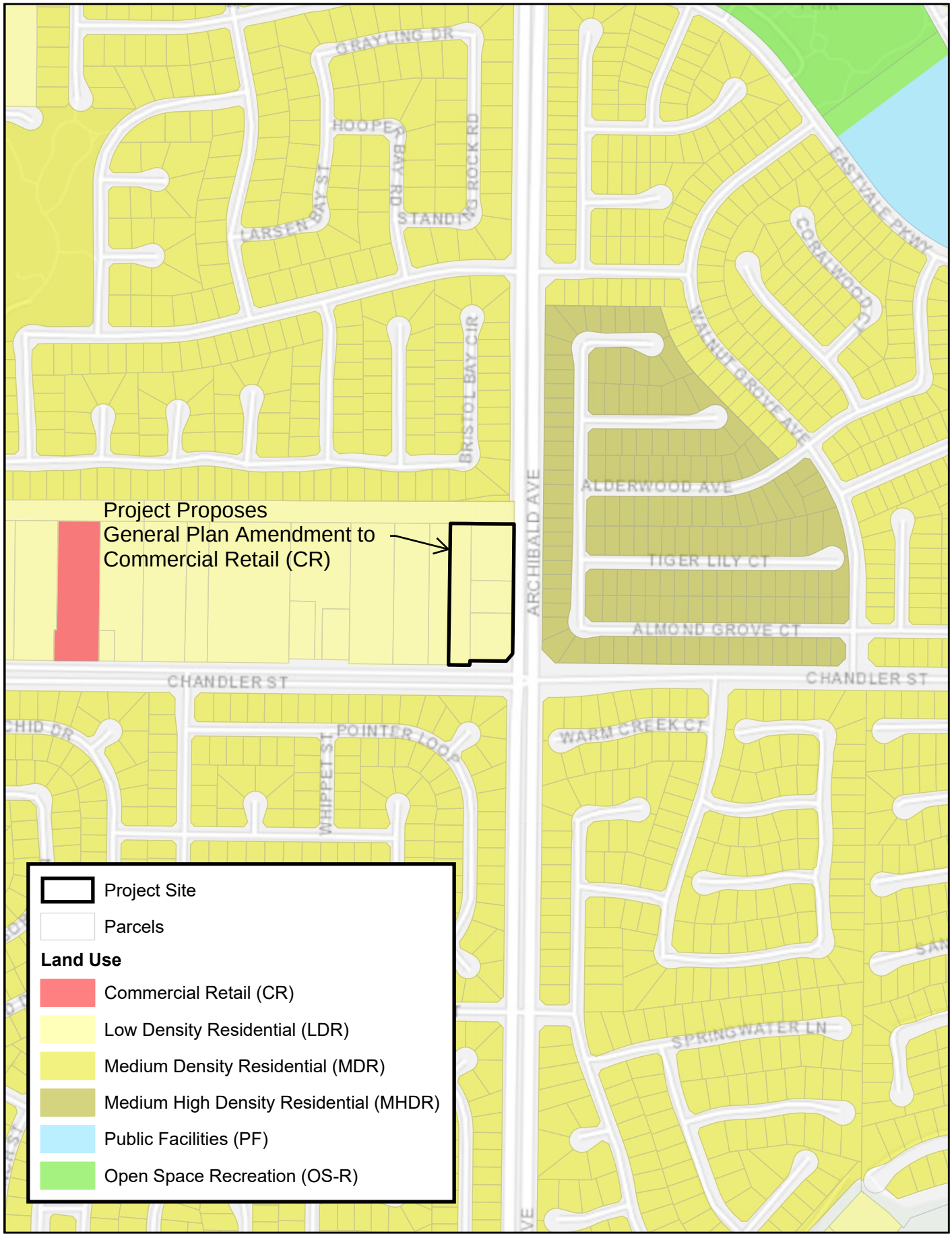
Source: ESRI, Riverside County

CITY OF EASTVALE ISMND PLN 19-2000

Project Location

Exhibit 2

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0 250 500 Feet

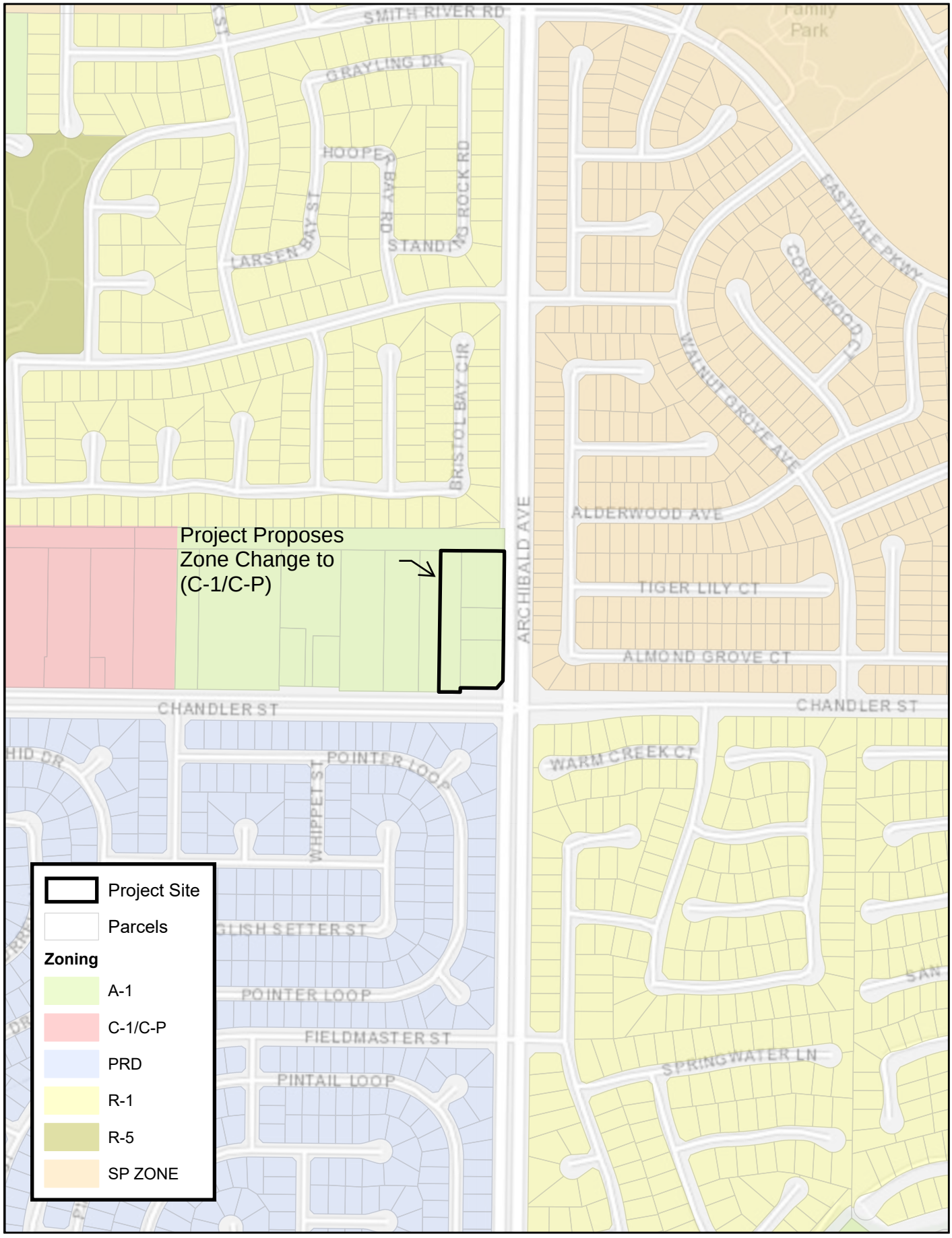
Source: ESRI, City of Eastvale

CITY OF EASTVALE ISMND PLN 19-2000

Land Use Map

Exhibit 3

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0 250 500 Feet

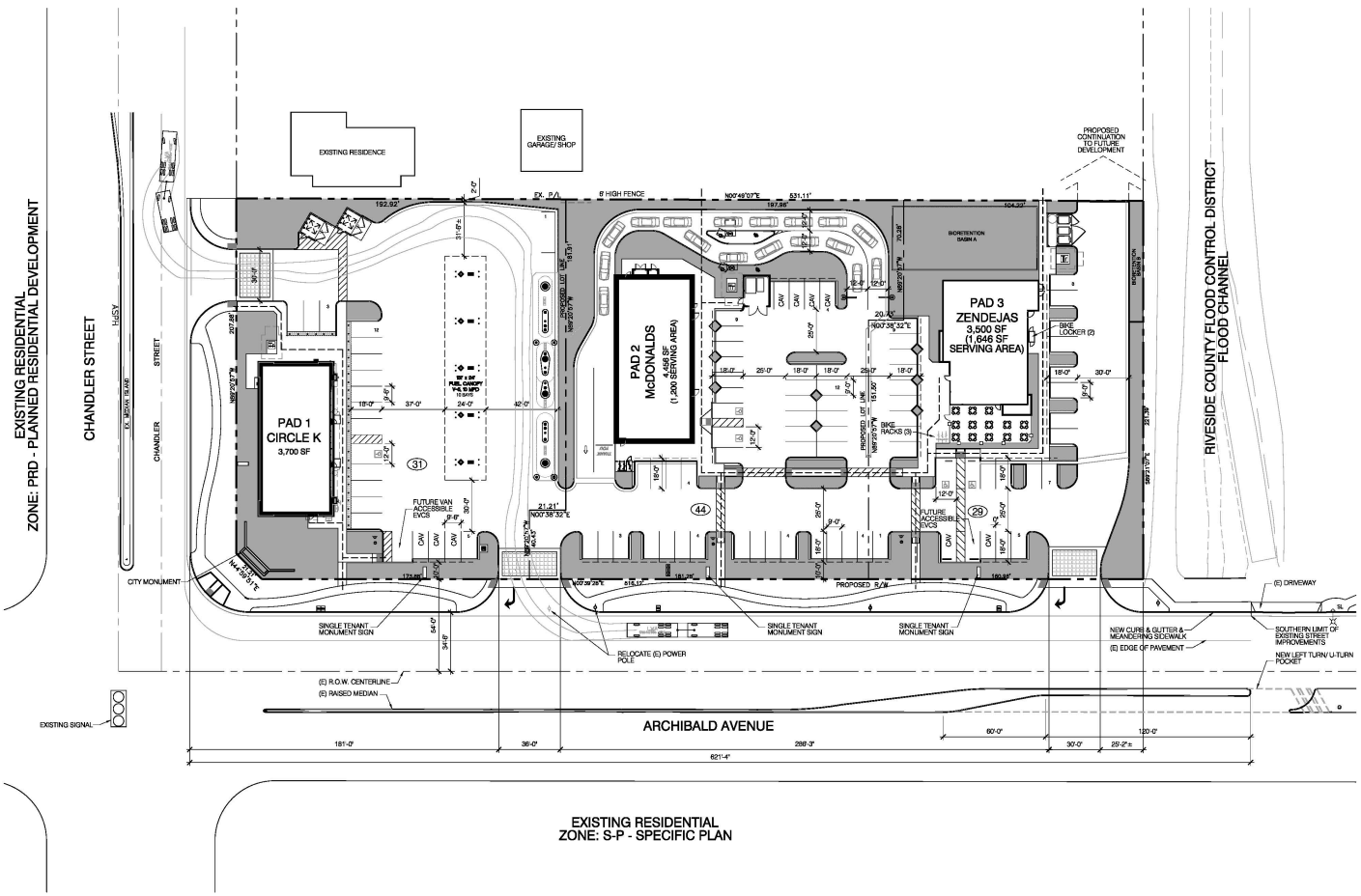
Source: ESRI, City of Eastvale

CITY OF EASTVALE ISMND PLN 19-2000

Zoning Map

Exhibit 4

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PARKING

REQUIRED PARKING:

RETAIL (1,200): DRIVE-THRU RESTAURANT: (1:45 SERVING AREA- 1,200 SF) RESTAURANT: (1:45 SERVING AREA- 1,646 SF)	14 STALLS 27 STALLS 37 STALLS
TOTAL PARKING REQUIRED:	78 STALLS
TOTAL PARKING PROVIDED: (INCLUDES FUELING CANOPY)	104 STALLS

ACCESSIBLE PARKING

2019 CBC
TABLE 11B-208.2

TOTAL NUMBER OF PARKING SPACES PROVIDED	TOTAL NUMBER OF ACCESSIBLE SPACES
1- 25	1
26- 50	2
51- 75	3
76- 100	4
101- 150	5
151- 200	6
201- 300	7
301- 400	8
401- 500	9
501- 1,000	2 PERCENT OF TOTAL
1,001 AND OVER	20 PLUS 1/100 OVER 1,000

TOTAL PARKING PROVIDED:	104 STALLS
TOTAL ACCESSIBLE SPACES REQUIRED:	5 STALLS
VAN ACCESSIBLE REQ'D (SEC.11B-208.2.4)	2 OF TOTAL REQ'D
ACCESSIBLE SPACES PROVIDED: STANDARD STALL: VAN ACCESSIBLE STALLS:	 2 STALLS 3 STALLS
TOTAL ACCESSIBLE SPACES PROVIDED:	5 STALLS

CLEAN AIR VEHICLE PARKING

2019 CAL GREEN
TABLE 5.106.5.2

TOTAL NUMBER OF PARKING SPACES	TOTAL NUMBER OF PARKING SPACES
0- 9	0
10- 25	1
26- 50	3
51- 75	6
76- 100	8
101- 150	11
151- 200	16
201 AND OVER	8 PERCENT OF TOTAL

TOTAL PARKING PROVIDED:	104 STALLS
TOTAL CAV PARKING REQUIRED:	11 STALLS
TOTAL CAV PARKING PROVIDED:	**11 STALLS

**(CALGREEN 5.106.5.3.3, FUTURE EVCS SPACES QUALIFY AS DESIGNATED PARKING FOR CLEAN AIR VEHICLES)

FUTURE ELECTRICAL VEHICLE CHARGING STATIONS

2019 CAL GREEN
TABLE 5.106.5.3.3

TOTAL NUMBER OF PARKING SPACES	TOTAL NUMBER OF EVCS SPACES
0- 9	0
10- 25	1
26- 50	2
51- 75	4
76- 100	5
101- 150	7
151- 200	10
201 AND OVER	6 PERCENT OF TOTAL

2019 CBC
TABLE 11B-228.3.2.1

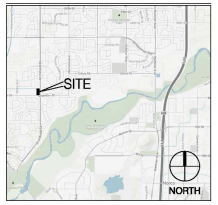
TOTAL NUMBER OF EVCS AT A FACILITY	VAN ACCESSIBLE	STANDARD ACCESSIBLE	AMBULATORY
1- 4	1	0	0
5-25	1	1	0
26- 50	1	1	1
51- 75	1	2	2
76- 100	1	3	3
101 AND OVER	1 + 1/300 OVER 100	3 + 1/150 OVER 100	1 + 1/150 OVER 100

TOTAL PARKING PROVIDED:	92 STALLS
FUTURE EVCS SPACES REQUIRED:	5 STALLS
FUTURE ACCESSIBLE SPACES REQ'D (OF TOTAL): VAN ACCESSIBLE: STANDARD ACCESSIBLE: AMBULATORY:	 1 STALL 1 STALL 0 STALLS
FUTURE EVCS SPACES PROVIDED: FUTURE STANDARD EVCS SPACES: FUTURE VAN ACCESSIBLE EVCS: FUTURE STANDARD ACCESSIBLE EVCS: FUTURE AMBULATORY EVCS:	 6 STALLS 1 STALLS 1 STALLS 0 STALLS
TOTAL FUTURE EVCS SPACES PROVIDED:	8 STALLS

FUTURE EVCS NOTES:

1. ALL CLEAN AIR VEHICLE PARKING SPACES SHALL BE PROVIDED WITH INFRASTRUCTURE FOR THE ADDITION OF FUTURE ELECTRIC VEHICLE CHARGING STATIONS.
2. FUTURE ACCESSIBLE EVCS STALLS SHALL BE CONSTRUCTED TO MEET CURRENT ACCESSIBILITY STANDARDS ALONG ACCESSIBLE ROUTES OR, HAVE THE ABILITY TO BE MODIFIED WITHOUT AFFECTING REQUIRED PARKING SPACE QUANTITIES.

VICINITY



ZONING

GENERAL PLAN:	LOW DENSITY RESIDENTIAL PROPOSED: COMMERCIAL RETAIL
ZONING:	A-1 LIGHT AGRICULTURE PROPOSED: C-1/ C-P GENERAL COMMERCIAL
SETBACKS: FRONT: SIDE: SIDE (ADJ. TO STREET): REAR (ADJ. TO RESIDENTIAL ZONE):	 10' 0' 10' 0'
MAXIMUM BUILDING HEIGHT:	50'
MAXIMUM BUILDING COVERAGE:	%

PROJECT SUMMARY

LAND AREA:	2.71 AC (117,986 SF ±)
RETAIL: FUELING CANOPY: DRIVE-THRU RESTAURANT: RESTAURANT:	3,700 SF 3,144 SF 4,456 SF 3,500 SF
TOTAL BUILDING AREA:	14,800 SF
BUILDING COVERAGE (F.A.R.):	12.5%

LEGEND & SYMBOLS

VAN	VAN ACCESSIBLE PARKING SPACE
CAV	CLEAN AIR VEHICLE PARKING SPACE- SPACES SHALL BE IDENTIFIED IN "2" LETTERING, "CLEAN AIR/ VAN POOL/ EV" PER 2019 CAL GREEN S. 106.5.2.1 SUCH THAT THE LOWER EDGE OF THE LAST WORD ALIGNS WITH THE END OF THE STALL STRIPING.
EVCS	FUTURE ELECTRICAL VEHICLE CHARGING PARKING SPACE
DDC	DOUBLE DETECTOR CHECK VALVE- REF: CIVIL DRAWINGS
FDC	FIRE DEPARTMENT CONNECTION- REF: CIVIL DRAWINGS
FH	FIRE HYDRANT- REF: CIVIL DRAWINGS PROVIDE BLUE REFLECTOR @ CL DRIVEWAY PER FIRE DEPT REQUIREMENTS
GM	GAS METER LOCATION- REF: PLUMBING & GAS UTILITY DRAWINGS
PIV	POST INDICATOR VALVE- REF: CIVIL DRAWINGS
R	RECYCLE DUMPSTER
T	TRASH DUMPSTER
TR	TRANSFORMER- REF ELECTRICAL UTILITY DRAWINGS
WM	WATER METER- REF: CIVIL DRAWINGS
SS	STOP SIGN
AP	ACCESSIBLE PATH SIGN
SE	SITE ENTRANCE SIGN
	ACCESSIBLE PEDESTRIAN PATHWAY

NOTE:
BUILDING AREAS AND LAND COVERAGE ARE PRELIMINARY AND SUBJECT TO ADJUSTMENT. ANY PROPOSED DEVELOPMENT IS SUBJECT TO APPROVAL OF GOVERNMENT OR OTHER AGENCIES HAVING JURISDICTION. ALL DIMENSIONS AND SITE CONDITIONS ARE SUBJECT TO VERIFICATION.

CONCEPTUAL SITE PLAN
SCHEME Gv6
NWC ARCHIBALD & CHANDLER — EASTVALE, CA
GKPA PROJECT #18114.01
21 DECEMBER 2021

0 15' 30' 60'
SCALE: 1" = 30.00'
NORTH

NWC ARCHIBALD & CHANDLER
EASTVALE, CALIFORNIA

EASTVALE LP
c/o SCHNEIDER REA
1257 W. COLTON
REDLANDS, CA 92374
909.363.4698

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3 OVERTURE
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T 949.344.2710
F 949.344.2720

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Michael Baker INTERNATIONAL

NOT TO SCALE

Source: GK Pierce Architects

CITY OF EASTVALE ISMND PLN 19-2000

Conceptual Site Plan

Exhibit 5

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II. ENVIRONMENTAL SETTING

A.Regulatory Setting

The Eastvale General Plan was adopted in 2012 and can be found on the City's website at https://www.eastvaleca.gov/home/showdocument?id=2360.

The City's Zoning Code was adopted in 2013 and can be found on the City's municipal code hosting website at https://library.municode.com/ca/eastvale/codes/code_of_ordinances?nodeId= PTBLADECO. The Zoning Code is located under Part B of the Municipal Code.

The Chandler Area Community Vision Plan (CAVP), adopted in May 2015, is a summary of the outcome of the community's visioning process and identifies priorities and programs that the City, landowners, and residents can spearhead to preserve or improve the community. The CAVP is a guide for decision-making in the Chandler Area and does not change the General Plan land use designation or zoning for any properties. The CAVP is not codified and is used solely for guidance when considering land use/zoning changes, and other discretionary actions related to development within the Chandler Area. A copy of the CAVP is available at https://www.eastvaleca.gov/home/showdocument?id=4205.

B.Physical Setting

The project site consists of 2.71 acres on the northwest corner of Archibald Avenue and Chandler Street. Archibald Avenue is identified as an Urban Arterial and Chandler Street is identified as an Arterial in the General Plan and this intersection is the southernmost intersection of two arterials in the City. The project site presently consists of four parcels, all of which are vacant. All parcels have street frontage on either Chandler Street or Archibald Avenue though limited improvements exist within the right-of-way. An asphalt sidewalk exists across all parcels and two streetlights are installed on the northwest corner of Archibald Avenue and Chandler Street.

The topography of the project site is relatively flat and slopes gently to the west. There are no water courses or bodies of water on the project site. Immediately north of the project is an open storm drain channel that runs parallel to Chandler Street until it discharges into Cucamonga Creek.

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III. ENVIRONMENTAL CHECKLIST FORM

A.Project Information

1.	**Project Title:**	PLN19-20000
2.	**Lead Agency Name and Address**	CITY OF EASTVALE Planning Department 12363 Limonite Avenue, Suite 910 Eastvale, CA 91752
3.	**Contact Person and Phone Number**	Shawnika Johnson, Contract Planner (951) 361-0900
4.	**Project Location**	Northwest corner of Archibald Avenue and Chandler Street. Assessor Parcel Numbers 144-13-04, -11, -12, -13
5.	**Project Sponsor Name and Address**	Schneider REA Al Steward 1257 W. Colton Avenue Redlands, CA 92374
6.	**General Plan Designation Existing**	LDR, Low Density Residential
	General Plan Designation Proposed	CR, Commercial Retail
7.	**Zoning Existing**	A-1, Light Agriculture
	Zoning Proposed	C-1/C-P General Commercial
8.	**Description of Project**	The project would change the General Plan from LDR to CR; change the zone from A-1 to C-1/C-P; and construct a gas station with convenience store, a drive-through fast food restaurant, and a fast casual dine-in restaurant on 2.71 acres.

9.	**Surrounding Land Use Designations and Zoning**		
	North	Land Use Designation	MDR, Medium Density Residential
		Zoning	R-1, One-Family Dwellings
	East	Land Use Designation	MDHR, Medium High Density Residential
		Zoning	SP, Specific Plan
	South	Land Use Designation	MDR, Medium Density Residential
		Zoning	PRD, Planned Residential Development
	West	Land Use Designation	LDR, Low Density Residential
		Zoning	A-1, Light Agriculture
10.	**Other Required Public Agency Approvals**		
	• Jurupa Community Service Department – Water and wastewater connection permits		
	• Santa Ana Regional Water Quality Control Board – Water Quality Management Plan (WQMP) Approval		
	• State Water Resources Control Board – Stormwater Pollution Prevention Plan (SWPPP) Approval		
11.	**Have California Native American Tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3? If so, has consultation begun?**		
	Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File based on Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality. The City has established a Tribal Historic Preservation Office (THPO) contact list pursuant to Public Resources Code Section 21080.3. The City has distributed letters to applicable THPOs on the City's contact list, providing initial information about the project and inviting consultation. See Section IV.18, Tribal Cultural Resources, of this Initial Study for additional information.		

B.Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact requiring mitigation to be reduced to a level that is less than significant as indicated in the checklist on the following pages.

☐ Aesthetics	☒ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture and Forestry Resources	☒ Hazards and Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology and Water Quality	☒ Transportation
☒ Biological Resources	☐ Land Use and Planning	☒ Tribal Cultural Resources
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☐ Energy	☒ Noise	☐ Wildfire
☐ Geology and Soils	☐ Population and Housing	☐ Mandatory Findings of Significance

C.Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because of the incorporated mitigation measures and revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

City Representative

Gina Gibson-Williams,
Community Development Director

Date

IV. ENVIRONMENTAL ANALYSIS

1. AESTHETICS. Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?			X	
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
e)	Interfere with the nighttime use of the Palomar Observatory, as protected through the Palomar Observatory Lighting Ordinance?				X

DISCUSSION

1(a) Have a substantial adverse effect on a scenic vista?

Determination: Less Than Significant Impact.

According to the City's General Plan, the Santa Ana River corridor is an important resource of scenic beauty. The project site is located approximately 0.6 miles northwest of the Santa Ana River corridor. Views of the Santa Ana River are not afforded from the project site due to intervening topography, structures, and vegetation. Thus, the project would not have a substantial adverse effect on a scenic vista in this regard and impacts would be less than significant.

1(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Determination: No Impact.

There are no officially designated State scenic highways in the City. The nearest scenic highway is State Route 91 (SR-91) (designated as eligible for listing), which is located 4.4 miles south of the project site.[1] Views of the project site are not afforded from SR-91 due to intervening

[1] California Department of Transportation. 2019. List of Eligible and Officially Designated State Scenic

topography, structures, and vegetation. Thus, the project would not substantially damage scenic resources within a State scenic highway. No impact would occur in this regard.

1(c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Determination: Less Than Significant Impact.

The topography of the project site is relatively flat and slopes gently to the west. The project site consists of four parcels, all of which are currently vacant and contain no structures. All parcels have street frontage on either Chandler Street or Archibald Avenue. An asphalt sidewalk exists across all parcels and two streetlights are installed on the northwest corner of Archibald Avenue and Chandler Street. The existing visual quality of the project site and surrounding area is low-moderate due to the urbanized setting of the project vicinity and lack of scenic resources (refer to Responses IV.1(a) and (b)).

The proposed project includes the development of a gas station with convenience store, a drive-through restaurant, and a fast casual restaurant, and involve the grading of the project site and the installation of right-of-way improvements, including sidewalk, street lighting, and parkway landscaping. The design of the project would adhere to the requirements of General Plan Policy DE-37, which states that when more than one structure is on a commercial or other nonresidential site, they should be linked visually through architectural style, colors and materials, signage, landscaping, design details such as light fixtures, and the use of arcades, trellises, or other open structures. Consistent with General Plan Policy DE-34, project design would also provide variation in color and materials to present aesthetically pleasing buildings and project features. The project design would also adhere to General Plan Policy DE-46, which states that security fencing shall be incorporated into the visual/architectural design of the project and be complementary to surrounding uses.

While project implementation would change the visual quality of the site and its surroundings, the proposed project would not degrade the visual quality of the project area because the proposed project is consistent with the surrounding development. With adherence to the City's design policies and goals, impacts would be less than significant.

1(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Determination: Less Than Significant Impact.

As the project is located in an urbanized area, existing sources of light and glare typically come from vehicles traveling on Archibald Avenue and Chandler Street, streetlights, exterior lighting on surrounding buildings, and reflection from windows and roofs on the surrounding residential

Highways. Updated July 2019.

and commercial buildings.

Construction

Construction of the project would be restricted to the City's permitted construction hours in accordance with Eastvale Municipal Code Chapter 8.52, *Noise Regulation*, Section 8.52.020, *Exemptions*. Construction would be prohibited between 6:00 PM and 6:00 AM during the months of June through September and 6:00 PM and 7:00 AM during the months of October through May. Although some lighting may be required in the early morning or late evening, the lighting would be minimal and consistent with the surrounding residential and commercial uses as well as the lights from the traffic along Archibald Avenue and Chandler Street. Therefore, no adverse light or glare impacts to adjacent properties would result from temporary construction activities.

Operation

Project operations would create new light sources from interior and exterior illumination associated with building materials, windows, exterior lighting, and security lighting. Interior and exterior lighting would conform to California Green (CALGreen) Building Standards Code and Eastvale Municipal Code requirements. All outdoor lighting would be automatic and programmable to turn on at certain times as necessary as well as adjustable to dim the light intensity between 40 percent and 80 percent to meet the efficiency requirements of California's Building Energy Efficiency Standards (Title 24, Parts 6 and 11).

Although the project would increase light and glare in the surrounding area, light and glare produced on-site would be similar to that of the surrounding commercial and residential properties. Adherence to state and local standards and regulations would reduce impacts to a less than significant level. Impacts would be less than significant.

1(e) Interfere with the nighttime use of the Palomar Observatory, as protected through the Palomar Observatory Lighting Ordinance?

Determination: No Impact.

The Palomar Observatory, located atop Palomar Mountain in north San Diego County, is a center for astronomical research and is home to three active research telescopes. Light pollution obstructs visibility and reduces the effectiveness of the telescopes. As such, Riverside County implemented Lighting Ordinance No. 655, which regulates lighting from development within 45 miles of the Palomar Observatory to reduce light and glare. The project site is located approximately 58 miles northwest of the Palomar Observatory. Therefore, implementation of the proposed project would result in no impacts to the Palomar Observatory.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

2. AGRICULTURE AND FORESTRY RESOURCES					
Issues		**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the proposed project:**					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?				X
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c)	Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d)	Result in the loss of forestland or conversion of forestland to non-forest use?				X
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use?			X	

DISCUSSION

2(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

Determination: No Impact.

According to the Department of Conservation's (DOC) California Important Farmland Finder Map, the proposed project and surrounding areas are designated as Urban and Built-Up Land.[2] Therefore, although the project site currently supports limited agricultural uses, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use. No impact would occur in this regard.

2(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Determination: Less Than Significant Impact.

The project site is zoned Light Agriculture (A-1) and is proposed to be rezoned to General Commercial (C-1/C-P); refer to ***Exhibit 4, Zoning Map***. The project site is vacant with no agricultural operations occurring. Further, the project site is not covered under an existing Williamson Act contract. Thus, impacts related to conflicting with existing zoning for agricultural use or a Williamson Act contract would be less than significant.

2(c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timber and zoned Timberland Production (as defined by Government Code Section 51104(g))?

Determination: No Impact.

The project site is zoned A-1 and is not occupied or used for forestland or timberland. Further, project implementation would not conflict with existing zoning or result in the rezoning of forestland, timberland, or timberland zoned Timberland Production. No impact would occur.

2(d) Result in the loss of forestland or conversion of forestland to non-forest use?

Determination: No Impact.

Refer to Response IV.2(c). No impact would occur in this regard.

[2] California Department of Conservation. n.d. Important Farmland Finder website. Accessed June 25, 2020. https://www.conservation.ca.gov/dlrp/fmmp.

2(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use?

Determination: Less Than Significant Impact.

Refer to Responses IV.2(a) through IV.2(d). Less than significant impacts would occur in this regard.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

3. AIR QUALITY. Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?			X	
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c)	Expose sensitive receptors to substantial pollutant concentrations?			X	
d)	Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			X	

The analysis and findings throughout this section are based on the *Archibald at Chandler Commercial Project Air Quality, Global Climate Change, TAC and Energy Impact Analysis* (Air Quality, Global Climate Change, TAC and Energy Impact Analysis), prepared by Ganddini Group, Inc. and dated November 18, 2020, provided as **Appendix 6** of this IS/MND.

DISCUSSION

3(a) Conflict with or obstruct implementation of the applicable air quality plan?

Determination: Less Than Significant Impact.

The city is located within the South Coast Air Basin (SCAB). The South Coast Air Quality Management District (SCAQMD) has jurisdiction in the SCAB, which has a history of recorded air quality violations and is an area where both state and federal ambient air quality standards are exceeded. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of the air pollutants for which the SCAB is in nonattainment.

In order to reduce emissions, the SCAQMD adopted the *2016 Air Quality Management Plan* (AQMP), which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving state and federal air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the US Environmental Protection Agency (EPA).

The 2016 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The SCAQMD considers projects that are consistent with the AQMP, which is intended to bring the SCAB into attainment for all criteria pollutants, to also have less than significant cumulative impacts.

A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

1. Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

2. Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Criteria 1: Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in the Air Quality, Global Climate Change, TAC and Energy Impact Analysis, short-term construction impacts would not result in significant impacts based on the SCAQMD regional and local thresholds of significance. The Air Quality, Global Climate Change, TAC and Energy Impact Analysis also found that long-term operations impacts would not result in significant impacts based on the SCAQMD local and regional thresholds of significance; refer to Responses IV.3(b) and IV.3(c).

Therefore, the proposed project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

Criteria 2: Exceed Assumptions in the AQMP?

Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends, and the 2016 AQMP addresses cumulative impacts in the Basin based on growth projections in the SCAG RTP/SCS. SCAG utilizes growth projections from local jurisdictions' adopted general plans; therefore, development consistent with the applicable general plan would be generally consistent with the growth projections in the 2016 AQMP. For this project, the City of Eastvale General Plan Land Use Map defines the assumptions that are represented in the AQMP.

The project site is currently designated as Low Density Residential (LDR) on the General Plan Land Use Map. The proposed project includes a General Plan Amendment from Low Density Residential (LDR) to Commercial Retail (CR) and a Change of Zone from Light Agriculture (A-1) to General Commercial (C-1/C-P). Therefore, the proposed project is not currently consistent with the existing land use and zoning. However, upon approval of the General Plan Amendment and Change of Zone, the project would be consistent with the General Plan land use and zoning designations. Although the project may initially result in an inconsistency with the AQMP, the inconsistency would not necessarily constitute a conflict with the AQMP. Because the land use and zoning would be changed from residential to commercial, the project would not be expected to result in population growth beyond that assumed in the AQMP assumptions.

The SCAQMD acknowledges that strict consistency with all aspects of the AQMP is not required in order to make a finding of no conflict. Rather, a project is considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The project would implement contemporary energy-efficient technologies and regulatory/operational programs required per Title 24 (specifically CalGreen) and City standards. Generally, compliance with SCAQMD emissions reductions and control requirements also act to reduce project air pollutant emissions. In combination, project emissions-reducing design features and regulatory/operational programs are consistent with and support overarching AQMP air pollution reduction strategies. Project support of these strategies promotes timely attainment of AQMP air quality standards and would bring the project into conformance with the AQMP. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the analysis above, the proposed project would not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact would occur.

3(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Determination: Less Than Significant Impact.

Short-Term Construction Impacts

Short-term project-related construction activities would have the potential to generate air emissions. The construction-related criteria pollutant emissions for each phase are shown below in ***Table 3.1, Construction-Related Regional SCAQMD Emissions***. As shown in ***Table 3.1***, none of the project's short-term construction emissions would exceed SCAQMD thresholds. Therefore, construction-related air quality impacts would be less than significant.

Table 3.1:Construction-Related SCAQMD Pollutant Emissions

Activity		Pollutant Emissions (pounds/day)[4]					
		ROG	NOx	CO	SO_2	PM10	PM2.5
Grading	On-site[1]	1.83	20.21	9.76	0.02	3.47	2.16
	Off-site[2]	0.09	1.85	0.61	0.01	0.26	0.08
	Subtotal	1.92	22.07	10.37	0.03	3.74	2.23
Building Construction	On-site[1]	2.19	17.45	16.26	0.03	0.90	0.86
	Off-site[2]	0.28	1.89	2.13	0.01	0.68	0.19
	Subtotal	2.46	19.34	18.38	0.04	1.58	1.05
Paving	On-site[1]	1.38	9.33	11.70	0.02	0.49	0.45
	Off-site[2]	0.07	0.04	0.51	0.00	0.17	0.05
	Subtotal	1.45	9.37	12.21	0.02	0.66	0.50
Architectural Coating	On-site[1]	8.54	1.41	1.81	0.00	0.08	0.08
	Off-site[2]	0.04	0.03	0.34	0.00	0.11	0.03
	Subtotal	8.59	1.43	2.15	0.00	0.19	0.11
Total for Overlapping Phases[3]		12.50	30.14	32.75	0.06	2.43	1.65
SCAQMD Thresholds		75	100	550	150	150	55
Exceeds Thresholds?		No	No	No	No	No	No

Notes:
Source: Ganddini Group, Inc. Air Quality, Global Climate Change, TAC and Energy Impact Analysis, November 18, 2020, Table 6 (CalEEMod Version 2016.3.2)
(1) On-site emissions from equipment operated on-site that is not operated on public roads. On-site grading and site preparation PM10 and PM2.5 emissions show mitigated values for fugitive dust for compliance with SCAQMD Rule 403.
(2) Off-site emissions from equipment operated on public roads.
(3) Construction, painting and paving phases may overlap.
(4) ROG = reactive organic gases; NOx = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM10 = particles that are less than 10 micrometers in diameter; PM2.5 = particles that are less than 2.5 micrometers in diameter.

Long-Term Operational Impacts

Long-term air quality impacts would consist of mobile source emissions generated from project-related traffic, and emissions from stationary area and energy sources. Emissions from each source are discussed in more detail below.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips from the Traffic Impact Analysis into the CalEEMod model. The Traffic Impact Analysis found that the proposed project will generate approximately 4,871 total trips per day. Trip generation rates for the proposed project include 189.8 trips per fuel pump per day for the service station with convenience market (takes into consideration the 62 percent AM and 56 percent PM pass-by trip reduction), 315.14 trips per thousand square foot per day for the restaurant, and 434.8 trips per thousand square foot per day for the fast-food restaurant (takes into consideration the 49 percent AM and 50 percent PM pass-by trip

reduction). The Traffic Impact Analysis also found a trip generation rate of 9.44 trips per dwelling unit for the three single-family detached residential dwelling units that have been removed from the site. The program then applies the emission factors for each trip, which is provided by the EMFAC2014 model to determine the vehicular traffic pollutant emissions.

Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment. No changes were made to the default area source parameters.

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

Project Impacts

The worst-case summer or winter criteria pollutant emissions created from the proposed project's long-term operations were calculated and are shown below in ***Table 3.2: Regional Operational Pollutant Emissions***. The results show that even before the emissions from the residential uses were removed, none of the SCAQMD regional thresholds would be exceeded. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

Table 3.2:Regional Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO_2	PM10	PM2.5
Area Sources[1]	0.31	0.00	0.01	0.00	0.00	0.00
Energy Usage[2]	0.06	0.58	0.49	0.00	0.04	0.04
Mobile Sources[3]	7.30	48.84	51.87	0.21	13.48	3.70
Subtotal Emissions	7.67	49.42	52.37	0.22	13.53	3.74
Single-family dwelling units that have been removed	-0.97	-0.53	-2.53	-0.01	-0.44	-0.29
Total Emissions	**6.70**	**48.88**	**49.83**	**0.21**	**13.08**	**3.45**
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
Source: Ganddini Group, Inc. Air Quality, Global Climate Change, TAC and Energy Impact Analysis, November 18, 2020, Table 9 (CalEEMod Version 2016.3.2; the higher of either summer or winter emissions)
(1) Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
(2) Energy usage consists of emissions from generation of electricity and on-site natural gas usage.
(3) Mobile sources consist of emissions from vehicles and road dust.

3(c) Expose sensitive receptors to substantial pollutant concentrations?

Determination: Less Than Significant Impact.

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours.

Short-Term Construction Impacts

Local Air Quality Impacts from Construction

The SCAQMD has published the "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds." CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold (LST) lookup tables, the CEQA document should contain the following parameters:

(1) the off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions;

(2) (2)The maximum number of acres disturbed on the peak day;

(3) Any emission control devices added onto off-road equipment; and

(4) Specific dust suppression techniques used on the day of construction activity with maximum emissions. The CalEEMod outputs in **Appendix 6** show the equipment used for this analysis.

Because CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily soil disturbance activity possible for each piece of equipment, ***Table 3.3, Maximum Number of Acres Disturbed Per Day***, is used to determine the maximum daily disturbed acreage for comparison to LSTs. As shown in ***Table 3.3***, the maximum number of acres disturbed in a day would be 2 acres during grading. ***Table 3.4: Local Construction Emissions at the Nearest Receptors*** shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds. As shown in ***Table 3.4***, none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Table 3.3:Maximum Number of Acres Disturbed Per Day

Activity	Equipment Type	Equipment Quantity	Acres Disturbed per 8-Hour Day	Total Acres Disturbed per Day
Grading	Rubber Tire Dozers	1	0.5	0.5
	Graders	1	0.5	0.5
	Crawler Tractors	2	0.5	1
Total for Phase		-	-	2

Notes:
Source: Ganddini Group, Inc. Air Quality, Global Climate Change, TAC and Energy Impact Analysis, November 18, 2020, Table 7.
(1) Tractor/loader/backhoe is a suitable surrogate for a crawler tractor per SCAQMD staff.

Table 3.4:Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions			
	NO_x	CO	PM10	PM2.5
Grading	20.21	9.76	3.47	2.16
Building Construction	17.45	16.26	0.90	0.86
Paving	9.33	11.70	0.49	0.45
Architectural Coating	1.41	1.81	0.08	0.08
Total Emissions				
SCAQMD Thresholds[1]	170	1,007	6	5
Exceeds Threshold?	No	No	No	No

Notes:
Source: Ganddini Group, Inc. Air Quality, Global Climate Change, TAC and Energy Impact Analysis, November 18, 2020, Table 8 (calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 2 acres at a distance of 25 in SRA 22 Corona-Norco)
(1) The nearest sensitive receptors to the project include the single-family detached residential dwelling units located to the west, approximately 85 feet (~26 meters) to the north, and approximately 120 feet (~37 meters) to the east and south; therefore, the 25 meter threshold was used.

Toxic Air Contaminants

Toxic air contaminants (TACs) are another group of pollutants of concern. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different TACs. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to the Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003),[3] health effects from TACs are described in

[3] Office of Environmental Health Hazard Assessment. 2015. Air Toxic Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessment.

terms of individual cancer risk based on a lifetime (i.e., 30-year) resident exposure duration. Given the temporary and short-term construction schedule (approximately 29 months), the project would not result in a long-term (i.e., lifetime or 30-year) exposure as a result of project construction.

The project would comply with the CARB Air Toxics Control Measure that limits diesel-powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The project would also comply with the requirements of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities. Furthermore, construction-based particulate matter emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds. Therefore, no significant short-term TAC impacts would occur during construction of the proposed project and impacts from TACs during construction would be less than significant.

Long-Term Operational Impacts

Project-related air emissions may have the potential to exceed the state and federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the SCAB. The proposed project has been analyzed for the potential local carbon monoxide (CO) emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analysis addresses the vehicular CO emissions and local impacts from on-site operations per SCAQMD LST methodology.

Local CO Emission Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the state and federal CO standards.

To determine if the proposed project could cause emission levels in excess of CO standards, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle queuing, "hot spots" potentially can occur at high traffic volume intersections with a level of service E or worse.

The analysis prepared for CO attainment in the SCAB by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the SCAB. CO attainment was thoroughly analyzed as part of the SCAQMD's *2003 Air Quality Management Plan* (2003 AQMP) and the 1992 Federal

https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. South Coast Air Quality Management District. 2003. Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis. http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobilesource-toxics-analysis.doc?sfvrsn=2.

Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak CO concentrations in the SCAB are due to unusual meteorological and topographical conditions and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods: South Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the level of service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be level of service E during the morning peak hour and level of service F during the afternoon peak hour.

The Traffic Impact Analysis showed that the project would generate a maximum of approximately 4,871 net new vehicle trips per day. The intersection with the highest traffic volume is located at the intersection of Archibald Avenue and Smith River Road/Eastvale Parkway and has a Horizon Year (2040) With Project morning peak hour volume of 1,527 vehicles. The 1992 CO Plan showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. Therefore, as the highest traffic volumes fall far short of 100,000 vehicles, no CO "hot spot" modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the ongoing use of the proposed project.

Local Air Quality Impacts from On-Site Operations

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, and usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the state and federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the SCAB. The nearest sensitive receptor that may be impacted by the proposed project are the existing single-family detached residential dwelling units located to the west, approximately 85 feet (~26 meters) to the north, and approximately 120 feet (~37 meters) to the east and south of the proposed project site.

The proposed project was analyzed based on the Corona-Norco source receptor area (SRA 22) and, to be conservative, used the thresholds for a 2-acre project site (as the site is approximately 2.71 acres). ***Table 3.4*** shows the on-site emissions from the CalEEMod model that includes natural gas usage, landscape maintenance equipment, and vehicles operating on-site and the calculated emissions thresholds. Per LST methodology, mobile emissions include on-site vehicles which equate to approximately 10 percent of the project-related new mobile sources. The data provided in ***Table 3.4*** shows that the ongoing operations of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance. Therefore, the proposed

project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

3(d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Determination: Less Than Significant Impact.

Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.[4] The project does not include any such uses identified by SCAQMD as being associated with odors. Potential sources that may emit odors during the ongoing operations of the proposed project would include odor emissions from the intermittent diesel delivery truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 regarding public nuisances, no significant impact related to odors would occur during the ongoing operations of the proposed project.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors from heavy-duty equipment exhaust. The project would also comply with the SCAQMD Rule 1113, which would minimize odor impacts from ROG emissions during architectural coating. Any impacts to existing adjacent land uses would be short term and would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The following measure shall be incorporated into project plans as implementation of SCAQMD Rule 402:

    - A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

2. The following measures shall be incorporated into project plans as implementation of SCAQMD Rule 403:

[4] South Coast Air Quality Management District. 1993. *CEQA Air Quality Handbook*.

- All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.

- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project site are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.

- The contractor shall ensure that traffic speeds on unpaved roads and in project site areas are reduced to 15 mph or less.

3. The following measure shall be incorporated into project plans as implementation of SCAQMD Rule 1113:

    - In order to limit the volatile organic compound (VOC) content of architectural coatings used in the SCAB, architectural coatings shall be no more than a low VOC default level of 50 grams per liter (g/L) unless otherwise specified in the SCAQMD Table of Standards.

4. All applicable measures shall be incorporated into project plans as implementation of SCAQMD Rule 1403 if asbestos is found during the renovation and construction activities.

MITIGATION MEASURES

No mitigation is required.

4. BIOLOGICAL RESOURCES. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		X		
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				X
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f)	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?		X		

The analysis and findings throughout this section are based on the *Habitat Assessment for Burrowing Owl and Narrow Endemic Plant Species; MSHCP Consistency Analysis; (Assessor's Parcel Nos. 144-130-013, -012, -011, -004) Riverside County, California* (Habitat Assessment), prepared by Osborne Biological Consulting, dated July 2, 2018, and provided as **Appendix 7** of this IS/MND.

ENVIRONMENTAL SETTING

The project site currently supports exotic annual grass/forbland dominated by species such as wall barley (*Hordeum murinum),* milk thistle *(Lactuca serriola),* cheeseweed *(Malva parviflora),* goosefoot *(Chenopodium album),* and prickly Russian thistle *(Salsola tragus)*, all of which are weedy species typical of highly disturbed conditions. On-site soils consist of Waukena saline-alkali fine sandy loam. Historical agricultural practices and residential uses have removed the natural vegetation communities, limiting the quality and availability of habitat for wildlife. No narrow endemic plant species were found on the project site, and such plant species are not expected to have the potential to occur on-site. No riparian habitat or vernal pools occur on the project site. In addition, there are no potential jurisdictional waters or wetlands on the project site.

The project site is located within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) administered by the Western Riverside County Regional Conservation Authority (RCA). The City of Eastvale is a signatory to the MSHCP.

DISCUSSION

4(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Sensitive Plant Species

The MSHCP calls for focused studies of habitat evaluations for narrow endemic plant species. According to the Habitat Assessment conducted for the proposed project, no species of narrow endemic plant were encountered on the project site and habitat conditions indicate that these plant species—including San Diego ambrosia (*Ambrosia pumila)*, Brand's Phacelia (*Phacelia stellaris)*, and San Miguel savory (*Satureja chandleri)*—should not be expected on-site. In addition, due to the historical use of the project site for residential and agricultural activities, sensitive vegetation species do not occur on-site.

Sensitive Wildlife Species

According to the MSHCP, the project site is located within a mapped survey area for western burrowing owl (*Athene cunicularia*). The burrowing owl is designated as a species of special concern by the California Department of Fish and Wildlife (CDFW). The species is typically found in grassland, shrub steppe, and desert habitat types; however, the species can also be found in agricultural areas, ruderal fields, and pastures, as well as in urban environments such as vacant lots, flood control facilities, and open spaces. Burrowing owls require underground burrows or other cavities for nesting, roosting and shelter. Burrows used by the owls are usually dug by other species such as California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*). As such, the presence of colonial mammal burrows is often an indication that burrowing owl may be present. Burrowing owls have also been found occupying

man-made cavities, such as buried and non-functioning drainpipes, standpipes, and dry culverts. Although burrowing owl is unlikely to occur on-site, the proposed project would implement **Mitigation Measure BIO-1** to ensure potential impacts to burrowing owls are avoided and mitigated by requiring a preconstruction survey prior to ground-disturbing activities.

Birds

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The state of California has incorporated the protection of birds of prey in California Fish and Game Code (CFGC) Sections 3800, 3513, and 3503.5. All raptors and their nests are protected from take or disturbance under the MBTA (16 United States Code [USC] Section 703 et seq.) and California statute (CFGC Section 3503.5).

Direct impacts to native vegetation communities and removal of trees during project construction could result in direct impacts to bird nests, which would be considered significant absent mitigation. Impacts could result from project activities if nesting birds are present on the project site at the time of construction and if activities cause nest abandonment or mortality of young. Implementation of **Mitigation Measure BIO-2**, which requires a preconstruction nesting bird clearance survey to determine the presence/absence, location, and status of any active nests on or adjacent to the project site, would reduce potential impacts to nesting and migratory birds to less than significant by limiting the removal of trees, shrubs, or any other potential nesting habitat to outside the avian nesting season, which generally extends from February 1 through August 31. If the nesting bird clearance survey indicates the presence of nesting birds, **Mitigation Measure BIO-2** requires buffers to ensure that any nesting birds are protected pursuant to the MBTA. Impacts for both sensitive wildlife species and migratory birds would be less than significant with mitigation incorporated.

4(b) Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Determination: No Impact.

According to the Habitat Assessment conducted for the proposed project, no jurisdictional waters, riparian, riverine, or vernal pool areas exist on the project site. No impact would occur in this regard.

4(c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Determination: No Impact.

Based on the Habitat Assessment conducted for the proposed project, no state or federally protected wetlands are located within the project site. No impact would occur in this regard.

4(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Determination: Less Than Significant Impact with Mitigation Incorporated.

As mentioned previously, historical agricultural practices and residential uses have removed the natural vegetation communities, limiting the quality and availability of habitat for wildlife. The urbanized land uses adjacent to the project site further limit the potential for migratory wildlife to occur in the project vicinity. The project area does not support any bodies of water or wetlands that attract large migration stopovers or attractants for avian species. Furthermore, the project is proposed on lands that are low quality, disturbed habitats surrounded by disturbed residential uses. Project construction would result in the removal of existing on-site trees, which have the potential to provide suitable nesting opportunities for nesting birds. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. To reduce potential impacts to nesting birds, **Mitigation Measure BIO-2** requires a preconstruction nesting bird clearance survey to determine the presence/absence, location, and status of any active nests on or adjacent to the project site. If the nesting bird clearance survey indicates the presence of nesting birds, **Mitigation Measure BIO-2** requires buffers to ensure that any nesting birds are protected pursuant to the MBTA. With implementation of **Mitigation Measure BIO-2**, the project's potential construction-related impacts to migratory birds would be reduced to a less than significant level.

4(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Determination: No Impact.

There are no local policies or ordinances with respect to biological resources that apply to the project site. Therefore, the project is not in conflict with local policies or ordinances. No impact would occur.

4(f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Determination: Less Than Significant Impact with Mitigation Incorporated.

According to the MSHCP Consistency Analysis, the RCA MSHCP Information Map shows the project site is not located within a cell group, criteria cell, in the Stephen's Kangaroo Rat Plan Fee area or an area that requires surveys for amphibians, criteria area species, or mammals. However, the project is located in an area requiring burrowing owl, San Diego ambrosia, Brand's phacelia, and San Miguel savory habitat assessments and surveys, if suitable habitat is present.

The project site primarily consists of disturbed land with patches of ruderal vegetation. As discussed in Response IV.4(a), the habitat on-site is not suitable for the three narrow endemic plant species discussed above. Additionally, no burrowing owl individuals, surrogate burrows, or

burrowing owls sign were found during the field investigation. Nonetheless, to ensure that burrowing owls are not adversely affected by project implementation, the proposed project would implement **Mitigation Measure BIO-1,** which requires a preconstruction survey to be conducted to ensure that burrowing owl is not present on-site. Impacts would be less than significant with mitigation incorporated.

STANDARD CONDITIONS & REQUIREMENTS

1. City of Eastvale Municipal Code Section 4.62.100, *Payment of fees*, states that the Western Riverside County MSHCP fee shall be paid at the time a certificate of occupancy is issued for a residential unit or development project or upon final inspection, whichever occurs first. Furthermore, no final inspection shall be made, and no certificate of occupancy shall be issued, prior to full payment of the Western Riverside County Multiple Species Habitat Conservation Plan fee. However, this section shall not be construed to prevent payment of the fee prior to the issuance of an occupancy permit or final inspection.

MITIGATION MEASURES

BIO-1 Prior to the issuance of a grading permit, a preconstruction burrowing owl clearance survey shall be completed by a qualified biologist within 30 days prior to ground disturbance to avoid direct take of burrowing owls. Once complete, a written report summarizing the results of the clearance survey shall be prepared and submitted to the City of Eastvale for review and concurrence.

- If no burrowing owls are detected, construction may proceed. If construction is delayed or suspended for more than 30 days during the breeding season (March 1 to August 31), the project site or work area shall be resurveyed.

- If burrowing owls are detected on the project site during the breeding season (March 1 to August 31), a 300-foot "no work" buffer shall be established around the active burrow and all work within the buffer shall be halted until the qualified biologist has determined through non-intrusive methods that the nesting effort is complete (i.e., all young have fledged). Once the nesting effort is complete or if a burrowing owl burrow is detected on-site during the non-breeding season (September 1 to February 28), passive and/or active relocation of burrowing owls may be implemented by a qualified biologist following consultation and approval from the City of Eastvale, the Western Riverside County Regional Conservation Authority, and the California Department of Fish and Wildlife.

BIO-2 Pursuant to the Migratory Bird Treaty Act and the California Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat shall be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based on seasonal weather conditions. If ground disturbance and vegetation removal cannot occur

outside of the nesting season, a preconstruction clearance survey for nesting birds shall be conducted within 30 days of the start of any ground-disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey shall document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities shall stay outside of a 300-foot buffer around the active nest. For raptors and special-status species, this buffer will be expanded to 500 feet. A biological monitor shall be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

With implementation of **Mitigation Measures BIO-1** and **BIO-2** and adherence to the standard conditions and requirements, which includes payment of MSHCP mitigation fees, the project would comply with the requirement of the MSHCP and the MBTA. Compliance would reduce impacts to less than significant levels.

5. CULTURAL RESOURCES. Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?		X		
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

The analysis and findings throughout this section are based on the *Phase I Cultural Resources Survey for Proposed Retail Development at the Corner of Archibald and Chandler* (Cultural Resources Survey) prepared by EnviroPro Consulting, LLC, dated October 17, 2018, and provided as **Appendix 8** of this IS/MND.

DISCUSSION

5(a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Determination: Less Than Significant Impact with Mitigation Incorporated.

The Cultural Resources Survey conducted for the proposed project included a records search for surveys or sites within a 1-mile radius from the project site. A standard review of the National Register of Historic Places and the Office of Historic Preservation Historic Property Directory was also conducted. A second records search was conducted at the Soboba Band of Luiseño's Research Library.

Two historic sites were recorded just beyond 1 mile from the project site, both located to the northwest. These sites consist of built structures associated with a farm/dairy ranch (P#33-13347 and P#33-13348). A single prehistoric isolate (P# 33-26628) was also recorded at or beyond the 1-mile study area, southeast of the project site. A second prehistoric isolate consisting of a portable grinding stone was reported in one of the records search reports, although there was no site form or location plotted.

A Sacred Lands File search was sent to the Native American Heritage Commission (NAHC). The search results did not indicate the presence of any Native American cultural resources within the project site or its 1-mile radius. In addition, a review of cultural resource records held by Soboba Cultural Resources Department did not reveal cultural resources within the project area. Correspondence is on file at the City of Eastvale.

The field survey conducted as part of the Cultural Resources Survey confirmed that the entire project site has been disturbed by many generations of historical dairy or cattle use, and no cultural resources were visible on the property. The survey did not result in the identification of any historic or prehistoric cultural resources.

Based on the records search results, with numerous negative surveys for housing developments in the immediate vicinity, it is considered a low risk (though still possible) that cultural resources are buried within the project site, as no indications were observed during the survey that would suggest historic or prehistoric features or artifacts were present. However, if previously undocumented cultural resources are identified during earthmoving activities, **Mitigation Measure CUL-1** would be implemented to reduce potential impacts to historical and archaeological resources to less than significant levels.

5(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Refer to Response IV.5(a). Less than significant impacts to archaeological resources would occur with implementation of **Mitigation Measure CUL-1**.

5(c) Disturb any human remains, including those interred outside of formal cemeteries?

Determination: Less Than Significant Impact.

Construction activities, particularly grading, could potentially disturb human remains interred outside of a formal cemetery. Thus, the potential exists that human remains may be unearthed during grading and excavation activities associated with project construction. In the event that human remains are discovered during grading or other ground-disturbing activities associated with the proposed project, all work in that area shall be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds as detailed under the Standard Conditions & Requirements below. Less than significant impacts would occur.

STANDARD CONDITIONS & REQUIREMENTS

1. If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made.

   Following discovery and during assessment of the remains, work will be diverted at least 50 feet from the burial. The discovery shall be kept confidential, and secure to prevent disturbance. If left overnight, remains will be covered with a muslin cloth and steel plate over the excavation to protect the remains. If this method of protection is not feasible, a guard will be posted.

   If the Riverside County coroner determines the remains to be of Native American origin, the NAHC must be contacted by the coroner within 24 hours of the coroner's

determination. The NAHC must then immediately identify the most likely descendants(s) for purposes of receiving notification of discovery. The most likely descendant(s) shall then make recommendations within 48 hours from the time that site access is granted and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 507.98.

MITIGATION MEASURES

CUL-1 If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Implementation of **Mitigation Measure CUL-1** would provide that any historical and/or archaeological resources inadvertently discovered during project grading or construction activities would be protected consistent with the recommendations of a qualified archaeologist, thereby reducing impacts to less than significant levels.

6. ENERGY. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

The analysis and findings throughout this section are based on the *Archibald at Chandler Commercial Project Air Quality, Global Climate Change, TAC and Energy Impact Analysis* (Air Quality, Global Climate Change, TAC and Energy Impact Analysis) prepared by Ganddini Group, Inc. and dated November 18, 2020, provided as **Appendix 6** of this IS/MND.

BACKGROUND

EXISTING CONDITIONS

Electricity

Electricity would be provided to the project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons, within a service area encompassing approximately 50,000 square miles. SCE derives electricity from varied energy resources including fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.

Natural Gas

Natural gas would be provided to the project by Southern California Gas (SoCalGas). SoCalGas is regulated by the CPUC, which regulates natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing.

Transportation Energy Resources

The project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the project patrons and employees via commercial outlets. The transportation sector emits 41 percent of the total GHGs in the state and about 84 percent of smog-forming oxides of nitrogen (NOx). Petroleum comprises about 92

percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels.

DISCUSSION

6(a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Determination: Less Than Significant Impact.

Multiple energy-related regulations apply to the project including the following:

- Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires the California Public Utilities Commission (CPUC), California Energy Commission (CEC), California Air Resources Board (CARB), and all other state agencies to incorporate that policy into all relevant planning.
- California Assembly Bill (AB) 1493 enacted on July 22, 2002, required the California Air Resources Board (CARB) to develop and adopt regulations that reduce greenhouse gases (GHGs) emitted by passenger vehicles and light duty trucks.
- The 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) requires the design of building shells and building components to conserve energy.
- The California Green Building Standards (CALGreen) were developed in an effort to meet the goals of California's landmark initiative Assembly Bill (AB) 32, which established a comprehensive program of cost-effective reductions of GHGs to 1990 levels by 2020.

Short-Term Construction Impacts

The construction schedule is anticipated to occur between mid 2021 and the end of March 2022 and be completed in one phase. Staging of construction vehicles and equipment will occur on-site.

Construction Equipment Electricity Usage Estimates

The energy implications of the construction process involve the power cost from on-site electricity consumption during construction of the proposed project. Based on the 2017 National Construction Estimator, Richard Pray,[5] the typical power cost per 1,000 square feet of building construction per month is estimated to be $2.32. Based on the proposed project building areas, the total power cost of the on-site electricity usage during construction is estimated to be approximately $241.48.

[5] Pray, Richard. 2017. 2017 National Construction Estimator. Carlsbad: Craftsman Book Company.

Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of project construction. Using the CalEEMod data input for the air quality and GHG analyses, the project's construction phase would consume electricity and fossil fuels as a single energy demand, that is, once construction is completed their use would cease. Project construction activities would consume an estimated 25,512 gallons of diesel fuel.

Construction Worker Fuel Estimates

It is assumed that all construction worker trips are from light duty autos along area roadways. With respect to the project's estimated vehicle miles traveled (VMT), the construction worker trips would generate an estimated 148,617 VMT. Using an aggregate fuel efficiency of 30.13 miles per gallon (mpg) to calculate VMT for construction worker trips, an estimated 4,933 gallons of fuel would be consumed for construction worker trips.

Construction Vendor/Hauling Fuel Estimates

With respect to estimated VMT, the vendor and hauling trips would generate an estimated 27,220 VMT; data regarding project-related construction worker trips were based on CalEEMod 2016.3.2 model defaults. For the architectural coatings, it is assumed that the contractors would be responsible for bringing coatings and equipment with them in their light-duty vehicles. Therefore, vendors delivering construction material or hauling debris from the site during grading would use medium- to heavy-duty vehicles with an average fuel consumption of 8.93 mpg for medium heavy-duty trucks and 6.51 mpg for heavy-duty trucks. Based on these assumptions, an estimated 3,090 gallons of fuel would be consumed for vendor and hauling trips.

Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately nine-month construction phase would conform to CARB regulations and California emissions standards and is evidence of related fuel efficiencies. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in project construction would therefore not result in inefficient, wasteful, or unnecessary consumption of fuel. The project would use construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. Compliance with these measures would result in a more efficient use of construction-related energy and would minimize or eliminate wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Furthermore, as required by *California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling*, idling times of construction vehicles are limited to no more than five minutes, thereby minimizing or eliminating unnecessary and wasteful consumption of fuel due to

unproductive idling of construction equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints.

Based on the above, a less than significant impact would occur relative to short-term construction energy usage.

Long-Term Operational Impacts

Energy consumption in support of or related to project operations would include transportation energy demands (energy consumed by employee and patron vehicles accessing the project site) and facility energy demands (energy consumed by building operations and site maintenance activities).

Transportation Fuel Consumption

Using the CalEEMod output from the air quality and GHG analyses, an average trip for autos and light trucks was assumed to be 16.6 miles and 3-4-axle trucks were assumed to travel an average of 6.9 miles. As the project includes the development of the site with restaurant and gas station uses (which are frequently utilized on weekends), and in order to present a worst case scenario, it was assumed that vehicles would operate 365 days per year. The proposed project would generate 4,871 trips per day. An estimated 1,139,964 gallons of fuel would be consumed per year for the operation of the proposed project. Trip generation and VMT generated by the proposed project are consistent with other similar commercial uses of similar scale and configuration as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (20th Edition, 2017). As such, the project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. Furthermore, the state of California consumed approximately 4.2 billion gallons of diesel and 15.1 billion gallons of gasoline in 2015. The increase in fuel consumption from the proposed project is negligible in comparison to the state's demand. Therefore, project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

Facility Energy Demands (Electricity and Natural Gas)

Building operation and site maintenance (including landscape maintenance) would result in the consumption of electricity and natural gas. The annual natural gas and electricity demands were provided per the CalEEMod output from the air quality and GHG analyses. The estimated electricity demand for the proposed project is approximately 401,547 kilowatt-hours (kWh) per year. In 2019, the nonresidential sector of the County of Riverside consumed approximately 8,183 million kWh of electricity. In addition, the estimated natural gas consumption for the proposed project is approximately 1,973,430 kilo British thermal units (kBTU) per year. In 2019, the nonresidential sector of the County of Riverside consumed approximately 148.2 million kBTU of gas. Therefore, the increase in both electricity and natural gas demand from the proposed project is negligible compared to the County's 2019 nonresidential sector demand.

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of building construction, such as in plug-in appliances.

In California, Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use, or "plug-in" energy use, can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.). The proposed project would be required to comply with Title 24 standards.

Furthermore, the proposed project energy demands in total would be comparable to other commercial projects of similar scale and configuration. Therefore, the project facilities' energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. Based on the above, a less than significant impact would occur relative to long-term operational energy usage.

6(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Determination: Less Than Significant Impact.

The project site is located in an area that is substantially developed with an established transportation network. Access to/from the project site would occur from existing roads and, as a result, the project would not interfere with nor otherwise obstruct intermodal transportation plans or projects that may be proposed pursuant to the Intermodal Surface Transportation Efficiency Act (ISTEA) because SCAG is not planning for intermodal facilities in the project area.

Regarding the state's Energy Plan and Title 24 energy efficiency standards, the applicant is required to comply with the California Green Building Standard Code requirements for energy-efficient buildings and appliances as well as utility energy efficiency programs implemented by SCE and SoCalGas.

Regarding AB 1493 regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources.

Regarding the state's Renewables Portfolio Standards, the project would be required to meet or exceed the energy standards established in the CALGreen Code. CalGreen standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

The project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Notwithstanding, the project proposes commercial/retail uses and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies. Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

7. GEOLOGY AND SOILS. Would the proposed project:						
Issues			Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
	i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X	
	ii)	Strong seismic ground shaking?			X	
	iii)	Seismic-related ground failure, including liquefaction?			X	
	iv)	Landslides?			X	
b)	Result in substantial soil erosion or the loss of topsoil?				X	
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				X	
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X	
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?					X
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	

The analysis and findings throughout this section are based on the *Geotechnical Engineering Investigation, Proposed Circle K Gas Station & Restaurants NWC Archibald Avenue & Chandler Street, Eastvale, California* (Geotechnical Report) prepared by Salem Engineering Group, Inc., dated January 7, 2021, and provided as **Appendix 9** of this IS/MND.

DISCUSSION

7(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Determination: Less Than Significant Impact.

According to the Geotechnical Report prepared for the proposed project, the project site is not located in an Earthquake Fault Zone as mapped by the California Geological Survey. The closest mapped active fault that could affect the project site is the Chino-Elsinore fault, which is located approximately 4 miles to the southwest. Therefore, the potential for fault rupture at the site is considered low. Although no active faults traverse the project site, all new development and redevelopment is required to comply with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, as well as with the 2019 California Building Code (CBC), which includes specific design measures intended to maximize structural stability in the event of an earthquake. Impacts would be less than significant.

ii) Strong seismic ground shaking?

Determination: Less Than Significant Impact.

The project site is located in seismically active Southern California with numerous fault systems in the region. As such, it should be anticipated that the project site will experience moderate to strong ground shaking in the near future. However, the proposed development would be subject to the CBC seismic design force standards for the Eastvale area. Compliance with these standards would require that the structures and associated improvements are designed and constructed to withstand expected seismic activity and associated potential hazards, thereby minimizing risk to the public and property. The project would be designed and developed consistent with the CBC and standard engineering practices and reviewed in conjunction with the City Engineer. Therefore, impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Determination: Less Than Significant Impact.

According to the Geotechnical Report prepared for the proposed project, the soils encountered within the depth of 50.5 feet on the project site during the field exploration consisted predominantly of sandy silt with various amounts of clay; sandy clay with silt; silty sand with various amounts of gravel; silty, clayey sand; and poorly graded sand. Free groundwater was encountered at a depth of 38.5 feet below the ground surface. As such, the project site was determined to have a moderate-to-high potential for liquefaction under seismic conditions.

The historically highest groundwater is estimated to be at a depth of 20 feet below ground surface according to the County of Riverside Geologic Hazards Map and regional groundwater well data. Low to very low cohesion strength is commonly associated with the sandy soil profile at the project site. A seismic hazard, which could cause damage to the proposed development

during seismic shaking, is the post-liquefaction settlement of liquefied sands. Regardless, implementation of standard grading and soil engineering practices and site-specific recommendations in the project's Geotechnical Report would serve to ensure that project structures are adequately supported and render the likelihood of liquefaction to very low levels. In addition, compliance with site-specific design recommendations provided in the Geotechnical Report, including using geogrid, a structural slab system, stone columns, or supporting the building on a deep foundation system, would be required as a condition of issuance of building and grading permits. Therefore, this impact would be less than significant.

iv) Landslides?

Determination: Less Than Significant Impact.

The proposed project is not expected to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death from landslides. Although the project site is in an area of high seismic activity, because of the relatively flat terrain on the site and the surrounding properties, the site is at little risk for landslide. Impacts would be less than significant.

7(b) Result in substantial soil erosion or the loss of topsoil?

Determination: Less Than Significant Impact.

Proposed construction activities would include clearing the site of debris and/or vegetation, soil excavation, grading, asphalt paving, building construction, and landscaping. Such activities would disturb site soils, exposing them to the erosive effects of wind and water. However, all construction activities related to the proposed project would be subject to implementation of best management practices (BMPs) for erosion control, as required under National Pollution Discharge Elimination System (NPDES) regulations pursuant to the federal Clean Water Act. NPDES requirements for construction projects 1 acre or more in area are set forth in the Construction General Permit issued by the State Water Resources Control Board (State Water Board Order No. 2009-0009-DWQ). Furthermore, the project's land clearing, grading, and construction activities would be required to comply with SCAQMD Rules 403 and 403.2 regulating fugitive dust emissions, thus minimizing wind erosion from such ground-disturbing activities. Therefore, the proposed project would not generate substantial erosion. Soil erosion impacts would be less than significant.

7(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Determination: Less Than Significant Impact.

As discussed in Responses IV.7a(iii) and IV.7a(iv), above, while the proposed project site is at little risk for landslides, it was determined to have a moderate-to-high potential for liquefaction under seismic conditions. Due to the relatively flat site topography, the likelihood of lateral spreading was determined to be low. However, implementation of standard grading and soil engineering

practices and site-specific recommendations provided in the Geotechnical Report would reduce potential impacts relative to unstable soils to less than significant levels.

7(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Determination: Less Than Significant Impact.

According to the Geotechnical Report prepared for the proposed project, expansive soil is considered to be a geotechnical constraint at the project site. To minimize the potential soil movement due to expansive soil conditions, the Geotechnical Report recommends that the upper 18 inches of soil beneath the required subbase within slab and exterior flatwork areas be removed and replaced with non-expansive engineered fill that meets the requirements provided in the Geotechnical Report. As an alternative to the use of non-expansive soils, the upper 18 inches of soil supporting the slab areas may consist of lime or cement-treated clayey soils. Compliance with these recommendations would ensure that impacts relative to expansive soil remain less than significant.

7(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Determination: No Impact.

The proposed project would be served by the municipal sewer system of the Jurupa Community Services District and would therefore have no need for a septic system or other alternative wastewater disposal system. There would be no impact.

7(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Determination: Less Than Significant Impact.

The project site is located within the Inland Valley, within the Peninsular Ranges Geomorphic Province of California. The Inland Valley is situated between the San Bernardino Mountains to the northeast, the San Gabriel Mountains to the north, the Chino Hills to the southwest, and to the southeast by the hilly uplands that separate it from the San Jacinto Basin. These mountain ranges are part of the Transverse Ranges Geomorphic Province of California.

The Inland Valley is dominated by northwest-trending faults and adjacent anticlinal uplifts. The intervening deep synclinal troughs are filled with poorly consolidated Upper Pleistocene and unconsolidated Holocene sediments. Tectonism of the region is dominated by the interaction of the East Pacific Plate and the North American Plate along a transform boundary. The Inland Valley has been filled with a variable thickness of relatively young, heterogeneous alluvial deposits. These deposits typically do not contain significant vertebrate fossils, at least within the uppermost layers.

According to the Geotechnical Report prepared for the proposed project, the subsurface conditions encountered appear typical of those found in the geologic region of the site. In general, the soils within the depth of exploration consisted of alluvium deposits of soft to hard

sandy silt with various amounts of clay; sandy clay with silt; medium dense to very dense silty sand with various amounts of gravel; silty, clayey sand; and poorly graded sand. The project site is not anticipated to contain significant paleontological or geologic features. No prehistoric resources were identified during background research or field survey for the project site. As such, a less than significant impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

1. The project shall comply with the California Building Code and the City of Eastvale's grading requirements in Municipal Code Section 130.08.040, *Street Grades*, and subject to the approval of the City Engineer.

MITIGATION MEASURES

None required.

8. GREENHOUSE GAS EMISSIONS. Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		X		
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		X		

DISCUSSION

The analysis and findings throughout this section are based on the *Archibald at Chandler Commercial Project Air Quality, Global Climate Change, TAC and Energy Impact Analysis* (Air Quality, Global Climate Change, TAC and Energy Impact Analysis) prepared by Ganddini Group, Inc., dated November 18, 2020, and provided as **Appendix 6** of this IS/MND.

Background

Global Climate Change

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 420 million metric tons of carbon dioxide equivalent ($MTCO_2e$) per year.[6] Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which increases the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation is required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

[6] California Air Resources Board. 2019. California Greenhouse Gas Emissions for 2000 to 2017. Carbon dioxide equivalent (CO_2e) is a metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Regulations and Significance Criteria

Multiple regulations pertaining to GHG emissions apply to the project including the following, which are described in detail in the Air Quality, Global Climate Change, TAC and Energy Impact Analysis:

- Climate Change Action Plan: developed by the Intergovernmental Panel on Climate Change (IPCC) to address the reduction of GHGs in the United States, consisting of more than 50 voluntary programs. The IPCC concluded that a stabilization of GHGs at 400 to 450 ppm CO_2e concentration is required to keep global mean warming below two degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.
- Executive Order S-3-05: issued in June 2005, which established the following GHG emission reduction targets:
  - 2010: Reduce GHG emissions to 2000 levels
  - 2020: Reduce GHG emissions to 1990 levels
  - 2050: Reduce GHG emissions to 80 percent below 1990 levels
- Executive Order B-30-15: Issued in April 2015, requires statewide GHG emissions to be reduced 40 percent below 1990 levels by 2030.
- Assembly Bill 32 (California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006): Adopted in 2006, focuses on reducing GHG emissions in California to 1990 levels by 2020 and defines GHGs as CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. Under HSC Division 25.5, the California Air Resources Board (CARB) has the primary responsibility for reducing GHG emissions.
- Senate Bill 32 and Assembly Bill 197: Adopted in 2016, establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.
- California Air Resources Board 2017 Scoping Plan: establishes a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the First Update to the Scoping Plan (2013).
- City of Eastvale: The City of Eastvale is part of the Western Riverside Council of Government (WRCOG). The WRCOG adopted the WRCOG Subregional Climate Action Plan (CAP) in September 2014. The Subregional CAP sets forth a subregional emissions reduction target, emissions reduction measures, and action steps to assist each community to demonstrate consistency with California's Global Warming Solutions Act of

2006 (AB 32). The CAP consists of a community-wide emissions reduction target of 15 percent below 2010 levels by 2020, and 49 percent below 2010 levels by 2035.

In addition, the City of Eastvale General Plan Air Quality and Conservation Element includes policies related to greenhouse gases.

8(a)Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Per City of Eastvale guidance, to determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD screening threshold of 3,000 $MTCO_2e$ per year for all land uses.

Construction and operational activities associated with the proposed project would generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment; CalEEMod Version 2016.3.2 was used to calculate the GHG emissions from the proposed project. A summary of the results is shown in ***Table 8.1, Project-Related GHG Emissions***. As shown in ***Table 8.1***, project related GHG emissions would total 3,672.91 $MTCO_2e$ per year (including subtraction of emissions from residential uses that have been demolished, but without credit for any reductions from sustainable design and/or regulatory requirements). As stated above, according to the thresholds of significance, a cumulative global climate change impact would occur if GHG emissions created from the ongoing operations of the proposed project exceeded the SCAQMD draft threshold of 3,000 $MTCO_2e$ per year for all land uses. Therefore, emissions reductions are required for the project. The reductions would come from incorporation of California Air Pollution Control Officers Association-based reduction measures and regulatory compliance, described in **Mitigation Measure GHG-1**, below. In addition, project-specific design features are required to be implemented as described in **Mitigation Measure GHG-2**, below.

Table 8.1:Project-Related GHG Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	**NonBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[1]	0.00	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	254.07	254.07	0.01	0.00	255.25
Mobile Sources[3]	0.00	3,422.38	3,422.38	0.26	0.00	3,428.96
Waste[4]	10.87	0.00	10.87	0.64	0.00	26.92
Water[5]	0.79	11.11	11.90	0.08	0.00	14.54
Construction[6]	0.00	11.17	11.17	0.00	0.00	11.22
Subtotal Emissions	11.66	3,698.73	3,710.39	1.00	0.01	3,736.89
Existing single-family dwelling units that have been removed	-1.13	-61.39	-62.52	-0.05	0.00	-63.99
Total Emissions	10.53	3,637.35	3,647.87	0.94	0.00	**3,672.91**
SCAQMD Draft Screening Threshold						**3,000**
Exceeds Threshold?						**Yes**

Notes:
Source: Ganddini Group, Inc. Air Quality, Global Climate Change, TAC and Energy Impact Analysis, November 18, 2020, Table 12.
(CalEEMod Version 2016.3.2 for Opening Year 2022)
(1) Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
(2) Energy usage consist of GHG emissions from electricity and natural gas usage.
(3) Mobile sources consist of GHG emissions from vehicles.
(4) Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
(5) Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
(6) Construction GHG emissions CO2e based on a 30-year amortization rate.

Table 8.2:Project-Related GHG Emissions with Mitigation summarizes the project's GHG emissions after implementation of **Mitigation Measures GHG-1** and **GHG-2**. As shown in ***Table 8.2***, with compliance with regulation and incorporation of sustainable design (compliance with regulation is shown as "mitigation" in the CalEEMod output), the proposed project's total emissions would be reduced to 2,609.74 $MTCO_2e$ per year.

Table 8.2:Project-Related GHG Emissions with Mitigation

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	**NonBio-CO_2**	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[1]	0.00	0.00	0.00	0.00	0.00	0.00
Energy Usage[2]	0.00	233.25	233.25	0.01	0.00	234.33
Mobile Sources[3]	0.00	2,407.29	2,407.29	0.24	0.00	2,413.19
Waste[4]	2.72	0.00	2.72	0.16	0.00	6.73
Water[5]	0.63	9.04	9.68	0.07	0.00	11.79
Construction[6]	0.00	11.17	11.17	0.00	0.00	11.22
Sequestration[7]						-3.54
Subtotal Emissions	3.35	2,660.76	2,664.11	0.47	0.00	2,673.72
Existing single-family dwelling units that have been removed	-1.13	-61.39	-62.52	-0.05	0.00	-63.99
Total Emissions	2.22	2,599.37	2,601.59	0.42	0.00	**2,609.74**
SCAQMD Draft Screening Threshold						**3,000**
Exceeds Threshold?						**No**

Notes:
Source: Ganddini Group, Inc. Air Quality, Global Climate Change, TAC and Energy Impact Analysis, November 18, 2020, Table 13.
(CalEEMod Version 2016.3.2 for Opening Year 2022)
(1) Area sources consist of GHG emissions from consumer products, architectural coatings, and landscape equipment.
(2) Energy usage consist of GHG emissions from electricity and natural gas usage.
(3) Mobile sources consist of GHG emissions from vehicles.
(4) Solid waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
(5) Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
(6) Construction GHG emissions CO2e based on a 30-year amortization rate.
(7) Approximately 100 new trees to be planted as part of sequestration.

With implementation of these measures, impacts would be reduced to less than significant.

8(b) Conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?

Determination: Less Than Significant Impact with Mitigation Incorporated.

The proposed project could have the potential to conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. As noted above, the applicable plan for the proposed project is the WRCOG CAP.

As stated previously, the SCAQMD's tier 3 thresholds used Executive Order S-3-05 goal as the basis for deriving the screening level. Executive Order S-3-05 establishes the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels
- 2020: Reduce greenhouse gas emissions to 1990 levels
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels

In 2006, the California State legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap, which was phased in starting in 2012.

Therefore, as the project's emissions would meet the threshold for compliance with Executive Order S-3-05, the project's emissions would also comply with the goals of AB 32 and the WRCOG CAP. Additionally, as the project meets the current interim emissions targets/thresholds established by SCAQMD, the project would also be on track to meet the reduction target of 40 percent below 1990 levels by 2030 mandated by SB 32. Furthermore, the majority of the post-2020 reductions in GHG emissions are addressed via regulatory requirements at the state level, and the project would be required to comply with these regulations as they come into effect.

As discussed above, the proposed project's total emissions would be reduced to 2,609.74 $MTCO_2e$ per year with implementation of mitigation, and as such, the project's GHG emissions do not exceed the SCAQMD draft threshold of 3,000 $MTCO_2e$ per year and is in compliance with overall community-wide reduction goals of the WRCOG CAP, AB 32, and SB 32. Furthermore, the project would comply with applicable CalGreen Building Standards and City of Eastvale's policies regarding sustainability (as dictated by the City's General Plan). Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The project would be required to comply with all mandates imposed by the State of California and the South Coast Air Quality Management District intended to reduce GHG emissions. The following are applicable to the project and would assist in the reduction of greenhouse gas emissions:

    - Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32)

- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill [SB] 375)
- Pavley Fuel Efficiency Standards (AB 1493) – establishes fuel efficiency ratings for new vehicles
- California Code of Regulations, Title 24 (California Building Standards Code) – establishes energy efficiency requirements for new construction
- California Code of Regulations, Title 20, Division 2, Chapter 4 (Appliance Efficiency Regulations) – establishes energy efficiency requirements for appliances
- California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 7 (Low Carbon Fuel Standard) – requires carbon content of fuel sold in California to be 10 percent less by 2020
- California Water Conservation in Landscaping Act of 2006 (AB 1881) – requires local agencies to adopt the Department of Water Resources' updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010, to ensure efficient landscapes in new development and reduced water waste in existing landscapes.
- Statewide Retail Provider Emissions Performance Standards (SB 1368) – requires energy generators to achieve performance standards for GHG emissions.
- Renewables Portfolio Standard (SB 1078) – requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020.

MITIGATION MEASURES

GHG-1 The project shall incorporate the following California Air Pollution Control Officers Association-based reduction measures and regulatory compliance:

- Utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen Standards.
- Implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341).
- Incorporate the following land use and site enhancement reduction measures: LUT-1 Increase Density, LUT-4 Improve Destination Accessibility, LUT-5 Increase Transit Accessibility, and SDT-1 Improve Pedestrian Network.

GHG-2 The project shall incorporate the following design features:

- The project applicant shall require that all faucets, toilets, and showers installed in the proposed structures utilize low-flow fixtures that would reduce indoor water demand by 20 percent per CALGreen standards.
- The project applicant shall require recycling programs that reduce waste to landfills by a minimum 75 percent per AB 341.

- The project applicant shall provide sidewalks on-site and connecting off-site.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

With implementation of **Mitigation Measures GHG-1** and **GHG-2**, impacts relative to GHGs would be reduced to a less than significant level.

9. HAZARDS AND HAZARDOUS MATERIALS. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles or a public airport or public use airport, result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?			X	
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		X		
g)	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X	

The analysis and findings throughout this section are based on the *Phase 1 Environmental Site Assessment, NWC Archibald Avenue and Chandler Street Eastvale, CA 92880* (Phase 1 ESA) prepared by S & S Commercial Environmental Services, Inc., dated July 30, 2018, and provided as **Appendix 10** of this IS/MND.

DISCUSSION

9(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Determination: Less Than Significant Impact.

Exposure of the public or the environment to hazardous materials can occur through improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel, a transportation accident, environmentally unsound disposal methods, or fire, explosion, or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Construction and operation of the proposed project would require the routine transport, use, storage, and disposal of limited quantities of common hazardous materials such as gasoline, diesel fuel, oils, solvents, paint, fertilizers, pesticides, and other similar materials. However, the transport, use, storage, and disposal of hazardous materials are strictly regulated by state and federal agencies to minimize adverse hazards from accidental release. In addition to state and federal regulations, future project tenants are subject to the provisions of the Eastvale Municipal Code (Title 16, Health and Sanitation), which outline the handling and disposal of hazardous materials and wastes and will comply with the County of Riverside Department of Environmental Health Hazardous Materials Business Emergency Plan (HMBEP), which is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. The intent of the HMBEP is to satisfy federal and state Community Right-To-Know laws and to provide detailed information for use by emergency responders.

Therefore, the proposed project would not create a significant hazard to the public or the environment related to hazardous materials. This impact would be less than significant.

9(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Determination: Less Than Significant Impact.

One of the means through which human exposure to hazardous substance could occur is through accidental release. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. Human exposure of contaminated soil, soil vapor, or water

can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

Based on the Phase I ESA prepared for the proposed project, the project site appears to have been part of a larger parcel of agricultural land until it was subdivided into smaller parcels in the 1940s. However, former pesticides would be expected to have broken down into constituent components with a half-life of seven years or less on average. No operations are currently performed on the project site and the three residences and fruit stand that existed on-site at the time the Phase I ESA was conducted have since been demolished. No potential environmental concerns were identified in association with the current or former uses of the project site.

Based on the Phase I ESA, no evidence of recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions were observed. Solid waste is not currently generated at the project site. No evidence of illegal dumping of solid waste was observed.

No wetlands, sumps, pits, ponds, or lagoons were observed on the project site. No evidence of current or former aboveground storage tanks or underground storage tanks (USTs) was found on-site. No potential polychlorinated biphenyl (PCB)-containing equipment (transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, etc.) was observed on the project site. No additional environmental hazards, including landfill activities or radiological hazards, were observed.

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law. Construction impacts in this regard would be less than significant.

Project operations could involve the temporary storage and handling of potentially hazardous materials such as detergents, pesticides, fertilizers, or paint products that are pre-packaged for distribution and use. These materials are typical of those used in commercial/retail uses and would be employed for routine cleaning, maintenance, and landscaping activities. This type of storage, transfer, use and disposal of potentially hazardous materials is extensively regulated at the local, state, and federal levels. Amounts of these materials that are stored and used on-site would be subject to guidelines and restrictions established under the HMBEP, which would be implemented by the project, as described in Response IV.9(a), above.

Additionally, the project would utilize USTs to store gas and diesel fuel on the project site associated with the proposed gas station. The USTs would consist of double-walled, fiberglass fuel storage tanks with leak detection sensors. All project USTs would be designed, installed, inspected, maintained, and monitored consistent with federal, state, and local regulatory

requirements. The containment system design is subject to design review by the Jurupa Community Services District related to protection of its water facilities such as nearby municipal wells. Additionally, gasoline fueling stations are required by the SCAQMD Rule 461, Gasoline Storage and Dispensing, to include an enhanced vapor recovery and diagnostic system.

The project would also be required to comply with the provisions established by Section 2540.7, Gasoline Dispensing and Service Stations, of the California Safety and Health (Cal/OSHA) Regulations; Chapter 38, Liquefied Petroleum Gases, of the California Fire Code; Resource Conservation and Recovery Act requirements; and the Riverside County Fire Department requirements. Collectively, the routine inspection of the gas station, the USTs, and all associated fuel delivery infrastructure, along with the continued mandated compliance with all federal, state, and local regulations, provides the framework that would reduce operational impacts relative to hazardous material releases to a less than significant level.

9(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Determination: No Impact.

There are no existing or proposed schools within one-quarter mile of the proposed project site. The nearest school, Rondo Elementary School, is approximately one mile northwest of the proposed project site at 14977 Walters Street in the City of Eastvale. Additionally, operation and maintenance of the proposed project would not produce hazardous emissions. Therefore, the proposed project would not result in impacts related to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur in this regard.

9(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Determination: No Impact.

According to the Phase 1 ESA prepared for the proposed project, the proposed project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No impact would occur in this regard.

9(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles or a public airport or public use airport, result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?

Determination: Less Than Significant Impact.

According to Exhibit CH-6, *Compatibility Factors Map*, of the Riverside County Airport Land Use Compatibility Plan Policy Document (ALUCP), the project site is located within the Chino Airport

Influence Area, although it is not located within any of the Compatibility Zones.[7] The ALUCP establishes various policies and compatibility maps for individual ALUCP airports, including Chino Airport. As discussed further in Section IV.11, *Land Use and Planning,* prior to project approval by the City, the project applicant would be required to document review and approval of the project by the Riverside County Airport Land Use Commission. Any project revisions or limitations required by the commission would be incorporated in the project prior to approval by the City. Compliance with this requirement would reduce potentially significant impacts to a less than significant level. Refer to Section IV.11 for further discussion.

9(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Activities associated with the proposed project would not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. As indicated in Section IV.17, *Transportation*, the project does not propose changes to the City's circulation system, such as sharp curves or dangerous intersections, and would not introduce incompatible uses to area roadways. Further, should partial lane closures be required as part of project construction activities, implementation of a traffic management plan would minimize congestion and ensure safe travel, including emergency access in the project vicinity; refer to **Mitigation Measure TRA-1**. With implementation of **Mitigation Measure TRA-1**, impacts would be less than significant.

9(g) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Determination: Less Than Significant Impact.

As discussed in Section IV.20, *Wildfire,* the project site is located in a developed urban area surrounded by residential and commercial uses and is not located in a zone designated as Very High Fire Hazard by the California Department of Forestry and Fire Protection. Urban levels of fire protection would be provided to the project area. In addition, the project would adhere to building codes and any conditions included through review by the Riverside County Fire Department. A less than significant impact would occur in this regard.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

Refer to **Mitigation Measure TRA-1** in Section IV.17, *Transportation.*

[7] Riverside County Airport Land Use Commission. 2008. West County Airports Background Data. Exhibit CH-6, *Compatibility Factors Map.* September 2008.

10. HYDROLOGY AND WATER QUALITY. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i) Result in substantial erosion or siltation on- or off-site?			X	
	ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
	iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
	iv) Impede or redirect flood flows?			X	
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

The analysis and findings throughout this section are based on the *Preliminary Hydrology Study* (Hydrology Study), dated December 31, 2020, provided as **Appendix 11** of this IS/MND, and the *Preliminary Water Quality Management Plan* (WQMP), prepared by LN Civil Engineers, Inc. dated January 11, 2021, provided as **Appendix 12** of this IS/MND.

DISCUSSION

10(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Determination: Less Than Significant Impact.

As part of Section 402 of the Clean Water Act, the US Environmental Protection Agency (EPA) has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct stormwater discharges. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The project site is within the jurisdiction of the Santa Ana RWQCB.

Impacts related to water quality typically range over three different periods: 1) during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; 2) following construction, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and 3) following completion of the project, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

Project construction could result in short-term impacts to water quality due to the handling, storage, and disposal of construction materials, maintenance and operation of construction equipment, and earthmoving activities. These potential pollutants could damage downstream waterbodies. Dischargers whose projects disturb 1 or more acres of soil or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the SWRCB's General Permit for Discharges of Stormwater Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (Construction General Permit). The Construction General Permit requires the project applicant to prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP would specify best management practices (BMPs) to be used during project construction to minimize or avoid water pollution, thereby reducing potential short-term impacts to water quality. Upon completion of the project, the project applicant would be required to submit a Notice of Termination to the SWRCB to indicate that construction has been completed.

To further minimize the potential for accidental release of pollutants during project construction, the routine transport, use, and disposal of construction materials would be required to adhere to applicable state and local standards and regulations for handling, storage, and disposal of hazardous substances; refer to Section IV.9, *Hazards and Hazardous Materials*. Compliance with such measures would prevent such substances from entering downstream water bodies via stormwater runoff and adversely affect existing water quality. Following conformance with the Construction General Permit, SWPPP, and implementation of BMPs, the project's short-term impacts to water quality and waste discharge requirements would be less than significant.

The project would be required to implement BMPs to minimize operational impacts to water quality. As detailed in the project's WQMP, potential sources of runoff pollutants include landscaping/outdoor pesticide use and runoff from impervious surfaces. As a result, the WQMP includes permanent and operational source control BMPs pursuant to the on-site storm drain inlets, landscaping/outdoor pesticide use, food service issues, refuse areas, fuel dispensing areas, loading docks/loading areas, and plazas/sidewalks/parking lots. With implementation of these BMPs, the project's impacts to water quality would be less than significant.

10(b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?

Determination: Less Than Significant Impact.

The project site is currently vacant with no existing structures. Project development would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management. The project site is not currently used for groundwater recharge purposes. Water for the project would be provided by Jurupa Community Services District (JCSD) and the project would connect to the existing water system. Thus, project implementation would not substantially decrease groundwater supplies nor interfere substantially with groundwater recharge. Impacts would be less than significant in this regard.

10(c)i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or offsite?

Determination: Less Than Significant Impact.

According to the project's WQMP, the total new area of impervious surfaces within the project limits would be 92,145 square feet. The project site currently has no impervious surfaces. Although the project would result in an increase in impervious surfaces, the proposed project would not substantially alter the existing drainage pattern of the site or project area, including through the alteration of the course of a stream or river because post-development drainage infrastructure would retain the project site's existing drainage pattern. Runoff would be directed into a vegetated swale along westerly property line and two bioretention basins located at the northwest corner of the project site. Treated water and excess runoff would be drained into underdrain pipes then collected by a 12-inch line that drains into Chandler Street Channel at the northwest corner of the project site. As discussed in Response IV.10(a) above, the project would comply with the requirements of the Construction General Permit under the NPDES program, which would result in preparation of an SWPPP that outlines necessary BMPs to minimize erosion and water quality impacts during construction. Therefore, project development would not result in significant erosion or siltation impacts due to changes in drainage patterns and impacts would be less than significant.

10(c)ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Determination: Less Than Significant Impact.

The project site does not include any streams or rivers which could be altered by the proposed project. In addition, the project includes vegetated swale areas and two bioretention basins with underdrain pipes to treat stormwater runoff prior to releasing to the existing channel. The vegetated swale areas would be located throughout the project site including 6,845 square feet on roofing and 4,455 square feet of ornamental landscaping, as well as 28,320 square feet of asphalt/concrete pavement swale areas. Bioretention basin 1 would be 26-foot by 60-foot in size and would be located near the northeastern corner of the project site. Bioretention basin 2 would be 7-foot by 104-foot and would be located along the project site's eastern border. These drainage features would limit the release of stormwater from the site, thereby minimizing the potential for flooding to occur on-site or off-site. Therefore, impacts would be less than significant.

10(c)iii) Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Determination: Less Than Significant Impact.

Refer to Responses IV.10(c)(i) and IV.10(c)(ii), above. On-site stormwater runoff associated with the project would be engineered to be conveyed through public street improvements and on-site infiltration to dispose of stormwater. Additionally, with required adherence to an SWPPP and WQMP as discussed above, the proposed project would not be a substantial source of polluted runoff. The project would not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems. A less than significant impact would occur.

10(c)iv)Would the project impede or redirect flood flows?

Determination: Less Than Significant Impact.

The project site is relatively flat. The proposed project would include the development of a storm drainage system consistent with City requirements to convey stormwater runoff to the mainline storm drain system. Stormwater management practices as required under Eastvale Municipal Code Title 14, *Water and Sewers,* would further reduce any impacts to a less than significant level. In addition, the proposed on-site vegetated swale and bioretention basins would limit the release of stormwater from the site, thereby minimizing the potential for impediment or redirect flood flows. Therefore, impacts would be less than significant.

10(d) In flood hazard, tsunami, or seiche zones, would the project result in a risk release of pollutants due to project inundation?

Determination: No Impact.

According to the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer Viewer, the project site is not located within a 100-year flood hazard area.[8] As a result, no impact would occur in this regard.

A tsunami is a series of ocean waves generated in the ocean by an impulsive disturbance. The proposed project site is located approximately 30 miles from the Pacific Ocean. Due to this location, tsunamis are not considered a threat. No impact would occur in this regard.

A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. However, because the proposed project is not adjacent to any marine or inland water bodies, impacts from seiche are not expected to occur. No impact would occur in this regard.

10(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Determination: Less Than Significant Impact.

Santa Ana Regional Water Quality Control Board Basin Plan

The project site is located in the Santa Ana River Hydrologic Unit in the South Coast Hydrologic Region. The Santa Ana RWQCB oversees basin planning and water quality in the Santa Ana River Hydrologic Unit. The Santa Ana RWQCB prepares the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to protect local surface waters and groundwater basins. The Basin Plan designates beneficial uses of waters in the region and provides objectives to maintain or improve water quality in the region.

The northern boundary of the project site is adjacent to an 85-foot-wide Riverside County flood channel that feeds into Cucamonga Creek. The flood channel is approximately 50 feet north of the project boundary. According to the US Geological Survey National Hydrography Dataset, the flood channel is considered a jurisdictional drainage. Although there are no berms or barriers preventing surface sheet flow from the project site to the flood channel, no visible on-site drainages that feed into the flood channel were observed during the field surveys and therefore, no direct connectivity to Cucamonga Creek is expected; refer to **Appendix 7: Habitat Assessment**.

As described in Responses IV.10(c)ii) and IV.10(c)iv) above, the project would install bioretention trenches along the northern project boundary to satisfy the requirements of the NPDES permit. The bioretention trenches would increase the time of concentration of the developed project, reduce pollutant generation through filtration and absorption, and reduce runoff volume through

[8] Federal Emergency Management Agency. n.d. National Flood Hazard Layer Viewer. Accessed June 25, 2020. https://www.fema.gov/national-flood-hazard-layer-nfhl.

minor infiltration, absorption, and evapotranspiration.

Since the NPDES permit is intended to protect water quality, compliance with the permit would ensure that the project would not impair existing or potential beneficial uses of nearby or downstream water bodies and would not conflict with or obstruct implementation of the Basin Plan. The proposed project would not use the existing groundwater well on-site and instead would use the existing water main to receive water from the JCSD. Since the project would not use groundwater, the project would not conflict with a groundwater management plan. Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The proposed project would be required to obtain coverage under the Santa Ana regional water quality control board's statewide General Construction Permit (CGP), which requires the preparation, approval, and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include Best Management Practices (BMPS) to be implemented during and after project construction to minimize erosion and sedimentation of downstream watercourses.
2. The project is subject to the Riverside County Storm Water Permit, also issued by the Santa Ana RWQCB (Order No. R8-2010-003, NPDES No. CAS 618033, as amended by R8-2013-0024, NPDES No. CAS618033) for discharges into the Municipal Separate Storm Sewer Systems (MS4S) draining the county.
3. The project applicant will be required to prepare a final WQMP for the project, with Best Management Practices incorporated in the plan.

MITIGATION MEASURES

None required.

11. LAND USE AND PLANNING. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Physically divide an established community?			X	
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

DISCUSSION

11(a)Physically divide an established community?

Determination: Less Than Significant Impact.

The physical division of an established community is typically associated with construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility within an existing community or between a community and an outlying area.

None of the propose project components would constitute a barrier that would physically divide an established community. No new linear features are included in the project. Access to and movement throughout the Chandler area and the City would not be physically impaired due to the project.

Therefore, the proposed project would not physically divide an established community. Less than significant impacts would occur.

11(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Determination: Less Than Significant Impact.

General Plan

The project site is currently designated by the Eastvale General Plan as Low Density Residential (LDR) and is bounded by LDR to the west and Medium Density Residential (MDR) to the north and south, and Medium High Density Residential (MHDR) to the east. Refer to ***Exhibit 3, Land Use Map***. The project proposes to change the land use designation from LDR to Commercial Retail (CR) to facilitate a proposed Change of Zone. As such, approval of the proposed General Plan Amendment would make the project site land use consistent with the General Plan. Impacts would be less than significant.

Zoning Code

The project site and parcels to the west along Chandler Avenue are zoned Light Agriculture (A-1).

The neighborhood to the north is zoned One Family Dwellings (R-1), the neighborhood to the east is classified as a Specific Plan (SP), and the neighborhood to the south is classified as a Planned Residential Development (PRD). Refer to ***Exhibit 4, Zoning Map*****.** However, the project proposes a Change of Zone from Light Agricultural (A-1) to General Commercial (C-1/C-P). With concurrent approval of the proposed Change of Zone, the project would be consistent with the General Plan's proposed future commercial land use in the Chandler Area as envisioned in the Chandler Area Community Vision Plan (CVAP). The CVAP, which is a general guidance document rather than an adopted policy, identifies the area of the proposed project for future uses that include both low-density residential and commercial.

The proposed project has been designed to meet the regulations of the C-1/C-P zone. The project would comply with the minimum lot standards for area, width, and depth. The proposed buildings would comply with height, floor area ratio, and setback regulations. Therefore, the proposed project would not conflict with any applicable zoning ordinance with concurrent approval of the Change of Zone. Impacts would be less than significant.

Riverside County Airport Land Use Compatibility - Chino Airport

According to Exhibit CH-6, *Compatibility Factors Map*, of the Riverside County Airport Land Use Compatibility Plan Policy Document (ALUCP), the project site is located within the Chino Airport Influence Area, although it is not located within any of the Compatibility Zones.[9] The ALUCP establishes various policies and compatibility maps for individual ALUCP airports, including Chino Airport.

The Riverside County Airport Land Use Commission (ALUC) review is required when a project is located within the boundaries of an Airport Influence Area and the project proposes a legislative action such as a General Plan Amendment, Specific Plan Amendment, Zone Change, or Zoning Ordinance. As the project proposes a General Plan Amendment and Zone Change, review of the project by the ALUC is required. Prior to project approval by the City, the project applicant would be required to document review and approval of the project by the ALUC. Any project revisions or limitations required by the ALUC would be incorporated in the project prior approval to by the City.

Conclusion

The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, Local Coastal Program, or Zoning Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect, with concurrent approval of the General Plan Amendment and Change of Zone, and ALUC review and approval. Impacts would be less than significant.

[9] Riverside County Airport Land Use Commission. 2008. West County Airports Background Data. Exhibit CH-6, *Compatibility Factors Map.* September 2008.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

12. MINERAL RESOURCES. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?				X
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan?				X

DISCUSSION

12(a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

Determination: No Impact.

The project site has no history of use as a mineral resource recovery operation and is located in a predominantly developed area of the City. Areas identified as Mineral Resource Zone 2 (MRZ-2) are areas that contain identified mineral resources. No areas within the project vicinity are mapped MRZ-2 by the California Department of Conservation's Temescal Valley Production Area. As such, no mineral resources are anticipated within the project area.[10] Thus, project implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impact would occur.

12(b) Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan?

Determination: No Impact.

Refer to **Impact 12(a),** above. No mineral resources are anticipated within the project area. No impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

None required.

[10] California Department of Conservation. 2014. Special Report 231, "Update of Mineral Land Classification for Portland Cement Concrete-Grade Aggregate in the Temescal Valley Production Area, Riverside County, California, 2014." ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/sr_231/.

MITIGATION MEASURES

None required.

13. NOISE. Would the proposed project result in:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b)	Generation of excessive groundborne vibration or groundborne noise levels?		X		
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	

The analysis and findings throughout this section are based on the *Archibald at Chandler Commercial Project Noise Impact Analysis* (Noise Impact Analysis) prepared by Ganddini Group, Inc. and dated November 17, 2020, provided as **Appendix 13** of this IS/MND. Refer to the Noise Impact Analysis for a complete discussion regarding noise metrics and vibration fundamentals.

Multiple regulations pertaining to noise apply to the project including the following, which are described in detail in the Noise Impact Analysis:

- Federal Noise Control Act of 1972: Issued by the US Environmental Protection Agency (EPA) Office of Noise Abatement and Control and establishes programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment.
- Governor's Office of Planning and Research Noise Element Guidelines: Includes recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise.
- City of Eastvale General Plan Noise Element contains multiple policies relative to noise impacts that are applicable to the project.
- The City of Eastvale Municipal Code Section 8.52.020, *Exemptions,* and Section 8.52.040, *General sound level standards,* are applicable to the project.

EXISTING CONDITIONS

Existing Ambient Noise Measurements

Existing ambient noise levels in the project area are dominated by the transportation-related noise associated with Archibald Avenue, Chandler Street, and other surrounding roadways. Based on short- and long-term noise measurements that were taken in the project area as part of the Noise Impact Analysis, the existing ambient noise levels are as follows:

- Long-term Noise Measurement 1 (LT1) was taken toward the southern end of the project site near the western property boundary and represents noise levels at the single-family detached dwelling unit immediately west of the project site. Hourly noise levels at location LT1 ranged from 53.9 to 61.6 dBA Leq during the daytime hours and between 47.4 to 56.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 57 dBA Leq with an average nighttime noise level of 51.7 dBA Leq. The calculated CNEL is 56.4 dBA.

- Short-term Noise Measurement 1 (STNM1) was taken to the west of the project site and is representative of the single-family detached residential dwelling unit adjacent to the west of the project site. The short-term ambient noise level at this location was measured at 52.5 dBA Leq.

- Short-term Noise Measurement 2 (STNM2) was taken in the single-family residential neighborhood to the south of the project site and is representative of the single-family detached residential dwelling units located south of the project site across Chandler Street. The short-term ambient noise level at this location was measured at 47.3 dBA Leq.

- Short-term Noise Measurement 3 (STNM3) was taken in the single-family residential neighborhood to the east of the project site and is representative of the single-family detached residential dwelling units located east of the project site across Archibald Avenue. The short-term ambient noise level at this location was measured at 65.7 dBA Leq.

- Short-term Noise Measurement 4 (STNM4) was taken in the single-family residential neighborhood to the north of the project site and is representative of the single-family detached residential dwelling units located north of the project site. The short-term ambient noise level at this location was measured at 44.9 dBA Leq.

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historical sites, cemeteries, and recreation areas are

considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

There are five sensitive receivers located near the project site including existing residential homes, described in the Noise Impact Analysis as receptor numbers R1, R2, R3, R4, and R5. The closest sensitive receiver location is represented by R4, which is located on a residential property adjacent to the project site. Other sensitive land uses in the project study area that are located at greater distances than those identified in this noise study would experience lower noise levels due to the additional attenuation from distance and the shielding of intervening structures. Refer to the Noise Impact Analysis for the specific locations of the sensitive receptors.

13(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Table 13.1, City of Eastvale Noise Compatibility and Land Use Designation*,** shows the City's noise compatibility associated with each specific land use designation, as presented in the General Plan. ***Table 13.2, City of Eastvale Exterior Noise Level Standards for Non-Transportation Noise, shows the City's exterior noise level standards for non-transportation noise, measured as dBA Leq (30 minutes), as presented in the General Plan. ***Table 13.3, City of Eastvale Maximum Acceptable Noise Levels Created by Exterior Noise Sources*,** shows the City's maximum acceptable noise levels created by exterior noise sources, as presented in the General Plan. ***Table 13.4, City of Eastvale Sound Level Standards (dB Lmax)*,** shows the City's sound level standards (dB Lmax), as presented in the City's Municipal Code.

Table 13.1: City of Eastvale Noise Compatibility and Land Use Designation

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA
All Non-Residential (Commercial, Industrial, & Institutional)	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	To be determined as part of the project review process
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA

Source: City of Eastvale General Plan, Table N-3.

Notes: All noise levels shown in this table are designated CNEL.

Table 13.2: City of Eastvale Exterior Noise Level Standards for Non-Transportation Noise, Measured as dBA Leq (30 Minutes)

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 PM to 7 AM	50
	7 AM to 10 PM	60
Multiple Residential 3 or More Units Per Building (Triplex +)	10 PM to 7 AM	55
	7 AM to 10 PM	60

Source: City of Eastvale General Plan, Table N-4.

Table 13.3: City of Eastvale Maximum Acceptable Noise Levels Created by Exterior Noise Sources

Land Use Type	Acceptable Noise Level (dBA CNEL)
Residential Living and Sleeping Areas	45 dBA
Residential Living and Sleeping Areas where the dwelling unit is subject to noise from railroad tracks, aircraft overflights, or similar sources which produce clearly identifiable, discrete noise events (such as the passing of a train as opposed to relatively steady or constant noise sources such as roadways)	40 dBA
Private and Semi Private School Classrooms1	55 dBA
All Places of Work Other than School Classrooms	Conform with applicable state and federal workplace safety standards

Source: City of Eastvale General Plan, Table N-5.

Notes: Standards for public schools are set and enforced by the State of California and are not regulated by the City of Eastvale.

Table 13.4: City of Eastvale Sound Level Standards (dB Lmax)

General Plan Foundation Component			Maximum Decibel Level	
Land Use Designation General Plan	Land Use Designation Name	Density	7:00 AM to 10:00 PM	10:00 PM to 7:00 AM
Community Development				
EDR	Estate density residential	2 acres	55	45
VLDR	Very low-density residential	1 acre	55	45
LDR	Low-density residential	1/2 acre	55	45
MDR	Medium-density residential	2–5	55	45
MHDR	Medium high-density residential	5–8	55	45
HDR	High-density residential	8–14	55	45
VHDR	Very high-density residential	14–20	55	45
H'TDR	Highest density residential	20 +	55	45
CR	Retail commercial		65	55
CO	Office commercial		65	55
CT	Tourist commercial		65	55
CC	Community center		65	55

General Plan Foundation Component			Maximum Decibel Level	
Land Use Designation General Plan	Land Use Designation Name	Density	7:00 AM to 10:00 PM	10:00 PM to 7:00 AM
LI	Light industrial		75	55
HI	Heavy industrial		75	75
BP	Business park		65	45
PF	Public facility		65	45
SP	Specific plan-residential		55	45
	Specific plan-commercial		65	55
	Specific plan-light industrial		75	55
	Specific plan-heavy industrial		75	75
Rural Community				
EDR	Estate density residential	2 acres	55	45
VLDR	Very low-density residential	1 acre	55	45
LDR	Low-density residential	1/2 acre	55	45
Rural				
RR	Rural residential	5 acres	45	45
RM	Rural mountainous	10 acres	45	45
RD	Rural desert	10 acres	45	45
Agriculture				
AG	Agriculture	10 acres	45	45
Open Space				
C	Conservation		45	45
CH	Conservation habitat		45	45
REC	Recreation		45	45
RUR	Rural	20 acres	45	45
W	Watershed		45	45
MR	Mineral resources		75	45

Source: City of Eastvale Municipal Code, Section 8.52.040 Table 1.

SHORT-TERM CONSTRUCTION IMPACTS

Project-generated construction noise would vary depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week) and the duration of the construction work.

Construction activities for the proposed project are anticipated to occur in the following stages:

- Grading

- Building Construction
- Paving
- Architectural Coating

Roadway construction noise model noise reference levels and usage factors are shown in ***Table 13.5: Maximum Noise Levels Generated by Typical Construction Equipment***. The list shown in ***Table 13.5*** is extensive, and not all equipment listed is expected to be used on the project site.

Table 13.5: Maximum Noise Levels Generated by Typical Construction Equipment

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)
All Other Equipment > 5 HP	50	85
Auger Drill Rig	20	85
Backhoe	40	80
Bar Bender	20	80
Blasting	N/A	94
Boring Jack Power Unit	50	80
Chain Saw	20	85
Clam Shovel (dropping)	20	93
Compactor (ground)	20	80
Compressor (air)	40	80
Concrete Batch Plant	15	83
Concrete Mixer Truck	40	85
Concrete Pump Truck	20	82
Concrete Saw	20	90
Crane	16	85
Dozer	40	85
Drill Rig Truck	20	84
Drum Mixer	50	80
Dump Truck	40	84
Excavator	40	85
Flat Bed Truck	40	84
Forklift[2, 3]	50	N/A
Front End Loader	40	80
Generator	50	82
Generator (<25KVA, VMS signs)	50	70
Gradall	40	85
Grader	40	85
Grapple (on backhoe)	40	85
Horizontal Boring Hydraulic Jack	25	80
Hydra Break Ram	10	90
Impact Pile Driver	20	95

Type of Equipment	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)
Jackhammer	20	85
Man Lift	20	85
Mounted Impact hammer (hoe ram)	20	90
Pavement Scarafier	20	85
Paver	50	85
Pickup Truck	50	85
Paving Equipment	50	85
Pneumatic Tools	50	85
Pumps	50	77
Refrigerator Unit	100	82
Rivit Buster/chipping gun	20	85
Rock Drill	20	85
Roller	20	85
Sand Blasting (Single Nozzle)	20	85
Scraper	40	85
Shears (on backhoe)	40	85
Slurry Plant	100	78
Slurry Trenching Machine	50	82
Soil Mix Drill Rig	50	80
Tractor	40	84
Vacuum Excavator (Vac-truck)	40	85
Vacuum Street Sweeper	10	80
Ventilation Fan	100	85
Vibrating Hopper	50	85
Vibratory Concrete Mixer	20	80
Vibratory Pile Driver	20	95
Warning Horn	5	85
Welder/Torch	40	73

Source: Federal Highway Administration, Roadway Construction Noise Model (FHWA-HEP-05-054), January 2006.

Notes:

Lmax = maximum noise levels; dBA = A-weighted decibel

(1) Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

(2) Warehouse & Forklift Noise Exposure - NoiseTesting.info. Carl Stautins, November 4, 2014 http://www.noisetesting.info/blog/carlstrautins/ page-3/

(3) Data provided Leq as measured at the operator. Sound level at 50 feet is calculated using inverse square law.

Construction noise sources are regulated in the City of Eastvale Municipal Code Section 8.52.020 which prohibits construction activities within one-quarter of a mile from an inhabited dwelling between the hours of 6:00 PM and 6:00 AM during the months of June through September and 6:00 PM and 7:00 AM during the months of October through May. Further, Policy N-24 of the City of Eastvale General Plan requires construction equipment to be kept properly tuned and use

noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

In compliance with the City's Municipal Code, it is assumed that construction would not occur during the noise-sensitive nighttime hours, and noise impacts shall be considered significant if project-related construction activities:

- Occur at any time other than the permitted hours of 6:00 PM and 6:00 AM during the months of June through September and 6:00 PM and 7:00 AM during the months of October through May pursuant to Section 8.52.040 of the City of Eastvale Municipal Code; or

- Generate noise levels which exceed the 85 dBA Leq acceptable noise level threshold at the nearby sensitive receiver locations (NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure); or

- Generate temporary project construction-related noise level increases which exceed the 12 dBA Leq substantial noise level increase threshold at noise-sensitive receiver locations (California Department of Transportation, Traffic Noise Analysis Protocol).

Table 13.6: Unmitigated Construction Equipment Noise Level Summary provides a summary of unmitigated noise levels from each stage of construction at each of the sensitive receiver locations. ***Table 13.6*** shows that unmitigated project construction noise levels are not anticipated to exceed the 85 dBA Leq noise criteria. Unmitigated temporary noise level increases that would be experienced at sensitive receiver locations when project construction noise is added to the ambient daytime conditions are presented in ***Table 13.7: Unmitigated Construction Noise Level Compliance***. As shown in ***Table 13.7***, the project would contribute unmitigated, worst-case construction noise level increases between 6.1 to 24.8 dBA Leq at the adjacent sensitive receiver locations during the daytime hours. Therefore, mitigation is required.

Table 13.6: Unmitigated Construction Equipment Noise Level Summary

Receiver Location	Unmitigated Construction Noise Levels (dBa Leq)				
	Grading	Building Construction	Paving	Architectural Coating	Highest Construction Noise Level[1]
R1	68.4	67.0	64.8	57.9	68.4
R2	70.6	69.1	67.0	60.0	70.6
R3	70.4	68.9	66.7	59.8	70.4
R4	77.3	75.9	73.7	66.8	77.3
R5	68.1	66.6	64.5	57.5	68.1

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 30.

Notes:

(1) Estimated construction noise levels during peak operating conditions.

Table 13.7: Unmitigated Construction Noise Level Compliance

Receiver Location	Highest Construction Noise Level[1]	Measurement Location	Threshold[2]	Threshold Exceeded?	Reference Ambient Noise Level[3]	Combined Project and Ambient[4]	Temporary Worst-Case Project Contribution[5]	Threshold Exceeded[6]
R1	68.4	STNM4	85.0	No	44.9	68.4	23.5	Yes
R2	70.6	STNM3	85.0	No	65.7	71.8	6.1	No
R3	70.4	STNM3	85.0	No	65.7	71.7	6.0	No
R4	77.3	STNM1	85.0	No	52.5	77.3	24.8	Yes
R5	68.1	STNM2	85.0	No	47.3	68.1	20.8	Yes

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 31.

Notes:

(1) Highest modeled construction noise level from all construction phases as shown in Table 13.6.

(2) Construction noise threshold per the Criteria for Recommended Standard: Occupational Noise Exposure prepared by the National Institute for Occupational Safety and Health (NIOSH).

(3)Measured average daytime ambient noise level (Leq) from Table 8 of the Noise Impact Analysis.

(4)Represents the combined ambient conditions plus the project construction activities.

(5)The temporary noise level increase expected with addition of the unmitigated proposed project construction activities.

(6)Based on the 12 dBA temporary increase significance criteria identified above.

Mitigation Measures NOI-1 through **NOI-4**, below, would reduce potentially significant impacts to a less than significant level.

Mitigated construction noise levels are shown in ***Table 13.8: Mitigated Construction Equipment Noise Level Summary*** and mitigated construction noise level compliance is shown in ***Table 13.9: Mitigated Construction Noise Level Compliance***. As shown, the project would contribute mitigated, worst-case construction noise level increases between 0.7 and 11.8 dBA Leq. Therefore, project construction source noise level increases would not exceed 12 dBA Leq with incorporation of **Mitigation Measures NOI-1** through **NOI-4**. All construction would be conducted during the hours allowed in the Municipal Code and therefore would be consistent with the applicable plans and policies. Further, Policy N-24 of the City of Eastvale General Plan requires construction equipment to be kept properly tuned and use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

Table 13.8: Mitigated Construction Equipment Noise Level Summary

Receiver Location[1]	Mitigated Construction Noise Levels (dBa Leq)				
	Grading	Building Construction	Paving	Architectural Coating	Highest Construction Noise Level[2]
R1	56.4	55.0	52.8	45.9	56.4
R2	58.6	57.1	55.0	48.0	58.6
R3	58.4	56.9	54.7	47.8	58.4
R4[3]	57.3	55.9	53.7	46.8	57.3
R5	56.1	54.6	52.5	45.5	56.1

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 32.

Notes:

(1) Mitigation requiring that all construction equipment include mufflers and/or enclosures or acoustical tents (as appropriate) that provide at least 12 dB of noise reduction.

(2) Estimated construction noise levels during peak operating conditions.

(3) Mitigation requiring a 10-foot wall to be constructed along the western property line adjacent to R4 before beginning all other construction activities (the 10-foot wall in this location is required for operation of the project). The wall will reduce noise levels by approximately 20 dB.

Table 13.9: Mitigated Construction Noise Level Compliance

Receiver Location	Highest Construction Noise Level[1]	Measurement Location	Threshold[2]	Threshold Exceeded?	Reference Ambient Noise Level[3]	Combined Project and Ambient[4]	Temporary Worst-Case Project Contribution[5]	Threshold Exceeded[6]
R1	56.4	STNM4	85.0	No	44.9	56.7	11.8	No
R2	58.6	STNM3	85.0	No	65.7	66.5	0.8	No
R3	58.4	STNM3	85.0	No	65.7	66.4	0.7	No
R4	57.3	STNM1	85.0	No	52.5	58.5	6.0	No
R5	56.1	STNM2	85.0	No	47.3	56.6	9.3	No

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 33.

Notes:

(1) Highest modeled construction noise level from all construction phases as shown in Table 13.8 with mitigation measures implemented.

(2) Construction noise threshold per the Criteria for Recommended Standard: Occupational Noise Exposure prepared by the National Institute for Occupational Safety and Health (NIOSH).

(3) Measured average daytime ambient noise level (Leq) from Table 8 of the Noise Impact Analysis.

(4) Represents the combined ambient conditions plus the project construction activities.

(5) The temporary noise level increase expected with addition of the mitigated proposed project construction activities.

(6) Based on the 12 dBA temporary increase significance criteria identified above.

Implementation of **Mitigation Measures NOI-1** through **NOI-4**, General Plan Policy N-24, and compliance with the City's restrictions on the hours allowed for construction activities would reduce construction noise levels to a less than significant level.

LONG-TERM OPERATIONAL IMPACTS

Off-Site Transportation Noise Impacts

Increases in ambient noise along affected roadways due to project-generated vehicle traffic is considered substantial if the noise levels at existing and future noise-sensitive land uses (e.g., residential, etc.):

- are less than 60 dBA CNEL and the project creates a readily perceptible 5 dBA CNEL or greater project-related noise level increase; or
- range from 60 to 65 dBA CNEL and the project creates a barely perceptible 3 dBA CNEL or greater project-related noise level increase; or
- already exceed 65 dBA CNEL, and the project creates a community noise level impact of greater than 1.5 dBA CNEL.

As shown in ***Table 13.10: Change in Existing Noise Levels Along Roadways as a Result of the Project (dBA CNEL)***, project-generated vehicle trips are projected to result in increases in the existing ambient noise level of less than 1.5 dB for all modeled roadway segments other than the roadway segment of Grapewin Street east of Archibald Avenue. Grapewin Street east of Archibald Avenue has a projected increase of 3.0 dB; however, the modeled Existing with Project noise level is 52.3 dBA CNEL for this roadway segment, which is substantially lower than the lowest significance criteria of 60 dBA.

Table 13.10: Change in Existing Noise Levels Along Roadways as a Result of Project (dBA CNEL)

Roadway	Segment	Distance from Roadway Centerline to Nearest Receptor	Modeled Noise Levels (dBA CNEL)				
			Existing Without Project	Existing With Project	Change in Noise Level	Exceeds Standards	Increase of 3 dB or more
Archibald Avenue	North of Smith River Road/ Eastvale Parkway	65	75.6	75.8	0.2	Yes	No
	South of Smith River Road/ Eastvale Parkway	65	75.3	75.6	0.3	Yes	No
	North of Chandler Street	65	75.3	75.6	0.3	Yes	No
	Chandler Street to Wind River Road/Grapewin Street	65	76.1	76.3	0.3	Yes	No
	South of Wind River Road/ Grapewin Street	45	77.1	77.3	0.2	Yes	No
Smith River Road	West of Archibald Avenue	42	56.0	56.7	0.7	No	No
Eastvale Parkway	East of Archibald Avenue	50	59.4	59.7	0.3	No	No
Chandler Street	West of Archibald Avenue	52	71.1	72.4	1.3	Yes	No
	East of Archibald Avenue	42	69.7	70.2	0.5	Yes	No
Wind River Road	West of Archibald Avenue	40	56.8	57.5	0.6	No	No
Grapewin Street	East of Archibald Avenue	15	49.3	52.3	3.0	No	Yes

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 14.

Notes:

(1) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth.

Based on the significance criteria described above, the project-related noise level increases are considered less than significant.

Noise Impacts to Off-Site Receptors Due to On-Site Operational Noise

Compliance with General Plan Stationary Noise Standards

Significant impacts related to project operations would occur if project-related operational (stationary-source) noise levels:

- exceed the exterior 60 dBA Leq daytime or 50 dBA Leq nighttime noise level standards at nearby sensitive receiver locations (City of Eastvale General Plan Noise Element, Table N-4, described above and shown as Table 13.2).

Unmitigated noise levels associated with project operational noise sources are expected to range from 43.0 to 50.0 dBA Leq at sensitive off-site receiver locations R1 to R5, including backyard, first floor, and second floor building façades. Project operational noise is not expected to exceed daytime or nighttime noise standards. This impact is less than significant.

CEQA - Increase in Ambient Noise Levels

Significant impacts related to project operations would occur if the existing ambient noise levels at the noise-sensitive receivers near the project site:

- are less than 60 dBA Leq and the project creates a readily perceptible 5 dBA Leq or greater project-related noise level increase; or
- range from 60 to 65 dBA Leq and the project creates a barely perceptible 3 dBA Leq or greater project-related noise level increase; or
- already exceed 65 dBA Leq, and the project creates a community noise level impact of greater than 1.5 dBA Leq.

As shown in ***Table 13.11: Project Operational Noise Levels***, operation of the project would result in increases in ambient noise levels of up to 3.3 dB but would not result in violation of any of the above thresholds due to relatively quiet ambient noise levels.

Table 13.11: Project Operational Noise Levels

Receiver Location			Highest Operational Noise Levels (dBA Leq)	Noise Level Standard (dBA Leq)[1]		Threshold Exceeded?[2]	
ID	Modeled	Location		Daytime	Nighttime	Daytime	Nighttime
R1	1	Backyard	48.0	60.0	50.0	No	No
R2	3		48.0	60.0	50.0	No	No
R3	6		46.0	60.0	50.0	No	No
R4	10		51.0	60.0	50.0	No	Yes
R5	8		47.0	60.0	50.0	No	No
R1	2-1	First-Floor Building Façade	45.0	60.0	50.0	No	No
R2	4-1		45.0	60.0	50.0	No	No
R3	5-1		45.0	60.0	50.0	No	No
R4	9		50.0	60.0	50.0	No	No
R5	7-1		45.0	60.0	50.0	No	No
R1	2-2	Second-Floor Building Façade	46.0	60.0	50.0	No	No
R2	4-2		46.0	60.0	50.0	No	No
R3	5-2		46.0	60.0	50.0	No	No
R4	n/a		n/a	n/a	n/a	n/a	n/a

Receiver Location			Highest Operational Noise Levels (dBA Leq)	Noise Level Standard (dBA Leq)[1]		Threshold Exceeded?[2]	
ID	Modeled	Location		Daytime	Nighttime	Daytime	Nighttime
R5	7-2		46.0	60.0	50.0	No	No

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 18.

Notes:

(1) Exterior noise level standards from the City of Eastvale General Plan Noise Element, Table N-4

(2) Do the estimated project operational noise source activities exceed the noise level threshold?

(3) R4 represents a single-story single-family detached residential dwelling unit.

Based on the significance criteria described above, impacts relative to project operational noise would be less than significant.

13(b) Generation of excessive groundborne vibration or groundborne noise levels?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from project construction activities would cause only intermittent, localized intrusion. The proposed project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short term and is not of sufficient magnitude to cause building damage.
- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Ground-borne vibration levels resulting from construction activities occurring within the project site were estimated by data published by the FTA. Construction activities that would have the potential to generate low levels of ground-borne vibration within the project site include grading. Project vibration impacts were estimated based on the methodology described in the Noise Impact Analysis. ***Table 13.12: Unmitigated Construction Equipment Vibration Levels*** presents the unmitigated project construction-related vibration levels at each of the sensitive receiver locations.

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec PPV at 25 feet. At distances ranging from 10 to 150 feet from the project construction activities, construction vibration velocity levels are expected to range from 0.000 to 0.352 in/sec PPV. Based on the City of Eastvale vibration standard of 0.0787 in/sec PPV, the proposed project construction activities would generate unmitigated vibration levels which remain below the 0.0787 in/sec PPV threshold at R1, R2, R3, and R5; however, due to the proximity to the western property line, R4 could have potentially significant impacts. Therefore, to satisfy the City of Eastvale vibration standard of 0.0787 in/sec PPV, **Mitigation Measure NOI-5** restricts the use of jackhammers within 15 feet,

loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary (R4).

Table 13.12: Unmitigated Construction Equipment Vibration Levels

Receiver Location	Distance to Construction Activity (feet)	Receiver PPV Levels (in/sec)[1]					Threshold Exceeded?[2]
		Small Dozer	Jackhammer	Loaded Trucks	Large Bulldozer	Highest Levels (PPV)	
R1	125	0.000	0.003	0.007	0.008	0.008	No
R2	135	0.000	0.003	0.006	0.007	0.007	No
R3	150	0.000	0.002	0.005	0.006	0.006	No
R4	10	0.012	0.138	0.300	0.352	0.352	Yes
R5	140	0.000	0.003	0.003	0.007	0.007	No

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 34.

Notes:

(1) Based on the vibration source levels of construction equipment included in Table 13.5.

(2) Does the peak vibration exceed the maximum acceptable vibration threshold of 0.0787 PPV in/sec per the City of Eastvale General Plan Noise Element, Policy N-3?

Implementation of **Mitigation Measure NOI-5** would reduce groundborne vibration levels to a less than significant level.

Table 13.13: Mitigated Construction Equipment Vibration Levels, presents the mitigated project construction-related vibration levels at each of the sensitive receiver locations.

Table 13.13: Mitigation Construction Equipment Vibration Levels

Receiver Location[1]	Distance to Construction Activity (feet)	Receiver PPV Levels (in/sec)					Threshold Exceeded?[2]
		Small Dozer	Jackhammer	Loaded Trucks	Large Bulldozer	Highest Levels (PPV)	
R1	125	0.000	0.003	0.007	0.008	0.008	No
R2	135	0.000	0.003	0.006	0.007	0.007	No
R3	150	0.000	0.002	0.005	0.006	0.006	No
R4	10[3]	0.012	0.075	0.076	0.075	0.076	No
R5	140	0.000	0.003	0.006	0.007	0.007	No

Notes:

Source: Ganddini Group, Inc. Noise Impact Analysis, November 17, 2020, Table 35.

(1) Based on the vibration source levels of construction equipment included in Table 13.5.

(2) Does the peak vibration exceed the maximum acceptable vibration threshold of 0.0787 PPV in/sec per the City of Eastvale General Plan Noise Element, Policy N-3?

(3) With incorporation of mitigation requiring jackhammers to be restricted within 15 feet, loaded trucks to be restricted within 25 feet and large bulldozers to be restricted within 28 feet of R4.

As shown in ***Table 13.13***, with implementation of **Mitigation Measure NOI-5**, impacts at location R4 would be reduced to a less than significant level.

13(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Determination: Less Than Significant Impact.

The closest airport to the project site is Chino Airport, which is approximately 2.15 miles northwest of the project site boundaries. The project site is not located within 2 miles of a public airport or within an airport land use plan, nor is the project within the vicinity of a private airstrip. As such, the project site would not be exposed to excessive noise levels from airport operations, and impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The project will be subject to the general sound level standards of Eastvale Municipal Code Section 8.52.040, *General Sound Level Standards*.

MITIGATION MEASURES

NOI-1 The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise-sensitive receptors nearest the project site.

NOI-2 The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).

NOI-3 The contractor shall install temporary construction noise barriers/blankets along the western boundary. The barrier/blankets shall be solid with no cracks or holes and shall also reach to the ground.

NOI-4 During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from applicable noise level specifications.

NOI-5 The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

With implementation of **Mitigation Measures NOI-1** through **NOI-5**, impacts relative to noise would be reduced to a less than significant level.

14. POPULATION AND HOUSING. Would the proposed project:						
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			✓	

DISCUSSION

14(a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Determination: Less Than Significant Impact.

A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. The project involves the development of a commercial/retail center on approximately 2.71 acres located on the northwest corner of Chandler Street and Archibald Avenue; the project does not include the construction of new homes.

The project would generate temporary construction and long-term operational employment. The Southern California Association of Governments (SCAG) estimates that employment in the City of Eastvale will increase from 7,400 jobs in 2016 to 21,600 jobs in 2045.[11] Thus, it is expected that the project would absorb workers from the regional labor force and would not attract new workers into the region. Therefore, the project would not directly induce population growth in the area through the introduction of new residents. Impacts would be less than significant.

14(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Determination: Less Than Significant Impact.

There are currently no existing houses on the project site. Therefore, the displacement of existing housing would not occur, and no replacement of housing would be needed. Impacts would be less than significant.

[11] Southern California Association of Governments. 2020. Connect SoCal, RTP/SCS 2020-2045, Demographics and Growth Forecast. Accessed July 8, 2020. https://www.connectsocal.org/Documents/Draft/dConnectSoCal_Demographics-And-Growth-Forecast.pdf.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

15. PUBLIC SERVICES. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public series:				
	i) Fire protection?			✓	
	ii) Police protection?			✓	
	iii) Schools?			✓	
	iv) Parks?			✓	
	v) Other public facilities?			✓	

DISCUSSION

15(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public series:

i) Fire protection?

Determination: Less Than Significant Impact.

The Riverside County Fire Department provides fire protection and safety services to the City of Eastvale. The nearest fire station is the Chandler Fire Station #31 located at 14491 Chandler Street in Eastvale, approximately 0.35 miles west of the project site.

The proposed project would create an increased demand for fire protection services. However, as a commercial/retail development, the project would not induce significant or unplanned population growth through employment generation and would not result in the need for new or physically altered fire protection facilities; refer to Section IV.14, *Population and Housing*. Further, the proposed project would be conditioned to comply with the requirements of the Riverside County Fire

Department for emergency access, fire flow, fire protection standards, fire lanes, and other site design/building standards. The project would also be subject to the project design requirements set forth in the 2019 California Fire Code and the 2019 California Building Standards Code. The City would collect a one-time development impact fees pursuant to Municipal Code Chapter 110.28, *Development Impact Fee Program,* which is imposed on all new development to help pay fair share of costs in upgrading the Riverside County Fire Department's fire facilities, as needed. Payment of these fees would offset the project's impacts to the acquisition, design, and construction of new fire facilities. Following collection of development impact fees and compliance with Riverside County Fire Department, California Fire Code, and California Building Code requirements, impacts to fire protection facilities would be less than significant.

ii) *Police protection?*

Determination: Less Than Significant Impact.

Police protection services are provided to the City under contract from the Riverside County Sheriff's Department. Specifically, police protection services for the project area are provided by the Jurupa Valley Sheriff's Station located at 7477 Mission Boulevard in Jurupa Valley, approximately 9.5 miles northeast of the project site.

The proposed project would create an increased demand for police protection services. However, as a commercial/retail land use, the project would not induce significant or unplanned population growth through employment generation and would not result in the need for new or physically altered police protection facilities; refer to Section IV.14, *Population and Housing*. The proposed development would be conditioned for the payment of the City's development impact fees pursuant to Municipal Code Chapter 110.28. The Riverside County Sheriff's Department would have the opportunity to review the project design plans and include conditions that would be required in order for the applicant to be issued development permits. As a neighborhood-servicing commercial/retail land use, the proposed project is not expected to result in any unusual circumstances that may generate high demand for police protection services. Therefore, payment of the City's development impact fees would fully mitigate any potential impact on Sheriff's Department facilities.

iii) *Schools?*

Determination: Less Than Significant Impact.

The proposed project site is located in the Corona-Norco Unified School District. However, the proposed project would not significantly increase the need for new school facilities, as the project would not result in substantial unplanned population growth; refer to Section IV.14, *Population and Housing*. Additionally, because no new housing is proposed with the project, no additional student generation would occur.

Furthermore, the project would be required to comply with Senate Bill (SB) 50 requirements, which allow school districts to collect impact fees from developers of new projects, including commercial construction. According to Section 65997 of the California Government Code, payment of statutory fees is the exclusive method of mitigating environmental effects related to the adequacy of school facilities when considering the approval or the establishment of conditions for the approval of a development project. Thus, upon payment of required fees by the project applicant consistent with existing state requirements, impacts would be less than significant.

iv) *Parks?*

Determination: Less Than Significant Impact.

The project involves the development of commercial/retail land uses and does not propose new or physically altered parks or recreational facilities. Thus, the project would not result in substantial adverse physical impacts to any parks or recreational facilities in the Jurupa Community Services District (JCSD) or the Jurupa Area Recreation and Park District (JARPD). Upon payment of required fees to JCSD and JARPD, consistent with existing regulations, this impact would be less than significant.

v) *Other public facilities?*

Determination: Less Than Significant Impact.

The project involves the development of commercial/retail land uses and does not propose new or physically altered public facilities. Thus, the proposed project would not result in an increase in the demand for other governmental services such as the economic development and other community support services commonly provided by the City. This impact would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The project applicant is required to pay the established development impact fees in compliance with the Development Impact Fee Program in Chapter 110.28 of the Eastvale Municipal Code.

2. California Government Code Section 65996 indicates that payment of school impact fees is considered full mitigation for project impacts to a school district.

MITIGATION MEASURES

None required.

16. RECREATION. Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			✓	
b)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

DISCUSSION

16(a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Determination: Less Than Significant Impact.

Refer to Response IV.15(a)(iv). It is not anticipated that the proposed project would generate a substantial number of new jobs or induce substantial population growth in the city. Thus, the project would not increase the use of existing neighborhood or regional parks or other recreational facilities. This impact would be less than significant.

16(b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Determination: Less Than Significant Impact.

Refer to Response IV.15(a)(iv). The proposed General Plan Amendment and Change of Zone would not include the construction or expansion of any parks or recreational facilities. As described previously, the proposed project would not increase the demand for parks or other recreational facilities and would not require the construction or expansion of any such facilities. This impact would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. City of Eastvale Municipal Code Chapter 110.28, *Development Impact Fee Program,* indicates that a project applicant is required to pay the established development impact fees once a development application is submitted to mitigate potential impacts on the Jurupa Community Services District, and in compliance with the Development Impact Fee Program.

MITIGATION MEASURES

None required.

17. TRANSPORTATION. Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d)	Result in inadequate emergency access?		X		

The analysis and findings throughout this section are based on the *Archibald at Chandler Commercial Project Traffic Impact Analysis* (TIA), prepared by Ganddini Group, Inc., dated October 28, 2020, and provided as **Appendix 14** of this IS/MND.

DISCUSSION

17(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Determination: Less Than Significant Impact.

State CEQA Guidelines Section 15064.3 was released on December 28, 2018, to address the determination of significance for transportation impacts. The new guideline requires that the analysis is based on vehicle miles traveled (VMT) instead of congestion (such as level of service, or LOS). Pursuant to CEQA Guidelines Section 15064.3(c), this change in analysis is mandated to be used beginning July 1, 2020. Refer to Response IV.17(b) below for the project impacts relative to VMT. However, General Plan Policy C-10 of the Eastvale General Plan requires that the City maintain a LOS C on all City maintained roadways, and a LOS D in employment and commercial areas. Thus, a discussion relative to the project consistency with Policy C-10 has been included.

Study Area

Based on the City-approved scoping agreement for the project, ***Table 17.1, Study Area Intersections and Roadway Segments***, shows the intersections and roadway segments within the City of Eastvale jurisdiction that are included in the traffic impact study area.

Table 17.1: Study Area Intersections and Roadway Segments

		Jurisdiction
Intersections		
1. Project West Access at Chandler Street		City of Eastvale
2. Archibald Avenue at Eastvale Parkway		City of Eastvale
3. Archibald Avenue at Project North Access		City of Eastvale
4. Archibald Avenue at Project South Access		City of Eastvale
5. Archibald Avenue at Chandler Street		City of Eastvale
6. Archibald Avenue at Wind River Road		City of Eastvale
Roadway Segments		
1. Archibald Avenue	Eastvale Parkway to Chandler Street	City of Eastvale
2. Archibald Avenue	Chandler Street to Wind River Road	City of Eastvale
3. Chandler Street	West of Archibald Avenue	City of Eastvale
4. Chandler Street	East of Archibald Avenue	City of Eastvale
Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. P. 1-2.		

Methodology

LOS is used to qualitatively describe the performance of a roadway facility, ranging from LOS A (free-flow conditions) to LOS F (extreme congestion and system failure). Study area intersections within the City are analyzed using the methodology in accordance with the City's *Traffic Impact Analysis Preparation Guidelines* (May 2020) (City of Eastvale TIA Guidelines). The technique used to assess the performance of an intersection is known as the intersection delay method, based on the procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding LOS. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to LOS based on the thresholds shown in ***Table 17.2, Intersection LOS Thresholds***, below.

Table 17.2: Intersection LOS Thresholds

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized	Unsignalized
A	≤ 10.0	≤ 10.0
B	≤ 10.0 to ≤ 20.0	≤ 10.0 to ≤ 15.0
C	≤ 20.0 to ≤ 35.0	≤ 15.0 to ≤ 25.0
D	≤ 35.0 to ≤ 55.0	≤ 25.0 to ≤ 35.0
E	≤ 55.0 to ≤ 80.0	≤ 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. P. 6.

The technique used to assess the performance of roadway segments is known as the volume-to-capacity (V/C) analysis, based on the procedures contained in the Highway Capacity Manual. The methodology compares the average daily traffic volume using the roadway segment to the capacity of the roadway segment to calculate the V/C ratio, which is then correlated to a LOS based on the thresholds shown in ***Table 17.3, Roadway Segment LOS Thresholds***, below.

Table 17.3: Roadway Segment LOS Thresholds

Level of Service	Volume/Capacity
A	0.000 - 0.600
B	0.601 - 0.700
C	0.701 - 0.800
D	0.801 - 0.900
E	0.901 - 1.000
F	> 1.0

Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. P. 7.

The City's General Plan seeks to maintain LOS C along all City-maintained roads. A peak hour LOS D may be allowed in commercial and employment areas, and at intersections of any combination of major highways, urban arterials, secondary highways, or freeway ramp intersections. The City has established LOS D as the minimum acceptable LOS. Based on General Plan Policy C-10, a project traffic impact is considered significant if the addition of project-generated trips is forecast to cause an intersection to deteriorate from an acceptable LOS (D or better) to an unacceptable LOS (E or F).

Project Trip Generation

The proposed project is forecast to generate a total of approximately 4,871 net new daily trips, including 141 net new trips during the AM peak hour and 179 net new trips during the PM peak hour.

Analysis Scenarios and Results

The following scenarios are analyzed during typical weekday AM and PM peak hour conditions:

- Existing Conditions
- Existing Plus Project Conditions
- Opening Year (2022) Without and With Project Conditions[12]
- Horizon Year (2040) Without and With Project Conditions

Existing Conditions

Regional access to the project site is provided by Interstate 15 (I-15) approximately one-half mile to the east. Local north-south circulation is provided by Archibald Avenue, and east-west circulation is provided by Chandler Street. Archibald Avenue is a north-south five-lane divided to six-lane divided roadway, classified as an Urban Arterial (six-lane divided with 152 feet of right-of-way) in the General Plan Circulation Element. Chandler Street is an east-west four-lane divided roadway, classified as an Arterial (four-lane divided with 128 feet of right-of-way) from Archibald Avenue to Harrison Avenue and a Secondary Highway (four-lane undivided with 100 feet of right-of-way) from Archibald Avenue to Harrison Avenue in the General Plan Circulation Element.

Existing sidewalks are currently provided along the roadways adjacent to the project site, except at the location of the project site. There are no existing bike lanes in the project area; however, future bicycle lanes are proposed for both Archibald Avenue and Chandler Street. Existing transit facilities provided by the Riverside Transit Agency in the project vicinity include Transit Route 3 and Route 29, which operate in the City of Eastvale; however, the study area is currently not served.

The study intersection LOS for Existing (Year 2020) conditions are shown in ***Table 17.4, Existing Intersection LOS***. As shown in ***Table 17.4***, the study intersections currently operate within acceptable LOS (D or better) for City of Eastvale intersections.

The study roadway segment volume to capacity and LOS is shown in ***Table 17.5, Existing Roadway Segment Daily Capacity Analysis***. As shown in ***Table 17.5***, the study roadway segments currently operate at an acceptable LOS (D or better) for existing conditions.

Table 17.4: Existing Intersection LOS

ID/Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
2. Archibald Avenue at Smith Road/Eastvale Parkway	TS	15.8	B	10.0	A
5. Archibald Avenue at Chandler Street	TS	27.0	C	20.4	C

[12] Opening Year conditions include existing plus ambient growth plus cumulative traffic volumes.

6. Archibald Avenue at Wind River Road/Grapevine Street	TS	15.4	B	5.8	A

Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. Table 1, P. 11.

1 = TS = Traffic Signal

2 = Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown.

3 = LOS = Level of Service

Table 17.5: Existing Roadway Segment Daily Capacity Analysis

ID/Roadway	Segment		Classification	Lanes	Capacity[1]	Existing		
	From	To				ADT[2]	V/C[2]	LOS[2]
1. Archibald Avenue	Eastvale Parkway	Chandler Street	Urban Arterial	6D	53,900	19,420	0.43	A
2. Archibald Avenue	Chandler Street	Wind River Road	Urban Arterial	6D	53,900	23,000	0.41	A
3. Chandler Street	West of Archibald Avenue	Archibald Avenue	Arterial	4D	35,900	6,900	0.19	A
4. Chandler Street	Archibald Avenue	East of Archibald Avenue	Secondary Collector	4U	18,000	9,290	0.26	A

Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. Table 2, P. 12.

1 = Source: Roadway classifications and maximum average daily traffic volumes (City of Eastvale General Plan Update, Transportation Circulation Element, June 2012)

2 = ADT = Average Daily Traffic; V/C = Volume to Capacity; LOS = Level of Service

Existing Plus Project Conditions

The study intersection LOS for Existing Plus Project conditions are shown in ***Table 17.6, Existing Plus Project Intersection LOS***. As shown in ***Table 17.6***, the study intersections are forecast to operate within acceptable LOS (D or better) during the peak hours for Existing Plus Project conditions. A less than significant impact would occur.

Table 17.6: Existing Plus Project Intersection LOS

ID/Study Intersection	Traffic Control[1]	Existing				Existing Plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Project West Driveway at Chandler Street	CSS	--		--		10.1	B	9.7	A
2. Archibald Avenue at Smith Road/Eastvale Parkway	TS	15.8	B	10.0	A	15.9	B	10.2	B
3. Archibald Avenue at Project North Driveway	CSS	--		--		14.5	B	13.6	B
4. Archibald Avenue at Project South Driveway	CSS	--		--		14.8	B	13.9	B
5. Archibald Avenue at Chandler Street	TS	27.0	C	20.4	C	30.1	C	23.2	C
6. Archibald Avenue at Wind River Road/ Grapevine Street	TS	15.4	B	5.8	A	21.1	C	6.0	A

Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. Table 5, P. 53.

1 = TS = Traffic Signal; CSS= Cross Street Stop

2 = Existing Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).

3 = LOS = Level of Service

Opening Year (2022) Without and With Project Conditions

The study intersection LOS for Opening Year (2022) Without and With Project conditions are shown in ***Table 17.7, Opening Year (2022) Intersection LOS***. As shown in ***Table 17.7***, the study intersections are forecast to operate within acceptable LOS (D or better) during the peak hours for Opening Year (2022) Without and With Project conditions. The proposed project does not exceed the City-established operating requirements for General Plan consistency at the study intersections for Opening Year (2022) With Project conditions. A less than significant impact would occur.

Table 17.7: Opening Year (2022) Intersection LOS

ID/Study Intersection	Traffic Control[1]	Opening Year (2022) Without Project				Opening Year (2022) With Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Project West Driveway at Chandler Street	CSS	--		--		10.3	B	10.1	B
2. Archibald Avenue at Smith Road/Eastvale Parkway	TS	20.7	C	11.9	B	21.5	C	12.1	B
3. Archibald Avenue at Project North Driveway	CSS	--		--		17.2	C	17.5	C
4. Archibald Avenue at Project South Driveway	CSS	--		--		17.5	C	18.0	C
5. Archibald Avenue at Chandler Street	TS	31.9	C	25.8	C	37.9	D	27.8	C
6. Archibald Avenue at Wind River Road/ Grapevine Street	TS	17.4	B	5.8	A	21.0	C	6.1	A

Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. Table 6, P. 54.

1 = TS = Traffic Signal; CSS= Cross Street Stop

2 = Existing Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).

3 = LOS = Level of Service

Horizon Year (2040) Without and With Project Conditions

The study intersection LOS for Year 2040 Without and With Project conditions are shown in ***Table 17.8, Horizon Year 2040 Intersection LOS***. As shown in ***Table 17.8***, the study intersections are forecast to operate within acceptable LOS (D or better) during the peak hours for Year 2040 Without Project conditions. The proposed project does not exceed the City-established operating requirements for General Plan consistency at the study intersections for Year 2040 With Project conditions with the recommended improvements. A less than significant impact would occur.

Table 17.8: Horizon Year 2040 Intersection LOS

ID/Study Intersection	Traffic Control[1]	Horizon Year (2040) Without Project				Horizon Year (2040) With Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Project West Driveway at Chandler Street	CSS	--		--		10.6	B	10.6	B
2. Archibald Avenue at Smith Road/Eastvale Parkway	TS	21.7	C	14.6	B	21.9	C	20.7	C
3. Archibald Avenue at Project North Driveway	CSS	--		--		17.2	C	23.6	C
4. Archibald Avenue at Project South Driveway	CSS	--		--		17.6	C	24.4	C
5. Archibald Avenue at Chandler Street	TS	32.0	C	31.3	C	39.0	D	36.8	D
6. Archibald Avenue at Wind River Road/ Grapevine Street	TS	16.9	B	6.6	A	22.4	C	6.8	A

Source: Archibald at Chandler Commercial Project Traffic Impact Analysis. 2020. Table 7, P. 55.

1 = TS = Traffic Signal; CSS= Cross Street Stop

2 = Existing Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual lane (or movements sharing a lane).

3 = LOS = Level of Service

17(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Determination: Less Than Significant Impact.

Changes to the CEQA Guidelines Section 15064.3 became effective July 1, 2020, which require all lead agencies to adopt VMT as a replacement for automobile delay-based LOS as the new measure for identifying transportation impacts for land use projects. On June 24, 2020, the City of Eastvale adopted Resolution No. 20-44, which establishes VMT impact thresholds for assessing consistency with CEQA Guidelines Section 15064.3, subdivision (b).

Resolution No. 20-44 includes screening criteria for certain types of projects that are local-serving in nature or generate a low number of vehicle trips and may be presumed to have a less than significant impact. Such projects include local-serving retail projects, defined as retail developments with less than 50,000 square feet. Local-serving retail projects will generally redistribute shopping trips rather than creating new trips. By adding retail opportunities into the urban fabric and thereby improving proximity, local-serving retail projects tend to shorten trips and reduce VMT. This is especially true here given that this project is significantly less than 50,000 square feet, proposes uses that are duplicative of uses at the east end of the City limits, and adds neighborhood retail uses which are largely absent from the southwest quadrant of the City.

The proposed project meets the definition of local-serving retail since it consists of retail uses totaling less than 50,000 square feet. Therefore, the proposed project satisfies the project type screening criteria for local-serving retail and, as such, would result in a less than significant VMT impact in accordance with VMT guidelines established by the City of Eastvale.

17(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Determination: Less Than Significant Impact.

The proposed project would construct the following improvements to provide project site access:

- Project West Driveway at Chandler Street - #1
    - Install southbound stop control.
    - Construct the southbound approach to consist of one right-turn-only lane.
- Archibald Avenue at Project North Driveway - #3
    - Install eastbound stop control.
    - Construct the eastbound approach to consist of one right-turn only lane.
- Archibald Avenue at Project South Driveway - #4
    - Install eastbound stop control.
    - Construct the eastbound approach to consist of one right-turn-only lane.

The project does not involve any unusual conditions, or hazardous design features, such as sharp curves or dangerous intersections, or incompatible uses. The TIA recommended improvements would be constructed to be consistent with the identified roadway classifications and respective cross-sections in the City of Eastvale General Plan Circulation and Infrastructure Element. The project driveways and project improvements (i.e., signage, buildings, and landscaping) would be designed in accordance with City standards so that adequate sight distance for drivers entering and exiting the site is maintained. On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project site. With implementation of the TIA recommended configuration of the driveways and frontage improvements as part of the project design, a less than significant impact would occur.

17(d) Result in inadequate emergency access?

Determination: Less Than Significant Impact With Mitigation Incorporated.

The access and circulation features on the project site would accommodate emergency ingress and egress. As discussed above, the proposed project would provide three restricted access driveways: two right-turn in/out only driveways at Archibald Avenue and one right-turn in/out only driveway at Chandler Street. The proposed site access improvements would ensure that access is maintained for fire trucks, police units, and ambulance/paramedic vehicles.

The project is subject to the City's design review to ensure that the project as designed does not temporarily or permanently interfere with the provision of emergency access or with evacuation routes. All emergency access features are subject to and must satisfy the City of Eastvale design requirements and be approved by the Fire Department. During periods when partial road closures are required, the project applicant would be required to implement a temporary Traffic Management Plan (TMP) to minimize temporary impacts to emergency access and evacuation routes during the construction process; refer to **Mitigation Measure TRA-1**. With implementation of **Mitigation Measure TRA-1**, the project would not result in inadequate emergency access and impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

TRA-1 Traffic Management Plan. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with state standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one direction of travel in each direction must always be maintained for Chandler Street throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

With implementation of **Mitigation Measure TRA-1**, impacts relative to traffic and transportation would be reduced to a less than significant level.

18. TRIBAL CULTURAL RESOURCES. Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

DISCUSSION

18(a)(i) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

18(a)(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Determination: Less Than Significant Impact With Mitigation Incorporated.

Pursuant to AB 52 requirements, the City of Eastvale commenced consultation with the appropriate and potentially affected Tribal Historic Preservation Officers (THPO). City staff consulted with representatives from the Soboba Band of Luiseño Indians and have met to discuss the project, including mitigation for potential tribal cultural resources. City Staff has closed consultation with Soboba, and incorporated the requested mitigation measures. As noted in Section 5, Cultural Resources, the project site contains limited known cultural resources. To mitigate potential impacts to resources that could be discovered during project construction, **Mitigation Measures TCR-1** through **TCR-4** have been developed in coordination with the tribes, City, and applicant. **Mitigation Measures TCR-1** through **TCR-4** would be implemented to reduce potential impacts to tribal cultural resources to less than significant levels.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

TCR-1 **Tribal Monitoring.** Prior to the issuance of a grading permit, the project applicant shall contact the consulting tribe(s) with notification of the proposed grading and shall make a good-faith effort, as determined by the City's Development Director, to enter into a Tribal Cultural Resources Monitoring Agreement with each tribe that determines its tribal cultural resources may be present on the site. The agreements shall include, but not be limited to, outlining provisions and requirements for addressing the handling of tribal cultural resources; Project grading and development scheduling; terms of compensation for the tribal monitors;; and establishing on-site monitoring provisions and/or requirements for professional tribal monitors during all ground-disturbing activities. The terms of the agreements shall not conflict with any of these mitigation measures. A copy/copies of the agreement(s) shall be provided to the City of Eastvale Planning Department prior to the issuance of a grading permit.

TCR-2 **Archaeological Monitoring.** At least 30 days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the project applicant shall retain a Secretary of Interior Standards-qualified, Registered Professional Archaeologist (RPA), as an archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources. Ground-disturbing activities may include, but are not limited to, pavement removal, potholing or auguring, grubbing, weed abatement, boring, grading, excavation, drilling, and trenching. The on-site archaeological monitoring would end when the project site grading and excavation activities are completed, or when the monitor has indicated that the site has a low potential for archeological resources. The Project Registered Professional archaeologist, in consultation with consulting Tribe(s) identified above, and the developer, shall develop an Archaeological Monitoring Plan to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site and provide the plan to the

City for approval. Details in the plan shall include:

A. Project grading and development scheduling.

B. The development of a rotating or simultaneous schedule in coordination with the project applicant and the project archeologist for designated Native American tribal monitors from the consulting tribes during grading, excavation and ground-disturbing activities on the site.

C. The safety requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all Project archaeologists.

D. The protocols and stipulations that the developer, tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation.

TCR-3 **Treatment and Disposition of Cultural Resources**. If tribal cultural resources are inadvertently discovered during ground disturbing actives for this project. The following procedures will be carried out for treatment and disposition of the discoveries:

A. **Temporary Curation and Storage**. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process.

B. **Treatment and Final Disposition.** The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City Planning Department with documentation of same:

i. **Reburial on-site.** Accommodate the process for on-site reburial of the discovered items with the consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.

ii. **Curation.** A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate

curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

iii. **Disposition Dispute**. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center.

iv. **Final Report.** At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall:

- Document the impacts to the known resources on the property;
- Describe how each mitigation measure was fulfilled;
- Document the type of cultural resources recovered and the disposition of such resources;
- Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting;
- In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist.
- All reports produced will be submitted to the City, Eastern Information Center and consulting tribes.

TCR 4 **TCR-4 Discovery of Human Remains**. If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains. The following procedures as set forth in the California Environmental Quality Act (CEQA), Section 15064.5(e), the California Public Resources Code (PRC) (Section 5097.98), and the State Health and Safety Code (Section 7050.5) shall then be undertaken:

If human remains or funerary/sacred items are encountered, the archaeological monitor or tribal monitor will halt work within the immediate area and any nearby area reasonably suspected to overlie adjacent remains, establish an Environmentally Sensitive Area (ESA) boundary to protect the find from impact, and immediately notify the City Archaeologist. Project work outside the established ESA may continue. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the Riverside County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, s/he shall notify the NAHC in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons

it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Implementation of **Mitigation Measures TCR-1** through **TCR-4** would ensure that any tribal cultural and archaeological resources inadvertently discovered during project grading or construction activities would be protected consistent with the recommendations of a qualified archaeologist and the appropriate tribes, reducing impacts to less than significant.

19. UTILITIES AND SERVICE SYSTEMS. Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			✓	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			✓	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			✓	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			✓	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			✓	

DISCUSSION

19(a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Determination: Less Than Significant Impact.

The project site is served by the following utilities:

- Electricity – Southern California Edison (SCE)
- Water – Jurupa Community Services District (JCSD)
- Sewer – JCSD
- Storm Drain – City of Eastvale
- Cable – Spectrum

- Telephone – AT&T
- Natural Gas – Southern California Gas Company (SoCalGas)

Electric Power, Natural Gas, and Telecommunications

The project site is located in a developed area of the City and is situated within close proximity to existing electric power, natural gas, and telecommunications facilities. Therefore, substantial new utility infrastructure would not be required with project implementation.

Water

The project would require water for the irrigation of landscaped areas. However, it is not expected that water demand would increase substantially with project implementation. Water for the project would be provided by JCSD and would connect to the existing water main. Therefore, the expansion of off-site water facilities would not be required to serve the project.

Storm Drain

The project's stormwater needs are met by the City of Eastvale and the Riverside County Flood Control and Water Conservation District. The nearest stormwater facility to the project site is the Chandler Street flood control channel, adjacent to the project boundary to the north. In the event of a storm, water would drain from the project site into underdrain pipes and overflow to a 15-inch collector pipe that drains into the Chandler Street channel at the northwest corner of the site. Therefore, the expansion of off-site storm drain facilities would not be required to serve the project.

Wastewater Treatment

The project is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB), which applies requirements to the wastewater treatment facilities owned and operated by treatment providers. Therefore, the expansion of off-site wastewater facilities would not be required to serve the project.

19(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Determination: Less Than Significant Impact.

Water service would be provided to the project site by JCSD. JCSD relies predominantly on groundwater and desalinated brackish groundwater from the Chino Groundwater Basin for its water supply,[13] as described in the City's General Plan. Through a joint powers authority, the JCSD partners with the Chino Desalter Authority, the owner and operator of two water treatment plants (desalters), to treat potable water for the JCSD service area. Each desalter has the current capacity to treat 12 million gallons per day (mgd) of water.

[13] City of Eastvale. 2012. General Plan. Page 7-6, Water Supply. Accessed June 25, 2020. https://www.eastvaleca.gov/home/showdocument?id=2360

JCSD estimates water supply availability for normal, single-dry, and multiple-dry year scenarios from 2020 through 2040 in its 2015 Urban Water Management Plan. For all years and all scenarios, anticipated supply exceeds anticipated demand. ***Table 19-1, JCSD Normal and Single-Dry Year Supply and Demand in Acre-Feet per Year (AFY),*** summarizes supply, demand, and excess supply for the normal and single-dry year.

Table 19.9: JCSD Normal and Single-Dry Year Supply and Demand in Acre-Feet per Year (AFY)

	2020	2025	2030	2035	2040
Supply	31,993	36,493	40,993	40,993	40,993
Demand	25,477	28,088	30,968	34,151	37,670
Excess Supply	6,516	8,405	10,025	6,842	3,323
Source: Jurupa Community Services District. 2015 Urban Water Management Plan. Table 7-3.					

The JCSD uses a water demand generation rate of 8,100 gallons per day per gross acre for nonresidential land uses.[14] Using this generation rate, the proposed project would result in an increase in water demand of 21,951 gallons per day, equivalent to approximately 0.067 acre-feet per year (AFY).[15] An increase of 0.067 AFY represents an approximately 0.00017 percent increase in demand in comparison to the current (2020) existing and excess supplies. Therefore, impacts would be less than significant.

19(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Determination: Less Than Significant Impact.

Wastewater disposal is regulated under the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. The Santa Ana RWQCB regulates wastewater discharges in Eastvale, including the project site, and implements the Clean Water Act and the Porter-Cologne Act by administering the National Pollutant Discharge Elimination System, issuing water discharge permits, and establishing best management practices. Development of the project site would result in wastewater flows that would be collected and treated at the Western Riverside County Regional Wastewater Authority plant, which serves Eastvale.

The proposed project would receive wastewater conveyance services from the JCSD. The JCSD discharges wastewater from this area to the Inland Empire Brine Line (IEBL), which pumps the wastewater to the Orange County Sanitation District (OCSD). The JCSD estimates that wastewater treatment plant capacity is currently 9.8 mgd with the ability to expand to 17 mgd. According to

[14] Jurupa Community Services District. 2011 Standards Manual for Water and Sewer Facilities. Accessed July 9, 2020.

[15] Based on 2.71 acres x 8,100 daily gallons per acre = 21,951 gallons daily.

the JCSD Standards Manual, commercial and industrial uses in the Eastvale area are estimated to generate an average of 2,000 gallons of wastewater daily per gross acre. Therefore, the proposed project can be expected to contribute 5,420 gallons of wastewater flow to the IEBL and OCSD treatment plant daily.[16]

Since the project would only result in an increase of wastewater flows equal to 0.055 percent of current JCSD capacity,[17] adequate capacity is available to serve the proposed project. A less than significant impact would occur.

19(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Determination: Less Than Significant Impact.

Implementation of the project is anticipated to generate additional solid waste during the temporary, short-term construction phase, as well as the operational phase, but it would not be expected to result in inadequate landfill capacity. No landfills are located in Eastvale; however, solid waste services for the City are provided by the El Sobrante Landfill near the City of Corona, approximately 13 miles southeast of the project site. According to the California Department of Resources Recycling and Recovery (CalRecycle), the landfill has a maximum throughput of 16,054 tons per day. This landfill has a maximum permitted capacity of approximately 209.9 million cubic yards, and the landfill has a remaining capacity of approximately 143.9 million cubic yards. The landfill has an expected operational life through 2051.[18]

For the proposed project, the City of Los Angeles CEQA Thresholds Guide provides an estimated generation rate for commercial uses of 10.53 pounds of waste per employee per day. Assuming an estimated operational number of employees of 190, the project would result in 2,000 pounds of waste daily.[19] Assuming operations seven days per week, the project would contribute 365 tons of waste each year. Considering the capacity of the El Sobrante Landfill, the project would not have a significant impact on local landfill capacity.

All construction activities would be subject to conformance with relevant federal, state, and local requirements related to solid waste disposal. Specifically, the project would be required to demonstrate compliance with the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939), which requires all California cities to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." The California Integrated Waste Management Act of 1989 requires that at least 50 percent of waste produced is recycled, reduced, or composted. The project would also be required to demonstrate compliance with the Green Building Code, which includes design and construction measures that act to reduce construction-related waste though material conservation measures and other construction-

[16] Based on 2.71 acres x 2,000 daily gallons per acre = 5,420 gallons daily.

[17] Based on 5,420 gallons per day demand ÷ 9,800,000 gallons per day capacity= 0.055.

[18] CalRecycle, SWIS Facility Detail, El Sobrante Landfill (33-AA-0217), accessed June 23, 2020, https://www2.calrecycle.ca.gov/swfacilities/Directory/36-AA-0055/.

[19] Based on 190 employees X 10.53 pounds of waste.

related efficiency measures. Compliance with these programs would ensure the project's construction-related solid waste impacts are less than significant.

19(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Determination: Less Than Significant Impact.

Refer to Response IV.19(d). The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure. As such, the project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. A less than significant impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

1. The project applicant will be required to comply with the recommendations of the Riverside County Waste Management Department and all federal, state, and local statutes and regulations related to solid waste, including the Solid Waste Reuse and Recycling Access Act of 1991.
2. The project applicant, developer, or successor in interest shall provide written verification that the Jurupa Community Services District can and will provide potable water service to the project.

MITIGATION MEASURES

None required.

20. WILDFIRE. Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

DISCUSSION

20(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Determination: Less Than Significant Impact.

The project site is located in a developed urban area surrounded by residential and commercial uses. According to the California Department of Forestry and Fire Protection (CalFire) Fire Hazard Severity Zone Viewer,[20] the project site is not located in a zone designated as Very High Fire Hazard.

Fire protection in Eastvale is provided by the Riverside County Fire Department (RCFD), which operates in coordination with CalFire. The RCFD operates two fire stations in Eastvale: Station #27, located approximately 2.1 miles northeast of the project site at 7067 Hamner Avenue, and Station #31, located adjacent and west of the project site at 14491 Chandler Street.

The proposed project would be required to comply with the provisions of the City of Eastvale Emergency Operations Plan, Riverside County All Hazard Mitigation Plan, and the emergency access requirements of the California Fire Code, which include but are not limited to providing access with adjoining uses and providing suitable access for emergency vehicles. In addition,

[20] CalFire. 2019. Fire and Resource Assessment Program: FHSZ Viewer. Accessed October 28, 2020. https://egis.fire.ca.gov/FHSZ/

emergency access to the site would be maintained during construction. Impacts would be less than significant.

20(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Determination: Less Than Significant Impact.

The project site is generally flat and does not support areas of steep slopes. In addition, the project site is located within an urbanized area of the city, where the risk of wildland fire is decreased. As such, the proposed project would not be located in a critical fire danger zone or adjacent to wildlands subject to wildfires. Urban levels of fire protection would be provided to the project area. In addition, the project would adhere to building codes and any conditions included through review by the RCFD. Impacts would be less than significant.

20(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Determination: Less Than Significant Impact.

The project site is located in a developed area of the city and is situated within close proximity to existing electric power, natural gas, and telecommunications facilities. The proposed commercial uses on-site would not include any features that would have the potential to exacerbate fire risk or result in temporary or ongoing impacts to the environment. The project would provide access to adjoining uses and suitable access for emergency vehicles. Emergency access to the site would be maintained during construction. Impacts would be less than significant.

20(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Determination: Less Than Significant Impact.

The project site is relatively flat with no major changes in elevations; the average elevation at the site is 577 feet above mean sea level. There are no channels or creeks running through the project site. The project site is not located within a 100-year flood hazard area. In addition, there are no known landslides at the project site, nor is the site in the path of any known or potential landslides. Therefore, the project would not expose people or structures to risks involving flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. A less than significant impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

21. MANDATORY FINDINGS OF SIGNIFICANCE. Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)		X		
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

The following are mandatory findings of significance in accordance with Section 15065 of the CEQA Guidelines.

DISCUSSION

21(a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Determination: Less Than Significant Impact with Mitigation Incorporated.

As discussed in Section IV.4, *Biological Resources*, after implementation of **Mitigation Measures BIO-1** and **BIO-2**, the proposed project would result in less than significant impacts to biological resources. Similarly, as discussed in Section IV.5, *Cultural Resources*, and Section IV.18, *Tribal Cultural Resources*, after implementation of **Mitigation Measures CUL-1, CUL-2, TCR-1, TCR-2, TCR-3**, and **TCR-4** the proposed project would result in less than significant impacts to human remains, archaeological resources, paleontological resources, and tribal cultural resources.

21(b) Have impacts that are individually limited, but cumulatively considerable?

Determination: Less Than Significant Impact with Mitigation Incorporated.

A significant impact may occur if the project, in conjunction with related projects proposed for development in the City, would result in impacts that are less than significant when viewed separately but would be significant when viewed together. When considering the proposed project in combination with other past, present, and reasonably foreseeable future projects in the vicinity of the project site, the proposed project does not have the potential to cause impacts that are cumulatively considerable. As detailed in the above discussions, the proposed project would not result in any significant and unmitigable impacts in any environmental categories. In all cases, the impacts associated with the project are limited to the project site or are of such a negligible degree that they would not result in a significant contribution to any cumulative impacts.

21(c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Determination: Less Than Significant Impact with Mitigation Incorporated.

The proposed project does not have the potential to significantly adversely affect humans, either directly or indirectly, once mitigation measures are implemented. While a number of the proposed project's impacts were identified as having the potential to significantly impact humans, with implementation of the identified mitigation measures herein, and standard requirements, these impacts would be less than significant. Therefore, the proposed project would not cause significant adverse direct or indirect impacts to humans.

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ARCHIBALD AND CHANDLER CAR WASH AND COFFEE SHOP NOISE IMPACT ANALYSIS

City of Eastvale

December 16, 2022

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

ARCHIBALD AND CHANDLER CAR WASH AND COFFEE SHOP NOISE IMPACT ANALYSIS

City of Eastvale

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Project No. 19566

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EXECUTIVE SUMMARY

The purpose of this noise impact analysis to assess the noise exposure and the necessary noise mitigation measures for the proposed Archibald and Chandler Car Wash and Coffee Shop ("project").

The 2.71-acre project site is located at the northwest corner of the intersection of Archibald Avenue and Chandler Street in the City of Eastvale, California. The project site is currently vacant.

The proposed project involves construction of a commercial center comprised of a 950 square foot coffee shop (Dutch Bros) with drive through window, a 3,598 square foot express car wash (Quick Quack Car Wash) consisting of one automated tunnel and 20 vacuum bays, and one 3,500 square foot sit-down restaurant (Zendejas).

Off-Site Traffic Noise Analysis

In order to quantify the increase in vehicle noise associated with project operation, changes in traffic noise levels were modeled along roadway segments expected to be affected by the project. Traffic noise was modeled using traffic forecasts provided in the Archibald at Chandler Commercial Project Traffic Impact Analysis prepared by Ganddini Group, Inc. (October 28, 2022).[1] The analysis shows that the unmitigated project-related traffic noise level increases under all traffic scenarios will be less than significant.

Operational Noise Analysis

The SoundPLAN noise modeling software was used to estimate project-related operational (stationary-source) noise levels at the nearby noise-sensitive receiver locations. Modeled project-related operational noise sources include the proposed car wash turbine/drying system, vacuums, outdoor eating/patio areas, rooftop air conditioning units, drive-thru queues and ordering windows, and parking lot vehicle movements. It should be noted that Lmax noise levels for noise sources were utilized, and it was assumed that all sources would be in operation for the entire modeled period. Therefore, the Leq and the Lmax noise levels associated with the project are the same.

Compliance with Applicable Noise Standards

Noise levels associated with project operational noise sources are expected to range from 46 to 54 dBA Leq and will not exceed the daytime General Plan Leq noise level standard of 60 dBA Leq or exceed the Municipal Code standard of 55 dBA Lmax. The project will operate between the hours of 7:00 AM and 10:00 PM and therefore, will not result in any exceedances of nighttime noise standards. This impact would be less than significant. No mitigation is required.

The existing measured CNEL is 61 dB. Project operational noise during daytime hours will add approximately 1 dB to each hour. The existing plus project CNEL would still be 61 dBA with project operational noise. Residential construction methods typically provide 20 dB of exterior to interior noise reduction with provision of HVAC to allow for a windows-closed condition. Project operation will not result in interior noise levels that exceed the 45 dBA CNEL noise standard. This impact would be less than significant. No mitigation is required.

[1] The proposed project is to generate approximately 1,686 net new daily vehicle trips. The Archibald at Chandler Commercial Project Traffic Impact Analysis prepared by Ganddini Group, Inc. (October 28, 2020) showed that the previous version of the project was to generate approximately 4,871 net new daily vehicle trips. Therefore, as the project generated vehicle trips have decreased from that provided for the previous version of the project, and in order to provide a more conservative analysis, this analysis utilizes the higher trip generation rate provided in the 2020 Traffic Impact Analysis.

Project-Operational Noise - Increase in Ambient Noise Conditions

Operation of the project would result in increases in ambient noise levels of up to 5 dB but would not exceed any of the applicable thresholds due to relatively quiet ambient noise levels. Project operational noise would not result in significant impacts. No mitigation is required.

Construction Noise Analysis

Construction noise levels were modeled using reference noise levels from the FHWA Road Construction Noise Model User's Guide. The highest project-related short-term construction noise levels are expected to range from 68.4 to 77.3 dBA L_{eq} at nearby sensitive receptors. Using a threshold based on the National Institute for Occupational Safety and Health (NIOSH) limits for construction noise of 85 dBA L_{eq} as averaged over an eight-hour period, project construction noise would be less than significant.

The increase in ambient noise levels due to project construction activities was calculated by adding modeled construction noise levels to existing measured noise levels. The analysis shows that the project will result in noise level increases that range between 6 and 23.5 dBA L_{eq} at nearby receiver locations. The City of Eastvale has set restrictions to control noise impacts associated with the construction of the proposed project. According to the City of Eastvale Municipal Code Section 8.52.020, construction activities are exempt from noise regulation between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May.

Due to the temporary, short-term nature of noise-generating construction activities, the temporary or periodic noise level increases over the existing ambient conditions due to construction activities must be considered under CEQA Guideline A, consistent with the legal case, Friends of Riverside's Hills v. Riverside Transportation Commission, et al. (2013). Therefore, the California Department of Transportation Traffic Noise Analysis Protocol 12 dBA L_{eq} substantial noise level increase threshold is used in this analysis to assess temporary noise level increases. If the project-related construction noise levels generate a temporary noise level increase above the existing ambient noise levels of up to 12 dBA L_{eq}, then the project construction noise level increases will be considered a potentially significant impact. Although the California Department of Transportation recommendations were specifically developed to assess traffic noise impacts, the 12 dBA L_{eq} substantial noise level increase threshold is used in California to address noise level increases with the potential to exceed existing conditions (California Department of Transportation 2011).

Adherence to exempt hours of operation presented above and implementation of the measures presented below would reduce construction noise levels at nearby receiver locations would no longer result in increases that exceed 12 dBA L_{eq}. Project construction noise impacts would be less than significant with incorporation of mitigation.

Construction Noise Mitigation Measures

While not considered mitigation, the project Applicant shall comply with all City of Eastvale Municipal Code requirements (City of Eastvale Municipal Code, Section 8.52.020 et al.) acting to minimize effects of construction noise. To reduce project construction noise impacts, the following mitigation measures shall also be implemented:

Mitigation Measure 1 The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.

Mitigation Measure 2 The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).

Mitigation Measure 3 The contractor shall install temporary construction noise barriers/blankets that achieve a noise reduction of at least 8 dB along the western boundary of the project site in the vicinity of the existing single-family residence. The barrier/blankets shall be solid with no cracks or holes. The barrier shall also reach to the ground. It should be noted that R4 requires a total reduction of 20 dB and the calculated barrier reduction total of 8 dB takes into account 12 needed 12 dB reduction from mufflers and/or enclosures or acoustical tents required for all receptors identified in Mitigation Measure 4.

Mitigation Measure 4 During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from noise level specifications presented in Table 21 of this report.

Construction Vibration Analysis

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from project construction activities would cause only intermittent, localized intrusion. The analysis shows that the unmitigated project-construction vibration levels are expected to range from 0.000 to 0.492 in/sec PPV. Based on the City of Eastvale vibration standard of 0.0787 in/sec PPV, the proposed project construction activities will generate unmitigated vibration levels which remain below the 0.0787 in/sec PPV threshold at Receivers 1 through 3 and 5; however, due to the proximity to the western property line, Receiver 4 could have potentially significant impacts. Therefore, to satisfy the City of Eastvale vibration standard of 0.0787 in/sec PPV, Mitigation Measure 5 restricts the use of jackhammers within 15 feet, loaded trucks within 25 feet and large bulldozers within 28 feet of the residential structure located at the western project boundary (Receiver 4). With application of Mitigation Measure 5 impacts at receiver location R4 would be less than significant. Further, vibration levels at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating at the project site perimeter. Moreover, construction at the project site will be restricted to daytime hours consistent with City of Eastvale requirements thereby eliminating potential vibration impacts during the sensitive nighttime hours.

Mitigation Measure 5 The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary.

Summary of CEQA Significance Findings

The results of this analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines (2018). Table 1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures described above.

Table 1
Summary of CEQA Significance Findings

Analysis	Section of Report	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise Levels	7	Less than Significant	n/a
Operational Noise Level Compliance	9	Less than Significant	n/a
Operational Noise Level Increase (Permanent)		Less than Significant	n/a
Construction Noise Level Compliance	10	Less than Significant	n/a
Construction Noise Level Increases (Temporary)		Potentially Significant	Less than Significant With Mitigation
Construction Vibration Levels		Potentially Significant	Less than Significant With Mitigation

1. INTRODUCTION

This noise impact analysis has been completed to determine the noise impacts associated with the development of the proposed Archibald and Chandler Car Wash and Coffee Shop ("project"). This noise impact analysis briefly describes the proposed project, provides information regarding noise fundamentals, describes the local regulatory setting, provides the study methods and procedures for noise analysis, and evaluates the future exterior noise environment. The noise issues related to the proposed land use and development have been evaluated in light of applicable federal, state and local policies, including those of the City of Eastvale.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to noise analysis, a list of acronyms and a glossary of terms have been provided in Appendix A and Appendix B of this report, respectively.

SITE LOCATION

The 2.71-acre project site is located at the northwest corner of the intersection of Archibald Avenue and Chandler Street in the City of Eastvale, California. The project site is currently vacant. A vicinity map showing the project location is provided on Figure 1.

The project site is bounded by a flood channel to the north, Archibald Avenue to the east, Chandler Street to the south, and single-family detached residential dwelling units to the west. The Interstate 15 Freeway is located approximately 2.23 miles east of the project site. The closest airport to the project site is Chino Airport which is located roughly 2.15 miles northwest of the project site boundaries.

PROJECT DESCRIPTION

The proposed project involves construction of a commercial center comprised of a 950 square foot coffee shop (Dutch Bros) with drive through window, a 3,598 square foot express car wash (Quick Quack Car Wash) consisting of one automated tunnel and 20 vacuum bays, and one 3,500 square foot sit-down restaurant (Zendejas). Figure 2 illustrates the project site plan.

The following design measures have been implemented into the project design and are shown on the project plans per recommendations provided in a separate noise study prepared for the car wash portion of the proposed project.

1. Project operational hours will be from 7:00 AM to 9:00 PM.
2. A 12 Sonny's blower system with a silencer package (or equivalent in sound) will be installed as the car wash drying system.
3. Absorptive material (Acoustiblok perforated metal panels or equivalent with the same reduction) will line the walls and ceiling of the last fifteen feet of the car wash.
4. A six-foot-high wall will be constructed along the western property line from the south property line to the car wash turbine enclosure.
5. A ten-foot-high wing wall will extend south from the western side of the car wash tunnel for a distance of 8 feet.

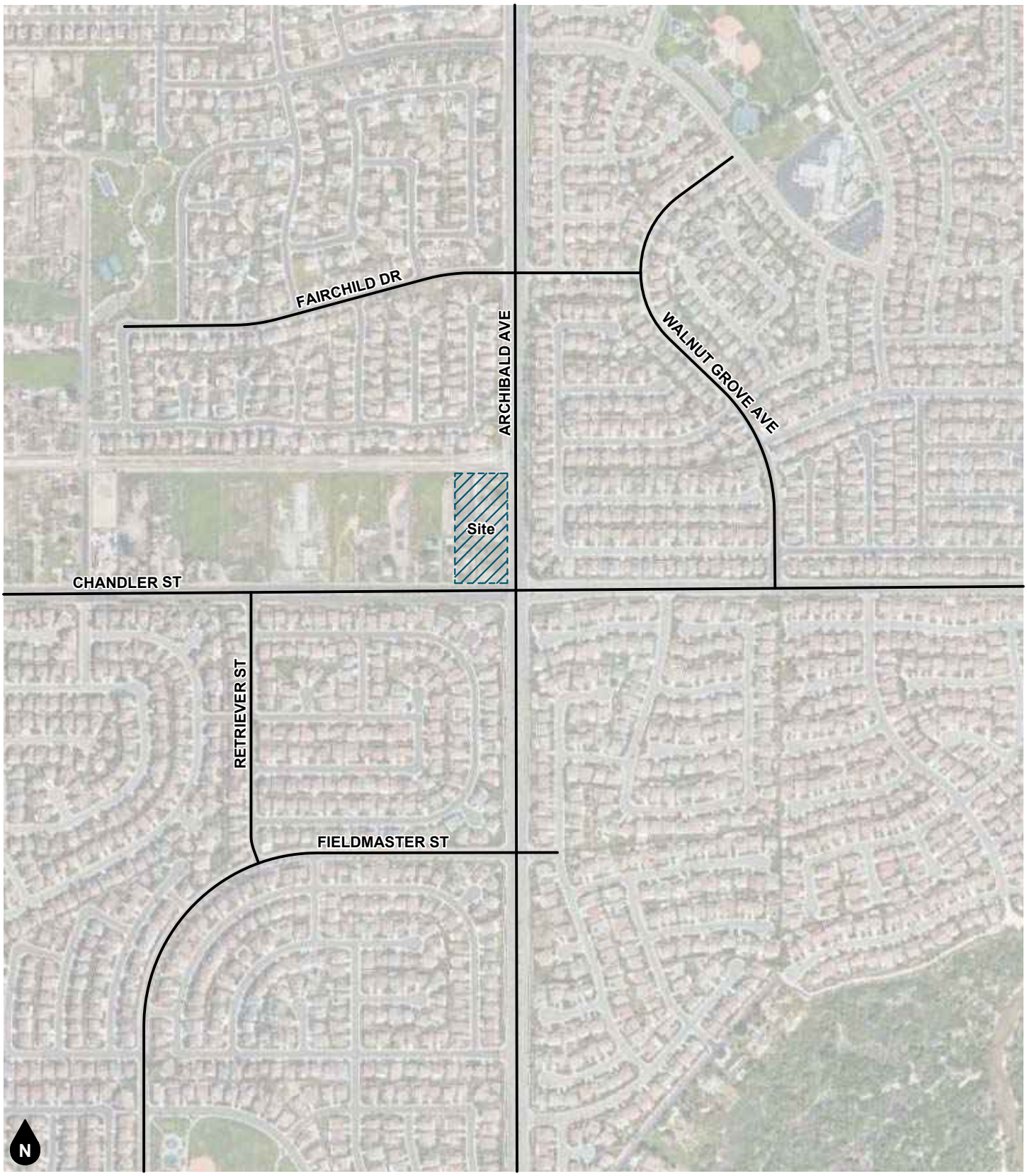


Figure 1
Project Location Map

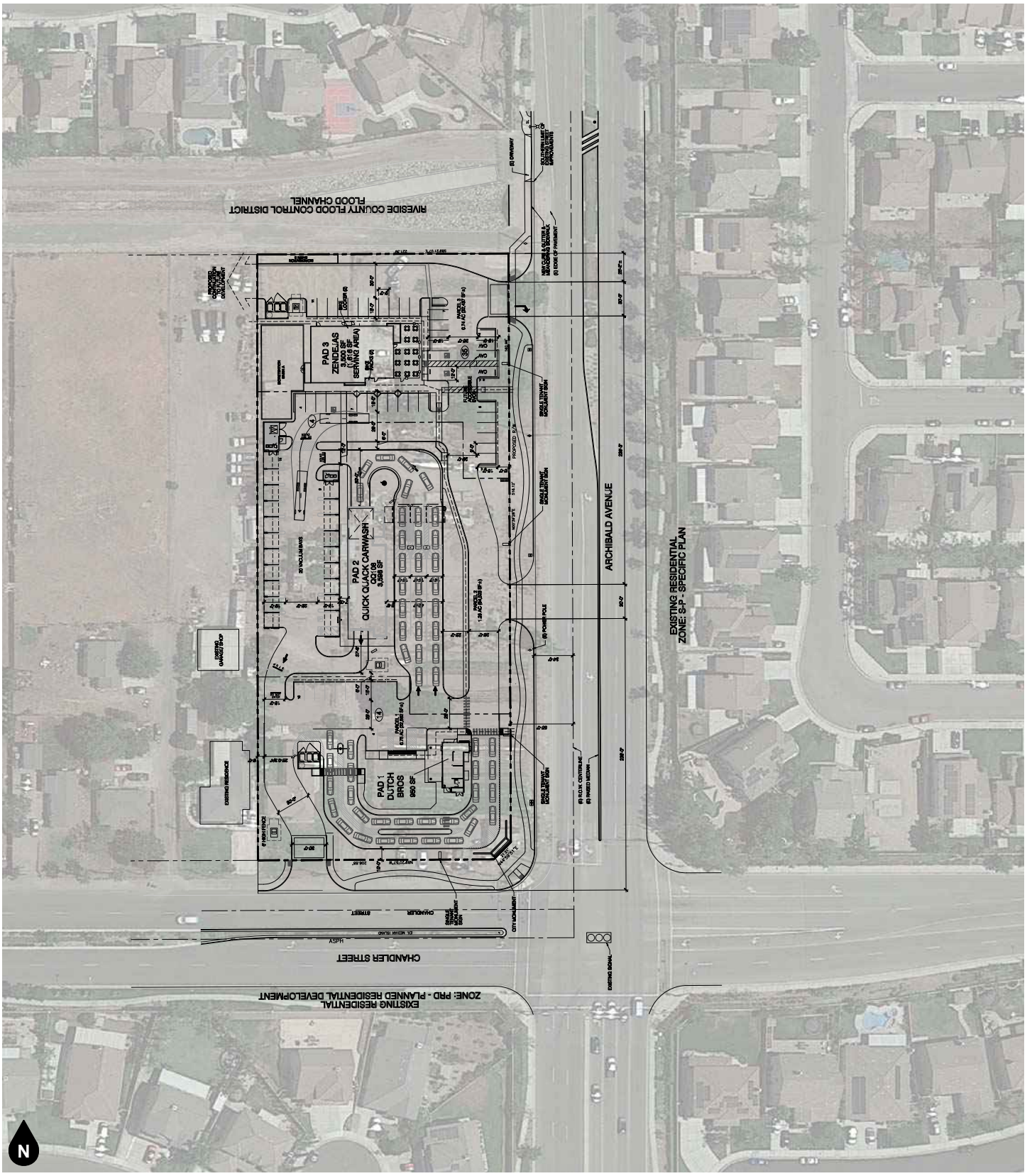


Figure 2
Site Plan

2. FUNDAMENTALS

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Figure 3 presents typical noise levels and their subjective loudness and effects.

RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud (California Department of Transportation 2013). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort (Environmental Protection Agency 1974). Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used descriptor is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the “average” noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 PM to 10:00 PM, and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 PM and 7:00 AM. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Eastvale relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates

outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (California Department of Transportation 2013).

Ground Absorption

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source (U.S. Department of Transportation 1995).

Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects (California Department of Transportation 2013).

Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure (U.S. Department of Transportation 1995).

NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to these three elements.

NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor, and the noise reduction may be even greater depending on the height of the barrier. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source (U.S. Department of Transportation 1995).

LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized (U.S. Department of Transportation 2000).

COMMUNITY RESPONSE TO NOISE

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain (U.S. Environmental Protection Agency 1979). Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Figure 4. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered barely perceptible, and changes of 5 dBA are considered readily perceptible (U.S. Department of Transportation 1995).

EXPOSURE TO HIGH NOISE LEVELS

The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure in the workplace. The permissible exposure limit (PEL) for a worker over an eight-hour day is 90 dBA. The OSHA standard uses a 5 dBA exchange rate. This means that when the noise level is increased by 5 dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. The National Institute for Occupational Safety and Health (NIOSH) has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours to minimize occupational noise induced hearing loss. NIOSH also recommends a 3 dBA exchange rate so that every increase by 3 dBA doubles the amount of the noise and halves the recommended amount of exposure time.

OSHA has implemented requirements to protect all workers in general industry (e.g., the manufacturing and the service sectors) for employers to implement a Hearing Conservation Program where workers are exposed to a time weighted average noise level of 85 dBA or higher over an eight-hour work shift. Hearing Conservation Programs require employers to measure noise levels, provide free annual hearing exams and

free hearing protection, provide training, and conduct evaluations of the adequacy of the hearing protectors in use unless changes to tools, equipment and schedules are made so that they are less noisy and worker exposure to noise is less than the 85 dBA. This noise study does not evaluate the noise exposure of workers within a project or construction site, instead, it evaluates project-related operational and construction noise levels at the nearby sensitive receiver locations in the project study area in light of CEQA. Further, periodic exposure to high noise levels in short duration, such as project construction, is typically considered an annoyance and not impactful to human health.

VIBRATION

According to the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (2006), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of groundborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and vehicular volumes on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Figure 5 illustrates common vibration sources and the human and structural response to ground-borne vibration.

Common Outdoor Activities	Common Indoor Activities	A-Weighted Sound Level dBA	Subjective Loudness	Effects of Noise
Threshold of Pain		140	Intolerable or Deafening	Hearing Loss
Near Jet Engine		130		
		120		
Jet Fly-Over at 1000 ft.	Rock Band	110		
Loud Auto Horn		100		
Gas Lawn Mover at 3 ft.		90	Very Noisy	
Diesel truck at 50 ft. at 80 miles per hour	Food Blender at 3 ft.	80		Speech Interference
Noisy Urban Area, Daytime	Vacuum Cleaner at 10 ft.	70	Loud	
Heavy Traffic at 300 ft.	Normal Speech at 3 ft.	60		
Quiet Urban Daytime	Larger Business Office	50	Moderate	Sleep Disturbance
Quiet Urban Nighttime	Theater, Large Conference Room (Background)	40		
Quiet Suburban Nighttime	Library	30	Faint	No Effect
Quiet Rural Nighttime	Bedroom at night, Concert Hall (Background)	20		
	Broadcast/Recording Studio	10	Very Faint	
Lowest Threshold of Human Hearing	Lowest Threshold of Human Hearing	0		

Notes:

(1) Source: Envrionmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (SPA/ONAC 550/9-74-004) March 1974.

Figure 3
Typical Noise Levels

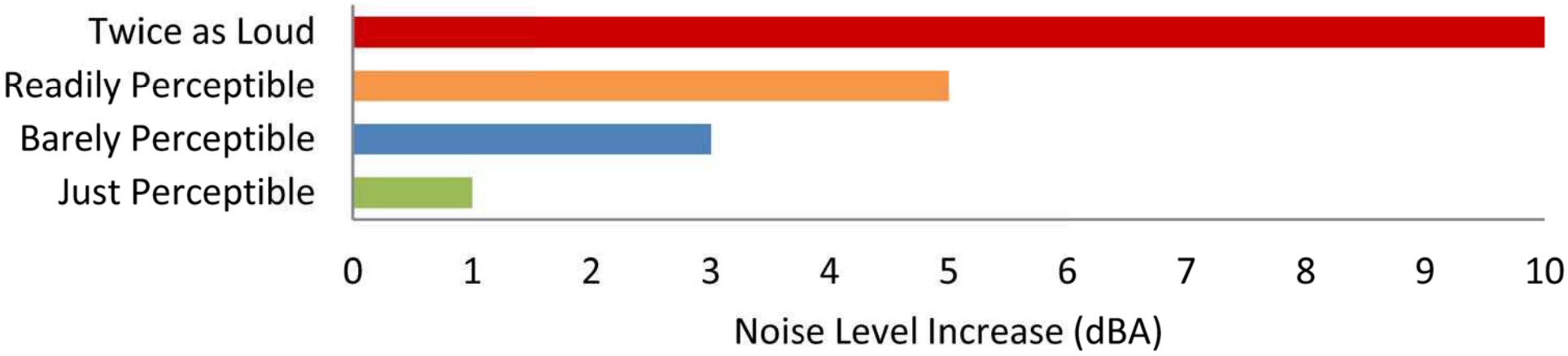
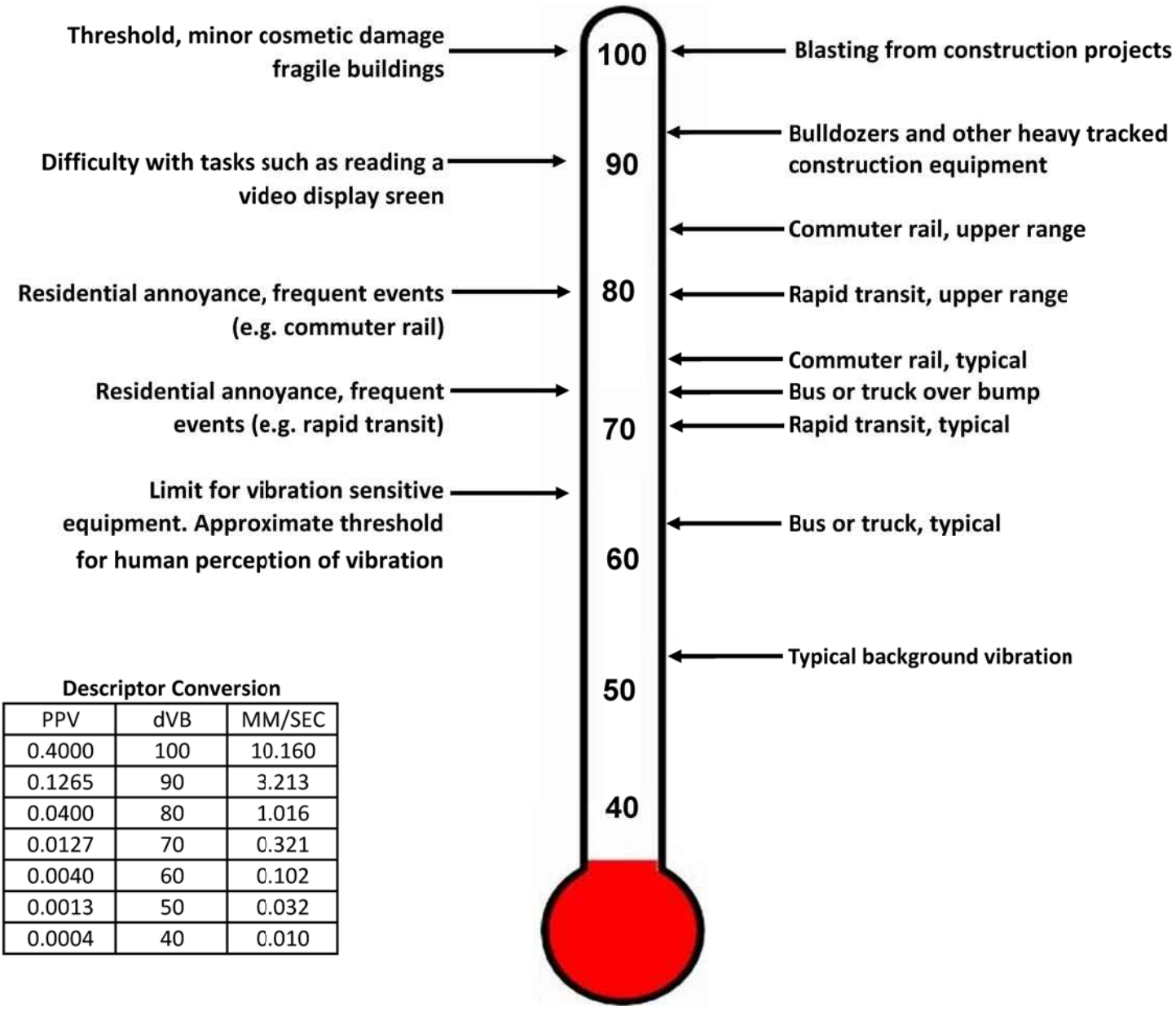


Figure 4
Noise Level Increase Perception

Source: Polopolus Noise Impact Analysis, Urban Crossroads March 26, 2018.



Descriptor Conversion

PPV	dVB	MM/SEC
0.4000	100	10.160
0.1265	90	3.213
0.0400	80	1.016
0.0127	70	0.321
0.0040	60	0.102
0.0013	50	0.032
0.0004	40	0.010

Source: FRA, 2012. Federal Railroad Administration High-Speed Ground Transportation Noise and Vibration Impact Assessment. Office of Railroad Policy Development, Washington, D.C. DOT/FRA/ORD-12/15. September.

Figure 5
Typical Levels of Groundborne Vibration

3. REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and codes to control noise. In most areas, automobile and truck trips are the major source of environmental noise. Vehicular volume activity generally produces an average sound level that remains constant with time. Air and rail, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (2017). The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

STATE OF CALIFORNIA BUILDING STANDARDS

The 2019 State of California's Green Building Standards Code contains mandatory measures for building construction in Section 5.507 on Environmental Comfort. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available, and the noise level exceeds 65 dBA L_{eq} for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1).

CITY OF EASTVALE NOISE ELEMENT

The City of Eastvale has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the City of Eastvale from excessive exposure to noise. The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation and stationary noise sources. To protect the City of Eastvale residents from excessive noise, the Noise Element contains the following four goals:

N-1 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors and noise-sensitive uses of Eastvale.
N-2 Locate noise-tolerant land uses within areas irrevocably committed to land uses that are noise-producing, such as transportation corridors.
N-3 Ensure that noise sensitive uses do not encroach into areas needed by noise generating uses.
N-4 Locate noise sources away from existing noise sensitive land uses unless appropriate noise control measures are provided.

Stationary Noise Source Standards

The City of Eastvale has adopted noise standards for stationary noise sources in the Noise Element of the General Plan and in the City's Municipal Code. The criterion in the General Plan is presented as a 30-minute Leq for exterior noise and as a Community Noise Equivalent Level for interior noise. The Municipal Code has adopted maximum noise standards with a Lmax descriptor.

The City of Eastvale General Plan Noise Element exterior and interior noise standards are presented in Table 2. Sensitive receptors that may be affected by on-site project operational noise are single family receptors; so, the applicable General Plan exterior noise level standard is 60 dBA Leq between the hours of 7:00 AM and 10:00 PM and 50 dBA Leq between the hours of 10:00 PM and 7:00 AM. The applicable interior noise standard, also shown in Table 2, is 45 dBA CNEL.

City of Eastvale Municipal Code stationary noise standards (Section 8052.040) are presented in Table 3. As shown in Table 3, the noise standard for project operational impacts to the nearby noise-sensitive single-family detached residential dwelling units is 55 dBA Lmax between the daytime hours of 7:00 AM and 10:00 PM, and 45 dBA Lmax between the nighttime hours of 10:00 PM to 7:00 AM.

Vibration Level Standards

The City of Eastvale General Plan Noise Element, Policy N-3, identifies a vibration level standard for sensitive land uses of 0.0787 inches per second peak particle velocity (PPV). Therefore, for the purposes of this analysis, the vibration level shall not exceed 0.0787 in/sec PPV at the nearby sensitive receiver locations during project construction activities capable of generating vibration levels. The construction vibration standard is provided in Table 4.

CITY OF EASTVALE MUNICIPAL CODE

Construction Noise Standards

According to the City of Eastvale Municipal Code Section 8.52.020, construction activities are exempt from noise regulation between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May. Neither the City's General Plan nor Municipal Code establish numeric maximum acceptable construction noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a substantial temporary or periodic noise increase.

To evaluate whether the project will generate potentially significant temporary construction noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the Criteria for Recommended Standard: Occupational Noise Exposure prepared by the National Institute for Occupational Safety and Health (NIOSH). A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The construction related noise level threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in half. This results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative construction noise level threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receiver locations. Since this construction-related noise level threshold represents the energy average of the noise source over a given time period, they are expressed as L_{eq} noise levels. Therefore, the noise level threshold of 85 dBA L_{eq} over a period of eight hours or more is used to evaluate the potential project-related construction noise level impacts at the nearby sensitive receiver locations (NIOSH 1998).

The 85 dBA L_{eq} threshold is also consistent with the FTA Transit Noise and Vibration Impact Assessment criteria for construction noise which identifies an hourly construction noise level threshold of 90 dBA L_{eq} during daytime hours, and 80 dBA L_{eq} during nighttime hours for construction for general assessment at noise-

sensitive uses (e.g., residential, medical/hospital, school, etc.) (FTA 2006). Detailed assessment, according to the FTA, identifies an 8-hour dBA L_{eq} noise level threshold specific to noise-sensitive uses of 80 dBA L_{eq}. Therefore, the Noise Study relies on the NIOSH 85 dBA L_{eq} threshold, consistent with FTA general and detailed assessment criteria for noise-sensitive uses and represents an appropriate threshold for construction noise analysis. The construction noise standards are shown in Table 5.

Table 2
City of Eastvale General Plan Exterior and Interior Noise Level Standards for Non-Transportation Noise

Land Use Type	Exterior Noise Standards	
	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10:00 PM to 7:00 AM	50
	7:00 AM to 10:00 PM	60
Multiple Residential 3 or More Units Per Buiilding (Triplex+)	10:00 PM to 7:00 AM	55
	7:00 AM to 10:00 PM	60
Residential Living and Sleeping Areas		
Residential Living and Sleeping Areas where the dwelling unit is subject to noise from railroad tracks, aircraft overflights, or similar sources which produce clearly identifiable, discrete noise events (such as the passibng of a train as opposed to relatively steady or constant noise sources such as roadways),		
Privat & Semi-Private School Classroms (2)		
All Places of Work Other Than School Classrooms		

Notes:
(1) Source: City of Eastvale General Plan Noise Element, Table N-4.

Table 3
City of Eastvale Municipal Code Sound Level Standards (dB Lmax)

General Plan Foundation Component			Maximum Decibel Level	
Land Use Designation General Plan	Land Use Designation Name	Density	7:00 AM to 10:00 PM	10:00 PM to 7:00 AM
Community Development				
EDR	Estate Density Residnetial	2 acres	55	45
VLDR	Very Low-Density Residential	1 acre	55	45
LDR	Low-Density Residential	1/2 acre	55	45
MDR	Medium-Density Residential	2-5	55	45
MHDR	Medium High-Density Residential	5-8	55	45
HDR	High-Density Residential	8-14	55	45
VHDR	Very High-Density Residential	14-20	55	45
H'TDR	Highest Density Residential	20+	55	45
CR	Retail Commercial		65	55
CO	Office Commercial		65	55
CT	Tourist Commercial		65	55
CC	Community Center		65	55
LI	Light Industrial		75	55
HI	Heavy Industrial		75	75
BP	Business Park		65	45
PF	Public Facility		65	45
SP	Specific Plan-Residential		55	45
	Specific Plan-Commercial		65	55
	Specific Plan-Light Industrial		75	55
	Specific Plan-Heavy Industrial		75	75
Rural Community				
EDR	Estate Density Residnetial	2 acres	55	45
VLDR	Very Low-Density Residential	1 acre	55	45
LDR	Low-Density Residential	1/2 acre	55	45
Rural				
RR	Rural Residential	5 acres	45	45
RM	Rural Mountainous	10 acres	45	45
RD	Rural Desert	10 acres	45	45
Agriculture				
AG	Agriculture	10 acres	45	45
Open Space				
C	Conservation		45	45
CH	Conservation Habitat		45	45
REC	Recreation		45	45
RUR	Rural	20 acres	45	45
W	Watershed		45	45
MR	Mineral Resources		75	45

Notes:
(1) Source: City of Eastvale Municipal Code Section 8.52.040, General Sound Level Standards.

Table 4
Vibration Level Standards

Jurisdiction	Peak Particle Velocity (PPV) Standard (in/sec)
City of Eastvale	0.0787

Notes:

(1) Source: City of Eastvale General Plan Noise Element, Table N-3.

Table 5
Construction Noise Standards

Jurisdiction	Permitted Hours of Construction Activity[1]	Construction Noise Level Threshold (dBA L_{eq})[2]
City of Eastvale	6:00 AM to 6:00 PM, June through September	85
	7:00 AM to 6:00 PM, October through May	

Notes:

(1) Source: Section 8.52.020 of the City of Eastvale Municipal Code.

(2) Source: NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure (June 1998).

4. SIGNIFICANCE CRITERIA

The following significance criteria are based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. For the purposes of this report, impacts would be potentially significant if the project results in or causes:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise code, or applicable standards of other agencies;

b. Generation of excessive ground-borne vibration or ground-borne noise levels;

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels;

While the CEQA Guidelines and the City of Eastvale General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts under CEQA Guideline A, they do not define the levels at which increases are considered substantial. CEQA Guideline C applies to nearby public and private airports, if any, and the project's land use compatibility. The project site is not located within two miles of a public airport or within an airport land use plan; nor is the project within the vicinity of a private airstrip. As such, the project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered less than significant, and no further noise analysis is conducted in relation to Questions for Noise: C.

NOISE-SENSITIVE RECEIVERS

Noise level increases resulting from the project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant (California Court of Appeal 2008). Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called ambient environment.

Substantial Temporary or Periodic Noise Level Increases

According to the City of Eastvale Municipal Code Section 8.52.020, construction activities are exempt from noise regulation between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May. Due to the temporary, short-term nature of noise-generating construction activities, the temporary or periodic noise level increases over the existing ambient conditions must be considered under CEQA Guideline A, consistent with the legal case, Friends of Riverside's Hills v. Riverside Transportation Commission, et al. (2013). Therefore, the California Department of Transportation Traffic Noise Analysis Protocol 12 dBA L_{eq} substantial noise level increase threshold is used in this analysis to assess temporary noise level increases. If the project-related construction noise levels generate a temporary noise level increase above the existing ambient noise levels of up to 12 dBA L_{eq}, then the project construction noise level increases will be considered a potentially significant impact. Although the California Department of Transportation recommendations were specifically developed to assess traffic noise impacts, the 12 dBA L_{eq} substantial noise level increase threshold is used in California to address noise level increases with the potential to exceed existing conditions (California Department of Transportation 2011).

Substantial Permanent Noise Level Increases

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level (FICON 1992). The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) or hourly logarithmic average noise levels (L_{eq}).

For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, FICON identifies a readily perceptible 5 dBA or greater project-related noise level increase is considered a significant impact when the noise criteria for a given land use is exceeded. Per FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. Table 6 provides a summary of the potential noise impact significance criteria, based on guidance from FICON.

SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. The significance criteria is summarized in Table 7.

Off-Site Traffic Noise

When the noise levels at existing and future noise-sensitive land uses (e.g., residential, etc.):

- are less than 60 dBA CNEL and the project creates a readily perceptible 5 dBA CNEL or greater project-related noise level increase; or
- range from 60 to 65 dBA CNEL and the project creates a barely perceptible 3 dBA CNEL or greater project-related noise level increase; or
- already exceed 65 dBA CNEL, and the project creates a community noise level impact of greater than 1.5 dBA CNEL (FICON, 1992).

Operational Noise

- If project-related operational (stationary-source) noise levels exceed 60 dBA Leq between the hours of 7:00 AM and 10:00 PM or exceed 50 dBA Leq between the hours of 10:00 PM and 7:00 AM.

- If project-related operational (stationary-source) noise levels exceed the exterior 55 dBA Lmax daytime or 45 dBA Lmax nighttime noise level standards at nearby sensitive receiver locations (City of Eastvale Municipal Code Section 8.52.040 (included in this report as Table 3) or

- If the existing ambient noise levels at the nearby noise-sensitive receivers near the project site:

    - are less than 60 dBA L_{eq} and the project creates a readily perceptible 5 dBA Leq or greater project-related noise level increase; or
    - range from 60 to 65 dBA L_{eq} and the project creates a barely perceptible 3 dBA L_{eq} or greater project-related noise level increase; or

- already exceed 65 dBA L_{eq}, and the project creates a community noise level impact of greater than 1.5 dBA Leq (FICON, 1992).

Construction Noise and Vibration

- If project-related construction activities:

  - occur at any time other than the permitted hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May (Section 8.52.040 of the City of Eastvale Municipal Code); or
  - generate noise levels which exceed the 85 dBA L_{eq} acceptable noise level threshold at the nearby sensitive receiver locations (NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure); or
  - generate temporary project construction-related noise level increases which exceed the 12 dBA L_{eq} substantial noise level increase threshold at noise-sensitive receiver locations (California Department of Transportation, Traffic Noise Analysis Protocol).

- If short-term project generated construction vibration levels exceed the City of Eastvale acceptable vibration standard of 0.0787 in/sec PPV at sensitive receiver locations (City of Eastvale General Plan, Policy N-3).

Table 6
Significance of Noise Impacts at Noise-Sensitive Receptors

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Notes:

Source: Federal Interagency Committee on Noise (FICON), 1992.

Table 7
Significance Criteria Summary

Analysis	Condition(s)	Significance Criteria	
		Daytime	Nighttime
Off-Site Traffic Noise[1]	if ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project Increase	
	if ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project Increase	
	if ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project Increase	
Operational Noise	Exterior Noise Level Standards[2]	55 dBA L_{max}	45 dBA L_{max}
	if ambient is < 60 dBA L_{eq}[1]	≥ 5 dBA Leq Project increase	
	if ambient is 60 -65 dBA L_{eq}[1]	≥ 3 dBA Leq Project increase	
	if ambient is > 65 dBA L_{eq}[1]	≥ 1.5 dBA Leq Project increase	
Construction Noise & Vibration	6:00 AM to 6:00 PM, June through September 7:00 AM to 6:00 PM, October through May[3]		
	Noise Level Threshold[4]	85 dBA L_{eq}	n/a
	Noise Level Increase[5]	12 dBA L_{eq}	n/a
	Vibration Level Threshold[6]	0.0787 PPV	n/a

Notes:

(1) Source: FICON, 1992.

(2) Source: City of Eastvale General Plan Noise Element, Table N-4.

(3) Source: Section 8.52.040 of the City of Eastvale Municipal Code.

(4) Source: NIOSH, Criteria for Recommended Standard: Occupational Noise Exposure, June 1998.

(5) Source: Caltrans Traffic Noise Analysis Protocol, May 2011.

(6) Source: City of Eastvale General Plan Noise Element, Policy N-3.

"Daytime" = 7:00 AM - 10:00 PM; "Nighttime" = 10:00 PM - 7:00 AM; "n/a" = No nighttime construction activity is permitted and therefore, no nighttime construction noise level threshold is identified; "PPV" = Peak particle velocity.

5. EXISTING NOISE LEVEL MEASUREMENTS

In order to document existing ambient noise levels in the project area, one (1) long-term 24-hour noise measurement and four (4) short-term 15-minute noise measurements were taken by Ganddini Group, Inc. from November 2, 2020, to November 3, 2020. Figure 6 provides the noise measurement locations. Field worksheets and noise measurement output data are included in Appendix C.

MEASUREMENT PROCEDURE AND CRITERIA

Four short-term (10 minute) noise measurements and one long-term (24-hours) noise measurement were taken at nearby sensitive receptors in order to document the existing noise environment. Measurements were taken during typical weekday conditions. An American National Standards Institute (ANSI Section SI4 1979, Type 1) Larson Davis model LxT sound level meter was used to measure existing ambient noise levels in the project area. The Larson Davis sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 250. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4- 2014/IEC 61672-1:2013.

NOISE MEASUREMENT LOCATIONS

The long-term noise level measurement was positioned on the project site, where the meter could be secured, to measure the existing ambient hourly noise levels in the project vicinity. Both the California Department of Transportation and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent any part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the California Department of Transportation general site location guidelines which indicate that, sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources (California Department of Transportation 2013). Further, FTA guidance states, that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community (FTA 2018).

Based on recommendations of the California Department of Transportation and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence (FTA 2006). In other words, the area represented by the receiver shares similar terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

NOISE MEASUREMENT RESULTS

Table 8 identifies the hourly daytime (7:00 AM to 10:00 PM) and nighttime (10:00 PM to 7:00 AM) noise levels in the vicinity of the noise measurement location, while Table 9 identifies 15-minute daytime representative noise levels at nearby sensitive receptors. Appendix C provides a summary of the existing ambient noise levels described below:

- Long-term Noise Measurement 1 (LT1) was taken at the southern end of the project site near the western property boundary and represents noise levels at the single-family detached dwelling unit located immediately west of the project site (see Figure 6 and Table 8). Hourly noise levels at location LT1 ranged

from 53.9 to 61.6 dBA L_{eq} during the daytime hours and between 47.4 to 56.6 dBA L_{eq} during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 57 dBA L_{eq} with an average nighttime noise level of 51.7 dBA L_{eq}. The calculated CNEL is 56.4 dBA.

- Short-term Noise Measurement 1 (STNM1) was taken to the west of the project site and is representative of the single-family detached residential dwelling unit located adjacent to the west of the project site (see Figure 6 and Table 9). The short-term ambient noise level at this location was measured at 52.5 dBA L_{eq}.

- Short-term Noise Measurement 2 (STNM2) was taken in the single-family residential neighborhood to the south of the project site and is representative of the single-family detached residential dwelling units located to the south of the project site across Chandler Street (see Figure 6 and Table 9). The short-term ambient noise level at this location was measured at 47.3 dBA L_{eq}.

- Short-term Noise Measurement 3 (STNM3) was taken in the single-family residential neighborhood to the east of the project site and is representative of the single-family detached residential dwelling units located to the east of the project site across Archibald Avenue (see Figure 6 and Table 9). The short-term ambient noise level at this location was measured at 65.7 dBA L_{eq}.

- Short-term Noise Measurement 4 (STNM34) was taken in the single-family residential neighborhood to the north of the project site and is representative of the single-family detached residential dwelling units located to the north of the project site (see Figure 6 and Table 9). The short-term ambient noise level at this location was measured at 44.9 dBA L_{eq}.

Existing ambient noise levels in the project area are dominated by the transportation-related noise associated with Archibald Avenue, Chandler Street, and other surrounding roadways. Noise measurement field sheets and output data are provided in Appendix C.

Table 8
Long-Term Noise Measurement Summary (LT1) (dBA)

24-Hour Ambient Noise								
Noise Measurement [1,2]								
Hourly Measurements	Time Started	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)
Overall Summary	5:00 PM	56.4	87.4	34.8	64.4	59.1	54.3	50.2
1	5:00 PM	57.8	80.2	44.2	65.5	60.9	56.1	53.3
2	6:00 PM	55.3	76.9	40.8	63.9	58.1	54.5	50.9
3	7:00 PM	54.2	74.7	39.2	63.1	56.9	52.6	49.5
4	8:00 PM	53.9	72.6	39.1	63.4	56.7	52.3	48.6
5	9:00 PM	54.6	79.0	39.7	62.8	56.0	51.0	47.9
6	10:00 PM	55.6	83.7	37.4	61.5	54.9	49.8	46.4
7	11:00 PM	48.4	71.2	36.2	57.2	51.0	46.6	42.9
8	12:00 AM	51.0	72.5	36.3	60.7	51.1	45.4	41.4
9	1:00 AM	47.4	71.8	34.9	55.9	48.8	43.7	39.9
10	2:00 AM	47.9	67.6	34.8	58.5	50.5	44.0	39.6
11	3:00 AM	49.8	68.3	36.3	57.3	52.7	48.7	43.9
12	4:00 AM	53.7	70.5	38.2	63.6	57.5	51.7	47.9
13	5:00 AM	55.0	76.7	42.0	63.6	57.9	54.0	50.5
14	6:00 AM	56.6	74.1	43.4	64.9	60.0	55.6	52.2
15	7:00 AM	57.1	74.6	44.1	65.3	60.6	56.3	53.5
16	8:00 AM	56.5	70.5	44.8	64.1	60.1	56.7	53.7
17	9:00 AM	56.8	74.3	40.8	65.7	61.0	55.6	52.3
18	10:00 AM	59.6	87.4	40.7	64.6	59.1	55.1	52.1
19	11:00 AM	55.4	72.5	40.5	63.2	58.8	54.8	51.4
20	12:00 PM	56.3	76.3	41.1	64.3	60.1	55.3	51.9
21	1:00 PM	57.4	73.6	39.9	66.1	61.2	56.6	53.7
22	2:00 PM	60.0	83.9	41.1	67.4	63.0	57.7	53.4
23	3:00 PM	58.8	79.0	43.3	67.1	62.4	58.1	54.0
24	4:00 PM	61.6	85.4	43.1	67.6	61.5	56.7	53.0
CNEL	61							

Notes:

(1) See Figure 6 for noise measurement locations. Noise measurements were performed over a 24-hour duration.

(2) Noise measurements performed from November 2, 2020 to November 3, 2020.

Table 9
Short-Term Noise Measurement Summary (dBA)

Daytime Measurements[1,2]								
Site Location	Time Started	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)
STNM1	10:41 AM	52.5	71.9	38.1	59.8	55.3	51.2	47.4
STNM2	11:17 AM	47.3	65.0	37.5	54.5	52.0	46.8	43.5
STNM3	11:56 AM	65.7	84.3	48.9	76.2	69.3	59.4	54.9
STNM4	12:37 PM	44.9	56.8	35.4	52.9	48.7	44.9	42.1

Notes:

(1) See Figure 6 for noise measurement locations. Each noise measurement was performed over a 15-minute duration.

(2) Noise measurements performed on November 2, 2020.



Legend

NM 1	Noise Measurement Location
ST NM	Short-Term Noise Measurement
LT NM	Long-Term Noise Measurement
47.3	Measured Noise Level

Figure 6
Noise Measurement Location Map

6. METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment.

FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular volumes were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model - FHWA-RD-77-108. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

Table 10 presents the roadway parameters used to assess the project's off-site transportation noise impacts for each affected roadway segment, including: the adjacent existing land use, the distance from the centerline to the nearest land use based on the functional roadway classifications per the City of Eastvale General Plan Circulation Element, and the posted vehicle speeds. For this analysis, hard site conditions are used to analyze the traffic noise impacts within the project study area to predict worst-case, conservative noise levels. A hard site, such as pavement, is highly reflective and does not attenuate noise as quickly as grass or other soft sites. The Existing and Opening Year average daily traffic volumes used for this study are presented in Table 11 and are provided by the Archibald at Chandler Commercial Project Traffic Impact Analysis prepared by Ganddini Group, Inc. (October 28, 2020).).[1] Table 11 also presents the time-of-day vehicle splits and the traffic flow distributions (vehicle mix) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model.

CONSTRUCTION NOISE MODEL

Construction noise associated with the proposed project was calculated at the sensitive receptor locations, utilizing methodology presented in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018) together with several key construction parameters including: distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site. Distances to receptors were based on the acoustical center of the project site. The equipment used to calculate the construction noise levels for each phase were based on the assumptions provided in the CalEEMod modeling in the Archibald at Chandler Commercial Project Air Quality, Global Climate Change, TAC and Energy Impact Analysis (Ganddini Group, Inc., 2020).[2] For construction noise purposes, the distance measured from the project site to sensitive receptors was assumed to be the acoustical center of the project site to the property line of residential properties with existing residential buildings. Modeling input parameters and output are provided in Appendix D.

[1] The proposed project is to generate approximately 1,686 net new daily vehicle trips. The Archibald at Chandler Commercial Project Traffic Impact Analysis prepared by Ganddini Group, Inc. (October 28, 2020) showed that the previous version of the project was to generate approximately 4,871 net new daily vehicle trips. Therefore, as the project generated vehicle trips have decreased from that provided for the previous version of the project, and in order to provide a more conservative analysis, this analysis utilizes the higher trip generation rate provided in the 2020 Traffic Impact Analysis.

[2] The Air Quality, Global Climate Change, TAC and Energy Impact Analysis prepared for the project has not been recently updated. However, as the equipment assumptions are anticipated to be similar, based on the size and type of uses proposed on the project site, the equipment assumptions from the 2020 study have been utilized in this analysis.

Noise levels generated by construction equipment generally range between 73 dBA Lmax to 101 dBA Lmax when measured at 50 feet. These maximum noise levels are expected to occur for only a portion of each hour. This percentage is referred to as the usage factor, or the percentage of time that each piece of equipment is expected to be utilized on a typical construction site. In order to calculate the Leq associated with a piece of construction equipment, the maximum noise level is adjusted to take into account the equipment's usage factor and the distance between the equipment and the receptor.

SOUNDPLAN

The SoundPLAN software utilizes algorithms (based on the inverse square law) to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations.

SoundPLAN was utilized to model noise associated with worst-case operation of the proposed project. On-site operational noise sources that were included in the model include: rooftop air conditioning units, drive-thru queue line and ordering, parking lot vehicle movements, outdoor eating and patio areas, car wash turbines (dryers) and vacuums. Car wash and vacuum noise was analyzed in a separate noise study and resulting noise levels are incorporated later into report findings. Modeling details are discussed below. SoundPLAN inputs and outputs are provided in Appendix E.

Rooftop Air Conditioning Units

It is expected that the buildings associated with the proposed project would include rooftop mounted heating, ventilation, and air conditioning (HVAC) units. The type, size and number of mechanical equipment are not known at this time. A conservative estimate was utilized for modeling purposes. The HVAC equipment was modeled as point sources placed on-top of each structure's roof. Specifications for a Carrier 50 Ton packaged cooling unit with a sound power level of 86 dBA were utilized for modeling purposes. No rooftop parapets were modeled. Sound level specifications are provided in Appendix E.

Drive-Thru and Queuing Line

No drive-thru speakers are proposed. Orders will be taken at the window. Drive-thru ordering was modeled as point sources and a SoundPLAN noise reference level to represent loud human voices of 70 dBA utilized.

A queuing line associated with vehicles waiting in line to order food at the proposed drive-thru was modeled utilizing a line noise source with a sound power level of 50 dBA every square meter.

Parking Lot Vehicle Movements

Noise associated with parking lots include, but are not limited to idling cars/trucks, trucks, doors closing, and starting engine noise. Noise levels associated with parking lots typically range between 44-63 dBA L_{eq} at a distance of 100 feet. Vehicle movements are the most consistent and predominant noise in parking lot areas. Noise associated with the proposed parking lots were determined based on the project trip generation rate and SoundPLAN modeling procedures. Specifically, a total of 53 parking spaces and 45 peak hour trips were entered into the SoundPLAN noise model. Trips associated with the car wash were not included in the modeling of parking areas.

Outdoor Eating Areas

An area noise source of 65 dBA per meter was used to represent conversational voices in the proposed outdoor eating and patio areas.

Car Wash

A separate noise study was prepared for the proposed project[3] and is included as Appendix F in this report. Modeled noise sources included car wash turbine (dryer) and vacuums. The drying system was modeled with a sound power level of 81 dBA and the vacuums were modeled with a sound power level of 81 dBA. Results of the car wash analysis were combined with the results of this study in Section 9 of this report.

Outdoor Dining Area

The outdoor eating area proposed at the northeast corner of the project site was modeled by utilizing SoundPLAN noise reference level for a human voice at 70 dBA/square meter within the outdoor patio and dining areas.

VIBRATION ASSESSMENT

This analysis focuses on the potential ground-borne vibration associated with vehicular volumes and construction activities. Ground-borne vibration levels from automobile volumes are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity.

However, while vehicular volumes are rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized in Table 12. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$.

[3] Quick Quack Car Wash Noise Impact Study City of Eastvale, MD Acoustics, LLC December 9, 2022.

Table 10
Off-Site Roadway Parameters

Roadway	Segment	Adjacent Land Use[1]	Distance from Roadway Centerline to Nearest Receptor (feet)[2]	Posted Travel Speeds (MPH)[3]
Archibald Avenue	North of Smith River Road/Eastvale Parkway	Residential	65	50
	South of Smith River Road/Eastvale Parkway	Residential	65	50
	North of Chandler Street	Residential	65	50
	Chandler Street to Wind River Road/Grapewin Street	Residential	65	50
	South of Wind River Road/Grapewin Street	Residential	45	50
Smith River Road	West of Archibald Avenue	Residential	42	25
Eastvale Parkway	East of Archibald Avenue	Residential	50	25
Chandler Street	West of Archibald Avenue	Residential	52	45
	East of Archibald Avenue	Residential	42	45
Wind River Road	West of Archibald Avenue	Residential	40	25
Grapewin Street	East of Archibald Avenue	Residential	15	25

Notes:

(1) Source: City of Eastvale General Plan Land Use Map.

(2) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth Pro.

(3) Speed limits as posted.

Table 11
Project Average Daily Traffic Volumes and Roadway Parameters

Roadway	Segment	Adjacent Land Use[1]	Average Daily Traffic Volumes[2]			
			Existing Without Project	Existing With Project	Opening Year Without Project	Opening Year With Project
Archibald Avenue	North of Smith River Road/Eastvale Parkway	Residential	20,600	21,330	32,800	33,530
	South of Smith River Road/Eastvale Parkway	Residential	19,400	20,620	29,600	30,820
	North of Chandler Street	Residential	19,400	20,740	29,600	30,940
	Chandler Street to Wind River Road/Grapewin Street	Residential	23,000	24,340	31,500	32,840
	South of Wind River Road/Grapewin Street	Residential	20,300	21,030	26,500	27,230
Smith River Road	West of Archibald Avenue	Residential	1,300	1,540	1,400	1,640
Eastvale Parkway	East of Archibald Avenue	Residential	3,400	3,640	5,700	5,940
Chandler Street	West of Archibald Avenue	Residential	6,900	9,210	9,100	11,410
	East of Archibald Avenue	Residential	9,300	10,520	10,600	11,820
Wind River Road	West of Archibald Avenue	Residential	1,500	1,740	1,600	1,840
Grapewin Street	East of Archibald Avenue	Residential	100	200	100	200

Vehicle Distribution (Light Mix)[3]			
Motor-Vehicle Type	Daytime % (7 AM-7 PM)	Evening % (7 PM-10 PM)	Night % (10 PM-7 AM)
Automobiles	75.56	13.96	10.49
Medium Trucks	48.91	2.17	48.91
Heavy Trucks	47.30	5.41	47.30

Vehicle Distribution (Heavy Mix)[3]			
Motor-Vehicle Type	Daytime % (7 AM-7 PM)	Evening % (7 PM-10 PM)	Night % (10 PM-7 AM)
Automobiles	75.54	14.02	10.43
Medium Trucks	48.00	2.00	50.00
Heavy Trucks	48.00	2.00	50.00

Notes:

(1) Source: City of Eastvale General Plan Land Use Map.

(2) Average daily traffic volumes and vehicle mix obtained from the Archibald at Chandler Commercial Project Traffic Impact Analysis,

(3) Vehicle percentages are based on the Riverside County Industrial Hygiene Letter for Traffic Noise and were used for the existing vehicle

Table 12
Construction Equipment Vibration Source Levels

Equipment		PPV at 25 ft, in/sec	Approximate Lv* at 25 ft
Pile Driver (impact)	upper range	1.518	112
	typical	0.644	104
Pile Driver (sonic)	upper range	0.734	105
	typical	0.170	93
clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large Bulldozer		0.089	87
Caisson Drilling		0.089	87
Loaded Trucks		0.076	86
Jackhammer		0.035	79
Small Bulldozer		0.003	58

Source: Federal Transit Administration: Transit Noise and Vibration Impact Assessment Manual, 2018.
*RMS velocity in decibels, VdB re 1 micro-in/sec

7. OFF-SITE TRANSPORTATION NOISE IMPACTS

NOISE CONTOURS

In order to calculate the increase in ambient noise levels due to project generated vehicle noise, noise levels associated with existing traffic conditions, existing plus the project noise conditions, opening year without the project traffic conditions, and opening year with the proposed project traffic conditions were modeled utilizing traffic data provided in the Archibald at Chandler Commercial Project Traffic Impact Analysis prepared by Ganddini Group, Inc. (October 28, 2020).).

Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway and do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the project study area. Tables 13 and 14 present exterior noise levels for Existing without Project and Existing with Project scenarios, without barrier attenuation, for the 11 study area roadway segments; and Tables 15 and 16 present exterior noise levels for Opening Year without Project and Opening Year with Project scenarios, without barrier attenuation, for the 11 study area roadway segments. Appendix G includes a summary of the traffic noise level contours for each of the traffic scenarios.

Based on the noise impact significance criteria described in Section 4 and shown in Table 7, a significant impact associated with project generated vehicle traffic would occur:

- When the noise levels at existing and future noise-sensitive land uses (e.g., residential, etc.):
  - are less than 60 dBA CNEL and the project creates a readily perceptible 5 dBA CNEL or greater project-related noise level increase; or
  - range from 60 to 65 dBA CNEL and the project creates a barely perceptible 3 dBA CNEL or greater project-related noise level increase; or
  - already exceed 65 dBA CNEL, and the project creates a community noise level impact of greater than 1.5 dBA CNEL (FICON, 1992).

EXISTING CONDITIONS PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 13 presents the Existing without Project conditions CNEL noise levels which are expected to range between 49.3-77.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 14 shows the Existing with Project conditions will range from 52.3-77.3 dBA CNEL. As shown in Table 15, project generated vehicle trips are projected to result in increases in the existing ambient noise level of less than 1.5 dB for all modeled roadway segments other than the roadway segment of Grapewin Street east of Archibald Avenue. Grapewin Street east of Archibald Avenue has a projected increase of 3.0 dB; however, the modeled Existing with Project noise level is 52.3 dBA CNEL for this roadway segment, which is substantially lower than the lowest FICON significance criteria of 60 dBA. Based on the significance criteria in Section 4, the project-related noise level increases are considered less than significant. No mitigation is required.

OPENING YEAR PROJECT TRAFFIC NOISE LEVEL CONTRIBUTIONS

Table 16 presents the Opening Year without project conditions CNEL noise levels which are expected to range from 49.3 to 78.3 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 17 shows the Opening Year with project conditions will range from 52.3 to 78.4 dBA CNEL. As shown in Table 18, project generated vehicle trips are projected to result in increases in the

noise level of less than 1.5 dB for all modeled roadway segments other than the roadway segment of Grapewin Street east of Archibald Avenue. Grapewin Street east of Archibald Avenue has a projected increase of 3.0 dB; however, the modeled Opening Year With Project noise level is 52.3 dBA CNEL for this roadway segment, which is substantially lower than the lowest FICON significance criteria of 60 dBA.

Based on the significance criteria in Section 4, the project-related noise level increases are considered less than significant under Opening Year with project conditions at land uses adjacent to roadways conveying project trips.

Table 13
Existing Without Project Noise Contours

Roadway	Segment	Distance from Roadway Centerline to Nearest Receptor[1]	Modeled Existing Without Project Noise Level at Nearest Adjacent Land Use (dBA CNEL)[2]	Distance to Contour from Centerline (feet)		
				70 CNEL	65 CNEL	60 CNEL
Archibald Avenue	North of Smith River Road/Eastvale Parkway	65	75.6	236	747	2,360
	South of Smith River Road/Eastvale Parkway	65	75.3	223	703	2,225
	North of Chandler Street	65	75.3	223	703	2,225
	Chandler Street to Wind River Road/Grapewin Street	65	76.1	264	833	2,630
	South of Wind River Road/Grapewin Street	45	77.1	233	735	2,325
Smith River Road	West of Archibald Avenue	42	56.0	2	5	17
Eastvale Parkway	East of Archibald Avenue	50	59.4	4	14	44
Chandler Street	West of Archibald Avenue	52	71.1	67	213	674
	East of Archibald Avenue	42	69.7	39	123	389
Wind River Road	West of Archibald Avenue	40	56.8	2	6	19
Grapewin Street	East of Archibald Avenue	15	49.3	-	-	1

Notes:

(1) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth Pro.

Table 14
Existing With Project Noise Contours

Roadway	Segment	Distance from Roadway Centerline to Nearest Receptor[1]	Modeled Existing With Project Noise Level at Nearest Adjacent Land Use (dBA CNEL)[2]	Distance to Contour from Centerline (feet)		
				70 CNEL	65 CNEL	60 CNEL
Archibald Avenue	North of Smith River Road/Eastvale Parkway	65	75.8	246	773	2,445
	South of Smith River Road/Eastvale Parkway	65	75.6	237	747	2,365
	North of Chandler Street	65	75.6	238	751	2,375
	Chandler Street to Wind River Road/Grapewin Street	65	76.3	279	882	2,790
	South of Wind River Road/Grapewin Street	45	77.3	241	763	2,410
Smith River Road	West of Archibald Avenue	42	56.7	2	6	19
Eastvale Parkway	East of Archibald Avenue	50	59.7	5	15	46
Chandler Street	West of Archibald Avenue	52	72.4	90	284	900
	East of Archibald Avenue	42	70.2	44	139	440
Wind River Road	West of Archibald Avenue	40	57.5	2	7	22
Grapewin Street	East of Archibald Avenue	15	52.3	-	1	3

Notes:

(1) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth Pro.

Table 15
Increase in Existing Noise Levels Along Roadways as a Result of Project (dBA CNEL)

Roadway	Segment	Distance from Roadway Centerline to Nearest Receptor[1]	Modeled Noise Levels (dBA CNEL)				
			Existing Without Project	Existing With Project	Change in Noise Level	Exceeds Standards	Increase of 3 dB or more
Archibald Avenue	North of Smith River Road/Eastvale Parkway	65	75.6	75.8	0.2	Yes	No
	South of Smith River Road/Eastvale Parkway	65	75.3	75.6	0.3	Yes	No
	North of Chandler Street	65	75.3	75.6	0.3	Yes	No
	Chandler Street to Wind River Road/Grapewin Street	65	76.1	76.3	0.3	Yes	No
	South of Wind River Road/Grapewin Street	45	77.1	77.3	0.2	Yes	No
Smith River Road	West of Archibald Avenue	42	56.0	56.7	0.7	No	No
Eastvale Parkway	East of Archibald Avenue	50	59.4	59.7	0.3	No	No
Chandler Street	West of Archibald Avenue	52	71.1	72.4	1.3	Yes	No
	East of Archibald Avenue	42	69.7	70.2	0.5	Yes	No
Wind River Road	West of Archibald Avenue	40	56.8	57.5	0.6	No	No
Grapewin Street	East of Archibald Avenue	15	49.3	52.3	3.0	No	Yes

Notes:

(1) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth Pro.

Table 16
Opening Year Without Project Noise Contours

Roadway	Segment	Distance from Roadway Centerline to Nearest Receptor[1]	Modeled Opening Year Without Project Noise Level at Nearest Adjacent Land Use (dBA CNEL)[2]	Distance to Contour from Centerline (feet)		
				70 CNEL	65 CNEL	60 CNEL
Archibald Avenue	North of Smith River Road/Eastvale Parkway	65	77.6	376	1,190	3,760
	South of Smith River Road/Eastvale Parkway	65	77.2	339	1,074	3,390
	North of Chandler Street	65	77.2	339	1,072	3,390
	Chandler Street to Wind River Road/Grapewin Street	65	77.5	361	1,142	3,610
	South of Wind River Road/Grapewin Street	45	78.3	304	960	3,040
Smith River Road	West of Archibald Avenue	42	56.3	2	6	18
Eastvale Parkway	East of Archibald Avenue	50	61.7	7	23	73
Chandler Street	West of Archibald Avenue	52	72.3	89	281	888
	East of Archibald Avenue	42	70.2	44	140	443
Wind River Road	West of Archibald Avenue	40	57.1	2	6	21
Grapewin Street	East of Archibald Avenue	15	49.3	-	-	1

Notes:

(1) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth Pro.

Table 17
Opening Year With Project Noise Contours

Roadway	Segment	Distance from Roadway Centerline to Nearest Receptor[1]	Modeled Opening Year With Project Noise Level at Nearest Adjacent Land Use (dBA CNEL)[2]	Distance to Contour from Centerline (feet)		
				70 CNEL	65 CNEL	60 CNEL
Archibald Avenue	North of Smith River Road/Eastvale Parkway	65	77.7	384	1,215	3,840
	South of Smith River Road/Eastvale Parkway	65	77.4	353	1,118	3,535
	North of Chandler Street	65	77.4	355	1,122	3,550
	Chandler Street to Wind River Road/Grapewin Street	65	77.6	376	1,190	3,760
	South of Wind River Road/Grapewin Street	45	78.4	312	987	3,118
Smith River Road	West of Archibald Avenue	42	57.0	2	7	21
Eastvale Parkway	East of Archibald Avenue	50	61.8	8	24	76
Chandler Street	West of Archibald Avenue	52	73.3	112	352	1,115
	East of Archibald Avenue	42	70.7	49	156	494
Wind River Road	West of Archibald Avenue	40	57.7	2	7	24
Grapewin Street	East of Archibald Avenue	15	52.3	-	1	3

Notes:

(1) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth Pro.

Table 18
Increase in Opening Year Noise Levels Along Roadways as a Result of Project (dBA CNEL)

Roadway	Segment	Distance from Roadway Centerline to Nearest Receptor[1]	Modeled Noise Levels (dBA CNEL)				
			Opening Year Without Project	Opening Year With Project	Change in Noise Level	Exceeds Standards	Increase of 3 dB or more
Archibald Avenue	North of Smith River Road/Eastvale Parkway	65	77.6	77.7	0.1	Yes	No
	South of Smith River Road/Eastvale Parkway	65	77.2	77.4	0.2	Yes	No
	North of Chandler Street	65	77.2	77.4	0.2	Yes	No
	Chandler Street to Wind River Road/Grapewin Street	65	77.5	77.6	0.2	Yes	No
	South of Wind River Road/Grapewin Street	45	78.3	78.4	0.1	Yes	No
Smith River Road	West of Archibald Avenue	42	56.3	57.0	0.7	No	No
Eastvale Parkway	East of Archibald Avenue	50	61.7	61.8	0.2	No	No
Chandler Street	West of Archibald Avenue	52	72.3	73.3	1.0	Yes	No
	East of Archibald Avenue	42	70.2	70.7	0.5	Yes	No
Wind River Road	West of Archibald Avenue	40	57.1	57.7	0.6	No	No
Grapewin Street	East of Archibald Avenue	15	49.3	52.3	3.0	No	Yes

Notes:

(1) Distance calculated from the centerline of the roadway segment to the property line of the nearest adjacent land use. Distances estimated through the use of Google Earth Pro.

8. RECEIVER LOCATIONS

To assess the potential for long-term operational noise and short-term construction noise and vibration impacts, the following five representative receiver locations (see Figure 7) were identified as representative locations for focused analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family detached dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family attached dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered less sensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

Sensitive receivers near the project site include existing residential homes as described below. The closest sensitive receiver location is represented by R4, which is located on a residential property adjacent to the project site. Other sensitive land uses in the project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures.

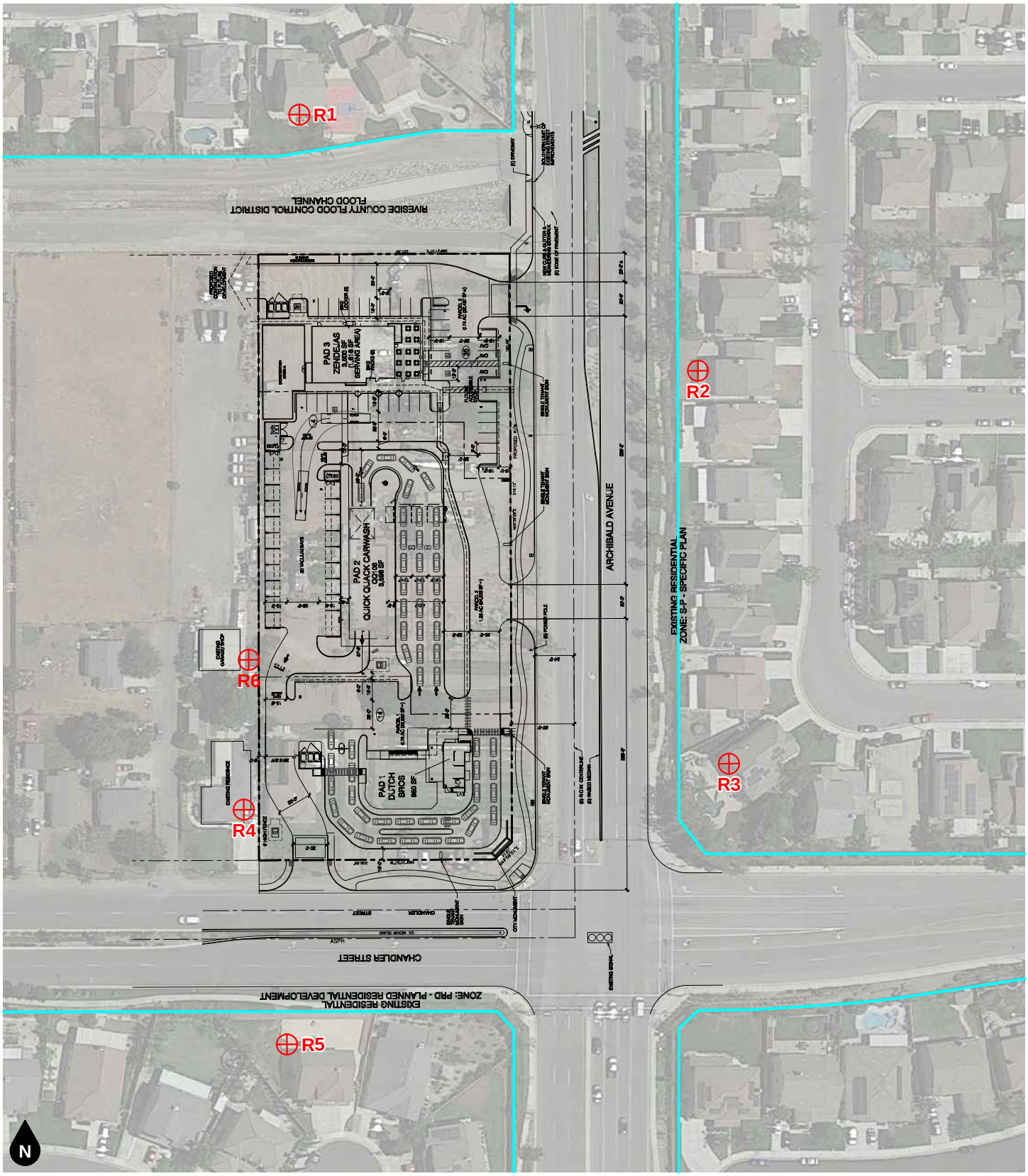
R1: Located as close as 88 feet north of the project site, R1 represents existing outdoor living areas (backyards) of residential homes just north of the project site along Redwood Valley Road. A 15-minute short-term noise level measurement (STNM4) was taken near this location in order to characterize the existing ambient noise environment.

R2: Location R2 represents existing outdoor living areas (backyards) of residential homes located as close as 110 feet east of the project site along Coffeeberry Drive. Archibald Avenue lies between the project site and the sensitive receptors to the west located along Coffeeberry Drive. A 15-minute noise level measurement was taken near this location (STNM3), to characterize the existing ambient noise environment.

R3: Location R3 represents existing outdoor living area (backyard) of residential homes located as close as 115 feet east of the project site at the south end of Coffeeberry Drive. Archibald Avenue lies between the project site and the sensitive receptors to the west located along Coffeeberry Drive. A 15-minute noise level measurement, STNM3, was taken near this location to characterize the existing ambient noise environment.

R4: Location R4 represents existing outdoor living area (backyard) of residential homes located west of the project site. The closest residential property line is adjacent to the southwestern project property line. The single-family detached residential dwelling unit is approximately 8 feet from the property line. In addition, a storage/garage like structure is located just north of the dwelling unit approximately 15 feet from the property line. STNM1 was taken near this location to characterize the existing ambient noise environment.

R5: Location R5 represents existing outdoor living area (backyard) of residential homes as close as 115 feet south of the project site along Pointer Loop. Chandler Street lies between the project site and the sensitive receptors to the south. A 15-minute noise level measurement (STNM2) was taken to represent ambient noise levels at R5. Vehicle volumes on Chandler Street and Archibald Avenue is the dominant noise source at this location.



Legend

R1 Receiver Location

Existing Barriers

Figure 7
Receiver Locations

9. OPERATIONAL IMPACTS

This section analyzes the potential operational noise impacts due to the project's stationary noise sources on the off-site sensitive receiver locations identified in Section 8.

OPERATIONAL NOISE LEVELS

Figure 8 shows noise levels associated with the proposed project without the car wash because car wash noise was modeled in a separate study. Figure 9 shows operational noise levels associated with the entire project.

COMPLIANCE WITH APPLICABLE STANDARDS

The proposed project will operate between 7:00 AM and 10:00 PM and therefore, would not exceed any nighttime noise standards. Significant impacts related to project operations would occur if the project resulted in any of the following:

- If project-related operational (stationary-source) noise levels exceed 60 dBA Leq between the hours of 7:00 AM and 10:00 PM or exceed 50 dBA Leq between the hours of 10:00 PM and 7:00 AM.

- If project-related operational (stationary-source) noise levels cause interior noise levels to exceed 45 dBA, CNEL.

- If project-related operational (stationary-source) noise levels exceed the exterior 55 dBA Lmax daytime or 45 dBA Lmax nighttime noise level standards at nearby sensitive receiver locations (City of Eastvale Municipal Code Section 8.52.040 (included in this report as Table 3).

As discussed previously, Lmax noise levels for noise sources were utilized in the SoundPLAN noise model, and it was assumed that all sources would be in operation for the entire modeled period. Therefore, the Leq and the Lmax noise levels associated with the project are the same.

As shown in Figure 9 and Table 19, noise levels associated with project operational noise sources are expected to range from 46 to 54 dBA Leq and will not exceed the daytime General Plan Leq noise level standard of 60 dBA Leq or exceed the Municipal Code standard of 55 dBA Lmax. The project will operate between the hours of 7:00 AM and 10:00 PM and therefore, will not result in any exceedances of nighttime noise standards. This impact would not be significant. No mitigation is required.

The existing measured CNEL is 61 dB. Project operational noise during daytime hours will add approximately 1 dB to each hour. The existing plus project CNEL would still be 61 dBA with project operational noise. Residential construction methods typically provide 20 dB of exterior to interior noise reduction with provision of HVAC to allow for a windows-closed condition. Project operation will not result in interior noise levels that exceed the 45 dBA CNEL noise standard. This impact is less than significant. No mitigation is required.

INCREASE IN AMBIENT NOISE LEVELS

- If the existing ambient noise levels at the nearby noise-sensitive receivers near the project site:

    - are less than 60 dBA L_{eq} and the project creates a readily perceptible 5 dBA L_{eq} or greater project-related noise level increase; or
    - range from 60 to 65 dBA L_{eq} and the project creates a barely perceptible 3 dBA L_{eq} or greater project-related noise level increase; or

- already exceed 65 dBA L_{eq}, and the project creates a community noise level impact of greater than 1.5 dBA L_{eq} (FICON, 1992).

Project operational noise levels presented in Figure 9 were combined with existing ambient representative noise measurements presented in Tables 8 and 9 and compared to the existing noise level measurements in order to quantify the project's contribution to the increase in ambient noise levels. Since the units used to measure noise, decibels (dB), are logarithmic units, the project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. Instead, they must be logarithmically added using the following base equation:

$$SPLTotal = 10log10[10SPL1/10 + 10SPL2/10 + \ldots 10SPLn/10]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the project-operational and existing ambient noise levels. The difference between the combined project and ambient noise levels describe the project noise level contributions.

As shown in Table 20 operation of the project would result in increases in ambient noise levels of up to 5 dBA dB but would not result in violation of any of the above thresholds due to relatively quiet ambient noise levels. Project operational noise would not result in substantial increases in ambient noise levels. No mitigation is required.

Table 19
Compliance with Exterior Stationary Noise Standards (dBA, Leq)

Reciever Location[1]	Project Operational Leq[2]	Exceeds Daytime Leq Standard of 60 dBA?	Lmax[3]	Exceeds Lmax Standard of 55 dBA?
R1	46	No	46	No
R2	49	No	49	No
R3	49	No	49	No
R4	54	No	54	No
R5	51	No	51	No
R6	54	No	54	No

Notes:

(1) As shown on Figure 9. SoundPLAN input provided in Appendix E.

(2) Exterior noise level standard from the General Plan Noise Element Table N-4.

(3) Exterior noise level standards from the City of Eastvale Municipal Code Section 8.52.040 (see Table 3).

Table 20
Increase in Noise Levels due to Project On-Site Operational Noise

Modeled Reciever Location[1]	Project Operational Noise Levels (dBA Lmax)[2]	Measurement Location[3]	Reference Ambient Noise Levels (dBA Leq)[4]	Combined Project and Ambient (dBA Leq)[5]	Project Contribution (dBA Leq)[6]	Threshold Exceeded?[7]
1	46	NM4	45	48	4	No
2	49	NM3	66	66	0	No
3	49	NM3	5	49	44	No
4	54	NM1	53	56	4	No
5	51	NM2	47	53	5	No
6	54	NM1	53	56	4	No

Notes:

(1) As shown on Figure 9. SoundPLAN input provided in Appendix E.

(2) Project operational noise levels at existing single-family detached residential dwelling units, as shown in Figure 8.

(3) See Figure 6 for noise measurement locations.

(4) As shown in Table 9.

(5)Represents combined ambient conditions plus the project activities.

(6) The noise level increase expected with the addition of the proposed project activities.

(7) Significance criteria as defined in Section 4 and summarized in Table 7. If existing ambient noise levels are less than 60 dBA Leq then the standard for substantial increase in 5 dBA. If existing ambient noise levels are between 60 and 65 dBA Leq then the standard for substantial increase is 3 dBA Leq. If existing ambient noise levels are greater than 65 dBA Leq, then the standard for substantial increase is 1.5 dBA Leq.

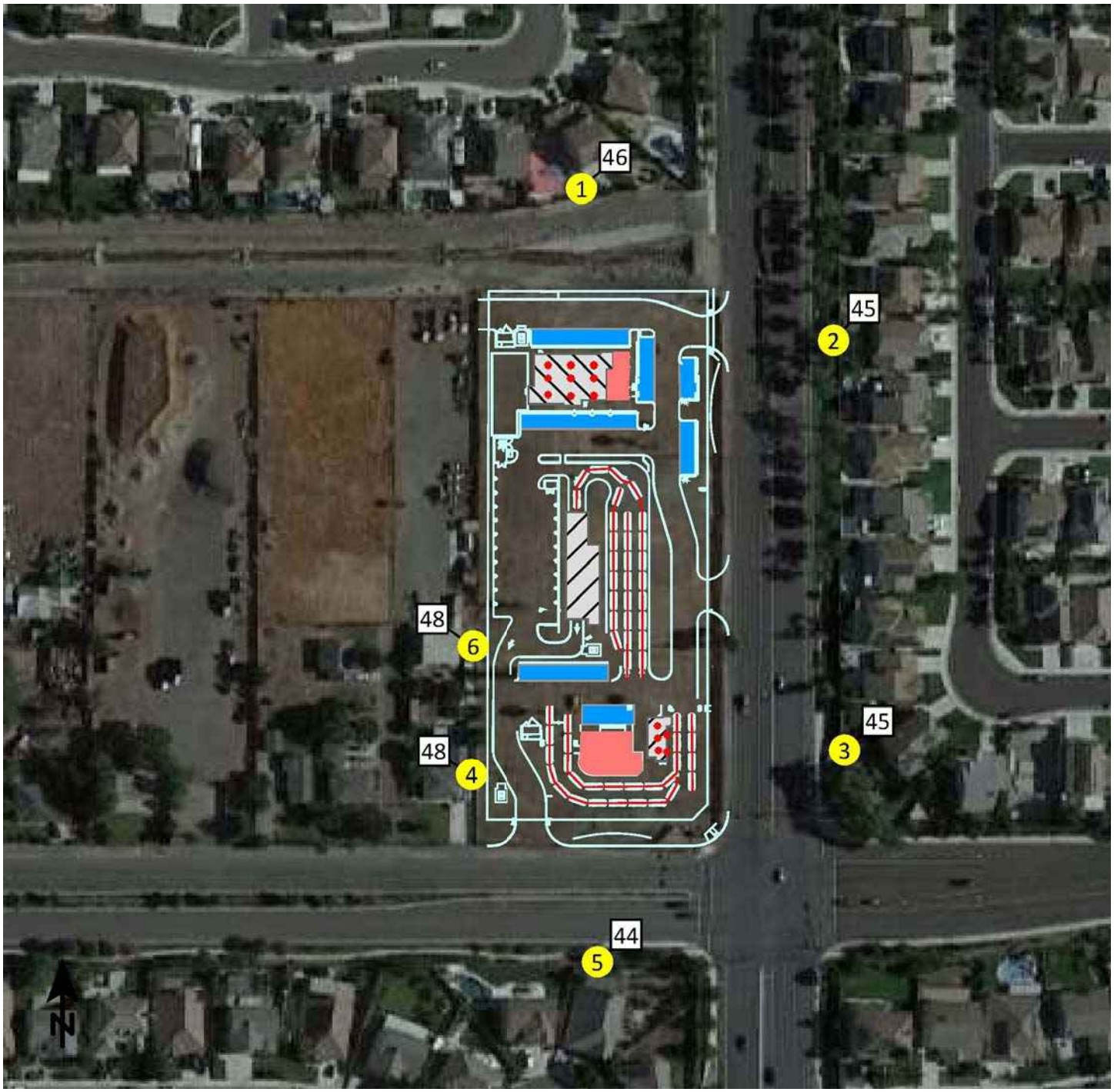


Figure 8
Operational Noise Levels Without Car Wash



Signs and symbols

Proposed Walls
6 Ft-along Western Boundary (as shown)
10 Ft-from W. side of car wash tunnel to
a point 8 Ft S.

Receiver

HVAC, Ordering Window, Vacuums

Que

Conversation at Patio/Eating Areas

Parking lot

Figure 9
Operational Noise Levels With Car Wash

10. CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the project. For the purposes of this analysis, it is assumed that the project boundaries represent the construction activity area.

CONSTRUCTION NOISE LEVELS

Project generated construction noise will vary depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week) and the duration of the construction work. Construction activities for the proposed project are anticipated to occur in the following stages:

- Grading
- Building Construction
- Paving
- Architectural Coating

RCNM noise reference levels and usage factors are shown in Table 21. The list shown in Table 21 is extensive, and not all equipment listed is expected to be utilized on the project site.

As stated previously, construction noise associated with the proposed project was calculated at the sensitive receptor locations, utilizing methodology presented in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018) together with several key construction parameters including: distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site. Distances to receptors were based on the acoustical center of the project site. The equipment used to calculate the construction noise levels for each phase were based on the assumptions provided in the CalEEMod modeling in the Archibald at Chandler Commercial Project Air Quality, Global Climate Change, TAC and Energy Impact Analysis (Ganddini Group, Inc., 2020). For construction noise purposes, the distance measured from the project site to sensitive receptors was assumed to be the acoustical center of the project site to the property line of residential properties with existing residential buildings. Construction noise worksheets are provided in Appendix D.

Noise levels generated by construction equipment generally range between 73 dBA Lmax to 101 dBA Lmax when measured at 50 feet (see Table 21). These maximum noise levels are expected to occur for only a portion of each hour. This percentage is referred to as the usage factor, or the percentage of time that each piece of equipment is expected to be utilized on a typical construction site. In order to calculate the Leq associated with a piece of construction equipment, the maximum noise level is adjusted to take into account the equipment's usage factor and the distance between the equipment and the receptor.

CONSTRUCTION NOISE THRESHOLDS OF SIGNIFICANCE

Construction noise is considered a short-term impact and would be considered significant if construction activities:

- Occur at any time other than the permitted hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May (Section 8.52.040 of the City of Eastvale Municipal Code); or

- Generate noise levels which exceed the 85 dBA L_{eq} acceptable noise level threshold at nearby sensitive receptor locations; or

- Generate temporary project construction-related noise level increases which exceed the 12 dBA L_{eq} substantial noise level increase threshold at noise-sensitive receiver locations (California Department of Transportation, Traffic Noise Analysis Protocol).

CONSTRUCTION NOISE ANALYSIS

The unmitigated construction modeling results are presented in Tables 22 through 25. These tables show, by construction stage, the construction equipment anticipated to be used, as well as their respective anticipated noise levels at nearby sensitive receptors. As shown in Tables 22 through 25, the unmitigated construction noise levels will range from 57.5 to 77.3 dBA L_{eq} at the sensitive receiver locations. Table 26 provides a summary of unmitigated noise levels from each stage of construction at each of the sensitive receiver locations. Figure 10 shows the construction activity noise source location and the distance from the boundary of the construction activities to each nearby sensitive receiver location. Appendix D includes the construction modeling spreadsheets.

CONSTRUCTION NOISE COMPLIANCE WITH STANDARD

As shown in Table 26, the highest unmitigated construction noise levels for each construction phase are expected to range from 68.1 to 77.3 dBA L_{eq} at the modeled sensitive receptors. Table 27 shows that unmitigated project construction noise levels are not anticipated to exceed the 85 dBA L_{eq} noise criteria.

CONSTRUCTION NOISE LEVEL INCREASE IN AMBIENT NOISE LEVELS

The existing measured average daytime noise levels in the vicinity of the project range between 44.9 and 65.7 dBA L_{eq}. To describe the temporary project construction noise level contributions to the existing ambient noise environment, the project construction noise levels were combined with the existing ambient noise level measurements at the off-site receiver locations. The difference between the combined project-construction and ambient noise levels are used to describe the construction noise level contributions. Unmitigated temporary noise level increases that would be experienced at sensitive receiver locations when project construction noise is added to the ambient daytime conditions are presented in Table 27. A temporary noise level increase of 12 dBA L_{eq} is considered a potentially significant impact based on the California Department of Transportation substantial noise level increase criteria which is used to assess the project-construction noise level increases. No nighttime construction activity is permitted per the City of Eastvale Municipal Code, and therefore, nighttime noise level increases are not analyzed in this noise study.

As shown in Table 27 the project will contribute unmitigated, worst-case construction noise level increases between 6.1 to 24.8 dBA L_{eq} at the adjacent sensitive receiver locations during the daytime hours. Mitigation is required.

Mitigated construction noise is shown in Table 28. As shown in Table 29, the project will contribute mitigated, worst-case construction noise level increases between 0.7 and 11.8 dBA L_{eq}. The construction mitigation measures have been provided below. As shown below, Mitigation Measure 4 requires the contractor to equip all construction equipment with mufflers and/or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction. In addition, Mitigation Measure 3 requires the installation of temporary construction noise barriers/blankets along the western property line adjacent to R4 lot line before the beginning anyl construction activities. The barrier needs to provide at least 8 dB of reduction.. It should be noted that receptor R4 requires a total reduction of at least 20 dB; therefore, the calculated barrier reduction of 8 dB in Mitigation Measure 3 takes into account the 12 dB reduction from mufflers and/or enclosures or acoustical tents specified in Mitigation Measure 4. Therefore, project construction source noise level increases would not exceed 12 dBA L_{eq} with incorporation of the mitigation measures listed below.

All construction will be conducted during the hours allowed in the Municipal Code and therefore, would be consistent with the applicable plans and policies. Further, Policy N-24 of the City of Eastvale General Plan

requires construction equipment to be kept properly tuned and use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer. Implementation of the following mitigation measures, General Plan Policy N-24, and compliance with the City's restrictions on the hours allowed for construction activities will reduce construction noise levels to a below the significance criteria. Project construction noise impacts are considered less than significant.

Mitigation Measure 1 The construction contractor(s) shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the project site.

Mitigation Measure 2 The construction contractor(s) shall limit haul truck deliveries to the same hours specified for construction equipment (between the hours of 6:00 AM to 6:00 PM June through September, and 7:00 AM to 6:00 PM October through May).

Mitigation Measure 3 The contractor shall install temporary construction noise barriers/blankets that achieve a noise reduction of at least 8 dB along the western boundary of the project site in the vicinity of the existing single-family residence. The barrier/blankets shall be solid with no cracks or holes. The barrier shall also reach to the ground. It should be noted that R4 requires a total reduction of 20 dB and the calculated barrier reduction total of 8 dB takes into account 12 needed 12 dB reduction from mufflers and/or enclosures or acoustical tents required for all receptors identified in Mitigation Measure 4.

Mitigation Measure 4 During all project construction phases on-site, construction contractors shall equip all construction equipment, fixed or mobile, with either properly operating and maintained mufflers or enclosures/acoustical tents (as appropriate) that achieve at least 12 dB reduction from noise level specifications presented in Table 21 of this report.

CONSTRUCTION VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from project construction activities would cause only intermittent, localized intrusion. The proposed project's construction activities most likely to cause vibration impacts are:

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to building, the vibration is usually short-term and is not of sufficient magnitude to cause building damage.

- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem.

Ground-borne vibration levels resulting from construction activities occurring within the project site were estimated by data published by the Federal Transit Administration. Construction activities that would have the potential to generate low levels of ground-borne vibration within the project site include grading. Using the vibration source level of construction equipment provided in Table 12 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the project vibration impacts. Table 30 presents the unmitigated project construction-related vibration levels at each of the sensitive receiver locations.

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec PPV at 25 feet. At distances ranging from 10 to 150 feet from the project construction activities, construction vibration velocity levels are expected to range from 0.000 to 0.492 in/sec PPV. Based on the City of Eastvale vibration standard of 0.0787 in/sec PPV, the proposed project construction activities will generate unmitigated vibration levels which remain below the 0.0787 in/sec PPV threshold at Receivers 1 through 3 and 5; however, due to the proximity to the western property line, Receiver 4 could have potentially significant impacts. Therefore, to satisfy the City of Eastvale vibration standard of 0.0787 in/sec PPV, Noise Mitigation Measure 5 restricts the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary (Receiver 4). As shown in Table 31, with application of Mitigation Measure 5 impacts at receiver location R4 would be less than significant. Vibration worksheets are provided in Appendix H.

Mitigation Measure 5 The contractor shall restrict the use of jackhammers within 15 feet, loaded trucks within 25 feet, and large bulldozers within 28 feet of the residential structure located at the western project boundary (Figure 10 - Receiver 4).

Table 21 (1 of 2)
Construction Noise Emission Reference Levels and Usage Factors

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Spec. Lmax @ 50ft (dBA, slow)	Actual Measured Lmax @ 50ft (dBA, slow)	No. of Actual Data Samples (Count)
All Other Equipment > 5 HP	No	50	85	-N/A-	0
Auger Drill Rig	No	20	85	84	36
Backhoe	No	40	80	78	372
Bar Bender	No	20	80	-N/A-	0
Blasting	Yes	-N/A-	94	-N/A-	0
Boring Jack Power Unit	No	50	80	83	1
Chain Saw	No	20	85	84	46
Clam Shovel (dropping)	Yes	20	93	87	4
Compactor (ground)	No	20	80	83	57
Compressor (air)	No	40	80	78	18
Concrete Batch Plant	No	15	83	-N/A-	0
Concrete Mixer Truck	No	40	85	79	40
Concrete Pump Truck	No	20	82	81	30
Concrete Saw	No	20	90	90	55
Crane	No	16	85	81	405
Dozer	No	40	85	82	55
Drill Rig Truck	No	20	84	79	22
Drum Mixer	No	50	80	80	1
Dump Truck	No	40	84	76	31
Excavator	No	40	85	81	170
Flat Bed Truck	No	40	84	74	4
Forklift[2,3]	No	50	n/a	61	n/a
Front End Loader	No	40	80	79	96
Generator	No	50	82	81	19
Generator (<25KVA, VMS signs)	No	50	70	73	74
Gradall	No	40	85	83	70
Grader	No	40	85	-N/A-	0
Grapple (on backhoe)	No	40	85	87	1
Horizontal Boring Hydr. Jack	No	25	80	82	6
Hydra Break Ram	Yes	10	90	-N/A-	0
Impact Pile Driver	Yes	20	95	101	11
Jackhammer	Yes	20	85	89	133
Man Lift	No	20	85	75	23
Mounted Impact hammer (hoe ram)	Yes	20	90	90	212
Pavement Scarafier	No	20	85	90	2
Paver	No	50	85	77	9
Pickup Truck	No	50	85	77	9
Paving Equipment	No	50	85	77	9

Table 21 (2 of 2)
Construction Noise Emission Reference Levels and Usage Factors

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Spec. Lmax @ 50ft (dBA, slow)	Actual Measured Lmax @ 50ft (dBA, slow)	No. of Actual Data Samples (Count)
Pneumatic Tools	No	50	85	85	90
Pumps	No	50	77	81	17
Refrigerator Unit	No	100	82	73	3
Rivit Buster/chipping gun	Yes	20	85	79	19
Rock Drill	No	20	85	81	3
Roller	No	20	85	80	16
Sand Blasting (Single Nozzle)	No	20	85	96	9
Scraper	No	40	85	84	12
Shears (on backhoe)	No	40	85	96	5
Slurry Plant	No	100	78	78	1
Slurry Trenching Machine	No	50	82	80	75
Soil Mix Drill Rig	No	50	80	-N/A-	0
Tractor	No	40	84	-N/A-	0
Vacuum Excavator (Vac-truck)	No	40	85	85	149
Vacuum Street Sweeper	No	10	80	82	19
Ventilation Fan	No	100	85	79	13
Vibrating Hopper	No	50	85	87	1
Vibratory Concrete Mixer	No	20	80	80	1
Vibratory Pile Driver	No	20	95	101	44
Warning Horn	No	5	85	83	12
Welder/Torch	No	40	73	74	5

Notes:

(1) Source: FHWA Roadway Construction Noise Model User's Guide January 2006.

(2) Warehouse & Forklift Noise Exposure - NoiseTesting.info Carl Stautins, November 4, 2014 http://www.noisetesting.info/blog/carl-strautins/page-3/

(3) Data provided Leq as measured at the operator. Sound Level at 50 feet is calculated using Inverse Square Law.

Table 22
Grading Equipment Noise Levels

Construction Equipment	RCNM Reference Noise Level at 50 feet (dBA Lmax)[1]	Usage Factor %[1]
Grader	85.0	40
Rubber Tired Dozer	85.0	40
Tractor/Loader/Backhoe	84.0	40
Tractor/Loader/Backhoe	84.0	40
Combined Noise Level at 50 feet	86.6	

Receiver Location	Distance to Construction Activity (feet)[2]	Noise Barrier Attenuation (dBA Leq)[3]	Construction Noise Level (dBA Leq)[4]
R1 (1st Floor)	405	12.0	56.4
R1 (2nd Floor)	405	0.0	68.4
R1 Yard	375	12.0	57.1
R2 (1st Floor)	315	12.0	58.6
R2 (2nd Floor)	315	0.0	70.6
R2 Yard	285	12.0	59.5
R3 (1st Floor)	323	12.0	58.4
R3 (2nd Floor)	323	0.0	70.4
R3 Yard	293	12.0	59.2
R4 (Residence/Structures)	145	no barrier	77.3
R4 Yard	115	no barrier	79.3
R5 (1st Floor)	420	12.0	56.1
R5 (2nd Floor)	420	0.0	68.1
R5 Yard	385	12.0	56.8

Notes:

(1) Reference noise levels and usage factors as identified the Federal Highway Administration's Roadway Construction Noise Model (RCNM) User's Guide, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018), and/or SoundPLAN reference list.

(2) The distance measured from the project site to sensitive receptors was assumed to be the acoustical center of the project site to the property line (yard) or structure of residential properties with existing residential buildings.

(3) Per SoundPLAN modeling, existing 6 foot walls provide approximately 12 dB reduction.

(4) As calculated utilizing methodology presented in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018). Worksheets are provided in Appendix D.

Table 23
Building Construction Equipment Noise Levels

Construction Equipment	RCNM Reference Noise Level at 50 feet (dBA Lmax)[1]	Usage Factor %[1]
Crane	83.0	16
Forklift	48.0	40
Forklift	48.0	40
Forklift	48.0	40
Generator Set	81.0	50
Tractor/Loader/Backhoe	84.0	40
Tractor/Loader/Backhoe	84.0	40
Welder	74.0	40
Welder	74.0	40
Welder	74.0	40
Combined Noise Level at 50 feet	85.1	

Receiver Location	Distance to Construction Activity (feet)[2]	Noise Barrier Attenuation (dBA Leq)[3]	Construction Noise Level (dBA Leq)[4]
R1 (1st Floor)	405	12.0	55.0
R1 (2nd Floor)	405	0.0	67.0
R1 Yard	375	12.0	55.6
R2 (1st Floor)	315	12.0	57.1
R2 (2nd Floor)	315	0.0	69.1
R2 Yard	285	12.0	58.0
R3 (1st Floor)	323	12.0	56.9
R3 (2nd Floor)	323	0.0	68.9
R3 Yard	293	12.0	57.8
R4 (Residence/Structures)	145	no barrier	75.9
R4 Yard	115	no barrier	77.9
R5 (1st Floor)	420	12.0	54.6
R5 (2nd Floor)	420	0.0	66.6
R5 Yard	385	12.0	55.4

Notes:

(1) Reference noise levels and usage factors as identified the Federal Highway Administration's Roadway Construction Noise Model (RCNM) User's Guide, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018), and/or SoundPLAN reference list.

(2) The distance measured from the project site to sensitive receptors was assumed to be the acoustical center of the project site to the property line (yard) or structure of residential properties with existing residential buildings.

(3) Per SoundPLAN modeling, existing 6 foot walls provide approximately 12 dB reduction.

(4) As calculated utilizing methodology presented in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018). Worksheets are provided in Appendix D.

Table 24
Paving Equipment Noise Levels

Construction Equipment	RCNM Reference Noise Level at 50 feet (dBA Lmax)[1]	Usage Factor %[1]
Concrete Mixer Truck	79.0	40
Paver	77.0	50
Paving Equipment	85.0	50
Roller	80.0	20
Roller	80.0	20
Tractor/Loader/Backhoe	84.0	40
Combined Noise Level at 50 feet	83.0	

Receiver Location	Distance to Construction Activity (feet)[2]	Noise Barrier Attenuation (dBA Leq)[3]	Construction Noise Level (dBA Leq)[4]
R1 (1st Floor)	405	12.0	52.8
R1 (2nd Floor)	405	0.0	64.8
R1 Yard	375	12.0	53.5
R2 (1st Floor)	315	12.0	55.0
R2 (2nd Floor)	315	0.0	67.0
R2 Yard	285	12.0	55.8
R3 (1st Floor)	323	12.0	54.7
R3 (2nd Floor)	323	0.0	66.7
R3 Yard	293	12.0	55.8
R4 (Residence/Structures)	145	no barrier	73.7
R4 Yard	115	no barrier	75.7
R5 (1st Floor)	420	12.0	52.5
R5 (2nd Floor)	420	0.0	64.5
R5 Yard	385	12.0	53.2

Notes:

(1) Reference noise levels and usage factors as identified the Federal Highway Administration's Roadway Construction Noise Model (RCNM) User's Guide, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018), and/or SoundPLAN reference list.

(2) The distance measured from the project site to sensitive receptors was assumed to be the acoustical center of the project site to the property line (yard) or structure of residential properties with existing residential buildings.

(3) Per SoundPLAN modeling, existing 6-foot walls provide approximately 12 dB reduction.

(4) As calculated utilizing methodology presented in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018). Worksheets are provided in Appendix D.

Table 25
Architectural Coating Equipment Noise Levels

Construction Equipment	RCNM Reference Noise Level at 50 feet (dBA Lmax)[1]	Usage Factor %[1]
Air Compressor	80.0	40
Combined Noise Level at 50 feet	80.0	

Receiver Location	Distance to Construction Activity (feet)[2]	Noise Barrier Attenuation (dBA Leq)[3]	Construction Noise Level (dBA Leq)[4]
R1 (1st Floor)	405	12.0	45.9
R1 (2nd Floor)	405	0.0	57.9
R1 Yard	375	12.0	46.5
R2 (1st Floor)	315	12.0	48.0
R2 (2nd Floor)	315	0.0	60.0
R2 Yard	285	12.0	48.9
R3 (1st Floor)	323	12.0	47.8
R3 (2nd Floor)	323	0.0	59.8
R3 Yard	293	12	48.7
R4 (Residence/Structures)	145	no barrier	66.8
R4 Yard	115	no barrier	68.8
R5 (1st Floor)	420	12	45.5
R5 (2nd Floor)	420	0	57.5
R5 Yard	385	12	46.3

Notes:

(1) Reference noise levels and usage factors as identified the Federal Highway Administration's Roadway Construction Noise Model (RCNM) User's Guide, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018), and/or SoundPLAN reference list.

(2) The distance measured from the project site to sensitive receptors was assumed to be the acoustical center of the project site to the property line (yard) or structure of residential properties with existing residential buildings.

(3) Per SoundPLAN modeling, existing 6-foot walls provide approximately 12 dB reduction.

(4) As calculated utilizing methodology presented in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (2018). Worksheets are provided in Appendix D.

Table 26
Unmitigated Construction Equipment Noise Level Summary

Receiver Location[1]	Unmitigated Construction Noise Levels (dBa L_{eq})				
	Grading	Building Construction	Paving	Architectural Coating	Highest Construction Noise Level[2]
R1	68.4	67.0	64.8	57.9	68.4
R2	70.6	69.1	67.0	60.0	70.6
R3	70.4	68.9	66.7	59.8	70.4
R4	77.3	75.9	73.7	66.8	77.3
R5	68.1	66.6	64.5	57.5	68.1

Notes:

(1) Noise receiver locations are shown on Figure 7.

(2) Estimated construction noise levels during peak operating conditions.

Table 27
Unmitigated Construction Noise Level Compliance

Receiver Location[1]	Highest Construction Noise Level[2]	Measurement Location[3]	Threshold[4]	Threshold Exceeded?	Reference Ambient Noise Level[5]	Combined Project and Ambient[6]	Temporary Worst-Case Project Contribution[7]	Threshold Exceeded[8]
R1	68.4	STNM4	85.0	No	44.9	68.4	23.5	Yes
R2	70.6	STNM3	85.0	No	65.7	71.8	6.1	No
R3	70.4	STNM3	85.0	No	65.7	71.7	6.0	No
R4	77.3	STNM1	85.0	No	52.5	77.3	24.8	Yes
R5	68.1	STNM2	85.0	No	47.3	68.1	20.8	Yes

Notes:

(1) Noise receiver locations are shown on Figure 7.

(2) Highest modeled construction noise level from all construction phases as shown in Table 31.

(3) Ambient noise measurement locations as shown on Figure 6.

(4) Construction noise threshold per the Criteria for Recommended Standard: Occupational Noise Exposure prepared by the National Institute for Occupational Safety and Health (NIOSH).

(5) Measured average daytime ambient noise level (Leq) from Table 9.

(6) Represents the combined ambient conditions plus the project construction activities.

(7) The temporary noise level increase expected with addition of the unmitigated proposed project construction activities.

(8) Based on the 12 dBA temporary increase significance criteria identified in Section 4.

Table 28
Mitigated Construction Equipment Noise Level Summary

Reciever Location[1,4]	Unmitigated Construction Noise Levels (dBa L_{eq})				
	Grading	Building Construction	Paving	Architectural Coating	Highest Construction Noise Level[2]
R1	56.4	55.0	52.8	45.9	56.4
R2	58.6	57.1	55.0	48.0	58.6
R3	58.4	56.9	54.7	47.8	58.4
R4[3]	57.3	55.9	53.7	46.8	57.3
R5	56.1	54.6	52.5	45.5	56.1

Notes:

(1) Noise receiver locations are shown on Figure 7.

(2) Estimated construction noise levels during peak operating conditions.

(3) Mitigation requiring the installation of temporary construction noise barriers/blankets along the western property line adjacent to R4 before the beginning of all construction activities. The tempoary noise barriers/blankets will need to reduce noise levels by at least approximatley 8 dB. It should be noted that R4 requires a total reduction of 20 dB and the calculated barrier reduction total of 8 dB takes into account reduction from mufflers and/or enclosures or acoustical tents required for all receptors (see footnote 4 below).

(4) Mitigation requiring that all construction equipment include mufflers and/or enclosures or acousticals tents (as appropriate) that provide at least 12 dB of noise reduction.

Table 29
Mitigated Construction Noise Level Compliance

Receiver Location[1]	Highest Construction Noise Level[2]	Measurement Location[3]	Threshold[4]	Threshold Exceeded?	Reference Ambient Noise Level[5]	Combined Project and Ambient[6]	Temporary Worst-Case Project Contribution[7]	Threshold Exceeded[8]
R1	56.4	STNM4	85.0	No	44.9	56.7	11.8	No
R2	58.6	STNM3	85.0	No	65.7	66.5	0.8	No
R3	58.4	STNM3	85.0	No	65.7	66.4	0.7	No
R4	57.3	STNM1	85.0	No	52.5	58.5	6.0	No
R5	56.1	STNM2	85.0	No	47.3	56.6	9.3	No

Notes:

(1) Noise receiver locations are shown on Figure 7.

(2) Highest modeled construction noise level from all construction phases as shown in Table 33 with mitigation measures implemented.

(3) Ambient noise measurement locations as shown on Figure 6.

(4) Construction noise threshold per the Criteria for Recommended Standard: Occupational Noise Exposure prepared by the National Institute for Occupational Safety and Health (NIOSH).

(5) Measured average daytime ambient noise level (Leq) from Table 9.

(6) Represents the combined ambient conditions plus the project construction activities.

(7) The temporary noise level increase expected with addition of the mitigated proposed project construction activities.

(8) Based on the 12 dBA temporary increase significance criteria identified in Section 4.

Table 30
Unmitigated Construction Equipment Vibration Levels

Receiver Location[1]	Distance to Construction Activity (feet)	Receiver PPV Levels (in/sec)[2]					Threshold Exceeded?[3]
		Small Dozer	Jackhammer	Loaded Trucks	Large Bulldozer	Highest Levels (PPV)	
R1	120	0.000	0.003	0.007	0.008	0.008	No
R2	130	0.000	0.003	0.006	0.008	0.008	No
R3	145	0.000	0.003	0.005	0.006	0.006	No
R4	8	0.017	0.193	0.420	0.492	0.492	Yes
R5	140	0.000	0.003	0.006	0.007	0.007	No

Notes:

(1) Receiver locations are shown on Figure 7.

(2) Based on the Vibration Source Levels of Construction Equipment included in Table 12.

(3) Does the peak vibration exceed the maximum acceptable vibration threshold of 0.0787 PPV in/sec per the City of Eastvale General Plan Noise Element, Policy N-3.

Table 31
Mitigated Construction Equipment Vibration Levels

Receiver Location[1]	Distance to Construction Activity (feet)	Receiver PPV Levels (in/sec)[2]					Threshold Exceeded?[3]
		Small Dozer	Jackhammer	Loaded Trucks	Large Bulldozer	Highest Levels (PPV)	
R1	125	0.000	0.003	0.007	0.008	0.008	No
R2	135	0.000	0.003	0.006	0.008	0.008	No
R3	150	0.000	0.003	0.005	0.006	0.006	No
R4	10 [4]	0.012	0.075	0.076	0.075	0.076	No
R5	140	0.000	0.003	0.006	0.007	0.007	No

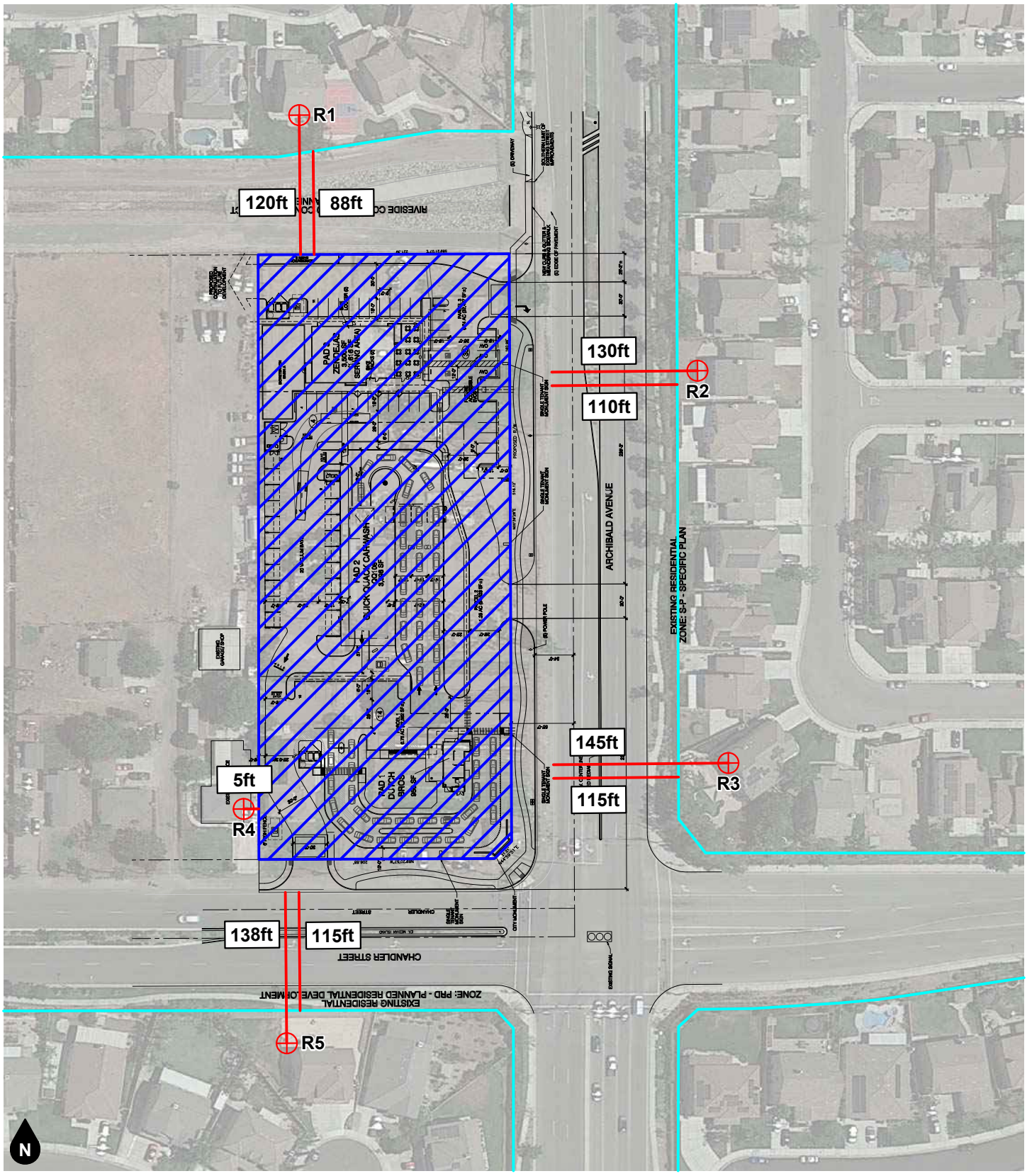
Notes:

(1) Receiver locations are shown on Figure 7.

(2) Based on the Vibration Source Levels of Construction Equipment included in Table 12.

(3) Does the peak vibration exceed the maximum acceptable vibration threshold of 0.0787 PPV in/sec per the City of Eastvale General Plan Noise Element, Policy N-3.

(4) With incorporation of mitigation requiring jackhammers be restricted within 15 feet, loaded trucks be restricted within 25 feet and large bulldozers be restricted within 28 feet of R4.



Legend

- R1 Receiver Location
- Existing Barriers
- Construction Activity Boundary

Figure 10
Construction Activity and Receiver Locations

11. REFERENCES

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APPENDICES

Appendix A List of Acronyms
Appendix B Definitions of Acoustical Terms
Appendix C Noise Measurement Field Worksheets
Appendix D Construction Noise Modeling Worksheets
Appendix E SoundPLAN Inputs and Outputs
Appendix F Quick Quack Car Wash (Store #44-308) Noise Study
Appendix G Project Generated Trips FHWA Worksheets
Appendix H Vibration Worksheets

APPENDIX A

LIST OF ACRONYMS

Term	Definition
ADT	Average Daily Traffic
ANSI	American National Standard Institute
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
D/E/N	Day / Evening / Night
dB	Decibel
dBA or dB(A)	Decibel "A-Weighted"
dBA/DD	Decibel per Double Distance
dBA L_{eq}	Average Noise Level over a Period of Time
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
L_{02},L_{08},L_{50},L_{90}	A-weighted Noise Levels at 2 percent, 8 percent, 50 percent, and 90 percent, respectively, of the time period
DNL	Day-Night Average Noise Level
$L_{eq(x)}$	Equivalent Noise Level for '"x" period of time
L_{eq}	Equivalent Noise Level
L_{max}	Maximum Level of Noise (measured using a sound level meter)
L_{min}	Minimum Level of Noise (measured using a sound level meter)
LOS C	Level of Service C
OPR	California Governor's Office of Planning and Research
PPV	Peak Particle Velocities
RCNM	Road Construction Noise Model
REMEL	Reference Energy Mean Emission Level
RMS	Root Mean Square

APPENDIX B

DEFINITIONS OF ACOUSTICAL TERMS

Term	Definition
Ambient Noise Level	The all-encompassing noise environment associated with a given environment, at a specified time, usually a composite of sound from many sources, at many directions, near and far, in which usually no particular sound is dominant.
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear.
CNEL	Community Noise Equivalent Level. CNEL is a weighted 24-hour noise level that is obtained by adding five decibels to sound levels in the evening (7:00 PM to 10:00 PM), and by adding ten decibels to sound levels at night (10:00 PM to 7:00 AM). This weighting accounts for the increased human sensitivity to noise during the evening and nighttime hours.
Decibel, dB	A logarithmic unit of noise level measurement that relates the energy of a noise source to that of a constant reference level; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
DNL, Ldn	Day Night Level. The DNL, or Ldn is a weighted 24-hour noise level that is obtained by adding ten decibels to sound levels at night (10:00 PM to 7:00 AM). This weighting accounts for the increased human sensitivity to noise during the nighttime hours.
Equivalent Continuous Noise Level, L_{eq}	A level of steady state sound that in a stated time period, and a stated location, has the same A-weighted sound energy as the time-varying sound.
Fast/Slow Meter Response	The fast and slow meter responses are different settings on a sound level meter. The fast response setting takes a measurement every 100 milliseconds, while a slow setting takes one every second.
Frequency, Hertz	In a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., the number of cycles per second).
L_{02}, L_{08}, L_{50}, L_{90}	The A-weighted noise levels that are equaled or exceeded by a fluctuating sound level, 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period, respectively.
L_{max}, L_{min}	L_{max} is the RMS (root mean squared) maximum level of a noise source or environment measured on a sound level meter, during a designated time interval, using fast meter response. L_{min} is the minimum level.
Offensive/ Offending/ Intrusive Noise	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of sound depends on its amplitude, duration, frequency, and time of occurrence, and tonal information content as well as the prevailing ambient noise level.
Root Mean Square (RMS)	A measure of the magnitude of a varying noise source quantity. The name derives from the calculation of the square root of the mean of the squares of the values. It can be calculated from either a series of lone values or a continuous varying function.

APPENDIX C

NOISE MEASUREMENT FIELD WORKSHEETS

Noise Measurement
Field Data

Project Name: Archibald Avenue & Chandler Street, City of Eastvale. **Date:** November 2, 2020

Project #: JN 19304

Noise Measurement #: STNM1 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 14227 Chandler Street, Eastvale, California.

Site Description (Type of Existing Land Use and any other notable features): Project site: Recently cleared lot with drainage channel to north, archibald Ave to east Chandler St to south, and residential to west. Noise Measurement Site: Residential to east & west and Chandler St to south.

Weather: Sunny, clear blue skies, haze near horizon. **Settings:** SLOW FAST

Temperature: 77 deg F **Wind:** 3-5mph **Humidity:** 30% **Terrain:** Flat

Start Time: 10:41 AM **End Time:** 10:56 AM **Run Time:**

Leq: 52.5 dB **Primary Noise Source:** Traffic noise from 96 vehicles traveling along Chandler Street .

Lmax 71.9 dB

L2 59.8 dB **Secondary Noise Sources:** Residential ambiance, overhead propellor and jet aircraft. Bird song.

L8 55.3 dB Gentle breeze blowing through trees and vegetation.

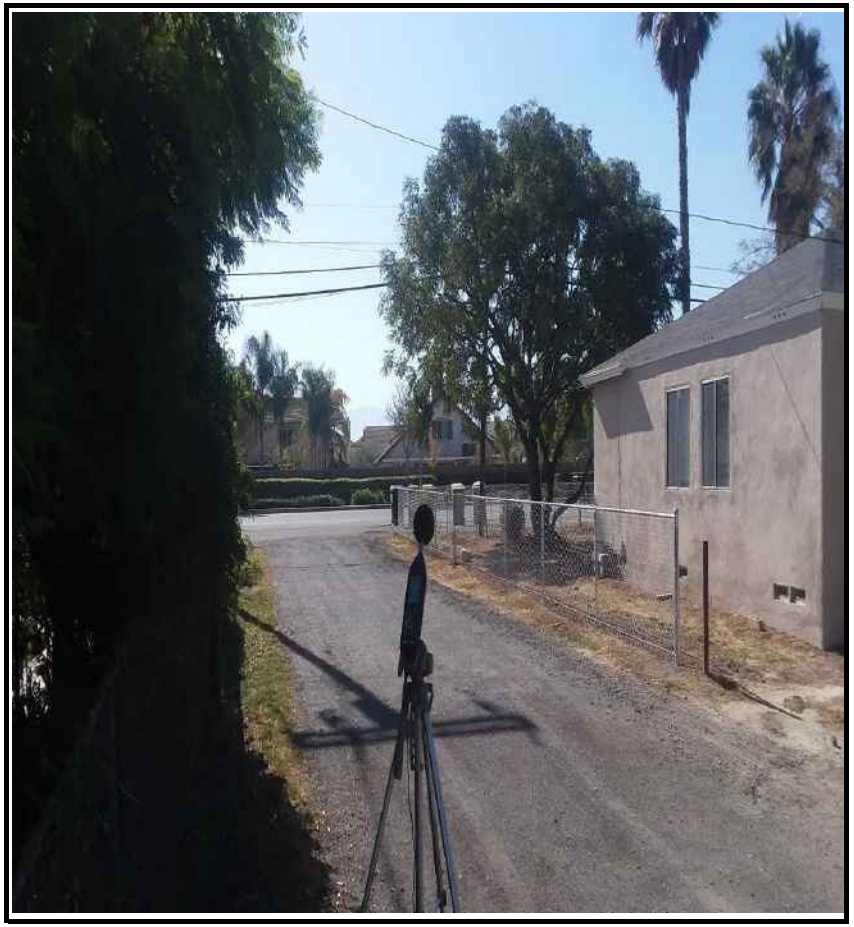
L25 51.2 dB

L50 47.4 dB

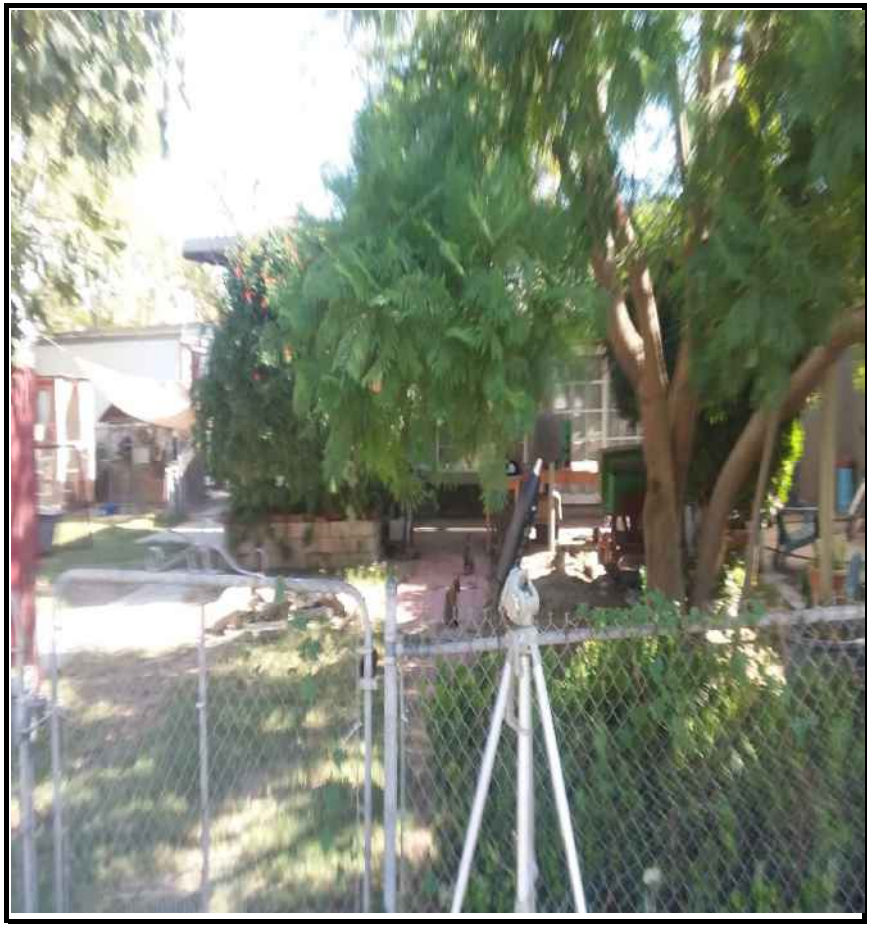
NOISE METER:	SoundTrack LXT Class 1	**CALIBRATOR:**	Larson Davis CAL250
MAKE:	Larson Davis	**MAKE:**	Larson Davis
MODEL:	LXT1	**MODEL:**	Cal 250
SERIAL NUMBER:	3099	**SERIAL NUMBER:**	2733
FACTORY CALIBRATION DATE:	4/9/2020	**FACTORY CALIBRATION DATE:**	4/2/2020
FIELD CALIBRATION DATE:	11/2/2020		

Noise Measurement
Field Data

PHOTOS:



STNM1 looking S down access road past residence 14227 Chandler Street towards Chandler Street & access road intersection.



STNM1 looking E into backyard of residence 14221 Chandler Street, Eastvale.

Summary					
File Name on Meter	LxT_Data.007				
File Name on PC	SLM_0003099_LxT_Data_007.01.ldbin				
Serial Number	0003099				
Model	SoundTrack LxT®				
Firmware Version	2.402				
User	Ian Edward Gallagher				
Location	STNM1 JN 19304 Eastvale 33°56'47.88"N 117°35'39.40"W				
Job Description	15 minute noise measurement (1 x 15 minutes)				
Measurement					
Start	2020-11-02 10:41:59				
Stop	2020-11-02 10:56:59				
Duration	00:15:00.0				
Run Time	00:15:00.0				
Pause	00:00:00.0				
Pre Calibration	2020-11-02 10:41:32				
Post Calibration	None				
Overall Settings					
RMS Weight	A Weighting				
Peak Weight	Z Weighting				
Detector	Slow				
Preamp	PRMLxT1L				
Microphone Correction	Off				
Integration Method	Linear				
OBA Range	Low				
OBA Bandwidth	1/1 and 1/3				
OBA Freq. Weighting	Z Weighting				
OBA Max Spectrum	Bin Max				
Overload	122.6 dB				
Results					
LA_{eq}	52.5				
LAE	82.0				
EA	17.655 µPa²h				
EA8	564.962 µPa²h				
EA40	2.825 mPa²h				
$LZ_{peak\ (max)}$	2020-11-02 10:53:37	95.6 dB			
LAS_{max}	2020-11-02 10:53:38	71.9 dB			
LAS_{min}	2020-11-02 10:50:22	38.1 dB			
SEA	-99.9 dB				
			Statistics		
LC_{eq}	66.2 dB		**LAI2.00**	59.8 dB	
LA_{eq}	52.5 dB		**LAI8.00**	55.3 dB	
LC_{eq} - LA_{eq}	13.7 dB		**LAI25.00**	51.2 dB	
LAI_{eq}	55.5 dB		**LAI50.00**	47.4 dB	
LA_{eq}	52.5 dB		**LAI66.60**	45.4 dB	
LAI_{eq} - LA_{eq}	3.0 dB		**LAI90.00**	42.2 dB	
# Overloads	0				

Noise Measurement
Field Data

Project Name: Archibald Avenue & Chandler Street, City of Eastvale. **Date:** November 2, 2020

Project #: JN 19304

Noise Measurement #: STNM2 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 7811 Basset Ct, Eastvale, California.

Site Description (Type of Existing Land Use and any other notable features): Project site: Recently cleared lot with drainage channel to north, Archibald Ave to east Chandler St to south, and residential to west. Noise Measurement Site: Residential surrouding and Basset Court to south.

Weather: Sunny, clear blue skies, haze near horizon. **Settings:** SLOW FAST

Temperature: 81 deg F **Wind:** 3-5mph **Humidity:** 25% **Terrain:** Flat

Start Time: 11:17 AM **End Time:** 11:32 AM **Run Time:**

Leq: 47.3 dB **Primary Noise Source:** Traffic ambiance from vehicles traveling along Chandler Street, Archibald

Lmax 65 dB Avenue & other surrounding roads.

L2 54.5 dB **Secondary Noise Sources:** Residential ambiance, overhead propellor and jet aircraft. Bird song.

L8 52.0 dB Gentle breeze blowing through trees and vegetation.

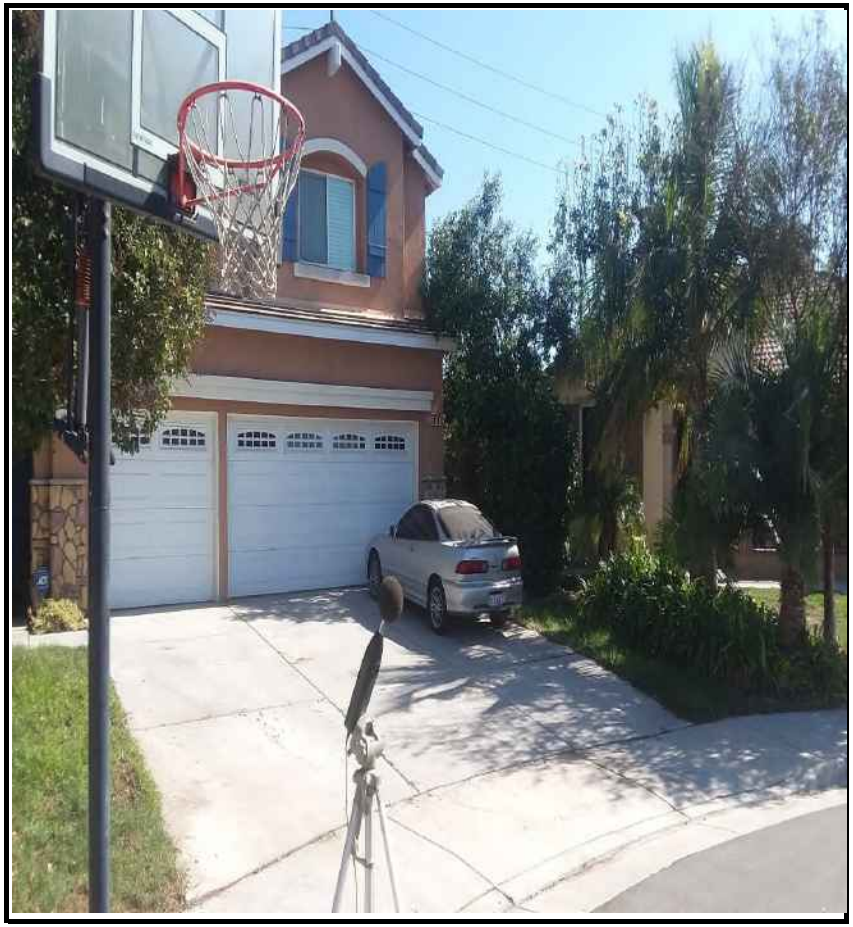
L25 46.8 dB

L50 43.5 dB

NOISE METER:	SoundTrack LXT Class 1	**CALIBRATOR:**	Larson Davis CAL250
MAKE:	Larson Davis	**MAKE:**	Larson Davis
MODEL:	LXT1	**MODEL:**	Cal 250
SERIAL NUMBER:	3099	**SERIAL NUMBER:**	2733
FACTORY CALIBRATION DATE:	4/9/2020	**FACTORY CALIBRATION DATE:**	4/2/2020
FIELD CALIBRATION DATE:	11/2/2020		

Noise Measurement
Field Data

PHOTOS:



STNM2 looking E at driveway of residence 7818 Basset Ct, Eastvale, California.



STNM2 looking SW down Basset Ct towards Pointer Loop intersection.

Summary	
File Name on Meter	LxT_Data.008
File Name on PC	SLM_0003099_LxT_Data_008.01.ldbin
Serial Number	0003099
Model	SoundTrack LxT®
Firmware Version	2.402
User	Ian Edward Gallagher
Location	STNM2 JN 19304 Eastvale 33°56'44.56"N 117°35'37.32"W
Job Description	15 minute noise measurement (1 x 15 minutes)

Measurement	
Start	2020-11-02 11:17:02
Stop	2020-11-02 11:32:02
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2020-11-02 11:16:49
Post Calibration	None

Overall Settings	
RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	Z Weighting
OBA Max Spectrum	Bin Max
Overload	122.5 dB

Results			
L_{Aeq}	47.3		
LAE	76.8		
EA	5.351	µPa²h	
EA8	171.246	µPa²h	
EA40	856.231	µPa²h	
$LZ_{peak\ (max)}$	2020-11-02 11:18:28	87.8	dB
LAS_{max}	2020-11-02 11:21:48	65.0	dB
LAS_{min}	2020-11-02 11:25:55	37.5	dB
SEA	-99.9	dB	

			Statistics	
LC_{eq}	63.7	dB	**LAI2.00**	54.5 dB
LA_{eq}	47.3	dB	**LAI8.00**	52.0 dB
LC_{eq} - LA_{eq}	16.4	dB	**LAI25.00**	46.8 dB
LAI_{eq}	50.9	dB	**LAI50.00**	43.5 dB
LA_{eq}	47.3	dB	**LAI66.60**	42.1 dB
LAI_{eq} - LA_{eq}	3.7	dB	**LAI90.00**	39.8 dB
# Overloads	0			

Noise Measurement
Field Data

Project Name: Archibald Avenue & Chandler Street, City of Eastvale. **Date:** November 2, 2020

Project #: JN 19304

Noise Measurement #: STNM3 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 7781 Coffeeberry Drive, Eastvale, California.

Site Description (Type of Existing Land Use and any other notable features): Project site: Recently cleared lot with drainage channel to north, Archibald Ave to east Chandler St to south, and residential to west. Noise Measurement Site: Residential surrouding and Coffeeberry Drive to east.

Weather: Sunny, clear blue skies, haze near horizon. **Settings:** SLOW FAST

Temperature: 82 deg F **Wind:** 3-5mph **Humidity:** 24% **Terrain:** Flat

Start Time: 11:56 AM **End Time:** 12:11 PM **Run Time:**

Leq: 65.7 dB

Lmax 84.3 dB

L2 76.2 dB

L8 69.3 dB

L25 59.4 dB

L50 54.9 dB

Primary Noise Source: Traffic ambiance from vehicles traveling along Chandler Street , Archibald Avenue & other surrounding roads. Street resurfacing on Coffeeberry Drive.

Secondary Noise Sources: Residential ambiance, overhead propellor and jet aircraft. Bird song. Gentle breeze blowing through trees and vegetation.

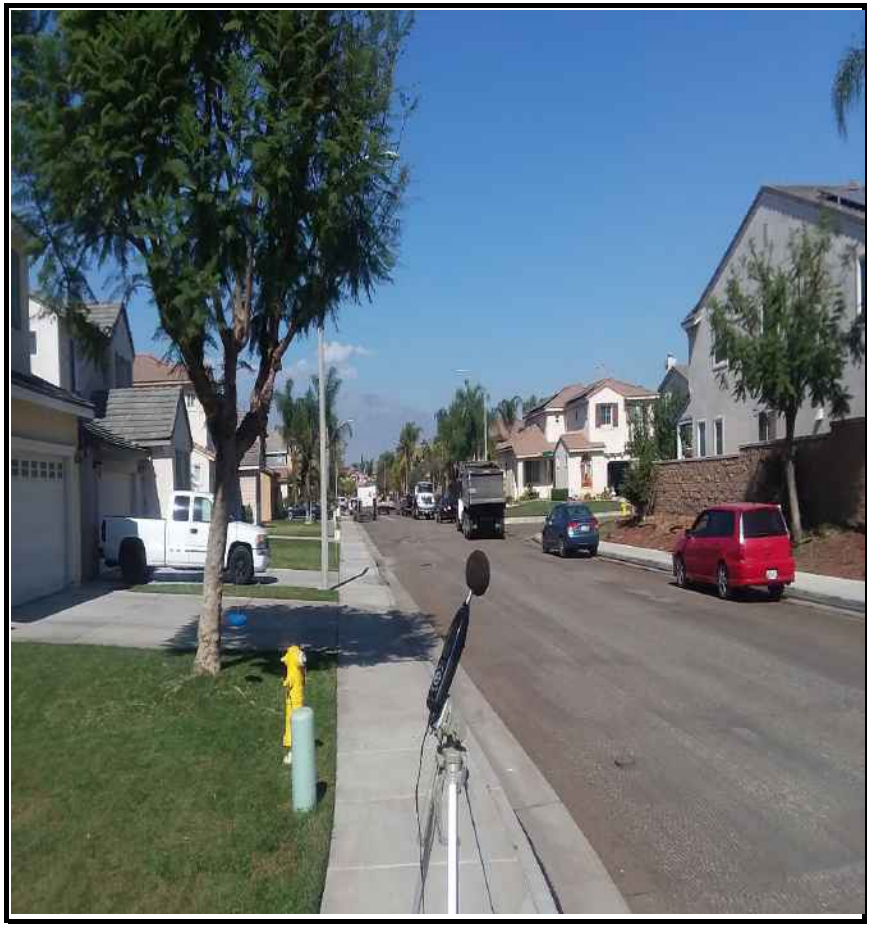
NOISE METER:	SoundTrack LXT Class 1	**CALIBRATOR:**	Larson Davis CAL250
MAKE:	Larson Davis	**MAKE:**	Larson Davis
MODEL:	LXT1	**MODEL:**	Cal 250
SERIAL NUMBER:	3099	**SERIAL NUMBER:**	2733
FACTORY CALIBRATION DATE:	4/9/2020	**FACTORY CALIBRATION DATE:**	4/2/2020
FIELD CALIBRATION DATE:	11/2/2020		

Noise Measurement
Field Data

PHOTOS:



STNM3 looking W across front lawn of residence 7178 Coffeeberry Drive, Eastvale.



STNM3 looking NE up Coffeeberry Drive towards street resurfacing activity.

Summary	
File Name on Meter	LxT_Data.009
File Name on PC	SLM_0003099_LxT_Data_009.01.ldbin
Serial Number	0003099
Model	SoundTrack LxT®
Firmware Version	2.402
User	Ian Edward Gallagher
Location	STNM3 JN 19304 Eastvale 33°56'49.22"N 117°35'32.79"W
Job Description	15 minute noise measurement (1 x 15 minutes)

Measurement	
Start	2020-11-02 11:56:54
Stop	2020-11-02 12:11:54
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2020-11-02 11:56:37
Post Calibration	None

Overall Settings	
RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	Z Weighting
OBA Max Spectrum	Bin Max
Overload	122.7 dB

Results			
L_{Aeq}	65.7		
LAE	95.2		
EA	369.700	µPa²h	
EA8	11.830	mPa²h	
EA40	59.152	mPa²h	
$LZ_{peak\ (max)}$	2020-11-02 12:01:28	105.1	dB
LAS_{max}	2020-11-02 12:09:08	84.3	dB
LAS_{min}	2020-11-02 12:00:56	48.9	dB
SEA	-99.9	dB	

			Statistics		
LC_{eq}	75.7	dB	**LAI2.00**	76.2	dB
LA_{eq}	65.7	dB	**LAI8.00**	69.3	dB
LC_{eq} - LA_{eq}	10.0	dB	**LAI25.00**	59.4	dB
LAI_{eq}	67.5	dB	**LAI50.00**	54.9	dB
LA_{eq}	65.7	dB	**LAI66.60**	52.1	dB
LAI_{eq} - LA_{eq}	1.9	dB	**LAI90.00**	50.0	dB
# Overloads	0				

Noise Measurement
Field Data

Project Name: Archibald Avenue & Chandler Street, City of Eastvale. **Date:** November 2, 2020

Project #: JN 19304

Noise Measurement #: STNM4 Run Time: 15 minutes (1 x 15 minutes) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 14213 Redwood Valley Road, Eastvale, California.

Site Description (Type of Existing Land Use and any other notable features): Project site: Recently cleared lot with drainage channel to north, Archibald Ave to east Chandler St to south, and residential to west. Noise Measurement Site: Residential surrouding awith Redwood Valley Road and Bristol Bay to north.

Weather: Sunny, clear blue skies, haze near horizon. **Settings:** SLOW FAST

Temperature: 82 deg F **Wind:** 3-5mph **Humidity:** 24% **Terrain:** Flat

Start Time: 12:37 PM **End Time:** 12:52 PM **Run Time:**

Leq: 44.9 dB

Lmax 56.8 dB

L2 52.9 dB

L8 48.7 dB

L25 44.9 dB

L50 42.1 dB

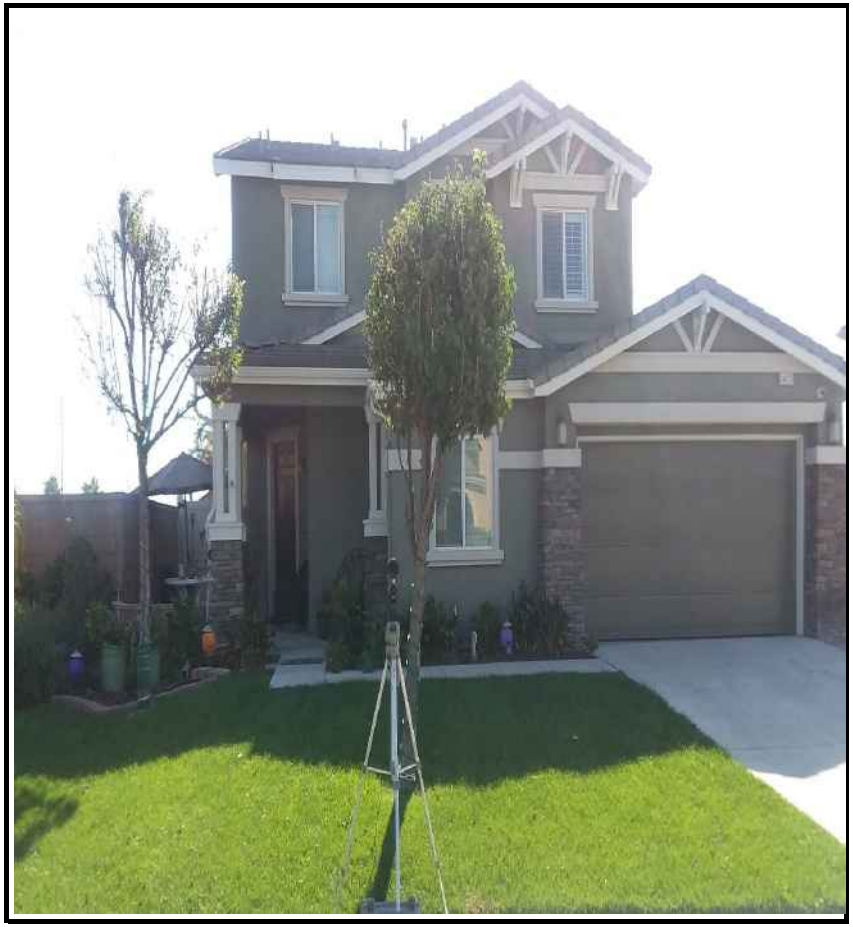
Primary Noise Source: Traffic ambiance from vehicles traveling along Archibald Avenue & other surrounding roads.

Secondary Noise Sources: Residential ambiance, overhead propellor and jet aircraft. Bird song. Gentle breeze blowing through trees and vegetation.

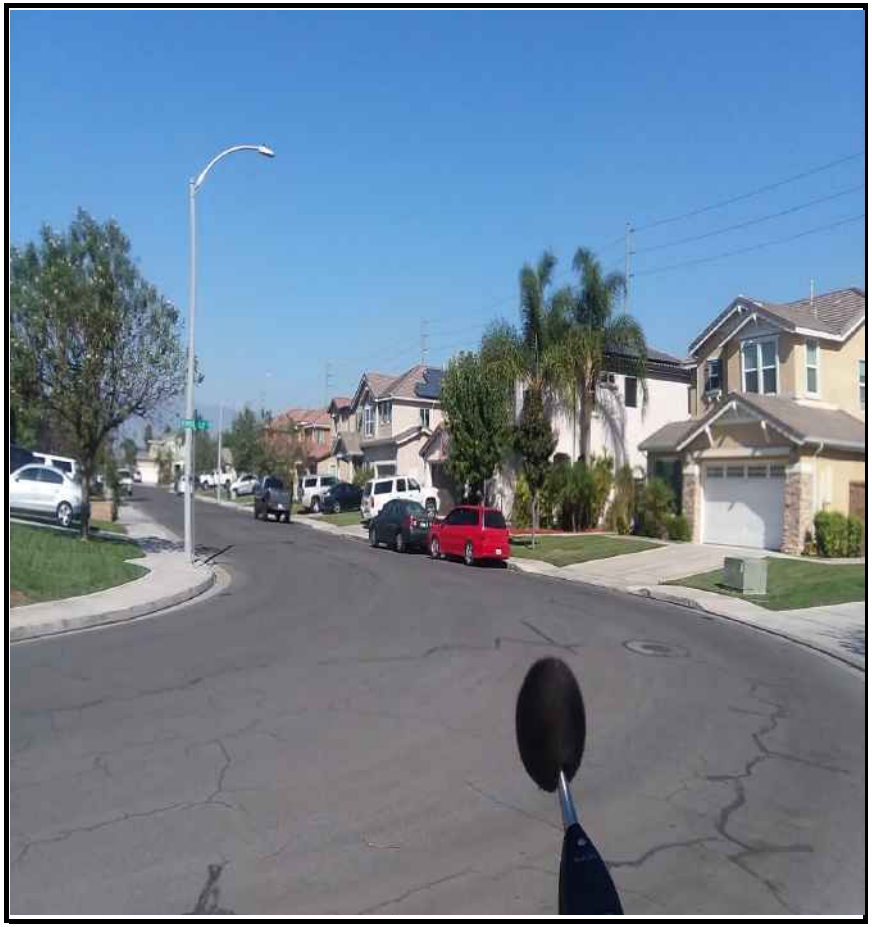
NOISE METER:	SoundTrack LXT Class 1	**CALIBRATOR:**	Larson Davis CAL250
MAKE:	Larson Davis	**MAKE:**	Larson Davis
MODEL:	LXT1	**MODEL:**	Cal 250
SERIAL NUMBER:	3099	**SERIAL NUMBER:**	2733
FACTORY CALIBRATION DATE:	4/9/2020	**FACTORY CALIBRATION DATE:**	4/2/2020
FIELD CALIBRATION DATE:	11/2/2020		

Noise Measurement
Field Data

PHOTOS:



STNM4 looking S across front lawn of residence 14213 Redwood Valley Road, Eastvale.



STNM4 looking NE where Redwood Valley road intersects with Bristol Bay Cir.

Summary	
File Name on Meter	LxT_Data.010
File Name on PC	SLM_0003099_LxT_Data_010.01.ldbin
Serial Number	0003099
Model	SoundTrack LxT®
Firmware Version	2.402
User	Ian Edward Gallagher
Location	STNM4 JN 19304 Eastvale 33°56'54.40"N 117°35'38.05"W
Job Description	15 minute noise measurement (1 x 15 minutes)

Measurement	
Start	2020-11-02 12:37:14
Stop	2020-11-02 12:52:14
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre Calibration	2020-11-02 12:36:48
Post Calibration	None

Overall Settings	
RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamp	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Low
OBA Bandwidth	1/1 and 1/3
OBA Freq. Weighting	Z Weighting
OBA Max Spectrum	Bin Max
Overload	122.7 dB

Results				
L_{Aeq}	44.9			
LAE	74.5			
EA	3.109	µPa²h		
EA8	99.490	µPa²h		
EA40	497.452	µPa²h		
$L_{Zpeak\ (max)}$	2020-11-02 12:52:00	93.3 dB		
L_{ASmax}	2020-11-02 12:44:18	56.8 dB		
L_{ASmin}	2020-11-02 12:38:08	35.4 dB		
SEA	-99.9 dB			

		Statistics	
L_{Ceq}	60.4 dB	**LAI2.00**	52.9 dB
L_{Aeq}	44.9 dB	**LAI8.00**	48.7 dB
L_{Ceq} - L_{Aeq}	15.5 dB	**LAI25.00**	44.9 dB
L_{AIeq}	47.1 dB	**LAI50.00**	42.1 dB
L_{Aeq}	44.9 dB	**LAI66.60**	40.9 dB
L_{AIeq} - L_{Aeq}	2.2 dB	**LAI90.00**	39.1 dB
# Overloads	0		

Noise Measurement
Field Data

Project Name: Archibald Avenue & Chandler Street, City of Eastvale. **Date:** November 2-3, 2020

Project #: JN 19304

Noise Measurement #: LTNM1 Run Time: 24 hours (24 x 1 hours) **Technician:** Ian Gallagher

Nearest Address or Cross Street: 14227 Chandler Street, Eastvale, California.

Site Description (Type of Existing Land Use and any other notable features): Project site: Recently cleared lot with drainage channel to north, Archibald Ave to to east, Chandler St to south, and residential to west. Noise Measurement Site: Residential to west, Archibald Ave to east, & Chandler St to south.

Weather: Clear skies, sunny by day. Sunset/rise 4:54 PM/ 6:15 AM **Settings:** SLOW FAST

Temperature: 55-75deg F **Wind:** 1 to12 mph **Humidity:** 40-60% **Terrain:** Flat

Start Time: 5:00 PM **End Time:** 5:00 PM **Run Time:**

Leq: 56.4 dB **Primary Noise Source:** Traffic noise from vehicles traveling along Archibald Avenue & Chandler Street.

Lmax 87.4 dB

L2 64.4 dB **Secondary Noise Sources:** Residential ambiance, overhead propellor and jet aircraft. Bird song by day.

L8 59.1 dB Gentle breeze blowing through trees and vegetation.

L25 54.3 dB

L50 50.2 dB

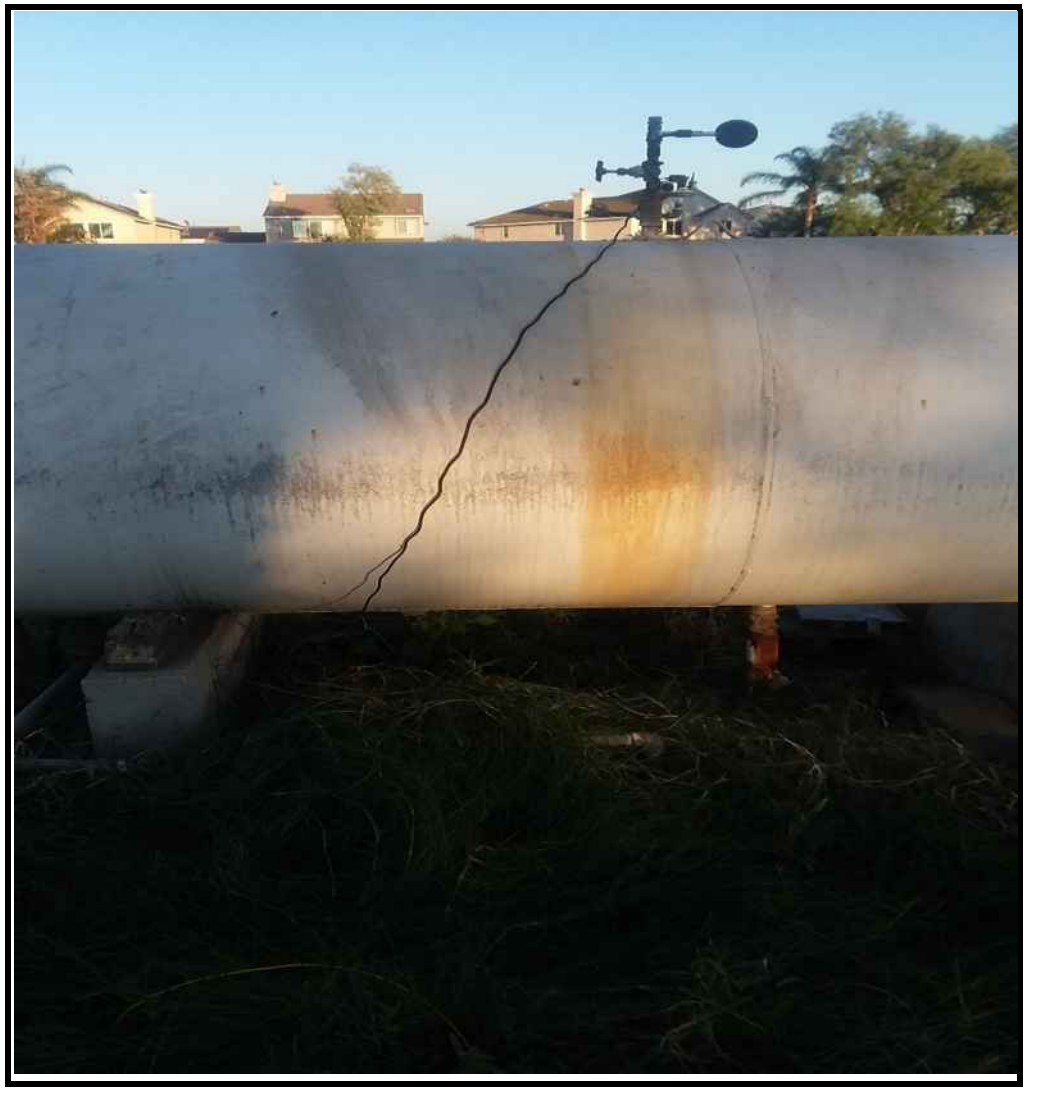
NOISE METER:	SoundTrack LXT Class 1	**CALIBRATOR:**	Larson Davis CAL250
MAKE:	Larson Davis	**MAKE:**	Larson Davis
MODEL:	LXT1	**MODEL:**	Cal 250
SERIAL NUMBER:	3099	**SERIAL NUMBER:**	2733
FACTORY CALIBRATION DATE:	4/9/2020	**FACTORY CALIBRATION DATE:**	4/2/2020
FIELD CALIBRATION DATE:	11/2/2020		

Noise Measurement
Field Data

PHOTOS:



LTNM1 looking SE towards Archibald Ave & Chandler Street intersection.



LTNM1 looking E at microphone located on top of water tank (one of the only structures left standing on site).

Summary			
File Name on Meter	LxT_Data.011		
File Name on PC	SLM_0003099_LxT_Data_011.01.ldbin		
Serial Number	0003099		
Model	SoundTrack LxT®		
Firmware Version	2.402		
User	Ian edward Gallagher		
Location	LTNM1 JN 19304 Eastvale 33°56'48.43"N 117°35'37.24"W		
Job Description	24 hour noise measurement (24 x 1 hours)		
Measurement			
Start	2020-11-02 17:00:00		
Stop	2020-11-03 17:00:00		
Duration	24:00:00.0		
Run Time	24:00:00.0		
Pause	00:00:00.0		
Pre Calibration	2020-11-02 15:32:34		
Post Calibration	None		
Overall Settings			
RMS Weight	A Weighting		
Peak Weight	A Weighting		
Detector	Slow		
Preamp	PRMLxT1L		
Microphone Correction	Off		
Integration Method	Linear		
OBA Range	Normal		
OBA Bandwidth	1/1 and 1/3		
OBA Freq. Weighting	A Weighting		
OBA Max Spectrum	Bin Max		
Overload	122.6 dB		
Results			
LA_{eq}	56.4		
LAE	105.7		
EA	4.168 mPa^2h		
EA8	1.389 mPa^2h		
EA40	6.947 mPa^2h		
$LA_{peak\ (max)}$	2020-11-03 14:52:38	105.3 dB	
LAS_{max}	2020-11-03 10:33:54	87.4 dB	
LAS_{min}	2020-11-03 02:34:34	34.8 dB	
SEA	-99.9 dB		
		Statistics	
LC_{eq}	68.2 dB	**LAI2.00**	64.4 dB
LA_{eq}	56.4 dB	**LAI8.00**	59.1 dB
LC_{eq} - LA_{eq}	11.9 dB	**LAI25.00**	54.3 dB
LAI_{eq}	58.5 dB	**LAI50.00**	50.2 dB
LA_{eq}	56.4 dB	**LAI90.00**	40.8 dB
LAI_{eq} - LA_{eq}	2.1 dB	**LAI99.00**	37.1 dB
# Overloads	0		

Record #	Date	Time	Run Duration	Run Time	Pause	LAeq	LASmin	LASmin Time	LASmax	LASmax Time	LAS2.00	LAS8.00	LAS25.00	LAS50.00	LAS90.00	LAS99.00
1	2020-11-02	17:00:00	01:00:00.0	01:00:00.0	00:00:00.0	57.8	44.2	17:34:07	80.2	17:40:15	65.5	60.9	56.1	53.3	48.8	46.4
2	2020-11-02	18:00:00	01:00:00.0	01:00:00.0	00:00:00.0	55.3	40.8	18:59:34	76.9	18:16:19	63.9	58.1	54.5	50.9	46.0	42.7
3	2020-11-02	19:00:00	01:00:00.0	01:00:00.0	00:00:00.0	54.2	39.2	19:02:44	74.7	19:36:30	63.1	56.9	52.6	49.5	44.2	41.1
4	2020-11-02	20:00:00	01:00:00.0	01:00:00.0	00:00:00.0	53.9	39.1	20:29:45	72.6	20:57:09	63.4	56.7	52.3	48.6	43.0	40.6
5	2020-11-02	21:00:00	01:00:00.0	01:00:00.0	00:00:00.0	54.6	39.7	21:49:09	79.0	21:07:19	62.8	56.0	51.0	47.9	43.3	41.0
6	2020-11-02	22:00:00	01:00:00.0	01:00:00.0	00:00:00.0	55.6	37.4	22:45:55	83.7	22:48:00	61.5	54.9	49.8	46.4	41.1	38.2
7	2020-11-02	23:00:00	01:00:00.0	01:00:00.0	00:00:00.0	48.4	36.2	23:53:56	71.2	23:11:19	57.2	51.0	46.6	42.9	38.9	37.5
8	2020-11-03	00:00:00	01:00:00.0	01:00:00.0	00:00:00.0	51.0	36.3	00:54:07	72.5	00:42:16	60.7	51.1	45.4	41.4	37.8	36.8
9	2020-11-03	01:00:00	01:00:00.0	01:00:00.0	00:00:00.0	47.4	34.9	01:26:47	71.8	01:43:32	55.9	48.8	43.7	39.9	37.6	35.9
10	2020-11-03	02:00:00	01:00:00.0	01:00:00.0	00:00:00.0	47.9	34.8	02:34:34	67.6	02:58:52	58.5	50.5	44.0	39.6	36.7	35.5
11	2020-11-03	03:00:00	01:00:00.0	01:00:00.0	00:00:00.0	49.8	36.3	03:06:14	68.3	03:00:11	57.3	52.7	48.7	43.9	38.3	37.1
12	2020-11-03	04:00:00	01:00:00.0	01:00:00.0	00:00:00.0	53.7	38.2	04:01:39	70.5	04:07:47	63.6	57.5	51.7	47.9	42.5	39.5
13	2020-11-03	05:00:00	01:00:00.0	01:00:00.0	00:00:00.0	55.0	42.0	05:00:50	76.7	05:06:32	63.6	57.9	54.0	50.5	45.9	43.4
14	2020-11-03	06:00:00	01:00:00.0	01:00:00.0	00:00:00.0	56.6	43.4	06:08:05	74.1	06:14:26	64.9	60.0	55.6	52.2	47.7	45.4
15	2020-11-03	07:00:00	01:00:00.0	01:00:00.0	00:00:00.0	57.1	44.1	07:12:13	74.6	07:30:06	65.3	60.6	56.3	53.5	48.4	45.6
16	2020-11-03	08:00:00	01:00:00.0	01:00:00.0	00:00:00.0	56.5	44.8	08:32:16	70.5	08:22:14	64.1	60.1	56.7	53.7	49.5	46.8
17	2020-11-03	09:00:00	01:00:00.0	01:00:00.0	00:00:00.0	56.8	40.8	09:05:30	74.3	09:12:50	65.7	61.0	55.6	52.3	46.5	43.3
18	2020-11-03	10:00:00	01:00:00.0	01:00:00.0	00:00:00.0	59.6	40.7	10:50:39	87.4	10:33:54	64.6	59.1	55.1	52.1	46.1	42.1
19	2020-11-03	11:00:00	01:00:00.0	01:00:00.0	00:00:00.0	55.4	40.5	11:00:44	72.5	11:51:02	63.2	58.8	54.8	51.4	45.4	41.9
20	2020-11-03	12:00:00	01:00:00.0	01:00:00.0	00:00:00.0	56.3	41.1	12:04:46	76.3	12:30:05	64.3	60.1	55.3	51.9	45.8	43.0
21	2020-11-03	13:00:00	01:00:00.0	01:00:00.0	00:00:00.0	57.4	39.9	13:36:53	73.6	13:50:02	66.1	61.2	56.6	53.7	47.3	42.6
22	2020-11-03	14:00:00	01:00:00.0	01:00:00.0	00:00:00.0	60.0	41.1	14:20:47	83.9	14:51:21	67.4	63.0	57.7	53.4	47.6	43.1
23	2020-11-03	15:00:00	01:00:00.0	01:00:00.0	00:00:00.0	58.8	43.3	15:29:12	79.0	15:59:16	67.1	62.4	58.1	54.0	48.3	45.4
24	2020-11-03	16:00:00	01:00:00.0	01:00:00.0	00:00:00.0	61.6	43.1	16:05:11	85.4	16:16:07	67.6	61.5	56.7	53.0	47.7	44.5

APPENDIX D

CONSTRUCTION NOISE MODELING WORKSHEETS

Receptor - R1 Dwelling Unit - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	405	40	0.40	-18.2	-4.0	66.8	62.9	Muffler (10 dB Reduction)	52.9	
Rubber Tired Dozers	1	85	405	40	0.40	-18.2	-4.0	66.8	62.9	Muffler (10 dB Reduction)	52.9	10.0
Tractors/Loaders/Backhoes	2	84	405	40	0.80	-18.2	-1.0	65.8	64.9	Muffler (10 dB Reduction)	54.9	
								Log Sum	68.4		58.4	
Building Construction												
Cranes	1	83	405	16	0.16	-18.2	-8.0	64.8	56.9	Muffler (10 dB Reduction)	46.9	
Forklifts [4]	3	48	405	40	1.20	-18.2	0.8	29.8	30.6	n/a	30.6	
Generator Set	1	81	405	50	0.50	-18.2	-3.0	62.8	59.8	Enclosure or Acoustic Tent (10 dB Reduction)	49.8	7.4
Welders	3	74	405	40	1.20	-18.2	0.8	55.8	56.6	n/a	56.6	
Tractors/Loaders/Backhoes	2	84	405	40	0.80	-18.2	-1.0	65.8	64.9	Muffler (10 dB Reduction)	54.9	
								Log Sum	67.0		59.6	
Paving												
Cement and Mortar Mixers	1	79	405	40	0.40	-18.2	-4.0	60.8	56.9	Muffler (10 dB Reduction)	46.9	
Pavers	1	77	405	50	0.50	-18.2	-3.0	58.8	55.8	Muffler (10 dB Reduction)	45.8	
Paving Equipment	1	85	405	20	0.20	-18.2	-7.0	66.8	59.8	Muffler (10 dB Reduction)	49.8	10.0
Rollers	2	80	405	20	0.40	-18.2	-4.0	61.8	57.9	Muffler (10 dB Reduction)	47.9	
Tractors/Loaders/Backhoes	1	84	405	40	0.40	-18.2	-4.0	65.8	61.9	Muffler (10 dB Reduction)	51.9	
								Log Sum	64.8		54.8	
Architectural Coating												
Air Compressors	1	80	405	40	0.40	-18.2	-4.0	61.8	57.9	Enclosure or Acoustic Tent (10 dB Reduction)	47.9	10.0
								Log Sum	57.9		47.9	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R1 Yard - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	375	40	0.40	-17.5	-4.0	67.5	63.5	Muffler (10 dB Reduction)	53.5	
Rubber Tired Dozers	1	85	375	40	0.40	-17.5	-4.0	67.5	63.5	Muffler (10 dB Reduction)	53.5	10.0
Tractors/Loaders/Backhoes	2	84	375	40	0.80	-17.5	-1.0	66.5	65.5	Muffler (10 dB Reduction)	55.5	
								Log Sum	69.1		59.1	
Building Construction												
Cranes	1	83	375	16	0.16	-17.5	-8.0	65.5	57.5	Muffler (10 dB Reduction)	47.5	
Forklifts [2]	3	48	375	40	1.20	-17.5	0.8	30.5	31.3	n/a	31.3	
Generator Set	1	81	375	50	0.50	-17.5	-3.0	63.5	60.5	Enclosure or Acoustic Tent (10 dB Reduction)	50.5	7.4
Welders	3	74	375	40	1.20	-17.5	0.8	56.5	57.3	n/a	57.3	
Tractors/Loaders/Backhoes	2	84	375	40	0.80	-17.5	-1.0	66.5	65.5	Muffler (10 dB Reduction)	55.5	
								Log Sum	67.6		60.3	
Paving												
Cement and Mortar Mixers	1	79	375	40	0.40	-17.5	-4.0	61.5	57.5	Muffler (10 dB Reduction)	47.5	
Pavers	1	77	375	50	0.50	-17.5	-3.0	59.5	56.5	Muffler (10 dB Reduction)	46.5	
Paving Equipment	1	85	375	20	0.20	-17.5	-7.0	67.5	60.5	Muffler (10 dB Reduction)	50.5	10.0
Rollers	2	80	375	20	0.40	-17.5	-4.0	62.5	58.5	Muffler (10 dB Reduction)	48.5	
Tractors/Loaders/Backhoes	1	84	375	40	0.40	-17.5	-4.0	66.5	62.5	Muffler (10 dB Reduction)	52.5	
								Log Sum	65.5		55.5	
Architectural Coating												
Air Compressors	1	80	375	40	0.40	-17.5	-4.0	62.5	58.5	Enclosure or Acoustic Tent (10 dB Reduction)	48.5	10.0
								Log Sum	58.5		48.5	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R2 Dwelling Unit - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	315	40	0.40	-16.0	-4.0	69.0	65.0	Muffler (10 dB Reduction)	55.0	
Rubber Tired Dozers	1	85	315	40	0.40	-16.0	-4.0	69.0	65.0	Muffler (10 dB Reduction)	55.0	10.0
Tractors/Loaders/Backhoes	2	84	315	40	0.80	-16.0	-1.0	68.0	67.0	Muffler (10 dB Reduction)	57.0	
								Log Sum	70.6		60.6	
Building Construction												
Cranes	1	83	315	16	0.16	-16.0	-8.0	67.0	59.1	Muffler (10 dB Reduction)	49.1	
Forklifts [2]	3	48	315	40	1.20	-16.0	0.8	32.0	32.8	n/a	32.8	
Generator Set	1	81	315	50	0.50	-16.0	-3.0	65.0	62.0	Enclosure or Acoustic Tent (10 dB Reduction)	52.0	7.4
Welders	3	74	315	40	1.20	-16.0	0.8	58.0	58.8	n/a	58.8	
Tractors/Loaders/Backhoes	2	84	315	40	0.80	-16.0	-1.0	68.0	67.0	Muffler (10 dB Reduction)	57.0	
								Log Sum	69.1		61.8	
Paving												
Cement and Mortar Mixers	1	79	315	40	0.40	-16.0	-4.0	63.0	59.0	Muffler (10 dB Reduction)	49.0	
Pavers	1	77	315	50	0.50	-16.0	-3.0	61.0	58.0	Muffler (10 dB Reduction)	48.0	
Paving Equipment	1	85	315	20	0.20	-16.0	-7.0	69.0	62.0	Muffler (10 dB Reduction)	52.0	10.0
Rollers	2	80	315	20	0.40	-16.0	-4.0	64.0	60.0	Muffler (10 dB Reduction)	50.0	
Tractors/Loaders/Backhoes	1	84	315	40	0.40	-16.0	-4.0	68.0	64.0	Muffler (10 dB Reduction)	54.0	
								Log Sum	67.0		57.0	
Architectural Coating												
Air Compressors	1	80	315	40	0.40	-16.0	-4.0	64.0	60.0	Enclosure or Acoustic Tent (10 dB Reduction)	50.0	10.0
								Log Sum	60.0		50.0	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R2 Yard - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	285	285	40	0.40	-15.1	-4.0	269.9	265.9	Muffler (10 dB Reduction)	255.9	
Rubber Tired Dozers	1	85	285	40	0.40	-15.1	-4.0	69.9	65.9	Muffler (10 dB Reduction)	55.9	10.0
Tractors/Loaders/Backhoes	2	84	285	40	0.80	-15.1	-1.0	68.9	67.9	Muffler (10 dB Reduction)	57.9	
								Log Sum	265.9		255.9	
Building Construction												
Cranes	1	83	285	16	0.16	-15.1	-8.0	67.9	59.9	Muffler (10 dB Reduction)	49.9	
Forklifts [4]	3	48	285	40	1.20	-15.1	0.8	32.9	33.7	n/a	33.7	
Generator Set	1	81	285	50	0.50	-15.1	-3.0	65.9	62.9	Enclosure or Acoustic Tent (10 dB Reduction)	52.9	7.4
Welders	3	74	285	40	1.20	-15.1	0.8	58.9	59.7	n/a	59.7	
Tractors/Loaders/Backhoes	2	84	285	40	0.80	-15.1	-1.0	68.9	67.9	Muffler (10 dB Reduction)	57.9	
								Log Sum	70.0		62.6	
Paving												
Cement and Mortar Mixers	1	79	285	40	0.40	-15.1	-4.0	63.9	59.9	Muffler (10 dB Reduction)	49.9	
Pavers	1	77	285	50	0.50	-15.1	-3.0	61.9	58.9	Muffler (10 dB Reduction)	48.9	
Paving Equipment	1	85	285	20	0.20	-15.1	-7.0	69.9	62.9	Muffler (10 dB Reduction)	52.9	10.0
Rollers	2	80	285	20	0.40	-15.1	-4.0	64.9	60.9	Muffler (10 dB Reduction)	50.9	
Tractors/Loaders/Backhoes	1	84	285	40	0.40	-15.1	-4.0	68.9	64.9	Muffler (10 dB Reduction)	54.9	
								Log Sum	67.8		57.8	
Architectural Coating												
Air Compressors	1	80	285	40	0.40	-15.1	-4.0	64.9	60.9	Enclosure or Acoustic Tent (10 dB Reduction)	50.9	10.0
								Log Sum	60.9		50.9	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R3 Dwelling Unit - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	323	40	0.40	-16.2	-4.0	68.8	64.8	Muffler (10 dB Reduction)	54.8	
Rubber Tired Dozers	1	85	323	40	0.40	-16.2	-4.0	68.8	64.8	Muffler (10 dB Reduction)	54.8	10.0
Tractors/Loaders/Backhoes	2	84	323	40	0.80	-16.2	-1.0	67.8	66.8	Muffler (10 dB Reduction)	56.8	
								Log Sum	70.4		60.4	
Building Construction												
Cranes	1	83	323	16	0.16	-16.2	-8.0	66.8	58.8	Muffler (10 dB Reduction)	48.8	
Forklifts [2]	3	48	323	40	1.20	-16.2	0.8	31.8	32.6	n/a	32.6	
Generator Set	1	81	323	50	0.50	-16.2	-3.0	64.8	61.8	Enclosure or Acoustic Tent (10 dB Reduction)	51.8	7.4
Welders	3	74	323	40	1.20	-16.2	0.8	57.8	58.6	n/a	58.6	
Tractors/Loaders/Backhoes	2	84	323	40	0.80	-16.2	-1.0	67.8	66.8	Muffler (10 dB Reduction)	56.8	
								Log Sum	68.9		61.6	
Paving												
Cement and Mortar Mixers	1	79	323	40	0.40	-16.2	-4.0	62.8	58.8	Muffler (10 dB Reduction)	48.8	
Pavers	1	77	323	50	0.50	-16.2	-3.0	60.8	57.8	Muffler (10 dB Reduction)	47.8	
Paving Equipment	1	85	323	20	0.20	-16.2	-7.0	68.8	61.8	Muffler (10 dB Reduction)	51.8	10.0
Rollers	2	80	323	20	0.40	-16.2	-4.0	63.8	59.8	Muffler (10 dB Reduction)	49.8	
Tractors/Loaders/Backhoes	1	84	323	40	0.40	-16.2	-4.0	67.8	63.8	Muffler (10 dB Reduction)	53.8	
								Log Sum	66.7		56.7	
Architectural Coating												
Air Compressors	1	80	323	40	0.40	-16.2	-4.0	63.8	59.8	Enclosure or Acoustic Tent (10 dB Reduction)	49.8	10.0
								Log Sum	59.8		49.8	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R3 Yard - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	293	40	0.40	-15.4	-4.0	69.6	65.7	Muffler (10 dB Reduction)	55.7	
Rubber Tired Dozers	1	85	293	40	0.40	-15.4	-4.0	69.6	65.7	Muffler (10 dB Reduction)	55.7	10.0
Tractors/Loaders/Backhoes	2	84	293	40	0.80	-15.4	-1.0	68.6	67.7	Muffler (10 dB Reduction)	57.7	
								Log Sum	71.2		61.2	
Building Construction												
Cranes	1	83	293	16	0.16	-15.4	-8.0	67.6	59.7	Muffler (10 dB Reduction)	49.7	
Forklifts [4]	3	48	293	40	1.20	-15.4	0.8	32.6	33.4	n/a	33.4	
Generator Set	1	81	293	50	0.50	-15.4	-3.0	65.6	62.6	Enclosure or Acoustic Tent (10 dB Reduction)	52.6	7.4
Welders	3	74	293	40	1.20	-15.4	0.8	58.6	59.4	n/a	59.4	
Tractors/Loaders/Backhoes	2	84	293	40	0.80	-15.4	-1.0	68.6	67.7	Muffler (10 dB Reduction)	57.7	
								Log Sum	69.8		62.4	
Paving												
Cement and Mortar Mixers	1	79	293	40	0.40	-15.4	-4.0	63.6	59.7	Muffler (10 dB Reduction)	49.7	
Pavers	1	77	293	50	0.50	-15.4	-3.0	61.6	58.6	Muffler (10 dB Reduction)	48.6	
Paving Equipment	1	85	293	20	0.20	-15.4	-7.0	69.6	62.7	Muffler (10 dB Reduction)	52.7	10.0
Rollers	2	80	293	20	0.40	-15.4	-4.0	64.6	60.7	Muffler (10 dB Reduction)	50.7	
Tractors/Loaders/Backhoes	1	84	293	40	0.40	-15.4	-4.0	68.6	64.7	Muffler (10 dB Reduction)	54.7	
								Log Sum	67.6		57.6	
Architectural Coating												
Air Compressors	1	80	293	40	0.40	-15.4	-4.0	64.6	60.7	Enclosure or Acoustic Tent (10 dB Reduction)	50.7	10.0
								Log Sum	60.7		50.7	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R4 Dwelling Unit/Closest Structures - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	145	40	0.40	-9.2	-4.0	75.8	71.8	Muffler (10 dB Reduction)	61.8	
Rubber Tired Dozers	1	85	145	40	0.40	-9.2	-4.0	75.8	71.8	Muffler (10 dB Reduction)	61.8	10.0
Tractors/Loaders/Backhoes	2	84	145	40	0.80	-9.2	-1.0	74.8	73.8	Muffler (10 dB Reduction)	63.8	
								Log Sum	77.3		67.3	
Building Construction												
Cranes	1	83	145	16	0.16	-9.2	-8.0	73.8	65.8	Muffler (10 dB Reduction)	55.8	
Forklifts [4]	3	48	145	40	1.20	-9.2	0.8	38.8	39.5	n/a	39.5	
Generator Set	1	81	145	50	0.50	-9.2	-3.0	71.8	68.7	Enclosure or Acoustic Tent (10 dB Reduction)	58.7	7.4
Welders	3	74	145	40	1.20	-9.2	0.8	64.8	65.5	n/a	65.5	
Tractors/Loaders/Backhoes	2	84	145	40	0.80	-9.2	-1.0	74.8	73.8	Muffler (10 dB Reduction)	63.8	
								Log Sum	75.9		68.5	
Paving												
Cement and Mortar Mixers	1	79	145	40	0.40	-9.2	-4.0	69.8	65.8	Muffler (10 dB Reduction)	55.8	
Pavers	1	77	145	50	0.50	-9.2	-3.0	67.8	64.7	Muffler (10 dB Reduction)	54.7	
Paving Equipment	1	85	145	20	0.20	-9.2	-7.0	75.8	68.8	Muffler (10 dB Reduction)	58.8	10.0
Rollers	2	80	145	20	0.40	-9.2	-4.0	70.8	66.8	Muffler (10 dB Reduction)	56.8	
Tractors/Loaders/Backhoes	1	84	145	40	0.40	-9.2	-4.0	74.8	70.8	Muffler (10 dB Reduction)	60.8	
								Log Sum	73.7		63.7	
Architectural Coating												
Air Compressors	1	80	145	40	0.40	-9.2	-4.0	70.8	66.8	Enclosure or Acoustic Tent (10 dB Reduction)	56.8	10.0
								Log Sum	66.8		56.8	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R4 Yard - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	115	40	0.40	-7.2	-4.0	77.8	73.8	Muffler (10 dB Reduction)	63.8	
Rubber Tired Dozers	1	85	115	40	0.40	-7.2	-4.0	77.8	73.8	Muffler (10 dB Reduction)	63.8	10.0
Tractors/Loaders/Backhoes	2	84	115	40	0.80	-7.2	-1.0	76.8	75.8	Muffler (10 dB Reduction)	65.8	
								Log Sum	79.3		69.3	
Building Construction												
Cranes	1	83	115	16	0.16	-7.2	-8.0	75.8	67.8	Muffler (10 dB Reduction)	57.8	
Forklifts [4]	3	48	115	40	1.20	-7.2	0.8	40.8	41.6	n/a	41.6	
Generator Set	1	81	115	50	0.50	-7.2	-3.0	73.8	70.8	Enclosure or Acoustic Tent (10 dB Reduction)	60.8	7.4
Welders	3	74	115	40	1.20	-7.2	0.8	66.8	67.6	n/a	67.6	
Tractors/Loaders/Backhoes	2	84	115	40	0.80	-7.2	-1.0	76.8	75.8	Muffler (10 dB Reduction)	65.8	
								Log Sum	77.9		70.5	
Paving												
Cement and Mortar Mixers	1	79	115	40	0.40	-7.2	-4.0	71.8	67.8	Muffler (10 dB Reduction)	57.8	
Pavers	1	77	115	50	0.50	-7.2	-3.0	69.8	66.8	Muffler (10 dB Reduction)	56.8	
Paving Equipment	1	85	115	20	0.20	-7.2	-7.0	77.8	70.8	Muffler (10 dB Reduction)	60.8	10.0
Rollers	2	80	115	20	0.40	-7.2	-4.0	72.8	68.8	Muffler (10 dB Reduction)	58.8	
Tractors/Loaders/Backhoes	1	84	115	40	0.40	-7.2	-4.0	76.8	72.8	Muffler (10 dB Reduction)	62.8	
								Log Sum	75.7		65.7	
Architectural Coating												
Air Compressors	1	80	115	40	0.40	-7.2	-4.0	72.8	68.8	Enclosure or Acoustic Tent (10 dB Reduction)	58.8	10.0
								Log Sum	68.8		58.8	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R5 Dwelling Unit - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	420	40	0.40	-18.5	-4.0	66.5	62.5	Muffler (10 dB Reduction)	52.5	
Rubber Tired Dozers	1	85	420	40	0.40	-18.5	-4.0	66.5	62.5	Muffler (10 dB Reduction)	52.5	10.0
Tractors/Loaders/Backhoes	2	84	420	40	0.80	-18.5	-1.0	65.5	64.5	Muffler (10 dB Reduction)	54.5	
								Log Sum	68.1		58.1	
Building Construction												
Cranes	1	83	420	16	0.16	-18.5	-8.0	64.5	56.6	Muffler (10 dB Reduction)	46.6	
Forklifts [2]	3	48	420	40	1.20	-18.5	0.8	29.5	30.3	n/a	30.3	
Generator Set	1	81	420	50	0.50	-18.5	-3.0	62.5	59.5	Enclosure or Acoustic Tent (10 dB Reduction)	49.5	7.4
Welders	3	74	420	40	1.20	-18.5	0.8	55.5	56.3	n/a	56.3	
Tractors/Loaders/Backhoes	2	84	420	40	0.80	-18.5	-1.0	65.5	64.5	Muffler (10 dB Reduction)	54.5	
								Log Sum	66.6		59.3	
Paving												
Cement and Mortar Mixers	1	79	420	40	0.40	-18.5	-4.0	60.5	56.5	Muffler (10 dB Reduction)	46.5	
Pavers	1	77	420	50	0.50	-18.5	-3.0	58.5	55.5	Muffler (10 dB Reduction)	45.5	
Paving Equipment	1	85	420	20	0.20	-18.5	-7.0	66.5	59.5	Muffler (10 dB Reduction)	49.5	10.0
Rollers	2	80	420	20	0.40	-18.5	-4.0	61.5	57.5	Muffler (10 dB Reduction)	47.5	
Tractors/Loaders/Backhoes	1	84	420	40	0.40	-18.5	-4.0	65.5	61.5	Muffler (10 dB Reduction)	51.5	
								Log Sum	64.5		54.5	
Architectural Coating												
Air Compressors	1	80	420	40	0.40	-18.5	-4.0	61.5	57.5	Enclosure or Acoustic Tent (10 dB Reduction)	47.5	10.0
								Log Sum	57.5		47.5	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

Receptor - R5 Yard - No Barrier

Construction Phase Equipment Item	# of Items	Item Lmax at 50 feet, dBA[1]	Distance to Receptor[3]	Item Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Receptor Item Lmax, dBA	Receptor Item Leq, dBA	Required Mitigation	Mitigated Noise Level	Reduction (dBA Leq)
Grading												
Grader	1	85	385	40	0.40	-17.7	-4.0	67.3	63.3	Muffler (10 dB Reduction)	53.3	
Rubber Tired Dozers	1	85	385	40	0.40	-17.7	-4.0	67.3	63.3	Muffler (10 dB Reduction)	53.3	10.0
Tractors/Loaders/Backhoes	2	84	385	40	0.80	-17.7	-1.0	66.3	65.3	Muffler (10 dB Reduction)	55.3	
								Log Sum	68.8		58.8	
Building Construction												
Cranes	1	83	385	16	0.16	-17.7	-8.0	65.3	57.3	Muffler (10 dB Reduction)	47.3	
Forklifts [2]	3	48	385	40	1.20	-17.7	0.8	30.3	31.1	n/a	31.1	
Generator Set	1	81	385	50	0.50	-17.7	-3.0	63.3	60.3	Enclosure or Acoustic Tent (10 dB Reduction)	50.3	7.4
Welders	3	74	385	40	1.20	-17.7	0.8	56.3	57.1	n/a	57.1	
Tractors/Loaders/Backhoes	2	84	385	40	0.80	-17.7	-1.0	66.3	65.3	Muffler (10 dB Reduction)	55.3	
								Log Sum	67.4		60.0	
Paving												
Cement and Mortar Mixers	1	79	385	40	0.40	-17.7	-4.0	61.3	57.3	Muffler (10 dB Reduction)	47.3	
Pavers	1	77	385	50	0.50	-17.7	-3.0	59.3	56.3	Muffler (10 dB Reduction)	46.3	
Paving Equipment	1	85	385	20	0.20	-17.7	-7.0	67.3	60.3	Muffler (10 dB Reduction)	50.3	10.0
Rollers	2	80	385	20	0.40	-17.7	-4.0	62.3	58.3	Muffler (10 dB Reduction)	48.3	
Tractors/Loaders/Backhoes	1	84	385	40	0.40	-17.7	-4.0	66.3	62.3	Muffler (10 dB Reduction)	52.3	
								Log Sum	65.2		55.2	
Architectural Coating												
Air Compressors	1	80	385	40	0.40	-17.7	-4.0	62.3	58.3	Enclosure or Acoustic Tent (10 dB Reduction)	48.3	10.0
								Log Sum	58.3		48.3	

Notes:

(1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018) and the FHWA Roadway Construciton Noise Model User's Guide (January 2006)

(2) Source: SoundPLAN reference list.

(3) Distance to receptor calculated from center of site. Construction noise projected from the center of the project site to nearest sensitive use (structure).

APPENDIX E

SOUNDPLAN INPUTS AND OUTPUTS

Noise emissions of industry sources

Source na	Referen	Level		Frequency spectrum [dB(A)]																										Correctio		
				31	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1	1.3	1.6	2	2.5	3.2	4	5	6.3	8	10	12.5	16	Cwa	Cl	CT
			dB(A	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	dB	dB	dB
Que1	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que2	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que3	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que4	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que5	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que6	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
HVAC1	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC2	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC3	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC4	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC5	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC6	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC7	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC8	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC9	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC10	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC11	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC12	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-	-
HVAC1	Lw/m²	Da	65.0	-	-	-	-	-	-	-	-	-	-	-	-	65.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HVAC2	Lw/m²	Da	65.0	-	-	-	-	-	-	-	-	-	-	-	-	65.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Noise emissions of parking lot traffic

Name	Parking lot type	Size	Movements per hour		Road surface	Separated method	Lw,ref
			Day	Lmax			dB(A)
1	Visitors and staff	11 Parking bays	0.800	0.000	Asphaltic driving lanes	no	74.2
2	Visitors and staff	7 Parking bays	0.800	0.000	Asphaltic driving lanes	no	71.5
3	Visitors and staff	4 Parking bays	0.800	0.000	Asphaltic driving lanes	no	69.0
4	Visitors and staff	11 Parking bays	0.800	0.000	Asphaltic driving lanes	no	74.2
5	Visitors and staff	6 Parking bays	0.800	0.000	Asphaltic driving lanes	no	70.8
6	Visitors and staff	10 Parking bays	0.800	0.000	Asphaltic driving lanes	no	73.0
7	Visitors and staff	4 Parking bays	0.800	0.000	Asphaltic driving lanes	no	69.0

Receiver list

No.	Receiver name	Building side	Floor	Limit Day dB(A)	Level Day dB(A)	Conflict Day dB
1	R1	-	EG	-	46.4	-
2	R2	-	EG	-	44.6	-
3	R3	-	EG	-	44.9	-
4	R4	-	EG	-	48.0	-
5	R5	-	EG	-	43.6	-
6	R6	-	EG	-	47.8	-

Noise emissions of industry sources

Source na	Referen	Level		Frequency spectrum [dB(A)]																										Correctio		
				31	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1	1.3	1.6	2	2.5	3.2	4	5	6.3	8	10	12.5	16	Cwa	Cl	CT
			dB(A	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	Hz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	kHz	dB	dB	dB
Que1	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que2	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que3	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que4	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que5	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
Que6	Lw/m	Da	50.0	-	-	-	31.	35.	32.	35.	38.	37.	39.	41.	41.	42.	43.	44.	45.	46.	43.	43.	43.	38.	38.	38.	34.	33.	-	-	-	-	-	-
HVAC1	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC2	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC3	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC4	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC5	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC6	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC7	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC8	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC9	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC10	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC11	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
HVAC12	Lw/unit	Da	86.0	49.	54.	49.	53.	57.	63.	66.	69.	69.	71.	73.	64.	65.	67.	76.	76.	77.	78.	78.	78.	78.	77.	77.	80.	79.	78.	82.	79.	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Order Poi	Lw/unit	Da	70.0	-	-	-	-	-	-	-	-	-	-	-	-	70.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HVAC1	Lw/m²	Da	65.0	-	-	-	-	-	-	-	-	-	-	-	-	65.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HVAC2	Lw/m²	Da	65.0	-	-	-	-	-	-	-	-	-	-	-	-	65.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Receiver list

No.	Receiver name	Building side	Floor	Limit Day dB(A)	Level Day dB(A)	Conflict Day dB
1	R1	-	EG	-	46.4	-
2	R2	-	EG	-	44.7	-
3	R3	-	EG	-	44.9	-
4	R4	-	EG	-	45.1	-
5	R5	-	EG	-	43.7	-
6	R6	-	EG	-	45.9	-

Car Wash Noise Added to Restaurant and Coffee Shop Noise at Each Receptor

NM1	Leq
Car Wash	36
Other	46
Combined	46
Increase	10
NM2	
Car Wash	47
Other	45
Combined	49
Increase	2
NM3	
Car Wash	47
Total Project	45
Combined	49
Increase	2
NM4	
Car Wash	53
Total Project	45
Combined	54
Increase	1
NM5	
Car Wash	50
Other	44
Combined	51
Increase	1
NM6	
Car Wash	53
Total Project	46
Combined	54
Increase	1

APPENDIX F

QUICK QUACK CAR WASH (STORE #44-308) NOISE STUDY

Quick Quack Car Wash (Store #44-308)

Noise Impact Study

City of Eastvale, CA

Prepared for:

Quick Quack Development II, LLC
Vance Shannon
1380 Lead Hill Blvd #260
Roseville, CA 95661

Prepared by:

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Date: 12/9/2022

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1.0 Executive Summary

This report has been prepared to provide the calculated noise projections from the proposed Quick Quack Car Wash ("Project") located near Archibald Avenue and Chandler Street in the City of Eastvale, CA. All calculations are compared to the City of Eastvale's noise ordinance as well as the existing ambient condition. The Project proposes to construct a 108-foot covered car wash tunnel with 20 vacuum stalls.

1.1 Findings and Conclusions

Three (3) baseline 15-minute ambient measurements were performed at the Project site and represent the current operational noise and ambient levels within the Project vicinity. The predominant source of noise impacting the existing site is traffic noise propagating from Archibald Avenue.

This study compares the Project's operational noise levels to two (2) different noise assessment scenarios: 1) Project only operational noise level projections, and 2) Project plus ambient noise level projections.

Project-only operational noise levels are anticipated to be 36 to 53 dBA Lmax at residential uses surrounding the Project site. Project plus ambient noise level projections are anticipated to measure 51 to 54 dBA Lmax and will increase the ambient level by 0-5 dBA, which is a perceptible change to the human ear but does not exceed the daytime noise level limit.

This assessment evaluates the baseline noise condition and compares the Project's worst-case operational noise level to the measured noise level (during the Project's proposed hours of operation).

The following outlines the project design features:

1. The Project will incorporate a 12 Sonny's blower system with the silencer package installed or equivalent.

2. Absorptive material (Acoustiblok perforated metal panels or equivalent) will line the last 15' of the exit on the walls and ceiling (see Appendix C).

3. A 6' tall wall will be built along the property line from the south property line to the turbine enclosure.

4. A 10' tall, 8' long wing wall will be added to the west side of the tunnel exit.

2.0 Introduction

2.1 Purpose of Analysis and Study Objectives

This noise impact study aims to evaluate the potential noise impacts for the Project study area and recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to potentially applicable noise standards set forth by the State and/or local agencies. Consistent with the City's Noise Guidelines, the Project must demonstrate compliance with the applicable noise zoning ordinance and sound attenuation requirements.

The following is provided in this report:

- A description of the study area and the proposed Project
- Information regarding the fundamentals of noise
- A description of the local noise guidelines and standards
- An evaluation of the existing ambient noise environment
- An analysis of stationary noise impact (e.g., blowers and vacuums) from the Project site to adjacent land uses
- An analysis of construction noise to adjacent uses

2.2 Site Location and Study Area

The Project site is located near Archibald Avenue and Chandler Street in the City of Eastvale, CA, as shown in Exhibit A. The land uses directly surrounding the Project are residential uses to the north and west, Archibald Avenue to the east, and Chandler Street to the south. There are residential uses across Achibald Avenue to the east and across Chandler Street to the south.

2.3 Proposed Project Description

The Project proposes to develop a 108-foot car wash tunnel and 20 vacuum stall systems. The site plan used for this is illustrated in Exhibit B. The Project operational hours are assumed to be between 7 AM to 9 PM, seven days per week.

Exhibit A

Location Map

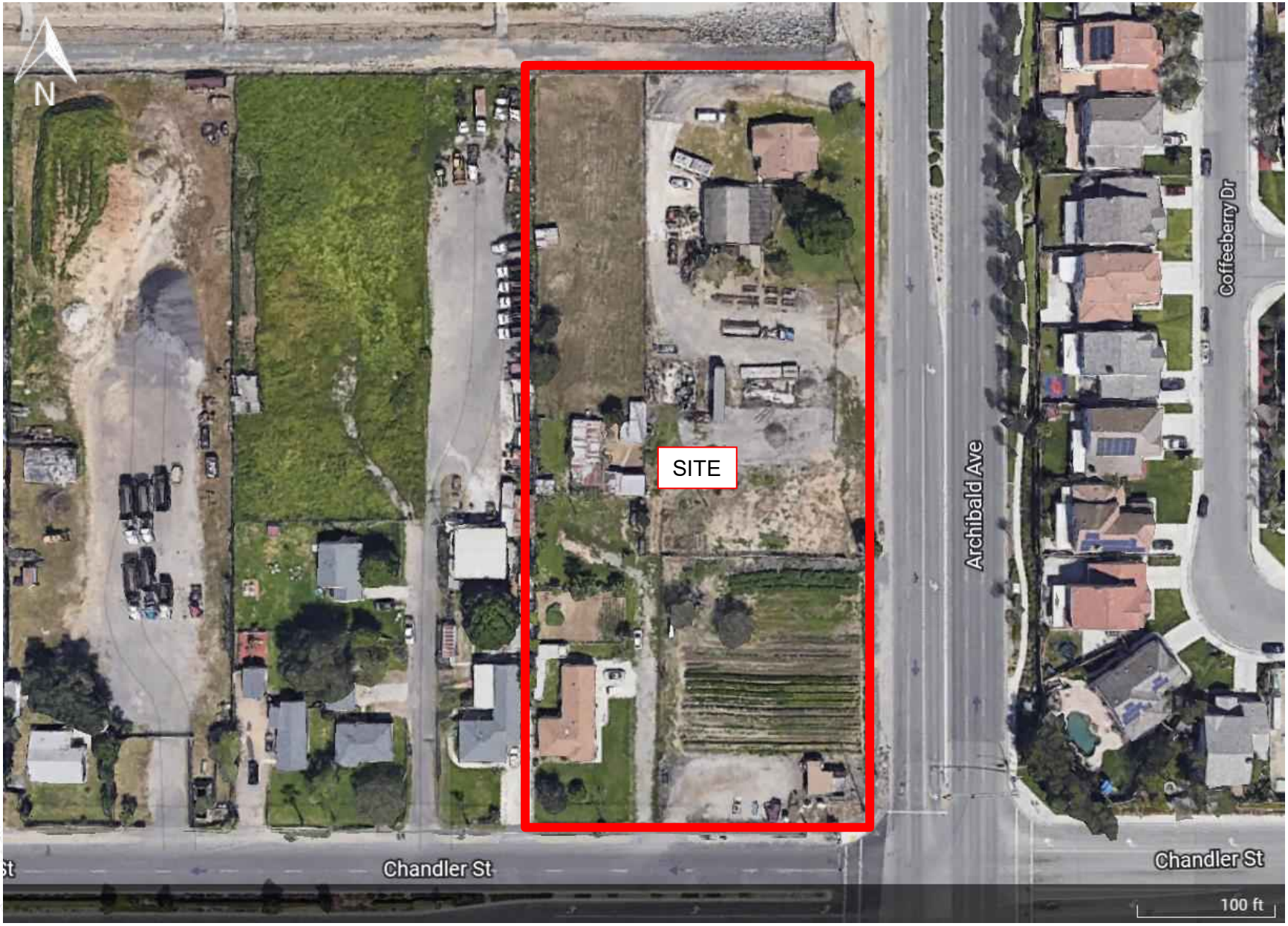
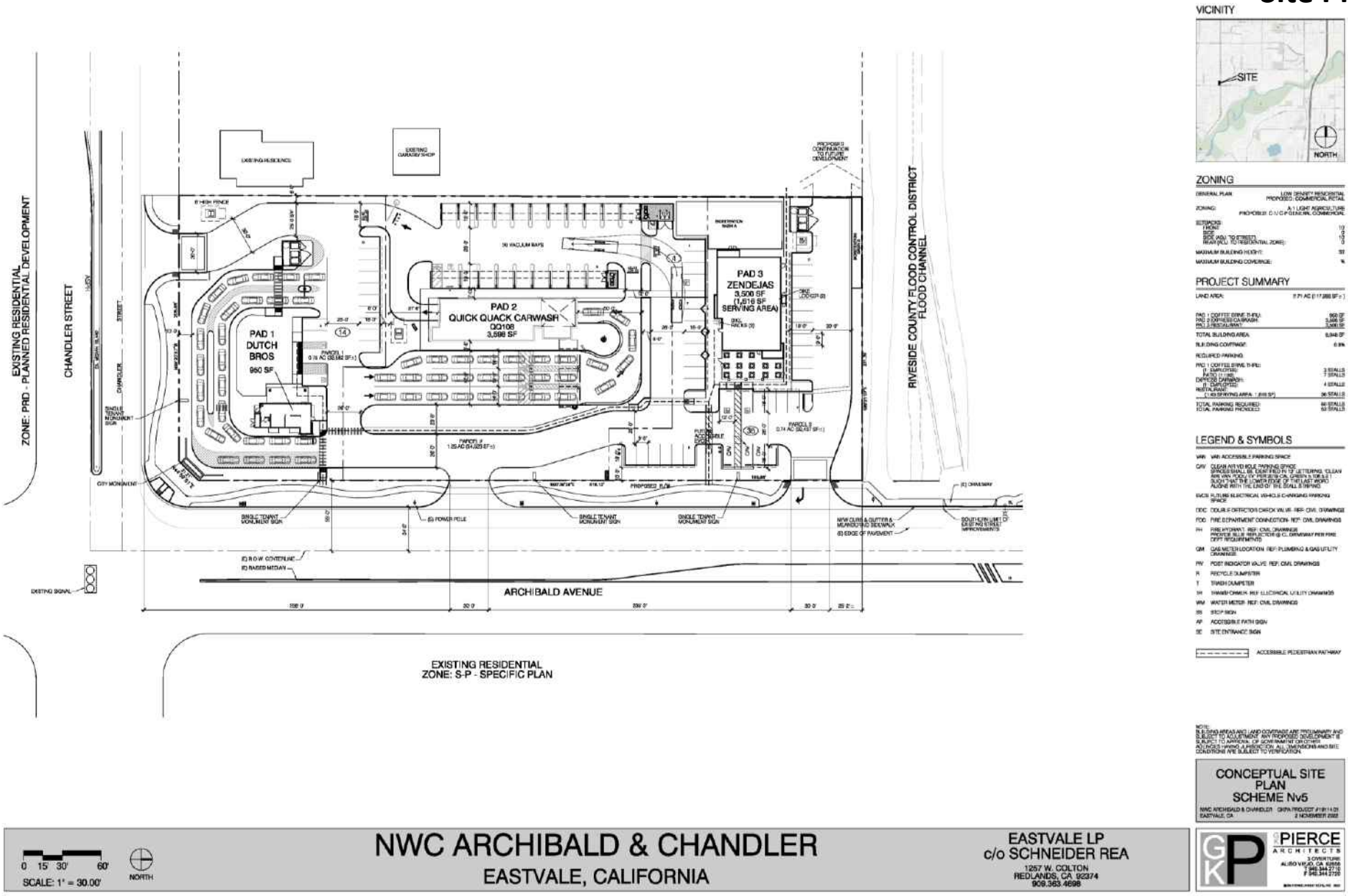


Exhibit B

Site Plan



VICINITY

ZONING

GENERAL PLAN:	LOW DENSITY RESIDENTIAL PROPOSED: COMMERCIAL RETAIL
ZONING:	A-1 LIGHT AGRICULTURE PROPOSED: C-1/C-P GENERAL COMMERCIAL
SETBACKS: FRONT: SIDE: REAR (MIN. TO STREET): REAR (MIN. TO RESIDENTIAL ZONE):	10 0'-0" 0'-0"
MAXIMUM BUILDING HEIGHT:	50'
MAXIMUM BUILDING COVERAGE:	%

PROJECT SUMMARY

LAND AREA:	2.71 AC (117,988 SF ±)
PAD 1 (COFFEE DRIVE THRU):	960 SF
PAD 2 EXPRESS CARWASH:	3,598 SF
PAD 3 RESTAURANT:	3,500 SF
TOTAL BUILDING AREA	8,048 SF
BUILDING COVERAGE:	6.8%
REQUIRED PARKING	
PAD 1 (COFFEE DRIVE THRU): (1 EMPLOYEE) RATIO (1:100) EXPRESS CARWASH: (1 EMPLOYEE) RESTAURANT: (1,616 SF SERVING AREA @ 1/45 SF)	3 STALLS 7 STALLS 4 STALLS 36 STALLS
TOTAL PARKING REQUIRED:	50 STALLS
TOTAL PARKING PROVIDED:	53 STALLS

LEGEND & SYMBOLS

VAN	VAN ACCESSIBLE PARKING SPACE
CAV	CLEAN AIR VEHICLE PARKING SPACE SPACES SHALL BE EQUIPPED WITH "LETTERING: "CLEAN AIR VAN" FOOT (12") PERIMETER CAL GREEN 5.106.5.2.1 SUCH THAT THE LOWER EDGE OF THE LAST WORD ALIGNS WITH THE END OF THE STALL STRIPING
EVCS	FUTURE ELECTRICAL VEHICLE CHARGING PARKING SPACE
DDC	DOUBLE DETECTOR CHECK VALVE. REF: CIVIL DRAWINGS
FDC	FIRE DEPARTMENT CONNECTION- REF: CIVIL DRAWINGS
FH	FIRE HYDRANT - REF: CIVIL DRAWINGS PROVIDE BLUE REFLECTOR @ CL DRIVEWAY PER FIRE DEPT REQUIREMENTS
GM	GAS METER LOCATION. REF: PLUMBING & GAS UTILITY DRAWINGS
PIV	POST INDICATOR VALVE. REF: CIVIL DRAWINGS
R	RECYCLE DUMPSTER
T	TRASH DUMPSTER
TH	TRANSFORMER. REF: ELECTRICAL UTILITY DRAWINGS
WM	WATER METER. REF: CIVIL DRAWINGS
SS	STOP SIGN
AP	ACCESSIBLE PATH SIGN
SE	SITE ENTRANCE SIGN
	ACCESSIBLE PEDESTRIAN PATHWAY

NOTE:
BUILDING AREAS AND LAND COVERAGES ARE PRELIMINARY AND SUBJECT TO ADJUSTMENT. ANY PROPOSED DEVELOPMENT IS SUBJECT TO APPROVAL OF GOVERNMENT OR OTHER AUTHORITIES HAVING JURISDICTION. ALL DIMENSIONS AND SITE CONDITIONS ARE SUBJECT TO VERIFICATION.

CONCEPTUAL SITE PLAN
SCHEME Nv5

NWC ARCHIBALD & CHANDLER - GKPA PROJECT #19114.01
EASTVALE, CA — 2 NOVEMBER 2020

0 15 30' 60'
SCALE: 1" = 30.00'
NORTH

NWC ARCHIBALD & CHANDLER
EASTVALE, CALIFORNIA

EASTVALE LP
c/o SCHNEIDER REA
1257 W. COLTON
REDLANDS, CA. 92374
909.363.4698

GKP PIERCE ARCHITECTS
3 CONVERTURE
ALISO VIEJO, CA 92656
T 949.344.3710
F 949.344.3720

3.0 Fundamentals of Noise

This section of the report provides basic information about noise and presents some of the terms used within the report.

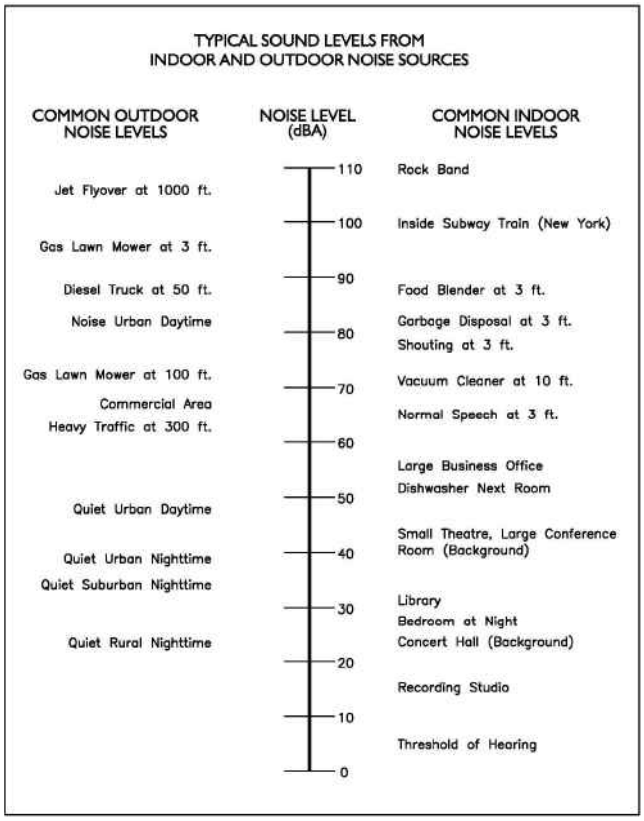
3.1 Sound, Noise, and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as the mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

3.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding), and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting at 20 Hz to the high pitch of 20,000 Hz.

Exhibit C: Typical A-Weighted Noise Levels



3.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square meter ($\mu N/m^2$), also called micro-Pascal (μPa). One μPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels, abbreviated dB. Exhibit C illustrates reference sound levels for different noise sources.

3.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds or equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound.

3.5 Human Response to Changes in Noise Levels

Generally, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz (A-weighted scale). It perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, the A-scale weighting is typically reported in terms of A-weighted decibel (dBA). Typically, the human ear can barely perceive the change in the noise level of 3 dB. A change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g., doubling the traffic volume on a highway) would result in a barely perceptible change in sound level.

3.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns; others are random. Some noise levels are constant, while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after the addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time-varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking, or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms, and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90, L99, etc.

Noise: *A*ny unwanted sound or sound which is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level, which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

3.7 Sound Propagation

As sound propagates from a source, it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt, or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall

noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located at least 200 feet from a noise source. Wind, temperature, air humidity, and turbulence can further impact how far sound can travel.

4.0 Regulatory Setting

The proposed Project is located in the City of Eastvale, California, and noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Publicize noise emission standards for interstate commerce
- Assist state and local abatement efforts
- Promote noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was originally tasked with implementing the Noise Control Act. However, it was eventually eliminated, leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible for regulating noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible for regulating noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers. The Housing and Urban Development (HUD) is responsible for establishing noise regulations as it relates to exterior/interior noise levels for new HUD-assisted housing developments near high-noise areas.

The federal government advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being constructed adjacent to a highway or that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

4.2 State Regulations

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the “Land Use Compatibility for Community Noise Environments Matrix.” The matrix allows the local jurisdiction to clearly delineate the compatibility of sensitive uses with various incremental levels of noise.

The State of California has established noise insulation standards as outlined in Title 24 of the California Building Code (CBC), which in some cases requires acoustical analyses to outline exterior noise levels and

to ensure interior noise levels do not exceed the interior threshold. The state mandates that the legislative body of each county and City adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable, as illustrated in Exhibit D.

4.3 City of Eastvale Noise Regulations

The City of Eastvale outlines their noise regulations and standards within the Noise Element from the General Plan and Municipal Code. For purposes of this analysis, the City's General Plan and Noise Ordinance (Chapter 8.52) is used to evaluate the stationary noise impacts from the proposed Project. The Noise Element outlines Goals and Polices and establishes Noise/Land Use Compatibility Criteria. This assessment will compare the project noise levels to the residential noise limits since the proposed Project is located directly adjacent to existing residential land uses. The project impacts were compared to the City's exterior noise level standards.

City of Eastvale General Plan

The City has outlined goals, policies, and implementation measures to reduce potential noise impacts, which are presented below:

Goals, Policies, and Implementation Measures

Policies from the noise section that would mitigate potential impacts on noise include the following.

N-3 *Consider the following uses to be sensitive to noise and vibration, and discourage these uses in areas where existing or projected future noise levels would be in excess of 65 CNEL and/or vibration would be more than 0.0787 Peak Particle Velocity (inches/second):*

- *Schools;*
- *Hospitals;*
- *Rest Homes;*
- *Long Term Care Facilities;*
- *Mental Care Facilities;*
- *Residential Uses;*
- *Libraries;*
- *Passive Recreation Uses; and*
- *Places of worship*

N-4 *Require noise sensitive land uses proposed in areas where existing or projected future noise levels would be in excess of 65 CNEL to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.*

N-6 *Mitigate exterior noise to the levels shown in Table N-3* (Exhibit D) *to the extent feasible.*

Exhibit D: Land Use Compatibility Guidelines

TABLE N-3: NOISE COMPATIBILITY BY LAND USE DESIGNATION[1]

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA
All Non-Residential (Commercial, Industrial & Institutional)	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	(2)
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA

(1) All noise levels shown in this table are designated CNEL.
(2) To be determined as part of the project review process.

N-7 *Table N-4* (Table 1 in this report) *provides the City's standards for maximum exterior non-transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day. Where existing ambient noise levels exceed these standards, the ambient noise level shall be highest allowable noise level as measured in dBA Leq (30 minutes).*

Table 1: Exterior Noise Level Standards for Non-Transportation Noise (dBA Leq)

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units Per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

N-8 *The noise levels specified in Policy N-7 shall be lowered by 5 dB for simple tonal noises (such as humming sounds), noises consisting primarily of speech or music, or for recurring impulsive noises (such as pile drivers, punch presses, and similar machinery). Example: the Single Family/Duplex standard from 10 p.m. to 7 a.m. for these types of noises is 45 dBA.*

N-9 *The City may impose exterior noise standards which are less restrictive than those specified in Table N-4* (Table 1)*, provided that:*

- *The noise impact on the residential or other noise-sensitive use is addressed in an environmental analysis and at least one outdoor area meets the standard; and*
- *A finding is made by the approving body specifying why the exception would not be detrimental to the public health, safety and general welfare; and*
- *The exception would not adversely affect the character of the surrounding development.*
- *The exception would not be injurious to adjacent uses, property and improvements; and,*
- *Alternatives have been considered but none are technologically feasible for the proposal; and,*
- *Interior noise levels resulting from an external source will be no more than 45dBA CNEL from 7 a.m. to 10 p.m.; and,*
- *Residents of noise sensitive uses are informed of the proposal during the review stage and prior to approval.*

N-12 *The City's preferences for providing noise mitigation are, in order of preference (#1 is most preferred; #5 is the least):*

1. *Reduce noise at the source.*
2. *If #1 is not practical, designate land uses which are compatible with projected noise levels.*
3. *If #1 or #2 are not practical, use distance from the source to reduce noise to acceptable levels.*
4. *If #1, #2, or #3 are not practical, use buildings, berms, or landscaping or a combination of these to reduce exterior noise to acceptable levels. Use construction techniques (sound-reducing windows, insulation, etc.) to reduce interior noise to acceptable levels.*
5. *The last measure which should be considered is the use of a sound wall to reduce noise to acceptable levels.*

N-17 *If noise levels in Table N-4* (Table 1) *exceed, or are projected to be exceeded as a result of the proposed commercial or industrial loading dock or delivery area, require delivery hours be limited when adjacent to noise-sensitive land uses.*

N-25 *Development should use natural barriers such as berms, setbacks and/or dense vegetation to assist in noise reduction.*

N-27 *Noise reduction measures shall be included in the design of new development through measures which may include:*

- *Separation of noise-sensitive buildings from noise-generating sources;*
- *Use of natural topography and intervening structures to shield noise-sensitive land uses; and*

- *Adequate sound proofing of noise sources or receptor structures to maintain desired interior noise levels.*

City of Eastvale Municipal Code

The City's noise ordinance is found in Chapter 8.52. – Noise Regulation.

8.52.020. – Exemptions.

Sound emanating from the following sources is exempt from the provisions of this chapter:

(9) Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that construction does not occur between the hours of:

a. 6:00 p.m. and 6:00 a.m. during the months of June through September; and

b. 6:00 p.m. and 7:00 a.m. during the months of October through May;

8.52.040. – General sound level standards.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in the following table:

Table 2: Sound Level Standards (dB Lmax)

Land Use Designation	MAXIMUM NOISE LEVEL	
	7:00 a.m. - 10:00 p.m.	10:00 p.m. - 7:00 a.m.
Residential	55	45
Commercial	65	55
Community center	65	55
Light industrial	75	55
Heavy industrial	75	75
Business park/Public facility	56	45
Rural	45	45
Agriculture	45	45
Conservation, Recreation, Watershed	45	45
Mineral resources	75	45

5.0 Study Method and Procedure

The following section describes the noise modeling procedures and assumptions used for this assessment.

5.1 Noise Measurement Procedure and Criteria

MD conducted three (3) short-term noise measurement at the Project site, representing the noise level from the traffic conditions along Archibald Avenue and Chandler Street and some airplane noise (see Appendix A for the field sheet data).

5.2 Stationary Noise Modeling

SoundPLAN (SP) acoustical modeling software was utilized to model future worst-case stationary noise impacts to the adjacent land uses. SP is capable of evaluating multiple stationary noise source impacts at various receiver locations. SP's software utilizes algorithms (based on the inverse square law and reference equipment noise level data) to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations.

The future worst-case noise level projections were modeled using referenced sound level data for the various stationary on-site sources (vacuums and car wash blowers at the exit). The SP model assumes a total of 20 vacuums and the dryer systems are operating simultaneously (worst-case scenario) when the noise will, in reality, be intermittent and lower in noise level. In addition, the modeling takes into account the louver, windows, and openings on the car wash tunnel based on the plan elevations. The reference vacuum equipment and blower system sound level data are provided in Appendix C.

All other noise-producing equipment (e.g., compressors, pumps) will be housed within mechanical equipment rooms.

The following outlines the project design features incorporated into the project:

5. The Project will incorporate a 12 Sonny's blower system with the silencer package installed or equivalent.

6. Absorptive material (Acoustiblok perforated metal panels or equivalent) will line the last 15' of the exit on the walls and ceiling (see Appendix C).

7. A 6' tall wall will be built along the west property line from the south property line to the turbine enclosure.

8. A 10' tall, 8' long wing wall will be added to the west side of the tunnel exit.

6.0 Existing Noise Environment

Three (3) 15-minute ambient noise measurements were taken at the project site to determine the existing ambient noise levels. Noise data indicates that traffic along Archibald Avenue and some airplane noise are the primary sources of noise impacting the site and the surrounding area.

6.1 Short-Term Noise Measurement Results

The results of the 15-minute measurements are presented in Table 3.

Table 3: Short-Term Noise Measurement Data (dBA)

Location	Start Time	Stop Time	Leq	Lmax	Lmin	L(2)	L(8)	L(25)	L(50)	L(90)
NM1	2:29 PM	2:44 PM	50.8	67.7	41.2	58.4	53.6	49.6	47.3	43.9
NM2	2:54 PM	3:09 PM	48.6	60.7	40.3	56.3	51.6	48.5	46.4	43
NM3	3:12 PM	3:27 PM	51.4	65.4	41.8	60.4	54.9	49.7	47.4	44.2

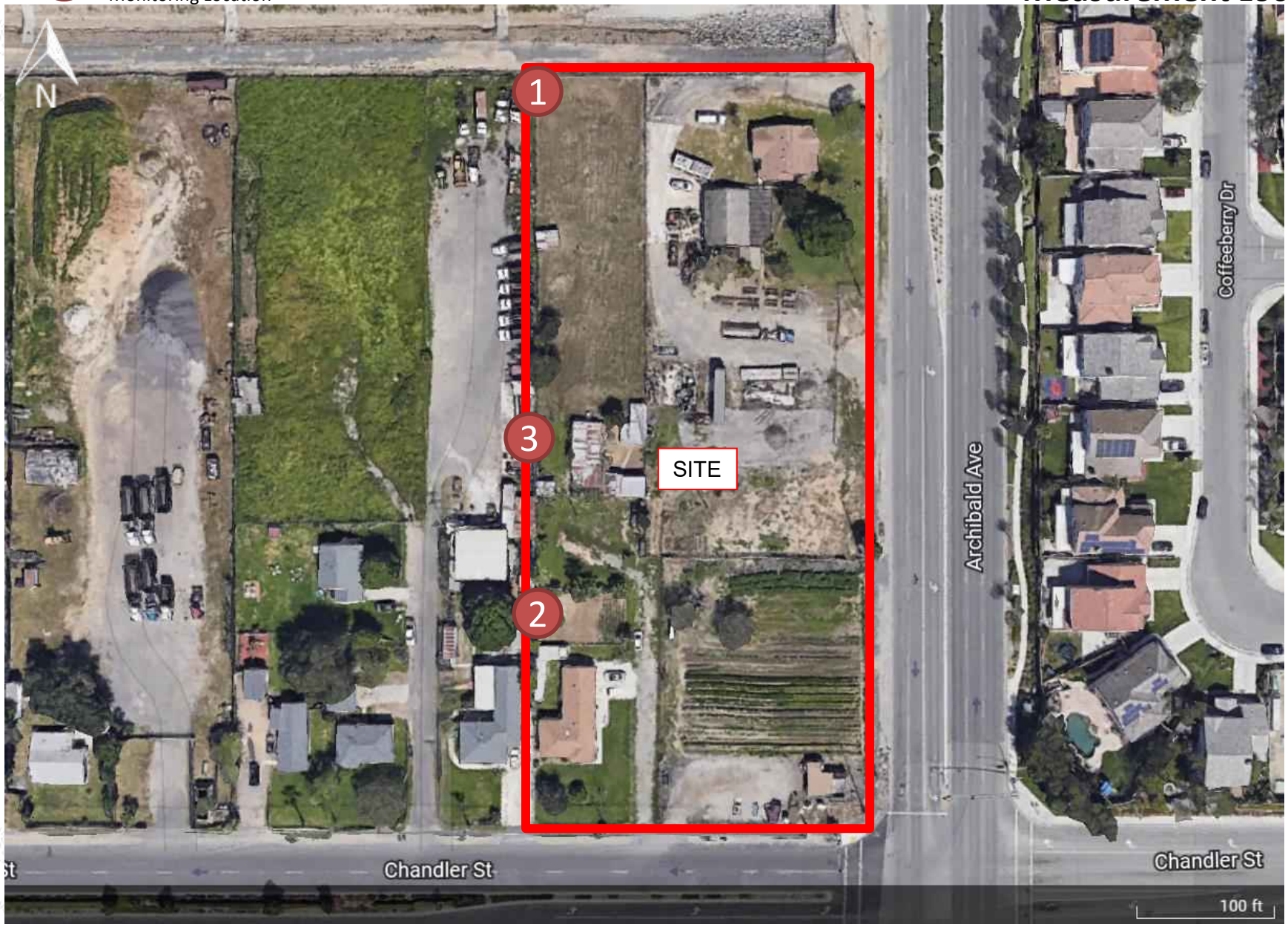
Notes:
1. Short-term noise monitoring locations are illustrated in Exhibit E.

For this evaluation, MD has utilized the measured ambient noise level of 48.6 to 51.4 dBA Leq and has compared them to the Project's projected noise levels. The ambient noise measurements NM2 and NM3 are focused on the residential locations closest to the entrance and exit points of the car wash which are the locations most likely impacted by the project noise. NM1 was placed on site furthest from the roads. NM2 is adjacent to the proposed car wash exit and was the quietest ambient measurement. As NM2 is the quietest measurement and the location most likely to be impacted by the proposed project, MD will therefore use this level to represent the adjacent residential ambient noise levels. MD cannot trespass to get ambient noise levels in the backyards of adjacent homes, however, the proximity to the roads and the masonry property line walls indicate that the levels at those locations are likely in the upper 40s as well.

Exhibit E

Measurement Locations

= Short-Term Monitoring Location



7.0 Future Noise Environment Impacts

This assessment analyzes future noise impacts as a result of the Project. The analysis details the estimated exterior noise levels. Stationary noise impacts are analyzed from the noise sources on-site such as dryers/blowers and vacuums.

7.1 Stationary Source Noise

The following sections outline the exterior noise levels associated with the proposed Project.

7.1.1 Noise Impacts to Off-Site Receptors Due to Stationary Sources

Sensitive receptors affected by Project operational noise include existing residences in every direction, particularly the residences directly west of the Project site near the exit of the proposed car wash. The worst-case stationary noise was modeled using SoundPLAN acoustical modeling software. Worst-case assumes the blowers, vacuums, and equipment are always operational when in reality, the noise will be intermittent and cycle on/off depending on the customer usage.

A total of four (4) sensitive receptors (R1 – R4) were modeled to evaluate the proposed Project's operational impact. Each receptor represents residential uses potentially impacted by the Project. This study analyzes the Project-only operational noise level projections and the Project plus ambient noise level projections; see Table 4 below.

Table 4: Worst-Case Predicted Operational Noise Levels (dBA)

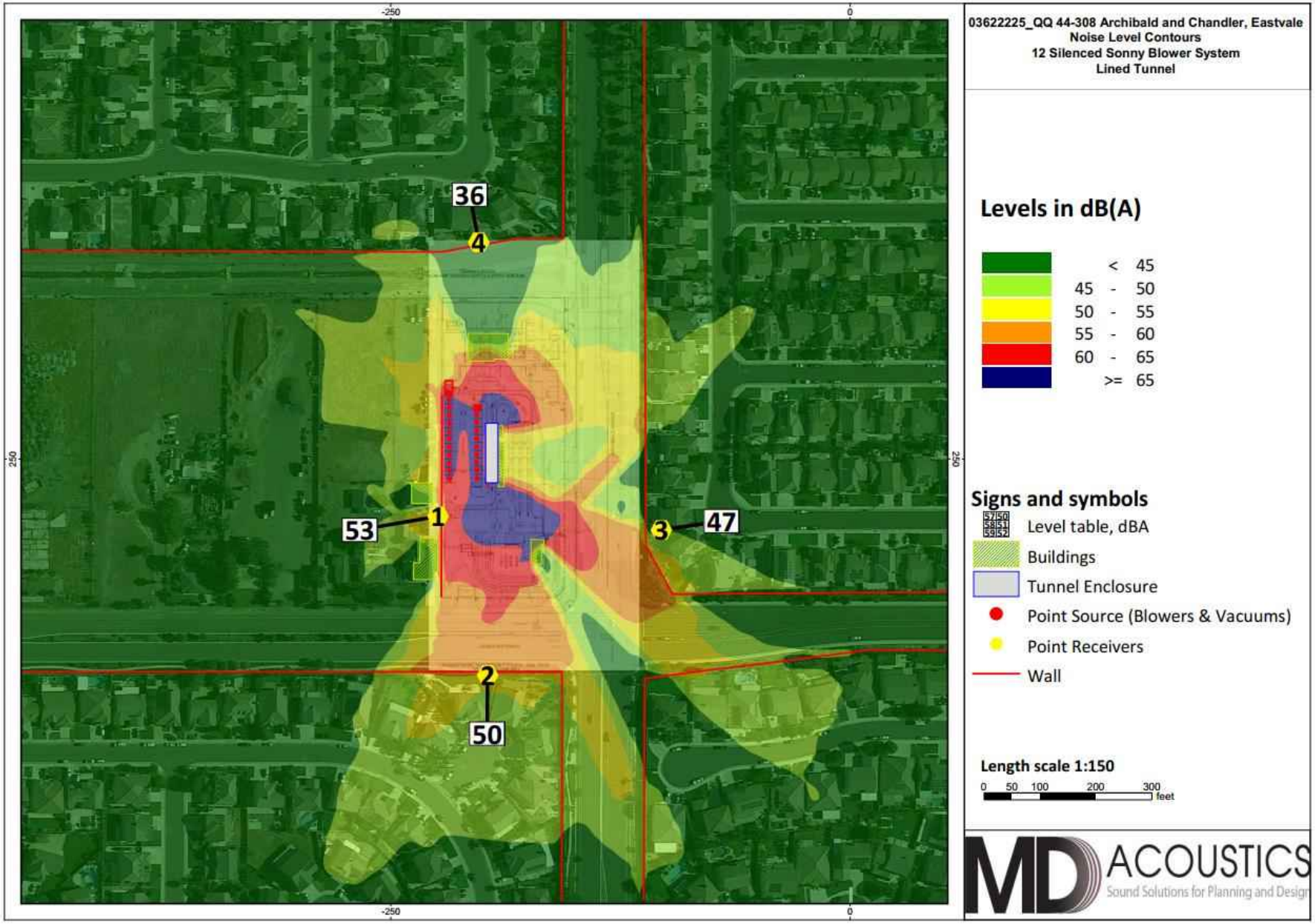
Receptor[1]	Existing Ambient Noise Level (dBA, Leq)[2]	Project Noise Level (dBA, Lmax)[3]	Total Combined Noise Level (dBA, Lmax)	Daytime (7AM - 10PM) Exterior Noise Limit (dBA, Lmax)	Exceeds Limit? (Yes/No)
1	49	53	54	**55**	No
2	49	50	53	**55**	No
3	49	47	51	**55**	No
4	49	36	49	**55**	No

Notes:
1. Receptor 1 through 4 represent residential uses.
2. See Appendix A for the ambient noise measurement.
3. See Exhibit F for the operational noise level projections at said receptors.

The model indicates that the project-only noise level at the surrounding residences will be 36 to 53 dBA Lmax, which is below the daytime exterior noise limit of 55 dBA Lmax for residential uses (Section 8.52.040 in the Municipal Code). The project plus ambient noise level will be 49 to 54 dBA Lmax and meets the daytime noise limit. The project noise will increase the ambient noise at the existing sensitive receptors by a maximum of 5 dBA, which is a noticeable difference but will not exceed the noise level limit.

Exhibit F

Operational Noise Level Contours



8.0 References

State of California General Plan Guidelines: 1998. Governor's Office of Planning and Research

City of Eastvale: General Plan Noise Element

City of Eastvale Municipal Code: Chapter 8.52. – Noise Regulation

Appendix A:
Field Measurement Data

15-Minute Continuous Noise Measurement Datasheet

Project Name:	QQ 44-308 Archibald & Chandler
Project: #/Name:	0362-2022-025
Site Address/Location:	Archibald Ave & Chandler St
Date:	12/05/2022
Field Tech/Engineer:	Jason Schuyler/Rachel Edelman

Site Observations:

Partly Cloudy, 64F winds 1-5Mph with occasional gusts up to 7Mph. The location of the meters was such that the wind should not be a factor in the data. Primary noise source is traffic on Archibald and some airplane noise.

Sound Meter:	XL2, NTI	**SN:**	A2A-07095-E0
Settings:	A-weighted, slow, 1-sec, 15-minute interval		
Site Id:	NM1, NM2, NM3		

MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

Project Name: QQ 44-308 Archibald & Chandler

Site Address/Location: Archibald Ave & Chandler St

Site Id: NM1, NM2, NM3

Figure 1: NM1



Figure 2: NM2



Figure 3: NM3

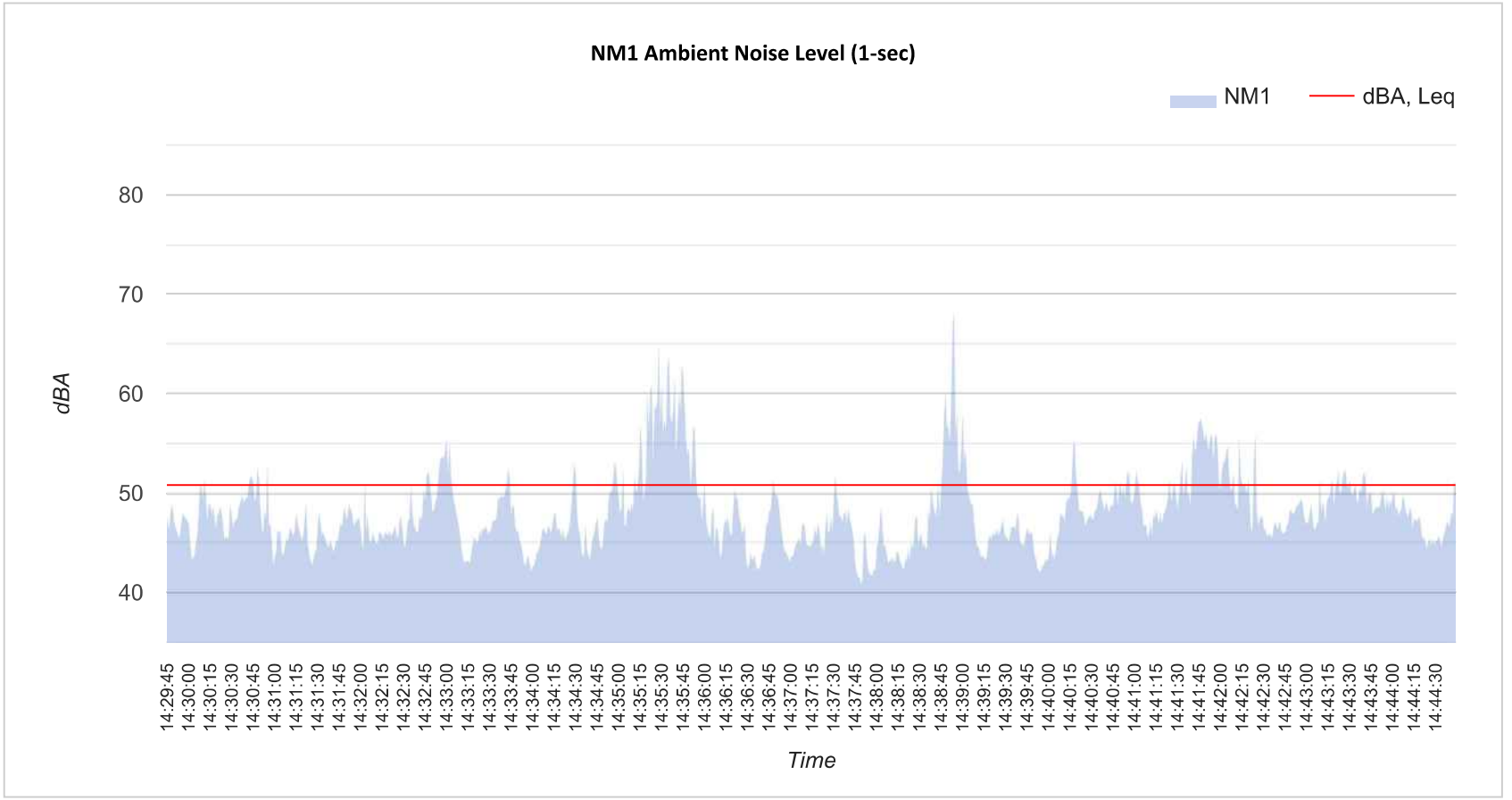


Table 1: Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
NM1	2:29 PM	2:44 PM	50.8	67.7	41.2	58.4	53.6	49.6	47.3	43.9
NM2	2:54 PM	3:09 PM	48.6	60.7	40.3	56.3	51.6	48.5	46.4	43
NM3	3:12 PM	3:27 PM	51.4	65.4	41.8	60.4	54.9	49.7	47.4	44.2

15-Minute Continuous Noise Measurement Datasheet - Cont.

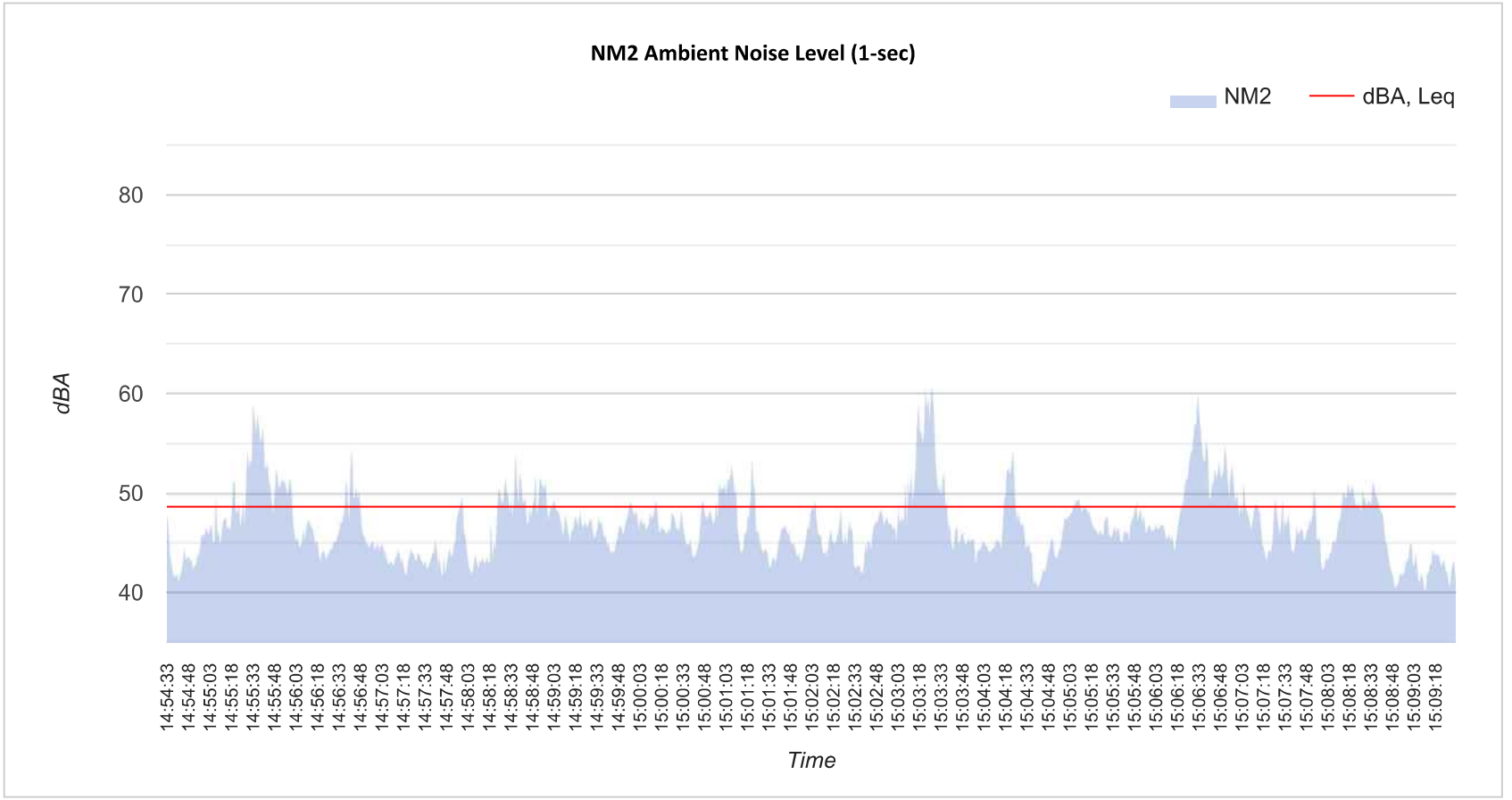
Project Name:	QQ 44-308 Archibald & Chandler	**Site Topo:**	Residential neighborhood	**Noise Source(s) w/ Distance:**	
Site Address/Location:	Archibald Ave & Chandler St	**Meteorological Cond.:**	64F, winds 1-5 mph, partly cloudy	250 feet from Archibald Ave	
Site Id:	NM1	**Ground Type:**	Dirt		



MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

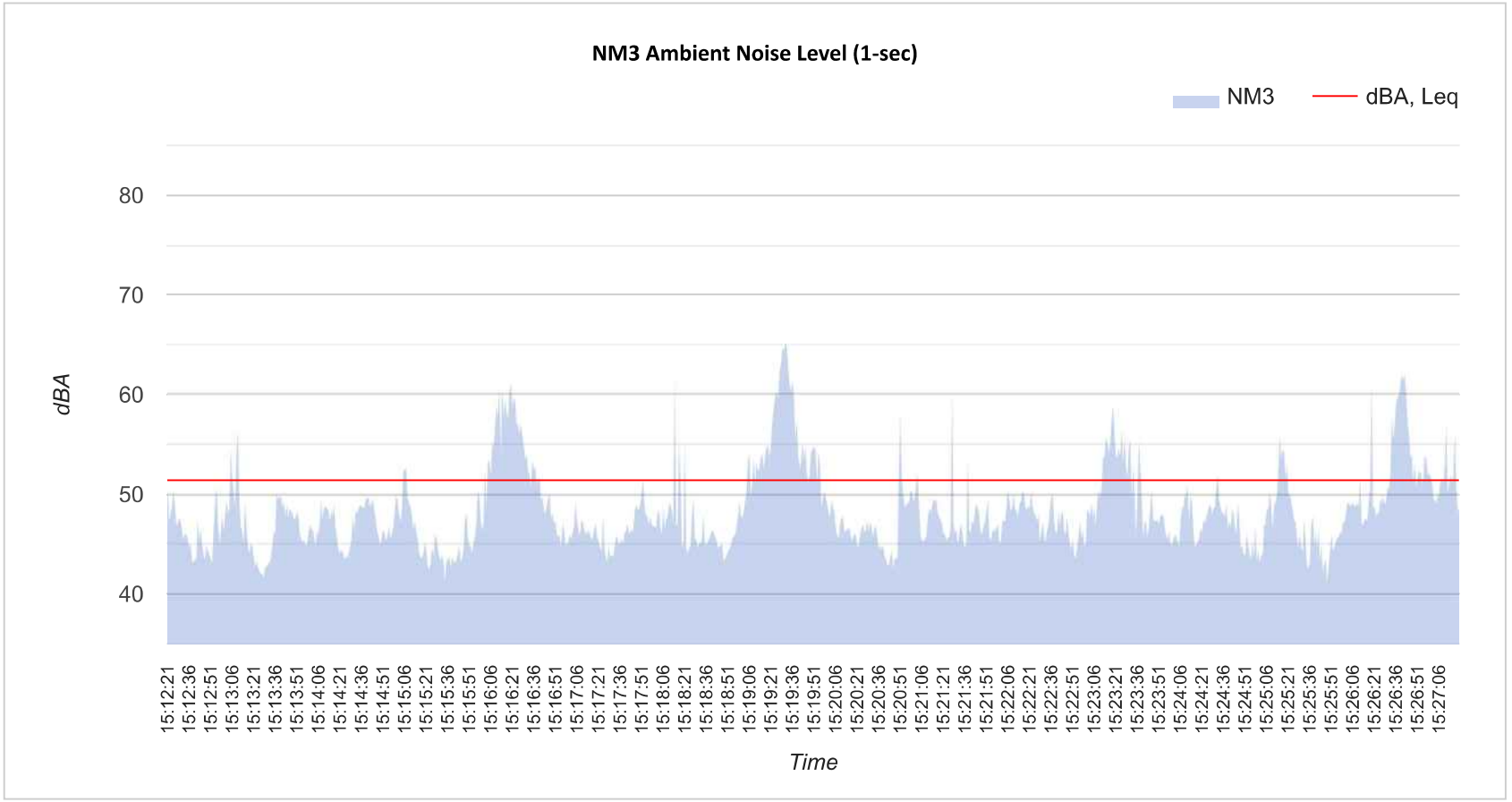
Project Name:	QQ 44-308 Archibald & Chandler	**Site Topo:**	Residential neighborhood	**Noise Source(s) w/ Distance:**	
Site Address/Location:	Archibald Ave & Chandler St	**Meteorological Cond.:**	64F, winds 1-5 mph, partly cloudy	160 feet from Chandler St	
Site Id:	NM2	**Ground Type:**	Dirt		



MD ACOUSTICS

15-Minute Continuous Noise Measurement Datasheet - Cont.

Project Name:	QQ 44-308 Archibald & Chandler	**Site Topo:**	Residential neighborhood	**Noise Source(s) w/ Distance:**	
Site Address/Location:	Archibald Ave & Chandler St	**Meteorological Cond.:**	64F, winds 1-5 mph, partly cloudy	250 feet from Archibald Ave	
Site Id:	NM3	**Ground Type:**	Dirt		



MD ACOUSTICS

Appendix B:
SoundPLAN Input/Outputs

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
Receiver R1 Fl G Lr,lim dB(A) Leq,d 52.9 dB(A) Sigma(Leq,d) 0.0 dB(A)						
001 - 12 Sonny - Standard Tunnel-Transmissive area 03	Default industrial noise	Area		50.8	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 01	Default industrial noise	Area		42.9	0.0	
Vac	Default industrial noise	Point		37.7	0.0	
Vac	Default industrial noise	Point		36.2	0.0	
Vac	Default industrial noise	Point		36.0	0.0	
Vac	Default industrial noise	Point		35.6	0.0	
Vac	Default industrial noise	Point		35.2	0.0	
Vac	Default industrial noise	Point		35.1	0.0	
Vac	Default industrial noise	Point		35.0	0.0	
Vac	Default industrial noise	Point		34.7	0.0	
Vac	Default industrial noise	Point		34.3	0.0	
Vac	Default industrial noise	Point		34.2	0.0	
Vac	Default industrial noise	Point		33.8	0.0	
Vac	Default industrial noise	Point		33.7	0.0	
Vac	Default industrial noise	Point		33.2	0.0	
Vac	Default industrial noise	Point		32.9	0.0	
Vac	Default industrial noise	Point		32.9	0.0	
Vac	Default industrial noise	Point		32.7	0.0	
Vac	Default industrial noise	Point		32.4	0.0	
Vac	Default industrial noise	Point		32.2	0.0	
Vac	Default industrial noise	Point		32.0	0.0	
Vac	Default industrial noise	Point		31.7	0.0	
Turbine	Default industrial noise	Point		18.6	0.0	
Turbine	Default industrial noise	Point		16.5	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 04	Default industrial noise	Area		10.0	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 01	Default industrial noise	Area		8.5	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 04	Default industrial noise	Area		8.0	0.0	
001 - 12 Sonny - Standard Tunnel-Roof 01	Default industrial noise	Area		7.6	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 05	Default industrial noise	Area		4.2	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 02	Default industrial noise	Area		-4.2	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 06	Default industrial noise	Area		-7.3	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 03	Default industrial noise	Area		-9.5	0.0	
Receiver R3 Fl G Lr,lim dB(A) Leq,d 50.2 dB(A) Sigma(Leq,d) 0.0 dB(A)						

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
001 - 12 Sonny - Standard Tunnel-Transmissive area 03	Default industrial noise	Area		50.0	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 01	Default industrial noise	Area		27.9	0.0	
Vac	Default industrial noise	Point		24.0	0.0	
Vac	Default industrial noise	Point		23.8	0.0	
Vac	Default industrial noise	Point		23.7	0.0	
Vac	Default industrial noise	Point		23.5	0.0	
Vac	Default industrial noise	Point		23.4	0.0	
Vac	Default industrial noise	Point		23.4	0.0	
Vac	Default industrial noise	Point		23.2	0.0	
Vac	Default industrial noise	Point		23.1	0.0	
Vac	Default industrial noise	Point		22.9	0.0	
Vac	Default industrial noise	Point		22.8	0.0	
Vac	Default industrial noise	Point		22.6	0.0	
Vac	Default industrial noise	Point		22.6	0.0	
Vac	Default industrial noise	Point		22.6	0.0	
Vac	Default industrial noise	Point		22.4	0.0	
Vac	Default industrial noise	Point		22.3	0.0	
Vac	Default industrial noise	Point		22.1	0.0	
Vac	Default industrial noise	Point		22.1	0.0	
Vac	Default industrial noise	Point		22.0	0.0	
Vac	Default industrial noise	Point		21.8	0.0	
Vac	Default industrial noise	Point		21.7	0.0	
Turbine	Default industrial noise	Point		8.1	0.0	
Turbine	Default industrial noise	Point		6.9	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 01	Default industrial noise	Area		-1.5	0.0	
001 - 12 Sonny - Standard Tunnel-Roof 01	Default industrial noise	Area		-2.0	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 05	Default industrial noise	Area		-5.2	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 04	Default industrial noise	Area		-8.1	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 02	Default industrial noise	Area		-12.3	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 06	Default industrial noise	Area		-12.8	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 04	Default industrial noise	Area		-13.1	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 03	Default industrial noise	Area		-20.0	0.0	
Receiver R4 Fl G Lr,lim dB(A) Leq,d 46.5 dB(A) Sigma(Leq,d) 0.0 dB(A)						
001 - 12 Sonny - Standard Tunnel-Transmissive area 03	Default industrial noise	Area		46.4	0.0	

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
Vac	Default industrial noise	Point		24.4	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 01	Default industrial noise	Area		24.2	0.0	
Vac	Default industrial noise	Point		19.6	0.0	
Vac	Default industrial noise	Point		19.2	0.0	
Vac	Default industrial noise	Point		18.9	0.0	
Vac	Default industrial noise	Point		18.0	0.0	
Vac	Default industrial noise	Point		17.2	0.0	
Vac	Default industrial noise	Point		17.2	0.0	
Vac	Default industrial noise	Point		16.8	0.0	
Vac	Default industrial noise	Point		16.5	0.0	
Vac	Default industrial noise	Point		15.7	0.0	
Vac	Default industrial noise	Point		15.4	0.0	
Vac	Default industrial noise	Point		15.3	0.0	
Vac	Default industrial noise	Point		15.2	0.0	
Vac	Default industrial noise	Point		14.5	0.0	
Vac	Default industrial noise	Point		12.0	0.0	
Turbine	Default industrial noise	Point		11.6	0.0	
Vac	Default industrial noise	Point		11.4	0.0	
Vac	Default industrial noise	Point		11.0	0.0	
Vac	Default industrial noise	Point		10.8	0.0	
Vac	Default industrial noise	Point		10.7	0.0	
Vac	Default industrial noise	Point		10.6	0.0	
Turbine	Default industrial noise	Point		9.3	0.0	
001 - 12 Sonny - Standard Tunnel-Roof 01	Default industrial noise	Area		0.1	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 05	Default industrial noise	Area		-3.8	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 01	Default industrial noise	Area		-4.5	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 02	Default industrial noise	Area		-6.2	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 04	Default industrial noise	Area		-10.7	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 04	Default industrial noise	Area		-11.6	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 06	Default industrial noise	Area		-11.7	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 03	Default industrial noise	Area		-16.5	0.0	
Receiver R5 Fl G Lr,lim dB(A) Leq,d 36.3 dB(A) Sigma(Leq,d) 0.0 dB(A)						
001 - 12 Sonny - Standard Tunnel-Transmissive area 01	Default industrial noise	Area		31.0	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 03	Default industrial noise	Area		28.5	0.0	

Source	Source group	Source type	Tr. lane	Leq,d dB(A)	A dB	
Vac	Default industrial noise	Point		24.4	0.0	
Vac	Default industrial noise	Point		24.0	0.0	
Vac	Default industrial noise	Point		23.7	0.0	
Vac	Default industrial noise	Point		23.3	0.0	
Vac	Default industrial noise	Point		23.0	0.0	
Vac	Default industrial noise	Point		22.6	0.0	
Vac	Default industrial noise	Point		22.3	0.0	
Vac	Default industrial noise	Point		22.0	0.0	
Vac	Default industrial noise	Point		21.7	0.0	
Vac	Default industrial noise	Point		20.1	0.0	
Vac	Default industrial noise	Point		17.3	0.0	
Turbine	Default industrial noise	Point		16.2	0.0	
Vac	Default industrial noise	Point		14.1	0.0	
Vac	Default industrial noise	Point		14.0	0.0	
Vac	Default industrial noise	Point		13.9	0.0	
Vac	Default industrial noise	Point		13.8	0.0	
Vac	Default industrial noise	Point		13.7	0.0	
Vac	Default industrial noise	Point		13.6	0.0	
Vac	Default industrial noise	Point		13.4	0.0	
Vac	Default industrial noise	Point		13.3	0.0	
Vac	Default industrial noise	Point		13.2	0.0	
Turbine	Default industrial noise	Point		8.4	0.0	
001 - 12 Sonny - Standard Tunnel-Roof 01	Default industrial noise	Area		-6.6	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 04	Default industrial noise	Area		-7.1	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 04	Default industrial noise	Area		-12.1	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 05	Default industrial noise	Area		-12.8	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 02	Default industrial noise	Area		-13.7	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 03	Default industrial noise	Area		-15.2	0.0	
001 - 12 Sonny - Standard Tunnel-Facade 01	Default industrial noise	Area		-18.2	0.0	
001 - 12 Sonny - Standard Tunnel-Transmissive area 06	Default industrial noise	Area		-19.0	0.0	

QQ 44-308 Archibald and Chandler, Eastvale
Octave spectra of the sources in dB(A) - 003 - 12 Silenced Sonny - Lined - 10' Wing Wall: Outdoor SP

Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
001 - 12 Sonny - Standard Tunnel-Facade 01	Area	31.04	92.3	57.0	37.0	51.9	0.0	0.0		3	100%/24h	172_Facade 01		38.8	47.2	48.8	41.4	37.7	26.5		
001 - 12 Sonny - Standard Tunnel-Facade 02	Area	166.78	87.4	57.0	32.9	55.1	0.0	0.0		3	100%/24h	173_Facade 02		42.5	50.8	51.8	43.7	39.7	28.2		
001 - 12 Sonny - Standard Tunnel-Facade 03	Area	24.72	84.0	57.0	31.5	45.4	0.0	0.0		3	100%/24h	174_Facade 03		30.8	42.0	42.0	31.3	25.8	13.3		
001 - 12 Sonny - Standard Tunnel-Facade 04	Area	166.78	87.4	57.0	32.9	55.1	0.0	0.0		3	100%/24h	175_Facade 04		42.5	50.8	51.8	43.7	39.7	28.2		
001 - 12 Sonny - Standard Tunnel-Roof 01	Area	186.83	88.0	57.0	33.4	56.2	0.0	0.0		0	100%/24h	170_Roof 01_		43.3	51.8	52.9	44.8	40.8	29.2		
001 - 12 Sonny - Standard Tunnel-Transmissive area 01	Area	15.61	84.4	0.0	84.4	96.3	0.0	0.0		3	100%/24h	67_Transmissive area 01		72.8	86.1	92.1	90.8	89.7	80.7		
001 - 12 Sonny - Standard Tunnel-Transmissive area 03	Area	9.29	93.8	0.0	93.8	103.5	0.0	0.0		3	100%/24h	64_Transmissive area 03		78.1	89.2	97.1	98.7	99.0	90.9		
001 - 12 Sonny - Standard Tunnel-Transmissive area 04	Area	27.48	92.2	57.0	36.9	51.3	0.0	0.0		3	100%/24h	91_Transmissive area 04_		38.2	46.5	48.2	40.7	37.1	25.9		
001 - 12 Sonny - Standard Tunnel-Transmissive area 05	Area	30.78	91.8	57.0	36.6	51.5	0.0	0.0		0	100%/24h	92_Transmissive area 05_		38.9	46.8	48.3	40.8	37.1	26.0		
001 - 12 Sonny - Standard Tunnel-Transmissive area 06	Area	27.48	92.2	57.0	36.9	51.3	0.0	0.0		3	100%/24h	93_Transmissive area 06_		38.2	46.5	48.2	40.8	37.1	25.9		
Turbine	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech Turbine	55.7	65.9	62.9	60.3	64.2	67.9	74.5	77.7	73.5
Turbine	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech Turbine	55.7	65.9	62.9	60.3	64.2	67.9	74.5	77.7	73.5
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2

QQ 44-308 Archibald and Chandler, Eastvale
Octave spectra of the sources in dB(A) - 003 - 12 Silenced Sonny - Lined - 10' Wing Wall: Outdoor SP

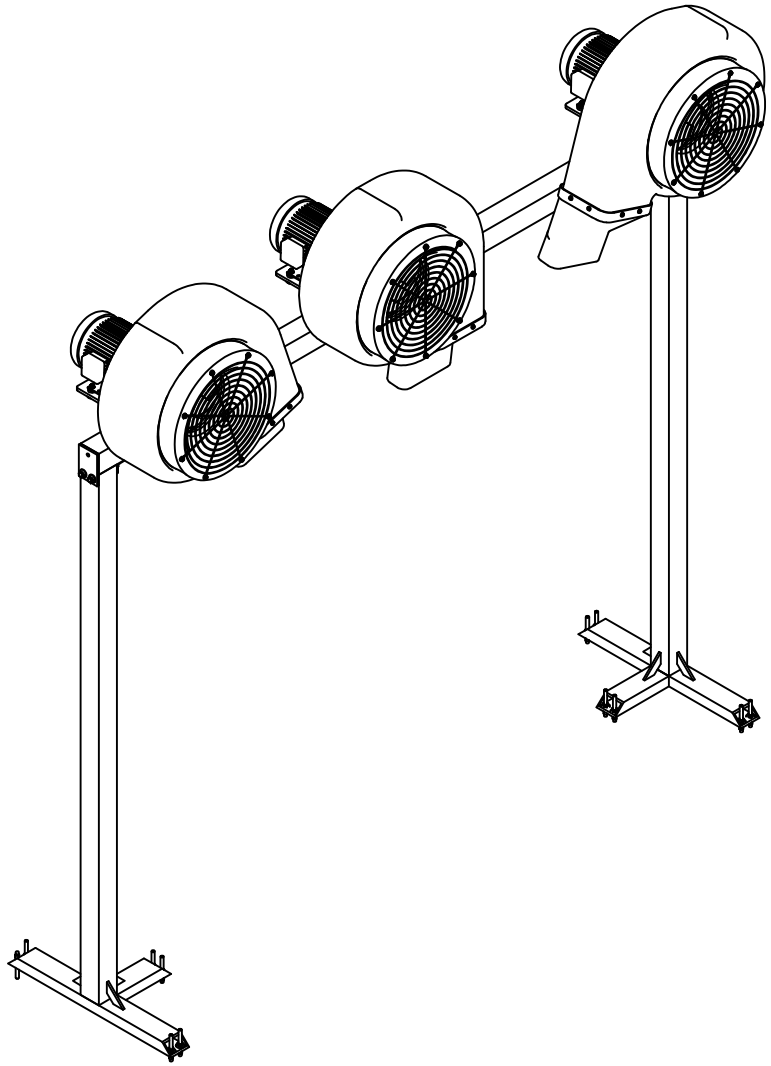
Name	Source type	l or A	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Time histogram	Emission spectrum	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB			dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2
Vac	Point				81.0	81.0	0.0	0.0		0	100%/24h	Vacutech - in car	62.4	69.2	75.8	72.6	71.3	73.2	72.6	67.8	59.2

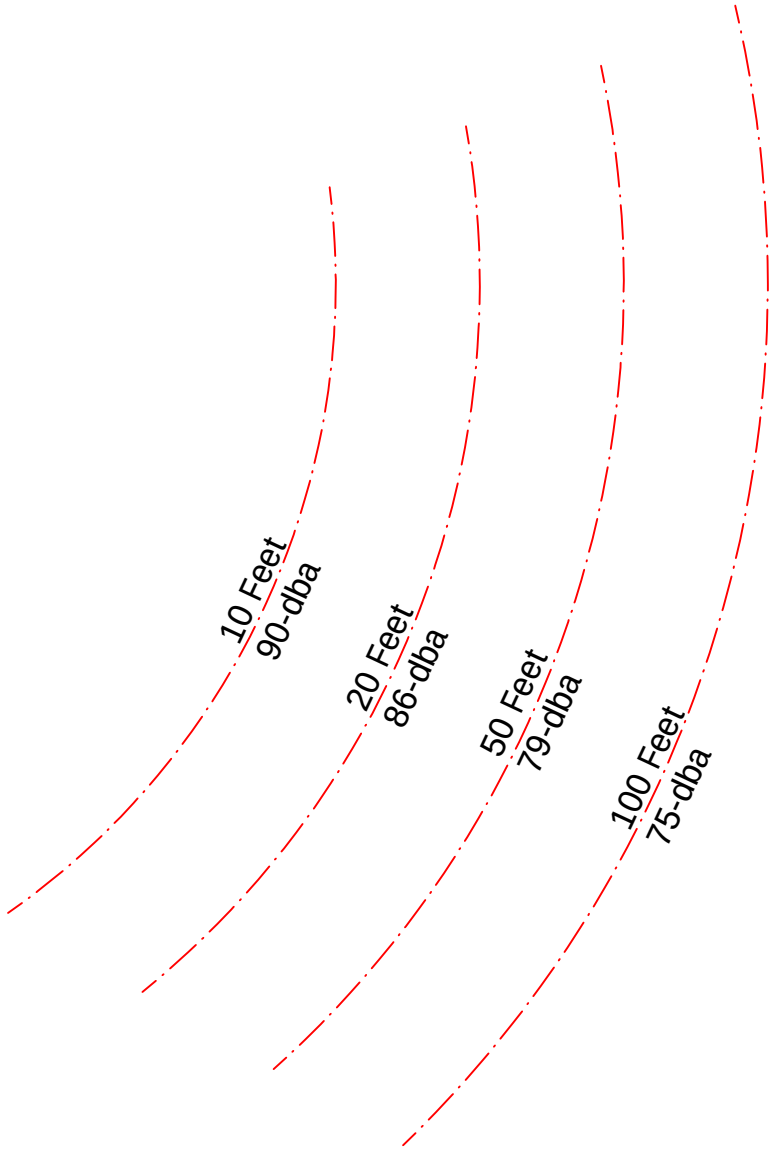
QQ 44-308 Archibald and Chandler, Eastvale
Assessed receiver spectra in dB(A) - 003 - 12 Silenced Sonny - Lined - 10' Wing Wall: Outdoor SP

Time slice	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz dB(A)	8kHz dB(A)	16kHz dB(A)
Receiver R1 Fl G Lr,lim dB(A) Leq,d 52.9 dB(A) Sigma(Leq,d) 0.0 dB(A)									
Leq,d	31.8	37.6	44.1	47.1	47.6	46.4	39.2	28.2	9.8
Receiver R3 Fl G Lr,lim dB(A) Leq,d 50.2 dB(A) Sigma(Leq,d) 0.0 dB(A)									
Leq,d	21.9	28.3	35.8	43.7	45.6	45.6	35.1	15.0	-17.4
Receiver R4 Fl G Lr,lim dB(A) Leq,d 46.5 dB(A) Sigma(Leq,d) 0.0 dB(A)									
Leq,d	19.1	22.9	29.9	40.2	42.1	41.9	31.7	9.3	-23.4
Receiver R5 Fl G Lr,lim dB(A) Leq,d 36.3 dB(A) Sigma(Leq,d) 0.0 dB(A)									
Leq,d	21.5	25.0	29.9	30.1	28.9	28.8	23.4	11.3	-14.5

Appendix C:
Equipment Reference Data

Enviromental Noise with Dryer OFF: 70 dba





THIRD ANGLE PROJECTION	*MACHINING TOLERANCES*	DRAWN LVerdecia	8/26/2011
BREAK ALL SHARP CORNERS. PART TO BE FREE OF BURRS.	FRACTION± 1/16"	APPROVED	8/1/2012
UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES	.XX DECIMAL ± 0.030	CATEGORY BLOWER	
	.XXX DECIMAL ± 0.005		
	ANGULARITY ± 2°		
	FINISH 125		

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SONNY'S ENTERPRISES
THE CARWASH FACTORY

DESCRIPTION	BLOWER ASSEMBLY, ONE ARCH 45HP		
PART NUMBER	BL1-45HP-1		
SHEET 2 OF 2	SIZE A	SCALE N.T.S.	
MATERIAL			

Product Features

- Gain flexibility in complying with noise ordinances that limit the allowable noise levels in some zoned areas.
- Blower Inlet Silencer retrofits to an existing Sonny's blower to reduce noise level by up to 7 decibels at 50 feet (depending on site specific architecture and other variables).
- Available in three colors: **Blue (# 20018006), Black (# 20018005)** and **Red (# 20018008)**





Note: Hardware is not included. Order a self-tapping screw kit (# **10013134**) for each silencer.

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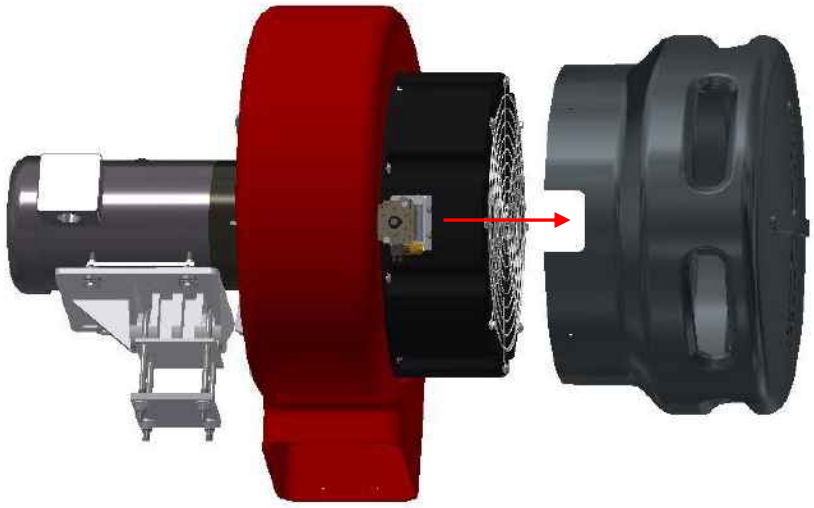
INSTALLATION

Tools
1. Safety Glasses
2. Cordless Drill
3. Drive Socket Set
4. 8' Ladder

Consumables
None

Work Force
Two (2) persons

Time (assuming no problems)
15 - 30 minutes



Caution: You must shut off all power to the conveyor and lock out the Motor Control Center before starting this install.

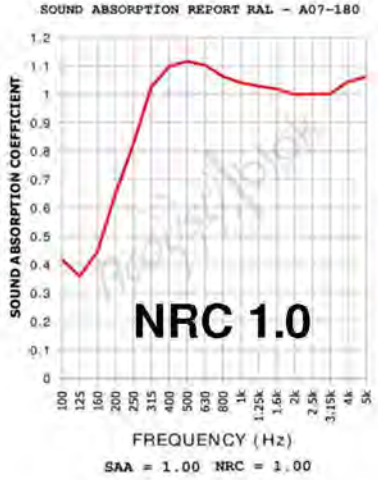
1. Shut off all power to the conveyor, blowers and lock out the Motor Control Center.
2. Insert the silencer over the venturi. For the gator silencer option, align notches to the gator actuator bracket (as pictured above).
3. Using the existing holes on the Silencer housing, affix the silencer to the gator housing using (8) of the provided self-tapping screws **(# 10013134**).
4. Avoid over-torqueing the self-tapping screws to prevent stripping the plastic housing.

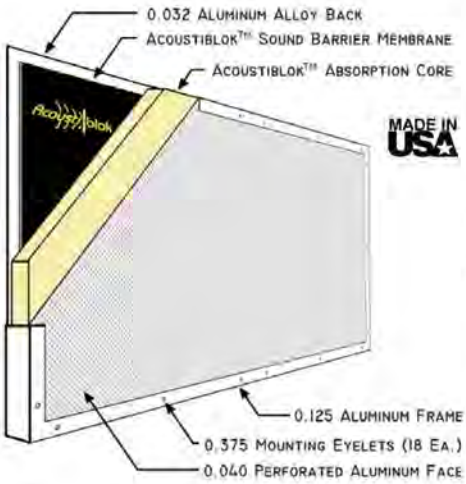
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Appendix I

North American Office
Acoustiblok, Inc.
6900 Interbay Boulevard
Tampa, FL 33616 USA
Phone: 813-980-1400
Fax: 813-549-2653
www.acoustiblok.com
sales@acoustiblok.com

Industrial Model All Weather Sound Panel™ (Pat. Pend)
Technical Data







Acoustiblok All Weather Sound Panels™ achieve high STC and NRC ratings. They have been specifically designed to withstand outdoor exposure in full sunlight, extreme weather conditions, and harsh industrial environments. (NRC of 1.0 is the highest sound absorption rating possible)

All Weather Sound Panels include an internal layer of U.L. classified Acoustiblok sound isolation material plus a specifically engineered 2" thick weather proof sound absorbing material.

Specifications:		
NRC (Noise Reduction Coefficient):	1.00 *	Gross dimensions: up to 48" x 120"x 2.423", ± 0.125" custom sizes available on special order.
STC (Sound Transmission Class):	29 *	Frame construction: 0.125" welded corrosion resistant 6063-T5 aluminum, mill finish, eyelets: 0.375" (18 ea.)
Weight: (8' panel)	104 lbs	Front face: 0.040 corrosion resistant 5052-H32 aluminum alloy, 3/32" round holes staggered on 5/32" centers.
UL Std 723 fire resistance: Flame spread 0, smoke developed 0.		Back face: 0.032 corrosion resistant 5052-H32 aluminum alloy, mill finish.
UV tolerant, animal resistant, washable, does not support mold growth.		

* Independent Testing by accredited NVLAP testing facility in compliance with ASTM E90, E 413, and other applicable industry standards.

Subject to change without notice, contact Acoustiblok for details.

AWSPIND Spec 07192010 © 2009 LJ Avalon, LLC All rights reserved Page 1 of 1
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Product Data Sheet

Product Name

QuietFiber® Hydrophobic Noise Absorption Material – QF2

For Manufacturer Info:

Contact:
Acoustiblok, Inc.
6900 Interbay Boulevard
Tampa, FL 33616
Call - (813) 980-1400
Fax - (813)849-6347
Email - sales@acoustiblok.com
www.acoustiblok.com

Product Description

Basic Use

QuietFiber hydrophobic noise absorption material is an easily installed solution to many noise problems. It is engineered specifically for maximum noise absorption and is used extensively for industrial and commercial applications and is now being successfully introduced into non-industrial environments where reverberant sound and echo is a problem.

QuietFiber® QF2

QuietFiber is rated at the highest noise reduction level – NRC 1.00. Areas of high noise levels including sound reverberation can be resolved easily and economically by introducing QuietFiber into as much of the area as possible. The amount of noise reduction in highly reflective rooms will be directly relative to how much of the QuietFiber material can be installed into the room.

Unlike other fibrous materials which do not have the same high NRC ratings, QuietFiber is hydrophobic, meaning it will not absorb nor combine with water. Marine noise reduction applications are endless.



QuietFiber® QF2

- Highest noise absorption rating of NRC 1.00
- Non Silica
- Virtually fireproof – Class A fire rating
  - 0 Smoke + 0 Flame Development
- Hydrophobic – will not combine with water
- Will not support mold or mildew growth
- Available in plain, black or white face
- Full outdoor weather and U.V. tolerant
- Significant sound benefit v. fiberglass
- Install on top of acoustical ceiling tiles
- High temperature capable
- Comprised of up to 90% recycled material
- 100% recyclable

Product Data Sheet

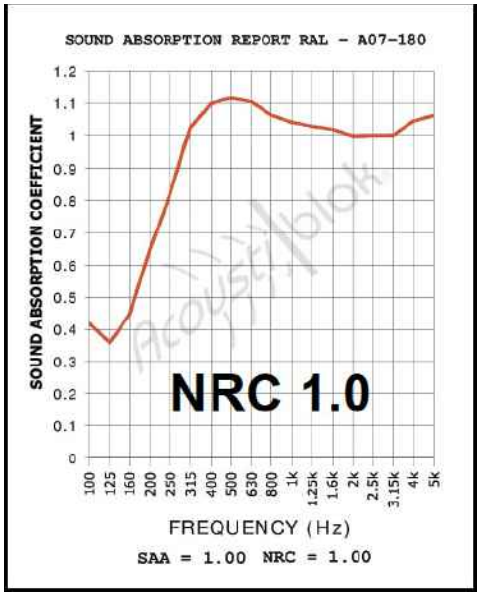
Product Name

QuietFiber® Hydrophobic Noise Absorption Material – QF2

NRC 1.0 Rated	125hz	250hz	500hz	1000hz	2000hz	4000hz
	0.36	0.79	1.15	1.04	1.01	1.04

Technical Data:

- ASTM C 423 – NRC 1.00
- ASTM E 84 – Class 1, 0 Flame 0 Smoke
- ASTM C 518 – R 4.2 per inch
- ASTM C 518 – 0.24 @ 75°F (24°C)

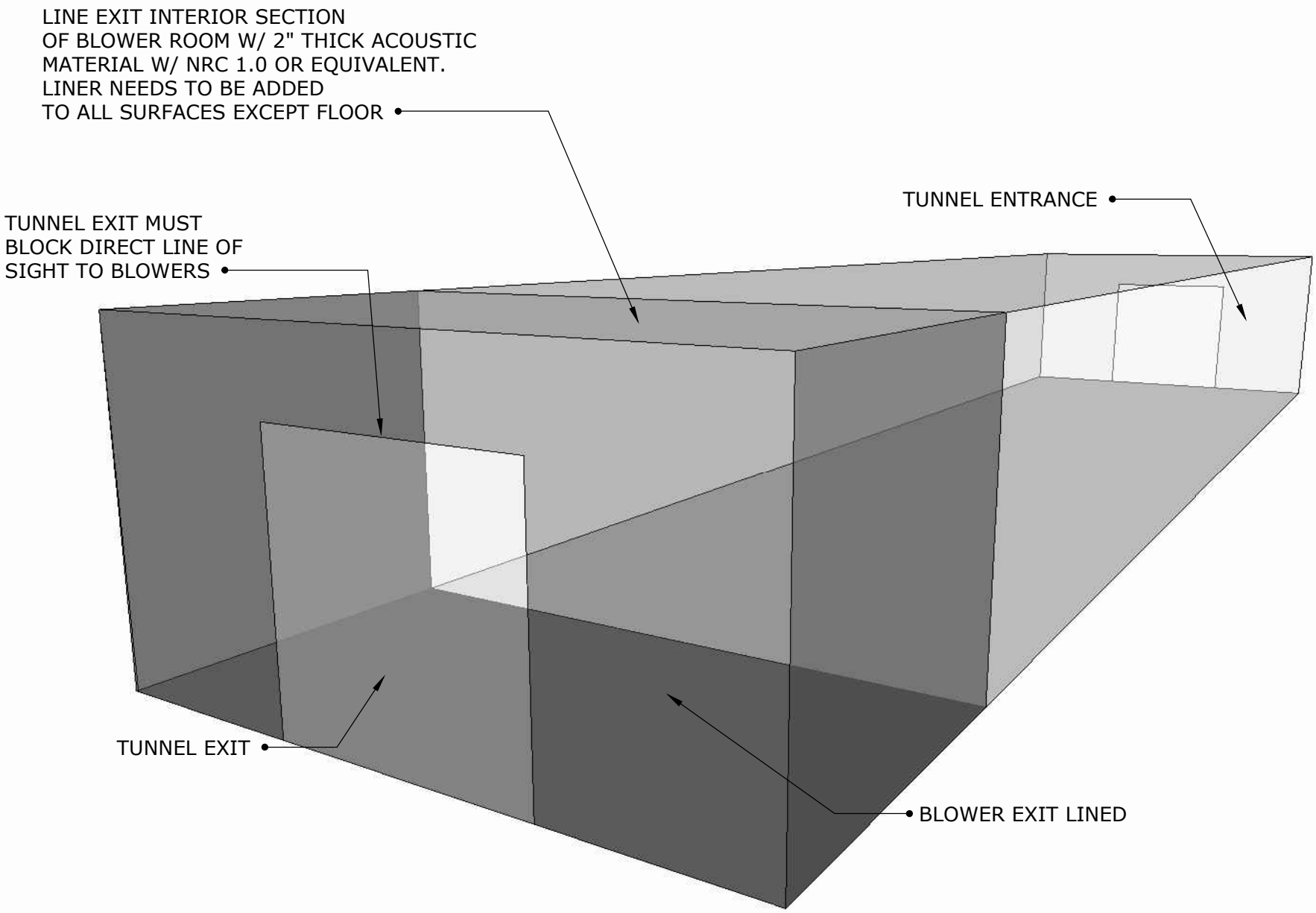


Standards Compliance:

- ASTM C 665 Non-Corrosive Type I
- ASTM C 612 1A, 1B, II, III
- ASTM E 136 Rated Non-combustible per NFPA Standard 220
- ASTM C 1104 Absorption less than 1% by volume
- ASTM C 356 Linear shrinkage <2% @ 1200°F (650°C)

6900 Interbay Blvd
Tampa, Florida USA 33616
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sales@acoustiblok.com

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Sound Solutions for Planning and Design

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Simi Valley, CA 93065
p. (805) 426-4477

Project: SuperStar Car Wash Chula Vista
Site Location: 1555 W Warner Rd, Gilbert, AZ 85233
Date: 4/5/2018
Field Tech/Engineer: Robert Pearson
Source/System: Vacutec System

Location: Vac Bay 1
Sound Meter: NTi XL2 **SN:** A2A-05967-E0
Settings: A-weighted, slow, 1-sec, 10-sec duration
Meteorological Cond.: 80 degrees F, 2 mph wind

Site Observations:
Clear sky, measurements were performed within 1.5ft of source. Measurements were performed while the vacuum was positiioned at three (3) different positions. Holstered, unholstered and inside a car. This data is utilized for acoustic modeling purposes and represents an average sound level at a vacuum station.

Table 1: Summary Measurement Data

Source	System	Overall dB(A)	3rd Octave Band Data (dBA)																													
			20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1K	1.25K	1.6K	2K	2.5K	3.15K	4K	5K	6.3K	8K	10K	12.5K	16K	20K
Vacutech (Holstered)	Vacuum	63.3	9	17	22	29	31	35	40	41	44	43	46	48	47	49	51	51	51	52	53	52	52	50	52	53	50	47	47	48	45	39	30
Vacutech (Unholstered)	Vacuum	80.7	6	19	22	28	34	37	40	43	47	46	48	48	48	49	54	55	58	58	62	65	68	70	74	75	73	69	67	65	63	60	55
Vacutech (Inside Car)	Vacuum	69.6	16	28	31	38	42	45	49	51	52	55	60	61	57	55	59	53	55	56	54	57	57	57	57	57	55	54	51	48	46	42	36
Average Level*	Vacuum	76.3	13	24	28	34	38	41	45	47	49	51	56	57	53	52	56	54	56	56	59	61	64	66	69	70	68	64	62	60	58	55	50

* Refers to the logarithmic average of all measurements. This measurement represents an average of the multiple vacuum positions.

Figure 1: Example Measurement Position

Figure 1: Holstered

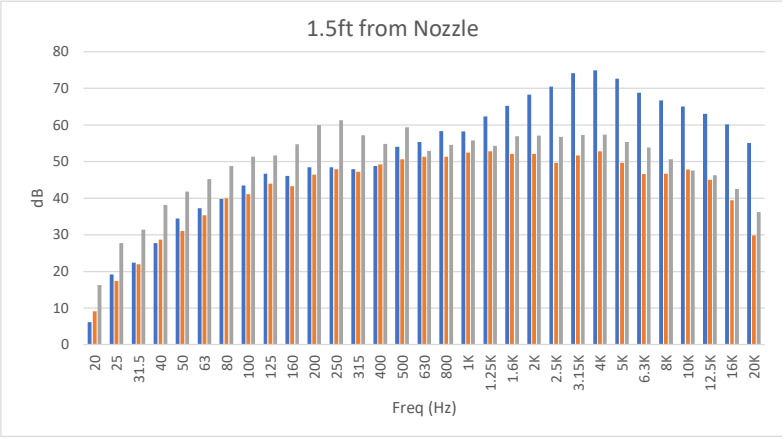


Figure 2: Unholstered



Figure 3: Inside Car







SOUND LEVEL METER READINGS

MODEL: FT-DD-T340HP4 (40hp VACSTAR TURBINE VACUUM PRODUCER)

READING ONE: 43 DB-A, 3 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING TWO: 36 DB-A, 10 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING THREE: 24 DB-A, 20 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

READING FOUR: 12 DB-A, 30 FEET FROM TURBINE @ 45° ANGLE
AND NO BACKGROUND NOISE OR OUTSIDE INTERFERENCE.

NOTE: THESE READINGS WERE TAKEN OUTSIDE OF 8'x10'x8' CINDER BLOCK ENCLOSURE WITH CONCRETE SLAB AND WOOD JOIST ROOF.

SOUND LEVEL METER USED:

SIMPSON MODEL #40003 – MSHA APPROVED.
MEETS OSHA & WALSH-HEALY REQUIREMENTS FOR NOISE CONTROL.
CONFORMS TO ANSI S1.4-1983, IEC 651 SPECS FOR METER TYPE.

Vacutech
1350 Hi-Tech Drive, Sheridan WY, 82801
PHONE: (800) 917-9444 FAX: (303) 675-1988
EMAIL: info@vacutechllc
WEB SITE: vacutechllc.com

APPENDIX G

PROJECT GENERATED TRIPS FHWA WORKSHEETS

Existing Traffic Noise

1	:Id
Archibald Avenue	:Road
North of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	20600
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1193.03	24.72	41.20	885.69	4.12	6.87	219.63	34.33	57.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.47	6.63	8.85	22.18	-1.15	1.07	16.12	8.06	10.28
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.38	59.22	65.66	67.09	51.44	57.88	61.03	60.65	67.09
	DAY LEQ	70.57		EVENING LEQ	67.68		NIGHT LEQ	68.78	

F	CNEL	75.60	
	DAY LEQ	70.57	

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise

1	:Id
Archibald Avenue	:Road
North of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21330
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1235.31	25.60	42.66	917.08	4.27	7.11	227.42	35.55	59.25
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.62	6.79	9.00	22.33	-1.00	1.22	16.27	8.21	10.43
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.53	59.37	65.82	67.24	51.59	58.03	61.18	60.80	67.24
	DAY LEQ	70.72		EVENING LEQ	67.84		NIGHT LEQ	68.93	

CNEL	75.75
DAY LEQ	70.72

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

2	:Id	
Archibald Avenue	:Road	
South of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	19400
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.12	58.96	65.40	66.83	51.18	57.62	60.77	60.39	66.83
	DAY LEQ	70.31		EVENING LEQ	67.42		NIGHT LEQ	68.52	

CNEL	75.34
DAY LEQ	70.31

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise

2	:Id	
Archibald Avenue	:Road	
South of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	20620
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1194.19	24.74	41.24	886.55	4.12	6.87	219.85	34.37	57.28
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.48	6.64	8.86	22.18	-1.14	1.08	16.13	8.07	10.28
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.39	59.22	65.67	67.09	51.44	57.89	61.04	60.65	67.10
	DAY LEQ	70.58		EVENING LEQ	67.69		NIGHT LEQ	68.78	

CNEL	75.61
DAY LEQ	70.58

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

3	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	19400		
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50	
North of Chandler Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	65	
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90	
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90	

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.12	58.96	65.40	66.83	51.18	57.62	60.77	60.39	66.83
	DAY LEQ	70.31		EVENING LEQ	67.42		NIGHT LEQ	68.52	

CNEL	75.34	Day hour	91.00
DAY LEQ	70.31	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise

3	:Id	ADT	20740
Archibald Avenue	:Road	Speed	50
North of Chandler Street	:Segment	Distance	65
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1201.14	24.89	41.48	891.71	4.15	6.91	221.13	34.57	57.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.50	6.66	8.88	22.21	-1.12	1.10	16.15	8.09	10.31
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.41	59.25	65.69	67.12	51.47	57.91	61.06	60.68	67.12
	DAY LEQ	70.60		EVENING LEQ	67.71		NIGHT LEQ	68.81	

CNEL	75.63	Day hour	91.00
DAY LEQ	70.60	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

4	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	23000		
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50	
Chandler Street to Wind River Road/Grapewin Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	65	
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90	
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90	

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1332.02	27.60	46.00	988.88	4.60	7.67	245.22	38.33	63.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.95	7.11	9.33	22.66	-0.67	1.55	16.60	8.54	10.76
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	68.86	59.70	66.14	67.57	51.92	58.36	61.51	61.12	67.57
	DAY LEQ	71.05		EVENING LEQ	68.16		NIGHT LEQ	69.26	

CNEL	76.08	Day hour	92.00
DAY LEQ	71.05	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise

4	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	24340
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow		
Archibald Avenue	:Road						Speed	50
Chandler Street to Wind River Road/Grapewin Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	65
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1409.63	29.21	48.68	1046.49	4.87	8.11	259.51	40.57	67.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.20	7.36	9.58	22.90	-0.42	1.80	16.85	8.79	11.00
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.11	59.94	66.39	67.81	52.16	58.61	61.76	61.37	67.82
	DAY LEQ	71.30		EVENING LEQ	68.41		NIGHT LEQ	69.50	

CNEL	76.33	Day hour	92.00
DAY LEQ	71.30	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

5	:Id					ADT	20300
Archibald Avenue	:Road					Speed	50
South of Wind River Road/Grapewin Street	:Segment					Distance	45
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1175.65	24.36	40.60	872.79	4.06	6.77	216.43	33.83	56.39
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.41	6.57	8.79	22.11	-1.21	1.01	16.06	8.00	10.22
Distance	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.91	60.75	67.20	68.62	52.97	59.42	62.57	62.18	68.62
	DAY LEQ	72.11		EVENING LEQ	69.22		NIGHT LEQ	70.31	

CNEL	77.14	Day hour	93.00
DAY LEQ	72.11	Absorptive?	no
		Use hour?	no
		GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21030
Speed	50
Distance	45
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1217.93	25.24	42.06	904.18	4.21	7.01	224.22	35.05	58.42
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.56	6.72	8.94	22.27	-1.06	1.16	16.21	8.15	10.37
Distance	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.07	60.91	67.35	68.77	53.12	59.57	62.72	62.33	68.78
	DAY LEQ	72.26		EVENING LEQ	69.37		NIGHT LEQ	70.46	

CNEL	77.29
DAY LEQ	72.26

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1300
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	42
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	79.73	0.97	0.38	58.92	0.17	0.17	14.76	1.30	0.51
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	14.73	-4.40	-8.50	13.42	-11.90	-11.89	7.41	-3.15	-7.25
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	49.86	42.38	44.43	48.54	34.87	41.03	42.53	43.63	45.68
	DAY LEQ	51.52		EVENING LEQ	49.41		NIGHT LEQ	48.92	

CNEL	56.00	Day hour	94.00
DAY LEQ	51.52	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1540
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	42
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	94.45	1.15	0.45	69.80	0.20	0.21	17.48	1.54	0.60
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.47	-3.66	-7.76	14.15	-11.17	-11.16	8.14	-2.41	-6.51
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	50.59	43.11	45.17	49.28	35.61	41.77	43.27	44.36	46.42
	DAY LEQ	52.25		EVENING LEQ	50.15		NIGHT LEQ	49.65	

CNEL	56.73	Day hour	94.00
DAY LEQ	52.25	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

7	:Id
Eastvale Parkway	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	3400
Speed	25
Distance	50
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	208.52	2.55	0.99	154.10	0.45	0.45	38.60	3.40	1.32
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	18.91	-0.22	-4.32	17.59	-7.73	-7.72	11.58	1.03	-3.07
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.28	45.80	47.85	51.96	38.29	44.45	45.95	47.05	49.10
	DAY LEQ	54.94		EVENING LEQ	52.83		NIGHT LEQ	52.34	

CNEL	**59.41**
DAY LEQ	54.94

Day hour	95.00
Absorptive?	no
Use hour?	no
GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise

7	:Id
Eastvale Parkway	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	3640
Speed	25
Distance	50
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	223.24	2.73	1.06	164.98	0.48	0.49	41.32	3.64	1.42
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	19.20	0.08	-4.03	17.89	-7.43	-7.42	11.88	1.33	-2.78
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.57	46.09	48.15	52.26	38.58	44.75	46.25	47.34	49.39
	DAY LEQ	55.23		EVENING LEQ	53.12		NIGHT LEQ	52.63	

CNEL	**59.71**
DAY LEQ	55.23

Day hour	95.00
Absorptive?	no
Use hour?	no
GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	6900		
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45	
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	52	
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90	
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90	

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	399.61	8.28	13.80	296.66	1.38	2.30	73.57	11.50	19.17
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.18	2.34	4.56	17.88	-5.44	-3.22	11.83	3.77	5.99
Distance	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.28	54.72	61.46	61.99	46.94	53.68	55.93	56.15	62.89
	DAY LEQ	65.83		EVENING LEQ	62.70		NIGHT LEQ	64.39	

CNEL	71.13	Day hour	96.00
DAY LEQ	65.83	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project Traffic Noise

8	:Id
Chandler Street	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	9210
Speed	45
Distance	52
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	533.39	11.05	18.42	395.98	1.84	3.07	98.19	15.35	25.58
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.43	3.60	5.81	19.14	-4.19	-1.97	13.08	5.02	7.24
Distance	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.54	55.98	62.72	63.24	48.20	54.93	57.19	57.40	64.14
	DAY LEQ	67.08		EVENING LEQ	63.96		NIGHT LEQ	65.65	

CNEL	72.38
DAY LEQ	67.08

Day hour	96.00
Absorptive?	no
Use hour?	no
GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Traffic Noise

9	:Id
Chandler Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	9300
Speed	45
Distance	42
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	570.36	6.97	2.71	421.51	1.24	1.24	105.58	9.30	3.62
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.72	1.60	-2.50	19.41	-5.91	-5.90	13.40	2.85	-1.25
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.76	54.91	55.32	64.44	47.40	51.93	58.43	56.16	56.57
	DAY LEQ	66.45		EVENING LEQ	64.76		NIGHT LEQ	61.94	

CNEL	**69.66**
DAY LEQ	66.45

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise

9	:Id
Chandler Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	10520
Speed	45
Distance	42
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	645.19	7.89	3.07	476.80	1.40	1.40	119.43	10.52	4.09
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.26	2.13	-1.97	19.95	-5.38	-5.36	13.93	3.38	-0.72
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.29	55.44	55.86	64.98	47.93	52.46	58.96	56.69	57.11
	DAY LEQ	66.98		EVENING LEQ	65.29		NIGHT LEQ	62.48	

F	CNEL	70.20	
	DAY LEQ	66.98	

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

10	:Id
Wind River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1500
Speed	25
Distance	40
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	91.99	1.12	0.44	67.99	0.20	0.20	17.03	1.50	0.58
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.35	-3.77	-7.88	14.04	-11.28	-11.27	8.03	-2.52	-6.63
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	50.69	43.21	45.26	49.38	35.70	41.87	43.37	44.46	46.51
	DAY LEQ	52.35		EVENING LEQ	50.24		NIGHT LEQ	49.75	

CNEL	56.83
DAY LEQ	52.35

Day hour	98.00
Absorptive?	no
Use hour?	no
GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise

10	:Id
Wind River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1740
Speed	25
Distance	40
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	106.71	1.30	0.51	78.86	0.23	0.23	19.75	1.74	0.68
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.00	-3.13	-7.23	14.68	-10.64	-10.63	8.67	-1.88	-5.98
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	51.34	43.86	45.91	50.02	36.35	42.51	44.01	45.11	47.16
	DAY LEQ	53.00		EVENING LEQ	50.89		NIGHT LEQ	50.40	

CNEL	57.47
DAY LEQ	53.00

Day hour	98.00
Absorptive?	no
Use hour?	no
GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Traffic Noise

11	:Id
Grapewin Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	100
Speed	25
Distance	15
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	6.13	0.07	0.03	4.53	0.01	0.01	1.14	0.10	0.04
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	3.59	-15.53	-19.64	2.28	-23.04	-23.03	-3.73	-14.29	-18.39
Distance	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	43.19	35.71	37.76	41.88	28.20	34.37	35.86	36.96	39.01
	DAY LEQ	44.85		EVENING LEQ	42.74		NIGHT LEQ	42.25	

CNEL	49.33
DAY LEQ	44.85

Day hour	99.00
Absorptive?	no
Use hour?	no
GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project Traffic Noise

11	:Id
Grapewin Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	200
Speed	25
Distance	15
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	12.27	0.15	0.06	9.06	0.03	0.03	2.27	0.20	0.08
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	6.60	-12.52	-16.63	5.29	-20.03	-20.02	-0.72	-11.28	-15.38
Distance	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	46.20	38.72	40.77	44.89	31.21	37.38	38.87	39.97	42.02
	DAY LEQ	47.86		EVENING LEQ	45.75		NIGHT LEQ	45.26	

CNEL	52.34
DAY LEQ	47.86

Day hour	99.00
Absorptive?	no
Use hour?	no
GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 60 CNEL Contour

1	:Id	ADT	20600
Archibald Avenue	:Road	Speed	50
North of Smith River Road/Eastvale Parkway	:Segment	Distance	2360
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1193.03	24.72	41.20	885.69	4.12	6.87	219.63	34.33	57.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.47	6.63	8.85	22.18	-1.15	1.07	16.12	8.06	10.28
Distance	-16.81	-16.81	-16.81	-16.81	-16.81	-16.81	-16.81	-16.81	-16.81
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.06	51.49	35.84	42.28	45.43	45.05	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.18	

F		CNEL	60.00	Day hour	89.00
		DAY LEQ	54.97	Absorptive?	no
				Use hour?	no
				GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 60 CNEL Contour

2	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	19400
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Archibald Avenue	:Road	Automobiles	75.54	14.02	10.43	92.00	Speed 50
South of Smith River Road/Eastvale Parkway	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Distance 2225
		Heavy Trucks	48.00	2.00	50.00	5.00	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.61	50.06	51.48	35.83	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

CNEL	60.00	Day hour	90.00
DAY LEQ	54.97	Absorptive?	no
		Use hour?	no
		GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 60 CNEL Contour

3	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	19400
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50
North of Chandler Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	2225
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55	-16.55
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.61	50.06	51.48	35.83	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

CNEL	60.00	Day hour	91.00
DAY LEQ	54.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 60 CNEL Contour

4	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	23000
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Archibald Avenue	:Road	Automobiles	75.54	14.02	10.43	92.00	Speed 50
Chandler Street to Wind River Road/Grapewin Street	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Distance 2630
		Heavy Trucks	48.00	2.00	50.00	5.00	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1332.02	27.60	46.00	988.88	4.60	7.67	245.22	38.33	63.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.95	7.11	9.33	22.66	-0.67	1.55	16.60	8.54	10.76
Distance	-17.28	-17.28	-17.28	-17.28	-17.28	-17.28	-17.28	-17.28	-17.28
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.79	43.63	50.07	51.50	35.85	42.29	45.44	45.05	51.50
	DAY LEQ	54.98		EVENING LEQ	52.09		NIGHT LEQ	53.19	

CNEL	60.01	Day hour	92.00
DAY LEQ	54.98	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 60 CNEL Contour

5	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	20300
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Archibald Avenue	:Road	Automobiles	75.54	14.02	10.43	92.00	Speed 50
South of Wind River Road/Grapewin Street	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Distance 2325
		Heavy Trucks	48.00	2.00	50.00	5.00	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1175.65	24.36	40.60	872.79	4.06	6.77	216.43	33.83	56.39
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.41	6.57	8.79	22.11	-1.21	1.01	16.06	8.00	10.22
Distance	-16.74	-16.74	-16.74	-16.74	-16.74	-16.74	-16.74	-16.74	-16.74
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.07	51.49	35.84	42.28	45.43	45.05	51.49
	DAY LEQ	54.97		EVENING LEQ	52.09		NIGHT LEQ	53.18	

CNEL	60.00	Day hour	93.00
DAY LEQ	54.97	Absorptive?	no
		Use hour?	no
		GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 60 CNEL Contour

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1300
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	17
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	79.73	0.97	0.38	58.92	0.17	0.17	14.76	1.30	0.51
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	14.73	-4.40	-8.50	13.42	-11.90	-11.89	7.41	-3.15	-7.25
Distance	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62	4.62
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.79	46.31	48.36	52.47	38.80	44.96	46.46	47.56	49.61
	DAY LEQ	55.45		EVENING LEQ	53.34		NIGHT LEQ	52.85	

CNEL	59.92	Day hour	94.00
DAY LEQ	55.45	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 60 CNEL Contour

7	:Id	Vehicle Distribution (Light Truck Mix)				ADT	3400
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Eastvale Parkway	:Road	Automobiles	75.56	13.96	10.49	97.40	Speed 25
East of Archibald Avenue	:Segment	Medium Trucks	48.91	2.17	48.91	1.84	Distance 44
		Heavy Trucks	47.30	5.41	47.30	0.74	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	208.52	2.55	0.99	154.10	0.45	0.45	38.60	3.40	1.32
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	18.91	-0.22	-4.32	17.59	-7.73	-7.72	11.58	1.03	-3.07
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.83	46.35	48.40	52.52	38.84	45.01	46.51	47.60	49.65
	DAY LEQ	55.49		EVENING LEQ	53.38		NIGHT LEQ	52.89	

CNEL	59.97	Day hour	95.00
DAY LEQ	55.49	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 60 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	6900
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	674
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	399.61	8.28	13.80	296.66	1.38	2.30	73.57	11.50	19.17
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.18	2.34	4.56	17.88	-5.44	-3.22	11.83	3.77	5.99
Distance	-11.37	-11.37	-11.37	-11.37	-11.37	-11.37	-11.37	-11.37	-11.37
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.16	43.60	50.34	50.86	35.82	42.55	44.81	45.02	51.76
	DAY LEQ	54.70		EVENING LEQ	51.58		NIGHT LEQ	53.27	

CNEL	60.00	Day hour	96.00
DAY LEQ	54.70	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 60 CNEL Contour

9	:Id	Vehicle Distribution (Light Truck Mix)				ADT	9300
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Chandler Street	:Road					Speed	45
		Automobiles	75.56	13.96	10.49	97.40	Distance 389
East of Archibald Avenue	:Segment	Medium Trucks	48.91	2.17	48.91	1.84	Left Angle -90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	570.36	6.97	2.71	421.51	1.24	1.24	105.58	9.30	3.62
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.72	1.60	-2.50	19.41	-5.91	-5.90	13.40	2.85	-1.25
Distance	-8.98	-8.98	-8.98	-8.98	-8.98	-8.98	-8.98	-8.98	-8.98
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	56.09	45.24	45.66	54.77	37.73	42.26	48.76	46.49	46.91
	DAY LEQ	56.78		EVENING LEQ	55.09		NIGHT LEQ	52.27	

CNEL	60.00	Day hour	97.00
DAY LEQ	56.78	Absorptive?	no
		Use hour?	no
		GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 60 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1500
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	19
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	91.99	1.12	0.44	67.99	0.20	0.20	17.03	1.50	0.58
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.35	-3.77	-7.88	14.04	-11.28	-11.27	8.03	-2.52	-6.63
Distance	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.92	46.45	48.50	52.61	38.94	45.10	46.60	47.69	49.75
	DAY LEQ	55.58		EVENING LEQ	53.48		NIGHT LEQ	52.99	

CNEL	60.06	Day hour	98.00
DAY LEQ	55.58	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 60 CNEL Contour

11	:Id	Vehicle Distribution (Light Truck Mix)				ADT	100
Grapewin Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	1
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	6.13	0.07	0.03	4.53	0.01	0.01	1.14	0.10	0.04
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	3.59	-15.53	-19.64	2.28	-23.04	-23.03	-3.73	-14.29	-18.39
Distance	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	54.95	47.47	49.52	53.64	39.96	46.13	47.63	48.72	50.77
	DAY LEQ	56.61		EVENING LEQ	54.50		NIGHT LEQ	54.01	

CNEL	61.09	Day hour	99.00
DAY LEQ	56.61	Absorptive?	no
		Use hour?	no
		GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 65 CNEL Contour

1	:Id	
Archibald Avenue	:Road	
North of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	20600
Speed	50
Distance	747
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1193.03	24.72	41.20	885.69	4.12	6.87	219.63	34.33	57.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.47	6.63	8.85	22.18	-1.15	1.07	16.12	8.06	10.28
Distance	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.48	40.83	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.17	

F	CNEL	65.00	
	DAY LEQ	59.97	

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 65 CNEL Contour

2	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	19400
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow		
Archibald Avenue	:Road						Speed	50
South of Smith River Road/Eastvale Parkway	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	703
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00	Day hour	90.00
DAY LEQ	59.97	Absorptive?	no
		Use hour?	no
		GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 65 CNEL Contour

3	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	19400
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50
North of Chandler Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	703
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55	-11.55
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00	Day hour	91.00
DAY LEQ	59.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 65 CNEL Contour

4	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	23000
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50
Chandler Street to Wind River Road/Grapewin Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	833
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1332.02	27.60	46.00	988.88	4.60	7.67	245.22	38.33	63.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.95	7.11	9.33	22.66	-0.67	1.55	16.60	8.54	10.76
Distance	-12.29	-12.29	-12.29	-12.29	-12.29	-12.29	-12.29	-12.29	-12.29
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.07	56.49	40.84	47.28	50.43	50.05	56.49
	DAY LEQ	59.97		EVENING LEQ	57.09		NIGHT LEQ	58.18	

CNEL	65.00	Day hour	92.00
DAY LEQ	59.97	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 65 CNEL Contour

5	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	20300
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Archibald Avenue	:Road	Automobiles	75.54	14.02	10.43	92.00	Speed 50
South of Wind River Road/Grapewin Street	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Distance 735
		Heavy Trucks	48.00	2.00	50.00	5.00	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1175.65	24.36	40.60	872.79	4.06	6.77	216.43	33.83	56.39
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.41	6.57	8.79	22.11	-1.21	1.01	16.06	8.00	10.22
Distance	-11.74	-11.74	-11.74	-11.74	-11.74	-11.74	-11.74	-11.74	-11.74
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.07	56.49	40.84	47.29	50.43	50.05	56.49
	DAY LEQ	59.98		EVENING LEQ	57.09		NIGHT LEQ	58.18	

CNEL	65.00	Day hour	93.00
DAY LEQ	59.98	Absorptive?	no
		Use hour?	no
		GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 65 CNEL Contour

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1300
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	5
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	79.73	0.97	0.38	58.92	0.17	0.17	14.76	1.30	0.51
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	14.73	-4.40	-8.50	13.42	-11.90	-11.89	7.41	-3.15	-7.25
Distance	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	59.10	51.62	53.67	57.79	44.11	50.28	51.78	52.87	54.92
	DAY LEQ	60.76		EVENING LEQ	58.65		NIGHT LEQ	58.16	

CNEL	65.24	Day hour	94.00
DAY LEQ	60.76	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 65 CNEL Contour

7	:Id
Eastvale Parkway	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	3400
Speed	25
Distance	14
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	208.52	2.55	0.99	154.10	0.45	0.45	38.60	3.40	1.32
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	18.91	-0.22	-4.32	17.59	-7.73	-7.72	11.58	1.03	-3.07
Distance	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.80	51.33	53.38	57.49	43.82	49.98	51.48	52.57	54.63
	DAY LEQ	60.46		EVENING LEQ	58.36		NIGHT LEQ	57.87	

CNEL	**64.94**
DAY LEQ	60.46

Day hour	95.00
Absorptive?	no
Use hour?	no
GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 65 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	6900
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow		
Chandler Street	:Road						Speed	45
		Automobiles	75.54	14.02	10.43	92.00	Distance	213
West of Archibald Avenue	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	399.61	8.28	13.80	296.66	1.38	2.30	73.57	11.50	19.17
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.18	2.34	4.56	17.88	-5.44	-3.22	11.83	3.77	5.99
Distance	-6.36	-6.36	-6.36	-6.36	-6.36	-6.36	-6.36	-6.36	-6.36
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.16	48.60	55.34	55.87	40.82	47.56	49.81	50.03	56.77
	DAY LEQ	59.70		EVENING LEQ	56.58		NIGHT LEQ	58.27	

CNEL	65.00	Day hour	96.00
DAY LEQ	59.70	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 65 CNEL Contour

9	:Id	Vehicle Distribution (Light Truck Mix)				ADT	9300
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Chandler Street	:Road					Speed	45
		Automobiles	75.56	13.96	10.49	97.40	Distance 123
East of Archibald Avenue	:Segment	Medium Trucks	48.91	2.17	48.91	1.84	Left Angle -90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	570.36	6.97	2.71	421.51	1.24	1.24	105.58	9.30	3.62
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.72	1.60	-2.50	19.41	-5.91	-5.90	13.40	2.85	-1.25
Distance	-3.98	-3.98	-3.98	-3.98	-3.98	-3.98	-3.98	-3.98	-3.98
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	61.09	50.24	50.66	59.78	42.73	47.26	53.76	51.49	51.91
	DAY LEQ	61.78		EVENING LEQ	60.09		NIGHT LEQ	57.27	

CNEL	65.00	Day hour	97.00
DAY LEQ	61.78	Absorptive?	no
		Use hour?	no
		GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 65 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1500
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	6
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	91.99	1.12	0.44	67.99	0.20	0.20	17.03	1.50	0.58
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.35	-3.77	-7.88	14.04	-11.28	-11.27	8.03	-2.52	-6.63
Distance	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.93	51.45	53.50	57.62	43.94	50.11	51.60	52.70	54.75
	DAY LEQ	60.59		EVENING LEQ	58.48		NIGHT LEQ	57.99	

CNEL	65.07	Day hour	98.00
DAY LEQ	60.59	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 70 CNEL Contour

1	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	20600
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Archibald Avenue	:Road	Automobiles	75.54	14.02	10.43	92.00	Speed 50
North of Smith River Road/Eastvale Parkway	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Distance 236
		Heavy Trucks	48.00	2.00	50.00	5.00	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1193.03	24.72	41.20	885.69	4.12	6.87	219.63	34.33	57.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.47	6.63	8.85	22.18	-1.15	1.07	16.12	8.06	10.28
Distance	-6.81	-6.81	-6.81	-6.81	-6.81	-6.81	-6.81	-6.81	-6.81
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.06	61.49	45.84	52.28	55.43	55.05	61.49
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.18	

F	CNEL	70.00	Day hour	89.00
	DAY LEQ	64.97	Absorptive?	no
			Use hour?	no
			GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 70 CNEL Contour

2	:Id					ADT	19400
Archibald Avenue	:Road					Speed	50
South of Smith River Road/Eastvale Parkway	:Segment					Distance	223
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.60	60.05	61.47	45.82	52.27	55.42	55.03	61.48
	DAY LEQ	64.96		EVENING LEQ	62.07		NIGHT LEQ	63.16	

CNEL	69.99	Day hour	90.00
DAY LEQ	64.96	Absorptive?	no
		Use hour?	no
		GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 70 CNEL Contour

3	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	19400
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50
North of Chandler Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	223
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1123.53	23.28	38.80	834.10	3.88	6.47	206.84	32.33	53.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.21	6.37	8.59	21.92	-1.41	0.81	15.86	7.80	10.02
Distance	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56	-6.56
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.60	60.05	61.47	45.82	52.27	55.42	55.03	61.48
	DAY LEQ	64.96		EVENING LEQ	62.07		NIGHT LEQ	63.16	

CNEL	69.99	Day hour	91.00
DAY LEQ	64.96	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 70 CNEL Contour

4	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	23000		
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50	
Chandler Street to Wind River Road/Grapewin Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	264	
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90	
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90	

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1332.02	27.60	46.00	988.88	4.60	7.67	245.22	38.33	63.89
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.95	7.11	9.33	22.66	-0.67	1.55	16.60	8.54	10.76
Distance	-7.30	-7.30	-7.30	-7.30	-7.30	-7.30	-7.30	-7.30	-7.30
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.61	60.06	61.48	45.83	52.27	55.42	55.04	61.48
	DAY LEQ	64.96		EVENING LEQ	62.08		NIGHT LEQ	63.17	

CNEL	69.99	Day hour	92.00
DAY LEQ	64.96	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 70 CNEL Contour

5	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	20300
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Archibald Avenue	:Road	Automobiles	75.54	14.02	10.43	92.00	Speed 50
South of Wind River Road/Grapewin Street	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Distance 233
		Heavy Trucks	48.00	2.00	50.00	5.00	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1175.65	24.36	40.60	872.79	4.06	6.77	216.43	33.83	56.39
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.41	6.57	8.79	22.11	-1.21	1.01	16.06	8.00	10.22
Distance	-6.75	-6.75	-6.75	-6.75	-6.75	-6.75	-6.75	-6.75	-6.75
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.61	60.06	61.48	45.83	52.27	55.42	55.04	61.48
	DAY LEQ	64.96		EVENING LEQ	62.08		NIGHT LEQ	63.17	

CNEL	69.99	Day hour	93.00
DAY LEQ	64.96	Absorptive?	no
		Use hour?	no
		GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 70 CNEL Contour

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1300
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	2
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	79.73	0.97	0.38	58.92	0.17	0.17	14.76	1.30	0.51
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	14.73	-4.40	-8.50	13.42	-11.90	-11.89	7.41	-3.15	-7.25
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.08	55.60	57.65	61.77	48.09	54.26	55.75	56.85	58.90
	DAY LEQ	64.74		EVENING LEQ	62.63		NIGHT LEQ	62.14	

CNEL	69.22	Day hour	94.00
DAY LEQ	64.74	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 70 CNEL Contour

7	:Id					ADT	3400
Eastvale Parkway	:Road					Speed	25
East of Archibald Avenue	:Segment					Distance	4
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	208.52	2.55	0.99	154.10	0.45	0.45	38.60	3.40	1.32
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	18.91	-0.22	-4.32	17.59	-7.73	-7.72	11.58	1.03	-3.07
Distance	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90	10.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.25	56.77	58.82	62.93	49.26	55.42	56.92	58.02	60.07
	DAY LEQ	65.90		EVENING LEQ	63.80		NIGHT LEQ	63.31	

CNEL	70.38	Day hour	95.00
DAY LEQ	65.90	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 70 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	6900
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	67
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	399.61	8.28	13.80	296.66	1.38	2.30	73.57	11.50	19.17
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	19.18	2.34	4.56	17.88	-5.44	-3.22	11.83	3.77	5.99
Distance	-1.34	-1.34	-1.34	-1.34	-1.34	-1.34	-1.34	-1.34	-1.34
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.18	53.62	60.36	60.89	45.84	52.58	54.83	55.05	61.79
	DAY LEQ	64.73		EVENING LEQ	61.60		NIGHT LEQ	63.29	

CNEL	70.02	Day hour	96.00
DAY LEQ	64.73	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing 70 CNEL Contour

9	:Id	Vehicle Distribution (Light Truck Mix)				ADT	9300
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Chandler Street	:Road					Speed	45
		Automobiles	75.56	13.96	10.49	97.40	Distance 39
East of Archibald Avenue	:Segment	Medium Trucks	48.91	2.17	48.91	1.84	Left Angle -90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	570.36	6.97	2.71	421.51	1.24	1.24	105.58	9.30	3.62
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.72	1.60	-2.50	19.41	-5.91	-5.90	13.40	2.85	-1.25
Distance	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.08	55.23	55.65	64.76	47.72	52.25	58.75	56.48	56.90
	DAY LEQ	66.77		EVENING LEQ	65.08		NIGHT LEQ	62.26	

CNEL	69.98	Day hour	97.00
DAY LEQ	66.77	Absorptive?	no
		Use hour?	no
		GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing 70 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1500
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	2
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	91.99	1.12	0.44	67.99	0.20	0.20	17.03	1.50	0.58
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.35	-3.77	-7.88	14.04	-11.28	-11.27	8.03	-2.52	-6.63
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.70	56.22	58.27	62.39	48.71	54.88	56.38	57.47	59.52
	DAY LEQ	65.36		EVENING LEQ	63.25		NIGHT LEQ	62.76	

CNEL	69.84	Day hour	98.00
DAY LEQ	65.36	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 60 CNEL Contour

1	:Id
Archibald Avenue	:Road
North of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21330
Speed	50
Distance	2445
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1235.31	25.60	42.66	917.08	4.27	7.11	227.42	35.55	59.25
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.62	6.79	9.00	22.33	-1.00	1.22	16.27	8.21	10.43
Distance	-16.96	-16.96	-16.96	-16.96	-16.96	-16.96	-16.96	-16.96	-16.96
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.06	51.49	35.84	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

CNEL	60.00
DAY LEQ	54.97

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 60 CNEL Contour

2	:Id
Archibald Avenue	:Road
South of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	20620
Speed	50
Distance	2365
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1194.19	24.74	41.24	886.55	4.12	6.87	219.85	34.37	57.28
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.48	6.64	8.86	22.18	-1.14	1.08	16.13	8.07	10.28
Distance	-16.82	-16.82	-16.82	-16.82	-16.82	-16.82	-16.82	-16.82	-16.82
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.61	50.06	51.48	35.83	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

CNEL	60.00
DAY LEQ	54.97

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 60 CNEL Contour

3	:Id	ADT	20740
Archibald Avenue	:Road	Speed	50
North of Chandler Street	:Segment	Distance	2375
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1201.14	24.89	41.48	891.71	4.15	6.91	221.13	34.57	57.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.50	6.66	8.88	22.21	-1.12	1.10	16.15	8.09	10.31
Distance	-16.84	-16.84	-16.84	-16.84	-16.84	-16.84	-16.84	-16.84	-16.84
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.07	51.49	35.84	42.28	45.43	45.05	51.49
	DAY LEQ	54.97		EVENING LEQ	52.09		NIGHT LEQ	53.18	

CNEL	60.00	Day hour	91.00
DAY LEQ	54.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 60 CNEL Contour

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	24340
Speed	50
Distance	2790
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1409.63	29.21	48.68	1046.49	4.87	8.11	259.51	40.57	67.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.20	7.36	9.58	22.90	-0.42	1.80	16.85	8.79	11.00
Distance	-17.54	-17.54	-17.54	-17.54	-17.54	-17.54	-17.54	-17.54	-17.54
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.06	51.49	35.84	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.97

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 60 CNEL Contour

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21030
Speed	50
Distance	2410
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1217.93	25.24	42.06	904.18	4.21	7.01	224.22	35.05	58.42
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.56	6.72	8.94	22.27	-1.06	1.16	16.21	8.15	10.37
Distance	-16.90	-16.90	-16.90	-16.90	-16.90	-16.90	-16.90	-16.90	-16.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.06	51.49	35.84	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 60 CNEL Contour

6	:Id
Smith River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1540
Speed	25
Distance	19
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	94.45	1.15	0.45	69.80	0.20	0.21	17.48	1.54	0.60
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.47	-3.66	-7.76	14.15	-11.17	-11.16	8.14	-2.41	-6.51
Distance	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13	4.13
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	54.04	46.56	48.61	52.73	39.05	45.22	46.71	47.81	49.86
	DAY LEQ	55.70		EVENING LEQ	53.59		NIGHT LEQ	53.10	

CNEL	60.18
DAY LEQ	55.70

Day hour	94.00
Absorptive?	no
Use hour?	no
GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 60 CNEL Contour

7	:Id
Eastvale Parkway	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	3640
Speed	25
Distance	46
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	223.24	2.73	1.06	164.98	0.48	0.49	41.32	3.64	1.42
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	19.20	0.08	-4.03	17.89	-7.43	-7.42	11.88	1.33	-2.78
Distance	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.93	46.46	48.51	52.62	38.95	45.11	46.61	47.70	49.76
	DAY LEQ	55.59		EVENING LEQ	53.49		NIGHT LEQ	53.00	

CNEL	60.07
DAY LEQ	55.59

Day hour	95.00
Absorptive?	no
Use hour?	no
GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 60 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	9210
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	900
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	533.39	11.05	18.42	395.98	1.84	3.07	98.19	15.35	25.58
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.43	3.60	5.81	19.14	-4.19	-1.97	13.08	5.02	7.24
Distance	-12.62	-12.62	-12.62	-12.62	-12.62	-12.62	-12.62	-12.62	-12.62
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.15	43.60	50.33	50.86	35.81	42.55	44.80	45.02	51.76
	DAY LEQ	54.70		EVENING LEQ	51.58		NIGHT LEQ	53.26	

CNEL	60.00	Day hour	96.00
DAY LEQ	54.70	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 60 CNEL Contour

9	:Id
Chandler Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	10520
Speed	45
Distance	440
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	645.19	7.89	3.07	476.80	1.40	1.40	119.43	10.52	4.09
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.26	2.13	-1.97	19.95	-5.38	-5.36	13.93	3.38	-0.72
Distance	-9.51	-9.51	-9.51	-9.51	-9.51	-9.51	-9.51	-9.51	-9.51
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	56.09	45.24	45.66	54.78	37.73	42.26	48.76	46.49	46.91
	DAY LEQ	56.78		EVENING LEQ	55.09		NIGHT LEQ	52.27	

F	CNEL	60.00	
	DAY LEQ	56.78	

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 60 CNEL Contour

10	:Id
Wind River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1740
Speed	25
Distance	22
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	106.71	1.30	0.51	78.86	0.23	0.23	19.75	1.74	0.68
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.00	-3.13	-7.23	14.68	-10.64	-10.63	8.67	-1.88	-5.98
Distance	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.93	46.45	48.51	52.62	38.94	45.11	46.61	47.70	49.75
	DAY LEQ	55.59		EVENING LEQ	53.48		NIGHT LEQ	52.99	

CNEL	60.07
DAY LEQ	55.59

Day hour	98.00
Absorptive?	no
Use hour?	no
GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 60 CNEL Contour

11	:Id	Vehicle Distribution (Light Truck Mix)				ADT	200
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Grapewin Street	:Road					Speed	25
		Automobiles	75.56	13.96	10.49	97.40	Distance 3
East of Archibald Avenue	:Segment	Medium Trucks	48.91	2.17	48.91	1.84	Left Angle -90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	12.27	0.15	0.06	9.06	0.03	0.03	2.27	0.20	0.08
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	6.60	-12.52	-16.63	5.29	-20.03	-20.02	-0.72	-11.28	-15.38
Distance	12.15	12.15	12.15	12.15	12.15	12.15	12.15	12.15	12.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.19	45.71	47.76	51.88	38.20	44.37	45.86	46.96	49.01
	DAY LEQ	54.85		EVENING LEQ	52.74		NIGHT LEQ	52.25	

CNEL	59.33	Day hour	99.00
DAY LEQ	54.85	Absorptive?	no
		Use hour?	no
		GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 65 CNEL Contour

1	:Id
Archibald Avenue	:Road
North of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21330
Speed	50
Distance	773
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1235.31	25.60	42.66	917.08	4.27	7.11	227.42	35.55	59.25
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.62	6.79	9.00	22.33	-1.00	1.22	16.27	8.21	10.43
Distance	-11.96	-11.96	-11.96	-11.96	-11.96	-11.96	-11.96	-11.96	-11.96
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00
DAY LEQ	59.97

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 65 CNEL Contour

2	:Id
Archibald Avenue	:Road
South of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	20620
Speed	50
Distance	747
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1194.19	24.74	41.24	886.55	4.12	6.87	219.85	34.37	57.28
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.48	6.64	8.86	22.18	-1.14	1.08	16.13	8.07	10.28
Distance	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81	-11.81
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.05	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00
DAY LEQ	59.97

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 65 CNEL Contour

3	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	20740
Archibald Avenue	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	50
North of Chandler Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	751
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1201.14	24.89	41.48	891.71	4.15	6.91	221.13	34.57	57.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.50	6.66	8.88	22.21	-1.12	1.10	16.15	8.09	10.31
Distance	-11.84	-11.84	-11.84	-11.84	-11.84	-11.84	-11.84	-11.84	-11.84
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.07	56.49	40.84	47.28	50.43	50.05	56.49
	DAY LEQ	59.97		EVENING LEQ	57.09		NIGHT LEQ	58.18	

CNEL	65.00	Day hour	91.00
DAY LEQ	59.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 65 CNEL Contour

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	24340
Speed	50
Distance	882
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1409.63	29.21	48.68	1046.49	4.87	8.11	259.51	40.57	67.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.20	7.36	9.58	22.90	-0.42	1.80	16.85	8.79	11.00
Distance	-12.54	-12.54	-12.54	-12.54	-12.54	-12.54	-12.54	-12.54	-12.54
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00
DAY LEQ	59.97

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 65 CNEL Contour

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21030
Speed	50
Distance	763
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1217.93	25.24	42.06	904.18	4.21	7.01	224.22	35.05	58.42
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.56	6.72	8.94	22.27	-1.06	1.16	16.21	8.15	10.37
Distance	-11.91	-11.91	-11.91	-11.91	-11.91	-11.91	-11.91	-11.91	-11.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.61	55.06	56.48	40.83	47.28	50.43	50.04	56.48
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.17	

CNEL	65.00
DAY LEQ	59.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 65 CNEL Contour

6	:Id
Smith River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1540
Speed	25
Distance	6
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	94.45	1.15	0.45	69.80	0.20	0.21	17.48	1.54	0.60
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.47	-3.66	-7.76	14.15	-11.17	-11.16	8.14	-2.41	-6.51
Distance	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	59.04	51.57	53.62	57.73	44.06	50.22	51.72	52.82	54.87
	DAY LEQ	60.70		EVENING LEQ	58.60		NIGHT LEQ	58.11	

CNEL	65.18
DAY LEQ	60.70

Day hour	94.00
Absorptive?	no
Use hour?	no
GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 65 CNEL Contour

7	:Id	Vehicle Distribution (Light Truck Mix)				ADT	3640
Eastvale Parkway	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	15
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	223.24	2.73	1.06	164.98	0.48	0.49	41.32	3.64	1.42
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	19.20	0.08	-4.03	17.89	-7.43	-7.42	11.88	1.33	-2.78
Distance	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.80	51.32	53.37	57.49	43.81	49.98	51.48	52.57	54.62
	DAY LEQ	60.46		EVENING LEQ	58.35		NIGHT LEQ	57.86	

CNEL	64.94	Day hour	95.00
DAY LEQ	60.46	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 65 CNEL Contour

8	:Id	ADT	9210
Chandler Street	:Road	Speed	45
West of Archibald Avenue	:Segment	Distance	284
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	533.39	11.05	18.42	395.98	1.84	3.07	98.19	15.35	25.58
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.43	3.60	5.81	19.14	-4.19	-1.97	13.08	5.02	7.24
Distance	-7.61	-7.61	-7.61	-7.61	-7.61	-7.61	-7.61	-7.61	-7.61
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.16	48.61	55.34	55.87	40.82	47.56	49.81	50.03	56.77
	DAY LEQ	59.71		EVENING LEQ	56.58		NIGHT LEQ	58.27	

CNEL	65.01	Day hour	96.00
DAY LEQ	59.71	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 65 CNEL Contour

9	:Id	Vehicle Distribution (Light Truck Mix)				ADT	10520
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	139
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	645.19	7.89	3.07	476.80	1.40	1.40	119.43	10.52	4.09
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.26	2.13	-1.97	19.95	-5.38	-5.36	13.93	3.38	-0.72
Distance	-4.51	-4.51	-4.51	-4.51	-4.51	-4.51	-4.51	-4.51	-4.51
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	61.09	50.24	50.66	59.78	42.74	47.27	53.77	51.49	51.91
	DAY LEQ	61.79		EVENING LEQ	60.10		NIGHT LEQ	57.28	

F		CNEL	65.00	Day hour	97.00
		DAY LEQ	61.79	Absorptive?	no
				Use hour?	no
				GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 65 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1740
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	7
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	106.71	1.30	0.51	78.86	0.23	0.23	19.75	1.74	0.68
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.00	-3.13	-7.23	14.68	-10.64	-10.63	8.67	-1.88	-5.98
Distance	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.91	51.43	53.48	57.59	43.92	50.08	51.58	52.68	54.73
	DAY LEQ	60.56		EVENING LEQ	58.46		NIGHT LEQ	57.97	

CNEL	65.04	Day hour	98.00
DAY LEQ	60.56	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 65 CNEL Contour

11	:Id	Vehicle Distribution (Light Truck Mix)				ADT	200
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	
Grapewin Street	:Road	Automobiles	75.56	13.96	10.49	97.40	Speed 25
East of Archibald Avenue	:Segment	Medium Trucks	48.91	2.17	48.91	1.84	Distance 1
		Heavy Trucks	47.30	5.41	47.30	0.74	Left Angle -90
							Right Angle 90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	12.27	0.15	0.06	9.06	0.03	0.03	2.27	0.20	0.08
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	6.60	-12.52	-16.63	5.29	-20.03	-20.02	-0.72	-11.28	-15.38
Distance	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.96	50.48	52.53	56.65	42.97	49.14	50.64	51.73	53.78
	DAY LEQ	59.62		EVENING LEQ	57.51		NIGHT LEQ	57.02	

CNEL	64.10	Day hour	99.00
DAY LEQ	59.62	Absorptive?	no
		Use hour?	no
		GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 70 CNEL Contour

1	:Id	
Archibald Avenue	:Road	
North of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21330
Speed	50
Distance	245
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1235.31	25.60	42.66	917.08	4.27	7.11	227.42	35.55	59.25
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.62	6.79	9.00	22.33	-1.00	1.22	16.27	8.21	10.43
Distance	-6.97	-6.97	-6.97	-6.97	-6.97	-6.97	-6.97	-6.97	-6.97
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.61	60.05	61.48	45.83	52.27	55.42	55.03	61.48
	DAY LEQ	64.96		EVENING LEQ	62.07		NIGHT LEQ	63.17	

CNEL	69.99
DAY LEQ	64.96

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 70 CNEL Contour

2	:Id
Archibald Avenue	:Road
South of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	20620
Speed	50
Distance	237
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1194.19	24.74	41.24	886.55	4.12	6.87	219.85	34.37	57.28
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.48	6.64	8.86	22.18	-1.14	1.08	16.13	8.07	10.28
Distance	-6.83	-6.83	-6.83	-6.83	-6.83	-6.83	-6.83	-6.83	-6.83
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.60	60.05	61.47	45.82	52.27	55.42	55.03	61.48
	DAY LEQ	64.96		EVENING LEQ	62.07		NIGHT LEQ	63.16	

CNEL	**69.99**
DAY LEQ	64.96

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 70 CNEL Contour

3	:Id	ADT	20740
Archibald Avenue	:Road	Speed	50
North of Chandler Street	:Segment	Distance	238
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1201.14	24.89	41.48	891.71	4.15	6.91	221.13	34.57	57.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.50	6.66	8.88	22.21	-1.12	1.10	16.15	8.09	10.31
Distance	-6.85	-6.85	-6.85	-6.85	-6.85	-6.85	-6.85	-6.85	-6.85
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.61	60.06	61.48	45.83	52.28	55.42	55.04	61.48
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.17	

CNEL	69.99	Day hour	91.00
DAY LEQ	64.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 70 CNEL Contour

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	24340
Speed	50
Distance	279
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1409.63	29.21	48.68	1046.49	4.87	8.11	259.51	40.57	67.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.20	7.36	9.58	22.90	-0.42	1.80	16.85	8.79	11.00
Distance	-7.54	-7.54	-7.54	-7.54	-7.54	-7.54	-7.54	-7.54	-7.54
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.06	61.49	45.84	52.28	55.43	55.04	61.49
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.18	

CNEL	70.00
DAY LEQ	64.97

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 70 CNEL Contour

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	21030
Speed	50
Distance	241
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1217.93	25.24	42.06	904.18	4.21	7.01	224.22	35.05	58.42
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	23.56	6.72	8.94	22.27	-1.06	1.16	16.21	8.15	10.37
Distance	-6.90	-6.90	-6.90	-6.90	-6.90	-6.90	-6.90	-6.90	-6.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.06	61.49	45.84	52.28	55.43	55.04	61.49
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.18	

CNEL	70.00
DAY LEQ	64.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 70 CNEL Contour

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1540
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	2
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	94.45	1.15	0.45	69.80	0.20	0.21	17.48	1.54	0.60
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.47	-3.66	-7.76	14.15	-11.17	-11.16	8.14	-2.41	-6.51
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.82	56.34	58.39	62.50	48.83	54.99	56.49	57.59	59.64
	DAY LEQ	65.48		EVENING LEQ	63.37		NIGHT LEQ	62.88	

CNEL	69.95	Day hour	94.00
DAY LEQ	65.48	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 70 CNEL Contour

7	:Id	Vehicle Distribution (Light Truck Mix)				ADT	3640
Eastvale Parkway	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	5
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	223.24	2.73	1.06	164.98	0.48	0.49	41.32	3.64	1.42
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	19.20	0.08	-4.03	17.89	-7.43	-7.42	11.88	1.33	-2.78
Distance	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93	9.93
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.57	56.09	58.15	62.26	48.58	54.75	56.25	57.34	59.39
	DAY LEQ	65.23		EVENING LEQ	63.12		NIGHT LEQ	62.63	

CNEL	69.71	Day hour	95.00
DAY LEQ	65.23	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 70 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	9210
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	90
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	533.39	11.05	18.42	395.98	1.84	3.07	98.19	15.35	25.58
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.43	3.60	5.81	19.14	-4.19	-1.97	13.08	5.02	7.24
Distance	-2.62	-2.62	-2.62	-2.62	-2.62	-2.62	-2.62	-2.62	-2.62
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.15	53.60	60.33	60.86	45.81	52.55	54.80	55.02	61.76
	DAY LEQ	64.70		EVENING LEQ	61.58		NIGHT LEQ	63.26	

CNEL	70.00	Day hour	96.00
DAY LEQ	64.70	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Existing Plus Project 70 CNEL Contour

9	:Id
Chandler Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	10520
Speed	45
Distance	44
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	645.19	7.89	3.07	476.80	1.40	1.40	119.43	10.52	4.09
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.26	2.13	-1.97	19.95	-5.38	-5.36	13.93	3.38	-0.72
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.09	55.24	55.66	64.78	47.73	52.26	58.76	56.49	56.91
	DAY LEQ	66.78		EVENING LEQ	65.09		NIGHT LEQ	62.27	

F	CNEL	70.00	
	DAY LEQ	66.78	

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Existing Plus Project 70 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1740
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	2
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	106.71	1.30	0.51	78.86	0.23	0.23	19.75	1.74	0.68
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.00	-3.13	-7.23	14.68	-10.64	-10.63	8.67	-1.88	-5.98
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.35	56.87	58.92	63.03	49.36	55.52	57.02	58.12	60.17
	DAY LEQ	66.01		EVENING LEQ	63.90		NIGHT LEQ	63.41	

CNEL	70.48	Day hour	98.00
DAY LEQ	66.01	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project Traffic Noise

1	:Id	
Archibald Avenue	:Road	
North of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	32800
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1899.58	39.36	65.60	1410.23	6.56	10.93	349.71	54.67	91.11
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.49	8.66	10.87	24.20	0.87	3.09	18.14	10.08	12.30
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.40	61.24	67.68	69.11	53.46	59.90	63.05	62.67	69.11
	DAY LEQ	72.59		EVENING LEQ	69.70		NIGHT LEQ	70.80	

F	CNEL	77.62	
	DAY LEQ	72.59	

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project Traffic Noise

1	:Id
Archibald Avenue	:Road
North of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	33530
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1941.86	40.24	67.06	1441.61	6.71	11.18	357.49	55.88	93.14
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.59	8.75	10.97	24.29	0.97	3.19	18.24	10.18	12.40
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.50	61.33	67.78	69.20	53.55	60.00	63.15	62.76	69.21
	DAY LEQ	72.69		EVENING LEQ	69.80		NIGHT LEQ	70.89	

CNEL	77.72
DAY LEQ	72.69

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project Traffic Noise

2	:Id	
Archibald Avenue	:Road	
South of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	29600
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.96	60.79	67.24	68.66	53.01	59.46	62.61	62.22	68.67
	DAY LEQ	72.15		EVENING LEQ	69.26		NIGHT LEQ	70.35	

CNEL	77.18
DAY LEQ	72.15

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project Traffic Noise

2	:Id
Archibald Avenue	:Road
South of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	30820
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1784.91	36.98	61.64	1325.10	6.16	10.27	328.60	51.37	85.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.22	8.38	10.60	23.93	0.60	2.82	17.87	9.81	12.03
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.13	60.97	67.41	68.84	53.19	59.63	62.78	62.40	68.84
	DAY LEQ	72.32		EVENING LEQ	69.43		NIGHT LEQ	70.53	

CNEL	77.35
DAY LEQ	72.32

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project Traffic Noise

3	:Id	ADT	29600
Archibald Avenue	:Road	Speed	50
North of Chandler Street	:Segment	Distance	65
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	69.96	60.79	67.24	68.66	53.01	59.46	62.61	62.22	68.67
	DAY LEQ	72.15		EVENING LEQ	69.26		NIGHT LEQ	70.35	

CNEL	77.18	Day hour	91.00
DAY LEQ	72.15	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project Traffic Noise

3	:Id	ADT	30940
Archibald Avenue	:Road	Speed	50
North of Chandler Street	:Segment	Distance	65
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1791.86	37.13	61.88	1330.25	6.19	10.31	329.88	51.57	85.94
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.24	8.40	10.62	23.94	0.62	2.84	17.89	9.83	12.05
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.15	60.99	67.43	68.85	53.20	59.65	62.80	62.41	68.86
	DAY LEQ	72.34		EVENING LEQ	69.45		NIGHT LEQ	70.54	

CNEL	77.37	Day hour	91.00
DAY LEQ	72.34	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project Traffic Noise

4	:Id	ADT	31500
Archibald Avenue	:Road	Speed	50
Chandler Street to Wind River Road/Grapewin Street	:Segment	Distance	65
		Left Angle	-90
		Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1824.29	37.80	63.00	1354.33	6.30	10.50	335.85	52.50	87.50
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.32	8.48	10.70	24.02	0.70	2.92	17.97	9.91	12.12
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.23	61.06	67.51	68.93	53.28	59.73	62.88	62.49	68.94
	DAY LEQ	72.42		EVENING LEQ	69.53		NIGHT LEQ	70.62	

CNEL	77.45	Day hour	92.00
DAY LEQ	72.42	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project Traffic Noise

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	32840
Speed	50
Distance	65
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1901.90	39.41	65.68	1411.94	6.57	10.95	350.13	54.73	91.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.50	8.66	10.88	24.20	0.88	3.10	18.15	10.09	12.31
Distance	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21	-1.21
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	70.41	61.24	67.69	69.11	53.46	59.91	63.06	62.67	69.12
	DAY LEQ	72.60		EVENING LEQ	69.71		NIGHT LEQ	70.80	

CNEL	77.63
DAY LEQ	72.60

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project Traffic Noise

5	:Id	
Archibald Avenue	:Road	
South of Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	26500
Speed	50
Distance	45
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1534.72	31.80	53.00	1139.36	5.30	8.83	282.54	44.17	73.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.56	7.73	9.95	23.27	-0.05	2.17	17.22	9.16	11.37
Distance	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	71.07	61.91	68.35	69.78	54.13	60.57	63.72	63.34	69.78
	DAY LEQ	73.26		EVENING LEQ	70.38		NIGHT LEQ	71.47	

CNEL	78.29
DAY LEQ	73.26

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project Traffic Noise

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	27230
Speed	50
Distance	45
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1577.00	32.68	54.46	1170.74	5.45	9.08	290.32	45.38	75.64
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.68	7.85	10.07	23.39	0.07	2.28	17.33	9.27	11.49
Distance	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	71.19	62.03	68.47	69.90	54.25	60.69	63.84	63.45	69.90
	DAY LEQ	73.38		EVENING LEQ	70.49		NIGHT LEQ	71.59	

CNEL	**78.41**
DAY LEQ	73.38

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project Traffic Noise

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1400
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	42
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	85.86	1.05	0.41	63.45	0.19	0.19	15.89	1.40	0.54
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.05	-4.07	-8.17	13.74	-11.58	-11.57	7.73	-2.82	-6.93
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	50.18	42.70	44.75	48.87	35.19	41.36	42.85	43.95	46.00
	DAY LEQ	51.84		EVENING LEQ	49.73		NIGHT LEQ	49.24	

CNEL	56.32	Day hour	94.00
DAY LEQ	51.84	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project Traffic Noise

6	:Id
Smith River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1640
Speed	25
Distance	42
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	100.58	1.23	0.48	74.33	0.22	0.22	18.62	1.64	0.64
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.74	-3.39	-7.49	14.43	-10.90	-10.88	8.41	-2.14	-6.24
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	50.87	43.39	45.44	49.55	35.88	42.04	43.54	44.64	46.69
	DAY LEQ	52.53		EVENING LEQ	50.42		NIGHT LEQ	49.93	

CNEL	57.01
DAY LEQ	52.53

Day hour	94.00
Absorptive?	no
Use hour?	no
GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project Traffic Noise

7	:Id	Vehicle Distribution (Light Truck Mix)				ADT	5700
Eastvale Parkway	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	50
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	349.58	4.27	1.66	258.34	0.76	0.76	64.71	5.70	2.22
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.15	2.02	-2.08	19.84	-5.48	-5.47	13.82	3.27	-0.83
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	55.52	48.04	50.09	54.21	40.53	46.70	48.19	49.29	51.34
	DAY LEQ	57.18		EVENING LEQ	55.07		NIGHT LEQ	54.58	

CNEL	61.66	Day hour	95.00
DAY LEQ	57.18	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project Traffic Noise

7	:Id
Eastvale Parkway	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	5940
Speed	25
Distance	50
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	364.30	4.45	1.73	269.22	0.79	0.79	67.43	5.94	2.31
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.33	2.20	-1.90	20.02	-5.31	-5.29	14.00	3.45	-0.65
Distance	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07	-0.07
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	55.70	48.22	50.27	54.39	40.71	46.88	48.37	49.47	51.52
	DAY LEQ	57.36		EVENING LEQ	55.25		NIGHT LEQ	54.76	

CNEL	**61.84**
DAY LEQ	57.36

Day hour	95.00
Absorptive?	no
Use hour?	no
GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project Traffic Noise

8	:Id					ADT	9100
Chandler Street	:Road					Speed	45
West of Archibald Avenue	:Segment					Distance	52
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	527.02	10.92	18.20	391.25	1.82	3.03	97.02	15.17	25.28
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.38	3.54	5.76	19.09	-4.24	-2.02	13.03	4.97	7.19
Distance	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.48	55.93	62.66	63.19	48.14	54.88	57.14	57.35	64.09
	DAY LEQ	67.03		EVENING LEQ	63.91		NIGHT LEQ	65.59	

CNEL	72.33	Day hour	96.00
DAY LEQ	67.03	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project Traffic Noise

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	11410
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	52
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	660.80	13.69	22.82	490.57	2.28	3.80	121.65	19.02	31.69
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.36	4.53	6.75	20.07	-3.25	-1.04	14.01	5.95	8.17
Distance	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24	-0.24
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	65.47	56.91	63.65	64.17	49.13	55.86	58.12	58.34	65.07
	DAY LEQ	68.01		EVENING LEQ	64.89		NIGHT LEQ	66.58	

CNEL	73.31	Day hour	96.00
DAY LEQ	68.01	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project Traffic Noise

9	:Id	Vehicle Distribution (Light Truck Mix)				ADT	10600
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	42
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	650.09	7.95	3.09	480.43	1.41	1.41	120.34	10.60	4.12
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.29	2.17	-1.94	19.98	-5.34	-5.33	13.97	3.41	-0.69
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.32	55.47	55.89	65.01	47.97	52.50	59.00	56.72	57.14
	DAY LEQ	67.02		EVENING LEQ	65.33		NIGHT LEQ	62.51	

CNEL	70.23	Day hour	97.00
DAY LEQ	67.02	Absorptive?	no
		Use hour?	no
		GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project Traffic Noise

9	:Id
Chandler Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	11820
Speed	45
Distance	42
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	724.92	8.86	3.45	535.72	1.57	1.58	134.19	11.82	4.60
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.76	2.64	-1.46	20.45	-4.87	-4.86	14.44	3.89	-0.21
Distance	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69	0.69
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.80	55.95	56.37	65.48	48.44	52.97	59.47	57.20	57.62
	DAY LEQ	67.49		EVENING LEQ	65.80		NIGHT LEQ	62.98	

F	CNEL	70.70	
	DAY LEQ	67.49	

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project Traffic Noise

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1600
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	40
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	98.13	1.20	0.47	72.52	0.21	0.21	18.16	1.60	0.62
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.63	-3.49	-7.59	14.32	-11.00	-10.99	8.31	-2.24	-6.35
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	50.97	43.49	45.54	49.66	35.98	42.15	43.65	44.74	46.79
	DAY LEQ	52.63		EVENING LEQ	50.52		NIGHT LEQ	50.03	

	CNEL	57.11	Day hour	98.00
	DAY LEQ	52.63	Absorptive?	no
			Use hour?	no
			GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project Traffic Noise

10	:Id
Wind River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1840
Speed	25
Distance	40
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	112.85	1.38	0.54	83.40	0.24	0.25	20.89	1.84	0.72
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.24	-2.89	-6.99	14.93	-10.40	-10.38	8.91	-1.64	-5.74
Distance	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	51.58	44.10	46.15	50.27	36.59	42.76	44.25	45.35	47.40
	DAY LEQ	53.24		EVENING LEQ	51.13		NIGHT LEQ	50.64	

CNEL	57.72
DAY LEQ	53.24

Day hour	98.00
Absorptive?	no
Use hour?	no
GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project Traffic Noise

11	:Id	Vehicle Distribution (Light Truck Mix)				ADT	100
Grapewin Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	15
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	6.13	0.07	0.03	4.53	0.01	0.01	1.14	0.10	0.04
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	3.59	-15.53	-19.64	2.28	-23.04	-23.03	-3.73	-14.29	-18.39
Distance	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	43.19	35.71	37.76	41.88	28.20	34.37	35.86	36.96	39.01
	DAY LEQ	44.85		EVENING LEQ	42.74		NIGHT LEQ	42.25	

CNEL	49.33	Day hour	99.00
DAY LEQ	44.85	Absorptive?	no
		Use hour?	no
		GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project Traffic Noise

11	:Id	
Grapewin Street	:Road	
East of Archibald Avenue	:Segment	

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	200
Speed	25
Distance	15
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	12.27	0.15	0.06	9.06	0.03	0.03	2.27	0.20	0.08
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	6.60	-12.52	-16.63	5.29	-20.03	-20.02	-0.72	-11.28	-15.38
Distance	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16	5.16
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	46.20	38.72	40.77	44.89	31.21	37.38	38.87	39.97	42.02
	DAY LEQ	47.86		EVENING LEQ	45.75		NIGHT LEQ	45.26	

CNEL	52.34
DAY LEQ	47.86

Day hour	99.00
Absorptive?	no
Use hour?	no
GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

			ADT	32800
1	:Id			
Archibald Avenue	:Road		Speed	50
North of Smith River Road/Eastvale Parkway	:Segment		Distance	3760
			Left Angle	-90
			Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1899.58	39.36	65.60	1410.23	6.56	10.93	349.71	54.67	91.11
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.49	8.66	10.87	24.20	0.87	3.09	18.14	10.08	12.30
Distance	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.06	51.49	35.83	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

F		CNEL	60.00	Day hour	89.00
		DAY LEQ	54.97	Absorptive?	no
				Use hour?	no
				GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

2	:Id	
Archibald Avenue	:Road	
South of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	29600
Speed	50
Distance	3390
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.07	51.49	35.84	42.28	45.43	45.05	51.49
	DAY LEQ	54.97		EVENING LEQ	52.09		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.97

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

3	:Id	
Archibald Avenue	:Road	
North of Chandler Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	29600
Speed	50
Distance	3390
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38	-18.38
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.07	51.49	35.84	42.28	45.43	45.05	51.49
	DAY LEQ	54.97		EVENING LEQ	52.09		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.97

Day hour	91.00
Absorptive?	no
Use hour?	no
GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	31500
Speed	50
Distance	3610
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1824.29	37.80	63.00	1354.33	6.30	10.50	335.85	52.50	87.50
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.32	8.48	10.70	24.02	0.70	2.92	17.97	9.91	12.12
Distance	-18.66	-18.66	-18.66	-18.66	-18.66	-18.66	-18.66	-18.66	-18.66
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.06	51.49	35.84	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.97

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

5	:Id	
Archibald Avenue	:Road	
South of Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	26500
Speed	50
Distance	3040
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1534.72	31.80	53.00	1139.36	5.30	8.83	282.54	44.17	73.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.56	7.73	9.95	23.27	-0.05	2.17	17.22	9.16	11.37
Distance	-17.91	-17.91	-17.91	-17.91	-17.91	-17.91	-17.91	-17.91	-17.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.61	50.06	51.48	35.83	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

CNEL	60.00
DAY LEQ	54.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1400
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	18
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	85.86	1.05	0.41	63.45	0.19	0.19	15.89	1.40	0.54
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.05	-4.07	-8.17	13.74	-11.58	-11.57	7.73	-2.82	-6.93
Distance	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37	4.37
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.86	46.38	48.43	52.55	38.87	45.04	46.53	47.63	49.68
	DAY LEQ	55.52		EVENING LEQ	53.41		NIGHT LEQ	52.92	

CNEL	60.00	Day hour	94.00
DAY LEQ	55.52	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

7	:Id	
Eastvale Parkway	:Road	
East of Archibald Avenue	:Segment	

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	5700
Speed	25
Distance	73
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	349.58	4.27	1.66	258.34	0.76	0.76	64.71	5.70	2.22
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.15	2.02	-2.08	19.84	-5.48	-5.47	13.82	3.27	-0.83
Distance	-1.71	-1.71	-1.71	-1.71	-1.71	-1.71	-1.71	-1.71	-1.71
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.88	46.40	48.45	52.56	38.89	45.05	46.55	47.65	49.70
	DAY LEQ	55.54		EVENING LEQ	53.43		NIGHT LEQ	52.94	

CNEL	60.01
DAY LEQ	55.54

Day hour	95.00
Absorptive?	no
Use hour?	no
GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

8	:Id					ADT	9100
Chandler Street	:Road					Speed	45
West of Archibald Avenue	:Segment					Distance	888
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	527.02	10.92	18.20	391.25	1.82	3.03	97.02	15.17	25.28
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.38	3.54	5.76	19.09	-4.24	-2.02	13.03	4.97	7.19
Distance	-12.56	-12.56	-12.56	-12.56	-12.56	-12.56	-12.56	-12.56	-12.56
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.16	43.60	50.34	50.87	35.82	42.56	44.81	45.03	51.77
	DAY LEQ	54.71		EVENING LEQ	51.58		NIGHT LEQ	53.27	

CNEL	60.00	Day hour	96.00
DAY LEQ	54.71	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

9	:Id
Chandler Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	10600
Speed	45
Distance	443
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	650.09	7.95	3.09	480.43	1.41	1.41	120.34	10.60	4.12
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.29	2.17	-1.94	19.98	-5.34	-5.33	13.97	3.41	-0.69
Distance	-9.54	-9.54	-9.54	-9.54	-9.54	-9.54	-9.54	-9.54	-9.54
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	56.09	45.24	45.66	54.78	37.73	42.27	48.77	46.49	46.91
	DAY LEQ	56.78		EVENING LEQ	55.10		NIGHT LEQ	52.28	

CNEL	60.00
DAY LEQ	56.78

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1600
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	21
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	98.13	1.20	0.47	72.52	0.21	0.21	18.16	1.60	0.62
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.63	-3.49	-7.59	14.32	-11.00	-10.99	8.31	-2.24	-6.35
Distance	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.77	46.29	48.34	52.46	38.78	44.95	46.44	47.54	49.59
	DAY LEQ	55.43		EVENING LEQ	53.32		NIGHT LEQ	52.83	

CNEL	59.91	Day hour	98.00
DAY LEQ	55.43	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

11	:Id	
Grapewin Street	:Road	
East of Archibald Avenue	:Segment	

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	100
Speed	25
Distance	1
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	6.13	0.07	0.03	4.53	0.01	0.01	1.14	0.10	0.04
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	3.59	-15.53	-19.64	2.28	-23.04	-23.03	-3.73	-14.29	-18.39
Distance	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	54.95	47.47	49.52	53.64	39.96	46.13	47.63	48.72	50.77
	DAY LEQ	56.61		EVENING LEQ	54.50		NIGHT LEQ	54.01	

CNEL	61.09
DAY LEQ	56.61

Day hour	99.00
Absorptive?	no
Use hour?	no
GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

1	:Id	
Archibald Avenue	:Road	
North of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	32800
Speed	50
Distance	1190
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1899.58	39.36	65.60	1410.23	6.56	10.93	349.71	54.67	91.11
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.49	8.66	10.87	24.20	0.87	3.09	18.14	10.08	12.30
Distance	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.61	55.06	56.48	40.83	47.28	50.43	50.04	56.48
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.17	

F	CNEL	65.00	
	DAY LEQ	59.97	

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

2	:Id	
Archibald Avenue	:Road	
South of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	29600
Speed	50
Distance	1074
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-13.39	-13.39	-13.39	-13.39	-13.39	-13.39	-13.39	-13.39	-13.39
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.77	48.61	55.06	56.48	40.83	47.28	50.43	50.04	56.48
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.17	

CNEL	65.00
DAY LEQ	59.97

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

3	:Id					ADT	29600
Archibald Avenue	:Road					Speed	50
North of Chandler Street	:Segment					Distance	1072
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-13.38	-13.38	-13.38	-13.38	-13.38	-13.38	-13.38	-13.38	-13.38
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.07	56.49	40.84	47.28	50.43	50.05	56.49
	DAY LEQ	59.97		EVENING LEQ	57.09		NIGHT LEQ	58.18	

CNEL	65.00	Day hour	91.00
DAY LEQ	59.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	31500
Speed	50
Distance	1142
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1824.29	37.80	63.00	1354.33	6.30	10.50	335.85	52.50	87.50
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.32	8.48	10.70	24.02	0.70	2.92	17.97	9.91	12.12
Distance	-13.66	-13.66	-13.66	-13.66	-13.66	-13.66	-13.66	-13.66	-13.66
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.48	40.83	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.17	

CNEL	65.00	Day hour	92.00
DAY LEQ	59.97	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	26500
Speed	50
Distance	960
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1534.72	31.80	53.00	1139.36	5.30	8.83	282.54	44.17	73.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.56	7.73	9.95	23.27	-0.05	2.17	17.22	9.16	11.37
Distance	-12.90	-12.90	-12.90	-12.90	-12.90	-12.90	-12.90	-12.90	-12.90
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.05	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00
DAY LEQ	59.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1400
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	6
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	85.86	1.05	0.41	63.45	0.19	0.19	15.89	1.40	0.54
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.05	-4.07	-8.17	13.74	-11.58	-11.57	7.73	-2.82	-6.93
Distance	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.63	51.15	53.20	57.32	43.64	49.81	51.31	52.40	54.45
	DAY LEQ	60.29		EVENING LEQ	58.18		NIGHT LEQ	57.69	

CNEL	64.77	Day hour	94.00
DAY LEQ	60.29	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

7	:Id
Eastvale Parkway	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	5700
Speed	25
Distance	23
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	349.58	4.27	1.66	258.34	0.76	0.76	64.71	5.70	2.22
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.15	2.02	-2.08	19.84	-5.48	-5.47	13.82	3.27	-0.83
Distance	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.30
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.89	51.41	53.47	57.58	43.90	50.07	51.57	52.66	54.71
	DAY LEQ	60.55		EVENING LEQ	58.44		NIGHT LEQ	57.95	

CNEL	65.03
DAY LEQ	60.55

Day hour	95.00
Absorptive?	no
Use hour?	no
GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	9100
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	281
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	527.02	10.92	18.20	391.25	1.82	3.03	97.02	15.17	25.28
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.38	3.54	5.76	19.09	-4.24	-2.02	13.03	4.97	7.19
Distance	-7.57	-7.57	-7.57	-7.57	-7.57	-7.57	-7.57	-7.57	-7.57
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.16	48.60	55.34	55.86	40.82	47.56	49.81	50.03	56.76
	DAY LEQ	59.70		EVENING LEQ	56.58		NIGHT LEQ	58.27	

CNEL	65.00	Day hour	96.00
DAY LEQ	59.70	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 65 CNEL

9	:Id					ADT	10600
Chandler Street	:Road					Speed	45
East of Archibald Avenue	:Segment					Distance	140
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	650.09	7.95	3.09	480.43	1.41	1.41	120.34	10.60	4.12
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.29	2.17	-1.94	19.98	-5.34	-5.33	13.97	3.41	-0.69
Distance	-4.54	-4.54	-4.54	-4.54	-4.54	-4.54	-4.54	-4.54	-4.54
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	61.09	50.25	50.66	59.78	42.74	47.27	53.77	51.50	51.91
	DAY LEQ	61.79		EVENING LEQ	60.10		NIGHT LEQ	57.28	

CNEL	65.00	Day hour	97.00
DAY LEQ	61.79	Absorptive?	no
		Use hour?	no
		GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

10	:Id
Wind River Road	:Road
West of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	1600
Speed	25
Distance	6
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	98.13	1.20	0.47	72.52	0.21	0.21	18.16	1.60	0.62
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.63	-3.49	-7.59	14.32	-11.00	-10.99	8.31	-2.24	-6.35
Distance	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14	9.14
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	59.21	51.73	53.78	57.90	44.22	50.39	51.89	52.98	55.03
	DAY LEQ	60.87		EVENING LEQ	58.76		NIGHT LEQ	58.27	

CNEL	65.35
DAY LEQ	60.87

Day hour	98.00
Absorptive?	no
Use hour?	no
GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 65 CNEL

11	:Id
Grapewin Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	100
Speed	25
Distance	0
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	6.13	0.07	0.03	4.53	0.01	0.01	1.14	0.10	0.04
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	3.59	-15.53	-19.64	2.28	-23.04	-23.03	-3.73	-14.29	-18.39
Distance	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
	DAY LEQ	#DIV/0!		EVENING LEQ	#DIV/0!		NIGHT LEQ	#DIV/0!	

CNEL	#DIV/0!
DAY LEQ	#DIV/0!

Day hour	99.00
Absorptive?	no
Use hour?	no
GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 70 CNEL

1	:Id	
Archibald Avenue	:Road	
North of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	32800
Speed	50
Distance	376
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1899.58	39.36	65.60	1410.23	6.56	10.93	349.71	54.67	91.11
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.49	8.66	10.87	24.20	0.87	3.09	18.14	10.08	12.30
Distance	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.06	61.49	45.83	52.28	55.43	55.04	61.49
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.17	

F	CNEL	70.00	
	DAY LEQ	64.97	

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 70 CNEL

2	:Id					ADT	29600
Archibald Avenue	:Road					Speed	50
South of Smith River Road/Eastvale Parkway	:Segment					Distance	339
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.07	61.49	45.84	52.28	55.43	55.05	61.49
	DAY LEQ	64.97		EVENING LEQ	62.09		NIGHT LEQ	63.18	

CNEL	70.00	Day hour	90.00
DAY LEQ	64.97	Absorptive?	no
		Use hour?	no
		GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 70 CNEL

			ADT	29600
3	:Id			
Archibald Avenue	:Road		Speed	50
North of Chandler Street	:Segment		Distance	339
			Left Angle	-90
			Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1714.25	35.52	59.20	1272.64	5.92	9.87	315.59	49.33	82.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.05	8.21	10.43	23.75	0.43	2.65	17.70	9.64	11.85
Distance	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38	-8.38
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.07	61.49	45.84	52.28	55.43	55.05	61.49
	DAY LEQ	64.97		EVENING LEQ	62.09		NIGHT LEQ	63.18	

CNEL	70.00	Day hour	91.00
DAY LEQ	64.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 70 CNEL

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	31500
Speed	50
Distance	361
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1824.29	37.80	63.00	1354.33	6.30	10.50	335.85	52.50	87.50
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.32	8.48	10.70	24.02	0.70	2.92	17.97	9.91	12.12
Distance	-8.66	-8.66	-8.66	-8.66	-8.66	-8.66	-8.66	-8.66	-8.66
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.06	61.49	45.84	52.28	55.43	55.04	61.49
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.18	

CNEL	70.00
DAY LEQ	64.97

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 70 CNEL

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	26500
Speed	50
Distance	304
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1534.72	31.80	53.00	1139.36	5.30	8.83	282.54	44.17	73.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.56	7.73	9.95	23.27	-0.05	2.17	17.22	9.16	11.37
Distance	-7.91	-7.91	-7.91	-7.91	-7.91	-7.91	-7.91	-7.91	-7.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.61	60.06	61.48	45.83	52.28	55.43	55.04	61.49
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.17	

CNEL	70.00
DAY LEQ	64.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 70 CNEL

6	:Id					ADT	1400
Smith River Road	:Road					Speed	25
West of Archibald Avenue	:Segment					Distance	2
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	85.86	1.05	0.41	63.45	0.19	0.19	15.89	1.40	0.54
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.05	-4.07	-8.17	13.74	-11.58	-11.57	7.73	-2.82	-6.93
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.40	55.92	57.97	62.09	48.41	54.58	56.08	57.17	59.22
	DAY LEQ	65.06		EVENING LEQ	62.95		NIGHT LEQ	62.46	

CNEL	69.54	Day hour	94.00
DAY LEQ	65.06	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 70 CNEL

			ADT	5700
7	:Id			
Eastvale Parkway	:Road		Speed	25
East of Archibald Avenue	:Segment		Distance	7
			Left Angle	-90
			Right Angle	90

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	349.58	4.27	1.66	258.34	0.76	0.76	64.71	5.70	2.22
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.15	2.02	-2.08	19.84	-5.48	-5.47	13.82	3.27	-0.83
Distance	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.06	56.58	58.63	62.75	49.07	55.24	56.73	57.83	59.88
	DAY LEQ	65.72		EVENING LEQ	63.61		NIGHT LEQ	63.12	

CNEL	70.20	Day hour	95.00
DAY LEQ	65.72	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 70 CNEL

8	:Id					ADT	9100
Chandler Street	:Road					Speed	45
West of Archibald Avenue	:Segment					Distance	89
						Left Angle	-90
						Right Angle	90

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	527.02	10.92	18.20	391.25	1.82	3.03	97.02	15.17	25.28
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	20.38	3.54	5.76	19.09	-4.24	-2.02	13.03	4.97	7.19
Distance	-2.57	-2.57	-2.57	-2.57	-2.57	-2.57	-2.57	-2.57	-2.57
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.15	53.59	60.33	60.86	45.81	52.55	54.80	55.02	61.76
	DAY LEQ	64.70		EVENING LEQ	61.57		NIGHT LEQ	63.26	

CNEL	69.99	Day hour	96.00
DAY LEQ	64.70	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) Without Project 70 CNEL

9	:Id
Chandler Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	10600
Speed	45
Distance	44
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	650.09	7.95	3.09	480.43	1.41	1.41	120.34	10.60	4.12
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.29	2.17	-1.94	19.98	-5.34	-5.33	13.97	3.41	-0.69
Distance	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.12	55.27	55.69	64.81	47.76	52.29	58.80	56.52	56.94
	DAY LEQ	66.81		EVENING LEQ	65.13		NIGHT LEQ	62.31	

CNEL	70.03
DAY LEQ	66.81

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) Without Project 70 CNEL

			ADT	1600
10	:Id			
Wind River Road	:Road		Speed	25
West of Archibald Avenue	:Segment		Distance	2
			Left Angle	-90
			Right Angle	90

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	98.13	1.20	0.47	72.52	0.21	0.21	18.16	1.60	0.62
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.63	-3.49	-7.59	14.32	-11.00	-10.99	8.31	-2.24	-6.35
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.98	56.50	58.55	62.67	48.99	55.16	56.66	57.75	59.80
	DAY LEQ	65.64		EVENING LEQ	63.53		NIGHT LEQ	63.04	

CNEL	70.12	Day hour	98.00
DAY LEQ	65.64	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 60 CNEL Contour

1	:Id
Archibald Avenue	:Road
North of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	33530
Speed	50
Distance	3840
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1941.86	40.24	67.06	1441.61	6.71	11.18	357.49	55.88	93.14
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.59	8.75	10.97	24.29	0.97	3.19	18.24	10.18	12.40
Distance	-18.92	-18.92	-18.92	-18.92	-18.92	-18.92	-18.92	-18.92	-18.92
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.07	51.49	35.84	42.28	45.43	45.05	51.49
	DAY LEQ	54.97		EVENING LEQ	52.09		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.97

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 60 CNEL Contour

2	:Id
Archibald Avenue	:Road
South of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	30820
Speed	50
Distance	3535
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1784.91	36.98	61.64	1325.10	6.16	10.27	328.60	51.37	85.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.22	8.38	10.60	23.93	0.60	2.82	17.87	9.81	12.03
Distance	-18.56	-18.56	-18.56	-18.56	-18.56	-18.56	-18.56	-18.56	-18.56
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.61	50.06	51.48	35.83	42.28	45.43	45.04	51.49
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

CNEL	60.00
DAY LEQ	54.97

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 60 CNEL Contour

3	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	30940
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow		
Archibald Avenue	:Road						Speed	50
		Automobiles	75.54	14.02	10.43	92.00	Distance	3550
North of Chandler Street	:Segment	Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1791.86	37.13	61.88	1330.25	6.19	10.31	329.88	51.57	85.94
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.24	8.40	10.62	23.94	0.62	2.84	17.89	9.83	12.05
Distance	-18.58	-18.58	-18.58	-18.58	-18.58	-18.58	-18.58	-18.58	-18.58
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.77	43.61	50.06	51.48	35.83	42.28	45.43	45.04	51.48
	DAY LEQ	54.97		EVENING LEQ	52.08		NIGHT LEQ	53.17	

CNEL	60.00	Day hour	91.00
DAY LEQ	54.97	Absorptive?	no
		Use hour?	no
		GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 60 CNEL Contour

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	32840
Speed	50
Distance	3760
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1901.90	39.41	65.68	1411.94	6.57	10.95	350.13	54.73	91.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.50	8.66	10.88	24.20	0.88	3.10	18.15	10.09	12.31
Distance	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83	-18.83
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.07	51.49	35.84	42.29	45.43	45.05	51.49
	DAY LEQ	54.98		EVENING LEQ	52.09		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.98

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 60 CNEL Contour

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	27230
Speed	50
Distance	3118
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1577.00	32.68	54.46	1170.74	5.45	9.08	290.32	45.38	75.64
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.68	7.85	10.07	23.39	0.07	2.28	17.33	9.27	11.49
Distance	-18.02	-18.02	-18.02	-18.02	-18.02	-18.02	-18.02	-18.02	-18.02
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.78	43.62	50.07	51.49	35.84	42.28	45.43	45.05	51.49
	DAY LEQ	54.97		EVENING LEQ	52.09		NIGHT LEQ	53.18	

CNEL	60.00
DAY LEQ	54.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 60 CNEL Contour

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1640
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	21
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	100.58	1.23	0.48	74.33	0.22	0.22	18.62	1.64	0.64
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.74	-3.39	-7.49	14.43	-10.90	-10.88	8.41	-2.14	-6.24
Distance	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70	3.70
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.88	46.40	48.45	52.56	38.89	45.05	46.55	47.65	49.70
	DAY LEQ	55.54		EVENING LEQ	53.43		NIGHT LEQ	52.94	

CNEL	60.02	Day hour	94.00
DAY LEQ	55.54	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 60 CNEL Contour

7	:Id	Vehicle Distribution (Light Truck Mix)				ADT	5940
Eastvale Parkway	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	76
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	364.30	4.45	1.73	269.22	0.79	0.79	67.43	5.94	2.31
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.33	2.20	-1.90	20.02	-5.31	-5.29	14.00	3.45	-0.65
Distance	-1.89	-1.89	-1.89	-1.89	-1.89	-1.89	-1.89	-1.89	-1.89
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.88	46.40	48.45	52.57	38.89	45.06	46.56	47.65	49.70
	DAY LEQ	55.54		EVENING LEQ	53.43		NIGHT LEQ	52.94	

CNEL	60.02	Day hour	95.00
DAY LEQ	55.54	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 60 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	11410
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	1115
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	660.80	13.69	22.82	490.57	2.28	3.80	121.65	19.02	31.69
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.36	4.53	6.75	20.07	-3.25	-1.04	14.01	5.95	8.17
Distance	-13.55	-13.55	-13.55	-13.55	-13.55	-13.55	-13.55	-13.55	-13.55
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	52.15	43.60	50.33	50.86	35.81	42.55	44.80	45.02	51.76
	DAY LEQ	54.70		EVENING LEQ	51.58		NIGHT LEQ	53.26	

CNEL	60.00	Day hour	96.00
DAY LEQ	54.70	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 60 CNEL Contour

9	:Id	Vehicle Distribution (Light Truck Mix)				ADT	11820
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	494
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	724.92	8.86	3.45	535.72	1.57	1.58	134.19	11.82	4.60
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.76	2.64	-1.46	20.45	-4.87	-4.86	14.44	3.89	-0.21
Distance	-10.02	-10.02	-10.02	-10.02	-10.02	-10.02	-10.02	-10.02	-10.02
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	56.09	45.24	45.66	54.78	37.73	42.27	48.77	46.49	46.91
	DAY LEQ	56.78		EVENING LEQ	55.10		NIGHT LEQ	52.28	

F		CNEL	60.00	Day hour	97.00
		DAY LEQ	56.78	Absorptive?	no
				Use hour?	no
				GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 60 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1840
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	24
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	112.85	1.38	0.54	83.40	0.24	0.25	20.89	1.84	0.72
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.24	-2.89	-6.99	14.93	-10.40	-10.38	8.91	-1.64	-5.74
Distance	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.80	46.32	48.37	52.48	38.81	44.97	46.47	47.57	49.62
	DAY LEQ	55.46		EVENING LEQ	53.35		NIGHT LEQ	52.86	

CNEL	59.94	Day hour	98.00
DAY LEQ	55.46	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 60 CNEL Contour

11	:Id
Grapewin Street	:Road
East of Archibald Avenue	:Segment

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	200
Speed	25
Distance	3
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	12.27	0.15	0.06	9.06	0.03	0.03	2.27	0.20	0.08
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	6.60	-12.52	-16.63	5.29	-20.03	-20.02	-0.72	-11.28	-15.38
Distance	12.15	12.15	12.15	12.15	12.15	12.15	12.15	12.15	12.15
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	53.19	45.71	47.76	51.88	38.20	44.37	45.86	46.96	49.01
	DAY LEQ	54.85		EVENING LEQ	52.74		NIGHT LEQ	52.25	

CNEL	59.33
DAY LEQ	54.85

Day hour	99.00
Absorptive?	no
Use hour?	no
GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 65 CNEL Contour

1	:Id
Archibald Avenue	:Road
North of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	33530
Speed	50
Distance	1215
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1941.86	40.24	67.06	1441.61	6.71	11.18	357.49	55.88	93.14
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.59	8.75	10.97	24.29	0.97	3.19	18.24	10.18	12.40
Distance	-13.93	-13.93	-13.93	-13.93	-13.93	-13.93	-13.93	-13.93	-13.93
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00
DAY LEQ	59.97

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 65 CNEL Contour

2	:Id
Archibald Avenue	:Road
South of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	30820
Speed	50
Distance	1118
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1784.91	36.98	61.64	1325.10	6.16	10.27	328.60	51.37	85.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.22	8.38	10.60	23.93	0.60	2.82	17.87	9.81	12.03
Distance	-13.56	-13.56	-13.56	-13.56	-13.56	-13.56	-13.56	-13.56	-13.56
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.61	55.06	56.48	40.83	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.17	

CNEL	65.00
DAY LEQ	59.97

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 65 CNEL Contour

3	:Id
Archibald Avenue	:Road
North of Chandler Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	30940
Speed	50
Distance	1122
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1791.86	37.13	61.88	1330.25	6.19	10.31	329.88	51.57	85.94
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.24	8.40	10.62	23.94	0.62	2.84	17.89	9.83	12.05
Distance	-13.58	-13.58	-13.58	-13.58	-13.58	-13.58	-13.58	-13.58	-13.58
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.61	55.06	56.48	40.83	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.17	

CNEL	65.00
DAY LEQ	59.97

Day hour	91.00
Absorptive?	no
Use hour?	no
GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 65 CNEL Contour

4	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	32840
		Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow		
Archibald Avenue	:Road						Speed	50
Chandler Street to Wind River Road/Grapewin Street	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	1190
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1901.90	39.41	65.68	1411.94	6.57	10.95	350.13	54.73	91.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.50	8.66	10.88	24.20	0.88	3.10	18.15	10.09	12.31
Distance	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84	-13.84
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00	Day hour	92.00
DAY LEQ	59.97	Absorptive?	no
		Use hour?	no
		GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 65 CNEL Contour

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	27230
Speed	50
Distance	987
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1577.00	32.68	54.46	1170.74	5.45	9.08	290.32	45.38	75.64
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.68	7.85	10.07	23.39	0.07	2.28	17.33	9.27	11.49
Distance	-13.02	-13.02	-13.02	-13.02	-13.02	-13.02	-13.02	-13.02	-13.02
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.78	48.62	55.06	56.49	40.84	47.28	50.43	50.04	56.49
	DAY LEQ	59.97		EVENING LEQ	57.08		NIGHT LEQ	58.18	

CNEL	65.00
DAY LEQ	59.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 65 CNEL Contour

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1640		
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25	
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	7	
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90	
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90	

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	100.58	1.23	0.48	74.33	0.22	0.22	18.62	1.64	0.64
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.74	-3.39	-7.49	14.43	-10.90	-10.88	8.41	-2.14	-6.24
Distance	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.65	51.17	53.22	57.34	43.66	49.83	51.32	52.42	54.47
	DAY LEQ	60.31		EVENING LEQ	58.20		NIGHT LEQ	57.71	

CNEL	64.79	Day hour	94.00
DAY LEQ	60.31	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 65 CNEL Contour

7	:Id	Vehicle Distribution (Light Truck Mix)				ADT	5940
Eastvale Parkway	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	24
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	364.30	4.45	1.73	269.22	0.79	0.79	67.43	5.94	2.31
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.33	2.20	-1.90	20.02	-5.31	-5.29	14.00	3.45	-0.65
Distance	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	58.89	51.41	53.46	57.57	43.90	50.06	51.56	52.66	54.71
	DAY LEQ	60.55		EVENING LEQ	58.44		NIGHT LEQ	57.95	

CNEL	65.03	Day hour	95.00
DAY LEQ	60.55	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 65 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	11410
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	352
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	660.80	13.69	22.82	490.57	2.28	3.80	121.65	19.02	31.69
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.36	4.53	6.75	20.07	-3.25	-1.04	14.01	5.95	8.17
Distance	-8.55	-8.55	-8.55	-8.55	-8.55	-8.55	-8.55	-8.55	-8.55
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.16	48.60	55.34	55.87	40.82	47.56	49.81	50.03	56.77
	DAY LEQ	59.71		EVENING LEQ	56.58		NIGHT LEQ	58.27	

CNEL	65.00	Day hour	96.00
DAY LEQ	59.71	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 65 CNEL Contour

9	:Id	
Chandler Street	:Road	
East of Archibald Avenue	:Segment	

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	11820
Speed	45
Distance	156
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	724.92	8.86	3.45	535.72	1.57	1.58	134.19	11.82	4.60
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.76	2.64	-1.46	20.45	-4.87	-4.86	14.44	3.89	-0.21
Distance	-5.01	-5.01	-5.01	-5.01	-5.01	-5.01	-5.01	-5.01	-5.01
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	61.10	50.25	50.67	59.78	42.74	47.27	53.77	51.50	51.92
	DAY LEQ	61.79		EVENING LEQ	60.10		NIGHT LEQ	57.28	

F	CNEL	65.01	
	DAY LEQ	61.79	

Day hour	97.00
Absorptive?	no
Use hour?	no
GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 65 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1840
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	7
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	112.85	1.38	0.54	83.40	0.24	0.25	20.89	1.84	0.72
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.24	-2.89	-6.99	14.93	-10.40	-10.38	8.91	-1.64	-5.74
Distance	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47	8.47
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	59.15	51.67	53.72	57.83	44.16	50.33	51.82	52.92	54.97
	DAY LEQ	60.81		EVENING LEQ	58.70		NIGHT LEQ	58.21	

CNEL	65.29	Day hour	98.00
DAY LEQ	60.81	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 65 CNEL Contour

11	:Id	
Grapewin Street	:Road	
East of Archibald Avenue	:Segment	

Vehicle Distribution (Light Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.56	13.96	10.49	97.40
Medium Trucks	48.91	2.17	48.91	1.84
Heavy Trucks	47.30	5.41	47.30	0.74

ADT	200
Speed	25
Distance	1
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	12.27	0.15	0.06	9.06	0.03	0.03	2.27	0.20	0.08
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	6.60	-12.52	-16.63	5.29	-20.03	-20.02	-0.72	-11.28	-15.38
Distance	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92	16.92
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	57.96	50.48	52.53	56.65	42.97	49.14	50.64	51.73	53.78
	DAY LEQ	59.62		EVENING LEQ	57.51		NIGHT LEQ	57.02	

CNEL	64.10
DAY LEQ	59.62

Day hour	99.00
Absorptive?	no
Use hour?	no
GRADE dB	10.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 70 CNEL Contour

1	:Id	
Archibald Avenue	:Road	
North of Smith River Road/Eastvale Parkway	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	33530
Speed	50
Distance	384
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1941.86	40.24	67.06	1441.61	6.71	11.18	357.49	55.88	93.14
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.59	8.75	10.97	24.29	0.97	3.19	18.24	10.18	12.40
Distance	-8.92	-8.92	-8.92	-8.92	-8.92	-8.92	-8.92	-8.92	-8.92
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.07	61.49	45.84	52.28	55.43	55.05	61.49
	DAY LEQ	64.97		EVENING LEQ	62.09		NIGHT LEQ	63.18	

CNEL	70.00
DAY LEQ	64.97

Day hour	89.00
Absorptive?	no
Use hour?	no
GRADE dB	0.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 70 CNEL Contour

2	:Id
Archibald Avenue	:Road
South of Smith River Road/Eastvale Parkway	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	30820
Speed	50
Distance	353
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1784.91	36.98	61.64	1325.10	6.16	10.27	328.60	51.37	85.61
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.22	8.38	10.60	23.93	0.60	2.82	17.87	9.81	12.03
Distance	-8.56	-8.56	-8.56	-8.56	-8.56	-8.56	-8.56	-8.56	-8.56
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.07	61.49	45.84	52.28	55.43	55.05	61.49
	DAY LEQ	64.97		EVENING LEQ	62.09		NIGHT LEQ	63.18	

CNEL	70.00
DAY LEQ	64.97

Day hour	90.00
Absorptive?	no
Use hour?	no
GRADE dB	1.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 70 CNEL Contour

3	:Id
Archibald Avenue	:Road
North of Chandler Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	30940
Speed	50
Distance	355
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1791.86	37.13	61.88	1330.25	6.19	10.31	329.88	51.57	85.94
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.24	8.40	10.62	23.94	0.62	2.84	17.89	9.83	12.05
Distance	-8.58	-8.58	-8.58	-8.58	-8.58	-8.58	-8.58	-8.58	-8.58
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.77	53.61	60.06	61.48	45.83	52.28	55.43	55.04	61.48
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.17	

CNEL	70.00
DAY LEQ	64.97

Day hour	91.00
Absorptive?	no
Use hour?	no
GRADE dB	2.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 70 CNEL Contour

4	:Id	
Archibald Avenue	:Road	
Chandler Street to Wind River Road/Grapewin Street	:Segment	

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	32840
Speed	50
Distance	376
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1901.90	39.41	65.68	1411.94	6.57	10.95	350.13	54.73	91.22
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	25.50	8.66	10.88	24.20	0.88	3.10	18.15	10.09	12.31
Distance	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83	-8.83
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.07	61.49	45.84	52.29	55.43	55.05	61.49
	DAY LEQ	64.98		EVENING LEQ	62.09		NIGHT LEQ	63.18	

CNEL	70.00
DAY LEQ	64.98

Day hour	92.00
Absorptive?	no
Use hour?	no
GRADE dB	3.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 70 CNEL Contour

5	:Id
Archibald Avenue	:Road
South of Wind River Road/Grapewin Street	:Segment

Vehicle Distribution (Heavy Truck Mix)				
Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow
Automobiles	75.54	14.02	10.43	92.00
Medium Trucks	48.00	2.00	50.00	3.00
Heavy Trucks	48.00	2.00	50.00	5.00

ADT	27230
Speed	50
Distance	312
Left Angle	-90
Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	1577.00	32.68	54.46	1170.74	5.45	9.08	290.32	45.38	75.64
Speed in MPH	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	71.12	78.79	83.02	71.12	78.79	83.02	71.12	78.79	83.02
ADJUSTMENTS									
Flow	24.68	7.85	10.07	23.39	0.07	2.28	17.33	9.27	11.49
Distance	-8.02	-8.02	-8.02	-8.02	-8.02	-8.02	-8.02	-8.02	-8.02
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.78	53.62	60.06	61.49	45.84	52.28	55.43	55.05	61.49
	DAY LEQ	64.97		EVENING LEQ	62.08		NIGHT LEQ	63.18	

CNEL	70.00
DAY LEQ	64.97

Day hour	93.00
Absorptive?	no
Use hour?	no
GRADE dB	4.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 70 CNEL Contour

6	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1640
Smith River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	2
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	100.58	1.23	0.48	74.33	0.22	0.22	18.62	1.64	0.64
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	15.74	-3.39	-7.49	14.43	-10.90	-10.88	8.41	-2.14	-6.24
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.09	56.61	58.66	62.78	49.10	55.27	56.76	57.86	59.91
	DAY LEQ	65.75		EVENING LEQ	63.64		NIGHT LEQ	63.15	

CNEL	70.23	Day hour	94.00
DAY LEQ	65.75	Absorptive?	no
		Use hour?	no
		GRADE dB	5.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 70 CNEL Contour

7	:Id	Vehicle Distribution (Light Truck Mix)				ADT	5940
Eastvale Parkway	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	8
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	364.30	4.45	1.73	269.22	0.79	0.79	67.43	5.94	2.31
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	21.33	2.20	-1.90	20.02	-5.31	-5.29	14.00	3.45	-0.65
Distance	7.89	7.89	7.89	7.89	7.89	7.89	7.89	7.89	7.89
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	63.66	56.18	58.23	62.34	48.67	54.83	56.33	57.43	59.48
	DAY LEQ	65.32		EVENING LEQ	63.21		NIGHT LEQ	62.72	

CNEL	69.80	Day hour	95.00
DAY LEQ	65.32	Absorptive?	no
		Use hour?	no
		GRADE dB	6.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 70 CNEL Contour

8	:Id	Vehicle Distribution (Heavy Truck Mix)				ADT	11410
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
West of Archibald Avenue	:Segment	Automobiles	75.54	14.02	10.43	92.00	Distance	112
		Medium Trucks	48.00	2.00	50.00	3.00	Left Angle	-90
		Heavy Trucks	48.00	2.00	50.00	5.00	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	660.80	13.69	22.82	490.57	2.28	3.80	121.65	19.02	31.69
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.36	4.53	6.75	20.07	-3.25	-1.04	14.01	5.95	8.17
Distance	-3.57	-3.57	-3.57	-3.57	-3.57	-3.57	-3.57	-3.57	-3.57
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	62.13	53.58	60.31	60.84	45.79	52.53	54.79	55.00	61.74
	DAY LEQ	64.68		EVENING LEQ	61.56		NIGHT LEQ	63.24	

CNEL	69.98	Day hour	96.00
DAY LEQ	64.68	Absorptive?	no
		Use hour?	no
		GRADE dB	7.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside heavy truck mix.

Opening Year (2022) With Project 70 CNEL Contour

9	:Id	Vehicle Distribution (Light Truck Mix)				ADT	11820
Chandler Street	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	45
East of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	49
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	724.92	8.86	3.45	535.72	1.57	1.58	134.19	11.82	4.60
Speed in MPH	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	69.34	77.62	82.14	69.34	77.62	82.14	69.34	77.62	82.14
ADJUSTMENTS									
Flow	21.76	2.64	-1.46	20.45	-4.87	-4.86	14.44	3.89	-0.21
Distance	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	66.13	55.28	55.70	64.81	47.77	52.30	58.80	56.53	56.95
	DAY LEQ	66.82		EVENING LEQ	65.13		NIGHT LEQ	62.31	

F	CNEL	70.03		Day hour	97.00
	DAY LEQ	66.82		Absorptive?	no
				Use hour?	no
				GRADE dB	8.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

Opening Year (2022) With Project 70 CNEL Contour

10	:Id	Vehicle Distribution (Light Truck Mix)				ADT	1840
Wind River Road	:Road	Motor-Vehicle Type	Daytime % (7 AM - 7 PM)	Evening % (7 PM - 10 PM)	Night % (10 PM - 7 AM)	Total % of Traffic Flow	Speed	25
West of Archibald Avenue	:Segment	Automobiles	75.56	13.96	10.49	97.40	Distance	2
		Medium Trucks	48.91	2.17	48.91	1.84	Left Angle	-90
		Heavy Trucks	47.30	5.41	47.30	0.74	Right Angle	90

	Daytime			Evening			Night		
Noise Parameters	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks	Autos	Medium Trucks	Heavy Trucks
INPUT PARAMETERS									
Vehicles per hour	112.85	1.38	0.54	83.40	0.24	0.25	20.89	1.84	0.72
Speed in MPH	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00	25.00
Left angle	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00	-90.00
Right angle	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00	90.00
NOISE CALCULATIONS									
Reference levels	59.44	71.09	77.24	59.44	71.09	77.24	59.44	71.09	77.24
ADJUSTMENTS									
Flow	16.24	-2.89	-6.99	14.93	-10.40	-10.38	8.91	-1.64	-5.74
Distance	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91	13.91
Finite Roadway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barrier	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Constant	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00	-25.00
LEQ	64.59	57.11	59.16	63.28	49.60	55.77	57.26	58.36	60.41
	DAY LEQ	66.25		EVENING LEQ	64.14		NIGHT LEQ	63.65	

CNEL	70.73	Day hour	98.00
DAY LEQ	66.25	Absorptive?	no
		Use hour?	no
		GRADE dB	9.00

Notes:

(1) FHWA Traffic Noise Prediction Model FHWA-RD-77-108

(2) Vehicle percentages based on County of Riverside light truck mix.

APPENDIX H

VIBRATION WORKSHEETS

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Small Bulldozer		
Scenario:	Unmitigated		
Location:	R1		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	6	Small Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.003	Reference PPV (in/sec) at 25 ft.	
D =	120.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.000	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Jackhammer		
Scenario:	Unmitigated		
Location:	R1		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	5	Jackhammer	INPUT SECTION IN GREEN
PPVref =	0.035	Reference PPV (in/sec) at 25 ft.	
D =	120.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.003	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Loaded Trucks		
Scenario:	Unmitigated		
Location:	R1		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	4	Loaded Trucks	INPUT SECTION IN GREEN
PPVref =	0.076	Reference PPV (in/sec) at 25 ft.	
D =	120.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.007	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Large Bulldozer		
Scenario:	Unmitigated		
Location:	R1		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	2	Large Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	120.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.008	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Small Bulldozer		
Scenario:	Unmitigated		
Location:	R2		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	6	Small Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.003	Reference PPV (in/sec) at 25 ft.	
D =	130.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.000	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Jackhammer		
Scenario:	Unmitigated		
Location:	R2		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	5	Jackhammer	INPUT SECTION IN GREEN
PPVref =	0.035	Reference PPV (in/sec) at 25 ft.	
D =	130.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.003	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Loaded Trucks		
Scenario:	Unmitigated		
Location:	R2		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	4	Loaded Trucks	INPUT SECTION IN GREEN
PPVref =	0.076	Reference PPV (in/sec) at 25 ft.	
D =	130.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.006	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Large Bulldozer		
Scenario:	Unmitigated		
Location:	R2		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	2	Large Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	130.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.008	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Small Bulldozer		
Scenario:	Unmitigated		
Location:	R3		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	6	Small Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.003	Reference PPV (in/sec) at 25 ft.	
D =	145.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.000	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS			
Project:	19566 Archibald & Chandler Car Wash & Coffee Shop		Date: 12/13/22
Source:	Jackhammer		
Scenario:	Unmitigated		
Location:	R3		
Address:			
PPV = PPVref(25/D)^n (in/sec)			
INPUT			
Equipment Type =	5	Jackhammer	INPUT SECTION IN GREEN
PPVref =	0.035	Reference PPV (in/sec) at 25 ft.	
D =	145.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	
Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.			
RESULTS			
PPV =	0.003	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Loaded Trucks		
Scenario:	Unmitigated		
Location:	R3		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	4	Loaded Trucks	INPUT SECTION IN GREEN
PPVref =	0.076	Reference PPV (in/sec) at 25 ft.	
D =	145.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.005	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS			
Project:	19566 Archibald & Chandler Car Wash & Coffee Shop		Date: 12/13/22
Source:	Large Bulldozer		
Scenario:	Unmitigated		
Location:	R3		
Address:			
PPV = PPVref(25/D)^n (in/sec)			
INPUT			
Equipment Type =	2	Large Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	145.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	
Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.			
RESULTS			
PPV =	0.006	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Small Bulldozer		
Scenario:	Unmitigated		
Location:	R4		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	6	Small Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.003	Reference PPV (in/sec) at 25 ft.	
D =	8.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.017	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Jackhammer		
Scenario:	Unmitigated		
Location:	R4		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	5	Jackhammer	INPUT SECTION IN GREEN
PPVref =	0.035	Reference PPV (in/sec) at 25 ft.	
D =	8.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.193	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Jackhammer		
Scenario:	Mitigated		
Location:	R4		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	5	Jackhammer	INPUT SECTION IN GREEN
PPVref =	0.035	Reference PPV (in/sec) at 25 ft.	
D =	15.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.075	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Loaded Trucks		
Scenario:	Unmitigated		
Location:	R4		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	4	Loaded Trucks	INPUT SECTION IN GREEN
PPVref =	0.076	Reference PPV (in/sec) at 25 ft.	
D =	8.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.420	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Loaded Trucks		
Scenario:	Mitigated		
Location:	R4		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	4	Loaded Trucks	INPUT SECTION IN GREEN
PPVref =	0.076	Reference PPV (in/sec) at 25 ft.	
D =	25.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.076	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS			
Project:	19566 Archibald & Chandler Car Wash & Coffee Shop		Date: 12/13/22
Source:	Large Bulldozer		
Scenario:	Unmitigated		
Location:	R4		
Address:			
PPV = PPVref(25/D)^n (in/sec)			
INPUT			
Equipment Type	2	Large Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	8.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	
Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.			
RESULTS			
PPV =	0.492	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS			
Project:	19566 Archibald & Chandler Car Wash & Coffee Shop		Date: 12/13/22
Source:	Large Bulldozer		
Scenario:	Mitigated		
Location:	R4		
Address:			
PPV = PPVref(25/D)^n (in/sec)			
INPUT			
Equipment = Type	2	Large Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	28.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	
Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.			
RESULTS			
PPV =	0.075	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Small Bulldozer		
Scenario:	Unmitigated		
Location:	R5		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	6	Small Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.003	Reference PPV (in/sec) at 25 ft.	
D =	140.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.000	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Jackhammer		
Scenario:	Unmitigated		
Location:	R5		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type	5	Jackhammer	INPUT SECTION IN GREEN
PPVref =	0.035	Reference PPV (in/sec) at 25 ft.	
D =	140.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.003	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Loaded Trucks		
Scenario:	Unmitigated		
Location:	R5		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	4	Loaded Trucks	INPUT SECTION IN GREEN
PPVref =	0.076	Reference PPV (in/sec) at 25 ft.	
D =	140.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.006	IN/SEC	OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project:	19566 Archibald & Chandler Car Wash & Coffee Shop	Date:	12/13/22
Source:	Large Bulldozer		
Scenario:	Unmitigated		
Location:	R5		
Address:			

PPV = PPVref(25/D)^n (in/sec)

INPUT

Equipment Type =	2	Large Bulldozer	INPUT SECTION IN GREEN
PPVref =	0.089	Reference PPV (in/sec) at 25 ft.	
D =	140.00	Distance from Equipment to Receiver (ft)	
n =	1.50	Vibration attenuation rate through the ground	

Note: Based on reference equations from Vibration Guidance Manual, California Department of Transportation, 2006, pgs 38-43.

RESULTS

PPV =	0.007	IN/SEC	OUTPUT IN BLUE



GANDDINI GROUP INC.

714.795.3100 | ganddini.com

MEMORANDUM

TO: Mr. Jamie K. Cerda, Senior Planner | CITY OF EASTVALE

FROM: Giancarlo Ganddini, PE, PTP | GANDDINI GROUP, INC.

DATE: December 16, 2022

SUBJECT: Trip Generation Analysis for the Archibald/Chandler Car Wash and Coffee Shop (PLN22-20055)
Project No. 19556

The purpose of this memorandum is to document the number of trips forecast to be generated by the proposed project. We trust this analysis will aid the City of Eastvale in assessing the project.

PROJECT DESCRIPTION

The 2.71-acre project site is located at the northwest corner of the intersection of Archibald Avenue and Chandler Street in the City of Eastvale, California. The project site is currently vacant.

The proposed project involves construction of a commercial center comprised of a 950 square foot coffee shop (Dutch Bros) with drive through window, a 3,598 square foot express car wash (Quick Quack Car Wash) consisting of one automated tunnel and 20 vacuum bays, and one 3,500 square foot sit-down restaurant (Zendejas). The project site plan is provided in Attachment A.

PROJECT TRIP GENERATION

Table 1 shows the proposed project trip generation based on rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). Based on review of the ITE land use descriptions, trip generation rates for ITE Land Use Codes 930 (Fast Casual Restaurant), 937 (Coffee/Donut Shop with Drive-Through Window), and 948 (Automated Car Wash) were determined to adequately represent the proposed uses and were selected for calculation of the project trip generation forecast. The number of trips generated is determined by multiplying the trip generation rates and directional distributions by the land use quantity.

As shown in Table 1, the proposed project is forecast to generate a total of 1,686 daily trips, including 83 trips during the AM peak hour and 140 trips during the PM peak hour.

Comparison to 2020 Traffic Impact Analysis

Traffic impacts associated with development of the project site were previously analyzed in the *Archibald at Chandler Commercial Project Traffic Impact Analysis* (Ganddini Group, October 2020) ["2020 TIA"] for a previously proposed project consisting of a gas station with 10 vehicle fueling positions and convenience market, a 4,365 square foot fast-food restaurant with drive through window, and a 3,500 square foot fast casual restaurant (Zendejas).

Table 2 shows a trip generation comparison between the currently proposed project the trip generation previously evaluated in the 2020 TIA. As shown in Table 2, the proposed project is forecast to generate 3,185 fewer daily trips compared to the previously proposed development as evaluated in the 2020 TIA, including 58 fewer trips during the AM peak hour and 39 fewer trips during the PM peak hour. Therefore, the proposed project would result in the same or fewer impacts as those previously identified in the 2020 TIA.

CONCLUSION

We appreciate the opportunity to assist with this project. Should you have any questions or comments, please contact me at (714) 795-3100.

Table 1
Proposed Project Trip Generation

Trip Generation Rates									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Land Use Variable[2]	% In	% Out	Rate	% In	% Out	Rate	Daily Rate
Fast Casual Restaurant	ITE 930	TSF	50%	50%	1.43	55%	45%	12.55	97.14
Coffee Donut Shop with Drive-Through Window	ITE 937	TSF	51%	49%	85.88	50%	50%	38.99	533.57
Automated Car Wash	ITE 948	CWT	50%	50%	36.00	50%	50%	77.50	900.00

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Source	Quantity	In	Out	Total	In	Out	Total	Daily
Fast Casual Restaurant	ITE 930	3.500 TSF	3	3	6	24	20	44	340
Coffee Donut Shop with Drive-Through Window	ITE 937	0.950 TSF	42	40	82	19	19	38	507
Pass-by Trips (50%AM,55%PM)	ITE 934		*-21*	*-20*	*-41*	*-10*	*-10*	*-20*	*-61*
Subtotal			21	20	41	9	9	18	446
Automated Car Wash	ITE 948	1 CWT	18	18	36	39	39	78	900
TOTAL TRIPS GENERATED			**42**	**41**	**83**	**72**	**68**	**140**	**1,686**

Notes:

1. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.
   All rates based on General Urban/Suburban setting unless otherwise noted.
   In the absence of data from ITE, the daily and AM peak hour rates for Automated Car Wash were obtained from the San Diego Association of Governemnts *(Not So) Brief Guide to Vehicular Traffic Generation Rates for the San Diego Region* (April 2002).
2. TSF = Thousand Square Feet; CWT = Car Wash Tunnel

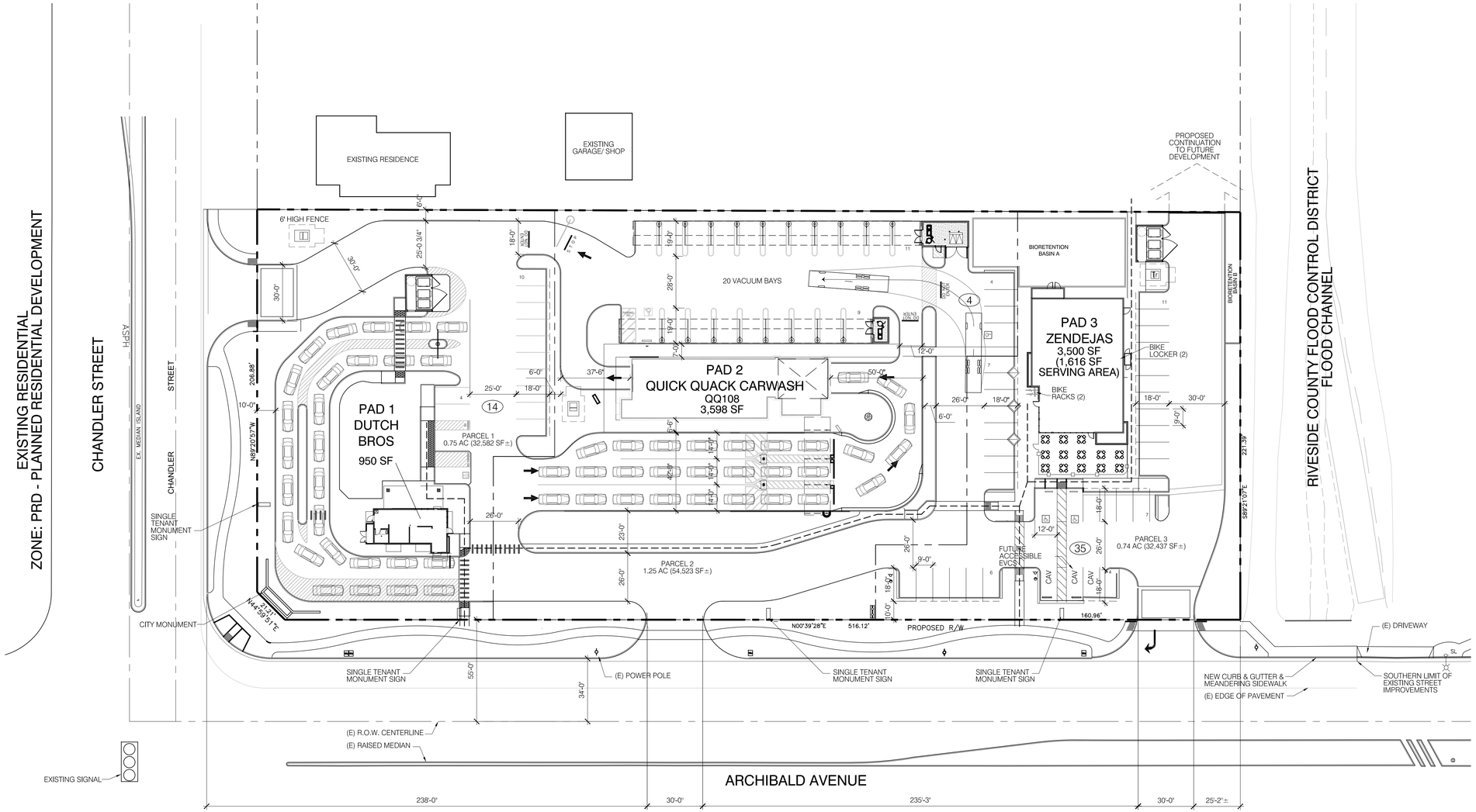
Table 2
Trip Generation Comparison

Trips Generated							
	AM Peak Hour			PM Peak Hour			
Land Use	In	Out	Total	In	Out	Total	Daily
[a] Proposed Project	42	41	83	72	68	140	1,686
[b] 2020 Traffic Impact Analysis [1]	73	68	141	93	86	179	4,871
CHANGE IN TRIP GENERATION ([a] - [b])	**-31**	**-27**	**-58**	**-21**	**-18**	**-39**	**-3,185**

Notes:
1. Source: *Archibald at Chandler Commercial Project Traffic Impact Analysis* (Ganddini Group, October 2020).

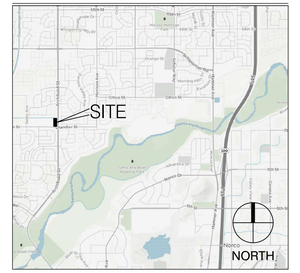
ATTACHMENT A

Proposed Site Plan



EXISTING RESIDENTIAL
ZONE: S-P - SPECIFIC PLAN

VICINITY



ZONING

GENERAL PLAN:	LOW DENSITY RESIDENTIAL PROPOSED: COMMERCIAL RETAIL
ZONING:	A-1 LIGHT AGRICULTURE PROPOSED: C-1/ C-P GENERAL COMMERCIAL
SETBACKS:	
FRONT:	10'
SIDE:	0'
SIDE (ADJ. TO STREET):	10'
REAR (ADJ. TO RESIDENTIAL ZONE):	0'
MAXIMUM BUILDING HEIGHT:	50'
MAXIMUM BUILDING COVERAGE:	%

PROJECT SUMMARY

LAND AREA:	2.71 AC (117,986 SF±)
PAD 1 COFFEE DRIVE-THRU:	950 SF
PAD 2 EXPRESS CARWASH:	3,598 SF
PAD 3 RESTAURANT:	3,500 SF
TOTAL BUILDING AREA:	8,048 SF
BUILDING COVERAGE:	6.8%
REQUIRED PARKING:	
PAD 1 COFFEE DRIVE-THRU:	
(1: EMPLOYEE):	3 STALLS
PATIO (1:100):	7 STALLS
EXPRESS CARWASH:	
(1: EMPLOYEE):	4 STALLS
RESTAURANT:	
(1:45 SERVING AREA- 1,616 SF)	36 STALLS
TOTAL PARKING REQUIRED:	50 STALLS
TOTAL PARKING PROVIDED:	53 STALLS

LEGEND & SYMBOLS

VAN	VAN ACCESSIBLE PARKING SPACE
CAV	CLEAN AIR VEHICLE PARKING SPACE- SPACES SHALL BE IDENTIFIED IN 12" LETTERING, "CLEAN AIR/ VAN POOL/ EV" PER 2019 CAL GREEN 5.106.5.2.1 SUCH THAT THE LOWER EDGE OF THE LAST WORD ALIGNS WITH THE END OF THE STALL STRIPING.
EVCS	FUTURE ELECTRICAL VEHICLE CHARGING PARKING SPACE
DDC	DOUBLE DETECTOR CHECK VALVE- REF: CIVIL DRAWINGS
FDC	FIRE DEPARTMENT CONNECTION- REF: CIVIL DRAWINGS
FH	FIRE HYDRANT- REF: CIVIL DRAWINGS PROVIDE BLUE REFLECTOR @ CL DRIVEWAY PER FIRE DEPT REQUIREMENTS
GM	GAS METER LOCATION- REF: PLUMBING & GAS UTILITY DRAWINGS
PIV	POST INDICATOR VALVE- REF: CIVIL DRAWINGS
R	RECYCLE DUMPSTER
T	TRASH DUMPSTER
TR	TRANSFORMER- REF ELECTRICAL UTILITY DRAWINGS
WM	WATER METER- REF: CIVIL DRAWINGS
SS	STOP SIGN
AP	ACCESSIBLE PATH SIGN
SE	SITE ENTRANCE SIGN

ACCESSIBLE PEDESTRIAN PATHWAY

NOTE:
BUILDING AREAS AND LAND COVERAGE ARE PRELIMINARY AND SUBJECT TO ADJUSTMENT. ANY PROPOSED DEVELOPMENT IS SUBJECT TO APPROVAL OF GOVERNMENT OR OTHER AGENCIES HAVING JURISDICTION. ALL DIMENSIONS AND SITE CONDITIONS ARE SUBJECT TO VERIFICATION.

CONCEPTUAL SITE PLAN
SCHEME Nv5

NWC ARCHIBALD & CHANDLER
EASTVALE, CA

GKPA PROJECT #18114.01
2 NOVEMBER 2022

0 15' 30' 60'
SCALE: 1" = 30.00'
NORTH

NWC ARCHIBALD & CHANDLER
EASTVALE, CALIFORNIA

EASTVALE LP
c/o SCHNEIDER REA
1257 W. COLTON
REDLANDS, CA 92374
909.363.4698

GK PIERCE ARCHITECTS
3 OVERTURE
ALISO VIEJO, CA 92656
T 949.344.2710
F 949.344.2720

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MEMORANDUM

TO: Ms. Jamie K. Cerda, Senior Planner | CITY OF EASTVALE

FROM: Giancarlo Ganddini, PE, PTP | GANDDINI GROUP, INC.

DATE: September 19, 2023

SUBJECT: Drive Through Queuing Study for the Archibald/Chandler Car Wash and Coffee Shop (PLN22-20055)
Project No. 19556

The purpose of this memorandum is to evaluate anticipated drive through lane operations and capacity for the proposed project based on drive through lane queue surveys observed at comparable facilities. We trust this analysis will aid the City of Eastvale in assessing the project.

PROJECT DESCRIPTION

The 2.71-acre project site is located at the northwest corner of the intersection of Archibald Avenue and Chandler Street in the City of Eastvale, California. The project site is currently vacant.

The proposed project involves construction of a commercial center comprised of a 950 square foot coffee shop (Dutch Bros) with drive through window, a 3,598 square foot express car wash (Quick Quack Car Wash) consisting of one automated tunnel and 20 vacuum bays, and one 3,500 square foot sit-down restaurant (Zendejas). The project site plan is shown on Figure 1.

DRIVE THROUGH LANE QUEUE SURVEYS

To determine the anticipated drive through queues for the project drive through uses, drive through queuing surveys were conducted on one weekday (September 22, 2022) and one Saturday (September 24, 2022) at the following comparable facilities:

- Dutch Bros, 13322 Limonite Avenue, Eastvale, CA 92880
- Quick Quack Car Wash, 5116 Hamner Avenue, Eastvale, CA 91752

The maximum number of queued vehicles at each survey site was documented in 5-minute intervals between 8:00 AM and 5:00 PM. The queue surveys were conducted by a third-party data collection service; count worksheets are provided in Attachment A.

It is noted that the Quick Quack Car Wash survey site is located next to an existing Costco Wholesale store and Costco gas station, which generates very high demand and interaction with the car wash on weekends. This survey site is expected to provide a highly conservative estimate of potential queuing demand in relation to the proposed project site. Additionally, both the proposed Dutch Bros and Quick Quack Car Wash will be the second locations within the City of Eastvale, which is expected to spread the customer base between existing and proposed facilities.

Tables 1 and 2 show the drive through lane queue survey results for the two survey sites. Table 3 shows a summary of key statistics for the two queue surveys.

Dutch Bros Queue Survey

As shown in Table 1, Dutch Bros queues were observed to be longer on the weekend survey day. The queues observed on the busier weekend survey day were an average of 24 vehicles, an 95th-percentile of 27 vehicles, and a maximum of 28 vehicles. It is noted that the maximum queue of 28 vehicles only occurred briefly during one 5-minute interval.

Quick Quack Car Wash Queue Survey

As shown in Table 2, Quick Quack Car Wash queues were observed to be longer on the weekend survey day. The queues observed on the busier weekend survey day were an average of 17 vehicles, an 95th-percentile of 29 vehicles, and a maximum of 31 vehicles. It is noted that the maximum queue of 31 vehicles only occurred briefly during one 5-minute interval.

Observed Queue Lengths

Based on review of photographs of the vehicle queues at the two survey sites, the average queue length appears to range from approximately 20 to 22 feet per vehicle.

Drive Through Service Rates

Table 4 shows the service rates for the Dutch Bros survey site and Table 5 shows the service rates for the Quick Quack Car Wash survey site. Service rates for both the Dutch Bros and Quick Quack Car Wash survey sites were determined by counting the number of vehicles exiting each drive through. Count worksheets are provided in Attachment B.

Dutch Bros Service Rate

As shown in Table 4, the Dutch Bros site served an average of 52 vehicles per hour on the weekday and 45 vehicles per hour on the weekend day. The peak hour service rate ranged from 56 to 63 seconds per vehicle.

Quick Quack Car Wash Service Rate

As shown in Table 5, the Quick Quack Car Wash site served an average of 93 vehicles per hour on the weekday and 99 vehicles per hour on the weekend day. The peak hour service rate ranged from 33 to 35 seconds per vehicle.

Recommended Queue Storage Design Value

It is recommended that the proposed drive through facilities provide sufficient drive through storage length to accommodate the 95th-percentile queue. In statistics, the 95th-percentile describes the value at which 95 percent of the samples are distributed at or below. In other words, providing sufficient queue storage to accommodate the 95th-percentile queue should ensure that drive through lane queue overflow occurs less than 5 percent of the time.

Based on the queue surveys, it is recommended that Dutch Bros provide sufficient queue storage for 27 vehicles and Quick Quack Car Wash provide sufficient queue storage for 29 vehicles.

DRIVE THROUGH LANE CAPACITIES

Dutch Bros Drive Through Lane Storage

Figure 2 shows the drive through lane storage length for the proposed Dutch Bros. As shown on Figure 2, the proposed Dutch Bros will provide a total storage length of approximately 557 feet. Assuming 20 feet of queue length per vehicle, the proposed Dutch Bros drive through lane would provide storage capacity for up to 27 vehicles, which is sufficient to accommodate the recommended 95th-percentile queue of 27 vehicles.

Based on the queue survey, the proposed storage capacity/95th-percentile queue was only exceeded by one vehicle during one out of the 108 five-minute observation intervals (i.e., 0.9% of the time) on Saturday. Based on the observed service rates, the queue is expected to move every minute. Therefore, overflow of one vehicle into the internal on-site drive aisles would be brief and impacts to on-site circulation would be minimal.

Quick Quack Car Wash Drive Through Lane Storage

Figure 3 shows the drive through lane storage length for the proposed Quick Quack Car Wash. As shown on Figure 3, the proposed Quick Quack Car Wash will provide a total storage length of approximately 582 feet. Assuming 20 feet of queue length per vehicle, the proposed Quick Quack Car Wash drive through lane would provide storage capacity for up to 29 vehicles, which is sufficient to accommodate the recommended 95th-percentile queue of 29 vehicles.

Based on the queue survey, the proposed storage capacity/95th-percentile queue was only exceeded by one to two vehicles during four out of the 108 five-minute observation intervals (i.e., 3.7% of the time) on Saturday. Based on the observed service rates, the queue is expected to move every 30-35 seconds. Therefore, any overflow into the internal on-site drive aisles would be brief and impacts to on-site circulation would be minimal.

OVERLAPPING RUSHES

Weekday queues for both the Dutch Bros and Quick Quack Car Wash are forecast to be substantially less compared to weekends and more than sufficient drive through storage capacity is proposed to accommodate the maximum weekday queues observed.

Based on the queue surveys, overlapping rushes would generally occur throughout the day on Saturdays; however, the maximum queue for Dutch Bros occurred in the morning at 9:55 AM, whereas the maximum queue for Quick Quack Car Wash occurred at 3:55 PM.

The proposed storage capacity/95th-percentile queue for Dutch Bros was only exceeded by one vehicle during one out of the 108 five-minute observation intervals (i.e., 0.9% of the time) on Saturday. The proposed storage capacity/95th-percentile queue for Quick Quack was only exceeded by one to two vehicles during four out of the 108 five-minute observation intervals (i.e., 3.7% of the time) on Saturday. Therefore, drive through queues for either facility are rarely expected to exceed the available storage and the odds of both facilities experiencing overflow at the same time would be exceedingly rare (approximately 0.03% probability).

SPECIAL EVENTS & TRAFFIC MANAGEMENT PLANS

Quick Quack Car Wash has indicated that they do not hold special events apart from grand opening. In addition to grand opening, Dutch Bros has indicated that they typically hold two to three fundraising events per year for local community groups. To ensure grand opening and any unforeseen special events do not create circulation issues, the following conditions of approval are recommended:

- Grand openings for the Dutch Bros and Quick Quack Car Wash tenants shall be held a minimum of one week apart from each other.
- On-site managers for Dutch Bros and Quick Quack Car Wash shall maintain each other's current contact information and meet periodically to review / address circulation (meetings should be held more frequently during initial months and may taper off once operations normalize).
- On-site managers for Dutch Bros and Quick Quack Car Wash shall inform each other of upcoming special events and coordinate to ensure any special events do not overlap.

A copy of the Dutch Bros Traffic Management Plan (TMP) is included in Attachment C, which includes additional staffing (including an off-duty police officer) and directional signage. The TMP will be utilized during grand opening and whenever else necessary and may be adjusted as necessary to adapt to actual circulation needs once the store is in operation.

A copy of the Quick Quack Car Wash TMP is included in Attachment D. Similarly, the TMP will be utilized during grand opening and whenever else necessary and may be adjusted as necessary to adapt to actual circulation needs once the store is in operation. As noted in Attachment D, Quick Quack TMP measures consist of:

- two (2) directional entrance signs;
- two (2) "Pick Shortest Line" signs;
- two (2) team members assigned to queue management for ensuring 2-foot gap between cars to maximize storage capacity and providing instructions for first time customers; and
- employee parking designated at northeast of parcel to minimize conflicts with circulation.

Ingress for Quick Quack Car Wash is primarily expected from Archibald Avenue, though a smaller percentage may enter from Chandler Street; car wash/vacuum station egress will occur from the south to Chandler Street or north to Archibald Avenue. Attachment D also contains an operational statement provided by Quick Quack Car Wash, which describes the facility's membership program / license plate reader technology that allows automatic gate opening, thus increasing efficiency and minimizing queues.

Based on review of the queuing data collected and TMP implementation, vehicle queues are not expected to exceed the available storage capacities and adversely impact circulation in the public right-of-way. Notwithstanding the above, should queues from either Dutch Bros or Quick Quack Car Wash exceed the available storage areas and impede circulation, both operators have agreed to temporarily close their respective drive through lane entries, either with traffic cones or other barricade and signage indicating temporary closure, until queuing subsides. Once queuing subsides, the drive through lane entries may be re-opening.

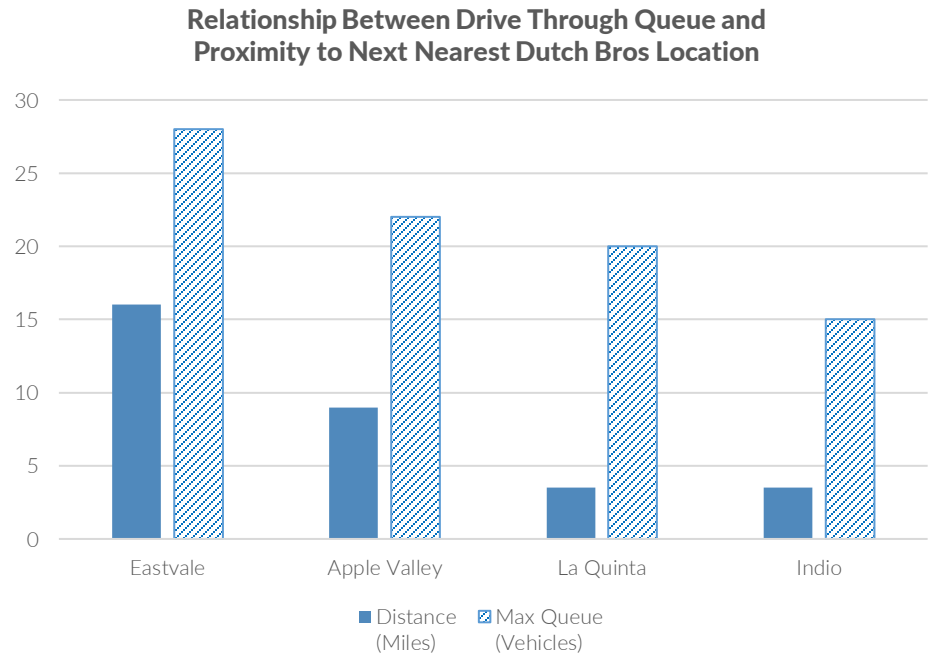
SUPPLEMENTAL QUEUING DATA

In conjunction with development of another proposed Dutch Bros location in the City of La Mirada, the *Transportation Analysis for the La Mirada Dutch Bros. Coffee Shop Project* (LSA, March 2023) ["La Mirada Dutch Bros Study"] contains additional queuing data (see Attachment E). This study contains the following key findings relevant to the proposed project in the City of Eastvale:

1. Additional queuing observations at the existing Dutch Bros location in the City of Eastvale (13322 Limonite Avenue) were conducted on one Tuesday and one Saturday in June 2022. The maximum queues observed during this separate survey were 24 vehicles on Tuesday and 28 vehicles on Saturday. This is consistent with the queuing surveys conducted in September 2022 for this study and suggests relatively consistent demand from one month to another.

2. Drive through queuing surveys at six (6) additional Dutch Bros coffee shops in Apple Valley, La Quinta, and Indio. The queues observed at these locations ranged from 14 to 22 vehicles. The La Mirada Dutch Bros Study notes a correlation of longer drive through queues the farther a Dutch Bros coffee shop is from the next nearest location: *"the Eastvale Dutch Bros. Coffee shop, which had a maximum drive-through queue of 28 vehicles. is approximately 16 miles from the nearest Dutch Bros. Coffee shop in Rialto. The Apple Valley Dutch Bros. Coffee shop, which had a maximum drive-through queue of 22 vehicles, is approximately 9 miles from the nearest Dutch Bros. Coffee shop in Victorville. The La Quinta and Indio Dutch Bros. Coffee shops, which had maximum drive-through queues of 20 vehicles and 15 vehicles, respectively, are approximately 3.5 miles from each other."*

The chart below shows the relationship between drive through queue length and proximity to the next nearest location based on data from the La Mirada Dutch Bros Study.



Source: Based on data from *Transportation Analysis for the La Mirada Dutch Bros. Coffee Shop Project* (LSA, March 2023); see Attachment E.

The existing Dutch Bros in Eastvale is one of the first in the area, with the next nearest store located 16 miles away in the City of Rialto. The proposed store on Archibald Avenue/Chandler Street will be located 2.5 miles from the existing location on Limonite Avenue. Additionally, Dutch Bros is planning four new stores (Norco, Ontario, Corona, and Rancho Cucamonga) within a 10-mile radius of the project site. Thus, the proposed Dutch Bros on Archibald Avenue/Chandler Street (and additional planned locations) will spread demand over multiple stores and can be expected to reduce the maximum queues observed the existing Eastvale location based on data from the La Mirada Dutch Bros Study.

Similarly, the next nearest Quick Quack Car Wash from the existing Eastvale facility is located approximately 7 miles away in the City of Corona. The proposed Quick Quack Car Wash will reduce this distance to less than 4 miles and is likewise expected to result in lower queues than the maximum observed at the existing Eastvale facility.

RECOMMENDATIONS

Both the proposed Dutch Bros and Quick Quack Car Wash facilities should employ staff to assist with management of the drive through queue during peak periods. Specifically, staff should periodically walk along the drive through lanes encouraging vehicles to pull forward and maximize efficiency of the available storage areas.

In addition, Dutch Bros should maximize use of the hatched area east of the Dutch Bros building. This area is intended as a waiting area for large or complicated orders that may take longer to prepare; however, the hatched waiting area should be used for regular orders during peak periods to minimize queue overflow beyond the drive through lane, if necessary.

To ensure grand openings do not create circulation issues, the following condition of approval is recommended:

- Grand openings for the Dutch Bros and Quick Quack Car Wash tenants shall be held a minimum of one week apart from each other.

CONCLUSIONS

Based on review of all available queuing data, including drive through queue surveys of the existing Dutch Bros Coffee Shop (13322 Limonite Avenue) and Quick Quack Car Wash (5116 Hamner Avenue) in the City of Eastvale as well as review of supplemental queuing data of additional facilities, the proposed project is anticipated to provide adequate drive through storage capacity to accommodate peak queues and maintain adequate circulation/site access. Furthermore, both drive through facilities shall implement the traffic management plans (TMPs) outlined in Attachments C and D as necessary to maintain adequate on-site and off-site circulation.

We appreciate the opportunity to assist with this project. Should you have any questions or comments, please contact me at (714) 795-3100.

Table 1
Dutch Bros Queue Survey

Time	Maximum Queue	
	Weekday	Weekend
8:00 AM	18	27
8:05 AM	17	26
8:10 AM	16	22
8:15 AM	15	23
8:20 AM	15	23
8:25 AM	17	23
8:30 AM	18	24
8:35 AM	18	24
8:40 AM	19	25
8:45 AM	19	25
8:50 AM	15	25
8:55 AM	12	24
9:00 AM	13	25
9:05 AM	13	25
9:10 AM	12	23
9:15 AM	9	24
9:20 AM	6	24
9:25 AM	7	24
9:30 AM	7	24
9:35 AM	7	24
9:40 AM	12	24
9:45 AM	11	24
9:50 AM	10	26
9:55 AM	11	**28**
10:00 AM	6	25
10:05 AM	6	23
10:10 AM	5	24
10:15 AM	5	24
10:20 AM	8	22
10:25 AM	16	24
10:30 AM	16	26
10:35 AM	20	26
10:40 AM	19	27
10:45 AM	21	27
10:50 AM	23	25
10:55 AM	21	24
11:00 AM	20	25
11:05 AM	19	27
11:10 AM	18	27
11:15 AM	19	26
11:20 AM	20	26
11:25 AM	21	25
11:30 AM	16	23
11:35 AM	18	24
11:40 AM	17	25
11:45 AM	19	25
11:50 AM	19	25
11:55 AM	21	26
12:00 PM	24	26
12:05 PM	20	24
12:10 PM	21	24
12:15 PM	20	22
12:20 PM	19	22
12:25 PM	18	25
12:30 PM	17	25
12:35 PM	19	25
12:40 PM	16	25
12:45 PM	9	25
12:50 PM	10	25
12:55 PM	10	26
1:00 PM	7	25
1:05 PM	8	25
1:10 PM	7	25
1:15 PM	6	24
1:20 PM	9	25
1:25 PM	10	24
1:30 PM	7	24
1:35 PM	4	24
1:40 PM	6	22
1:45 PM	3	22
1:50 PM	5	23
1:55 PM	8	22
2:00 PM	6	22
2:05 PM	7	25
2:10 PM	3	24
2:15 PM	5	24
2:20 PM	2	23
2:25 PM	7	23
2:30 PM	6	24
2:35 PM	6	25
2:40 PM	11	25
2:45 PM	14	26
2:50 PM	17	24
2:55 PM	12	25
3:00 PM	13	26
3:05 PM	11	26
3:10 PM	8	25
3:15 PM	9	25
3:20 PM	12	23
3:25 PM	9	22
3:30 PM	5	24
3:35 PM	5	25
3:40 PM	6	25
3:45 PM	8	25
3:50 PM	9	24
3:55 PM	6	26
4:00 PM	5	25
4:05 PM	5	24
4:10 PM	5	24
4:15 PM	5	23
4:20 PM	8	23
4:25 PM	10	23
4:30 PM	7	25
4:35 PM	8	23
4:40 PM	12	25
4:45 PM	13	24
4:50 PM	16	26
4:55 PM	13	26

Statistic	Weekday	Weekend
Average	12	24
95th-%ile	21	27
Maximum	24	28

Notes:

= Queue exceeds 95th-percentile

Proposed storage capacity is 27 vehicles.

Table 2
Quick Quack Car Wash Queue Survey

Time	Maximum Queue	
	Weekday	Weekend
8:00 AM	6	3
8:05 AM	11	4
8:10 AM	10	5
8:15 AM	9	6
8:20 AM	8	7
8:25 AM	9	7
8:30 AM	6	5
8:35 AM	4	3
8:40 AM	3	7
8:45 AM	5	7
8:50 AM	6	5
8:55 AM	10	4
9:00 AM	7	7
9:05 AM	4	11
9:10 AM	2	11
9:15 AM	4	8
9:20 AM	1	10
9:25 AM	3	9
9:30 AM	4	9
9:35 AM	3	8
9:40 AM	4	7
9:45 AM	6	8
9:50 AM	8	11
9:55 AM	8	14
10:00 AM	4	17
10:05 AM	8	19
10:10 AM	7	19
10:15 AM	7	19
10:20 AM	8	19
10:25 AM	5	21
10:30 AM	4	21
10:35 AM	3	23
10:40 AM	5	29
10:45 AM	5	30
10:50 AM	5	27
10:55 AM	3	27

Time	Maximum Queue	
	Weekday	Weekend
11:00 AM	4	25
11:05 AM	4	26
11:10 AM	3	30
11:15 AM	4	29
11:20 AM	3	28
11:25 AM	3	25
11:30 AM	4	23
11:35 AM	7	21
11:40 AM	7	17
11:45 AM	6	22
11:50 AM	7	21
11:55 AM	7	25
12:00 PM	8	22
12:05 PM	8	21
12:10 PM	6	19
12:15 PM	4	20
12:20 PM	9	18
12:25 PM	6	18
12:30 PM	11	18
12:35 PM	11	22
12:40 PM	10	27
12:45 PM	12	30
12:50 PM	9	28
12:55 PM	10	22
1:00 PM	11	19
1:05 PM	9	16
1:10 PM	10	20
1:15 PM	9	20
1:20 PM	10	20
1:25 PM	13	19
1:30 PM	12	20
1:35 PM	10	20
1:40 PM	7	16
1:45 PM	7	14
1:50 PM	9	13
1:55 PM	7	13

Time	Maximum Queue	
	Weekday	Weekend
2:00 PM	4	10
2:05 PM	6	16
2:10 PM	6	17
2:15 PM	3	14
2:20 PM	2	11
2:25 PM	6	8
2:30 PM	5	4
2:35 PM	2	14
2:40 PM	6	13
2:45 PM	7	9
2:50 PM	3	5
2:55 PM	4	6
3:00 PM	3	16
3:05 PM	3	15
3:10 PM	3	16
3:15 PM	5	18
3:20 PM	6	17
3:25 PM	11	25
3:30 PM	11	29
3:35 PM	7	**31**
3:40 PM	6	29
3:45 PM	5	25
3:50 PM	5	18
3:55 PM	5	19
4:00 PM	5	18
4:05 PM	7	22
4:10 PM	9	21
4:15 PM	9	19
4:20 PM	11	18
4:25 PM	13	16
4:30 PM	9	18
4:35 PM	8	17
4:40 PM	3	14
4:45 PM	8	12
4:50 PM	7	12
4:55 PM	9	6

Statistic	Weekday	Weekend
Average	7	17
95th-%ile	11	29
Maximum	13	31

Notes:

= Queue exceeds 95th-percentile

Proposed storage capacity is 29 vehicles.

Table 3
Drive Through Queue Survey Summary

Survey Site	Drive Through Queue		
	Value	Weekday	Weekend
Dutch Bros	Average	12	24
	95th %	21	27
	Max	24	28
Quick Quack Car Wash	Average	7	17
	95th %	11	29
	Max	13	31

Table 4
Dutch Bros Service Rates

Time	Vehicles Exiting per Hour	
	Weekday	Weekend
8:00 AM	43	37
9:00 AM	52	42
10:00 AM	43	41
11:00 AM	50	51
12:00 PM	64	39
1:00 PM	58	52
2:00 PM	50	44
3:00 PM	59	38
4:00 PM	49	57
TOTAL	468	401

Statistic	Weekday	Weekend
Average Service Rate (veh/hr)	52	45
Peak Service Rate (veh/hr)	64	57
Peak Service Rate (sec/veh)	56	63

Table 5
Quick Quack Car Wash Service Rates

Time	Vehicles Exiting per Hour	
	Weekday	Weekend
8:00 AM	95	101
9:00 AM	91	100
10:00 AM	104	103
11:00 AM	88	101
12:00 PM	91	104
1:00 PM	102	109
2:00 PM	80	99
3:00 PM	83	67
4:00 PM	99	107
TOTAL	833	891

Statistic	Weekday	Weekend
Average Service Rate (veh/hr)	93	99
Peak Service Rate (veh/hr)	104	109
Peak Service Rate (sec/veh)	35	33

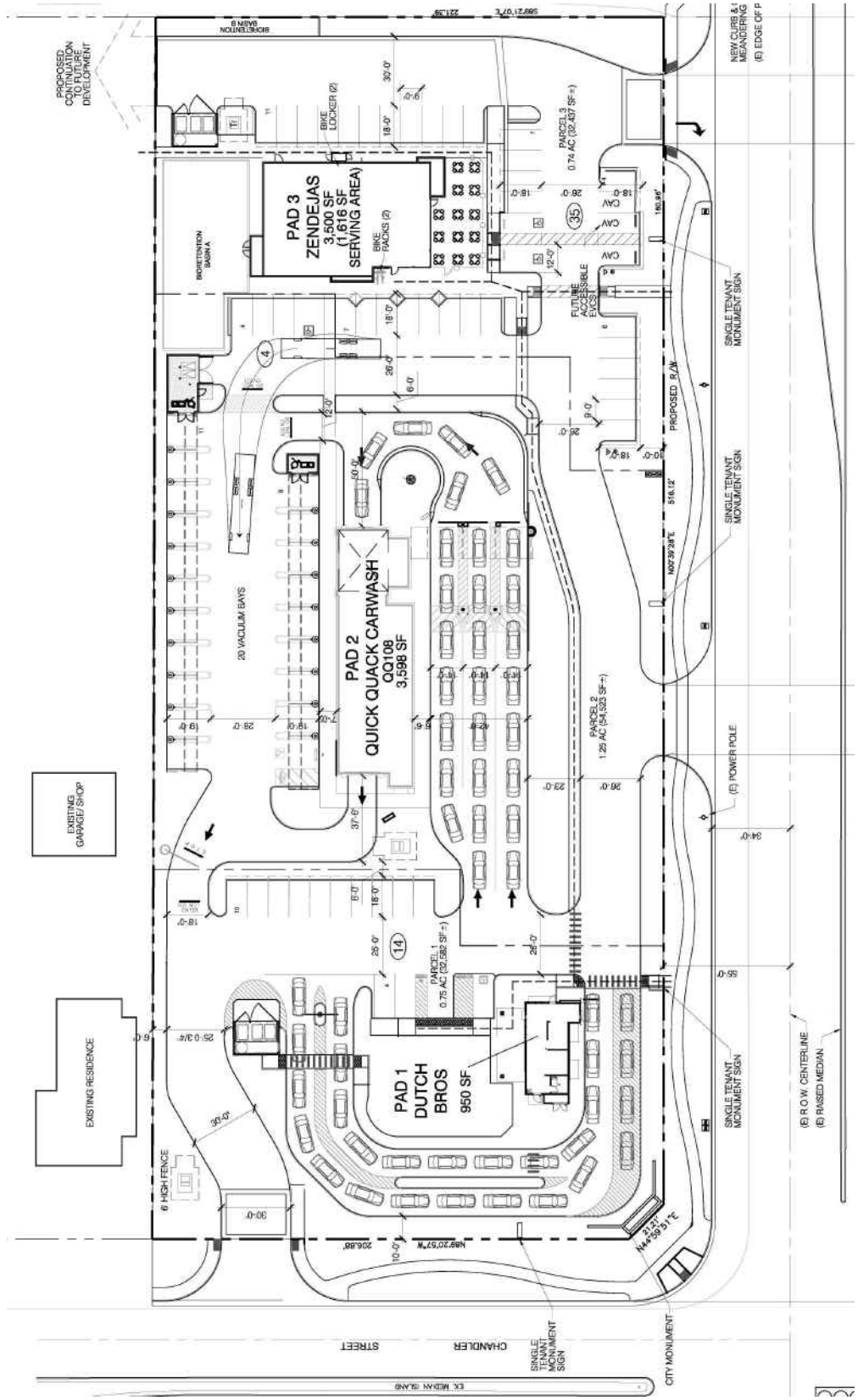


Figure 1
Site Plan

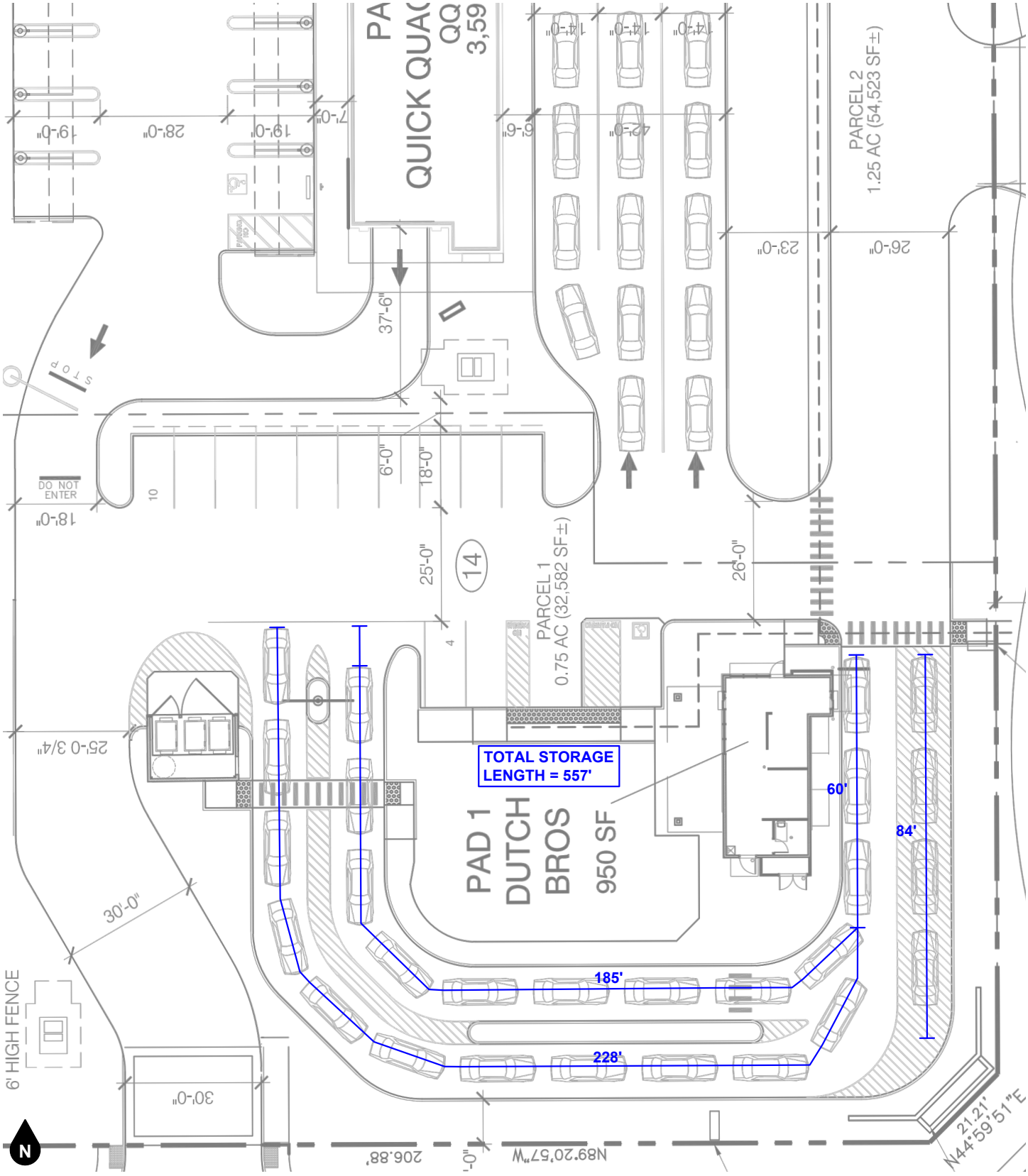


Figure 2
Dutch Bros Queuing Capacity

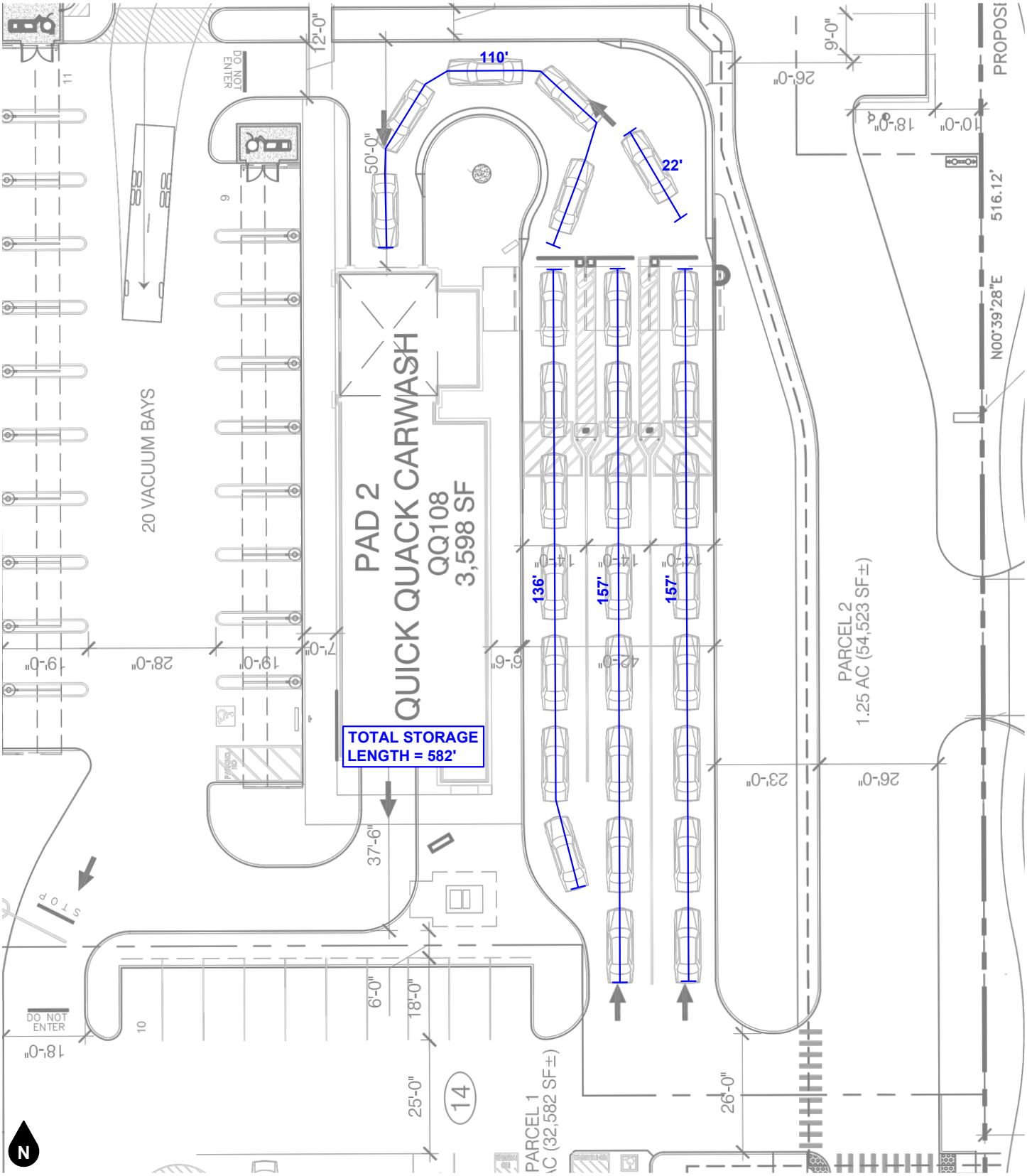


Figure 3
Quick Quack Car Wash Queuing Capacity

ATTACHMENT A

Drive Through Queue Survey Worksheets

Dutch Bros
13322 Limonite Ave
Eastvale, CA 92880
9/22/2022 Thursday

Time	Max Queue
8:00 AM	18
8:05 AM	17
8:10 AM	16
8:15 AM	15
8:20 AM	15
8:25 AM	17
8:30 AM	18
8:35 AM	18
8:40 AM	19
8:45 AM	19
8:50 AM	15
8:55 AM	12
9:00 AM	13
9:05 AM	13
9:10 AM	12
9:15 AM	9
9:20 AM	6
9:25 AM	7
9:30 AM	7
9:35 AM	7
9:40 AM	12
9:45 AM	11
9:50 AM	10
9:55 AM	11
10:00 AM	6
10:05 AM	6
10:10 AM	5
10:15 AM	5
10:20 AM	8
10:25 AM	16
10:30 AM	16
10:35 AM	20
10:40 AM	19
10:45 AM	21
10:50 AM	23
10:55 AM	21
11:00 AM	20
11:05 AM	19
11:10 AM	18
11:15 AM	19
11:20 AM	20
11:25 AM	21
11:30 AM	16
11:35 AM	18
11:40 AM	17
11:45 AM	19
11:50 AM	19
11:55 AM	21
12:00 PM	24
12:05 PM	20
12:10 PM	21
12:15 PM	20
12:20 PM	19
12:25 PM	18
12:30 PM	17
12:35 PM	19
12:40 PM	16
12:45 PM	9
12:50 PM	10
12:55 PM	10

Time	Max Queue
1:00 PM	7
1:05 PM	8
1:10 PM	7
1:15 PM	6
1:20 PM	9
1:25 PM	10
1:30 PM	7
1:35 PM	4
1:40 PM	6
1:45 PM	3
1:50 PM	5
1:55 PM	8
2:00 PM	6
2:05 PM	7
2:10 PM	3
2:15 PM	5
2:20 PM	2
2:25 PM	7
2:30 PM	6
2:35 PM	6
2:40 PM	11
2:45 PM	14
2:50 PM	17
2:55 PM	12
3:00 PM	13
3:05 PM	11
3:10 PM	8
3:15 PM	9
3:20 PM	12
3:25 PM	9
3:30 PM	5
3:35 PM	5
3:40 PM	6
3:45 PM	8
3:50 PM	9
3:55 PM	6
4:00 PM	5
4:05 PM	5
4:10 PM	5
4:15 PM	5
4:20 PM	8
4:25 PM	10
4:30 PM	7
4:35 PM	8
4:40 PM	12
4:45 PM	13
4:50 PM	16
4:55 PM	13

Prepared by AimTD LLC
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Dutch Bros
13322 Limonite Ave
Eastvale, CA 92880
9/24/2022 Saturday

Time	Max Queue
8:00 AM	27
8:05 AM	26
8:10 AM	22
8:15 AM	23
8:20 AM	23
8:25 AM	23
8:30 AM	24
8:35 AM	24
8:40 AM	25
8:45 AM	25
8:50 AM	25
8:55 AM	24
9:00 AM	25
9:05 AM	25
9:10 AM	23
9:15 AM	24
9:20 AM	24
9:25 AM	24
9:30 AM	24
9:35 AM	24
9:40 AM	24
9:45 AM	24
9:50 AM	26
9:55 AM	28
10:00 AM	25
10:05 AM	23
10:10 AM	24
10:15 AM	24
10:20 AM	22
10:25 AM	24
10:30 AM	26
10:35 AM	26
10:40 AM	27
10:45 AM	27
10:50 AM	25
10:55 AM	24
11:00 AM	25
11:05 AM	27
11:10 AM	27
11:15 AM	26
11:20 AM	26
11:25 AM	25
11:30 AM	23
11:35 AM	24
11:40 AM	25
11:45 AM	25
11:50 AM	25
11:55 AM	26
12:00 PM	26
12:05 PM	24
12:10 PM	24
12:15 PM	22
12:20 PM	22
12:25 PM	25
12:30 PM	25
12:35 PM	25
12:40 PM	25
12:45 PM	25
12:50 PM	25
12:55 PM	26

Time	Max Queue
1:00 PM	25
1:05 PM	25
1:10 PM	25
1:15 PM	24
1:20 PM	25
1:25 PM	24
1:30 PM	24
1:35 PM	24
1:40 PM	22
1:45 PM	22
1:50 PM	23
1:55 PM	22
2:00 PM	22
2:05 PM	25
2:10 PM	24
2:15 PM	24
2:20 PM	23
2:25 PM	23
2:30 PM	24
2:35 PM	25
2:40 PM	25
2:45 PM	26
2:50 PM	24
2:55 PM	25
3:00 PM	26
3:05 PM	26
3:10 PM	25
3:15 PM	25
3:20 PM	23
3:25 PM	22
3:30 PM	24
3:35 PM	25
3:40 PM	25
3:45 PM	25
3:50 PM	24
3:55 PM	26
4:00 PM	25
4:05 PM	24
4:10 PM	24
4:15 PM	23
4:20 PM	23
4:25 PM	23
4:30 PM	25
4:35 PM	23
4:40 PM	25
4:45 PM	24
4:50 PM	26
4:55 PM	26

Prepared by AimTD LLC
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Quick Quack Car Wash
13322 Limonite Ave
Eastvale, CA 92880
9/22/2022 Thursday

Time	Max Queue
8:00 AM	6
8:05 AM	11
8:10 AM	10
8:15 AM	9
8:20 AM	8
8:25 AM	9
8:30 AM	6
8:35 AM	4
8:40 AM	3
8:45 AM	5
8:50 AM	6
8:55 AM	10
9:00 AM	7
9:05 AM	4
9:10 AM	2
9:15 AM	4
9:20 AM	1
9:25 AM	3
9:30 AM	4
9:35 AM	3
9:40 AM	4
9:45 AM	6
9:50 AM	8
9:55 AM	8
10:00 AM	4
10:05 AM	8
10:10 AM	7
10:15 AM	7
10:20 AM	8
10:25 AM	5
10:30 AM	4
10:35 AM	3
10:40 AM	5
10:45 AM	5
10:50 AM	5
10:55 AM	3
11:00 AM	4
11:05 AM	4
11:10 AM	3
11:15 AM	4
11:20 AM	3
11:25 AM	3
11:30 AM	4
11:35 AM	7
11:40 AM	7
11:45 AM	6
11:50 AM	7
11:55 AM	7
12:00 PM	8
12:05 PM	8
12:10 PM	6
12:15 PM	4
12:20 PM	9
12:25 PM	6
12:30 PM	11
12:35 PM	11
12:40 PM	10
12:45 PM	12
12:50 PM	9
12:55 PM	10

Time	Max Queue
1:00 PM	11
1:05 PM	9
1:10 PM	10
1:15 PM	9
1:20 PM	10
1:25 PM	13
1:30 PM	12
1:35 PM	10
1:40 PM	7
1:45 PM	7
1:50 PM	9
1:55 PM	7
2:00 PM	4
2:05 PM	6
2:10 PM	6
2:15 PM	3
2:20 PM	2
2:25 PM	6
2:30 PM	5
2:35 PM	2
2:40 PM	6
2:45 PM	7
2:50 PM	3
2:55 PM	4
3:00 PM	3
3:05 PM	3
3:10 PM	3
3:15 PM	5
3:20 PM	6
3:25 PM	11
3:30 PM	11
3:35 PM	7
3:40 PM	6
3:45 PM	5
3:50 PM	5
3:55 PM	5
4:00 PM	5
4:05 PM	7
4:10 PM	9
4:15 PM	9
4:20 PM	11
4:25 PM	13
4:30 PM	9
4:35 PM	8
4:40 PM	3
4:45 PM	8
4:50 PM	7
4:55 PM	9

Prepared by AimTD LLC
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Quick Quack Car Wash
13322 Limonite Ave
Eastvale, CA 92880
9/24/2022 Saturday

Time	Max Queue
8:00 AM	3
8:05 AM	4
8:10 AM	5
8:15 AM	6
8:20 AM	7
8:25 AM	7
8:30 AM	5
8:35 AM	3
8:40 AM	7
8:45 AM	7
8:50 AM	5
8:55 AM	4
9:00 AM	7
9:05 AM	11
9:10 AM	11
9:15 AM	8
9:20 AM	10
9:25 AM	9
9:30 AM	9
9:35 AM	8
9:40 AM	7
9:45 AM	8
9:50 AM	11
9:55 AM	14
10:00 AM	17
10:05 AM	19
10:10 AM	19
10:15 AM	19
10:20 AM	19
10:25 AM	21
10:30 AM	21
10:35 AM	23
10:40 AM	29
10:45 AM	30
10:50 AM	27
10:55 AM	27
11:00 AM	25
11:05 AM	26
11:10 AM	30
11:15 AM	29
11:20 AM	28
11:25 AM	25
11:30 AM	23
11:35 AM	21
11:40 AM	17
11:45 AM	22
11:50 AM	21
11:55 AM	25
12:00 PM	22
12:05 PM	21
12:10 PM	19
12:15 PM	20
12:20 PM	18
12:25 PM	18
12:30 PM	18
12:35 PM	22
12:40 PM	27
12:45 PM	30
12:50 PM	28
12:55 PM	22

Time	Max Queue
1:00 PM	19
1:05 PM	16
1:10 PM	20
1:15 PM	20
1:20 PM	20
1:25 PM	19
1:30 PM	20
1:35 PM	20
1:40 PM	16
1:45 PM	14
1:50 PM	13
1:55 PM	13
2:00 PM	10
2:05 PM	16
2:10 PM	17
2:15 PM	14
2:20 PM	11
2:25 PM	8
2:30 PM	4
2:35 PM	14
2:40 PM	13
2:45 PM	9
2:50 PM	5
2:55 PM	6
3:00 PM	16
3:05 PM	15
3:10 PM	16
3:15 PM	18
3:20 PM	17
3:25 PM	25
3:30 PM	29
3:35 PM	31
3:40 PM	29
3:45 PM	25
3:50 PM	18
3:55 PM	19
4:00 PM	18
4:05 PM	22
4:10 PM	21
4:15 PM	19
4:20 PM	18
4:25 PM	16
4:30 PM	18
4:35 PM	17
4:40 PM	14
4:45 PM	12
4:50 PM	12
4:55 PM	6

Prepared by AimTD LLC
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ATTACHMENT B

Outbound Trip Count Worksheets

Thursday, September 22, 2022 CITY: Eastvale PROJECT: SC3636

ADT2 Dutch Bros Drive Thru Exit

Prepared by AimTD LLC tel. 714 253 7888

AM Period	OUT			PM Period	OUT		
0:00				12:00	14		
0:15				12:15	14		
0:30				12:30	23		
0:45				12:45	13	64	64
1:00				13:00	19		
1:15				13:15	16		
1:30				13:30	13		
1:45				13:45	10	58	58
2:00				14:00	13		
2:15				14:15	10		
2:30				14:30	12		
2:45				14:45	15	50	50
3:00				15:00	17		
3:15				15:15	14		
3:30				15:30	13		
3:45				15:45	15	59	59
4:00				16:00	13		
4:15				16:15	13		
4:30				16:30	12		
4:45				16:45	11	49	49
5:00				17:00			
5:15				17:15			
5:30				17:30			
5:45				17:45			
6:00				18:00			
6:15				18:15			
6:30				18:30			
6:45				18:45			
7:00				19:00			
7:15				19:15			
7:30				19:30			
7:45				19:45			
8:00	8			20:00			
8:15	13			20:15			
8:30	9			20:30			
8:45	13	43	43	20:45			
9:00	13			21:00			
9:15	14			21:15			
9:30	11			21:30			
9:45	14	52	52	21:45			
10:00	13			22:00			
10:15	5			22:15			
10:30	12			22:30			
10:45	13	43	43	22:45			
11:00	15			23:00			
11:15	14			23:15			
11:30	11			23:30			
11:45	10	50	50	23:45			
Total Vol.		188	**188**		280		**280**

Daily Totals

OUT	**Combined**
468	**468**

	AM		**PM**	
Split %	100.0%	**40.2%**	100.0%	**59.8%**
Peak Hour	11:45	**11:45**	12:30	**12:30**
Volume	61	**61**	71	**71**
P.H.F.	0.66	**0.66**	0.77	**0.77**

cs@aimtd.com Tell. 714 253 7888

Saturday, September 24, 2022 | CITY: Eastvale | PROJECT: SC3636

ADT2 Dutch Bros Drive Thru Exit

Prepared by AimTD LLC tel. 714 253 7888

AM Period	OUT			PM Period	OUT		
0:00				12:00	11		
0:15				12:15	11		
0:30				12:30	7		
0:45				12:45	10	39	39
1:00				13:00	16		
1:15				13:15	12		
1:30				13:30	15		
1:45				13:45	9	52	52
2:00				14:00	13		
2:15				14:15	9		
2:30				14:30	13		
2:45				14:45	9	44	44
3:00				15:00	11		
3:15				15:15	13		
3:30				15:30	6		
3:45				15:45	8	38	38
4:00				16:00	20		
4:15				16:15	12		
4:30				16:30	12		
4:45				16:45	13	57	57
5:00				17:00			
5:15				17:15			
5:30				17:30			
5:45				17:45			
6:00				18:00			
6:15				18:15			
6:30				18:30			
6:45				18:45			
7:00				19:00			
7:15				19:15			
7:30				19:30			
7:45				19:45			
8:00	12			20:00			
8:15	10			20:15			
8:30	5			20:30			
8:45	10	37	37	20:45			
9:00	11			21:00			
9:15	11			21:15			
9:30	12			21:30			
9:45	8	42	42	21:45			
10:00	7			22:00			
10:15	11			22:15			
10:30	12			22:30			
10:45	11	41	41	22:45			
11:00	13			23:00			
11:15	9			23:15			
11:30	15			23:30			
11:45	14	51	51	23:45			
Total Vol.		171	**171**		230		**230**

Daily Totals

OUT	**Combined**
401	**401**

	AM		**PM**	
Split %	100.0%	**42.6%**	100.0%	**57.4%**
Peak Hour	11:00	**11:00**	16:00	**16:00**
Volume	51	**51**	57	**57**
P.H.F.	0.85	**0.85**	0.71	**0.71**

cs@aimtd.com Tell. 714 253 7888

Thursday, September 22, 2022 CITY: Eastvale PROJECT: SC3636

ADT1 Quick Quack Car Wash Drive Thru Exit

Prepared by AimTD LLC tel. 714 253 7888

AM Period	OUT			PM Period	OUT		
0:00				12:00	26		
0:15				12:15	17		
0:30				12:30	22		
0:45				12:45	26	91	91
1:00				13:00	26		
1:15				13:15	24		
1:30				13:30	27		
1:45				13:45	25	102	102
2:00				14:00	25		
2:15				14:15	13		
2:30				14:30	19		
2:45				14:45	23	80	80
3:00				15:00	15		
3:15				15:15	21		
3:30				15:30	24		
3:45				15:45	23	83	83
4:00				16:00	23		
4:15				16:15	26		
4:30				16:30	25		
4:45				16:45	25	99	99
5:00				17:00			
5:15				17:15			
5:30				17:30			
5:45				17:45			
6:00				18:00			
6:15				18:15			
6:30				18:30			
6:45				18:45			
7:00				19:00			
7:15				19:15			
7:30				19:30			
7:45				19:45			
8:00	21			20:00			
8:15	28			20:15			
8:30	25			20:30			
8:45	21	95	95	20:45			
9:00	23			21:00			
9:15	20			21:15			
9:30	24			21:30			
9:45	24	91	91	21:45			
10:00	24			22:00			
10:15	31			22:15			
10:30	24			22:30			
10:45	25	104	104	22:45			
11:00	21			23:00			
11:15	23			23:15			
11:30	18			23:30			
11:45	26	88	88	23:45			
Total Vol.	378		**378**		455		**455**

Daily Totals

OUT	**Combined**
833	**833**

	AM		**PM**	
Split %	100.0%	**45.4%**	100.0%	**54.6%**
Peak Hour	10:00	**10:00**	12:45	**12:45**
Volume	104	**104**	103	**103**
P.H.F.	0.84	**0.84**	0.95	**0.95**

cs@aimtd.com Tell. 714 253 7888

Saturday, September 24, 2022 | CITY: Eastvale | PROJECT: SC3636

ADT1 Quick Quack Car Wash Drive Thru Exit

Prepared by AimTD LLC tel. 714 253 7888

AM Period	OUT			PM Period	OUT		
0:00				12:00	28		
0:15				12:15	24		
0:30				12:30	25		
0:45				12:45	27	104	104
1:00				13:00	28		
1:15				13:15	26		
1:30				13:30	27		
1:45				13:45	28	109	109
2:00				14:00	23		
2:15				14:15	28		
2:30				14:30	21		
2:45				14:45	27	99	99
3:00				15:00	18		
3:15				15:15	17		
3:30				15:30	6		
3:45				15:45	26	67	67
4:00				16:00	28		
4:15				16:15	26		
4:30				16:30	26		
4:45				16:45	27	107	107
5:00				17:00			
5:15				17:15			
5:30				17:30			
5:45				17:45			
6:00				18:00			
6:15				18:15			
6:30				18:30			
6:45				18:45			
7:00				19:00			
7:15				19:15			
7:30				19:30			
7:45				19:45			
8:00	21			20:00			
8:15	27			20:15			
8:30	28			20:30			
8:45	25	101	101	20:45			
9:00	24			21:00			
9:15	26			21:15			
9:30	27			21:30			
9:45	23	100	100	21:45			
10:00	25			22:00			
10:15	26			22:15			
10:30	26			22:30			
10:45	26	103	103	22:45			
11:00	26			23:00			
11:15	26			23:15			
11:30	26			23:30			
11:45	23	101	101	23:45			
Total Vol.	405		**405**		486		**486**

Daily Totals

OUT	Combined
891	**891**

	AM		PM	
Split %	100.0%	**45.5%**	100.0%	**54.5%**
Peak Hour	8:15	**8:15**	13:00	**13:00**
Volume	104	**104**	109	**109**
P.H.F.	0.93	**0.93**	0.97	**0.97**

cs@aimtd.com Tell. 714 253 7888

ATTACHMENT C

Dutch Bros Traffic Management Plan

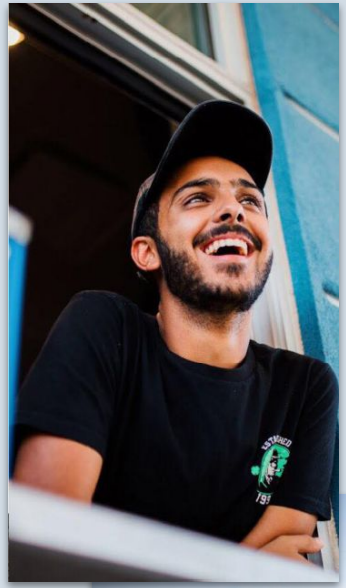
Traffic Management Plan

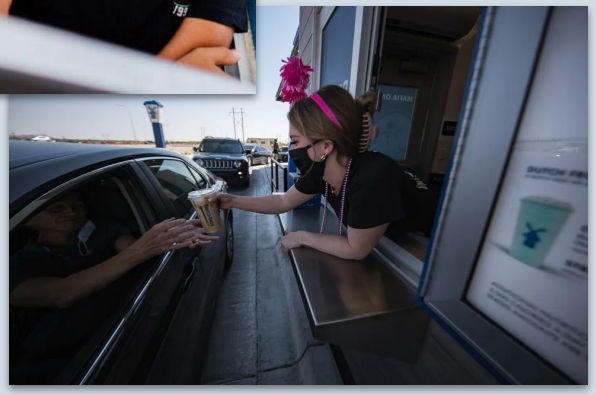
Property Management Team

CA6103 - Eastvale
NWC Archibald & Chandler
Eastvale, CA 92880
West Region



Speed, Quality, Service





Timing Standards

45 seconds per car (at window). Speed timings conducted weekly in addition to a quarterly company wide evaluation.

Escape Lane

An escape lane permits customers to leave the line as soon as their drinks are delivered by a drink runner.

Peak Hours

DB will staff an additional traffic controller during peak hours as needed.

Speed, Quality, Service





Off-Site Operations

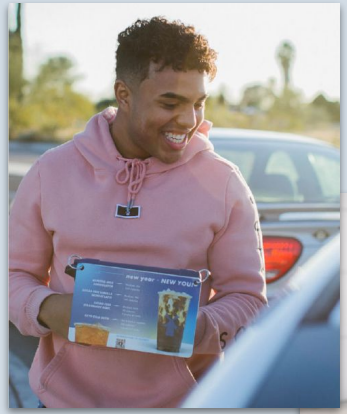
DB always evaluates the need of off-duty police officer support during our grand opening period.

Off duty police officers provide off-site support during business hours as determined necessary by DB leadership. Their job is to safely direct customer vehicles to and from a location. Prevent vehicles from blocking critical drives or otherwise restricting traffic flow (off-site).

Staffing Model

Schedules are written a minimum of 1-2 weeks in advance (in accordance with state and local guidelines) based on gross sales, trends, local events, and weather.

Speed, Quality, Service







Outside Traffic Management

Line Buster (LB)

Job Duty: Increase speed of the customers experience by taking orders while ensuring 2’ gap between cars. Ensuring when the line pulls forward the customers moves forward.

Drink Runner (DR)

Job Duty: Deliver completed drinks to the customer in line before reaching the window. Ensuring escape lane is used to minimize service time.

Dutch Bros Traffic Controller (DBTC)

Job Duty: Direct traffic in and out of location. Ensuring vehicles from blocking critical drives or otherwise restricting traffic flow (on-site).

Training and FAQ's

Full Shop Meetings:

- Monthly meetings in which all shop personnel are required to attend. Discuss traffic plans and new commitments in detail.

Pre-Shift Huddles:

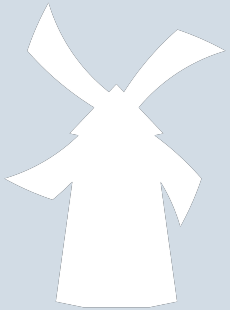
- Before each shift (morning, noon, night) the crew goes over updates, important communication, issues, and ensures strategy is set for the shift

Promotional Days / Major Holidays / Sticker Days:

- Dutch will determine if needed and hire a Third-Party Traffic Control Company to come in when the Stacking could possibly be an issue.

Evolving Traffic Plan:

- The Grand Opening plan will be utilized whenever necessary to mitigate traffic congestion that may occur from our new shop opening. We reserve the right to adjust the plan as conditions dictate, and expect that after the initial community response, our traffic patterns will settle to a predictable level within the first 90 days of operation.



Directional Signage Examples



Grand Opening Staffing Plan



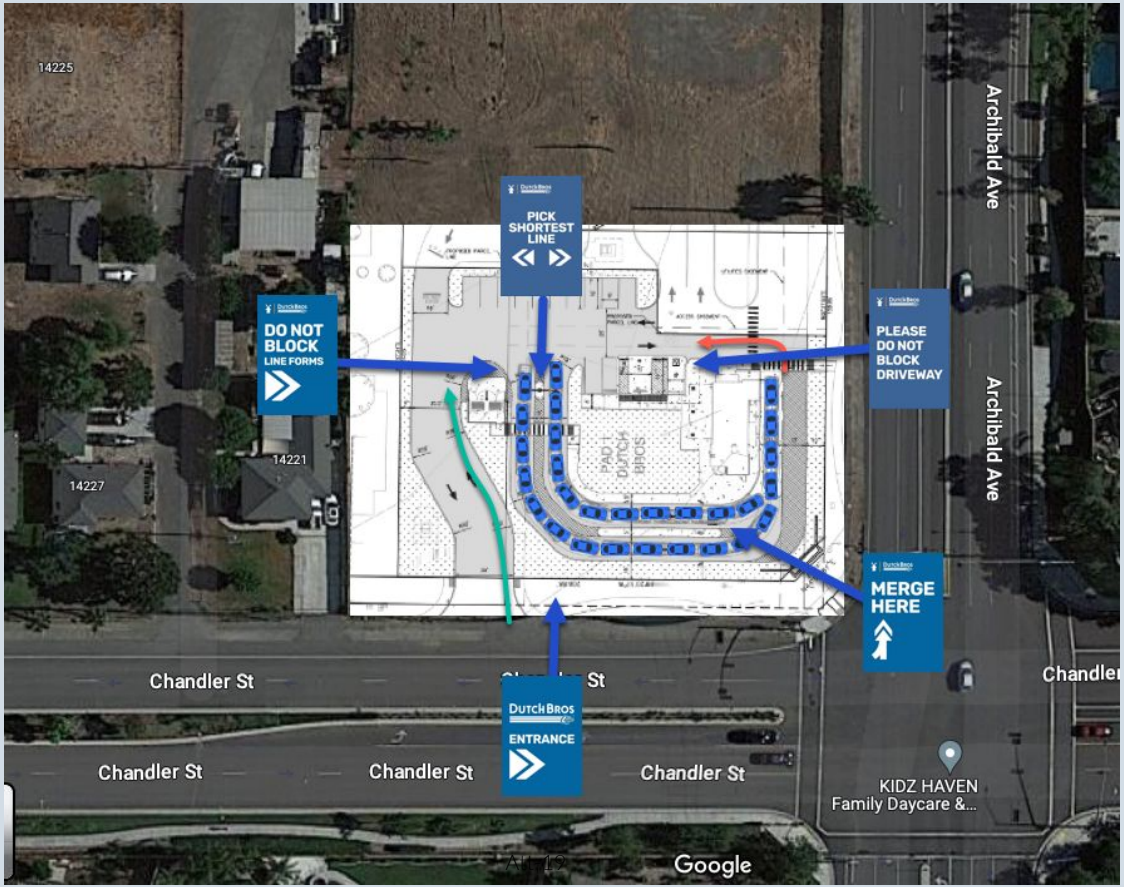
Traffic Plan Legend

LB ------- Line Buster
DR ------- Drink Runner
DBTC --- Dutch Bros Traffic Controller
TC ------- Off Duty Police Officer

------ No Stacking
------ Ingress
------ Egress

****We will utilize the escape lane for cars to quickly exit upon receiving their drinks and as an additional qu line for cars with larger orders.****

Grand Opening Signage Plan



Signage Package

x5



X1



x1



x1



x1



x1



*Cones are not included in signage package. They are up to the operator and coach and ordered by operator!

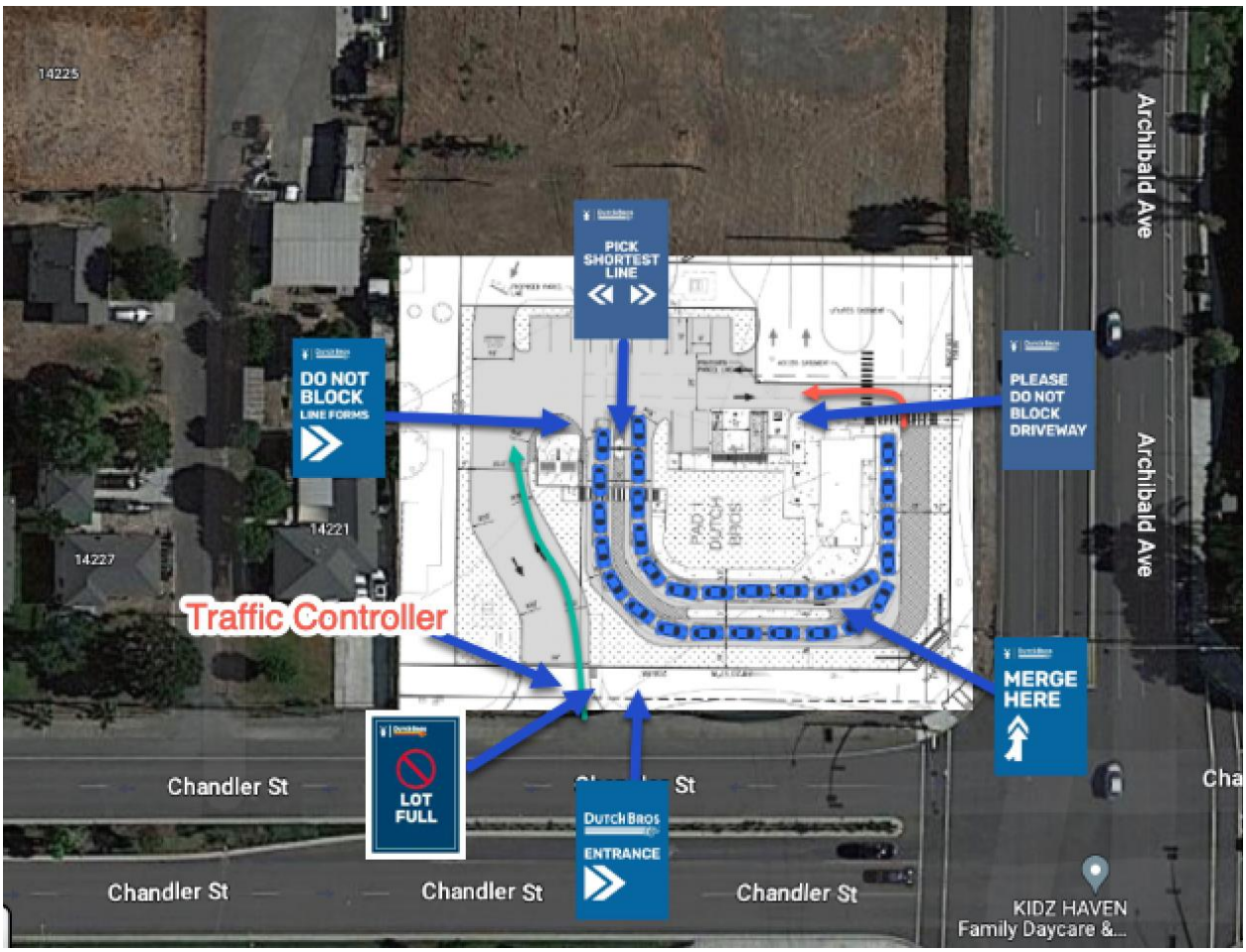
Crew Parking



Dutch Bros. CA6301
NWC Archibald & Chandler
Eastvale, CA

Traffic Control Plan

To avoid a persistent issue of cars stacking on the main road of Chandler will require a combination of strategies that include market saturation, which we expect to achieve over the next 18 months in and around the Eastvale market. Traffic control measures during our grand opening phase, that may include the assistance of the city, local PD, or hired security, to keep traffic flowing and avoiding stacking onto the main road, and effective lot signage, that includes a “LOT FULL” sign and cone placement to discourage ingress traffic that can be used as needed.


14225
14221
14227
Archibald Ave
Archibald Ave
PICK SHORTEST LINE
DO NOT BLOCK LINE FORMS
PLEASE DO NOT BLOCK DRIVEWAY
PAD 1 DUTCH BROS
Traffic Controller
MERGE HERE
LOT FULL
DUTCH BROS ENTRANCE
Chandler St
Chandler St
Chandler St
Chandler St
KIDZ HAVEN
Family Daycare &...

ATTACHMENT D

Quick Quack Car Wash Traffic Management Plan & Operational Statement

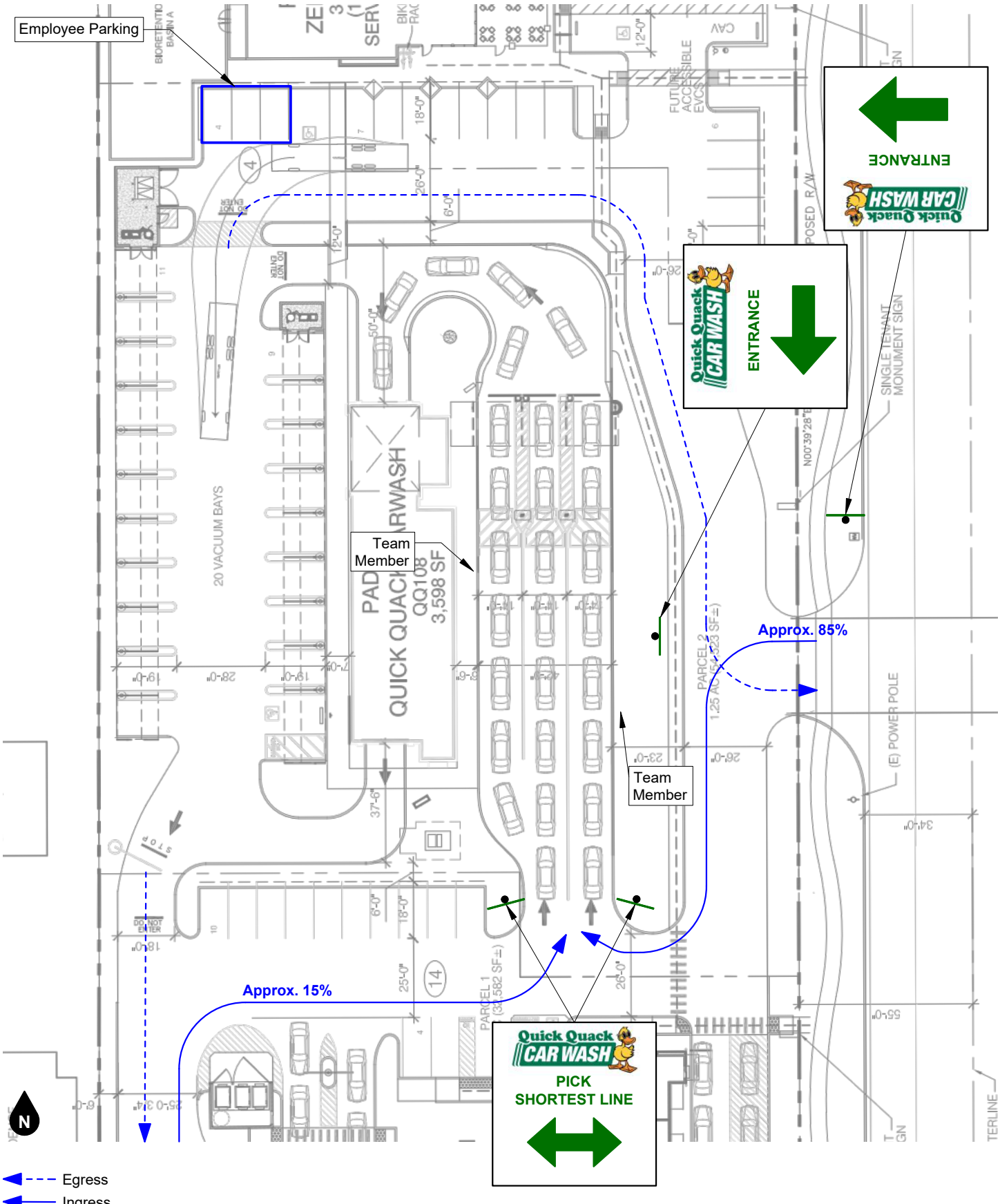


Figure D-1
Quick Quack Car Wash Traffic Management Plan

1380 Lead Hill Blvd. Suite 260
Roseville, CA, 95661
www.dontdrivedirty.com

August 17, 2023

From: Erika G. Hernandez
PreConstruction Manager
Quick Quack Car Wash
Phone: 818.398.5179

To: Giancarlo Ganddini, PE, PTP
Ganddini Group, Inc.
555 Parkcenter Drive, Suite 225
Santa Ana, CA 92705
714.795.3100 x 101

Regarding: Quick Quack Queuing

Dear Mr. Ganddini,

Quick Quack site plan includes 3 long queuing lanes for a minimum stacking of 24 cars from the front of the Showroom at any given time. With this much stacking accommodations, it is extremely unlikely there will be any issues that cannot be easily overcome.

Quick Quack has the capacity to run up to 155 cars an hour through the wash, loading one car every 24 seconds onto the conveyor. Once on the conveyor, the average wash is approximately 2 minutes and 10 seconds before discharge at the front of the showroom.

Additionally, Quick Quack has a membership program that utilizes license plate readers, so when members arrive there is no wait, the gate will open automatically, and they can drive straight into the wash without stopping. This technology significantly increases the efficiency and throughput of our que lines. Unlike the many QSR drive through challenges due to managing vastly different orders, Quick Quack queuing is constant and rapid. Quick Quack has 189 stores throughout the western united states and has perfected the process of managing our queuing.

If for any reason a que line reaches maximum capacity, our team members operating the store will place traffic cones and signs at the entry stating we are temporarily closed. Once queuing subsides, we will remove the barricades and signs.
Sincerely,

Erika G. Hernandez
PreConstruction Manager
Quick Quack Car Wash
Phone: 818.398.5179
erhernandez@dontdrivedirty.com
www.dontdrivedirty.com

ATTACHMENT E

Transportation Analysis for the La Mirada Dutch Bros. Coffee Shop Project

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: March 31, 2023

TO: Manuel Muñoz, City of La Mirada, Community Development Director

FROM: Dean Arizabal, Principal, LSA

SUBJECT: Transportation Analysis for the La Mirada Dutch Bros. Coffee Shop Project (LSA Project No. 20231088)

LSA has prepared this transportation analysis for the proposed 950-square-foot (sf) Dutch Bros. Coffee shop with drive-through (project) at 14840 Beach Boulevard in La Mirada, California. The proposed project is at the northeast corner of the intersection of Beach Boulevard/Rosecrans Avenue. The proposed project would replace an existing 4,513 sf restaurant. Access to the proposed project is provided via one right-in/right-out (RIRO) driveway on Beach Boulevard and one RIRO driveway on Rosecrans Avenue. The proposed drive-through lane for the Dutch Bros. Coffee shop would accommodate 18 vehicles. The project site plan is provided in Attachment A.

As a result of comments from the City of La Mirada (City) and a subsequent discussion with the City's Community Development Department staff, a transportation analysis required for the proposed project. The purpose of this analysis is to identify the parking, trip generation, access and circulation, drive-through queuing, and traffic management plan (TMP) for the proposed project.

Parking

According to City Municipal Code Section 21.68.050 (Off-Street Parking Requirements), food and beverage sales (specialty food shop) require one parking space per 300 sf. The proposed 950 sf project would require 4 parking spaces. As shown on the project site plan, the proposed project would provide 8 parking spaces, including 7 regular spaces on the north side of the project and 1 American with Disabilities Act (ADA) space on the east side of the project. As such, the proposed project would meet the City's parking requirements.

Trip Generation

The daily and peak-hour trips of the proposed project and the existing (approved) use were calculated using trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition (2021) for Coffee/Donut Shop with Drive-Through (Land Use 937) and High-Turnover (Sit-Down) Restaurant (Land Use 848). The trip generation was then reduced based on review of pass-by trip reduction percentages from the ITE *Trip Generation Manual* for each applicable land use type. Pass-by trips are made by drivers already on adjacent/nearby roadways

(e.g., stopped by the coffee shop on the way to work or home) and therefore are not additive trips to the circulation system.

Table A presents the ITE trip generation summary for the proposed project.

Table A: Project Trip Generation

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Coffee Shop		tsf	533.57	43.80	42.08	85.88	19.50	19.49	38.99
Restaurant		tsf	107.20	5.26	4.31	9.57	5.52	3.53	9.09
Project Trip Generation									
Coffee Shop	0.950	tsf	507	42	40	82	19	18	37
Pass-By Reductions[2]			(456)	(38)	(36)	(74)	(19)	(17)	(36)
Total			51	4	4	8	0	1	1
Existing Trip Generation									
Restaurant	4.513	tsf	484	24	19	43	25	16	41
Pass-By Reductions[3]			(102)	0	0	0	(11)	(7)	(18)
Total			382	24	19	43	14	9	23
Net Trips (Project - Existing)			**(331)**	**(20)**	**(15)**	**(35)**	**(14)**	**(8)**	**(22)**

Source: Compiled by LSA (2023).

[1] Trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation* Manual, 11th Edition (2021).
Land Use 937 (Coffee/Donut Shop with Drive-Through Window)
Land Use 932 (High-Turnover [Sit-Down] Restaurant)

[2] 90% Daily (assumed), 90% AM, and 98% PM for ITE Land Use 938.

[3] 21% Daily (assumed), 0% AM, and 43% PM for ITE Land Use 932.

tsf = thousand square feet

As shown in Table A, the 950 sf Dutch Bros. Coffee shop with drive-through would generate 507 daily trips, including 82 trips (42 inbound and 40 outbound) in the a.m. peak hour and 37 trips (19 inbound and 18 outbound) in the p.m. peak hour. After applying ITE pass-by trip reductions, the net trip generation of the Dutch Bros. Coffee shop with drive-through is 51 daily trips, including 8 trips (4 inbound and 4 outbound) in the a.m. peak hour and 1 outbound trip in the p.m. peak hour.

The existing 4,513 sf restaurant would generate 484 daily trips, including 43 trips (24 inbound and 19 outbound) in the a.m. peak hour and 41 trips (25 inbound and 16 outbound) in the p.m. peak hour. After applying ITE pass-by trip reductions, the net trip generation of the existing restaurant is 382 daily trips, including 43 trips (24 inbound and 19 outbound) in the a.m. peak-hour and 23 trips (14 inbound and 9 outbound) in the p.m. peak hour.

The proposed project would result in a net reduction of 331 daily trips, including a reduction of 35 trips (20 inbound and 15 outbound) in the a.m. peak hour and a reduction of 22 trips (14 inbound and 8 outbound) in the p.m. peak hour.

Access and Circulation

The proposed project is at the northeast corner of the Beach Boulevard/Rosecrans Avenue intersection. One RIRO driveway on Beach Boulevard and one RIRO driveway on Rosecrans Avenue provide vehicular access to the proposed project. These two driveways, as well as internal drive aisles on the north and east sides of the proposed project, provide shared access and circulation for the project site and the neighboring commercial properties to the north and the east consistent with Parcel Map No. 7794 (recorded by Los Angeles County Recorder on April 18, 1977) and the Declaration of Establishment of Protective Covenants, Conditions, and Restrictions and Grants of Easements (recorded by Los Angeles County on April 22, 1977), which are provided in Attachment B.

Drive-Through Queuing

LSA prepared a drive-through queuing analysis for the recently approved Dutch Bros. Coffee shop project at the southwest corner of the intersection of Beach Boulevard/Lambert Road in La Habra, approximately 2.5 miles from the project site. The La Habra Dutch Bros. Coffee shop analysis (dated January 5, 2023) is provided in Attachment C and summarized below.

To determine the potential drive-through queues of the proposed La Habra Dutch Bros. Coffee shop, queuing observations were conducted by Counts Unlimited at a similar existing Dutch Bros. Coffee shop in Eastvale (13322 Limonite Avenue) on Saturday, June 25, 2022, and Tuesday, June 28, 2022. Based on the two days of survey data, the maximum observed drive-through queues at the Eastvale Dutch Bros. Coffee shop were as follows:

- Saturday (June 25, 2022): 28 vehicles (11:50 a.m. to 11:55 a.m.)
- Tuesday (June 28, 2022): 24 vehicles (11:40 a.m. to 11:45 p.m.)

Drive-through queuing surveys were also conducted by Counts Unlimited at Dutch Bros. Coffee shops in Apple Valley (21680 Bear Valley Road), La Quinta (44-175 Jefferson Street), and Indio (81-776 Highway 111) on Saturday, January 29, 2022, and Tuesday, February 1, 2022. According to the two days of survey data, the maximum observed drive-through queues at the Apple Valley, La Quinta, and Indio Dutch Bros. Coffee shops were as follows:

- Apple Valley – Saturday: 22 vehicles (11:30 a.m. to 11:40 a.m. and 1:10 p.m. to 1:15 p.m.)
- Apple Valley – Tuesday: 15 vehicles (7:10 a.m. to 7:15 a.m. and 8:10 a.m. to 8:20 a.m.)
- La Quinta – Saturday: 20 vehicles (10:05 a.m. to 10:10 a.m., 10:20 a.m. to 10:25 a.m., and 2:55 p.m. to 3:00 p.m.)
- La Quinta – Tuesday: 14 vehicles (11:10 a.m. to 11:15 a.m.)
- Indio – Saturday: 14 vehicles (11:35 a.m. to 11:45 a.m.)
- Indio – Tuesday: 15 vehicles (7:40 a.m. to 7:55 a.m.)

Based on this drive-through queuing information, the project queues could range from 14 to 28 vehicles during peak times of the day. However, it is important to note the distances from each Dutch Bros. Coffee shop to the next nearest location. The farther a Dutch Bros. Coffee shop is to the next nearest location, the longer the maximum drive-through queue. Conversely, the closer Dutch Bros. Coffee shop is to another, the shorter the maximum drive-through queue.

For example, the Eastvale Dutch Bros. Coffee shop, which had a maximum drive-through queue of 28 vehicles. is approximately 16 miles from the nearest Dutch Bros. Coffee shop in Rialto. The Apple Valley Dutch Bros. Coffee shop, which had a maximum drive-through queue of 22 vehicles, is approximately 9 miles from the nearest Dutch Bros. Coffee shop in Victorville. The La Quinta and Indio Dutch Bros. Coffee shops, which had maximum drive-through queues of 20 vehicles and 15 vehicles, respectively, are approximately 3.5 miles from each other.

As previously described, the proposed project is approximately 2.5 miles from the recently approved Dutch Bros. Coffee shop in La Habra. It is likely that the La Habra Dutch Bros. Coffee shop will be operational and well established before the proposed project is built. Therefore, the anticipated drive-through queues of the proposed project are anticipated to range from 15 to 20 vehicles during peak times of the day.

As shown on the project site plan, the proposed project drive-through could store 18 vehicles. Dutch Bros. Coffee has developed a traffic management plan (TMP) to maximize drive-through operations, facilitate drive-through vehicles, and minimize the drive-through queues. The Dutch Bros. Coffee TMP, which includes detailed staffing and signage plans, is provided in Attachment D.

Based on the proposed site plan and drive-through configuration, as well as the Dutch Bros. Coffee TMP, the proposed project queues are unlikely to extend into the public streets (Beach Boulevard and Rosecrans Avenue). As such, the proposed project drive-through lane and operations are not anticipated to affect the ability of patrons and employees to access, circulate, and park within the project site and the adjacent properties.

Conclusions

LSA analyzed the parking, trip generation, access and circulation, and drive-through queuing of the proposed project.

The proposed project would exceed the City's 4-space parking requirement by providing 8 parking spaces (7 regular spaces and 1 ADA space) .

Compared to the existing (approved) restaurant on site, the proposed project would result in a net reduction of 331 daily trips, including a reduction of 35 a.m. peak-hour and 22 p.m. peak-hour trips.

Consistent with Parcel Map No. 7794 and the Declaration of Establishment of Protective Covenants, Conditions, and Restrictions and Grants of Easements, access and circulation for the proposed project and the adjacent uses would continue to be shared via RIRO driveways on Beach Boulevard and Rosecrans Avenue, as well as internal drive aisles on the north and east sides of the project site.

Based on queuing surveys of similar existing Dutch Bros. Coffee shops in Eastvale, Apple Valley, La Quinta, and Indio, as well as the Dutch Bros. Coffee TMP, the drive-through configuration for 18 vehicles is anticipated to provide adequate storage capacity for the proposed project. As such, the proposed project is unlikely to cause any disruption to the access, internal circulation, or parking on site. Therefore, drive-through queues of the proposed project are not anticipated to extend into the public streets (Beach Boulevard and Rosecrans Avenue).

If you have any questions, please contact me at (949) 553-0666.

Attachments: A – Project Site Plan
B – Parcel Map No. 7794 and Declaration of Establishment of Protective Covenants, Conditions, and Restrictions and Grants of Easements
C – La Habra Dutch Bros. Coffee Shop Analysis
D – Dutch Bros. Coffee TMP

ATTACHMENT A

PROJECT SITE PLAN

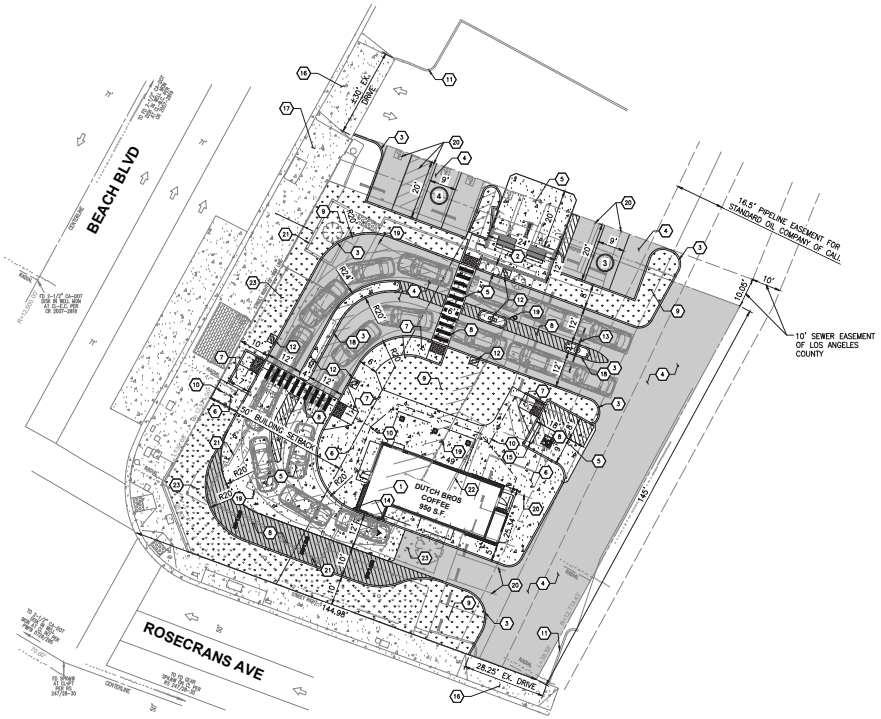
DUTCH BROS. COFFEE - CA6402, LA MIRADA, CA

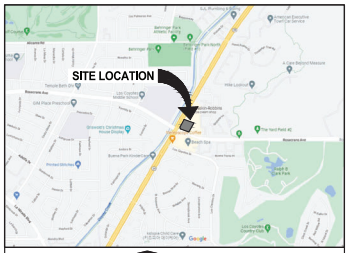
PRELIMINARY SITE PLAN

N

0 10' 20' 40'

SCALE: 1"=20'





N.T.S. VICINITY MAP

PROJECT DATA

CA6402

TRASH ENCLOSURE	= 24'x12'
PROPOSED REGULAR PARKING	= 7
PROPOSED ADA PARKING	= 1
TOTAL PARKING	= 8
QUEUING	= 18

CONSTRUCTION NOTES:

1. PROPOSED DUTCH BROS COFFEE STAND. SEE ARCHITECTURAL PLANS FOR DETAILS.
2. PROPOSED 24'X12' TRASH ENCLOSURE WITH CONCRETE PAD. SEE ARCHITECTURAL PLANS FOR DETAILS.
3. PROPOSED CONCRETE BARRIER CURB, TYPICAL.
4. PROPOSED ASPHALT PAVEMENT.
5. PROPOSED ON-SITE CONCRETE PAVEMENT, TYPICAL.
6. PROPOSED ON-SITE CONCRETE SIDEWALK (WIDTH VARIES), TYPICAL.
7. PROPOSED ACCESSIBLE RAMP.
8. PROPOSED PAVEMENT MARKING.
9. PROPOSED LANDSCAPE AREA, TYPICAL.
10. ACCESSIBLE PATH, TYPICAL.
11. EXISTING CURB TO PROTECT DURING CONSTRUCTION.
12. PROPOSED SIGNAGE, REFER TO ARCHITECTURAL PLANS FOR DETAILS.
13. PROPOSED VERTICAL CLEARANCE BAR.
14. PROPOSED BOLLARDS.
15. PROPOSED CAR WHEEL STOP.
16. EXISTING CONCRETE DRIVEWAY TO PROTECT DURING CONSTRUCTION.
17. EXISTING CONCRETE PEDESTRIAN SIDEWALK TO PROTECT DURING CONSTRUCTION.
18. PROPOSED 4' CONCRETE MEDIAN.
19. EXISTING BUILDING TO BE DEMOLISHED.
20. EXISTING PARKING AREA, EXISTING MARKINGS AND CAR WHEEL STOPS TO BE REMOVED.
21. EXISTING RAISED BRICK WALL PLANTER TO BE DEMOLISHED.
22. EXISTING BRICK WALL TO BE DEMOLISHED.
23. EXISTING LANDSCAPE TO BE REPLACED WITH PROPOSED IMPROVEMENTS.

LEGEND

- PROPERTY LINE
- EXISTING BUILDING LINE
- EXISTING CURB TO REMAIN
- PROPOSED CURB
- PROPOSED LANDSCAPING
- EXISTING LANDSCAPING
- PROPOSED ASPHALT
- PROPOSED CONCRETE

PRELIMINARY NOT FOR CONSTRUCTION

Title: PRELIMINARY SITE PLAN
14840 BEACH BLVD
LA MIRADA, CA

For: DUTCH BROS

Scale: Horizontal 1" = 20' Vertical N/A

Designed STT
Drawn STT
Checked JAH
Approved HPG
Date 11/8/2022

Barghausen Consulting Engineers, Inc.
18215 72nd Avenue South
Kent, WA 98032
425.251.6222
barghausen.com

Job Number 22354
Sheet 1 OF 1

P:\22000s\22354\preliminary\22354-SP.dwg 11/8/2022 2:32 PM PLAU

"The name DUTCH BROS. and all associated logos, distinctive designs, content, information, and other materials features, displayed, contained herein, and made available by Dutch Bros., including but not limited to, the 'look and feel' of the establishments and products, all text, images, colors, configurations, graphics, designs, illustrations, photographs, and pictures (collectively, the "Materials") are owned by and/or licensed by DB Franchising USA, LLC and are protected by copyright, trademark, trade dress, patent, and/or other intellectual property rights and unfair competition laws under the United States and foreign laws."

ATTACHMENT B

PARCEL MAP NO. 7794 AND DECLARATION OF ESTABLISHMENT OF PROTECTIVE COVENANTS, CONDITIONS, AND RESTRICTIONS AND GRANTS OF EASEMENTS

78/52

BOOK 78 PAGE 52

SHEET 1 OF 2 SHEETS

PARCEL MAP NO. 7794

77- 39213

IN THE CITY OF LA MIRADA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

BEING A SUBDIVISION OF A PORTION OF THE NORTHWEST QUARTER OF SECTION 24, TOWNSHIP 3 SOUTH, RANGE 11 WEST IN THE RANCHO LOS COYOTES IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN UPON A COPY OF MAP MADE BY CHARLES T. HEALEY RECORDED IN BOOK 41819 PAGES 141 TO 186 INCLUSIVE OFFICIAL RECORDS OF SAID COUNTY.

FILED
AT REQUEST OF
ALPHA BETA CO.
APR 8, 1977
MIN. 27 PAST 4 PM
IN BOOK 78
AT PAGE 52
OF PARCEL MAPS
LOS ANGELES COUNTY, CALIF.
Registrar-Recorder
BY [signature] Deputy
FEE $7.00

THOMSEN ENGINEERING INC.
JANUARY, 1977

WE HEREBY CERTIFY THAT WE ARE THE SUBDIVIDERS OF THE LANDS INCLUDED WITHIN THE SUBDIVISION SHOWN ON THIS MAP WITHIN THE DISTINCTIVE BORDER LINES, AND WE CONSENT TO THE PREPARATION AND FILING OF SAID MAP AND SUBDIVISION.

ALPHA BETA COMPANY, A CORPORATION, SUBDIVIDER

E.R. Markson
E.R. MARKSON - VICE PRESIDENT

Ruth H. Thomas
RUTH H. THOMAS - SECRETARY

THIS MAP WAS PREPARED BY ME OR UNDER MY DIRECTION AND WAS COMPILED FROM RECORD DATA IN CONFORMANCE WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AT THE REQUEST OF ALPHA BETA COMPANY IN JANUARY 1977. I HEREBY STATE THAT THE PARCEL MAP PROCEDURES OF THE LOCAL AGENCY HAVE BEEN COMPLIED WITH AND THAT THIS PARCEL MAP CONFORMS TO THE APPROVED TENTATIVE MAP AND THE CONDITIONS OF APPROVAL THEREOF WHICH WERE REQUIRED TO BE FULFILLED PRIOR TO THE FILING OF THE PARCEL MAP.

Hans C. Thomsen
HANS C. THOMSEN RCE 8244

THIS MAP CONFORMS WITH THE REQUIREMENTS OF THE SUBDIVISION MAP ACT AND LOCAL ORDINANCE

APR 7 1977

Stephen J. Koonce
STEPHEN J. KOONCE
ACTING CITY ENGINEER

RECORD OWNER: ARTHUR GILBERT AS TRUSTEE OF THE COLIN MALCOLM GILBERT TRUST UNDER DECLARATION OF TRUST FOR THE PRIMARY BENEFIT OF COLIN MALCOLM GILBERT DATED NOVEMBER 1, 1965

LA MIRADA WATER CO., A CORPORATION, HOLDER OF AN EASEMENT FOR PIPE LINE AND INCIDENTAL PURPOSES PER DEED RECORDED IN BOOK D1109 PAGE 318 OFFICIAL RECORDS. SAID EASEMENT IS BLANKET IN NATURE.

STATE OF CALIFORNIA } S.S.
COUNTY OF ORANGE }

ON THIS 28th DAY OF MARCH 1977 BEFORE ME A. TERRANCE DICKENS A NOTARY PUBLIC IN AND FOR SAID STATE, PERSONALLY APPEARED E.R. MARKSON KNOWN TO ME TO BE VICE-PRESIDENT AND RUTH H. THOMAS KNOWN TO ME TO BE THE SECRETARY OF ALPHA BETA COMPANY, A CORPORATION, THE CORPORATION THAT EXECUTED THE WITHIN INSTRUMENT AND KNOWN TO ME TO BE THE PERSONS WHO EXECUTED THE WITHIN INSTRUMENT ON BEHALF OF THE CORPORATION HEREIN NAMED AND ACKNOWLEDGED TO ME THAT SUCH CORPORATION EXECUTED THE SAME.

OFFICIAL SEAL
A. TERRANCE DICKENS
NOTARY PUBLIC - CALIFORNIA
ORANGE COUNTY
My Commission Expires December 8, 1979

A. Terrance Dickens
NOTARY PUBLIC
MY COMMISSION EXPIRES DECEMBER 8, 1979

78/53

BOOK 78 PAGE 53

SCALE 1"= 80'

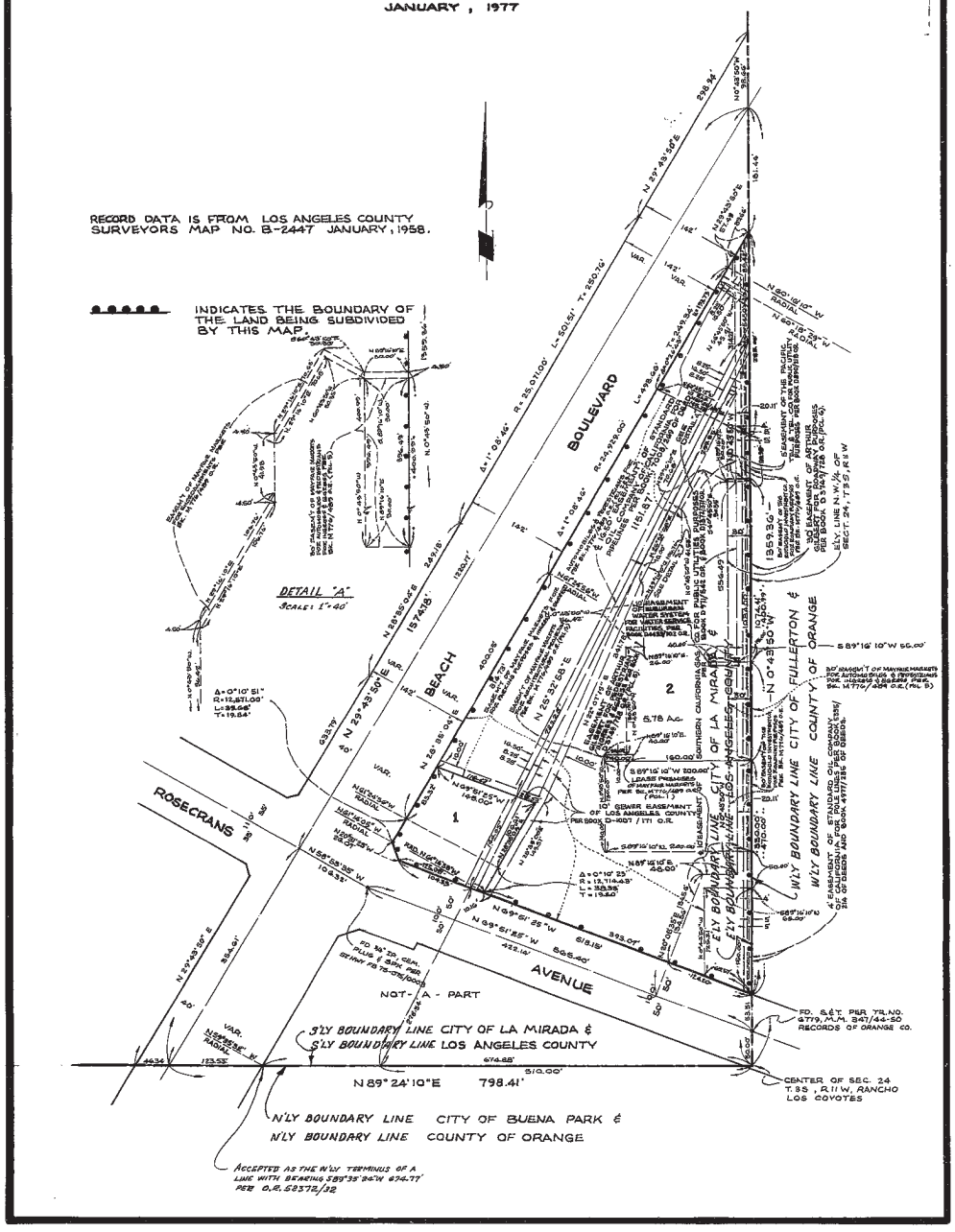
SHEET 2 OF 2 SHEETS

PARCEL MAP NO. 7794

FILED WITH LOS ANGELES COUNTY RECORDER
APR 18 1977

IN THE CITY OF LA MIRADA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

THOMSEN ENGINEERING INC.
JANUARY, 1977



RECORDING REQUESTED BY
TITLE INSURANCE & TRUST CO.
700 WILSHIRE BOULEVARD
LOS ANGELES, CALIFORNIA 90017

AND WHEN RECORDED MAIL TO

PATRICK CHIANG, M.D.
9332 Loma Street
Villa Park, California 92667

MAIL TAX STATEMENTS TO

"SAME AS ABOVE"

78- 782105

RECORDED IN OFFICIAL RECORDS
OF LOS ANGELES COUNTY, CA
JUL 19 1978 AT 8 A.M.
Recorder's Office

SPACE ABOVE THIS LINE FOR RECORDER'S USE

Corporation Grant Deed

TO 1021 CA (12-74) THIS FORM FURNISHED BY TICOR TITLE INSURERS A.P.N.

The undersigned grantor(s) declare(s):
Documentary transfer tax is $ 523.50 .
(X) computed on full value of property conveyed, or
( ) computed on full value less value of liens and encumbrances remaining at time of sale.
( ) Unincorporated area: (X) City of LA MIRADA , and

38

FEE $3 M

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

ALPHA BETA COMPANY, a Delaware Corporation

a corporation organized under the laws of the State of Delaware hereby GRANTS to

Patrick J. W. Chiang, M. D. and Lee Sen Chiang, husband and wife as joint tenants.

the following described real property in the city of La Mirada
County of Los Angeles , State of California:

PARCEL 1 IN THE CITY OF LA MIRADA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN UPON PARCEL MAP NO. 7794 FILED IN BOOK 78 PAGE 52 AND 53 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 2: AN EASEMENT FOR PARKING, INGRESS AND EGRESS, PUBLIC UTILITIES, PEDESTRIAN AND VEHICULAR MOVEMENT, AS DEFINED IN THAT CERTAIN DOCUMENT ENTITLED "DECLARATION OF ESTABLISHMENT OF PROTECTION, COVENANTS, CONDITIONS AND RESTRICTIONS AND GRANTS OF EASEMENTS" EXECUTED BY ALPHA BETA COMPANY, A DELAWARE CORPORATION, ET AL, RECORDED APRIL 22, 1977 AS INSTRUMENT NO. 77-408622, OVER THOSE PORTIONS OF PARCEL 1 AND 2, IN THE CITY OF LA MIRADA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN UPON PARCEL MAP NO. 7794, FILED IN BOOK 78 PAGES 52 AND 53 OF PARCEL MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, OUTLINED IN SAID DOCUMENT FOR SUCH PURPOSES, WHICH EASEMENT WILL TERMINATE ON DECEMBER 31, 2075.

In Witness Whereof, said corporation has caused its corporate name and seal to be affixed hereto and this instrument to be executed by its Vice President and Secretary thereunto duly authorized.
Dated: June 8, 1978

ALPHA BETA COMPANY, a Delaware Corporation

By [signature] Vice President

By [signature] Secretary

STATE OF CALIFORNIA } ss.
COUNTY OF Orange }

On June 8, 1978 before me, the undersigned, a Notary Public in and for said State, personally appeared E. R. Harkson known to me to be the Vice President, and Robert Kuchenbecker known to me to be Asst. Secretary of the Corporation that executed the within Instrument, known to me to be the persons who executed the within Instrument on behalf of the Corporation therein named, and acknowledged to me that such Corporation executed the within Instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal

Signature [signature]

OFFICIAL SEAL
HELEN M. DODGE
NOTARY PUBLIC - CALIFORNIA
ORANGE COUNTY
My Commission Expires Nov. 4, 1981

(This area for official notarial seal)

Title Order No. 7[illegible] Escrow or Loan No. 75,77 0705Clark

7482426 W FOTTER 77- 408622

When recorded please mail to:

Alpha Beta Company
777 South Harbor Boulevard
La Habra, California 90631

RECORDED IN OFFICIAL RECORDS OF LOS ANGELES COUNTY, CA
APR 22 1977 AT 8 A.M.
Recorder's Office

DECLARATION OF ESTABLISHMENT

OF PROTECTIVE COVENANTS, CONDITIONS,

AND RESTRICTIONS AND GRANTS OF EASEMENTS

FEE $ 23.00/D
121

This instrument is made as of the 14TH day of April 1977 by and between Colin Malcolm Gilbert Trust ("Gilbert") and ALPHA BETA COMPANY, a Delaware Corporation ("Alpha Beta").

The parties hereto contract with reference to the following facts:

A. Gilbert is presently the owner of the real property located in the City of La Mirada, County of Los Angeles, State of California, more particularly described in Exhibits A and B attached hereto, which real property is hereinafter called the "Shopping Center";

B. At the time of the recording of this Declaration Alpha Beta will be the owner of that portion of the Shopping Center described in Exhibit B attached hereto;

C. Gilbert and Alpha Beta desire to subject each and every portion of the Shopping Center to the covenants, conditions and restrictions hereinafter set forth, and to establish the appurtenant easements hereafter described, for the mutual benefit of the owners of any and all portions thereof and their respective heirs, successors assigns, grantees, mortagees, tenants and subtenants; and

D. For the purpose of this Declaration, the Shopping Center is divided into two categories which relate to use, which hereinafter are referred to respectively as "Building Area" and "Common Area".

NOW, THEREFORE, the parties hereto do hereby establish the covenants, conditions, and restrictions hereafter set forth, and grant the easements hereafter described.

Section 1. Definitions

1.1 The real property described in Exhibit "A" is sometimes hereinafter referred to as the Gilbert Parcel.

1.2 The real property described in Exhibit "B" is sometimes hereinafter referred to as the Alpha Beta Parcel.

Section 2. Building Area

As used in this Declaration, the term "Building Area" shall mean those portions of the Shopping Center on which permanent improvements are from time to time erected, other than permanent improvements which are part of the common area as hereafter described. Subject to the provisions of Section 4.1, Gilbert shall have the sole right to determine, from time to time, the location of Building and Common Area on the Gilbert Parcel, and Alpha Beta shall have the sole right to determine, from time to time, the location of Building Area and Common Area on the Alpha Beta Parcel. Notwithstanding the foregoing, after the initial construction of permanent improvements on the Alpha Beta Parcel, the location of Building Area and Common Area on the Alpha Beta Parcel shall not be significantly changed without the prior approval of the owner of the Gilbert Parcel, which approval shall not be withheld unreasonably.

Section 3. Common Area

3.1 For the purposes of this Declaration, all of the area within the Shopping Center to be used in common shall be referred to as "Common Area," and said Common Area includes all areas within the Shopping Center other than Building Areas.

3.2 The term "Common Area" as used herein shall mean and be deemed to include and permit only the following:

(a) The parking of passenger vehicles, and the pedestrian and vehicular traffic, of all persons or other entities who may own or hold portions of real property within the Shopping Center or any leasehold estate, or any security interest therein, or building space thereon; and the respective heirs, successors, assigns, grantees, mortgagees, tenants or subtenants thereof, and the officers, directors, concessionaires, agents, employees, customers, visitors, and other licensees and invitees of any of them;

(b) The ingress and egress of any of the above designated persons or entities designated in 3.2(a) above, and the vehicles thereof, to any and from any portion of the Common Area and the public streets adjacent to the Common Area;

(c) The installation, maintenance, and operation within the confines of the Common Area of public utilities services serving the Building Area, together with and including vaults, manholes, meters, pipelines, valves, hydrants, sprinkler controls, conduits, and related facilities, and sewage facilities, all of which (except hydrants) shall, wherever reasonably feasible, be even with or below the surface. In no event, however, shall such facilities be located

upon any parcel of the Shopping Center without the prior written consent of the owner thereof, which consent shall not be unreasonably withheld;

(d) Pedestrian and vehicular movement by the persons designated above in subparagraph (a) of this Paragraph 3.2 to and from adjacent streets and between mercantile, business, and professional establishments and occupants located or to be located within said business and professional establishments and occupants located or to be located within said Building Area;

(e) The provision of other facilities such as mail boxes, public telephones, and benches for the comfort and convenience of customers, visitors, invitees, licensees, and patrons of establishments and occupants located or to be located upon the Building Area or any portion thereof, as said owners and their respective heirs, successors, assigns, or grantees may from time to time deem appropriate. In no event, however, shall such facilities be located in such a manner as to hinder or impede the other uses and/or maintenance of any portion of the Common Area provided for in this Declaration, and in no event shall such facilities be located upon any parcel of the Shopping Center without the prior written consent of the owner thereof;

(f) The construction, maintenance, repair, replacement, rearrangement and reconstruction of parking sites or stalls, private streets, sidewalks, ramps, driveways, lanes, curbs, gutters, traffic control areas, signals, traffic islands, traffic and parking lighting facilities;

(g) Subject to applicable laws and regulations, the construction, maintenance, repair, replacement, and reconstruction of sign pylons (with appropriate underground electrical service).

(h) The construction, maintenance, repair, replacement; and reconstruction of any mall or landscaped area including planters, planting boxes, edgers, decorative wall and sprinklers and valves, all as may be required by competent local authority.

(i) The ingress and egress of delivery and service trucks and vehicles to and from the rear of the Building Area or any portion thereof and the public streets adjacent to the Shopping Center, for the delivery of goods, wares, merchandise, and the rendition of services to all persons or other entities who may own or hold portions of the Building Area or any leasehold estate, or any security interest therein, or building space thereon, and the respective heirs, successors, grantees, assigns, tenants, or subtenants thereof; and the officers, directors, concessionaires, agents, employees, and licensees of any of them.

(j) The parking of automobiles of the employees of the occupants of any Building Area, such use being subject to the provisions of Paragraph 6.8 set forth hereinbelow.

(k) The use by the occupant of any Building Area of the adjacent sidewalk and parking stalls for the sale by said occupant of certain seasonal and/or promotional merchandise; provided such use by such occupant of the sidewalk and parking stalls shall not

result in the obstruction of pedestrian and vehicular traffic between the Gilbert Parcel and the Alpha Beta Parcel and shall not be located within 100 feet of the Alpha Beta parcel.

3.3 Notwithstanding the foregoing, portions of the Common Area adjacent to Building Area may be used for:

(a) The installation, removal, repair, replacement, and maintenance of building canopies from their respective Building Area over pedestrian sidewalks and over other Common Area a distance from such Building Area not exceeding fifteen (15) feet, together with canopy support columns upon and over such sidewalks and other Common Area;

(b) Subject to the provisions of Section 2 hereinabove set forth, such advertising or identification signs of the Building Area occupants as may be desired to be attached to or mounted upon such canopies projecting from their respective Building Area;

(c) The installation, removal, replacement, repair, use and maintenance of fire hose connections, downspouts, hose bibbs, standpipes, yard or floodlights, subsurface building foundations, and such signs or shadow boxes of building occupants as may be attached to or form an integral part of a building at any time situated upon any portion of the Building Area;

(d) The operation of ramps and loading docks;

(e) Provided it would not prevent a reasonable flow of vehicular traffic, the construction, repair, reconstruction, and operation of trash rooms and/or trash bins adjacent to the Building Area which is to be serviced thereby;

(f) The opening thereover of doors of contiguous Building Area which open outward;

(g) The projection thereover of tracks extending outward from the Building Area which they are to serve, but not for a distance greater than twenty-four (24) inches; and

(h) The temporary maintenance of construction trailers, storage areas for materials and equipment, the erection of ladders, scaffolding, and store front barricades and other construction facilities during periods of construction, reconstruction, remodeling, or repair of buildings building appurtenances, and Common Area facilities, upon the condition, however, that such construction, reconstruction, remodeling, or repair is diligently performed, and subsequent to such performance such construction facilities are thereupon promptly removed.

3.4 The easements hereinafter granted in each instance shall run for the period of duration of the effectiveness of this Declaration as provided for in Section 11 hereinbelow set forth and shall be appurtenant to each designated Parcel of the grantee of such easement and in each instance shall be non-exclusive and for the use and benefit, in common with grantor and others, of such grantee, its heirs, executors, administrators, successors,assigns, tenants, subtenants.

3.5 Gilbert does hereby grant to Alpha Beta an easement appurtenant to the Alpha Beta Parcel for the purposes and with the restrictions stated in this Section 3 over, across, upon, in, under, and through the Common Area of the Gilbert Parcel.

3.6 Alpha Beta does hereby grant to Gilbert an ease-

ment appurtenant to the Gilbert Parcel for the purposes and with the restrictions stated in this Section 3 over, across, upon, in, under, and through the Alpha Beta Parcel.

Section 4. Common Area Restrictions:

4.1 No fence, division, rail, or obstruction of any type of kind shall ever be placed, kept, permitted, or maintained between the Gilbert Parcel and the Alpha Beta Parcel, or between any portion or division thereof, or upon or along any of the common property lines of any thereof, excepting within the confines of Building Area.

4.2 No charge, fee, toll, levy or expense shall ever be required, laid, assessed, or made to or received from any business guest, invitee, licensee, visitor, customer, or patron of any said mercantile, business, and professional establishments, the cost and expense of the operation, management, maintenance, and repair of the Common Area being borne and discharged only as provided for in this Declaration. However, any owner may require any tenant of such owner to pay a fee or charge for the management, maintenance, repair, and operation of the Common Area.

Section 5. Common Area Improvements

Gilbert shall have no obligation to Alpha Beta to construct improvements on the Common Area on the Gilbert Parcel, Gilbert's only obligation being to maintain the Common Area improvements presently located on the Gilbert Parcel in their present condition, reasonable wear and tear excepted. Gilbert may, however, from time to time, construct common area improvements on the Common Area of the Gilbert Parcel.

Section 6. Common Area Operation and Maintenance

6.1 Commencing on that day on which a restaurant opens for business within the building to be constructed on

Alpha Beta Parcel the owner of the Gilbert Parcel shall be, subject to the terms and conditions hereinbelow set forth, for purposes of this Section 6, hereinafter called the "Operator" and shall operate and maintain or cause to be operated and maintained the Common Area of the Shopping Center, which such operation and maintenance shall include but not be limited to:

(a) Maintaining the surfaces with the type of surfacing material presently in place, or such substitute as shall in all respects be equal or better in quality, use, and durability;

(b) Removing all papers, debris, filth, and refuse and washing or thoroughly sweeping the areas to the extent reasonably necessary to keep said areas in a neat, clean, and orderly condition;

(c) Placing, keeping in repair, and replacing any necessary appropriate directional signs, markers, and lines, and operating, keeping in repair, and replacing when necessary such artificial lighting facilities as shall be reasonably required (excluding operation of artificial lighting on the Alpha Beta Parcel);

(d) Maintaining any perimeter walls in a good condition and state of repair; and

(e) Maintaining all landscaped areas, making such replacements of shrubs, and other landscaping as is necessary, and keeping said areas at all times adequately weeded and watered, except that Alpha Beta shall maintain the landscaping immediately adjacent to the Building Area on the Alpha Beta Parcel.

6.2 As a part of said operation, the Operator shall obtain and maintain general public liability insurance insuring the Operator and all persons or entities that may own or hold portions of the Shopping Center or building space within the Shopping Center or any leasehold estate or other substantial interest therein as their respective interests may appear, provided that such persons or entities request the Operator, in writing, to obtain such insurance, against claims for bodily injury, death, or property damage occurring in, upon, or about the Common Area. Such insurance shall be written with an insurer licensed to do business in the state in which the Shopping Center is located. The limits of liability of all such insurance shall not be less than Three Hundred Thousand Dollars ($300,000) for injury or death to any one person, Five Hundred Thousand Dollars ($500,000) for injury or death of more than one person in one occurrence, and One Hundred Thousand Dollars ($100,000) with respect to damage to property. Upon request of any person having an insurable interest hereunder, the Operator shall cause to be issued proper certificates of insurance, or copies of the insurance policies required to be maintained hereunder.

6.3 The Operator shall expend only the monies reasonably necessary for such operation and maintenance in order to keep the Common Area in good repair and clean condition and to operate the same on a non-profit basis to the end that the expense in connection therewith will be kept at a minimum.

6.4 No single expenditure for any one item of a capital nature of more than $2,500.00 shall be treated as an expense of operating and maintaining the Common Area insofar as the Alpha Beta Parcel is concerned, unless the owner of the Alpha Beta Parcel consents, in writing, to such expenditure, which consent shall not be withheld unreasonably.

6.5 The Operator shall, from time to time, but not more often than once each month, send to the owner of the Alpha Beta Parcel a written statement of the total costs and expenses of operation and maintenance including a management fee of ten percent (10%) of such cost for the preceding period. Such management fee of ten percent (10%) shall not be applicable to the payment of real property taxes or insurance or that portion of the cost of any single capital expenditure which is in excess of Two Thousand Five Hundred and No/100 Dollars ($2,500.00) which is to be performed by the Operator. Within thirty (30) days after receipt thereof, such owner shall pay to the Operator the fractions of the total amount of said costs and expenses hereinafter described. Each owner or its authorized representative shall have the right to examine the records of expenses in connection therewith at reasonable business hours and at reasonable frequency.

6.6 If any of said total is not so paid, the same shall be deemed delinquent, and the amount thereof shall bear interest thereafter at the rate of ten percent (10%) per annum until paid. Any and all delinquent amounts with said interest shall be a lien and charge upon the Alpha Beta Parcel subject and junior, however, to the lien or charge of any bona fide full mortgage or first deed of trust upon the same or any part thereof at any time given or made.

6.7 If the Gilbert Parcel is subdivided, or if all or any part of the Gilbert Parcel is leased to any third person, then the transferee or lessee of the larger portion of the Gilbert Parcel shall assume any or all of the rights and obligations of the Operator, if and to the extent set forth in a written instrument between the owner of the Gilbert Parcel, or portion thereof, and such transferee or lessee, and recorded in the office of the County Recorder of Los Angeles County. Such

written instrument shall contain the promise of such transferee or lessee to fully and faithfully observe, perform and discharge each and every duty and obligation of the Operator (or so much thereof as is being assumed by such transferee or lessee). Upon the recordation of such instrument, the former Operator shall have no further executory obligations as such Operator except to the extent set forth in such written instrument. 12

6.8 In the event the maintenance of the parking and common area does not meet the standards of other shopping centers in which Alpha Beta restaurants are located, Alpha Beta shall have the right upon sixty (60) days written notice to the then current Operator to assume the obligations for the maintenance and the insurance of the parking and common area. The owner of the Gilbert parcel shall then reimburse Alpha Beta for its expenses as set forth in paragraph 6.5 above.

6.9 The Operator may at any time and from time to time promulgate reasonable and non-discriminatory rules and regulations for the use of the Common Area, which rules may prohibit employees from parking in the Common Area except in areas designated by the Operator as "Employee Parking" areas.

Section 7. Appertionment of Common Area Costs and Charges in Common Area

7.1 The Common Area costs and expenses shall be prorated as follows:

(a) As to real estate taxes and assessments on the Common Area of the Gilbert Parcel, the Alpha Beta Parcel shall be charged with 3.13% thereof;

(b) As to the costs of operating artificial lights on the Gilbert Parcel, the Alpha Beta Parcel shall be charged with 3.13% thereof;

(c) As to all other common area costs and expenses, 12% shall be charged to the Alpha Beta Parcel and 88% shall be charged to the Gilbert Parcel.

7.2 The owner of the Gilbert Parcel may, from time to time, at its election, elect to exclude any portion or portions of the Gilbert Parcel from the operation of this Declaration, except for that portion of the Gilbert Parcel lying within 100 feet of the boundary of the Alpha Beta Parcel. Such election shall be effective upon the owner of the Gilbert Parcel recording.

"

"

"

"

in the office of the County Recorder of Los Angeles County, written notice of its election to exercise its right to exclude the portion of the Gilbert Parcel specified in such notice, and service of a copy of such notice of election upon the then record owner of the Alpha Beta Parcel. The exercise of such right to exclude such portion of the Gilbert Parcel shall, inter alia, terminate the reciprocal easements and the maintenance obligations provided for in this declaration, but only to the extent such reciprocal easements or maintenance obligations benefit and burden the excluded portion of the Gilbert Parcel.

7.3 If the Common Area on the Gilbert Parcel is increased to more than 170,000 square feet, or decreased below 160,000 square feet, whether caused by the use of any portion of the Common Area being converted to Building Area, the conversion of any portion of the Building Area being converted to Common Area, or the exclusion of a portion of the Gilbert Parcel from the operation of this Declaration pursuant to the provisions of Section 7.2 hereof, then

(a) The portion of the Common Area costs and expenses borne by the Alpha Beta Parcel (other than taxes, assessments and the cost of operating artificial lights) shall thereafter be a fraction, the numerator of which is 29,790 square feet minus the square footage of the Building Area on the Alpha Beta Parcel, and the denominator of which is 248,000 square feet minus the Buiding Area on all of the Gilbert Parcel not excluded from this Declaration.

(b) The portion of the taxes and assessments on the Common Area of the Gilbert Parcel, and the costs of operating artificial lights on the Gilbert Parcel borne by Alpha Beta Parcel shall be a fraction, the numerator of which is 7,760 square feet and the

denominator of which is 248,000 square feet minus the Building Area on all of the Gilbert Parcel not excluded from this Declaration.

Section 8. Realty Taxes and Assessments

8.1 As to any portion of the Shopping Center, it is intended and agreed that subject to the provisions of Section 7.2, all real estate taxes and assessments by public authority relating to said land and improvements thereon or the ownership thereof, shall be paid prior to delinquency by the respective fee owners thereof.

Section 9. Miscellaneous Provisions

9.1 Each and all of the foregoing covenants, conditions, and restrictions:

(a) Shall apply to and bind the parties hereto as owners of the Shopping Center, and each and all of the owners of any and all portions of the Shopping Center and each and all of their respective heirs, successors, assigns, grantees, mortgagees, tenants, and subtenants;

(b) Are hereby imposed pursuant to a general plan for the improvement and use of the Shopping Center and are designed for the mutual benefit of said owners, tenants, and occupants of any and all portions thereof; and

(c) Shall obligate, inure to, and pass with each and every portion of the Shopping Center, and shall remain in force and effect as hereinafter provided.

9.2 The parties hereto covenant with each other that the legal description of each of the Shopping Center parcels as set forth on Exhibits A and B shall be deemed to include any

and all rights, title, and interest in that portion of the street, roadway, highway, or other public right-of-way abutting or bounding each of said Shopping Center parcels now or hereafter owned by all persons or other entities who may own said Shopping Center parcels or any portion thereof or any interest therein, and the respective heirs, successors, assigns, grantees, mortgagees, tenants, or subtenants thereof. Accordingly, such right, title and interest shall be in all respects subject and subordinate to the covenants, conditions, and restrictions established by and the easements granted in this Declaration.

9.3 Breach of any of the covenants or restrictions contained in this Declaration shall not defeat nor render invalid the lien of any mortgage or deed of trust made in good faith and for value as to the Shopping Center or any part thereof; but all of the foregoing provisions, restrictions, and covenants shall be binding and effective against any owner of any of said Shopping Center, or any part thereof, whose title thereto is acquired by foreclosure, trustee's sale, or otherwise.

9.4 The term "mortgagee", wherever used herein, shall be construed to include beneficiaries and trustees under deeds of trust.

9.5 Any person or persons owning or holding any portion of the Shopping Center may prosecute any proceedings at law or in equity against any person or entity violating, or attempting to violate, any of the covenants, conditions, and restrictions herein and either prevent it, him, or them from so doing, and to recover damages from or on account of such violation.

9.6 Invalidation of any one of the covenants, conditions, restrictions, or other provisions herein contained by judgment or court order shall in no way affect any of the other covenants,

conditions, restrictions, or provisions hereof and the same shall remain in full force and effect.

9.7 This Declaration shall create privity of contract and estate with and among all owners and grantees of all or any part of the said Shopping Center and their respective heirs, executors, administrators, successors, and assigns. In the event of a breach, or threatened breach, by any owner of any part of said Shopping Center of any of the terms, covenants, and conditions hereof, any one or all such other owners of the Shopping Center shall be entitled forthwith to full and adequate relief by injunction and all such other available legal and equitable remedies from the consequences of such breach; and any deed, lease, assignment, conveyance, or contract made in violation of this Declaration shall be void and may be set aside upon petition of one or more of the owners of the Shopping Center. All costs and expenses of any such suit or proceedings including attorney's fees, as hereinafter provided, shall be assessed against the defaulting owner and shall constitute a lien against the real property or the interest therein wrongfully deeded, leased, assigned, conveyed, or contracted for, until paid, effective upon recording notice thereof in the office of the county recorder of the county in which the Shopping Center is located, but any such lien shall be subordinate to any bona fide mortgage or deed of trust covering any portion of the Shopping Center, and any purchaser at any foreclosure or trustee's sale (as well as any grantee of deed in lieu of foreclosure or trustee's sale) under any such mortgage or deed of trust shall take title free from any such lien, but otherwise subject to the provisions hereof. The remedies permitted to law or equity of any one or all such owners specified herein shall be cumulative as to each and as to all.

9.8 In the event that suit is brought for the enforcement of this Declaration or as the result of any alleged breach thereof, the prevailing party or parties to such suit shall be entitled to be paid reasonable attorney's fees by the losing party or parties, and any judgment or decree rendered shall include an award thereof.

9.9 In the event of condemnation by any duly constituted authority for a public or quasi-public use of all or any part of the Shopping Center, that portion of the award attributable to the value of any land within the Common Area so taken shall be payable only to the owner in fee thereof, and no claim thereon shall be made by other owners of any other portion of the Shopping Center; provided, however, all other owners of the Shopping Center may file collateral claims with the condemning authority over and above the value of the land of the area to be taken; provided, further, however, that the owner of the fee of each portion of the area so condemned shall promptly repair and restore the remaining portion of the area so owned by such owner as near as practicable to the condition of same immediately prior to such condemnation and except to the extent that the proceeds of such award are insufficient to pay the costs of such restoration and repair. No contribution from any other owner shall be required by the terms of this Declaration.

9.10 The captions heading the various sections of this Declaration are for convenience and identification only, and shall not be deemed to limit or define the contents of their respective section.

9.11 All the provisions of this Declaration shall be covenants running with the land pursuant to applicable law, including, but not limited to, Section 1468 of the Civil Code of the State of California. It is expressly agreed that each

covenant to do or refrain from doing some act on the Shopping Center or any part thereof as the convenantor:

(a) Is for the benefit of the land of the covenantee;

(b) Runs with both the land owned by the covenantor and the land owned by the covenantee; and

(c) Shall benefit or be binding upon each successive owner, during his ownership, or any portion of the land affected hereby and each person having any interest herein derived through any owner of the land affected hereby.

9.12 The provisions of this Declaration shall not be deemed to constitute a dedication for public use nor to create any rights in the general public.

Section 10. Term and Termination

10.1 The covenants, conditions, and restructions contained in this Declaration shall run with the land and shall be binding upon each and all of the owners of any part thereof and upon all persons claiming under them; and the same shall continue to endure to and terminate at midnight December 31, 2075.

10.2 This Declaration may be cancelled, changed, modified, or amended in whole or in part only by a written and recorded agreement executed by the then record fee owners of and the beneficiaries of recorded first trust deeds encumbering not less than ninety-seven percent (97%) of the land area of the Shopping Center,excluding any portion thereof excluded pursuant to Section 7.2 of this Declaration.

10.3 This Declaration, executed as of the date hereof, shall take effect only upon, from and after its recording in

the office of the county recorder of the county in which the Shopping Center is situated.

Section 11. Use Restrictions

No portion of the Alpha Beta Parcel shall be utilized as a supermarket, drug store, convenience market, or liquor store without the written consent of the owner or owners of the Gilbert Parcel.

No portion of the Gilbert Parcel shall be utilized as a family restaurant such as "Denny's", "Sambos", or "Bobs" without the written consent of the owner of the Alpha Beta Parcel and Alpha Beta: Excepted from this restriction, however, shall be the "ethnic" type family restaurants.

IN WITNESS WHEREOF, this DECLARATION and GRANT is executed as of the day and year first above written.

Colin Malcolm Gilbert Trust

By: _____
Arthur Gilbert, Trustee

_____
Colin Malcolm Gilbert, sole beneficiary of trust

Alpha Beta Company

_____ 11/3/77
E. R. MARKSON
Vice President

_____
RUTH H. THOMAS
Secretary

TO 1844 CA (8 74)

(Individual)

11- 408622 TITLE INSURANCE AND TRUST 20

STATE OF CALIFORNIA
COUNTY OF Los Angeles } ss.

On April 14, 1977 before me, the undersigned, a Notary Public in and for said State, personally appeared Arthur Gilbert

, known to me to be the person whose name subscribed to the within instrument and acknowledged that he executed the same.

WITNESS my hand and official seal.

Signature Wendy L Thomson

OFFICIAL SEAL
WENDY L. THOMSON
NOTARY PUBLIC-CALIFORNIA
LOS ANGELES COUNTY
My Commission Expires June 10, 1978

(This area for official notarial seal)

STAPLE HERE

TO 1844 CA (8 74)

(Individual)

STATE OF CALIFORNIA
COUNTY OF Los Angeles } ss

11- 408622 TITLE INSURANCE AND TRUST A FIDELITY COMPANY

On April 14, 1977 before me, the undersigned, a Notary Public in and for said State, personally appeared Colin M Gilbert

, known to me to be the person whose name subscribed to the within instrument and acknowledged that he executed the same.

WITNESS my hand and official seal.

Signature Wendy L Thomson

OFFICIAL SEAL
WENDY L. THOMSON
NOTARY PUBLIC-CALIFORNIA
LOS ANGELES COUNTY
My Commission Expires June 10, 1978

(This area for official notarial seal)

STAPLE HERE

Form 3002 (Corporation) First American Title Company

STATE OF CALIFORNIA
COUNTY OF Orange } ss.

11- 408622

On April 14, 1977 before me, the undersigned, a Notary Public in and for said State, personally appeared E. R. Markson

known to me to be the Vice President, and Ruth H. Thomas

known to me to be the Secretary of the corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the corporation therein named, and acknowledged to me that such corporation executed the within instrument pursuant to its by-laws or a resolution of its board of directors.

WITNESS my hand and official seal.

Signature A. Terrance Dickens

A. Terrance Dickens
Name (Typed or Printed)

OFFICIAL SEAL
A. TERRANCE DICKENS
NOTARY PUBLIC - CALIFORNIA
PRINCIPAL OFFICE IN
ORANGE COUNTY
My Commission Expires September 6, 1978

(This area for official notarial seal)

EXHIBIT A

Parcel 2 in the City of La Mirada, County of Los Angeles, State of California as shown upon Parcel Map Number 7794, filed in Book 78, Pages 52 and 53, of Parcel Maps in the office of the County Recorder of said County.

EXHIBIT B

Parcel 1 in the City of La Mirada, County of Los Angeles, State of California as shown upon Parcel Map Number 7794, filed in Book 78, Pages 52 and 53, of Parcel Maps in the office of the County Recorder of said County.

11- 408622

ATTACHMENT C

LA HABRA DUTCH BROS. COFFEE SHOP ANALYSIS

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: January 5, 2023

TO: Mark Shenouda, Pacific Retail Partners

FROM: Dean Arizabal, Principal, LSA

SUBJECT: Trip Generation, Vehicle Miles Traveled, and Drive-Through Queuing Analysis for the Beach & Lambert Commercial Project

LSA has prepared this trip generation, vehicle miles traveled (VMT), and drive-through queuing analysis for the proposed Beach & Lambert commercial project (project) in La Habra, California. The proposed project includes a 950-square-foot (sf) Dutch Bros. Coffee shop with drive-through and a 10,000 sf America's Tire store.

The proposed project site is on the west side of Beach Boulevard south of Lambert Road. Access to the proposed project is provided via one right-in/right-out (RIRO) driveway on Beach Boulevard and one RIRO driveway on Lambert Road. The proposed drive-through lane for the Dutch Bros. Coffee shop would accommodate 21 vehicles. The proposed project site plan is attached.

The purpose of this analysis is to identify the proposed project trip generation, determine whether the project requires a VMT analysis per the *Guidelines for Evaluating Vehicle Miles Traveled for the County of Orange* (September 17, 2020) and the North Orange County Collaborative (NOCC), and determine the potential drive-through queues of the proposed Dutch Bros. Coffee shop.

TRIP GENERATION

The daily and peak-hour trips of the proposed project were calculated using trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition (2021) for Coffee/Donut Shop with Drive-Through (Land Use 937) and Tire Store (Land Use 848).

The trip generation was then reduced based on review of pass-by trip reduction percentages from the ITE *Trip Generation Manual* for each applicable land use type (e.g., coffee shop with drive-through) and as directed by the City of La Habra (City) Traffic Manager. Pass-by trips are made by drivers already on adjacent/nearby roadways (e.g., stopped by the coffee shop on the way to work or home) and therefore are not additive trips to the circulation system.

Table A presents the ITE trip generation summary for the proposed project.

Table A: Project Trip Generation

Land Use	Size	Unit	ADT[2]	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Coffee Shop		TSF	533.57	43.80	42.08	85.88	19.50	19.49	38.99
Tire Store		TSF	27.69	1.67	0.94	2.61	1.61	2.14	3.75
Project Trip Generation									
Coffee Shop	0.950	TSF	507	42	40	82	19	18	37
Pass-By Reductions[2]			(253)	(21)	(20)	(41)	(9)	(9)	(18)
Total			254	21	20	41	10	9	19
Tire Store	10.000	TSF	277	17	9	26	17	21	38
Grand Total			**531**	**38**	**29**	**67**	**27**	**30**	**57**

Source: Compiled by LSA (2022).

[1] Trip rates from the Institute of Transportation Engineers (ITE) *Trip Generation* Manual, 11th Edition (2021).
Land Use 937 (Coffee/Donut Shop with Drive-Through Window)
Land Use 848 (Tire Store)

[2] 50% Daily, AM, and PM pass-by reductions have been assumed as directed by the City of La Habra Traffic Manager.

ADT = average daily trips
TSF = thousand square feet

As shown in Table A, the 950 sf Dutch Bros. Coffee shop with drive-through would generate 507 average daily trips (ADT), including 82 trips (42 inbound and 40 outbound) in the a.m. peak hour and 37 trips (19 inbound and 18 outbound) in the p.m. peak hour.

After applying 50 percent pass-by trip reductions (similar to other coffee shop and fast-food with drive-through uses), the net trip generation of the Dutch Bros. Coffee shop with drive-through is 254 ADT, including 41 trips (21 inbound and 20 outbound) in the a.m. peak hour and 19 trips (10 inbound and 9 outbound) in the p.m. peak hour.

The proposed 10,000 sf America's Tire store would generate 277 ADT, including 26 trips (17 inbound and 9 outbound) in the a.m. peak hour and 38 trips (17 inbound and 21 outbound) in the p.m. peak hour.

The total (net) trip generation of the proposed project is 531 ADT, including 67 trips (38 inbound and 29 outbound) in the a.m. peak hour and 57 trips (27 inbound and 30 outbound) in the p.m. peak hour.

VEHICLE MILES TRAVELED

According to the *Guidelines for Evaluating Vehicle Miles Traveled for the County of Orange*, neighborhood retail projects (e.g., local-serving retail uses less than 50,000 sf) are screened out from a VMT analysis and are presumed to have a less-than-significant transportation impact. In addition, the City, along with six other north Orange County cities (Brea, Buena Park, Fullerton, Orange, Placentia, and Yorba Linda), formed the NOCC to review and develop VMT methodologies, thresholds of significance, mitigation measures, and screening criteria. Based on the recommendations of the NOCC, local-serving retail uses less than 50,000 sf are screened out from a VMT analysis and are presumed to have a less-than-significant transportation impact.

The proposed project includes 10,950 total sf of local-serving retail use (a 950 sf Dutch Bros. Coffee shop with drive-through and an 10,000 sf America's Tire store). As such, the proposed project meets the City's and NOCC's VMT screening criteria.

The nearest Dutch Bros. Coffee shop with drive-through facilities are in Eastvale (approximately 33 miles away), Yucaipa (approximately 59 miles away), Victorville (approximately 68 and 72 miles away), and Apple Valley (approximately 77 miles away). In addition, the nearest America's Tire stores are in Fullerton (approximately 6 miles away), City of Industry (approximately 8 miles away), Norwalk (approximately 9 miles away), and Garden Grove (approximately 11 miles away). It is anticipated that customers in the project vicinity would utilize the proposed project as opposed to these existing facilities. As such, the proposed project would help reduce regional VMT.

Therefore, based on its land use types, size, and location, the proposed project is presumed to have a less-than-significant impact on transportation.

DRIVE-THROUGH QUEUING

To determine the potential drive-through queues of the proposed Dutch Bros. Coffee shop, queuing observations (in 5-minute increments) were conducted at a similar existing Dutch Bros. Coffee shop (13322 Limonite Avenue, Eastvale 92880) for the following days and times:

- Saturday (June 25, 2022): 9:00 a.m. to 1:00 p.m.
- Tuesday (June 28, 2022): 6:00 a.m. to 9:00 a.m., and 11:00 a.m. to 1:00 p.m.

The Counts Unlimited queuing surveys and the Eastvale Dutch Bros. Coffee shop site plan are provided as attachments.

At the request of the City Traffic Manager, the Counts Unlimited drive-through queuing surveys also include the following detailed information:

- Total vehicles in the queue (including vehicles that have not yet placed an order)
- Queue from the pick-up window (vehicles that have already placed an order and vehicles waiting to pick up their order)
- Queue from staff (vehicles placing an order and vehicles waiting to order)
- Queue beyond the drive-through entry
- Queue in the public street (if any)
- Number of staff in the drive-through lane taking orders
- Total wait time (for ordering and queuing)
- Wait time for ordering (time an order is placed, and time order is picked up)
- Wait time for queuing (total time in the queue even before placing an order)

Based on the two days of survey data, the maximum observed queues of the two Dutch Bros. Coffee shop locations are as follows:

- Saturday (June 25, 2022): 28 vehicles (11:50 a.m. to 11:55 a.m.)
- Tuesday (June 28, 2022): 24 vehicles (11:40 a.m. to 11:45 p.m.)

The 95th percentile queue lengths were also determined for each survey day. The 95th percentile queues (the estimated queue lengths with a 5 percent probability of being exceeded), are as follows:

- Saturday (June 25, 2022): 26 vehicles
- Tuesday (June 28, 2022): 23 vehicles

The 95th percentile queues at the Dutch Bros. Coffee shop suggest that providing a vehicle storage of 26 vehicles would accommodate 95 percent of the drive-through queues of the proposed Dutch Bros. Coffee shop. It is anticipated that proposed Dutch Bros. Coffee shop drive-through vehicles would only exceed this queue length 5 percent of the time for short durations.

It should be noted that drive-through queuing surveys were also conducted by Counts Unlimited at Dutch Bros. Coffee shops in Apple Valley (21690 Bear Valley Road), La Quinta (44-175 Jefferson Street), and Indio (81-776 Highway 111) on Saturday, January 29, 2022, and Tuesday, February 1, 2022. According to the two days of survey data (attached), the maximum observed drive-through queues of the three Dutch Bros. Coffee shop locations are as follows:

- Apple Valley – Saturday: 22 vehicles (11:30 a.m. to 11:40 a.m. and 1:10 p.m. to 1:15 p.m.)
- Apple Valley – Tuesday: 15 vehicles (7:10 a.m. to 7:15 a.m. and 8:10 a.m. to 8:20 a.m.)
- La Quinta – Saturday: 20 vehicles (10:05 a.m. to 10:10 a.m., 10:20 a.m. to 10:25 a.m., and 2:55 p.m. to 3:00 p.m.)
- La Quinta – Tuesday: 14 vehicles (11:10 a.m. to 11:15 a.m.)
- Indio – Saturday: 14 vehicles (11:35 a.m. to 11:45 a.m.)
- Indio – Tuesday: 15 vehicles (7:40 a.m. to 7:55 a.m.)

Based on this additional drive-through queuing information, the project queues could range from 14 to 22 vehicles during peak times of the day.

As shown on the project site plan, the proposed Dutch Bros. Coffee shop drive-through could store 21 project vehicles. In order to accommodate any temporary drive-through queues exceeding 21 vehicles for the Dutch Bros. Coffee shop, it is recommended that the proposed project utilize the internal drive aisle south of the drive-through entry as an additional drive-through storage area. This internal drive aisle could accommodate 7 additional vehicles for a total drive-through storage capacity of 28 vehicles. A graphic of the internal drive aisle and potential additional drive-through storage area is attached.

Based on the proposed project configuration and the recommendation for additional drive-through storage capacity, the Dutch Bros. Coffee shop queues are unlikely to extend into the public streets (Beach Boulevard and Lambert Road) or the main drive aisles serving the site and the surrounding parcels. As such, the proposed drive-through lane and operations of the Dutch Bros. Coffee shop are not anticipated to affect the ability of patrons and employees to access, circulate, and park within the project site and the adjacent properties.

CONCLUSIONS

LSA analyzed the trip generation of the proposed project. The proposed project is anticipated to generate 531 ADT, including 67 a.m. peak-hour trips and 57 p.m. peak-hour trips.

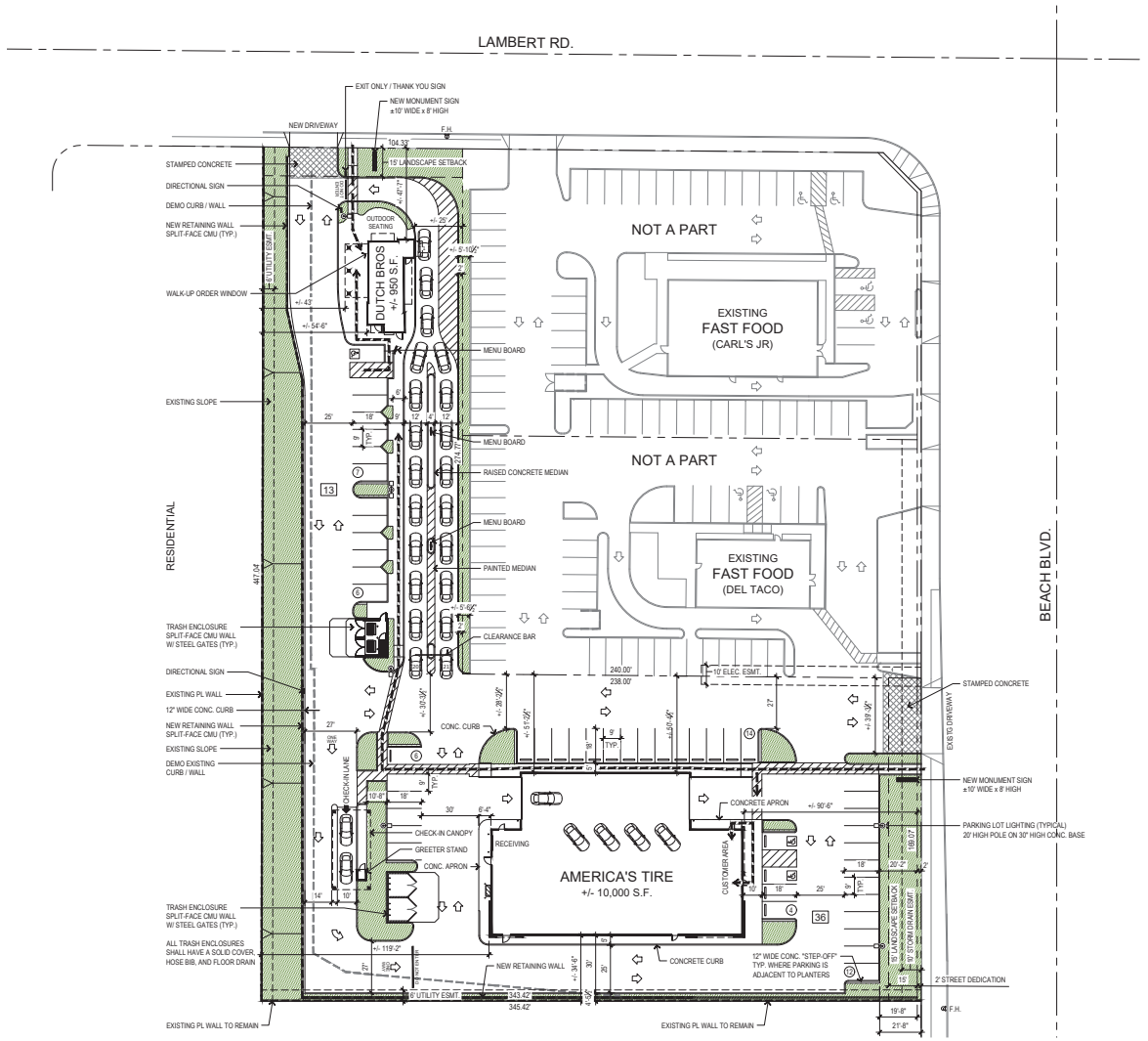
Because the proposed project does not exceed 50,000 sf of local-serving retail uses, it is screened out from a VMT analysis and is presumed to have a less-than-significant transportation impact. In addition, customers are anticipated to frequent the proposed project rather than drive to existing similar facilities located further away, resulting in reduced regional VMT.

LSA reviewed surveys of the drive-through operations of an existing Dutch Bros. Coffee shop in Eastvale for two days to determine the number of vehicles queued. Based on the Eastvale survey data, a maximum queue of 28 vehicles and a 95th percentile queue of 26 vehicles were identified for the Dutch Bros. Coffee shop. In addition, LSA reviewed the drive-through queuing survey data for existing Dutch Bros. Coffee shops in Apple Valley, La Quinta, and Indio that reflected maximum queues of 14 to 22 vehicles. The proposed project would provide a Dutch Bros. Coffee shop drive-through capacity of 21 vehicles. Although the 21-vehicle storage capacity could be temporarily exceeded by the drive-through queues for the Dutch Bros. Coffee shop, the proposed project could utilize an internal drive aisle for additional storage (7 additional vehicles within this drive aisle) for a total drive-through capacity of 28 vehicles.

As such, the proposed project is unlikely to cause any disruption to the access, internal circulation, or parking on site. Therefore, drive-through queues of the proposed project are not anticipated to extend into the public streets (Beach Boulevard and Lambert Road).

If you have any questions, please contact me at (949) 553-0666.

Attachments: Project Site Plan
Counts Unlimited Queuing Surveys (Eastvale)
Eastvale Dutch Bros. Coffee Shop Site Plan
Counts Unlimited Queuing Surveys (Apple Valley, La Quinta, and Indio)
Additional Project Drive-Through Storage



Project Site Plan

SITE PLAN SUMMARY

ADDRESS:	SWC LAMBERT ROAD and BEACH BLVD.
ASSESSOR'S PARCEL NUMBER:	018-431-35
ZONE:	COMMERCIAL (C-2)
LAND AREA (GROSS):	2.0 AC (+/-87,335 S.F.)

BUILDING AREA:

TIRE SHOP (AMERICA'S TIRE)	+/- 10,000 S.F.
COFFEE DRIVE-THRU (DUTCH BROS.)	+/- 950 S.F.
TOTAL PROPOSED NEW BUILDING AREA	+/- 10,950 S.F.

PARKING:	REQUIRED
DUTCH BROS COFFEE (+/- 950 sf x 8/1000)	8 SPACES
AMERICA'S TIRE (5 bays x 2 spaces each)	10 SPACES
(+/- 960 SF Office/Retail Space x 2.7/1000)	3 SPACES
TOTAL REQUIRED	21 SPACES
TOTAL PROVIDED	49 SPACES

ACCESSIBLE PARKING:

DUTCH BROS	
REQUIRED	1 VAN SPACE
PROVIDED	1 VAN SPACE
AMERICA'S TIRE	
REQUIRED	2 SPACES (1 REGULAR + 1 VAN)
PROVIDED	2 SPACES (1 REGULAR + 1 VAN)

LEGEND

= LANDSCAPE AREA - SEE LANDSCAPE PLANS

(10) = PARKING COUNT (Each row)

[26] = PARKING COUNT (Subtotal for each building)

ACCESSIBLE PATH OF TRAVEL - MIN. 4' WIDE, MAX. 5% SLOPE WITH MAX. 2% CROSS SLOPE.

NORTH

SCALE: 1" = 30'-0"

0' 30' 60'

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NEW COMMERCIAL DEVELOPMENT
AMERICA'S TIRE and
DUTCH BROS COFFEE
SWC Lambert Rd. & Beach Blvd.
La Habra, California

CONCEPTUAL SITE PLAN

December 20, 2022

DRIVE THRU SURVEY

LOCATION: Dutch Bros Coffee, 13322 Limonite Ave
CITY: Eastvale

DAY: 6/25/2022
DATE: Saturday

TIME	Total Vehicles in Queue	Queue from Pick-up window	Queue from Staff (or Order Board)	Queue beyond Drive-thru Entry	Queue into Public Street	Number of Staff taking orders	Total Wait time	Wait time for ordering (after order)	Wait time for queueing (before order)
9:00	13	1	12	0	0	2	0:23:52	0:21:17	0:02:35
9:05	16	1	15	0	0	2	0:28:09	0:17:32	0:10:37
9:10	22	1	21	3	0	2	0:23:34	0:17:27	0:06:07
9:15	21	1	20	2	0	2	0:20:16	0:16:53	0:03:23
9:20	20	1	19	1	0	2	0:20:26	0:17:36	0:02:50
9:25	20	1	19	1	0	2	0:20:17	0:18:29	0:01:48
9:30	17	1	16	0	0	2	0:24:01	0:21:24	0:02:37
9:35	19	1	18	0	0	2	0:21:07	0:19:03	0:02:04
9:40	18	1	17	0	0	2	0:23:30	0:19:36	0:03:54
9:45	21	1	20	0	0	2	0:28:15	0:22:05	0:06:10
9:50	19	1	18	0	0	2	0:26:31	0:21:50	0:04:41
9:55	18	1	17	0	0	2	0:26:32	0:21:15	0:05:17
10:00	17	1	16	0	0	2	0:21:17	0:19:56	0:01:21
10:05	15	1	14	0	0	2	0:25:09	0:21:50	0:03:19
10:10	21	1	20	0	0	2	0:26:31	0:18:35	0:07:56
10:15	25	1	24	4	0	2	0:24:36	0:14:50	0:09:46
10:20	24	1	23	5	0	2	0:24:54	0:14:46	0:10:08
10:25	23	2	22	4	0	2	0:26:40	0:16:05	0:10:35
10:30	25	1	24	5	0	2	0:23:10	0:14:29	0:08:41
10:35	26	1	25	6	0	2	0:25:40	0:12:31	0:13:09
10:40	25	1	24	4	0	2	0:20:29	0:09:58	0:10:31
10:45	21	1	20	1	0	2	0:18:40	0:08:25	0:10:15
10:50	24	1	23	4	0	2	0:22:26	0:14:25	0:08:01
10:55	24	0	24	4	0	2	0:22:01	0:15:14	0:06:47
11:00	17	1	16	0	0	2	0:14:26	0:08:29	0:05:57
11:05	14	1	13	0	0	2	0:20:34	0:11:45	0:08:49
11:10	19	1	18	0	0	2	0:26:54	0:16:11	0:10:43
11:15	18	1	17	0	0	2	0:25:32	0:17:02	0:08:30
11:20	18	1	17	0	0	2	0:25:10	0:18:35	0:06:35
11:25	20	1	19	2	0	2	0:23:17	0:11:00	0:12:17
11:30	19	1	18	2	0	3	0:20:15	0:13:10	0:07:05
11:35	19	1	18	1	0	3	0:17:11	0:12:45	0:04:26
11:40	21	1	20	2	0	3	0:21:05	0:15:50	0:05:15
11:45	23	1	22	2	0	3	0:16:06	0:14:29	0:01:37
11:50	28	1	17	7	3	2	0:25:07	0:08:31	0:16:36
11:55	23	1	21	3	0	2	0:29:10	0:12:43	0:16:27
12:00	27	1	24	7	0	2	0:26:14	0:10:46	0:15:28
12:05	25	1	24	5	0	2	0:26:44	0:11:41	0:15:03
12:10	24	1	18	5	0	2	0:28:18	0:13:22	0:14:56
12:15	24	1	13	5	5	2	0:28:36	0:16:29	0:12:07
12:20	25	1	9	7	8	2	0:30:49	0:17:47	0:13:02
12:25	22	1	18	2	0	2	0:35:05	0:23:05	0:12:00
12:30	22	1	12	7	2	2	0:33:34	0:12:02	0:21:32
12:35	25	1	10	6	8	2	0:36:09	0:11:20	0:24:49
12:40	25	1	13	7	4	2	0:31:08	0:09:52	0:21:16
12:45	23	2	16	5	0	2	0:38:59	0:10:04	0:28:55
12:50	23	1	15	5	2	2	0:47:47	0:15:09	0:32:38
12:55	23	1	14	5	3	2	0:40:56	0:09:49	0:31:07
Average	**21**						**0:25:46**		
95th Percentile	**26**						**0:38:00**		
Peak	**28**						**0:47:47**		

* When queue would go into Public Street, it was usually due to vehicles not blocking parking aisles in shopping center by direction of employees

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros Coffee, 13322 Limonite Ave
CITY: Eastvale

DAY: 6/28/2022
DATE: Tuesday

TIME	Total Vehicles in Queue	Queue from Pick-up window	Queue from Staff (or Order Board)	Queue beyond Drive-thru Entry	Queue into Public Street	Number of Staff taking orders	Total Wait time	Wait time for ordering (after order)	Wait time for queueing (before order)
6:00	2	1	1	0	0	0	0:06:17	0:04:54	0:01:23
6:05	5	2	3	0	0	0	0:08:17	0:07:51	0:00:26
6:10	6	1	5	0	0	0	0:10:56	0:05:54	0:05:02
6:15	5	1	4	0	0	1	0:04:28	0:04:01	0:00:27
6:20	5	2	3	0	0	1	0:02:11	0:01:37	0:00:34
6:25	1	1	0	0	0	0	0:03:09	0:01:48	0:01:21
6:30	3	1	2	0	0	0	0:08:22	0:03:37	0:04:45
6:35	3	1	2	0	0	1	0:05:29	0:04:22	0:01:07
6:40	4	1	3	0	0	1	0:04:54	0:04:46	0:00:08
6:45	2	1	1	0	0	0	0:05:28	0:05:28	0:00:00
6:50	0	0	0	0	0	0	0:07:46	0:07:40	0:00:06
6:55	5	1	4	0	0	1	0:06:59	0:05:37	0:01:22
7:00	7	1	6	0	0	1	0:10:32	0:06:04	0:04:28
7:05	8	2	6	0	0	1	0:06:37	0:04:23	0:02:14
7:10	10	1	9	0	0	1	0:05:52	0:03:09	0:02:43
7:15	7	1	6	0	0	1	0:06:37	0:05:26	0:01:11
7:20	3	1	2	0	0	1	0:03:17	0:02:33	0:00:44
7:25	4	1	3	0	0	1	0:06:57	0:04:51	0:02:06
7:30	7	1	6	0	0	2	0:06:05	0:04:07	0:01:58
7:35	4	1	3	0	0	1	0:05:35	0:02:58	0:02:37
7:40	7	1	6	0	0	1	0:07:24	0:02:49	0:04:35
7:45	8	1	7	0	0	1	0:06:45	0:03:07	0:03:38
7:50	8	1	7	0	0	1	0:07:38	0:03:48	0:03:50
7:55	7	1	6	0	0	1	0:04:06	0:03:25	0:00:41
8:00	4	1	3	0	0	2	0:05:19	0:04:15	0:01:04
8:05	7	1	6	0	0	2	0:08:04	0:07:06	0:00:58
8:10	9	1	8	0	0	2	0:07:57	0:04:59	0:02:58
8:15	8	1	7	0	0	2	0:13:04	0:10:30	0:02:34
8:20	10	1	9	0	0	2	0:12:17	0:08:41	0:03:36
8:25	11	1	10	0	0	2	0:11:55	0:09:08	0:02:47
8:30	11	1	10	0	0	2	0:15:35	0:11:27	0:04:08
8:35	11	1	10	0	0	1	0:15:07	0:13:08	0:01:59
8:40	8	1	7	0	0	1	0:13:18	0:11:58	0:01:20
8:45	9	1	8	0	0	1	0:12:51	0:11:55	0:00:56
8:50	8	1	7	0	0	1	0:10:12	0:09:10	0:01:02
8:55	7	1	6	0	0	1	0:10:56	0:07:55	0:03:01
Average	**6**						**0:08:00**		
95th Percentile	**11**						**0:13:45**		
Peak	**11**						**0:15:35**		

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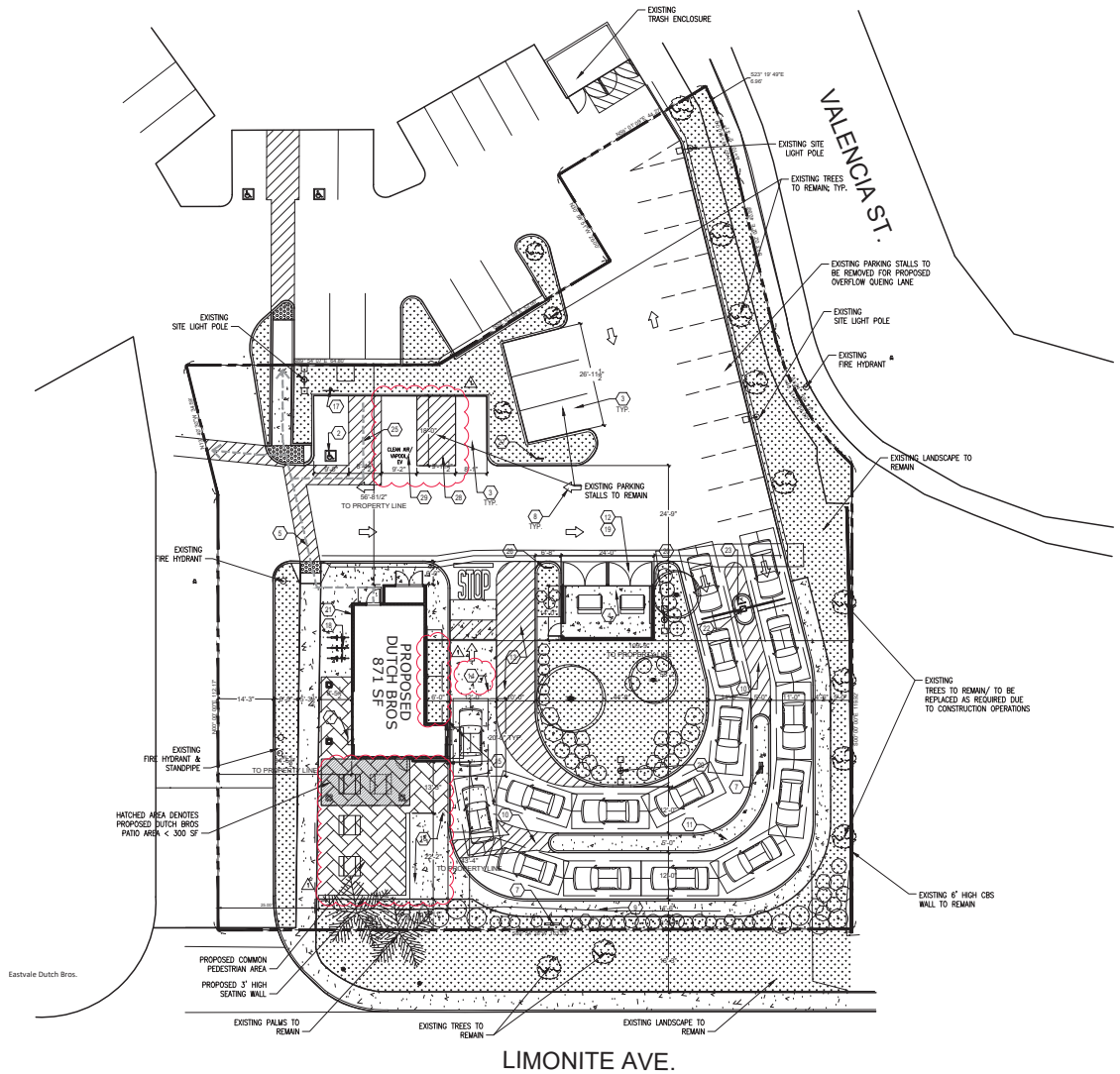
DRIVE THRU SURVEY

LOCATION: Dutch Bros Coffee, 13322 Limonite Ave
CITY: Eastvale

DAY: 6/28/2022
DATE: Tuesday

TIME	Total Vehicles in Queue	Queue from Pick-up window	Queue from Staff (or Order Board)	Queue beyond Drive-thru Entry	Queue into Public Street	Number of Staff taking orders	Total Wait time	Wait time for ordering (after order)	Wait time for queueing (before order)
11:00	21	1	20	1	0	1	0:29:00	0:13:56	0:15:04
11:05	23	1	22	3	0	2	0:33:10	0:15:10	0:18:00
11:10	19	1	18	1	0	1	0:19:27	0:11:14	0:08:13
11:15	20	1	19	0	0	1	0:28:10	0:16:17	0:11:53
11:20	21	1	20	0	0	2	0:27:59	0:20:26	0:07:33
11:25	19	1	18	1	0	1	0:25:47	0:15:22	0:10:25
11:30	20	1	19	1	0	2	0:22:23	0:18:18	0:04:05
11:35	20	1	19	0	0	2	0:27:04	0:19:28	0:07:36
11:40	24	1	23	3	0	2	0:20:27	0:15:12	0:05:15
11:45	18	1	17	0	0	2	0:18:16	0:15:37	0:02:39
11:50	16	1	15	0	0	2	0:14:32	0:14:03	0:00:29
11:55	9	1	8	0	0	2	0:09:35	0:07:06	0:02:29
12:00	10	1	9	0	0	2	0:16:28	0:14:13	0:02:15
12:05	12	1	10	0	0	2	0:16:18	0:12:51	0:03:27
12:10	10	2	8	0	0	2	0:17:49	0:14:26	0:03:23
12:15	13	1	12	0	0	2	0:26:41	0:16:21	0:10:20
12:20	15	1	14	0	0	2	0:23:04	0:14:58	0:08:06
12:25	15	1	14	0	0	1	0:12:40	0:09:11	0:03:29
12:30	16	1	15	0	0	1	0:06:05	0:04:07	0:01:58
12:35	11	1	10	0	0	1	0:12:51	0:10:20	0:02:31
12:40	13	1	12	0	0	1	0:09:32	0:08:26	0:01:06
12:45	14	1	13	0	0	1	0:06:45	0:03:07	0:03:38
12:50	10	1	9	0	0	1	0:12:13	0:10:01	0:02:12
12:55	8	1	7	0	0	1	0:09:11	0:08:56	0:00:15
Average	**16**						**0:18:34**		
95th Percentile	**23**						**0:28:52**		
Peak	**24**						**0:33:10**		

EASTVALE DUTCH BROS.



NORTH

W E

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SITE PLAN

SCALE: 1" = 15'-0"

SITE PLAN PARAMETERS KEYNOTES

1. WALK-UP SERVICE WINDOW
2. ADA PARKING STALL - SEE DETAIL 5/SP2.0 SIM.
3. PARKING STALL: TYPICAL (18' X 9')
4. TRASH ENCLOSURE, WITH LOCKING GATES REFER TO SHEET A9.0 FOR DETAILS COORDINATE W/ LOCAL TRASH COMPANY FOR MIN. REQUIREMENTS AND CLEARANCES.
5. PEDESTRIAN ACCESS FROM SIDEWALK - MAX. 5% SLOPE IN DIRECTION OF TRAVEL, MAX 2% CROSS SLOPE
6. NOT USED
7. STATIC BACKLIT LED MENU BOARD. POLE MOUNTED FURNISH POWER AND DATA AND WATER PROOF J BOX FOR POWER. PROVIDE 2" CONDUIT WITH PULL STRING FROM ELECTRICAL ROOM TO MENU BOARD LOCATION FOR FUTURE UPGRADE. REFER TO SIGNAGE PACKAGE FOR FINAL LOCATIONS.
8. DIRECTIONAL PAINT - TYP. - SEE DETAIL 15/SP2.0
9. SIDEWALK FOR RUNNERS DRIVER'S SIDE OF AISLE, 4' WIDE MIN.
10. PAINT STRIPING, BEFORE AND AFTER CONCRETE DIVIDER. PAINT STRIPS 4" WIDE,12" O.C. SAFETY YELLOW
11. MIN. 4' WIDE DIVIDING MEDIAN
12. TRASH LOADING ZONE. COORDINATE APPROACH AND ORIENTATION OF ENCLOSURE WITH SERVICE PROVIDER.
13. SAFETY PULL OUT - PAINTED STRIPES 4" WIDE. 12" O.C. SAFETY WHITE
14. CONCRETE AT DRIVE THRU WINDOW - SEE CIVIL PLANS.
15. 6" BOLLARD W/ DB BOLLARD COVERS. BOLLARD LOCATIONS VARY FOR INDIVIDUAL STORE DESIGNS. SEE FLOOR PLANS. - SEE DETAIL 16/SP2.0
16. CONCRETE FLATWORK. SEE CIVIL PLANS
17. ADA PARKING ONLY SIGN - SEE DETAIL 6/SP2.0
18. SHORT TERM - SEE DETAIL 17/SP2.0. LONG TERM TO BE DURABIKE DL2 LOCKER OR APPROVED EQUAL IF REQUIRED BY CITY
19. 24'X12' CONCRETE AT TRASH ENCLOSURE
20. NEW SITE LIGHTS. SEE CIVIL & ELECTRICAL PLANS. DETAIL 10/SP2.0; REFER TO ELECTRICAL DRAWINGS FOR FINAL LOCATIONS.
21. PROPOSED GAS METER LOCATION. SEE PLUMBING PLANS.
22. CLEARANCE BAR, BY SIGNAGE VENDOR. N.I.C.
23. "CHOOSE SHORTEST LANE" SIGN. BY SIGNAGE VENDOR. N.I.C. REFER TO 3/SP2.1 FOR REFERENCE
24. UNAUTHORIZED PARKING SIGNAGE. SEE DETAIL 12/SP 2.0
25. MAX 5% SLOPE IN DIRECTION OF TRAVEL AND MAX 2% CROSS SLOPE
26. "EXIT ONLY/THANK YOU" SIGN. BY SIGNAGE VENDOR. N.I.C. REFER TO 3/SP2.1 FOR REFERENCE; REFER TO SIGNAGE PACKAGE FOR FINAL LOCATIONS.
27. "DRIVE THRU" DIRECTIONAL SIGN. BY SIGNAGE VENDOR. N.I.C. REFER TO 3/SP2.1 FOR REFERENCE; REFER TO SIGNAGE PACKAGE FOR FINAL LOCATIONS.
28. LOAD SPACE
29. ELECTRONIC VEHICLE CHARGING STATION

LEGEND

- PROPOSED ASPHALT PAVEMENT; REFER TO CIVIL FOR DETAILS
- PROPOSED CONCRETE; REFER TO CIVIL FOR DETAILS
- EXISTING LANDSCAPE TO REMAIN; REFER TO LANDSCAPE PLANS
- PROPOSED STAMPED CONCRETE

SITE INFORMATION

APN:	0164-030-037
TOTAL LOT AREA:	26,876 S.F (0.62 ACRE)
PROPOSED BUILDING AREA:	871 SF GROSS
EXISTING ZONING:	CPS – SCENIC HIGHWAY COMMERCIAL
JURISDICTION:	EASTVALE, CA
PROPOSED USE:	COFFEE SHOP
CONSTRUCTION TYPE:	VB
PROPOSED BUILDING HEIGHT:	24'-0"
OCCUPANT LOAD:	871 SF / 200 SF = 4.5

PARKING ANALYSIS:

REQUIRED PARKING RATIO	1 SPACE PER 2 EMPLOYEES	
INDIVIDUAL PARKING:	REQUIRED	PROVIDED
STANDARD	2	6
ACCESSIBLE PER ADA	1	1
TOTAL PARKING:	3	7

ARMÉT DAVIS NEWLOVE & ASSOCIATES, AIA ARCHITECTS

1330 OLYMPIC BLVD.
SANTA MONICA, CALIFORNIA 90404
PH 310 452-5533 FAX 310 450-4742

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LICENSED ARCHITECT PAUL W. DEPPE C-28602 7-31-21 STATE OF CALIFORNIA

Project No: CA5301
Dutch Bros Coffee - New Freestanding Store

13322 Limonite Avenue
Eastvale, CA 92880
APN: 0164-030-037

DATE: 01/15/21

REV:	DATE:	DESCRIPTION:
1	05/24/21	PLAN CHECK #1

SHEET NAME:

SITE PLAN

SHEET NUMBER:

SP1.0

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DRIVE THRU SURVEY

LOCATION: Dutch Bros, 21690 Bear Valley Rd
CITY: Apple Valley

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
5:00	1	0	0	**1**
5:05	2	0	0	**2**
5:10	0	0	0	**0**
5:15	0	0	0	**0**
5:20	0	0	0	**0**
5:25	1	0	0	**1**
5:30	3	1	0	**4**
5:35	4	1	0	**5**
5:40	3	0	0	**3**
5:45	2	0	0	**2**
5:50	3	0	0	**3**
5:55	2	0	0	**2**
6:00	1	0	0	**1**
6:05	1	0	0	**1**
6:10	4	0	0	**4**
6:15	1	0	0	**1**
6:20	1	1	0	**2**
6:25	3	1	0	**4**
6:30	4	1	0	**5**
6:35	3	2	0	**5**
6:40	4	3	0	**7**
6:45	4	3	0	**7**
6:50	6	3	0	**9**
6:55	5	4	0	**9**
7:00	5	2	0	**7**
7:05	6	5	0	**11**
7:10	6	9	0	**15**
7:15	5	7	0	**12**
7:20	5	9	0	**14**
7:25	4	7	0	**11**
7:30	5	4	0	**9**
7:35	6	6	0	**12**
7:40	6	8	0	**14**
7:45	6	4	0	**10**
7:50	3	2	0	**5**
7:55	2	4	0	**6**
8:00	6	9	0	**15**
8:05	5	9	0	**14**
8:10	5	9	1	**15**
8:15	6	9	0	**15**
8:20	6	6	0	**12**
8:25	6	5	0	**11**
8:30	5	6	0	**11**
8:35	5	6	0	**11**
8:40	5	3	0	**8**
8:45	5	7	0	**12**
8:50	5	7	0	**12**
8:55	5	3	0	**8**
9:00	5	1	0	**6**
9:05	3	1	0	**4**
9:10	2	4	0	**6**
9:15	4	4	0	**8**
9:20	5	6	0	**11**
9:25	4	5	0	**9**
9:30	4	3	0	**7**
9:35	5	2	0	**7**
9:40	4	5	0	**9**
9:45	5	5	0	**10**
9:50	6	5	0	**11**
9:55	5	1	0	**6**
10:00	3	1	0	**4**
10:05	3	2	0	**5**
10:10	4	3	0	**7**
10:15	4	2	0	**6**
10:20	3	2	0	**5**
10:25	4	4	0	**8**
10:30	5	5	0	**10**
10:35	4	3	0	**7**
10:40	1	2	0	**3**
10:45	3	2	0	**5**
10:50	3	2	0	**5**
10:55	4	0	0	**4**
11:00	2	1	0	**3**
11:05	2	2	0	**4**
11:10	2	2	0	**4**
11:15	4	2	0	**6**
11:20	3	1	0	**4**
11:25	3	0	0	**3**

Counts Unlimited, Inc.
PO Box 1178
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951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 21690 Bear Valley Rd
CITY: Apple Valley

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:30	1	1	0	**2**
11:35	0	1	0	**1**
11:40	0	5	0	**5**
11:45	4	3	0	**7**
11:50	1	3	0	**4**
11:55	3	4	0	**7**
12:00	3	1	0	**4**
12:05	3	0	0	**3**
12:10	3	2	0	**5**
12:15	4	2	0	**6**
12:20	3	2	0	**5**
12:25	4	0	0	**4**
12:30	3	1	0	**4**
12:35	0	3	0	**3**
12:40	2	2	0	**4**
12:45	3	0	0	**3**
12:50	0	0	0	**0**
12:55	2	2	0	**4**
13:00	3	1	0	**4**
13:05	3	1	0	**4**
13:10	2	2	0	**4**
13:15	3	3	0	**6**
13:20	4	0	0	**4**
13:25	5	4	0	**9**
13:30	2	0	0	**2**
13:35	1	3	0	**4**
13:40	4	4	0	**8**
13:45	5	5	0	**10**
13:50	4	3	0	**7**
13:55	2	3	0	**5**
14:00	4	3	0	**7**
14:05	3	2	0	**5**
14:10	2	0	0	**2**
14:15	3	0	0	**3**
14:20	4	2	0	**6**
14:25	5	3	0	**8**
14:30	5	4	0	**9**
14:35	4	2	0	**6**
14:40	0	7	0	**7**
14:45	4	4	0	**8**
14:50	4	0	0	**4**
14:55	4	3	0	**7**
15:00	4	7	0	**11**
15:05	5	5	0	**10**
15:10	3	4	0	**7**
15:15	4	4	0	**8**
15:20	2	3	0	**5**
15:25	4	3	0	**7**
15:30	2	2	0	**4**
15:35	4	3	0	**7**
15:40	1	1	0	**2**
15:45	1	0	0	**1**
15:50	1	0	0	**1**
15:55	2	2	0	**4**
16:00	3	7	0	**10**
16:05	2	3	0	**5**
16:10	4	1	0	**5**
16:15	3	1	0	**4**
16:20	0	2	0	**2**
16:25	2	3	0	**5**
16:30	2	3	0	**5**
16:35	2	1	0	**3**
16:40	2	0	0	**2**
16:45	1	2	0	**3**
16:50	4	4	0	**8**
16:55	3	5	0	**8**
17:00	3	4	0	**7**
17:05	5	0	0	**5**
17:10	3	2	0	**5**
17:15	2	0	0	**2**
17:20	0	0	0	**0**
17:25	3	0	0	**3**
17:30	1	1	0	**2**
17:35	2	0	0	**2**
17:40	0	0	0	**0**
17:45	2	0	0	**2**
17:50	1	2	0	**3**
17:55	2	3	0	**5**

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DRIVE THRU SURVEY

LOCATION: Dutch Bros, 21690 Bear Valley Rd
CITY: Apple Valley

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	**TOTAL**
18:00	3	4	0	**7**
18:05	3	3	0	**6**
18:10	3	3	0	**6**
18:15	1	1	0	**2**
18:20	1	0	0	**1**
18:25	1	1	0	**2**
18:30	2	2	0	**4**
18:35	3	0	0	**3**
18:40	2	0	0	**2**
18:45	1	1	0	**2**
18:50	1	0	0	**1**
18:55	1	0	0	**1**
19:00	1	0	0	**1**
19:05	3	1	0	**4**
19:10	3	2	0	**5**
19:15	3	4	0	**7**
19:20	1	4	0	**5**
19:25	2	2	0	**4**
19:30	2	1	0	**3**
19:35	3	0	0	**3**
19:40	2	1	0	**3**
19:45	2	0	0	**2**
19:50	2	0	0	**2**
19:55	2	0	0	**2**
20:00	2	1	0	**3**
20:05	1	0	0	**1**
20:10	1	0	0	**1**
20:15	0	4	0	**4**
20:20	3	0	0	**3**
20:25	2	0	0	**2**
20:30	2	1	0	**3**
20:35	3	1	0	**4**
20:40	4	1	0	**5**
20:45	4	0	0	**4**
20:50	2	0	0	**2**
20:55	1	0	0	**1**
21:00	0	0	0	**0**
21:05	1	1	0	**2**
21:10	3	0	0	**3**
21:15	1	0	0	**1**
21:20	0	0	0	**0**
21:25	1	0	0	**1**
21:30	0	1	0	**1**
21:35	2	0	0	**2**
21:40	1	0	0	**1**
21:45	1	1	0	**2**
21:50	2	0	0	**2**
21:55	1	0	0	**1**
22:00	0	0	0	**0**
22:05	0	0	0	**0**
22:10	0	0	0	**0**
22:15	0	0	0	**0**
22:20	0	0	0	**0**
22:25	0	0	0	**0**
22:30	0	0	0	**0**
22:35	0	0	0	**0**
22:40	0	0	0	**0**
22:45	0	0	0	**0**
22:50	0	0	0	**0**
22:55	0	0	0	**0**
23:00	0	0	0	**0**

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951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 21690 Bear Valley Rd
CITY: Apple Valley

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
5:00	1	0	0	**1**
5:05	1	0	0	**1**
5:10	0	0	0	**0**
5:15	1	0	0	**1**
5:20	0	0	0	**0**
5:25	1	0	0	**1**
5:30	0	0	0	**0**
5:35	1	0	0	**1**
5:40	3	0	0	**3**
5:45	2	0	0	**2**
5:50	1	0	0	**1**
5:55	1	0	0	**1**
6:00	1	0	0	**1**
6:05	0	0	0	**0**
6:10	0	0	0	**0**
6:15	1	0	0	**1**
6:20	2	1	0	**3**
6:25	2	0	0	**2**
6:30	3	1	0	**4**
6:35	2	1	0	**3**
6:40	2	1	0	**3**
6:45	3	1	0	**4**
6:50	2	0	0	**2**
6:55	2	0	0	**2**
7:00	2	1	0	**3**
7:05	2	1	0	**3**
7:10	2	1	0	**3**
7:15	2	1	0	**3**
7:20	2	1	0	**3**
7:25	2	0	0	**2**
7:30	3	1	0	**4**
7:35	3	2	0	**5**
7:40	4	6	0	**10**
7:45	4	6	0	**10**
7:50	5	3	0	**8**
7:55	4	3	0	**7**
8:00	5	6	0	**11**
8:05	4	4	0	**8**
8:10	4	4	0	**8**
8:15	3	3	0	**6**
8:20	2	3	0	**5**
8:25	3	1	0	**4**
8:30	2	2	0	**4**
8:35	4	2	0	**6**
8:40	4	4	0	**8**
8:45	5	3	0	**8**
8:50	5	5	0	**10**
8:55	4	8	0	**12**
9:00	6	7	0	**13**
9:05	5	5	0	**10**
9:10	5	2	0	**7**
9:15	4	3	0	**7**
9:20	4	4	0	**8**
9:25	4	4	0	**8**
9:30	4	2	0	**6**
9:35	3	3	0	**6**
9:40	3	3	0	**6**
9:45	3	3	0	**6**
9:50	6	5	0	**11**
9:55	5	5	0	**10**
10:00	5	8	0	**13**
10:05	5	6	0	**11**
10:10	4	7	0	**11**
10:15	4	10	0	**14**
10:20	4	7	0	**11**
10:25	6	8	0	**14**
10:30	5	8	0	**13**
10:35	4	10	0	**14**
10:40	6	6	0	**12**
10:45	5	10	2	**17**
10:50	6	7	1	**14**
10:55	6	7	0	**13**
11:00	6	6	0	**12**
11:05	5	7	0	**12**
11:10	5	10	1	**16**
11:15	6	8	2	**16**
11:20	6	9	4	**19**
11:25	6	8	5	**19**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 21690 Bear Valley Rd
CITY: Apple Valley

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:30	6	8	7	**21**
11:35	5	11	6	**22**
11:40	6	8	3	**17**
11:45	5	7	0	**12**
11:50	5	9	0	**14**
11:55	6	8	0	**14**
12:00	6	9	1	**16**
12:05	5	9	0	**14**
12:10	4	6	0	**10**
12:15	5	8	0	**13**
12:20	5	10	1	**16**
12:25	6	8	3	**17**
12:30	6	7	0	**13**
12:35	5	5	0	**10**
12:40	6	7	0	**13**
12:45	6	8	4	**18**
12:50	6	9	6	**21**
12:55	6	8	6	**20**
13:00	6	9	3	**18**
13:05	6	10	5	**21**
13:10	6	11	5	**22**
13:15	7	10	4	**21**
13:20	5	9	4	**18**
13:25	6	8	1	**15**
13:30	6	8	0	**14**
13:35	5	6	0	**11**
13:40	5	2	0	**7**
13:45	6	2	0	**8**
13:50	6	2	0	**8**
13:55	6	5	0	**11**
14:00	4	3	0	**7**
14:05	4	3	0	**7**
14:10	4	2	0	**6**
14:15	5	0	0	**5**
14:20	5	1	0	**6**
14:25	6	0	0	**6**
14:30	5	2	0	**7**
14:35	6	5	0	**11**
14:40	6	3	0	**9**
14:45	6	4	0	**10**
14:50	5	1	0	**6**
14:55	3	0	0	**3**
15:00	5	1	0	**6**
15:05	6	3	0	**9**
15:10	5	6	0	**11**
15:15	4	6	0	**10**
15:20	5	6	0	**11**
15:25	6	8	0	**14**
15:30	5	10	5	**20**
15:35	5	8	0	**13**
15:40	6	8	3	**17**
15:45	6	6	0	**12**
15:50	6	0	0	**6**
15:55	4	2	0	**6**
16:00	3	0	0	**3**
16:05	2	0	0	**2**
16:10	3	2	0	**5**
16:15	4	3	0	**7**
16:20	3	2	0	**5**
16:25	0	2	0	**2**
16:30	4	2	0	**6**
16:35	4	0	0	**4**
16:40	4	0	0	**4**
16:45	1	3	0	**4**
16:50	6	3	0	**9**
16:55	5	2	0	**7**
17:00	5	5	0	**10**
17:05	5	5	0	**10**
17:10	6	5	0	**11**
17:15	5	4	0	**9**
17:20	4	3	0	**7**
17:25	5	1	0	**6**
17:30	3	1	0	**4**
17:35	1	0	0	**1**
17:40	1	0	0	**1**
17:45	0	0	0	**0**
17:50	3	1	0	**4**
17:55	2	1	0	**3**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 21690 Bear Valley Rd
CITY: Apple Valley

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	**TOTAL**
18:00	2	5	0	**7**
18:05	4	2	0	**6**
18:10	4	3	0	**7**
18:15	5	2	0	**7**
18:20	4	2	0	**6**
18:25	2	2	0	**4**
18:30	3	0	0	**3**
18:35	4	1	0	**5**
18:40	4	1	0	**5**
18:45	4	0	0	**4**
18:50	0	0	0	**0**
18:55	0	0	0	**0**
19:00	0	4	0	**4**
19:05	2	1	0	**3**
19:10	1	0	0	**1**
19:15	1	0	0	**1**
19:20	0	4	0	**4**
19:25	3	1	0	**4**
19:30	1	0	0	**1**
19:35	1	1	0	**2**
19:40	0	0	0	**0**
19:45	2	1	0	**3**
19:50	3	0	0	**3**
19:55	1	2	0	**3**
20:00	2	2	0	**4**
20:05	3	1	0	**4**
20:10	4	0	0	**4**
20:15	4	2	0	**6**
20:20	4	1	0	**5**
20:25	4	0	0	**4**
20:30	3	0	0	**3**
20:35	2	0	0	**2**
20:40	0	0	0	**0**
20:45	0	1	0	**1**
20:50	0	0	0	**0**
20:55	1	0	0	**1**
21:00	1	1	0	**2**
21:05	3	2	0	**5**
21:10	3	1	0	**4**
21:15	1	0	0	**1**
21:20	3	0	0	**3**
21:25	2	0	0	**2**
21:30	1	1	0	**2**
21:35	3	0	0	**3**
21:40	2	0	0	**2**
21:45	0	0	0	**0**
21:50	0	0	0	**0**
21:55	0	0	0	**0**
22:00	1	0	0	**1**
22:05	1	0	0	**1**
22:10	3	0	0	**3**
22:15	2	0	0	**2**
22:20	2	0	0	**2**
22:25	1	0	0	**1**
22:30	1	0	0	**1**
22:35	1	1	0	**2**
22:40	2	1	0	**3**
22:45	2	0	0	**2**
22:50	1	0	0	**1**
22:55	0	0	0	**0**
23:00	0	0	0	**0**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 44-175 Jefferson St
CITY: La Quinta

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
5:00	0	0	0	**0**
5:05	0	0	0	**0**
5:10	0	0	0	**0**
5:15	0	0	0	**0**
5:20	1	0	0	**1**
5:25	1	0	0	**1**
5:30	2	0	0	**2**
5:35	2	0	0	**2**
5:40	2	0	0	**2**
5:45	0	0	0	**0**
5:50	2	0	0	**2**
5:55	3	0	0	**3**
6:00	4	0	0	**4**
6:05	4	0	0	**4**
6:10	1	1	0	**2**
6:15	0	2	0	**2**
6:20	1	1	0	**2**
6:25	2	0	0	**2**
6:30	2	0	0	**2**
6:35	1	1	0	**2**
6:40	5	4	0	**9**
6:45	0	6	0	**6**
6:50	3	3	0	**6**
6:55	0	4	0	**4**
7:00	1	3	0	**4**
7:05	1	4	0	**5**
7:10	0	5	0	**5**
7:15	2	5	0	**7**
7:20	1	8	0	**9**
7:25	2	8	1	**11**
7:30	1	8	0	**9**
7:35	1	9	0	**10**
7:40	3	9	0	**12**
7:45	4	7	0	**11**
7:50	2	4	0	**6**
7:55	4	7	2	**13**
8:00	4	8	1	**13**
8:05	4	6	0	**10**
8:10	0	9	0	**9**
8:15	1	8	0	**9**
8:20	0	9	0	**9**
8:25	1	7	0	**8**
8:30	4	5	0	**9**
8:35	3	2	0	**5**
8:40	3	3	0	**6**
8:45	4	4	0	**8**
8:50	1	3	0	**4**
8:55	2	3	0	**5**
9:00	2	3	0	**5**
9:05	0	5	0	**5**
9:10	3	5	0	**8**
9:15	3	7	0	**10**
9:20	0	7	0	**7**
9:25	2	3	0	**5**
9:30	2	1	0	**3**
9:35	3	4	0	**7**
9:40	1	1	0	**2**
9:45	2	4	0	**6**
9:50	3	5	0	**8**
9:55	3	5	0	**8**
10:00	3	4	0	**7**
10:05	3	6	0	**9**
10:10	2	4	0	**6**
10:15	1	0	0	**1**
10:20	0	2	0	**2**
10:25	0	1	0	**1**
10:30	1	0	0	**1**
10:35	1	6	0	**7**
10:40	4	4	0	**8**
10:45	2	3	0	**5**
10:50	1	1	0	**2**
10:55	2	4	0	**6**
11:00	2	6	0	**8**
11:05	3	6	0	**9**
11:10	3	10	1	**14**
11:15	2	3	0	**5**
11:20	2	1	0	**3**
11:25	1	3	0	**4**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 44-175 Jefferson St
CITY: La Quinta

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:30	0	3	0	**3**
11:35	0	1	0	**1**
11:40	1	2	0	**3**
11:45	2	2	0	**4**
11:50	0	3	0	**3**
11:55	2	2	0	**4**
12:00	2	1	0	**3**
12:05	1	2	0	**3**
12:10	1	2	0	**3**
12:15	0	6	0	**6**
12:20	2	4	0	**6**
12:25	3	3	0	**6**
12:30	1	0	0	**1**
12:35	1	3	0	**4**
12:40	1	2	0	**3**
12:45	0	2	0	**2**
12:50	2	3	0	**5**
12:55	0	1	0	**1**
13:00	2	3	0	**5**
13:05	0	3	0	**3**
13:10	1	3	0	**4**
13:15	2	3	0	**5**
13:20	2	3	0	**5**
13:25	0	4	0	**4**
13:30	3	6	0	**9**
13:35	2	4	0	**6**
13:40	1	2	0	**3**
13:45	1	1	0	**2**
13:50	2	1	0	**3**
13:55	1	0	0	**1**
14:00	1	2	0	**3**
14:05	2	5	0	**7**
14:10	3	5	0	**8**
14:15	4	6	0	**10**
14:20	4	4	0	**8**
14:25	4	3	0	**7**
14:30	1	4	0	**5**
14:35	2	3	0	**5**
14:40	2	4	0	**6**
14:45	4	3	0	**7**
14:50	2	5	0	**7**
14:55	1	1	0	**2**
15:00	0	1	0	**1**
15:05	2	2	0	**4**
15:10	0	5	0	**5**
15:15	0	3	0	**3**
15:20	1	1	0	**2**
15:25	0	3	0	**3**
15:30	2	2	0	**4**
15:35	3	3	0	**6**
15:40	3	6	0	**9**
15:45	2	3	0	**5**
15:50	1	4	0	**5**
15:55	1	2	0	**3**
16:00	2	1	0	**3**
16:05	1	1	0	**2**
16:10	2	1	0	**3**
16:15	1	4	0	**5**
16:20	1	2	0	**3**
16:25	3	3	0	**6**
16:30	0	4	0	**4**
16:35	4	3	0	**7**
16:40	2	2	0	**4**
16:45	2	4	0	**6**
16:50	1	3	0	**4**
16:55	2	2	0	**4**
17:00	2	2	0	**4**
17:05	0	5	0	**5**
17:10	1	1	0	**2**
17:15	1	0	0	**1**
17:20	1	1	0	**2**
17:25	1	2	0	**3**
17:30	1	3	0	**4**
17:35	2	1	0	**3**
17:40	2	3	0	**5**
17:45	2	3	0	**5**
17:50	3	2	0	**5**
17:55	3	2	0	**5**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 44-175 Jefferson St
CITY: La Quinta

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	**TOTAL**
18:00	3	3	0	**6**
18:05	2	3	0	**5**
18:10	1	3	0	**4**
18:15	2	2	0	**4**
18:20	3	2	0	**5**
18:25	3	3	0	**6**
18:30	1	2	0	**3**
18:35	2	3	0	**5**
18:40	3	4	0	**7**
18:45	4	4	0	**8**
18:50	3	3	0	**6**
18:55	2	1	0	**3**
19:00	0	1	0	**1**
19:05	2	2	0	**4**
19:10	2	0	0	**2**
19:15	1	1	0	**2**
19:20	1	1	0	**2**
19:25	1	0	0	**1**
19:30	2	2	0	**4**
19:35	2	0	0	**2**
19:40	2	0	0	**2**
19:45	3	1	0	**4**
19:50	3	2	0	**5**
19:55	4	2	0	**6**
20:00	1	1	0	**2**
20:05	2	0	0	**2**
20:10	1	1	0	**2**
20:15	1	3	0	**4**
20:20	2	2	0	**4**
20:25	2	1	0	**3**
20:30	1	0	0	**1**
20:35	0	0	0	**0**
20:40	0	1	0	**1**
20:45	0	1	0	**1**
20:50	1	0	0	**1**
20:55	1	0	0	**1**
21:00	1	0	0	**1**
21:05	2	1	0	**3**
21:10	2	1	0	**3**
21:15	2	2	0	**4**
21:20	3	2	0	**5**
21:25	1	1	0	**2**
21:30	0	1	0	**1**
21:35	0	0	0	**0**
21:40	0	1	0	**1**
21:45	1	2	0	**3**
21:50	2	0	0	**2**
21:55	2	0	0	**2**
22:00	0	0	0	**0**
22:05	0	0	0	**0**
22:10	0	0	0	**0**
22:15	0	0	0	**0**
22:20	0	0	0	**0**
22:25	0	0	0	**0**
22:30	0	0	0	**0**
22:35	0	0	0	**0**
22:40	0	0	0	**0**
22:45	0	0	0	**0**
22:50	0	0	0	**0**
22:55	0	0	0	**0**
23:00	0	0	0	**0**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 44-175 Jefferson St
CITY: La Quinta

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
5:00	0	0	0	**0**
5:05	1	0	0	**1**
5:10	1	0	0	**1**
5:15	0	0	0	**0**
5:20	0	0	0	**0**
5:25	1	0	0	**1**
5:30	1	0	0	**1**
5:35	2	1	0	**3**
5:40	1	0	0	**1**
5:45	1	0	0	**1**
5:50	2	0	0	**2**
5:55	1	0	0	**1**
6:00	0	0	0	**0**
6:05	1	0	0	**1**
6:10	0	0	0	**0**
6:15	0	0	0	**0**
6:20	2	1	0	**3**
6:25	1	2	0	**3**
6:30	2	0	0	**2**
6:35	1	1	0	**2**
6:40	1	0	0	**1**
6:45	1	1	0	**2**
6:50	1	0	0	**1**
6:55	1	3	0	**4**
7:00	2	1	0	**3**
7:05	1	1	0	**2**
7:10	0	1	0	**1**
7:15	2	3	0	**5**
7:20	2	2	0	**4**
7:25	1	0	0	**1**
7:30	2	3	0	**5**
7:35	4	6	0	**10**
7:40	3	9	0	**12**
7:45	1	10	0	**11**
7:50	2	7	0	**9**
7:55	3	7	0	**10**
8:00	0	5	0	**5**
8:05	2	2	0	**4**
8:10	2	3	0	**5**
8:15	3	3	0	**6**
8:20	3	5	0	**8**
8:25	3	3	0	**6**
8:30	4	5	0	**9**
8:35	3	4	0	**7**
8:40	4	7	0	**11**
8:45	4	8	0	**12**
8:50	4	9	2	**15**
8:55	5	7	0	**12**
9:00	4	8	0	**12**
9:05	3	8	0	**11**
9:10	3	4	0	**7**
9:15	4	7	1	**12**
9:20	3	9	2	**14**
9:25	4	7	0	**11**
9:30	4	4	0	**8**
9:35	3	4	0	**7**
9:40	2	1	0	**3**
9:45	3	4	0	**7**
9:50	3	8	2	**13**
9:55	3	7	6	**16**
10:00	4	8	7	**19**
10:05	4	8	8	**20**
10:10	3	9	5	**17**
10:15	4	8	3	**15**
10:20	3	10	7	**20**
10:25	3	7	3	**13**
10:30	4	8	0	**12**
10:35	3	8	0	**11**
10:40	5	8	0	**13**
10:45	3	8	0	**11**
10:50	2	9	2	**13**
10:55	3	7	3	**13**
11:00	3	8	0	**11**
11:05	3	8	2	**13**
11:10	3	8	7	**18**
11:15	3	8	6	**17**
11:20	3	9	6	**18**
11:25	3	10	6	**19**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 44-175 Jefferson St
CITY: La Quinta

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:30	3	8	5	**16**
11:35	4	10	0	**14**
11:40	3	7	0	**10**
11:45	2	4	0	**6**
11:50	3	4	0	**7**
11:55	1	1	0	**2**
12:00	3	3	0	**6**
12:05	2	6	0	**8**
12:10	3	5	0	**8**
12:15	4	4	0	**8**
12:20	3	6	0	**9**
12:25	2	4	0	**6**
12:30	3	5	0	**8**
12:35	3	5	0	**8**
12:40	0	8	0	**8**
12:45	3	5	0	**8**
12:50	3	4	0	**7**
12:55	0	0	0	**0**
13:00	1	4	0	**5**
13:05	4	6	0	**10**
13:10	3	6	0	**9**
13:15	3	5	0	**8**
13:20	2	2	0	**4**
13:25	2	4	0	**6**
13:30	3	4	0	**7**
13:35	3	8	0	**11**
13:40	3	5	0	**8**
13:45	2	2	0	**4**
13:50	2	1	0	**3**
13:55	2	4	0	**6**
14:00	3	5	0	**8**
14:05	3	4	0	**7**
14:10	3	5	0	**8**
14:15	3	7	1	**11**
14:20	3	6	0	**9**
14:25	3	9	1	**13**
14:30	3	9	3	**15**
14:35	3	8	4	**15**
14:40	3	10	0	**13**
14:45	3	9	0	**12**
14:50	3	10	6	**19**
14:55	3	9	8	**20**
15:00	3	7	1	**11**
15:05	3	9	1	**13**
15:10	3	8	2	**13**
15:15	4	8	5	**17**
15:20	3	9	2	**14**
15:25	3	9	2	**14**
15:30	3	9	0	**12**
15:35	4	5	0	**9**
15:40	3	8	0	**11**
15:45	3	6	0	**9**
15:50	3	6	0	**9**
15:55	4	7	0	**11**
16:00	2	7	0	**9**
16:05	1	2	0	**3**
16:10	1	2	0	**3**
16:15	2	2	0	**4**
16:20	3	3	0	**6**
16:25	1	5	0	**6**
16:30	3	2	3	**8**
16:35	3	7	0	**10**
16:40	3	7	0	**10**
16:45	3	6	0	**9**
16:50	4	9	0	**13**
16:55	3	3	0	**6**
17:00	2	0	0	**2**
17:05	1	3	0	**4**
17:10	2	2	0	**4**
17:15	3	5	0	**8**
17:20	3	2	0	**5**
17:25	1	1	0	**2**
17:30	1	1	0	**2**
17:35	1	2	0	**3**
17:40	2	4	0	**6**
17:45	1	5	0	**6**
17:50	2	2	0	**4**
17:55	1	1	0	**2**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 44-175 Jefferson St
CITY: La Quinta

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	**TOTAL**
18:00	0	2	0	**2**
18:05	1	1	0	**2**
18:10	1	1	0	**2**
18:15	2	3	0	**5**
18:20	3	3	0	**6**
18:25	1	2	0	**3**
18:30	1	0	0	**1**
18:35	1	0	0	**1**
18:40	1	2	0	**3**
18:45	1	2	0	**3**
18:50	1	2	0	**3**
18:55	1	1	0	**2**
19:00	1	3	0	**4**
19:05	1	4	0	**5**
19:10	1	3	0	**4**
19:15	2	3	0	**5**
19:20	2	2	0	**4**
19:25	3	3	0	**6**
19:30	3	4	0	**7**
19:35	1	2	0	**3**
19:40	2	0	0	**2**
19:45	2	0	0	**2**
19:50	2	0	0	**2**
19:55	0	0	0	**0**
20:00	1	2	0	**3**
20:05	1	1	0	**2**
20:10	1	0	0	**1**
20:15	1	0	0	**1**
20:20	2	5	0	**7**
20:25	1	3	0	**4**
20:30	0	1	0	**1**
20:35	1	0	0	**1**
20:40	1	0	0	**1**
20:45	1	2	0	**3**
20:50	2	1	0	**3**
20:55	1	2	0	**3**
21:00	1	3	0	**4**
21:05	1	2	0	**3**
21:10	1	0	0	**1**
21:15	2	0	0	**2**
21:20	2	3	0	**5**
21:25	2	0	0	**2**
21:30	2	0	0	**2**
21:35	2	2	0	**4**
21:40	1	3	0	**4**
21:45	2	4	0	**6**
21:50	1	3	0	**4**
21:55	0	2	0	**2**
22:00	1	0	0	**1**
22:05	1	0	0	**1**
22:10	1	1	0	**2**
22:15	2	2	0	**4**
22:20	2	4	0	**6**
22:25	3	6	0	**9**
22:30	2	5	0	**7**
22:35	2	1	0	**3**
22:40	0	0	0	**0**
22:45	0	0	0	**0**
22:50	0	0	0	**0**
22:55	0	0	0	**0**
23:00	0	0	0	**0**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 81-776 CA 111
CITY: Indio

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
5:00	0	0	0	**0**
5:05	0	0	0	**0**
5:10	0	0	0	**0**
5:15	1	0	0	**1**
5:20	0	0	0	**0**
5:25	0	0	0	**0**
5:30	3	1	0	**4**
5:35	1	1	0	**2**
5:40	1	0	0	**1**
5:45	1	0	0	**1**
5:50	2	0	0	**2**
5:55	2	0	0	**2**
6:00	1	0	0	**1**
6:05	2	0	0	**2**
6:10	3	0	0	**3**
6:15	2	1	0	**3**
6:20	3	1	0	**4**
6:25	3	0	0	**3**
6:30	3	2	0	**5**
6:35	2	2	0	**4**
6:40	1	6	0	**7**
6:45	3	5	0	**8**
6:50	1	3	0	**4**
6:55	1	4	0	**5**
7:00	2	2	0	**4**
7:05	2	1	0	**3**
7:10	1	2	0	**3**
7:15	2	5	0	**7**
7:20	1	5	0	**6**
7:25	1	7	0	**8**
7:30	2	6	0	**8**
7:35	3	7	1	**11**
7:40	3	10	2	**15**
7:45	3	8	4	**15**
7:50	3	11	1	**15**
7:55	2	9	0	**11**
8:00	3	8	0	**11**
8:05	2	6	0	**8**
8:10	3	2	0	**5**
8:15	3	8	3	**14**
8:20	3	8	0	**11**
8:25	3	10	1	**14**
8:30	3	8	0	**11**
8:35	3	9	0	**12**
8:40	3	7	0	**10**
8:45	3	4	0	**7**
8:50	2	3	0	**5**
8:55	2	2	0	**4**
9:00	3	1	0	**4**
9:05	2	7	0	**9**
9:10	3	7	0	**10**
9:15	3	7	0	**10**
9:20	1	1	0	**2**
9:25	2	1	0	**3**
9:30	2	0	0	**2**
9:35	3	2	0	**5**
9:40	3	2	0	**5**
9:45	1	1	0	**2**
9:50	1	2	0	**3**
9:55	2	0	0	**2**
10:00	1	2	0	**3**
10:05	1	1	0	**2**
10:10	1	0	0	**1**
10:15	2	1	0	**3**
10:20	3	2	0	**5**
10:25	3	3	0	**6**
10:30	2	2	0	**4**
10:35	1	1	0	**2**
10:40	2	0	0	**2**
10:45	3	1	0	**4**
10:50	2	1	0	**3**
10:55	3	4	0	**7**
11:00	3	3	0	**6**
11:05	3	4	0	**7**
11:10	3	7	0	**10**
11:15	2	4	0	**6**
11:20	3	1	0	**4**
11:25	3	1	0	**4**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 81-776 CA 111
CITY: Indio

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	**TOTAL**
11:30	2	2	0	**4**
11:35	3	3	0	**6**
11:40	3	2	0	**5**
11:45	1	3	0	**4**
11:50	3	3	0	**6**
11:55	0	1	0	**1**
12:00	1	0	0	**1**
12:05	2	1	0	**3**
12:10	3	2	0	**5**
12:15	2	2	0	**4**
12:20	0	0	0	**0**
12:25	0	0	0	**0**
12:30	3	2	0	**5**
12:35	1	1	0	**2**
12:40	1	1	0	**2**
12:45	1	2	0	**3**
12:50	2	2	0	**4**
12:55	2	4	0	**6**
13:00	1	2	0	**3**
13:05	1	1	0	**2**
13:10	2	2	0	**4**
13:15	2	1	0	**3**
13:20	0	1	0	**1**
13:25	3	2	0	**5**
13:30	1	2	0	**3**
13:35	1	2	0	**3**
13:40	2	1	0	**3**
13:45	1	2	0	**3**
13:50	2	2	0	**4**
13:55	0	0	0	**0**
14:00	1	1	0	**2**
14:05	1	0	0	**1**
14:10	1	0	0	**1**
14:15	0	0	0	**0**
14:20	1	0	0	**1**
14:25	1	0	0	**1**
14:30	2	0	0	**2**
14:35	0	0	0	**0**
14:40	0	0	0	**0**
14:45	2	1	0	**3**
14:50	1	0	0	**1**
14:55	1	0	0	**1**
15:00	2	0	0	**2**
15:05	1	2	0	**3**
15:10	1	0	0	**1**
15:15	0	0	0	**0**
15:20	0	0	0	**0**
15:25	2	0	0	**2**
15:30	1	0	0	**1**
15:35	0	1	0	**1**
15:40	0	3	0	**3**
15:45	1	2	0	**3**
15:50	1	0	0	**1**
15:55	0	0	0	**0**
16:00	1	3	0	**4**
16:05	3	3	0	**6**
16:10	2	0	0	**2**
16:15	0	0	0	**0**
16:20	3	0	0	**3**
16:25	1	1	0	**2**
16:30	2	1	0	**3**
16:35	0	0	0	**0**
16:40	2	0	0	**2**
16:45	3	0	0	**3**
16:50	1	1	0	**2**
16:55	1	0	0	**1**
17:00	2	3	0	**5**
17:05	2	2	0	**4**
17:10	1	4	0	**5**
17:15	2	0	0	**2**
17:20	1	1	0	**2**
17:25	3	2	0	**5**
17:30	2	1	0	**3**
17:35	0	2	0	**2**
17:40	2	0	0	**2**
17:45	3	0	0	**3**
17:50	3	2	0	**5**
17:55	3	2	0	**5**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 81-776 CA 111
CITY: Indio

DAY: Tuesday
DATE: 2/1/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	**TOTAL**
18:00	2	1	0	**3**
18:05	2	1	0	**3**
18:10	1	0	0	**1**
18:15	2	0	0	**2**
18:20	0	0	0	**0**
18:25	2	0	0	**2**
18:30	3	1	0	**4**
18:35	3	2	0	**5**
18:40	2	0	0	**2**
18:45	1	0	0	**1**
18:50	2	0	0	**2**
18:55	1	0	0	**1**
19:00	1	0	0	**1**
19:05	3	0	0	**3**
19:10	2	0	0	**2**
19:15	2	0	0	**2**
19:20	1	0	0	**1**
19:25	2	1	0	**3**
19:30	2	2	0	**4**
19:35	2	2	0	**4**
19:40	1	0	0	**1**
19:45	1	0	0	**1**
19:50	1	0	0	**1**
19:55	1	4	0	**5**
20:00	2	2	0	**4**
20:05	2	2	0	**4**
20:10	3	1	0	**4**
20:15	2	0	0	**2**
20:20	2	0	0	**2**
20:25	2	1	0	**3**
20:30	3	2	0	**5**
20:35	2	3	0	**5**
20:40	1	1	0	**2**
20:45	2	0	0	**2**
20:50	3	0	0	**3**
20:55	1	0	0	**1**
21:00	0	0	0	**0**
21:05	1	0	0	**1**
21:10	1	0	0	**1**
21:15	1	0	0	**1**
21:20	1	0	0	**1**
21:25	3	1	0	**4**
21:30	2	2	0	**4**
21:35	0	1	0	**1**
21:40	2	0	0	**2**
21:45	2	0	0	**2**
21:50	2	3	0	**5**
21:55	2	2	0	**4**
22:00	2	2	0	**4**
22:05	1	1	0	**2**
22:10	0	0	0	**0**
22:15	0	0	0	**0**
22:20	2	0	0	**2**
22:25	2	1	0	**3**
22:30	2	2	0	**4**
22:35	2	0	0	**2**
22:40	2	0	0	**2**
22:45	1	1	0	**2**
22:50	3	0	0	**3**
22:55	1	0	0	**1**
23:00	0	0	0	**0**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 81-776 CA 111
CITY: Indio

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
5:00	0	0	0	**0**
5:05	0	0	0	**0**
5:10	1	0	0	**1**
5:15	2	0	0	**2**
5:20	1	0	0	**1**
5:25	2	0	0	**2**
5:30	1	0	0	**1**
5:35	1	0	0	**1**
5:40	0	0	0	**0**
5:45	0	0	0	**0**
5:50	0	0	0	**0**
5:55	1	0	0	**1**
6:00	1	0	0	**1**
6:05	1	0	0	**1**
6:10	0	0	0	**0**
6:15	1	0	0	**1**
6:20	2	1	0	**3**
6:25	2	2	0	**4**
6:30	2	2	0	**4**
6:35	2	0	0	**2**
6:40	2	2	0	**4**
6:45	2	2	0	**4**
6:50	3	1	0	**4**
6:55	2	2	0	**4**
7:00	2	1	0	**3**
7:05	2	0	0	**2**
7:10	2	1	0	**3**
7:15	2	0	0	**2**
7:20	0	0	0	**0**
7:25	1	0	0	**1**
7:30	3	1		**4**
7:35	3	3	0	**6**
7:40	3	6	0	**9**
7:45	3	7	0	**10**
7:50	2	9	0	**11**
7:55	3	8	0	**11**
8:00	2	8	0	**10**
8:05	2	7	0	**9**
8:10	2	4	0	**6**
8:15	2	3	0	**5**
8:20	2	0	0	**2**
8:25	2	0	0	**2**
8:30	1	0	0	**1**
8:35	2	0	0	**2**
8:40	2	0	0	**2**
8:45	2	3	0	**5**
8:50	2	2	0	**4**
8:55	2	6	0	**8**
9:00	1	8	0	**9**
9:05	3	8	0	**11**
9:10	2	6	0	**8**
9:15	3	8	0	**11**
9:20	3	7	0	**10**
9:25	3	7	0	**10**
9:30	3	7	0	**10**
9:35	2	5	0	**7**
9:40	2	4	0	**6**
9:45	2	1	0	**3**
9:50	1	2	0	**3**
9:55	3	3	0	**6**
10:00	2	4	0	**6**
10:05	3	4	0	**7**
10:10	3	4	0	**7**
10:15	2	5	0	**7**
10:20	2	4	0	**6**
10:25	0	4	0	**4**
10:30	2	7	0	**9**
10:35	3	2	0	**5**
10:40	2	3	0	**5**
10:45	2	4	0	**6**
10:50	3	4	0	**7**
10:55	3	2	0	**5**
11:00	2	2	0	**4**
11:05	2	3	0	**5**
11:10	3	4	0	**7**
11:15	3	2	0	**5**
11:20	3	1	0	**4**
11:25	2	0	0	**2**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

DRIVE THRU SURVEY

LOCATION: Dutch Bros, 81-776 CA 111
CITY: Indio

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	TOTAL
11:30	3	4	0	**7**
11:35	3	11	0	**14**
11:40	2	12	0	**14**
11:45	1	10	0	**11**
11:50	1	6	0	**7**
11:55	2	2	0	**4**
12:00	1	2	0	**3**
12:05	2	4	0	**6**
12:10	2	4	0	**6**
12:15	3	2	0	**5**
12:20	2	3	0	**5**
12:25	3	7	0	**10**
12:30	2	8	0	**10**
12:35	2	6	0	**8**
12:40	3	5	0	**8**
12:45	1	2	0	**3**
12:50	2	6	0	**8**
12:55	3	6	0	**9**
13:00	1	2	0	**3**
13:05	2	2	0	**4**
13:10	1	2	0	**3**
13:15	2	0	0	**2**
13:20	1	0	0	**1**
13:25	3	0	0	**3**
13:30	2	3	0	**5**
13:35	3	1	0	**4**
13:40	3	1	0	**4**
13:45	3	0	0	**3**
13:50	1	0	0	**1**
13:55	2	4	0	**6**
14:00	1	2	0	**3**
14:05	3	5	0	**8**
14:10	3	5	0	**8**
14:15	3	4	0	**7**
14:20	3	3	0	**6**
14:25	3	3	0	**6**
14:30	3	2	0	**5**
14:35	3	3	0	**6**
14:40	3	0	0	**3**
14:45	2	2	0	**4**
14:50	3	4	0	**7**
14:55	3	6	0	**9**
15:00	3	5	0	**8**
15:05	3	5	0	**8**
15:10	3	1	0	**4**
15:15	1	1	0	**2**
15:20	2	0	0	**2**
15:25	1	2	0	**3**
15:30	0	0	0	**0**
15:35	2	0	0	**2**
15:40	2	1	0	**3**
15:45	0	0	0	**0**
15:50	0	0	0	**0**
15:55	2	3	0	**5**
16:00	3	2	0	**5**
16:05	1	3	0	**4**
16:10	1	2	0	**3**
16:15	3	0	0	**3**
16:20	2	2	0	**4**
16:25	2	1	0	**3**
16:30	1	1	0	**2**
16:35	0	0	0	**0**
16:40	1	1	0	**2**
16:45	2	1	0	**3**
16:50	0	0	0	**0**
16:55	2	1	0	**3**
17:00	1	0	0	**1**
17:05	0	0	0	**0**
17:10	1	2	0	**3**
17:15	2	2	0	**4**
17:20	1	2	0	**3**
17:25	0	1	0	**1**
17:30	1	0	0	**1**
17:35	0	0	0	**0**
17:40	2	4	0	**6**
17:45	3	4	0	**7**
17:50	2	2	0	**4**
17:55	1	1	0	**2**

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Corona, CA 92878
951-268-6268

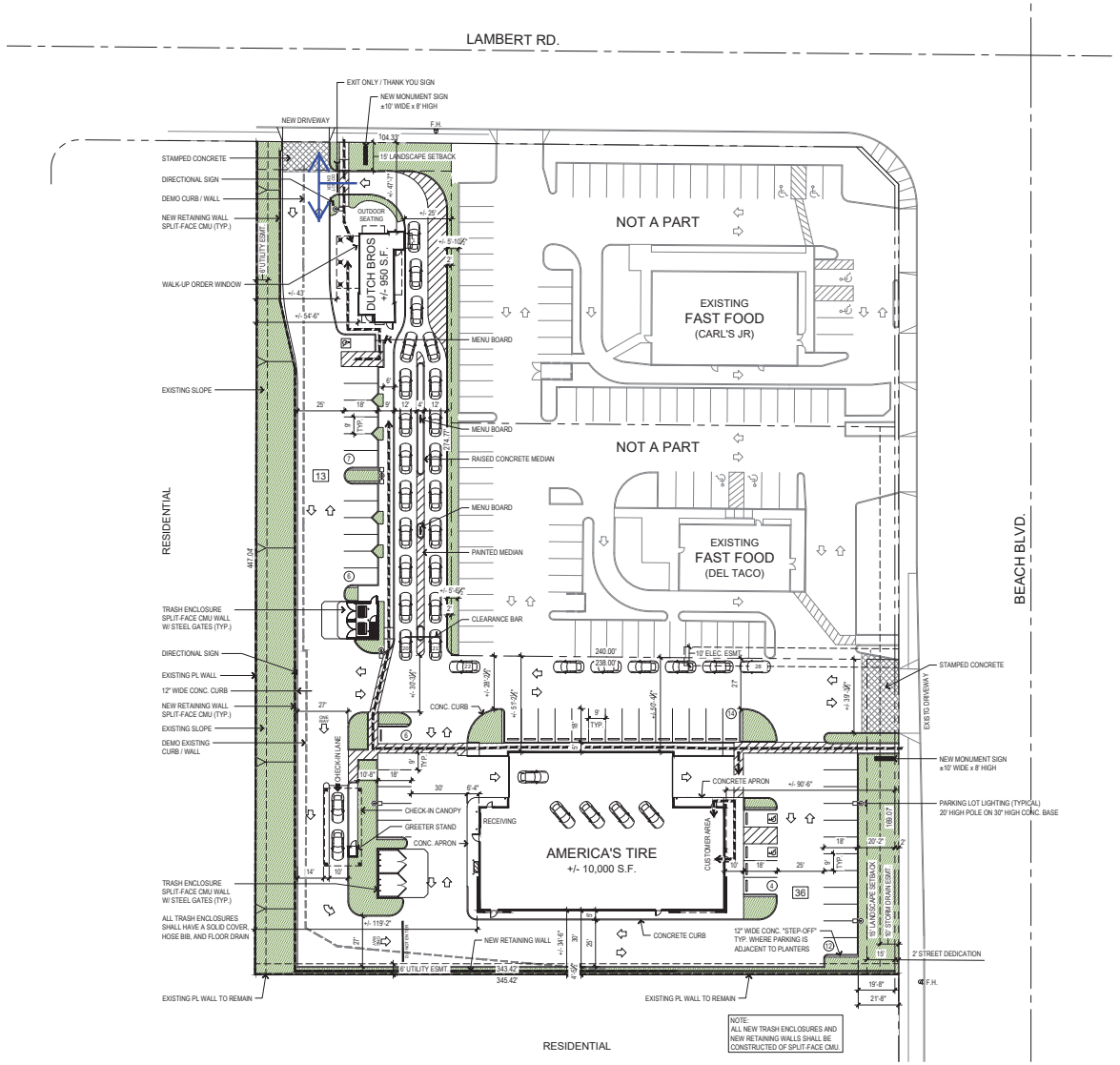
DRIVE THRU SURVEY

LOCATION: Dutch Bros, 81-776 CA 111
CITY: Indio

DAY: Saturday
DATE: 1/29/2022

TIME	PickUp Window To Order Board	Order Board to DT Entrance	DT Entrance into Street	**TOTAL**
18:00	0	0	0	**0**
18:05	2	1	0	**3**
18:10	1	4	0	**5**
18:15	2	6	0	**8**
18:20	2	2	0	**4**
18:25	1	0	0	**1**
18:30	3	0	0	**3**
18:35	3	0	0	**3**
18:40	2	2	0	**4**
18:45	3	0	0	**3**
18:50	1	0	0	**1**
18:55	2	1	0	**3**
19:00	3	2	0	**5**
19:05	3	2	0	**5**
19:10	3	3	0	**6**
19:15	2	0	0	**2**
19:20	2	2	0	**4**
19:25	2	1	0	**3**
19:30	0	0	0	**0**
19:35	2	1	0	**3**
19:40	2	1	0	**3**
19:45	2	1	0	**3**
19:50	1	0	0	**1**
19:55	1	3	0	**4**
20:00	2	2	0	**4**
20:05	2	1	0	**3**
20:10	1	0	0	**1**
20:15	0	0	0	**0**
20:20	2	1	0	**3**
20:25	3	2	0	**5**
20:30	2	3	0	**5**
20:35	3	4	0	**7**
20:40	2	6	0	**8**
20:45	3	5	0	**8**
20:50	2	7	0	**9**
20:55	3	5	0	**8**
21:00	3	3	0	**6**
21:05	3	2	0	**5**
21:10	2	2	0	**4**
21:15	1	1	0	**2**
21:20	2	1	0	**3**
21:25	1	1	0	**2**
21:30	0	1	0	**1**
21:35	2	0	0	**2**
21:40	0	0	0	**0**
21:45	2	1	0	**3**
21:50	1	2	0	**3**
21:55	1	0	0	**1**
22:00	3	1	0	**4**
22:05	2	2	0	**4**
22:10	3	2	0	**5**
22:15	2	2	0	**4**
22:20	2	1	0	**3**
22:25	2	2	0	**4**
22:30	2	2	0	**4**
22:35	2	0	0	**2**
22:40	3	4	0	**7**
22:45	2	2	0	**4**
22:50	2	1	0	**3**
22:55	2	0	0	**2**
23:00	0	0	0	**0**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268



Additional Project Drive-Through Storage

SITE PLAN SUMMARY

ADDRESS:	SWC LAMBERT ROAD and BEACH BLVD.
ASSESSOR'S PARCEL NUMBER:	018-431-35
ZONE:	COMMERCIAL (C-2)
LAND AREA (GROSS):	2.0 AC (+/-87,335 S.F.)

BUILDING AREA:

TIRE SHOP (AMERICA'S TIRE)	+/- 10,000 S.F.
COFFEE DRIVE-THRU (DUTCH BROS.)	+/- 950 S.F.
TOTAL PROPOSED NEW BUILDING AREA	+/- 10,950 S.F.

PARKING:	REQUIRED
DUTCH BROS COFFEE (+/- 950 sf x 8/1000)	8 SPACES
AMERICA'S TIRE (5 bays x 2 spaces each)	10 SPACES
(+/- 960 SF Office/Retail Space x 2.7/1000)	3 SPACES
TOTAL REQUIRED	21 SPACES
TOTAL PROVIDED	49 SPACES

ACCESSIBLE PARKING:

DUTCH BROS	
REQUIRED	1 VAN SPACE
PROVIDED	1 VAN SPACE
AMERICA'S TIRE	
REQUIRED	2 SPACES (1 REGULAR + 1 VAN)
PROVIDED	2 SPACES (1 REGULAR + 1 VAN)

LEGEND

= LANDSCAPE AREA - SEE LANDSCAPE PLANS

(10) = PARKING COUNT (Each row)

[26] = PARKING COUNT (Subtotal for each building)

ACCESSIBLE PATH OF TRAVEL - MIN. 4' WIDE, MAX. 5% SLOPE WITH MAX. 2% CROSS SLOPE.

NORTH

SCALE: 1" = 30'-0"

0' 30' 60'

ARCHSOURCE
Residential & Commercial Building Design
Southern CA 714.928.1170
Houston, TX 713.588.5770
www.theArchSource.com

PACIFIC RETAIL PARTNERS
4340 Von Karman Ave, Suite 110
Newport Beach, California 92660
(562) 431-8734

NEW COMMERCIAL DEVELOPMENT
AMERICA'S TIRE and
DUTCH BROS COFFEE
SWC Lambert Rd. & Beach Blvd.
La Habra, California

CONCEPTUAL SITE PLAN

January 5, 2023

ATTACHMENT D

DUTCH BROS. COFFEE TMP

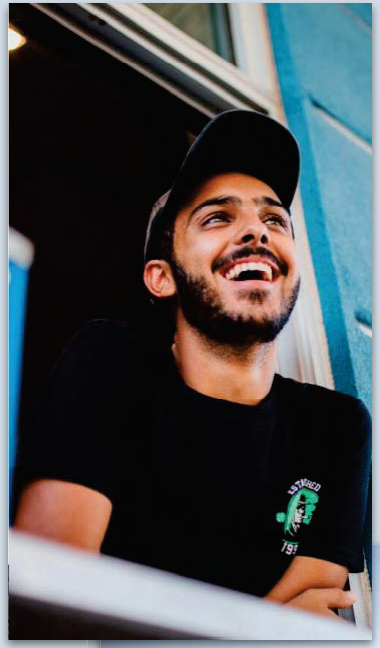
Traffic Management Plan

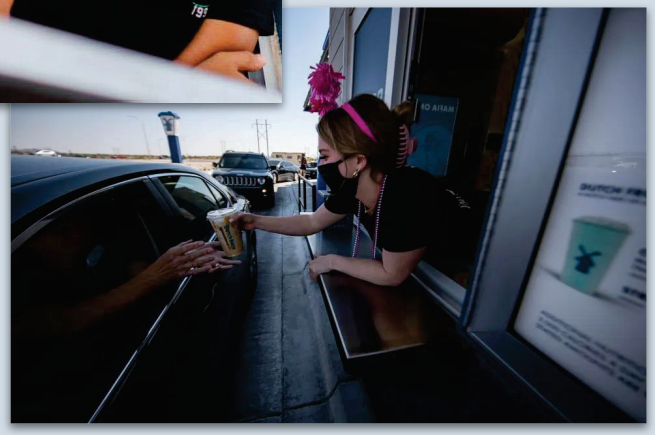
Property Management Team

CA6402 - La Mirada
14840 Beach Blvd,
La Mirada, CA 90638
West Region



Speed, Quality, Service





Timing Standards

45 seconds per car (at window). Speed timings conducted weekly in addition to a quarterly company wide evaluation.

Escape Lane

An escape lane permits customers to leave the line as soon as their drinks are delivered by a drink runner.

Peak Hours

DB will staff an additional traffic controller during peak hours as needed.

Speed, Quality, Service





Off-Site Operations

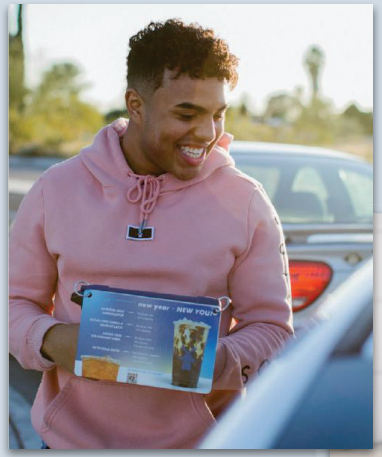
DB always evaluates the need of off-duty police officer support during our grand opening period.

Off duty police officers provide off-site support during business hours as determined necessary by DB leadership. Their job is to safely direct customer vehicles to and from a location. Prevent vehicles from blocking critical drives or otherwise restricting traffic flow (off-site).

Staffing Model

Schedules are written a minimum of 1-2 weeks in advance (in accordance with state and local guidelines) based on gross sales, trends, local events, and weather.

Speed, Quality, Service







Outside Traffic Management

Line Buster (LB)

Job Duty: Increase speed of the customers experience by taking orders while ensuring 2’ gap between cars. Ensuring when the line pulls forward the customers moves forward.

Drink Runner (DR)

Job Duty: Deliver completed drinks to the customer in line before reaching the window. Ensuring escape lane is used to minimize service time.

Dutch Bros Traffic Controller (DBTC)

Job Duty: Direct traffic in and out of location. Ensuring vehicles from blocking critical drives or otherwise restricting traffic flow (on-site).

Training and FAQ's

Full Shop Meetings:

- Monthly meetings in which all shop personnel are required to attend. Discuss traffic plans and new commitments in detail.

Pre-Shift Huddles:

- Before each shift (morning, noon, night) the crew goes over updates, important communication, issues, and ensures strategy is set for the shift

Promotional Days / Major Holidays / Sticker Days:

- Dutch will determine if needed and hire a Third-Party Traffic Control Company to come in when the Stacking could possibly be an issue.

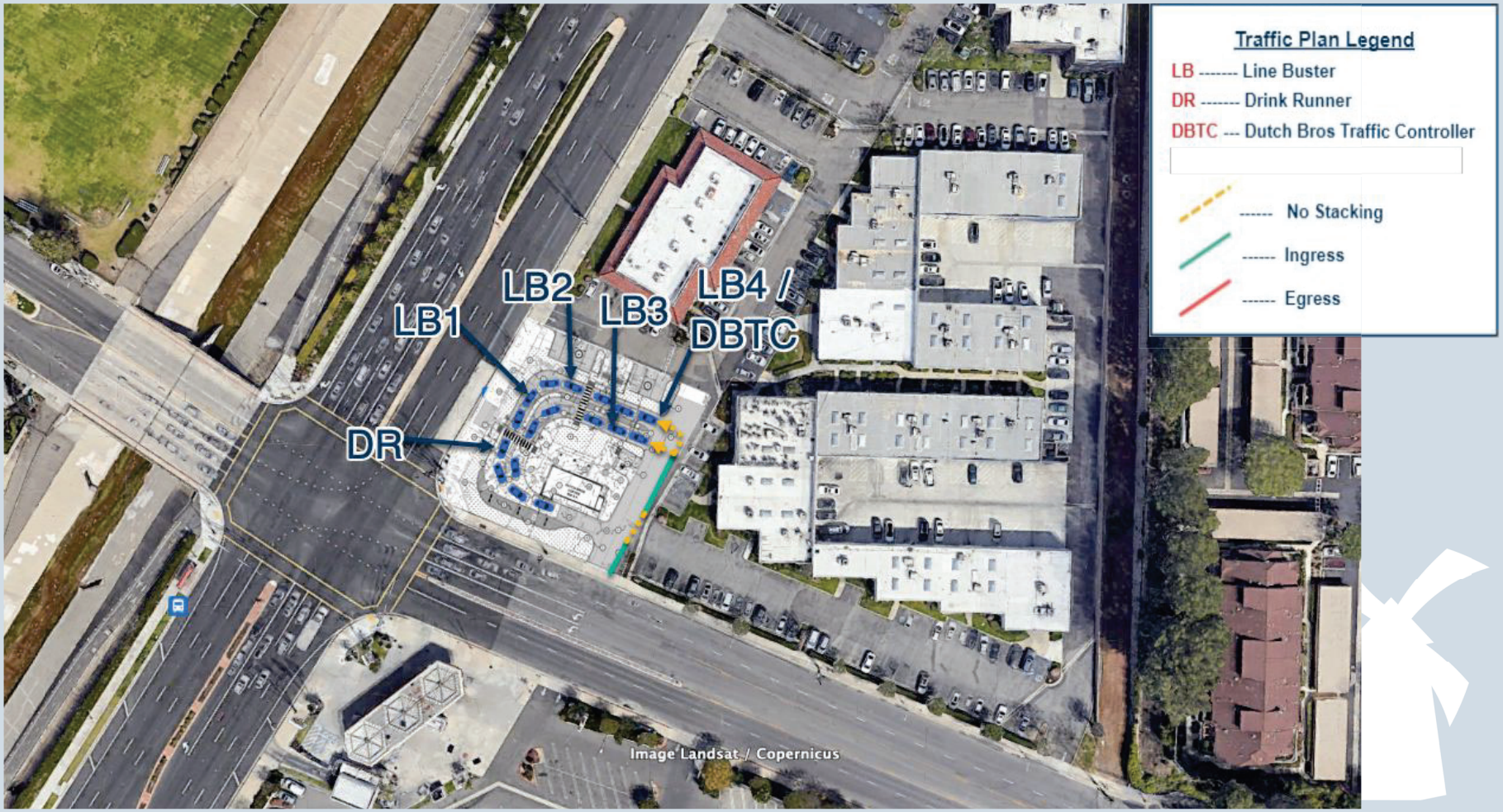
Evolving Traffic Plan:

- The Grand Opening plan will be utilized whenever necessary to mitigate traffic congestion that may occur from our new shop opening. We reserve the right to adjust the plan as conditions dictate, and expect that after the initial community response, our traffic patterns will settle to a predictable level within the first 90 days of operation.

Directional Signage Examples



Grand Opening Staffing Plan



Grand Opening Signage Plan



CITY OF EASTVALE
PLANNING COMMISSION NOTICE OF PUBLIC HEARING FOR PROJECT NO. PLN23-20018, PLN23-20019, PLN23-20020, AND PLN23-20021 FOR TENTATIVE PARCEL MAP NO. 37653, MAJOR DEVELOPMENT REVIEWS, AND CONDITIONAL USE PERMITS - CHANDLER AND ARCHIBALD RETAIL DEVELOPMENT

NOTICE IS HEREBY GIVEN that the City of Eastvale Planning Commission will hold a public hearing on **Wednesday, October 18, 2023**, at 6:00 p.m. at the Eastvale City Hall Council Chambers located at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752, to consider the following projects for commercial development located at the northwest corner of Chandler Avenue and Archibald Avenue:

1. **Tentative Parcel Map No. 37653 (PLN23-20018)** for the subdivision of 2.76 acres into three (3) individual parcels;
2. **Major Development Review and Conditional Use Permit (PLN23-20019)** for the development and operation of a 950 square-foot drive-through coffee shop (Dutch Bros);
3. **Major Development Review and Conditional Use Permit (PLN23-20020)** for the development and operation of a 3,598 square-foot drive-through carwash (Quick Quack); and
4. **Major Development Review (PLN23-20021)** for the development of a 3,450 square-foot sit-down restaurant (Zendejas)

PROJECT DESCRIPTION: The proposed project includes a new retail center with a 950 square-foot drive-through coffee shop, a 3,598 square-foot drive-through carwash, a 3,450 square-foot sit-down restaurant, and Tentative Parcel Map No. 37653 for the development and subdivision of a 2.76-acre lot into three (3) individuals parcels at the northwest corner of Chandler Avenue and Archibald Avenue. The project applicant is REA/Eastvale LP.

PROJECT LOCATION: Assessor's Parcel Number: 144-130-004, -011, -012, -013, and -004; Chandler and Archibald Retail Development at the northwest corner of Chandler Avenue and Archibald Avenue. The project site is not located on a hazardous materials site listed under Government Code Section 65962.5.

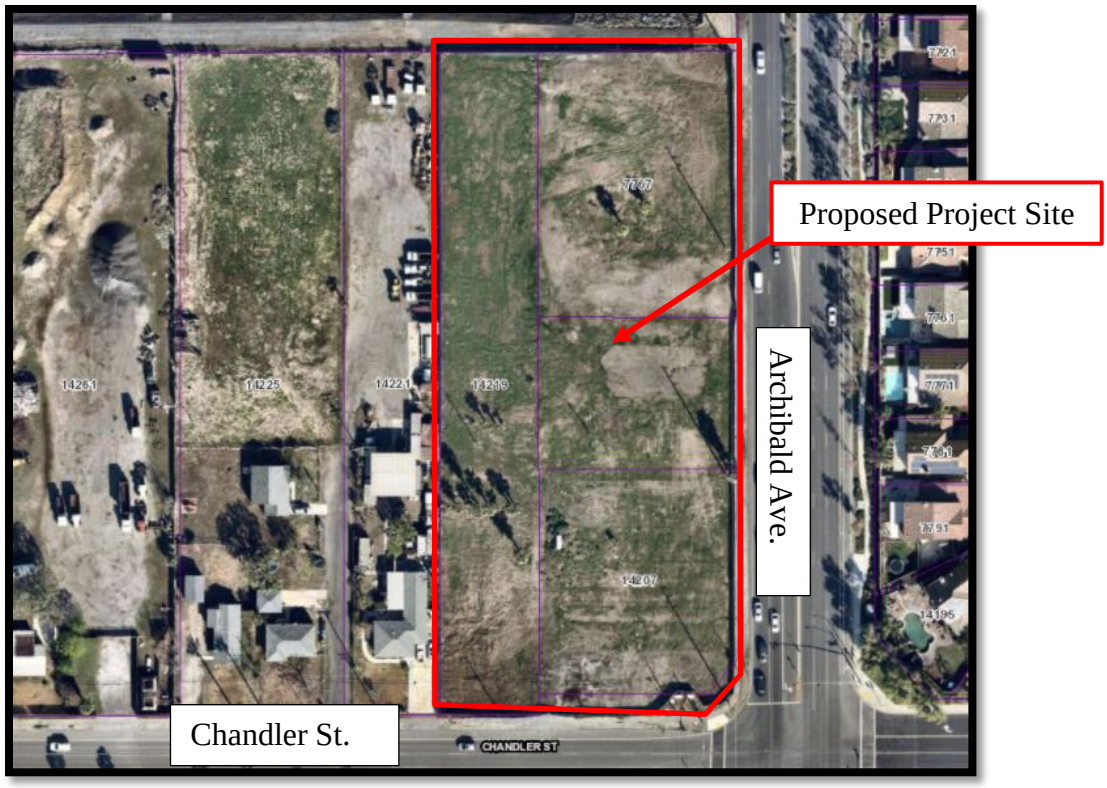
ENVIRONMENTAL: Pursuant to Section 15162 of the California Environmental Quality Act (CEQA) Guideline, it is the independent judgement of the Lead Agency that the Project will not result in any new or more significant impacts to the environment other than those which have already been assessed under the 2021 Mitigated Negative Declaration (adopted by City Council via Resolution 21-35 on August 25, 2021) and an Addendum has been prepared in accordance with Sections 15162 and 15164 of the CEQA Guidelines.

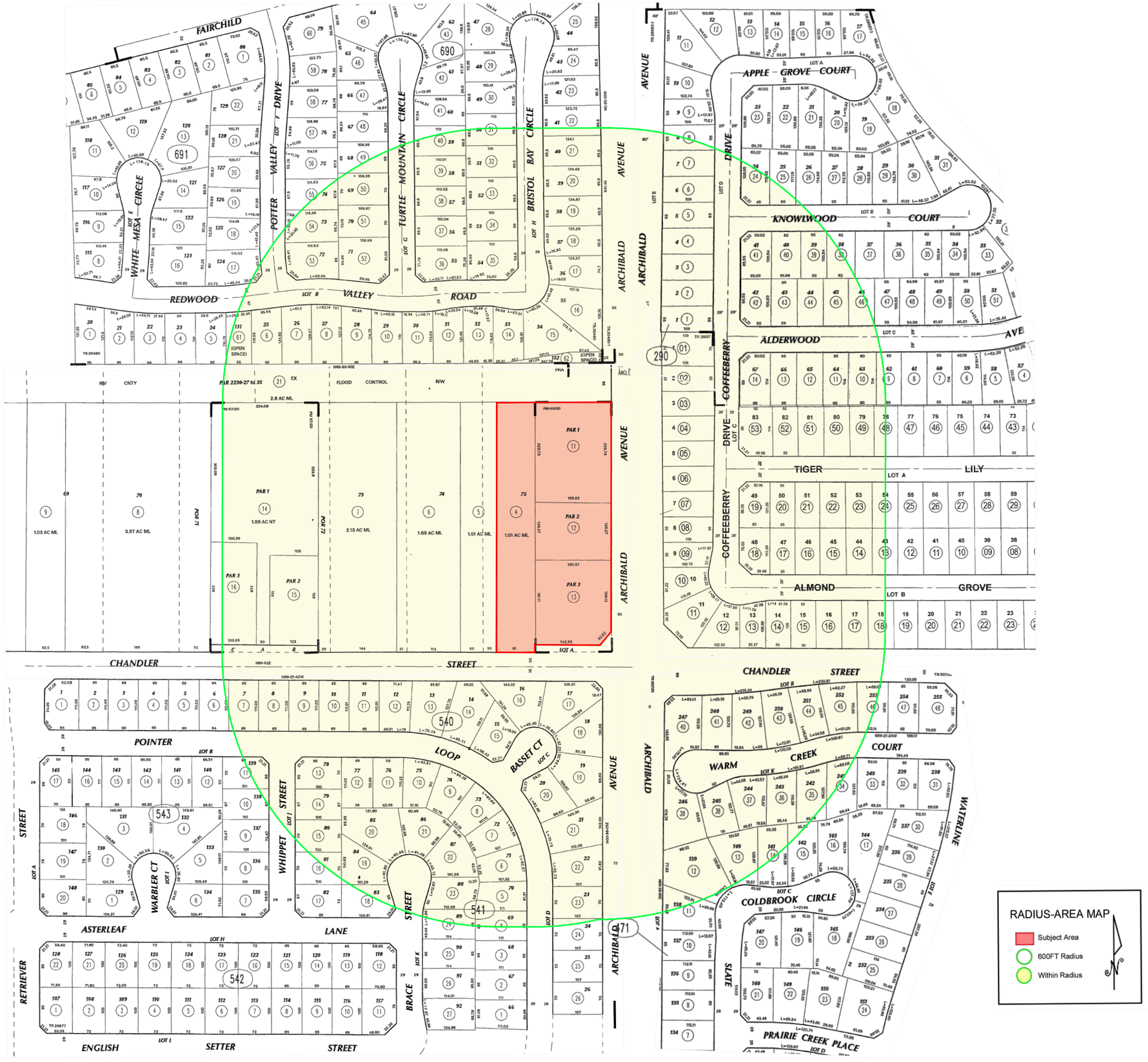
Any person may submit written comments prior to the public hearing or may appear in person before the Planning Commission to be heard. Written comments may be mailed to the City of Eastvale Planning Division located at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752 or via email to Allen Lim at alim@eastvaleca.gov. **For the comments to be presented to the Planning Commission at the meeting, all comments made in writing or via e-mail prior to the public hearing must be received by the City of Eastvale Planning Division no later than Wednesday, October 18, 2023, at 5:00**

p.m. Oral and written comments may be submitted directly to the Planning Commission at the public hearing. If you challenge the project in court, you may be limited to raising only those issues you raised at the public hearing as described in this notice or in written correspondence delivered to the Eastvale Planning Commission prior to or at the public hearing.

If you have any questions on the project, contact Allen Lim at (951) 703-4461 or alim@eastvaleca.gov

Project Vicinity Map





RADIUS-AREA MAP

- Subject Area
- 600FT Radius
- Within Radius

Allen Lim

From: Glen Billups <gbillups@mac.com>
Sent: Sunday, October 8, 2023 7:19 AM
To: Allen Lim
Subject: Dutch bro, car wash, and zendejas

[The e-mail below is from an external source. Please do not open attachments or click links from an unknown or suspicious origin.]

Hi Mr. Lim

As someone who lives in the area of Archibald and chandler, this is an awful idea.

I have seen the mess at Dutch Bros on limonite and how cars are lined up on the street. And it is dangerous.

At chandler and archibald, it will be worse. Cars are traveling so fast down Archibald it is going to cause accidents.

I really don't see how a Mexican restaurant there will be successful. Or any restaurant. And having a bar on that corner is a horrible idea. Now drunk drivers will be in competition with the Dutch bros customers.

And we have 2 car washes in Eastvale. We do not need anymore.

This project will stick out like a sore thumb.

Also, are there anymore plans for chandler going west from Archibald?

To have this little standalone plot of 3 businesses is poor planning.

Thanks

Glen Billups
14166 Knowlwood Court
Eastvale,CA 92880

Sent from my iPhone

CITY OF EASTVALE

AGENDA STAFF REPORT

Planning Commission Meeting
PUBLIC HEARINGS
Agenda Item No. 8.3
October 18, 2023

PLN23-20043– Tentative Tract Map 38167 and Major Development Review for Magnolia Ranch Residential Development

Prepared By:

Jamie K. Cerda, AICP

Recommended Action(s)

Staff recommends that the Planning Commission take the following actions:

1. Adopt the Mitigated Negative Declaration (SCH #2023090664) prepared for the project, based on the findings and conclusions provided in the initial study, attached hereto and the conclusion that all impacts were adequately analyzed pursuant to applicable legal standards identified in the CEQA Guidelines;
2. Approve Tentative Tract Map No. 38167 to subdivide a single 10-acre lot (8.28 net acres) into 41 residential and three (3) lettered lots, subject to conditions of approval; and
3. Approve the Major Development Review for the master building architecture and site planning of 41 single-family residential lots and communal areas, subject to conditions of approval.

Summary

The applicant, Woodside 05s, LP, has submitted an application (PLN23-20043) for a tentative tract map (TTM 38167) to subdivide a single 10-acre partially developed lot (8.28 net acres) into forty-one (41) single family residential lots and three (3) lettered lots on property located north of Orange Street, south of Schleisman Road, east of Quarter Horse Drive and west of Scholar Way, identified as Assessor's Parcel Number 152-040-003. The marketing name for the project is "Magnolia Ranch." In addition to the tentative subdivision map, the project's land use application includes a Major Development Review for the architectural design and site planning of the community, new paseos

connecting Schleisman Road and Orange Street, as well as public benefit infrastructure improvements along Orange Street. The project is subject to Senate Bill 330, which requires the city to approve the project at the density permitted by the General Plan designation of the subject site. The requested entitlements are considered the "Project" under PLN23-20043. The Project is commonly referred to as "Magnolia Ranch."

Background

On May 6, 2021, MLC Holdings Inc. submitted an application (PLN21-20024) for a General Plan Amendment, Change of Zone, Major Development Review, and tentative tract map to subdivide (for condominium purposes) 10 acres of partially developed property into a single lot for development of 39 two-story motor court detached cluster homes and 89 three-story townhomes on the property located north of Orange Street, south of Schleisman Road, east of Quarter Horse Drive and west of Scholar Way, identified as Assessor's Parcel Number 152-040-003. Based on community feedback on the proposed density and proximity to the local schools, the applicant formally withdrew the application and submitted a revised project (PLN22-20024), effectively reducing the project density to take advantage of the provisions of Senate Bill 330 (SB 330). A summary of SB 330 can be found below.

The revised project (PLN22-20024), submitted on April 20, 2022, included a tentative tract map subdividing the 10-acre lot (8.28 net acres) into forty-one (41) single family residential lots and three (3) lettered lots. Staff reviewed the proposed project, prepared a Draft Initial Study/Mitigated Negative Declaration, deemed the project complete, and found it to be compliant with SB 330. The item was scheduled for the September 21, 2022, Planning Commission meeting; however, prior to the meeting, the applicant formally withdrew the application citing difficulty with the property owner. Following the withdrawal, MLC Holdings Inc. sold the project to Woodside Homes 05s, LP who has subsequently submitted the current request (PLN23-20043), a tentative tract map subdividing the 10-acre lot (8.28 net acres) into forty-one (41) single family residential lots and three (3) lettered lots under the provisions of SB 330. The requested entitlements are considered the "Project" under PLN23-20043. The Project is commonly referred to as "Magnolia Ranch."

California Senate Bill 330, "The Housing Crisis Act of 2019," (**Attachment 1**) was signed into law by Governor Newsom on October 9, 2019, and became effective January 1, 2020. SB 330 has two key phases: a pre-application phase and a formal submittal phase. The purpose of the pre-application phase is to collect specific site and project information to determine the zoning, design, subdivision, and fee requirements that will apply to the housing development project throughout the review and entitlement process. The day the pre-application is filed with the City, the City is required to vest the project and "freeze" all site development and design standards plus other land use related regulation that can be imposed on the project. The city is prohibited from applying new ordinance, polices, standards and/or fee increases to the development.

Under the provisions of SB 330, the city must give an applicant statutory rights to vest upon application submittal regardless of application completeness. The city can ask for only certain information during the pre-application phase. This provides some guarantees to the applicant that the city requirements will not be changed mid-review. The City may request compliance with design requirements during the formal submittal process.

The applicant is required to submit a formal application for a development project within 180

calendar days of submitting a complete preliminary application to preserve its vested rights. If the city determines that the application for the development project is not complete, the applicant is required to submit the specific information needed to complete the application within 90 days of receiving the agency's written identification of the necessary information. If the development proponent does not submit this information within the 90-day period, the preliminary application expires and has no further force or effect.

During the "formal submittal" phase, the city may hold no more than five (5) public meetings or hearings in connection with the project's approval. SB 330 was written very broadly to include community meetings, and study sessions in this definition. The city must account for any potential appeals, which count toward the five (5) public meeting or hearing maximum.

SB 330 requires the city to approve the project at the density proposed when a proposed housing development project complies with applicable, objective General Plan, zoning, and subdivision standards and criteria, including design review standards in effect at the time that the application was deemed complete. To take advantage of SB 330, the applicant cannot proposed densities higher than the project site's current General Plan designation.

If a local agency proposes to disapprove a project or to impose a condition that the project be developed at a lower density, the local agency shall base its decision regarding the proposed housing development project upon written findings supported by a preponderance of the evidence on the record that the housing development project would have a specific, adverse impact upon the public health or safety.

Analysis

Tentative Tract Map No. 38167

The applicant has submitted an application for a tentative tract map (TTM 38167) to subdivide a single 10-acre partially developed lot (8.28 net acres) into forty-one (41) single family residential lots and three (3) lettered lots for the purposes of water quality, common open space and pedestrian corridors on the project site and within the A-2 Heavy Agriculture zone. At present, the project site is developed with a 5,300 square foot vacant ranch-style home, an open-faced barn and several corrals, all of which would be demolished with the development of the proposed tract.

Municipal Code requirements pertaining to subdivisions (Tract Maps and/or Parcel Maps) are governed by the Subdivision Map Act (State of California Government Code § 66410-66499.58), and Title 130 (Subdivision) of the Eastvale Municipal Code. Furthermore, all subdivision maps must comply with the provisions of the City Zoning Code, and all other ordinances, statutes and laws pertaining to the use, sale, leasing or subdivision of land.

General Plan Consistency

The subject property is classified as Medium Density Residential in the Eastvale General Plan. This classification allows up to a maximum of five (5) dwelling units per acre. Tentative Tract Map No. 38167 (**Attachment 2**) proposes a density of 4.95 du/ac (i.e., 41 residential lots ÷ 8.28 acres = 4.95 du/ac), in accordance with the permitted density for the site per the General Plan.

Zoning Code Compliance

The property is zoned A-2 Heavy Agriculture. This designation is intended as an area for large lot single-family residential units with minimum lots sizes of 20,000 square feet and maximum density of 1.1-2 dwelling units per acre.

As proposed, TTM 38167 does not conform to the development standards in the A-2 zone in that the 41 proposed parcels do not satisfy the minimum lot size of 20,000 square feet, lot width of 100 feet, and lot depth of 150 feet. The smallest lots comprising TTM 38167 have minimums of 4,494 square feet in size, 47 feet in width, and 78 feet in depth.

However, under the provisions of SB 330 a housing development cannot be required to rezone the property if it is consistent with the objective General Plan standards for the property. As stated above the proposed project complies with the standards of the General Plan. The proposed development also needs to comply with the objective zoning code standards applicable to the property, but only to the extent they facilitate the development at the density allowed by the General Plan.

Since the development standards of the A-2 zone would preclude the development of the site at the density permitted by the General Plan, the applicant designed the community to reflect the development standards of the R-3 zone outlined in Table 3.2-2 of the Eastvale Zoning Code to the greatest extent feasible. While the minimum lot size, width, and depth of the proposed lots do not meet all the minimum standards outlined in Table 3.2-2 for the R-3 zone, the R-3 zone provides the smallest lot sizes, as well as the smallest widths and depths standards for single family detached residential units. Although the proposed lots are unable to meet the minimum lot dimensions for the R-3 zone, the site planning of the community (i.e., plotting) does comply with the setback and height standards of the R-3 zone, this will be discussed in greater detail later in this report. For these reasons, staff believes the project meets the intent of SB 330.

Access and Circulation

Access to the tract is proposed via a single-entry driveway along Orange Street. The entry road (i.e., Street "A") would extend into the site a distance of approximately 120 feet where it intersects a loop road providing vehicular access to all units within the project. At this key vantage point, the applicant proposes to locate community open space (i.e., Lot A). The entry road would include decorative paving treatment, community identification signage, and enhanced landscape nodes at either side to create an attractive "grand entry." The streets are designed with a 36-foot paved section within a 56-foot-wide right-of-way, which meets minimum street standards. A 5-foot sidewalk and 5-foot landscaped area within the public right-of-way is also proposed. The City Engineer and public safety have reviewed the proposed project access and on-site circulation design and support the design.

Grading and Drainage

The subject site is generally flat and presently drains in a sheet flow manner consistent with the existing topography of the property from north to south to an existing onsite lateral which ties into the existing storm drain system in Orange Street. The existing storm drain system runs across the site's frontage beginning as a 42" and transitioning to a 48" part way through the site.

Regional water quality regulations require storage and treatment of stormwater on-site to the maximum extent feasible in order to reduce pollutant loads, prior to discharge downstream. Accordingly, the applicant's Preliminary Water Quality Management Plan (PWQMP) proposes Low

Impact Design (LID) measures to meet performance criteria. The project proposes to treat storm water runoff with two (2) below surface retention/infiltration chamber systems. Once the retention/infiltration chamber system reaches capacity, it will overflow into the onsite storm drain system and finally drain to the existing storm drain system in Orange Street via a proposed 30-inch lateral.

The Engineering Division has reviewed the proposed grading and drainage plan for the project and has not expressed any concerns regarding the proposed design. Standard conditions of approval have been suggested that require final grading and drainage plans and the final Water Quality Management Plan (WQMP) to be reviewed and approved by the City Engineer prior to issuance of a grading permit.

Circulation

As part of the California Environmental Quality Act (CEQA) environmental analysis prepared for the project, Urban Crossroads Traffic Engineers prepared a Traffic Analysis for the proposed project (Attachment 8). The purpose of the traffic analysis is to identify potential traffic and circulation impacts associated with the development of the project. The traffic analysis examines six (6) scenarios:

- Existing Conditions
- Existing plus project conditions
- opening year (2025) conditions
- opening year (2025) plus project conditions
- horizon year (2040) conditions
- horizon year (2040) plus project conditions

The traffic analysis also studied eight (8) intersections:

- Sumner Avenue/Schleisman Road
- Sumner Avenue/Orange Street
- Driveway 1/Orange Street
- Scholar Way/Schleisman Road
- Scholar Way/Orange Street
- Scholar Way/Baltimore Street
- Scholar Way/Citrus Street
- Hamner Avenue/Schleisman Road

The aforementioned roadways were identified as key pathways of travel in the vicinity of the proposed project. To assess the traffic impacts anticipated for the project, trip generation rates were assigned using the Institute of Transportation Engineers, Trip Generation Manual, 11th Edition, 2017. On this basis, the proposed number of dwelling units (41) would be projected to generate 388 average daily vehicle trips with 28 peak hour trips occurring during the morning peak hour and 38 peak hour trips occurring during the evening peak hour.

To determine the effect that the proposed project's traffic would have on roadway function, the study employed the technique of Intersection Capacity Utilization (ICU), which compares the volume of traffic using an intersection to the capacity of the intersection, and which is expressed as a Level of Service (LOS) value from LOS A (free-flow conditions) through LOS F (extreme congestion and

system failure).

According to the Traffic Analysis (**Attachment 8**), under all scenarios acceptable LOS will be found with the implementation of the following roadway improvements: installing a stop sign for egress traffic from the proposed project at Driveway 1 on Orange Street (Mitigation Measure TRA-1) and constructing Orange Street from the western project boundary to the eastern project boundary at its ultimate half-section width as a 2-lane collector (74-foot right-of-way), in compliance with the General Plan (Mitigation Measure TRA-2).

The City Traffic Engineer has reviewed the project proposal and has determined that the surrounding public street circulation system is designed to accommodate the level of development proposed. Furthermore, the City Traffic Engineer is satisfied that the proposed project will not adversely impact traffic circulation along the surrounding streets nor will it compromise the level of traffic/pedestrian safety in the area.

Noise

In general, construction activities on the project site would increase ambient noise levels in the vicinity on an intermittent but temporary basis. Noise levels during construction would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptors (i.e., neighboring residences and schools in the vicinity), and the presence or absence of barriers between the noise source and receptors. Staff notes that construction related noise is exempt from the City's noise control ordinance, provided that construction noise occurs between 6:00 a.m. and 6:00 p.m. June through September and between 7:00 a.m. and 6:00 p.m. October through May. Staff has also included a condition of approval reiterating allowable construction hours and emphasizing the sensitivity of this issue to surrounding neighboring residents and the schools.

It is anticipated that the primary source of noise impacts to the project site would be traffic noise from Schleisman Road that is adjacent to the north side of the project site. The exterior noise levels have been calculated (**Attachment 7**) for the backyards of representative homes that are adjacent to Schleisman Road. The calculated noise levels for the backyards, that are adjacent to Schleisman Road show that without a sound wall, noise levels at all backyards adjacent to Schleisman Road would exceed the City's residential exterior noise standard of 60 dBA CNEL and would be considered a significant impact. The proposed homes would also experience some background traffic noise impacts from the proposed project's internal roadways and from Orange Street that is adjacent to the south side of the project site. As traffic on these local streets would consist of low traffic volumes at slower speeds, the traffic noise from these roads would not make a significant contribution to the noise environment.

The Draft Initial Study/Mitigated Negative Declaration identified that with the implementation of Mitigation Measure MM NOI-1 (which requires the installation of a 6'-6" tall concrete masonry wall along the site's northern boundary), the proposed homes exterior noise levels would be within the City's 60 dBA CNEL residential exterior noise standard and impacts would be reduced to a less than significant level. As such, the project has been conditioned to include a 6'-6" high split face block wall along the northern project boundary.

Public Infrastructure

Implementation of the proposed project will result in additional demand on existing public services,

including demand for fire and police services. However, as concluded in the Draft Initial Study/Mitigated Negative Declaration, this increase in demand can be accommodated by existing service levels, and therefore would be less than a significant impact. Additionally, the increase in demand to the utilities, i.e., water, gas, power, sewer, can be accommodated by existing service levels as there is sufficient capacity to serve the project site under present conditions. Jurupa Valley Community Services District (JCSD) has provided a will-serve letter for the proposed project confirming availability of sufficient water supply to serve the project.

In addition, Riverside County Fire Department has reviewed the proposed site plan for fire/emergency access and did not identify any significant issues of concern that would require further submittals to Riverside County Fire Department subsequent to any approval of the project granted by the City. Riverside County Fire Department suggest applicable standard conditions of approval, which staff has included in the attached conditions of approval.

Schools
The proposed project would not include significant or unplanned population growth as the proposed project is consistent with the General Plan. The project would be required to comply with SB 50 requirements, which allow school districts to collect impact fees from developers of new projects. According to Section 65997 of the California Government Code, payment of statutory fees is the exclusive method of mitigating environmental effects related to the adequacy of school facilities. Thus, upon payment of required fees by the applicant consistent with existing State requirements, impacts would be less than significant. Furthermore, Corona-Norco Unified School District has not expressed any issues of concern regarding the additional new homes.

Parks and Recreation
The proposed project will contribute to the need for additional park facilities in the general area; however, this impact will be fully mitigated through the development of Lot A and Lot C of Tentative Tract Map 38167. The project contains outdoor open space comprised of a 26,872 square foot common area (i.e., Lot A) with corn hole, picnic tables, outdoor seating, a shaded read nook and a succulent garden walk to be maintained by the future homeowners' association. At the request of the City, the applicant has agreed to grant a 30' wide trail easement (16,390 square feet) along the eastern project boundary (i.e., Lot C) for public use. This 30' paseo adjacent to Eastvale Elementary School will serve as a protected safe route to and from school. The paseo is designed to alleviate foot traffic along Scholar Way, with the intent to have parents drop off/pick up children at a new drop off/pick up zone being designed by Public Works along Schleisman Road and the project site's north boundary (i.e., public right-of-way). As a result of Lot A and Lot C, the applicant has satisfied its required park land dedication in accordance with Section 130.20.020 of the Eastvale Municipal Code.

Major Development Review

In order to safeguard and enhance the appearance and quality of development in the City of Eastvale, Section 120.02.010 of the Eastvale Zoning Code requires Major Development Review approval for any new single-family subdivision development. This scope of review is outline in the aforementioned code section, and includes, but is not limited to, exterior design, materials, textures, colors, as well as ensuring the proposed structures will be property related to the site and to the surrounding site in order to prevent structures detrimental to the character of the buildings already established in the area. The proposed project has been reviewed for compliance with the applicable

development standards and required findings for a Major Development Review as set forth in Section 120.02.010 (C)(5) of the Eastvale Zoning Code. The required findings are detailed in **Attachment 4 – Draft Resolution**.

Architecture and Treatments
As proposed, the forty-one (41) single-family homes are designed with quality urban design, architecture and landscaping that includes providing pedestrian and open space connectivity within the community, local schools and Schleisman Road and Orange Street. Based on staff's review, the project is consistent with the Eastvale Design Guidelines.

The applicant is proposing two (2) different model home plans. The table below provides a summary description of the models proposed:

Plan	Square Footages	No. of Stories	No. of Bedrooms	No. of Bathrooms	Garage Parking
Plan 4524	2,833	2	5	3.75	2/661 ft^2
Plan 4528	3,153	2	5	4.25	2/646 ft^2

In addition to the two (2) different plan types, the following three (3) architectural styles are also proposed as part of the master architecture:

- Coastal
- Contemporary
- Farmhouse

Included in the development plans (**Attachment 2**) the applicant proposes a total of nine (9) different color schemes, nine (9) different trim and siding colors, six (6) stone/brick accents, and (9) different roofing material types proposed for the above models. Additional architectural details include window shutters, wood siding, pronounced windowsills and ledges, board and batten, and decorative garage doors.

The variety of options available to all plans will ensure that a rich diversity of colors and materials will be apparent throughout the community. The illustrative color elevations contained within the project plan set provide further details regarding these proposed options. In addition, enhanced architectural treatments will be provided on those elevations that are visible from public views along Orange Street and Schleisman Road as well as the community open space and proposed trail.

Site Planning
Staff reviewed the site plan for each of the lots under consideration as part of this Major Development Review. As noted above, the proposed development needs to comply with the objective zoning code standards applicable to the property, but only to the extent they facilitate the development at the density allowed by the General Plan.

To create consistency with the surrounding single-family residential neighborhoods, the applicant designed the community to the R-3 General Residential zone development standards and in compliance with SB 330. With the exception of the front yard setback standard, noted below, all residential units are plotted in compliance with the standards applicable to the R-3 General Residential zone. It should be further noted that only one lot (i.e., Lot 15) is unable to meet this front

yard setback standard and it is unable to meet the minimum 10' setback by a single foot. Staff is supportive of the proposed plotting as it meets the intent of SB 330 and creates a compatible development within an existing developed portion of the city.

Compliance with R-3 General Residential Development Standards			
Standard	**Required**	**Proposed**	**Meets Standard**
Front Setback	10 feet	9 feet	No
Rear Setback	None	18 feet	Yes
Side Yard Setback (Interior)	5 feet	5 feet	Yes
Side Yard Setback (Street Side)	5 feet	10 feet	Yes
Building Height	50 ft. maximum	approximately 26'-5"	Yes
Off-Street Parking	2 covered spaces minimum	2 covered spaces and 2 driveway spaces	Yes

Parking

In terms of parking, each proposed dwelling unit would include two (2) garage spaces and two driveway spaces, for a total of 164 spaces, as well as an additional 58 on-street parking spaces. Pursuant to Section 120.05.060 of the Eastvale Zoning Code, the project would exceed the City's minimum parking requirement of 82 spaces (2 spaces per dwelling unity) by 140 parking spaces.

Common Area and Paseos

Incorporated into the site planning of TTM 38167 are three (3) lettered lots designed to serve the future residents of the Magnolia Ranch as well as the public at large. Lot A provides common open space for Magnolia Ranch residents with amenities such as corn hole, picnic tables, outdoor seating, a shaded read nook and a succulent garden walk. Lot B, located at the northwest portion of the site provides a 20-foot-wide direct pedestrian access from the community to a planned linear park currently in the design phase with the Public Works Department along the south side of Schleisman Road. Finally, the applicant, in partnership with the Public Works Department, proposes Lot C, a 30-foot-wide lot running along the site's entire eastern boundary, adjacent to Eastvale Elementary School to serve as a protected safe route to and from school The paseo would consist of an 8-foot-wide sidewalk and landscaping on both sides. Designed to alleviate foot traffic along Scholar Way, a new drop off/pick up zone for students is proposed along Schleisman Road and the project site's north boundary (i.e., public right-of-way).

Walls and Landscaping

The existing perimeter fencing around the applicant's property consists of metal corral fencing and a split face block wall. There is an existing seven foot (7') tall combination split face block retaining/garden wall along the western property line enclosing the developed single-family residential tract to the west. The remainder of the project site is enclosed with a five foot (5') tall brown metal corral fence. In addition to the five foot (5') tall corral fencing, the northern boundary also contains a small two-foot-tall retaining wall to support the grade difference between the project site and Schleisman Road. The property to the east (i.e., Eastvale Elementary School) has a six foot (6') tall chain-link fence with tan slats for additional privacy and protection of the children in attendance. As part of the request, the applicant has submitted a wall and fence plan for the

Planning Commission's consideration.

The applicant proposes to construct tract perimeter fencing along the northern, eastern, and southern boundaries of the site. The proposed fencing along the eastern and southern boundaries would consist of a six-foot (6') tall split face block with a tan concrete masonry unit (CMU) cap. In order to address noise impacts assessed in the environmental review, Mitigation Measure NOI-1 requires the construction of a minimum 6.5-foot tall CMU wall on the north side of all backyards that are adjacent to Schleisman Road. Staff has included a condition of approval requiring the tract perimeter fencing on Lots 9-15 and Lots 27 and 28 to consist of a 6.5-foot tall split face block with a tan CMU cap to be consistent with the tract perimeter fencing proposed along the east and south boundaries and comply with Mitigation Measure NOI-1. The existing combination split face block retaining/garden wall with CMU cap along the western boundary will remain.

At the recommendation of the Riverside County Sheriff's Office (RSO), the six foot (6') tall chain-link fence adjacent to the school and eastern boundary of the site is proposed to remain. Block walls on the east and west side of the paseo would create visibility concerns and public safety challenges for RSO. Finally, property walls for individual lots will consist of 5'6" tall tan vinyl fencing with return walls, visible from the public right-of-way consisting of six foot (6') tall split face block with tan vinyl gates.

Landscaped areas of the tract include the south (i.e., Orange Street) and east (i.e., 30' wide paseo) boundaries of the site in addition to Lot A, the common area located within the center of the tract as well as the 20-foot paseo located in the northwest portion of the site (**Attachment 2**). Lot A is a communal area to be owned and maintained by the future Homeowners' Association. As depicted on the Schematic Landscape Plan, Lot A would be landscaped with trees such as Specimen Magnolia, California Sycamore, Italian Cyprus, and citrus trees, a variety of shrubs such as Kangaroo Paw, Bougainvillea, and agave and ground covers such as turf, decomposed granite, and colored concrete. The project frontage (i.e., Orange Street) will be planted with Specimen Magnolia trees, the community's namesake, along with City approved street trees. Lot C, the Paseo, will be landscaped by the applicant to be consistent with the conceptual landscape plans for the future Schleisman Road Linear Park and maintained by the City to ensure long term maintenance and public safety. Finally, per the City of Eastvale's Residential Design Standards and Guidelines, each lot is required to plant a minimum of one (1) yard tree. The project proposes Australian Willow and Crape Myrtle yard trees to meet this requirement.

Overall, staff believes that the proposed landscape and wall plans are satisfactory. They are consistent with other approved tract wall/landscape plans and will ensure aesthetic treatment of the tracts common open space areas and other perimeter (publicly visible) portions of the tract, and will support a high-quality community design, similar to other developments areas throughout the city. A final landscape plan will be reviewed during the building permit process to ensure that the details of the proposed landscape plan comply with the City landscape regulations.

Public Hearing Notification and Comment

Consistent with state-mandated public noticing procedures, all legal property owners within 600-feet of the project site were sent a joint, Notice of Intent to Adopt a Mitigated Negative Declaration and public hearing notice for this project by direct mail on September 25, 2023, for the Planning Commission meeting on October 18, 2023. A map showing the properties that received notification are included as **Attachment 9** to this staff report. In addition, a public notice regarding the project

was duly published in the Press Enterprise on September 28, 2023. As of this writing, staff has not received any correspondence supporting or objecting to the proposed project.

Additionally, on August 15, 2023, the applicant provided all property owners within 600 feet of the project site a community outreach flyer (**Attachment 11**). The flyer introduced the project with the proposed site plan, architectural elevations, and a series of frequently asked questions. Additionally, project contact information was given to the residents extending an opportunity to schedule private meetings to discuss the project in more detail should additional questions arise. As of the writing, the applicant confirmed they met with a total of four residents, each providing positive feedback.

Environmental

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15063, an Initial Study (IS) was prepared for the project to assess potential environmental impacts. The IS revealed that the project would not have any significant environmental impacts with implementation of the proposed mitigation measures. A Mitigated Negative Declaration (MND) (SCH #2023090664) was prepared and made available for public review and comment during a 20-day review period from September 28, 2023, to October 17, 2023. Notice to all interested persons and agencies inviting comments on the MND was published in accordance with the provisions of CEQA and posted at the Office of the County Clerk of Riverside County and at the State Clearinghouse on September 28, 2023. The MND does not set forth policy for the City of Eastvale about the proposed Project's desirability. Rather, it is an information document to be used by decision-makers, public agencies, and the public, in accordance with the CEQA. The IS/MND has been included as **Attachment 3** of this report.

Strategic Plan Action - Priority Level: N/A | Target #: B | Goal #: E

Diversify the housing stock with more options.

Fiscal Impact

Processing the proposed applications will have little to no fiscal impact on the City as the project is funded by the applicant.

Prior City Council/Commission Action

On September 21, 2022, Planning Commission removed Item 8.1 PLN22-20024- Tentative Tract Map 38167 and Major Development Review for Magnolia Ranch Residential Development from the Planning Commission's calendar, formally accepting the applicant's request to withdraw the project.

Attachment(s)

Attachment 1 - Senate Bill 330
Attachment 2 - Development Plans
Attachment 3 - Draft IS-MND with Appendices
Attachment 4 - Draft Resolution
Attachment 5 - Conditions of Approval (TTM)
Attachment 6 - Conditions of Approval (MDR)
Attachment 7- Noise Impact Analysis
Attachment 8 - Traffic Impact Analysis
Attachment 9 - Radius map
Attachment 10 - NOI and Notice of Public Hearing

Attachment 11 - Community Outreach Flyer

Senate Bill No. 330

CHAPTER 654

An act to amend Section 65589.5 of, to amend, repeal, and add Sections 65940, 65943, and 65950 of, to add and repeal Sections 65905.5, 65913.10, and 65941.1 of, and to add and repeal Chapter 12 (commencing with Section 66300) of Division 1 of Title 7 of, the Government Code, relating to housing.

[Approved by Governor October 09, 2019. Filed with Secretary of State October 09, 2019.]

LEGISLATIVE COUNSEL'S DIGEST

SB 330, Skinner. Housing Crisis Act of 2019.

(1) The Housing Accountability Act, which is part of the Planning and Zoning Law, prohibits a local agency from disapproving, or conditioning approval in a manner that renders infeasible, a housing development project for very low, low-, or moderate-income households or an emergency shelter unless the local agency makes specified written findings based on a preponderance of the evidence in the record. The act specifies that one way to satisfy that requirement is to make findings that the housing development project or emergency shelter is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation as specified in any element of the general plan as it existed on the date the application was deemed complete. The act requires a local agency that proposes to disapprove a housing development project that complies with applicable, objective general plan and zoning standards and criteria that were in effect at the time the application was deemed to be complete, or to approve it on the condition that it be developed at a lower density, to base its decision upon written findings supported by substantial evidence on the record that specified conditions exist, and places the burden of proof on the local agency to that effect. The act requires a court to impose a fine on a local agency under certain circumstances and requires that the fine be at least $10,000 per housing unit in the housing development project on the date the application was deemed complete.

This bill, until January 1, 2025, would specify that an application is deemed complete for these purposes if a preliminary application was submitted, as described below.

Existing law authorizes the applicant, a person who would be eligible to apply for residency in the development or emergency shelter, or a housing organization to bring an action to enforce the Housing Accountability Act. If, in that action, a court finds that a local agency failed to satisfy the requirement to make the specified findings described above, existing law requires the court to issue an order or judgment compelling compliance with the act within 60 days, as specified.

This bill, until January 1, 2025, would additionally require a court to issue the order or judgment previously described if the local agency required or attempted to require certain housing development projects to comply with an ordinance, policy, or standard not adopted and in effect when a preliminary application was submitted.

Existing law authorizes a local agency to require a housing development project to comply with objective, quantifiable, written development standards, conditions, and policies appropriate to, and consistent with, meeting the jurisdiction's share of the regional housing need, as specified.

This bill, until January 1, 2025, would, notwithstanding those provisions or any other law and with certain exceptions, require that a housing development project only be subject to the ordinances, policies, and standards

adopted and in effect when a preliminary application is submitted, except as specified.

(2) The Planning and Zoning Law, except as provided, requires that a public hearing be held on an application for a variance from the requirements of a zoning ordinance, an application for a conditional use permit or equivalent development permit, a proposed revocation or modification of a variance or use permit or equivalent development permit, or an appeal from the action taken on any of those applications. That law requires that notice of a public hearing be provided in accordance with specified procedures.

This bill, until January 1, 2025, would prohibit a city or county from conducting more than 5 hearings, as defined, held pursuant to these provisions, or any other law, ordinance, or regulation requiring a public hearing, if a proposed housing development project complies with the applicable, objective general plan and zoning standards in effect at the time an application is deemed complete, as defined. The bill would require the city or county to consider and either approve or disapprove the housing development project at any of the 5 hearings consistent with the applicable timelines under the Permit Streamlining Act.

(3) The Permit Streamlining Act, which is part of the Planning and Zoning Law, requires each state agency and each local agency to compile one or more lists that specify in detail the information that will be required from any applicant for a development project. That law requires the state or local agency to make copies of this information available to all applicants for development projects and to any persons who request the information.

The bill, until January 1, 2025, for purposes of any state or local law, ordinance, or regulation that requires a city or county to determine whether the site of a proposed housing development project is a historic site, would require the city or county to make that determination, which would remain valid for the pendency of the housing development, at the time the application is deemed complete, except as provided. The bill, until January 1, 2025, would also require that each local agency make copies of any above-described list with respect to information required from an applicant for a housing development project available both (A) in writing to those persons to whom the agency is required to make information available and (B) publicly available on the internet website of the local agency.

The Permit Streamlining Act requires public agencies to approve or disapprove of a development project within certain timeframes, as specified. The act requires a public agency, upon its determination that an application for a development project is incomplete, to include a list and a thorough description of the specific information needed to complete the application. Existing law authorizes the applicant to submit the additional material to the public agency, requires the public agency to determine whether the submission of the application together with the submitted materials is complete within 30 days of receipt, and provides for an appeal process from the public agency's determination. Existing law requires a final written determination by the agency on the appeal no later than 60 days after receipt of the applicant's written appeal.

This bill, until January 1, 2025, would provide that a housing development project, as defined, shall be deemed to have submitted a preliminary application upon providing specified information about the proposed project to the city or county from which approval for the project is being sought. The bill would require each local agency to compile a checklist and application form that applicants for housing development projects may use for that purpose and would require the Department of Housing and Community Development to adopt a standardized form for applicants seeking approval from a local agency that has not developed its own application form. After the submittal of a preliminary application, the bill would provide that a housing development project would not be deemed to have submitted a preliminary application under these provisions if the development proponent revises the project such that the number of residential units or square footage of construction changes by 20% or more until the development proponent resubmits the information required by the bill so that it reflects the revisions. The bill would require a development proponent to submit an application for a development project that includes all information necessary for the agency to review the application under the Permit Streamlining Act within 180 days of submitting the preliminary application.

The bill, until January 1, 2025, would require the lead agency, as defined, if the application is determined to be incomplete, to provide the applicant with an exhaustive list of items that were not complete, as specified.

The Permit Streamlining Act generally requires that a public agency that is the lead agency for a development project approve or disapprove a project within 120 days from the date of certification by the lead agency of an environmental impact report prepared for certain development projects, but reduces this time period to 90 days from the certification of an environmental impact report for development projects meeting certain additional conditions relating to affordability. Existing law defines “development project” for these purposes to mean a use consisting of either residential units only or mixed-use developments consisting of residential and nonresidential uses that satisfy certain other requirements.

This bill, until January 1, 2025, would reduce the time period in which a lead agency under these provisions is required to approve or disapprove a project from 120 days to 90 days, for a development project generally described above, and from 90 days to 60 days, for a development project that meets the above-described affordability conditions. The bill would recast the definition of “development project” for these purposes to mean a housing development project, as defined in the Housing Accountability Act.

(4) The Planning and Zoning Law, among other things, requires the legislative body of each county and city to adopt a comprehensive, long-term general plan for the physical development of the county or city and of any land outside its boundaries that relates to its planning. That law authorizes the legislative body, if it deems it to be in the public interest, to amend all or part of an adopted general plan, as provided. That law also authorizes the legislative body of any county or city, pursuant to specified procedures, to adopt ordinances that, among other things, regulate the use of buildings, structures, and land as between industry, business, residences, open space, and other purposes.

This bill, until January 1, 2025, with respect to land where housing is an allowable use, except as specified, would prohibit a county or city, including the electorate exercising its local initiative or referendum power, in which specified conditions exist, determined by the Department of Housing and Community Development as provided, from enacting a development policy, standard, or condition, as defined, that would have the effect of (A) changing the land use designation or zoning of a parcel or parcels of property to a less intensive use or reducing the intensity of land use within an existing zoning district below what was allowed under the general plan or specific plan land use designation and zoning ordinances of the county or city as in effect on January 1, 2018; (B) imposing or enforcing a moratorium on housing development within all or a portion of the jurisdiction of the county or city, except as provided; (C) imposing or enforcing new design standards established on or after January 1, 2020, that are not objective design standards, as defined; or (D) establishing or implementing certain limits on the number of permits issued by, or the population of, the county or city, unless the limit was approved prior to January 1, 2005, in a predominantly agricultural county, as defined. The bill would, notwithstanding these prohibitions, allow a city or county to prohibit the commercial use of land zoned for residential use consistent with the authority of the city or county conferred by other law. The bill would state that these prohibitions would apply to any zoning ordinance adopted or amended on or after the effective date of these provisions, and that any development policy, standard, or condition on or after that date that does not comply would be deemed void.

This bill would also require a project that requires the demolition of housing to comply with specified requirements, including the provision of relocation assistance and a right of first refusal in the new housing to displaced occupants, as provided. The bill would provide that these provisions do not supersede any provision of a locally adopted ordinance that places greater restrictions on the demolition of residential dwelling units or that requires greater relocation assistance to displaced households. The bill would require a county or city subject to these provisions to include information necessary to determine compliance with these provisions in the list or lists that specify the information that will be required from any applicant for a development project under the Permit Streamlining Act.

The bill would state that these prohibitions would prevail over any conflicting provision of the Planning and Zoning Law or other law regulating housing development in this state, except as specifically provided. The bill would also require that any exception to these provisions, including an exception for the health and safety of occupants of a housing development project, be construed narrowly.

(5) This bill would include findings that the changes proposed by this bill address a matter of statewide concern rather than a municipal affair and, therefore, apply to all cities, including charter cities.

(6) By imposing various new requirements and duties on local planning officials with respect to housing development, and by changing the scope of a crime under the State Housing Law, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that with regard to certain mandates no reimbursement is required by this act for a specified reason.

With regard to any other mandates, this bill would provide that, if the Commission on State Mandates determines that the bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

(7) This bill would provide that its provisions are severable.

Digest Key

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: yes

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Bill Text

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. This act shall be known, and may be cited, as the Housing Crisis Act of 2019.

SEC. 2. (a) The Legislature finds and declares the following:

(1) California is experiencing a housing supply crisis, with housing demand far outstripping supply. In 2018, California ranked 49th out of the 50 states in housing units per capita.

(2) Consequently, existing housing in this state, especially in its largest cities, has become very expensive. Seven of the 10 most expensive real estate markets in the United States are in California. In San Francisco, the median home price is $1.6 million.

(3) California is also experiencing rapid year-over-year rent growth with three cities in the state having had overall rent growth of 10 percent or more year-over-year, and of the 50 United States cities with the highest United States rents, 33 are cities in California.

(4) California needs an estimated 180,000 additional homes annually to keep up with population growth, and the Governor has called for 3.5 million new homes to be built over the next 7 years.

(5) The housing crisis has particularly exacerbated the need for affordable homes at prices below market rates.

(6) The housing crisis harms families across California and has resulted in all of the following:

(A) Increased poverty and homelessness, especially first-time homelessness.

(B) Forced lower income residents into crowded and unsafe housing in urban areas.

(C) Forced families into lower cost new housing in greenfields at the urban-rural interface with longer commute times and a higher exposure to fire hazard.

(D) Forced public employees, health care providers, teachers, and others, including critical safety personnel, into more affordable housing farther from the communities they serve, which will exacerbate future disaster response challenges in high-cost, high-congestion areas and increase risk to life.

(E) Driven families out of the state or into communities away from good schools and services, making the ZIP Code where one grew up the largest determinate of later access to opportunities and social mobility, disrupting family life, and increasing health problems due to long commutes that may exceed three hours per day.

(7) The housing crisis has been exacerbated by the additional loss of units due to wildfires in 2017 and 2018, which impacts all regions of the state. The Carr Fire in 2017 alone burned over 1,000 homes, and over 50,000 people have been displaced by the Camp Fire and the Woolsey Fire in 2018. This temporary and permanent displacement has placed additional demand on the housing market and has resulted in fewer housing units available for rent by low-income individuals.

(8) Individuals who lose their housing due to fire or the sale of the property cannot find affordable homes or rental units and are pushed into cars and tents.

(9) Costs for construction of new housing continue to increase. According to the Terner Center for Housing Innovation at the University of California, Berkeley, the cost of building a 100-unit affordable housing project in the state was almost $425,000 per unit in 2016, up from $265,000 per unit in 2000.

(10) Lengthy permitting processes and approval times, fees and costs for parking, and other requirements further exacerbate cost of residential construction.

(11) The housing crisis is severely impacting the state’s economy as follows:

(A) Employers face increasing difficulty in securing and retaining a workforce.

(B) Schools, universities, nonprofits, and governments have difficulty attracting and retaining teachers, students, and employees, and our schools and critical services are suffering.

(C) According to analysts at McKinsey and Company, the housing crisis is costing California $140 billion a year in lost economic output.

(12) The housing crisis also harms the environment by doing both of the following:

(A) Increasing pressure to develop the state’s farmlands, open space, and rural interface areas to build affordable housing, and increasing fire hazards that generate massive greenhouse gas emissions.

(B) Increasing greenhouse gas emissions from longer commutes to affordable homes far from growing job centers.

(13) Homes, lots, and structures near good jobs, schools, and transportation remain underutilized throughout the state and could be rapidly remodeled or developed to add affordable homes without subsidy where they are needed with state assistance.

(14) Reusing existing infrastructure and developed properties, and building more smaller homes with good access to schools, parks, and services, will provide the most immediate help with the lowest greenhouse gas footprint to state residents.

(b) In light of the foregoing, the Legislature hereby declares a statewide housing emergency, to be in effect until January 1, 2025.

(c) It is the intent of the Legislature, in enacting the Housing Crisis Act of 2019, to do both of the following:

(1) Suspend certain restrictions on the development of new housing during the period of the statewide emergency described in subdivisions (a) and (b).

(2) Work with local governments to expedite the permitting of housing in regions suffering the worst housing shortages and highest rates of displacement.

SEC. 3. Section 65589.5 of the Government Code is amended to read:

65589.5. (a) (1) The Legislature finds and declares all of the following:

(A) The lack of housing, including emergency shelters, is a critical problem that threatens the economic, environmental, and social quality of life in California.

(B) California housing has become the most expensive in the nation. The excessive cost of the state's housing supply is partially caused by activities and policies of many local governments that limit the approval of housing, increase the cost of land for housing, and require that high fees and exactions be paid by producers of housing.

(C) Among the consequences of those actions are discrimination against low-income and minority households, lack of housing to support employment growth, imbalance in jobs and housing, reduced mobility, urban sprawl, excessive commuting, and air quality deterioration.

(D) Many local governments do not give adequate attention to the economic, environmental, and social costs of decisions that result in disapproval of housing development projects, reduction in density of housing projects, and excessive standards for housing development projects.

(2) In enacting the amendments made to this section by the act adding this paragraph, the Legislature further finds and declares the following:

(A) California has a housing supply and affordability crisis of historic proportions. The consequences of failing to effectively and aggressively confront this crisis are hurting millions of Californians, robbing future generations of the chance to call California home, stifling economic opportunities for workers and businesses, worsening poverty and homelessness, and undermining the state's environmental and climate objectives.

(B) While the causes of this crisis are multiple and complex, the absence of meaningful and effective policy reforms to significantly enhance the approval and supply of housing affordable to Californians of all income levels is a key factor.

(C) The crisis has grown so acute in California that supply, demand, and affordability fundamentals are characterized in the negative: underserved demands, constrained supply, and protracted unaffordability.

(D) According to reports and data, California has accumulated an unmet housing backlog of nearly 2,000,000 units and must provide for at least 180,000 new units annually to keep pace with growth through 2025.

(E) California's overall homeownership rate is at its lowest level since the 1940s. The state ranks 49th out of the 50 states in homeownership rates as well as in the supply of housing per capita. Only one-half of California's households are able to afford the cost of housing in their local regions.

(F) Lack of supply and rising costs are compounding inequality and limiting advancement opportunities for many Californians.

(G) The majority of California renters, more than 3,000,000 households, pay more than 30 percent of their income toward rent and nearly one-third, more than 1,500,000 households, pay more than 50 percent of their income toward rent.

(H) When Californians have access to safe and affordable housing, they have more money for food and health care; they are less likely to become homeless and in need of government-subsidized services; their children do better in school; and businesses have an easier time recruiting and retaining employees.

(I) An additional consequence of the state's cumulative housing shortage is a significant increase in greenhouse gas emissions caused by the displacement and redirection of populations to states with greater housing opportunities, particularly working- and middle-class households. California's cumulative housing shortfall therefore has not only national but international environmental consequences.

(J) California's housing picture has reached a crisis of historic proportions despite the fact that, for decades, the Legislature has enacted numerous statutes intended to significantly increase the approval, development, and affordability of housing for all income levels, including this section.

(K) The Legislature's intent in enacting this section in 1982 and in expanding its provisions since then was to significantly increase the approval and construction of new housing for all economic segments of California's communities by meaningfully and effectively curbing the capability of local governments to deny, reduce the density for, or render infeasible housing development projects and emergency shelters. That intent has not been fulfilled.

(L) It is the policy of the state that this section be interpreted and implemented in a manner to afford the fullest possible weight to the interest of, and the approval and provision of, housing.

(3) It is the intent of the Legislature that the conditions that would have a specific, adverse impact upon the public health and safety, as described in paragraph (2) of subdivision (d) and paragraph (1) of subdivision (j), arise infrequently.

(b) It is the policy of the state that a local government not reject or make infeasible housing development projects, including emergency shelters, that contribute to meeting the need determined pursuant to this article without a thorough analysis of the economic, social, and environmental effects of the action and without complying with subdivision (d).

(c) The Legislature also recognizes that premature and unnecessary development of agricultural lands for urban uses continues to have adverse effects on the availability of those lands for food and fiber production and on the economy of the state. Furthermore, it is the policy of the state that development should be guided away from prime agricultural lands; therefore, in implementing this section, local jurisdictions should encourage, to the maximum extent practicable, in filling existing urban areas.

(d) A local agency shall not disapprove a housing development project, including farmworker housing as defined in subdivision (h) of Section 50199.7 of the Health and Safety Code, for very low, low-, or moderate-income households, or an emergency shelter, or condition approval in a manner that renders the housing development project infeasible for development for the use of very low, low-, or moderate-income households, or an emergency shelter, including through the use of design review standards, unless it makes written findings, based upon a preponderance of the evidence in the record, as to one of the following:

(1) The jurisdiction has adopted a housing element pursuant to this article that has been revised in accordance with Section 65588, is in substantial compliance with this article, and the jurisdiction has met or exceeded its share of the regional housing need allocation pursuant to Section 65584 for the planning period for the income category proposed for the housing development project, provided that any disapproval or conditional approval shall not be based on any of the reasons prohibited by Section 65008. If the housing development project includes a mix of income categories, and the jurisdiction has not met or exceeded its share of the regional housing need for one or more of those categories, then this paragraph shall not be used to disapprove or

conditionally approve the housing development project. The share of the regional housing need met by the jurisdiction shall be calculated consistently with the forms and definitions that may be adopted by the Department of Housing and Community Development pursuant to Section 65400. In the case of an emergency shelter, the jurisdiction shall have met or exceeded the need for emergency shelter, as identified pursuant to paragraph (7) of subdivision (a) of Section 65583. Any disapproval or conditional approval pursuant to this paragraph shall be in accordance with applicable law, rule, or standards.

(2) The housing development project or emergency shelter as proposed would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact without rendering the development unaffordable to low- and moderate-income households or rendering the development of the emergency shelter financially infeasible. As used in this paragraph, a "specific, adverse impact" means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete. Inconsistency with the zoning ordinance or general plan land use designation shall not constitute a specific, adverse impact upon the public health or safety.

(3) The denial of the housing development project or imposition of conditions is required in order to comply with specific state or federal law, and there is no feasible method to comply without rendering the development unaffordable to low- and moderate-income households or rendering the development of the emergency shelter financially infeasible.

(4) The housing development project or emergency shelter is proposed on land zoned for agriculture or resource preservation that is surrounded on at least two sides by land being used for agricultural or resource preservation purposes, or which does not have adequate water or wastewater facilities to serve the project.

(5) The housing development project or emergency shelter is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation as specified in any element of the general plan as it existed on the date the application was deemed complete, and the jurisdiction has adopted a revised housing element in accordance with Section 65588 that is in substantial compliance with this article. For purposes of this section, a change to the zoning ordinance or general plan land use designation subsequent to the date the application was deemed complete shall not constitute a valid basis to disapprove or condition approval of the housing development project or emergency shelter.

(A) This paragraph cannot be utilized to disapprove or conditionally approve a housing development project if the housing development project is proposed on a site that is identified as suitable or available for very low, low-, or moderate-income households in the jurisdiction's housing element, and consistent with the density specified in the housing element, even though it is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation.

(B) If the local agency has failed to identify in the inventory of land in its housing element sites that can be developed for housing within the planning period and are sufficient to provide for the jurisdiction's share of the regional housing need for all income levels pursuant to Section 65584, then this paragraph shall not be utilized to disapprove or conditionally approve a housing development project proposed for a site designated in any element of the general plan for residential uses or designated in any element of the general plan for commercial uses if residential uses are permitted or conditionally permitted within commercial designations. In any action in court, the burden of proof shall be on the local agency to show that its housing element does identify adequate sites with appropriate zoning and development standards and with services and facilities to accommodate the local agency's share of the regional housing need for the very low, low-, and moderate-income categories.

(C) If the local agency has failed to identify a zone or zones where emergency shelters are allowed as a permitted use without a conditional use or other discretionary permit, has failed to demonstrate that the identified zone or zones include sufficient capacity to accommodate the need for emergency shelter identified in paragraph (7) of subdivision (a) of Section 65583, or has failed to demonstrate that the identified zone or zones can accommodate at least one emergency shelter, as required by paragraph (4) of subdivision (a) of Section 65583, then this paragraph shall not be utilized to disapprove or conditionally approve an emergency shelter

proposed for a site designated in any element of the general plan for industrial, commercial, or multifamily residential uses. In any action in court, the burden of proof shall be on the local agency to show that its housing element does satisfy the requirements of paragraph (4) of subdivision (a) of Section 65583.

(e) Nothing in this section shall be construed to relieve the local agency from complying with the congestion management program required by Chapter 2.6 (commencing with Section 65088) of Division 1 of Title 7 or the California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code). Neither shall anything in this section be construed to relieve the local agency from making one or more of the findings required pursuant to Section 21081 of the Public Resources Code or otherwise complying with the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(f) (1) Except as provided in subdivision (o), nothing in this section shall be construed to prohibit a local agency from requiring the housing development project to comply with objective, quantifiable, written development standards, conditions, and policies appropriate to, and consistent with, meeting the jurisdiction's share of the regional housing need pursuant to Section 65584. However, the development standards, conditions, and policies shall be applied to facilitate and accommodate development at the density permitted on the site and proposed by the development.

(2) Except as provided in subdivision (o), nothing in this section shall be construed to prohibit a local agency from requiring an emergency shelter project to comply with objective, quantifiable, written development standards, conditions, and policies that are consistent with paragraph (4) of subdivision (a) of Section 65583 and appropriate to, and consistent with, meeting the jurisdiction's need for emergency shelter, as identified pursuant to paragraph (7) of subdivision (a) of Section 65583. However, the development standards, conditions, and policies shall be applied by the local agency to facilitate and accommodate the development of the emergency shelter project.

(3) Except as provided in subdivision (o), nothing in this section shall be construed to prohibit a local agency from imposing fees and other exactions otherwise authorized by law that are essential to provide necessary public services and facilities to the housing development project or emergency shelter.

(4) For purposes of this section, a housing development project or emergency shelter shall be deemed consistent, compliant, and in conformity with an applicable plan, program, policy, ordinance, standard, requirement, or other similar provision if there is substantial evidence that would allow a reasonable person to conclude that the housing development project or emergency shelter is consistent, compliant, or in conformity.

(g) This section shall be applicable to charter cities because the Legislature finds that the lack of housing, including emergency shelter, is a critical statewide problem.

(h) The following definitions apply for the purposes of this section:

(1) "Feasible" means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

(2) "Housing development project" means a use consisting of any of the following:

(A) Residential units only.

(B) Mixed-use developments consisting of residential and nonresidential uses with at least two-thirds of the square footage designated for residential use.

(C) Transitional housing or supportive housing.

(3) "Housing for very low, low-, or moderate-income households" means that either (A) at least 20 percent of the total units shall be sold or rented to lower income households, as defined in Section 50079.5 of the Health

and Safety Code, or (B) 100 percent of the units shall be sold or rented to persons and families of moderate income as defined in Section 50093 of the Health and Safety Code, or persons and families of middle income, as defined in Section 65008 of this code. Housing units targeted for lower income households shall be made available at a monthly housing cost that does not exceed 30 percent of 60 percent of area median income with adjustments for household size made in accordance with the adjustment factors on which the lower income eligibility limits are based. Housing units targeted for persons and families of moderate income shall be made available at a monthly housing cost that does not exceed 30 percent of 100 percent of area median income with adjustments for household size made in accordance with the adjustment factors on which the moderate-income eligibility limits are based.

(4) "Area median income" means area median income as periodically established by the Department of Housing and Community Development pursuant to Section 50093 of the Health and Safety Code. The developer shall provide sufficient legal commitments to ensure continued availability of units for very low or low-income households in accordance with the provisions of this subdivision for 30 years.

(5) Notwithstanding any other law, until January 1, 2025, "deemed complete" means that the applicant has submitted a preliminary application pursuant to Section 65941.1.

(6) "Disapprove the housing development project" includes any instance in which a local agency does either of the following:

(A) Votes on a proposed housing development project application and the application is disapproved, including any required land use approvals or entitlements necessary for the issuance of a building permit.

(B) Fails to comply with the time periods specified in subdivision (a) of Section 65950. An extension of time pursuant to Article 5 (commencing with Section 65950) shall be deemed to be an extension of time pursuant to this paragraph.

(7) "Lower density" includes any conditions that have the same effect or impact on the ability of the project to provide housing.

(8) Until January 1, 2025, "objective" means involving no personal or subjective judgment by a public official and being uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official.

(9) Notwithstanding any other law, until January 1, 2025, "determined to be complete" means that the applicant has submitted a complete application pursuant to Section 65943.

(i) If any city, county, or city and county denies approval or imposes conditions, including design changes, lower density, or a reduction of the percentage of a lot that may be occupied by a building or structure under the applicable planning and zoning in force at the time the housing development project's application is deemed complete, that have a substantial adverse effect on the viability or affordability of a housing development for very low, low-, or moderate-income households, and the denial of the development or the imposition of conditions on the development is the subject of a court action which challenges the denial or the imposition of conditions, then the burden of proof shall be on the local legislative body to show that its decision is consistent with the findings as described in subdivision (d), and that the findings are supported by a preponderance of the evidence in the record, and with the requirements of subdivision (o).

(j) (1) When a proposed housing development project complies with applicable, objective general plan, zoning, and subdivision standards and criteria, including design review standards, in effect at the time that the application was deemed complete, but the local agency proposes to disapprove the project or to impose a condition that the project be developed at a lower density, the local agency shall base its decision regarding the proposed housing development project upon written findings supported by a preponderance of the evidence on the record that both of the following conditions exist:

(A) The housing development project would have a specific, adverse impact upon the public health or safety unless the project is disapproved or approved upon the condition that the project be developed at a lower density. As used in this paragraph, a "specific, adverse impact" means a significant, quantifiable, direct, and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete.

(B) There is no feasible method to satisfactorily mitigate or avoid the adverse impact identified pursuant to paragraph (1), other than the disapproval of the housing development project or the approval of the project upon the condition that it be developed at a lower density.

(2) (A) If the local agency considers a proposed housing development project to be inconsistent, not in compliance, or not in conformity with an applicable plan, program, policy, ordinance, standard, requirement, or other similar provision as specified in this subdivision, it shall provide the applicant with written documentation identifying the provision or provisions, and an explanation of the reason or reasons it considers the housing development to be inconsistent, not in compliance, or not in conformity as follows:

(i) Within 30 days of the date that the application for the housing development project is determined to be complete, if the housing development project contains 150 or fewer housing units.

(ii) Within 60 days of the date that the application for the housing development project is determined to be complete, if the housing development project contains more than 150 units.

(B) If the local agency fails to provide the required documentation pursuant to subparagraph (A), the housing development project shall be deemed consistent, compliant, and in conformity with the applicable plan, program, policy, ordinance, standard, requirement, or other similar provision.

(3) For purposes of this section, the receipt of a density bonus pursuant to Section 65915 shall not constitute a valid basis on which to find a proposed housing development project is inconsistent, not in compliance, or not in conformity, with an applicable plan, program, policy, ordinance, standard, requirement, or other similar provision specified in this subdivision.

(4) For purposes of this section, a proposed housing development project is not inconsistent with the applicable zoning standards and criteria, and shall not require a rezoning, if the housing development project is consistent with the objective general plan standards and criteria but the zoning for the project site is inconsistent with the general plan. If the local agency has complied with paragraph (2), the local agency may require the proposed housing development project to comply with the objective standards and criteria of the zoning which is consistent with the general plan, however, the standards and criteria shall be applied to facilitate and accommodate development at the density allowed on the site by the general plan and proposed by the proposed housing development project.

(k) (1) (A) (i) The applicant, a person who would be eligible to apply for residency in the development or emergency shelter, or a housing organization may bring an action to enforce this section. If, in any action brought to enforce this section, a court finds that any of the following are met, the court shall issue an order pursuant to clause (ii):

(I) The local agency, in violation of subdivision (d), disapproved a housing development project or conditioned its approval in a manner rendering it infeasible for the development of an emergency shelter, or housing for very low, low-, or moderate-income households, including farmworker housing, without making the findings required by this section or without making findings supported by a preponderance of the evidence.

(II) The local agency, in violation of subdivision (j), disapproved a housing development project complying with applicable, objective general plan and zoning standards and criteria, or imposed a condition that the project be developed at a lower density, without making the findings required by this section or without making findings supported by a preponderance of the evidence.

(III) (ia) Subject to sub-subclause (ib), the local agency, in violation of subdivision (o), required or attempted to require a housing development project to comply with an ordinance, policy, or standard not adopted and in effect when a preliminary application was submitted.

(ib) This subclause shall become inoperative on January 1, 2025.

(ii) If the court finds that one of the conditions in clause (i) is met, the court shall issue an order or judgment compelling compliance with this section within 60 days, including, but not limited to, an order that the local agency take action on the housing development project or emergency shelter. The court may issue an order or judgment directing the local agency to approve the housing development project or emergency shelter if the court finds that the local agency acted in bad faith when it disapproved or conditionally approved the housing development or emergency shelter in violation of this section. The court shall retain jurisdiction to ensure that its order or judgment is carried out and shall award reasonable attorney's fees and costs of suit to the plaintiff or petitioner, except under extraordinary circumstances in which the court finds that awarding fees would not further the purposes of this section.

(B) (i) Upon a determination that the local agency has failed to comply with the order or judgment compelling compliance with this section within 60 days issued pursuant to subparagraph (A), the court shall impose fines on a local agency that has violated this section and require the local agency to deposit any fine levied pursuant to this subdivision into a local housing trust fund. The local agency may elect to instead deposit the fine into the Building Homes and Jobs Fund, if Senate Bill 2 of the 2017–18 Regular Session is enacted, or otherwise in the Housing Rehabilitation Loan Fund. The fine shall be in a minimum amount of ten thousand dollars ($10,000) per housing unit in the housing development project on the date the application was deemed complete pursuant to Section 65943. In determining the amount of fine to impose, the court shall consider the local agency's progress in attaining its target allocation of the regional housing need pursuant to Section 65584 and any prior violations of this section. Fines shall not be paid out of funds already dedicated to affordable housing, including, but not limited to, Low and Moderate Income Housing Asset Funds, funds dedicated to housing for very low, low-, and moderate-income households, and federal HOME Investment Partnerships Program and Community Development Block Grant Program funds. The local agency shall commit and expend the money in the local housing trust fund within five years for the sole purpose of financing newly constructed housing units affordable to extremely low, very low, or low-income households. After five years, if the funds have not been expended, the money shall revert to the state and be deposited in the Building Homes and Jobs Fund, if Senate Bill 2 of the 2017–18 Regular Session is enacted, or otherwise in the Housing Rehabilitation Loan Fund, for the sole purpose of financing newly constructed housing units affordable to extremely low, very low, or low-income households.

(ii) If any money derived from a fine imposed pursuant to this subparagraph is deposited in the Housing Rehabilitation Loan Fund, then, notwithstanding Section 50661 of the Health and Safety Code, that money shall be available only upon appropriation by the Legislature.

(C) If the court determines that its order or judgment has not been carried out within 60 days, the court may issue further orders as provided by law to ensure that the purposes and policies of this section are fulfilled, including, but not limited to, an order to vacate the decision of the local agency and to approve the housing development project, in which case the application for the housing development project, as proposed by the applicant at the time the local agency took the initial action determined to be in violation of this section, along with any standard conditions determined by the court to be generally imposed by the local agency on similar projects, shall be deemed to be approved unless the applicant consents to a different decision or action by the local agency.

(2) For purposes of this subdivision, "housing organization" means a trade or industry group whose local members are primarily engaged in the construction or management of housing units or a nonprofit organization whose mission includes providing or advocating for increased access to housing for low-income households and have filed written or oral comments with the local agency prior to action on the housing development project. A housing organization may only file an action pursuant to this section to challenge the disapproval of a housing development by a local agency. A housing organization shall be entitled to reasonable attorney's fees and costs if it is the prevailing party in an action to enforce this section.

(l) If the court finds that the local agency (1) acted in bad faith when it disapproved or conditionally approved the housing development or emergency shelter in violation of this section and (2) failed to carry out the court's order or judgment within 60 days as described in subdivision (k), the court, in addition to any other remedies provided by this section, shall multiply the fine determined pursuant to subparagraph (B) of paragraph (1) of subdivision (k) by a factor of five. For purposes of this section, "bad faith" includes, but is not limited to, an action that is frivolous or otherwise entirely without merit.

(m) Any action brought to enforce the provisions of this section shall be brought pursuant to Section 1094.5 of the Code of Civil Procedure, and the local agency shall prepare and certify the record of proceedings in accordance with subdivision (c) of Section 1094.6 of the Code of Civil Procedure no later than 30 days after the petition is served, provided that the cost of preparation of the record shall be borne by the local agency, unless the petitioner elects to prepare the record as provided in subdivision (n) of this section. A petition to enforce the provisions of this section shall be filed and served no later than 90 days from the later of (1) the effective date of a decision of the local agency imposing conditions on, disapproving, or any other final action on a housing development project or (2) the expiration of the time periods specified in subparagraph (B) of paragraph (5) of subdivision (h). Upon entry of the trial court's order, a party may, in order to obtain appellate review of the order, file a petition within 20 days after service upon it of a written notice of the entry of the order, or within such further time not exceeding an additional 20 days as the trial court may for good cause allow, or may appeal the judgment or order of the trial court under Section 904.1 of the Code of Civil Procedure. If the local agency appeals the judgment of the trial court, the local agency shall post a bond, in an amount to be determined by the court, to the benefit of the plaintiff if the plaintiff is the project applicant.

(n) In any action, the record of the proceedings before the local agency shall be filed as expeditiously as possible and, notwithstanding Section 1094.6 of the Code of Civil Procedure or subdivision (m) of this section, all or part of the record may be prepared (1) by the petitioner with the petition or petitioner's points and authorities, (2) by the respondent with respondent's points and authorities, (3) after payment of costs by the petitioner, or (4) as otherwise directed by the court. If the expense of preparing the record has been borne by the petitioner and the petitioner is the prevailing party, the expense shall be taxable as costs.

(o) (1) Subject to paragraphs (2), (6), and (7), and subdivision (d) of Section 65941.1, a housing development project shall be subject only to the ordinances, policies, and standards adopted and in effect when a preliminary application including all of the information required by subdivision (a) of Section 65941.1 was submitted.

(2) Paragraph (1) shall not prohibit a housing development project from being subject to ordinances, policies, and standards adopted after the preliminary application was submitted pursuant to Section 65941.1 in the following circumstances:

(A) In the case of a fee, charge, or other monetary exaction, to an increase resulting from an automatic annual adjustment based on an independently published cost index that is referenced in the ordinance or resolution establishing the fee or other monetary exaction.

(B) A preponderance of the evidence in the record establishes that subjecting the housing development project to an ordinance, policy, or standard beyond those in effect when a preliminary application was submitted is necessary to mitigate or avoid a specific, adverse impact upon the public health or safety, as defined in subparagraph (A) of paragraph (1) of subdivision (j), and there is no feasible alternative method to satisfactorily mitigate or avoid the adverse impact.

(C) Subjecting the housing development project to an ordinance, policy, standard, or any other measure, beyond those in effect when a preliminary application was submitted is necessary to avoid or substantially lessen an impact of the project under the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(D) The housing development project has not commenced construction within two and one-half years following the date that the project received final approval. For purposes of this subparagraph, "final approval" means that

the housing development project has received all necessary approvals to be eligible to apply for, and obtain, a building permit or permits and either of the following is met:

(i) The expiration of all applicable appeal periods, petition periods, reconsideration periods, or statute of limitations for challenging that final approval without an appeal, petition, request for reconsideration, or legal challenge having been filed.

(ii) If a challenge is filed, that challenge is fully resolved or settled in favor of the housing development project.

(E) The housing development project is revised following submittal of a preliminary application pursuant to Section 65941.1 such that the number of residential units or square footage of construction changes by 20 percent or more, exclusive of any increase resulting from the receipt of a density bonus, incentive, concession, waiver, or similar provision. For purposes of this subdivision, "square footage of construction" means the building area, as defined by the California Building Standards Code (Title 24 of the California Code of Regulations).

(3) This subdivision does not prevent a local agency from subjecting the additional units or square footage of construction that result from project revisions occurring after a preliminary application is submitted pursuant to Section 65941.1 to the ordinances, policies, and standards adopted and in effect when the preliminary application was submitted.

(4) For purposes of this subdivision, "ordinances, policies, and standards" includes general plan, community plan, specific plan, zoning, design review standards and criteria, subdivision standards and criteria, and any other rules, regulations, requirements, and policies of a local agency, as defined in Section 66000, including those relating to development impact fees, capacity or connection fees or charges, permit or processing fees, and other exactions.

(5) This subdivision shall not be construed in a manner that would lessen the restrictions imposed on a local agency, or lessen the protections afforded to a housing development project, that are established by any other law, including any other part of this section.

(6) This subdivision shall not restrict the authority of a public agency or local agency to require mitigation measures to lessen the impacts of a housing development project under the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(7) With respect to completed residential units for which the project approval process is complete and a certificate of occupancy has been issued, nothing in this subdivision shall limit the application of later enacted ordinances, policies, and standards that regulate the use and occupancy of those residential units, such as ordinances relating to rental housing inspection, rent stabilization, restrictions on short-term renting, and business licensing requirements for owners of rental housing.

(8) This subdivision shall become inoperative on January 1, 2025.

(p) This section shall be known, and may be cited, as the Housing Accountability Act.

SEC. 4. Section 65905.5 is added to the Government Code, to read:

65905.5. (a) Notwithstanding any other law, if a proposed housing development project complies with the applicable, objective general plan and zoning standards in effect at the time an application is deemed complete, after the application is deemed complete, a city, county, or city and county shall not conduct more than five hearings pursuant to Section 65905, or any other law, ordinance, or regulation requiring a public hearing in connection with the approval of that housing development project. If the city, county, or city and county continues a hearing subject to this section to another date, the continued hearing shall count as one of the five hearings allowed under this section. The city, county, or city and county shall consider and either approve or

disapprove the application at any of the five hearings allowed under this section consistent with the applicable timelines under the Permit Streamlining Act (Chapter 4.5 (commencing with Section 65920)).

(b) For purposes of this section:

(1) "Deemed complete" means that the application has met all of the requirements specified in the relevant list compiled pursuant to Section 65940 that was available at the time when the application was submitted.

(2) "Hearing" includes any public hearing, workshop, or similar meeting conducted by the city or county with respect to the housing development project, whether by the legislative body of the city or county, the planning agency established pursuant to Section 65100, or any other agency, department, board, commission, or any other designated hearing officer or body of the city or county, or any committee or subcommittee thereof. "Hearing" does not include a hearing to review a legislative approval required for a proposed housing development project, including, but not limited to, a general plan amendment, a specific plan adoption or amendment, or a zoning amendment, or any hearing arising from a timely appeal of the approval or disapproval of a legislative approval.

(3) "Housing development project" has the same meaning as defined in paragraph (2) of subdivision (h) of Section 65589.5.

(c) (1) For purposes of this section, a housing development project shall be deemed consistent, compliant, and in conformity with an applicable plan, program, policy, ordinance, standard, requirement, or other similar provision if there is substantial evidence that would allow a reasonable person to conclude that the housing development project is consistent, compliant, or in conformity.

(2) A proposed housing development project is not inconsistent with the applicable zoning standards and criteria, and shall not require a rezoning, if the housing development project is consistent with the objective general plan standards and criteria, but the zoning for the project site is inconsistent with the general plan. If the local agency complies with the written documentation requirements of paragraph (2) of subdivision (j) of Section 65589.5, the local agency may require the proposed housing development project to comply with the objective standards and criteria of the zoning that is consistent with the general plan; however, the standards and criteria shall be applied to facilitate and accommodate development at the density allowed on the site by the general plan and proposed by the proposed housing development project.

(d) Nothing in this section supersedes, limits, or otherwise modifies the requirements of, or the standards of review pursuant to, Division 13 (commencing with Section 21000) of the Public Resources Code.

(e) This section shall remain in effect only until January 1, 2025, and as of that date is repealed.

SEC. 5. Section 65913.10 is added to the Government Code, to read:

65913.10. (a) For purposes of any state or local law, ordinance, or regulation that requires the city or county to determine whether the site of a proposed housing development project is a historic site, the city or county shall make that determination at the time the application for the housing development project is deemed complete. A determination as to whether a parcel of property is a historic site shall remain valid during the pendency of the housing development project for which the application was made unless any archaeological, paleontological, or tribal cultural resources are encountered during any grading, site disturbance, or building alteration activities.

(b) For purposes of this section:

(1) "Deemed complete" means that the application has met all of the requirements specified in the relevant list compiled pursuant to Section 65940 that was available at the time when the application was submitted.

(2) "Housing development project" has the same meaning as defined in paragraph (2) of subdivision (h) of Section 65589.5.

(c) (1) Nothing in this section supersedes, limits, or otherwise modifies the requirements of, or the standards of review pursuant to, Division 13 (commencing with Section 21000) of the Public Resources Code.

(2) Nothing in this section supersedes, limits, or otherwise modifies the requirements of the California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code).

(d) This section shall remain in effect only until January 1, 2025, and as of that date is repealed.

SEC. 6. Section 65940 of the Government Code is amended to read:

65940. (a) (1) Each public agency shall compile one or more lists that shall specify in detail the information that will be required from any applicant for a development project. Each public agency shall revise the list of information required from an applicant to include a certification of compliance with Section 65962.5, and the statement of application required by Section 65943. Copies of the information, including the statement of application required by Section 65943, shall be made available to all applicants for development projects and to any person who requests the information.

(2) An affected city or affected county, as defined in Section 66300, shall include the information necessary to determine compliance with the requirements of subdivision (d) of Section 66300 in the list compiled pursuant to paragraph (1).

(b) The list of information required from any applicant shall include, where applicable, identification of whether the proposed project is located within 1,000 feet of a military installation, beneath a low-level flight path or within special use airspace as defined in Section 21098 of the Public Resources Code, and within an urbanized area as defined in Section 65944.

(c) (1) A public agency that is not beneath a low-level flight path or not within special use airspace and does not contain a military installation is not required to change its list of information required from applicants to comply with subdivision (b).

(2) A public agency that is entirely urbanized, as defined in subdivision (e) of Section 65944, with the exception of a jurisdiction that contains a military installation, is not required to change its list of information required from applicants to comply with subdivision (b).

(d) This section shall remain in effect only until January 1, 2025, and as of that date is repealed.

SEC. 7. Section 65940 is added to the Government Code, to read:

65940. (a) Each public agency shall compile one or more lists that shall specify in detail the information that will be required from any applicant for a development project. Each public agency shall revise the list of information required from an applicant to include a certification of compliance with Section 65962.5, and the statement of application required by Section 65943. Copies of the information, including the statement of application required by Section 65943, shall be made available to all applicants for development projects and to any person who requests the information.

(b) The list of information required from any applicant shall include, where applicable, identification of whether the proposed project is located within 1,000 feet of a military installation, beneath a low-level flight path or within special use airspace as defined in Section 21098 of the Public Resources Code, and within an urbanized area as defined in Section 65944.

(c) (1) A public agency that is not beneath a low-level flight path or not within special use airspace and does not contain a military installation is not required to change its list of information required from applicants to comply with subdivision (b).

(2) A public agency that is entirely urbanized, as defined in subdivision (e) of Section 65944, with the exception of a jurisdiction that contains a military installation, is not required to change its list of information required from applicants to comply with subdivision (b).

(d) This section shall become operative on January 1, 2025.

SEC. 8. Section 65941.1 is added to the Government Code, to read:

65941.1. (a) An applicant for a housing development project, as defined in paragraph (2) of subdivision (h) of Section 65589.5, shall be deemed to have submitted a preliminary application upon providing all of the following information about the proposed project to the city, county, or city and county from which approval for the project is being sought and upon payment of the permit processing fee:

(1) The specific location, including parcel numbers, a legal description, and site address, if applicable.

(2) The existing uses on the project site and identification of major physical alterations to the property on which the project is to be located.

(3) A site plan showing the location on the property, elevations showing design, color, and material, and the massing, height, and approximate square footage, of each building that is to be occupied.

(4) The proposed land uses by number of units and square feet of residential and nonresidential development using the categories in the applicable zoning ordinance.

(5) The proposed number of parking spaces.

(6) Any proposed point sources of air or water pollutants.

(7) Any species of special concern known to occur on the property.

(8) Whether a portion of the property is located within any of the following:

(A) A very high fire hazard severity zone, as determined by the Department of Forestry and Fire Protection pursuant to Section 51178.

(B) Wetlands, as defined in the United States Fish and Wildlife Service Manual, Part 660 FW 2 (June 21, 1993).

(C) A hazardous waste site that is listed pursuant to Section 65962.5 or a hazardous waste site designated by the Department of Toxic Substances Control pursuant to Section 25356 of the Health and Safety Code.

(D) A special flood hazard area subject to inundation by the 1 percent annual chance flood (100-year flood) as determined by the Federal Emergency Management Agency in any official maps published by the Federal Emergency Management Agency.

(E) A delineated earthquake fault zone as determined by the State Geologist in any official maps published by the State Geologist, unless the development complies with applicable seismic protection building code standards adopted by the California Building Standards Commission under the California Building Standards Law (Part 2.5 (commencing with Section 18901) of Division 13 of the Health and Safety Code), and by any local building department under Chapter 12.2 (commencing with Section 8875) of Division 1 of Title 2.

(F) A stream or other resource that may be subject to a streambed alteration agreement pursuant to Chapter 6 (commencing with Section 1600) of Division 2 of the Fish and Game Code.

(9) Any historic or cultural resources known to exist on the property.

(10) The number of proposed below market rate units and their affordability levels.

(11) The number of bonus units and any incentives, concessions, waivers, or parking reductions requested pursuant to Section 65915.

(12) Whether any approvals under the Subdivision Map Act, including, but not limited to, a parcel map, a tentative map, or a condominium map, are being requested.

(13) The applicant's contact information and, if the applicant does not own the property, consent from the property owner to submit the application.

(14) For a housing development project proposed to be located within the coastal zone, whether any portion of the property contains any of the following:

(A) Wetlands, as defined in subdivision (b) of Section 13577 of Title 14 of the California Code of Regulations.

(B) Environmentally sensitive habitat areas, as defined in Section 30240 of the Public Resources Code.

(C) A tsunami run-up zone.

(D) Use of the site for public access to or along the coast.

(15) The number of existing residential units on the project site that will be demolished and whether each existing unit is occupied or unoccupied.

(16) A site map showing a stream or other resource that may be subject to a streambed alteration agreement pursuant to Chapter 6 (commencing with Section 1600) of Division 2 of the Fish and Game Code and an aerial site photograph showing existing site conditions of environmental site features that would be subject to regulations by a public agency, including creeks and wetlands.

(17) The location of any recorded public easement, such as easements for storm drains, water lines, and other public rights of way.

(b) (1) Each local agency shall compile a checklist and application form that applicants for housing development projects may use for the purpose of satisfying the requirements for submittal of a preliminary application.

(2) The Department of Housing and Community Development shall adopt a standardized form that applicants for housing development projects may use for the purpose of satisfying the requirements for submittal of a preliminary application if a local agency has not developed its own application form pursuant to paragraph (1). Adoption of the standardized form shall not be subject to Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(3) A checklist or form shall not require or request any information beyond that expressly identified in subdivision (a).

(c) After submittal of all of the information required by subdivision (a), if the development proponent revises the project such that the number of residential units or square footage of construction changes by 20 percent or more, exclusive of any increase resulting from the receipt of a density bonus, incentive, concession, waiver, or similar provision, the housing development project shall not be deemed to have submitted a preliminary application that satisfies this section until the development proponent resubmits the information required by subdivision (a) so that it reflects the revisions. For purposes of this subdivision, "square footage of construction" means the building area, as defined by the California Building Standards Code (Title 24 of the California Code of Regulations).

(d) (1) Within 180 calendar days after submitting a preliminary application with all of the information required by subdivision (a) to a city, county, or city and county, the development proponent shall submit an application for a development project that includes all of the information required to process the development application consistent with Sections 65940, 65941, and 65941.5.

(2) If the public agency determines that the application for the development project is not complete pursuant to Section 65943, the development proponent shall submit the specific information needed to complete the application within 90 days of receiving the agency's written identification of the necessary information. If the development proponent does not submit this information within the 90-day period, then the preliminary application shall expire and have no further force or effect.

(3) This section shall not require an affirmative determination by a city, county, or city and county regarding the completeness of a preliminary application or a development application for purposes of compliance with this section.

(e) This section shall remain in effect only until January 1, 2025, and as of that date is repealed.

SEC. 9. Section 65943 of the Government Code is amended to read:

65943. (a) Not later than 30 calendar days after any public agency has received an application for a development project, the agency shall determine in writing whether the application is complete and shall immediately transmit the determination to the applicant for the development project. If the application is determined to be incomplete, the lead agency shall provide the applicant with an exhaustive list of items that were not complete. That list shall be limited to those items actually required on the lead agency's submittal requirement checklist. In any subsequent review of the application determined to be incomplete, the local agency shall not request the applicant to provide any new information that was not stated in the initial list of items that were not complete. If the written determination is not made within 30 days after receipt of the application, and the application includes a statement that it is an application for a development permit, the application shall be deemed complete for purposes of this chapter. Upon receipt of any resubmittal of the application, a new 30-day period shall begin, during which the public agency shall determine the completeness of the application. If the application is determined not to be complete, the agency's determination shall specify those parts of the application which are incomplete and shall indicate the manner in which they can be made complete, including a list and thorough description of the specific information needed to complete the application. The applicant shall submit materials to the public agency in response to the list and description.

(b) Not later than 30 calendar days after receipt of the submitted materials described in subdivision (a), the public agency shall determine in writing whether the application as supplemented or amended by the submitted materials is complete and shall immediately transmit that determination to the applicant. In making this determination, the public agency is limited to determining whether the application as supplemented or amended includes the information required by the list and a thorough description of the specific information needed to complete the application required by subdivision (a). If the written determination is not made within that 30-day period, the application together with the submitted materials shall be deemed complete for purposes of this chapter.

(c) If the application together with the submitted materials are determined not to be complete pursuant to subdivision (b), the public agency shall provide a process for the applicant to appeal that decision in writing to the governing body of the agency or, if there is no governing body, to the director of the agency, as provided by that agency. A city or county shall provide that the right of appeal is to the governing body or, at their option, the planning commission, or both.

There shall be a final written determination by the agency on the appeal not later than 60 calendar days after receipt of the applicant's written appeal. The fact that an appeal is permitted to both the planning commission and to the governing body does not extend the 60-day period. Notwithstanding a decision pursuant to subdivision (b) that the application and submitted materials are not complete, if the final written determination on the appeal is not made within that 60-day period, the application with the submitted materials shall be deemed complete for the purposes of this chapter.

(d) Nothing in this section precludes an applicant and a public agency from mutually agreeing to an extension of any time limit provided by this section.

(e) A public agency may charge applicants a fee not to exceed the amount reasonably necessary to provide the service required by this section. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

(f) Each city and each county shall make copies of any list compiled pursuant to Section 65940 with respect to information required from an applicant for a housing development project, as that term is defined in paragraph (2) of subdivision (h) of Section 65589.5, available both (1) in writing to those persons to whom the agency is required to make information available under subdivision (a) of that section, and (2) publicly available on the internet website of the city or county.

(g) This section shall remain in effect only until January 1, 2025, and as of that date is repealed.

SEC. 10. Section 65943 is added to the Government Code, to read:

65943. (a) Not later than 30 calendar days after any public agency has received an application for a development project, the agency shall determine in writing whether the application is complete and shall immediately transmit the determination to the applicant for the development project. If the written determination is not made within 30 days after receipt of the application, and the application includes a statement that it is an application for a development permit, the application shall be deemed complete for purposes of this chapter. Upon receipt of any resubmittal of the application, a new 30-day period shall begin, during which the public agency shall determine the completeness of the application. If the application is determined not to be complete, the agency's determination shall specify those parts of the application which are incomplete and shall indicate the manner in which they can be made complete, including a list and thorough description of the specific information needed to complete the application. The applicant shall submit materials to the public agency in response to the list and description.

(b) Not later than 30 calendar days after receipt of the submitted materials, the public agency shall determine in writing whether they are complete and shall immediately transmit that determination to the applicant. If the written determination is not made within that 30-day period, the application together with the submitted materials shall be deemed complete for purposes of this chapter.

(c) If the application together with the submitted materials are determined not to be complete pursuant to subdivision (b), the public agency shall provide a process for the applicant to appeal that decision in writing to the governing body of the agency or, if there is no governing body, to the director of the agency, as provided by that agency. A city or county shall provide that the right of appeal is to the governing body or, at their option, the planning commission, or both.

There shall be a final written determination by the agency on the appeal not later than 60 calendar days after receipt of the applicant's written appeal. The fact that an appeal is permitted to both the planning commission and to the governing body does not extend the 60-day period. Notwithstanding a decision pursuant to subdivision (b) that the application and submitted materials are not complete, if the final written determination on the appeal is not made within that 60-day period, the application with the submitted materials shall be deemed complete for the purposes of this chapter.

(d) Nothing in this section precludes an applicant and a public agency from mutually agreeing to an extension of any time limit provided by this section.

(e) A public agency may charge applicants a fee not to exceed the amount reasonably necessary to provide the service required by this section. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

(f) This section shall become operative on January 1, 2025.

SEC. 11. Section 65950 of the Government Code is amended to read:

65950. (a) A public agency that is the lead agency for a development project shall approve or disapprove the project within whichever of the following periods is applicable:

(1) One hundred eighty days from the date of certification by the lead agency of the environmental impact report, if an environmental impact report is prepared pursuant to Section 21100 or 21151 of the Public Resources Code for the development project.

(2) Ninety days from the date of certification by the lead agency of the environmental impact report, if an environmental impact report is prepared pursuant to Section 21100 or 21151 of the Public Resources Code for a development project defined in subdivision (c).

(3) Sixty days from the date of certification by the lead agency of the environmental impact report, if an environmental impact report is prepared pursuant to Section 21100 or 21151 of the Public Resources Code for a development project defined in subdivision (c) and all of the following conditions are met:

(A) At least 49 percent of the units in the development project are affordable to very low or low-income households, as defined by Sections 50105 and 50079.5 of the Health and Safety Code, respectively. Rents for the lower income units shall be set at an affordable rent, as that term is defined in Section 50053 of the Health and Safety Code, for at least 30 years. Owner-occupied units shall be available at an affordable housing cost, as that term is defined in Section 50052.5 of the Health and Safety Code.

(B) Prior to the application being deemed complete for the development project pursuant to Article 3 (commencing with Section 65940), the lead agency received written notice from the project applicant that an application has been made or will be made for an allocation or commitment of financing, tax credits, bond authority, or other financial assistance from a public agency or federal agency, and the notice specifies the financial assistance that has been applied for or will be applied for and the deadline for application for that assistance, the requirement that one of the approvals of the development project by the lead agency is a prerequisite to the application for or approval of the application for financial assistance, and that the financial assistance is necessary for the project to be affordable as required pursuant to subparagraph (A).

(C) There is confirmation that the application has been made to the public agency or federal agency prior to certification of the environmental impact report.

(4) Sixty days from the date of adoption by the lead agency of the negative declaration, if a negative declaration is completed and adopted for the development project.

(5) Sixty days from the determination by the lead agency that the project is exempt from the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code), if the project is exempt from that act.

(b) This section does not preclude a project applicant and a public agency from mutually agreeing in writing to an extension of any time limit provided by this section pursuant to Section 65957.

(c) For purposes of paragraphs (2) and (3) of subdivision (a) and Section 65952, “development project” means a housing development project, as that term is defined in paragraph (2) of subdivision (h) of Section 65589.5.

(d) For purposes of this section, “lead agency” and “negative declaration” have the same meaning as defined in Sections 21067 and 21064 of the Public Resources Code, respectively.

(e) This section shall remain in effect only until January 1, 2025, and as of that date is repealed.

SEC. 12. Section 65950 is added to the Government Code, to read:

65950. (a) A public agency that is the lead agency for a development project shall approve or disapprove the project within whichever of the following periods is applicable:

(1) One hundred eighty days from the date of certification by the lead agency of the environmental impact report, if an environmental impact report is prepared pursuant to Section 21100 or 21151 of the Public Resources Code for the development project.

(2) One hundred twenty days from the date of certification by the lead agency of the environmental impact report, if an environmental impact report is prepared pursuant to Section 21100 or 21151 of the Public Resources Code for a development project defined in subdivision (c).

(3) Ninety days from the date of certification by the lead agency of the environmental impact report, if an environmental impact report is prepared pursuant to Section 21100 or 21151 of the Public Resources Code for a development project defined in subdivision (c) and all of the following conditions are met:

(A) At least 49 percent of the units in the development project are affordable to very low or low-income households, as defined by Sections 50105 and 50079.5 of the Health and Safety Code, respectively. Rents for the lower income units shall be set at an affordable rent, as that term is defined in Section 50053 of the Health and Safety Code, for at least 30 years. Owner-occupied units shall be available at an affordable housing cost, as that term is defined in Section 50052.5 of the Health and Safety Code.

(B) Prior to the application being deemed complete for the development project pursuant to Article 3 (commencing with Section 65940), the lead agency received written notice from the project applicant that an application has been made or will be made for an allocation or commitment of financing, tax credits, bond authority, or other financial assistance from a public agency or federal agency, and the notice specifies the financial assistance that has been applied for or will be applied for and the deadline for application for that assistance, the requirement that one of the approvals of the development project by the lead agency is a prerequisite to the application for or approval of the application for financial assistance, and that the financial assistance is necessary for the project to be affordable as required pursuant to subparagraph (A).

(C) There is confirmation that the application has been made to the public agency or federal agency prior to certification of the environmental impact report.

(4) Sixty days from the date of adoption by the lead agency of the negative declaration, if a negative declaration is completed and adopted for the development project.

(5) Sixty days from the determination by the lead agency that the project is exempt from the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code), if the project is exempt from that act.

(b) This section does not preclude a project applicant and a public agency from mutually agreeing in writing to an extension of any time limit provided by this section pursuant to Section 65957.

(c) For purposes of paragraphs (2) and (3) of subdivision (a) and Section 65952, “development project” means a use consisting of either of the following:

(1) Residential units only.

(2) Mixed-use developments consisting of residential and nonresidential uses in which the nonresidential uses are less than 50 percent of the total square footage of the development and are limited to neighborhood commercial uses and to the first floor of buildings that are two or more stories. As used in this paragraph, “neighborhood commercial” means small-scale general or specialty stores that furnish goods and services primarily to residents of the neighborhood.

(d) For purposes of this section, “lead agency” and “negative declaration” have the same meaning as defined in Sections 21067 and 21064 of the Public Resources Code, respectively.

(e) This section shall become operative on January 1, 2025.

SEC. 13. Chapter 12 (commencing with Section 66300) is added to Division 1 of Title 7 of the Government Code, to read:

CHAPTER 12. Housing Crisis Act of 2019

66300. (a) As used in this section:

(1) (A) Except as otherwise provided in subparagraph (B), "affected city" means a city, including a charter city, that the Department of Housing and Community Development determines, pursuant to subdivision (e), is in an urbanized area or urban cluster, as designated by the United States Census Bureau.

(B) Notwithstanding subparagraph (A), "affected city" does not include any city that has a population of 5,000 or less and is not located within an urbanized area, as designated by the United States Census Bureau.

(2) "Affected county" means a census designated place, based on the 2013-2017 American Community Survey 5-year Estimates, that is wholly located within the boundaries of an urbanized area, as designated by the United States Census Bureau.

(3) Notwithstanding any other law, "affected county" and "affected city" includes the electorate of an affected county or city exercising its local initiative or referendum power, whether that power is derived from the California Constitution, statute, or the charter or ordinances of the affected county or city.

(4) "Department" means the Department of Housing and Community Development.

(5) "Development policy, standard, or condition" means any of the following:

(A) A provision of, or amendment to, a general plan.

(B) A provision of, or amendment to, a specific plan.

(C) A provision of, or amendment to, a zoning ordinance.

(D) A subdivision standard or criterion.

(6) "Housing development project" has the same meaning as defined in paragraph (2) of subdivision (h) of Section 65589.5.

(7) "Objective design standard" means a design standard that involve no personal or subjective judgment by a public official and is uniformly verifiable by reference to an external and uniform benchmark or criterion available and knowable by both the development applicant or proponent and the public official before submittal of an application.

(b) (1) Notwithstanding any other law except as provided in subdivision (i), with respect to land where housing is an allowable use, an affected county or an affected city shall not enact a development policy, standard, or condition that would have any of the following effects:

(A) Changing the general plan land use designation, specific plan land use designation, or zoning of a parcel or parcels of property to a less intensive use or reducing the intensity of land use within an existing general plan land use designation, specific plan land use designation, or zoning district below what was allowed under the land use designation and zoning ordinances of the affected county or affected city, as applicable, as in effect on January 1, 2018, except as otherwise provided in clause (ii) of subparagraph (B). For purposes of this subparagraph, "less intensive use" includes, but is not limited to, reductions to height, density, or floor area ratio, new or increased open space or lot size requirements, or new or increased setback requirements, minimum frontage requirements, or maximum lot coverage limitations, or anything that would lessen the intensity of housing.

(B) (i) Imposing a moratorium or similar restriction or limitation on housing development, including mixed-use development, within all or a portion of the jurisdiction of the affected county or city, other than to specifically protect against an imminent threat to the health and safety of persons residing in, or within the immediate vicinity of, the area subject to the moratorium or for projects specifically identified as existing restricted affordable housing.

(ii) The affected county or affected city, as applicable, shall not enforce a zoning ordinance imposing a moratorium or other similar restriction on or limitation of housing development until it has submitted the ordinance to, and received approval from, the department. The department shall approve a zoning ordinance submitted to it pursuant to this subparagraph only if it determines that the zoning ordinance satisfies the requirements of this subparagraph. If the department denies approval of a zoning ordinance imposing a moratorium or similar restriction or limitation on housing development as inconsistent with this subparagraph, that ordinance shall be deemed void.

(C) Imposing or enforcing design standards established on or after January 1, 2020, that are not objective design standards.

(D) Except as provided in subparagraph (E), establishing or implementing any provision that:

(i) Limits the number of land use approvals or permits necessary for the approval and construction of housing that will be issued or allocated within all or a portion of the affected county or affected city, as applicable.

(ii) Acts as a cap on the number of housing units that can be approved or constructed either annually or for some other time period.

(iii) Limits the population of the affected county or affected city, as applicable.

(E) Notwithstanding subparagraph (D), an affected county or affected city may enforce a limit on the number of approvals or permits or a cap on the number of housing units that can be approved or constructed if the provision of law imposing the limit was approved by voters prior to January 1, 2005, and the affected county or affected city is located in a predominantly agricultural county. For the purposes of this subparagraph, “predominantly agricultural county” means a county that meets both of the following, as determined by the most recent California Farmland Conversion Report produced by the Department of Conservation:

(i) Has more than 550,000 acres of agricultural land.

(ii) At least one-half of the county area is agricultural land.

(2) Any development policy, standard, or condition enacted on or after the effective date of this section that does not comply with this section shall be deemed void.

(c) Notwithstanding subdivisions (b) and (f), an affected county or affected city may enact a development policy, standard, or condition to prohibit the commercial use of land that is designated for residential use, including, but not limited to, short-term occupancy of a residence, consistent with the authority conferred on the county or city by other law.

(d) Notwithstanding any other provision of this section, both of the following shall apply:

(1) An affected city or an affected county shall not approve a housing development project that will require the demolition of residential dwelling units unless the project will create at least as many residential dwelling units as will be demolished.

(2) An affected city or an affected county shall not approve a housing development project that will require the demolition of occupied or vacant protected units, unless all of the following apply:

(A) (i) The project will replace all existing or demolished protected units.

(ii) Any protected units replaced pursuant to this subparagraph shall be considered in determining whether the housing development project satisfies the requirements of Section 65915 or a locally adopted requirement that requires, as a condition of the development of residential rental units, that the project provide a certain percentage of residential rental units affordable to, and occupied by, households with incomes that do not exceed the limits for moderate-income, lower income, very low income, or extremely low income households, as specified in Sections 50079.5, 50093, 50105, and 50106 of the Health and Safety Code.

(iii) Notwithstanding clause (i), in the case of a protected unit that is or was, within the five-year period preceding the application, subject to a form of rent or price control through a local government's valid exercise of its police power, and that is or was occupied by persons or families above lower income, the affected city or affected county may do either of the following:

(I) Require that the replacement units be made available at affordable rent or affordable housing cost to, and occupied by, low-income persons or families. If the replacement units will be rental dwelling units, these units shall be subject to a recorded affordability restriction for at least 55 years.

(II) Require that the units be replaced in compliance with the jurisdiction's rent or price control ordinance, provided that each unit is replaced. Unless otherwise required by the affected city or affected county's rent or price control ordinance, these units shall not be subject to a recorded affordability restriction.

(B) The housing development project will include at least as many residential dwelling units as the greatest number of residential dwelling units that existed on the project site within the last five years.

(C) Any existing residents will be allowed to occupy their units until six months before the start of construction activities with proper notice, subject to Chapter 16 (commencing with Section 7260) of Division 7 of Title 1.

(D) The developer agrees to provide both of the following to the occupants of any protected units:

(i) Relocation benefits to the occupants of those affordable residential rental units, subject to Chapter 16 (commencing with Section 7260) of Division 7 of Title 1.

(ii) A right of first refusal for a comparable unit available in the new housing development affordable to the household at an affordable rent, as defined in Section 50053 of the Health and Safety Code, or an affordable housing cost, as defined in 50052.5.

(E) For purposes of this paragraph:

(i) "Equivalent size" means that the replacement units contain at least the same total number of bedrooms as the units being replaced.

(ii) "Protected units" means any of the following:

(I) Residential dwelling units that are or were subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of lower or very low income within the past five years.

(II) Residential dwelling units that are or were subject to any form of rent or price control through a public entity's valid exercise of its police power within the past five years.

(III) Residential dwelling units that are or were occupied by lower or very low income households within the past five years.

(IV) Residential dwelling units that were withdrawn from rent or lease in accordance with Chapter 12.75 (commencing with Section 7060) of Division 7 of Title 1 within the past 10 years.

(iii) "Replace" shall have the same meaning as provided in subparagraph (B) of paragraph (3) of subdivision (c) of Section 65915.

(3) This subdivision shall not supersede any objective provision of a locally adopted ordinance that places restrictions on the demolition of residential dwelling units or the subdivision of residential rental units that are more protective of lower income households, requires the provision of a greater number of units affordable to lower income households, or that requires greater relocation assistance to displaced households.

(4) This subdivision shall only apply to a housing development project that submits a complete application pursuant to Section 65943 on or after January 1, 2020.

(e) The Department of Housing and Community Development shall determine those cities and counties in this state that are affected cities and affected counties, in accordance with subdivision (a) by June 30, 2020. The department may update the list of affected cities and affected counties once on or after January 1, 2021, to account for changes in urbanized areas or urban clusters due to new data obtained from the 2020 census. The department's determination shall remain valid until January 1, 2025.

(f) (1) Except as provided in paragraphs (3) and (4) and subdivisions (h) and (i), this section shall prevail over any conflicting provision of this title or other law regulating housing development in this state to the extent that this section more fully advances the intent specified in paragraph (2).

(2) It is the intent of the Legislature that this section be broadly construed so as to maximize the development of housing within this state. Any exception to the requirements of this section, including an exception for the health and safety of occupants of a housing development project, shall be construed narrowly.

(3) This section shall not be construed as prohibiting the adoption or amendment of a development policy, standard, or condition in a manner that:

(A) Allows greater density.

(B) Facilitates the development of housing.

(C) Reduces the costs to a housing development project.

(D) Imposes or implements mitigation measures as necessary to comply with the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(4) This section shall not apply to a housing development project located within a very high fire hazard severity zone. For purposes of this paragraph, "very high fire hazard severity zone" has the same meaning as provided in Section 51177.

(g) This section shall not be construed to void a height limit, urban growth boundary, or urban limit established by the electorate of an affected county or an affected city, provided that the height limit, urban growth boundary, or urban limit complies with subparagraph (A) of paragraph (1) of subdivision (b).

(h) (1) Nothing in this section supersedes, limits, or otherwise modifies the requirements of, or the standards of review pursuant to, Division 13 (commencing with Section 21000) of the Public Resources Code.

(2) Nothing in this section supersedes, limits, or otherwise modifies the requirements of the California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code). For a housing development project proposed within the coastal zone, nothing in this section shall be construed to prohibit an affected county or an affected city from enacting a development policy, standard, or condition necessary to implement or amend a certified local coastal program consistent with the California Coastal Act of 1976 (Division 20 (commencing with Section 30000) of the Public Resources Code).

(i) (1) This section does not prohibit an affected county or an affected city from changing a land use designation or zoning ordinance to a less intensive use if the city or county concurrently changes the development standards, policies, and conditions applicable to other parcels within the jurisdiction to ensure that there is no net loss in residential capacity.

(2) This section does not prohibit an affected county or an affected city from changing a land use designation or zoning ordinance to a less intensive use on a site that is a mobilehome park, as defined in Section 18214 of the Health and Safety Code, as of the effective date of this section, and the no net loss requirement in paragraph (1) shall not apply.

(j) Notwithstanding subdivisions (b) and (f), this section does not prohibit an affected city or an affected county from enacting a development policy, standard, or condition that is intended to preserve or facilitate the production of housing for lower income households, as defined in Section 50079.5 of the Health and Safety Code, or housing types that traditionally serve lower income households, including mobilehome parks, single-room occupancy units, or units subject to any form of rent or price control through a public entity's valid exercise of its police power.

66301. This chapter shall remain in effect only until January 1, 2025, and as of that date is repealed.

SEC. 14. The Legislature finds and declares that the provision of adequate housing, in light of the severe shortage of housing at all income levels in this state, is a matter of statewide concern and is not a municipal affair as that term is used in Section 5 of Article XI of the California Constitution. Therefore, the provisions of this act apply to all cities, including charter cities.

SEC. 15. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution for certain costs that may be incurred by a local agency or school district because, in that regard, this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

However, if the Commission on State Mandates determines that this act contains other costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

SEC. 16. The provisions of this act are severable. If any provision of this act or its application is held invalid, that invalidity shall not affect other provisions or applications that can be given effect without the invalid provision or application.

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

Woodside HOMES

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE
#20105

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#20105

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DEVELOPER:
WOODSIDE HOMES
1250 CORONA POINTE CT.
SUITE 500
CORONA, CA 92879
CONTACT: KORY LISTON
BUSINESS: (951) 310-7008
WWW.WOODSIDEHOMES.COM

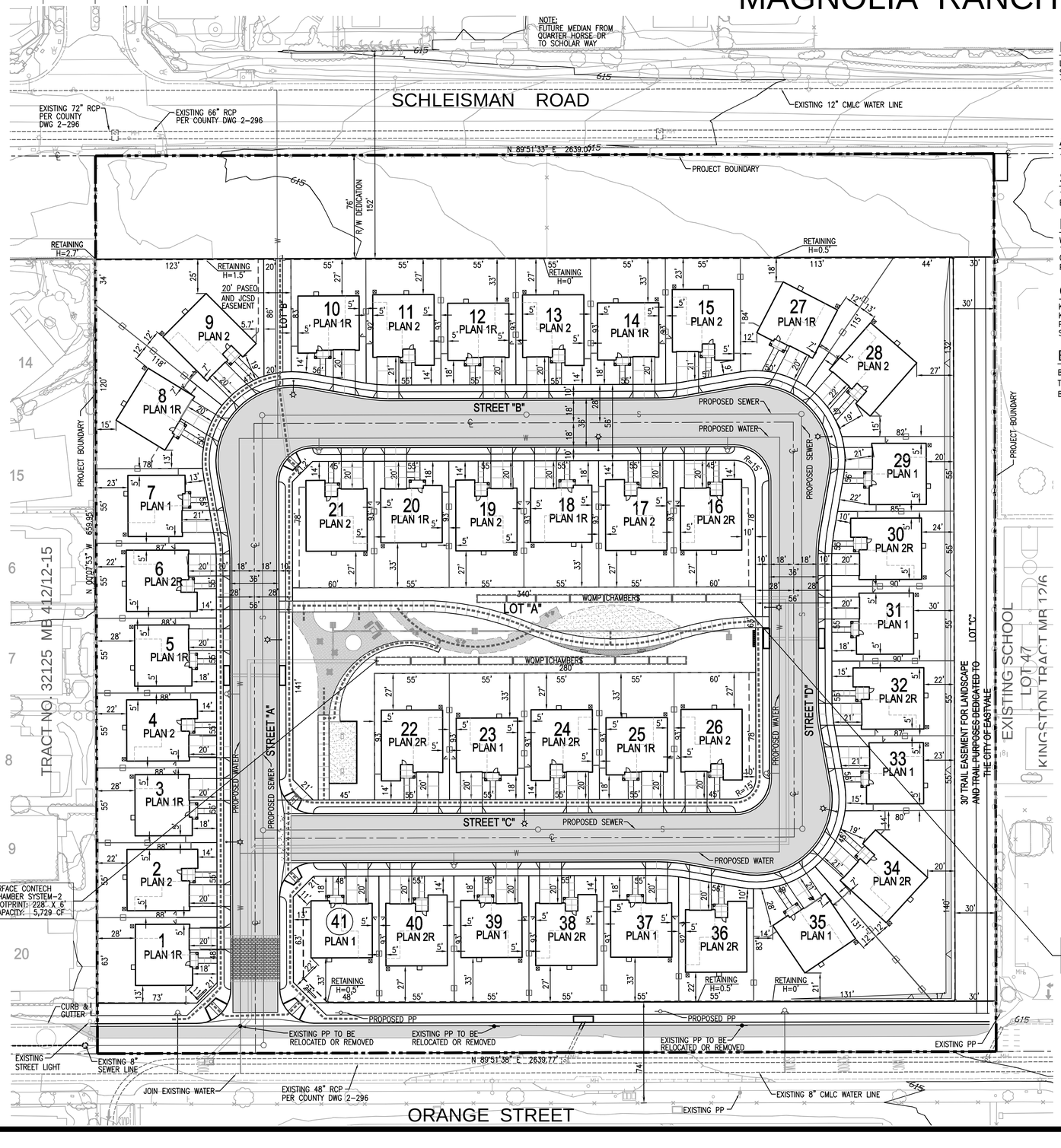
CIVIL ENGINEER:
ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CA 92335
BUSINESS: (909) 356-1815
WWW.ALLARDENG.COM

LANDSCAPE ARCHITECT:
STUDIO PAD LANDSCAPE ARCHITECTURE
23276 S. POINTE DRIVE (STE 103)
LAGUNA HILLS, CA 92653
BUSINESS: (949) 770-8530
WWW.STUDIO-PAD.COM

ARCHITECT:
KEVIN L. CROOK ARCHITECT, INC.
1360 REYNOLDS AVE. SUITE 110
IRVINE, CA 92614
CONTACT: ARIC COFFEE
BUSINESS: (949) 660-1587
WWW.KLCARCH.COM

CITY OF EASTVALE

PRELIMINARY TECHNICAL SITE PLAN
MAGNOLIA RANCH



LEGAL DESCRIPTION

LOT 47 OF KINGSTON TRACT IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

ASSESSOR'S PARCEL NO.

152-040-003

SITE ADDRESS

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951)710-1900

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

BASIS OF BEARINGS

BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15
BEING: N 89°51'33" E

SITE STATISTICS

GROSS SITE AREA: 10.0 ACRES
DEVELOPABLE AREA: 8.28 ACRES

TOTAL LOTS: 41 HOMES

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

PLAN TYPE

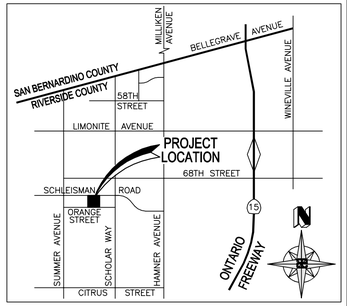
PLAN 1 – 20 LOTS
PLAN 2 – 21 LOTS

ENGINEER

ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

BENCHMARK

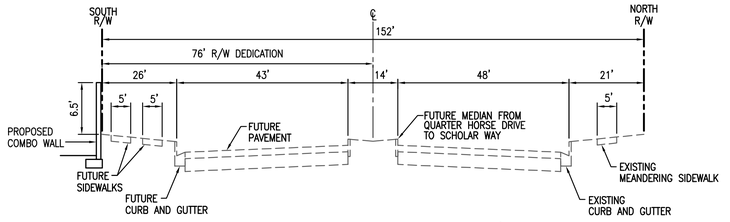
RIVERSIDE OCUNTY BENCHMARK "ML-34-1 RESET 2008"
3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTHERLY CURB, 10' FROM THE ECR AT THE INTERSECTION OF SUMNER AVENUE AND ORANGE STREET.



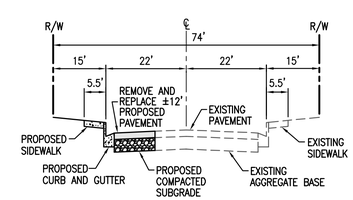
VICINITY MAP
N.T.S.

LEGEND

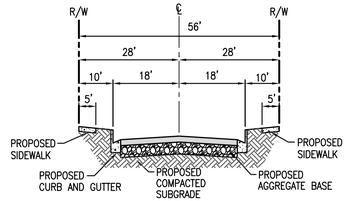
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1%	DRAINAGE FLOW DIRECTION
795	EXISTING CONTOUR
S	SEWER LINE
W	WATER LINE
	STORM DRAIN
	PROJECT BOUNDARY
	CENTERLINE
	ADA PATH OF TRAVEL
	AC/AB
	PROPOSED STREET LIGHT



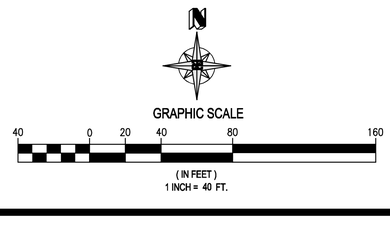
SCHLEISMAN ROAD - 152' R/W
NTS



ORANGE STREET - 74' R/W
NTS



INTERIOR STREETS - 56' R/W
STREET "A", "B", "C", AND "D"
RIVERSIDE COUNTY STD 105
NTS



Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

RAYMOND J. ALLARD — No. 36052 — REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA

Prepared By:
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Civil Engineering - Land Surveying - Land Planning
16866 Seville Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795
Raymond J. Allard, R.C.E. 36052 Date

DATE	August, 2023
SCALE	1"=40'
DRAWN	C.V.
CHECKED	R.J.A

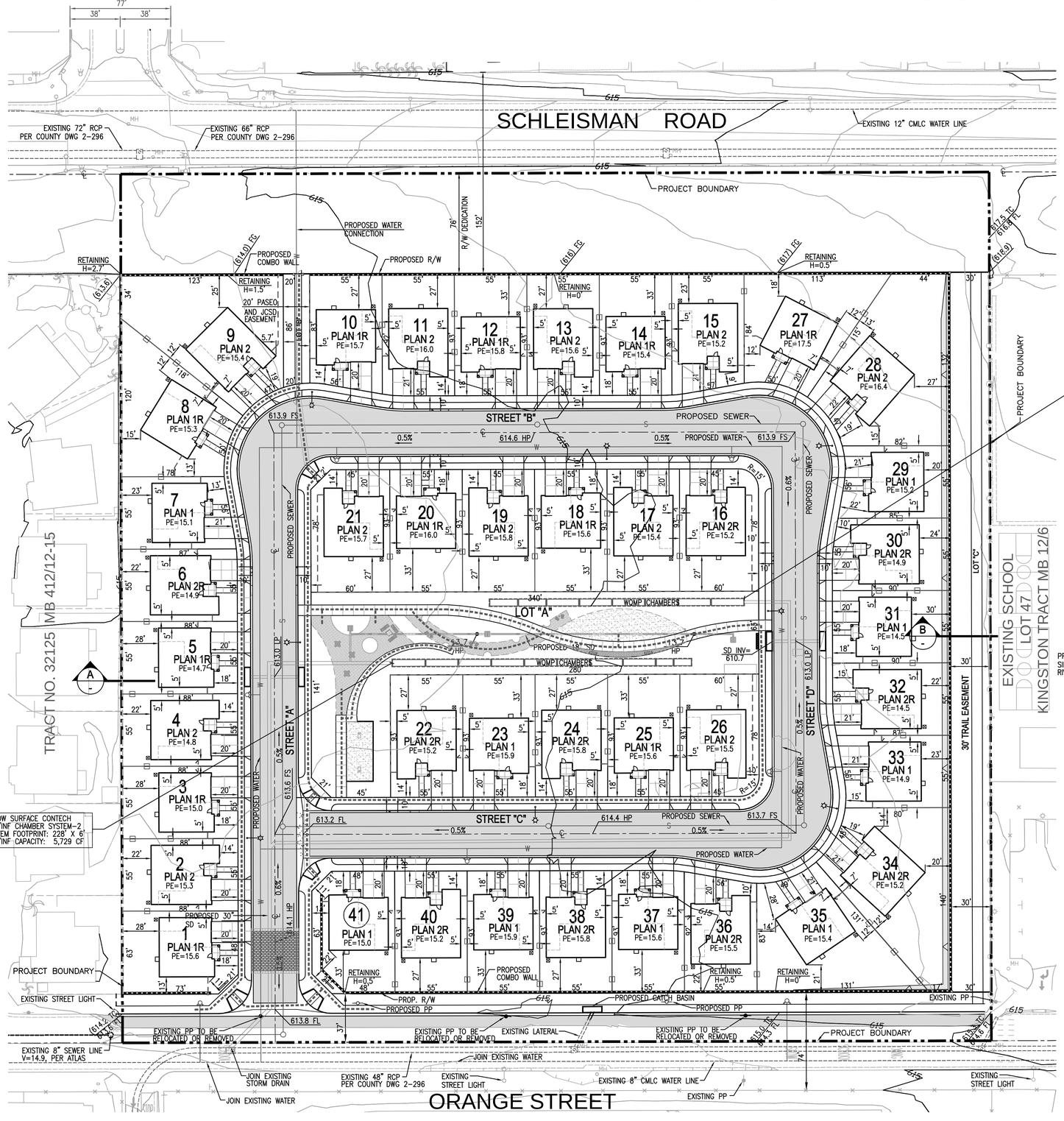
SHEET TITLE: PRELIMINARY TECHNICAL SITE PLAN
PROJECT: MAGNOLIA RANCH
APN: 152-040-003
13175 ORANGE STREET
EASTVALE, CALIFORNIA
JOB NO.

SHEET NO.
C-1

PLOT DATE: August 31, 2023 Bobby

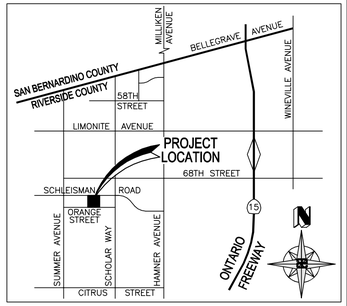
Filename: I:\Woodside Homes\DWG's\ENTITLEMENT\SITE PLAN\PRELIMINARY TECHNICAL SITE PLAN.dwg

PRELIMINARY GRADING AND DRAINAGE PLAN



LEGEND:

- (41) UNIT NUMBER
- 1% DRAINAGE FLOW DIRECTION
- S SEWER LINE
- W WATER LINE
- STORM DRAIN
- PROJECT BOUNDARY
- CENTERLINE
- 795 EXISTING CONTOUR
- FS FINISH SURFACE
- PROPOSED WALL WITH RETAINING
- AC/AB
- PROPOSED STREET LIGHT



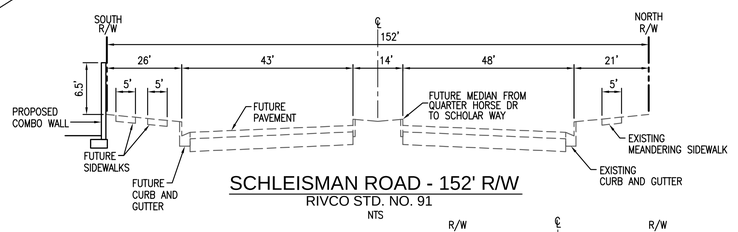
VICINITY MAP
N.T.S.

FEMA ZONE

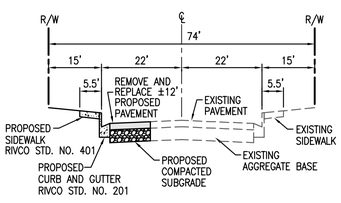
FLOOD ZONE: "X" MAP NO. 06065C0679G

EARTHWORK ESTIMATE:

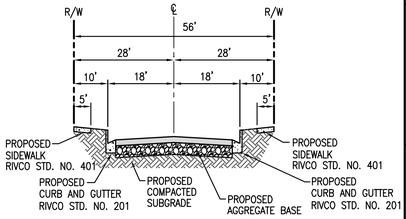
EXCAVATION	15,200	6,030
SHRINKAGE (10%)	−1,520	
OEX SHRINKAGE (5'@10%)		8,000
SUBSIDENCE		1,600
LOT PULLS		
41 DETACHED @ 150	6,150	
TOTAL	19,830	15,630
IMPORT	4,200	



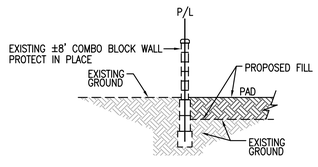
SCHLEISMAN ROAD - 152' R/W
RIVCO STD. NO. 91
NTS



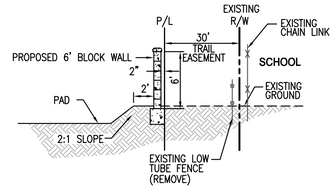
ORANGE STREET - 74' R/W
RIVCO STD. NO. 103 (SECTION "A")
NTS



INTERIOR STREETS - 56' R/W
STREET "A", "B", "C", AND "D"
RIVERSIDE COUNTY STD 105
NTS



A - TYPICAL SECTION
NTS



B - TYPICAL SECTION
NTS

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 INCH = 40 FT.

Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

REGISTERED PROFESSIONAL ENGINEER RAYMOND J. ALLARD No. 36052 CIVIL STATE OF CALIFORNIA

Prepared By:
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16866 Sevilla Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795
Raymond J. Allard, R.C.E. 36052 Date

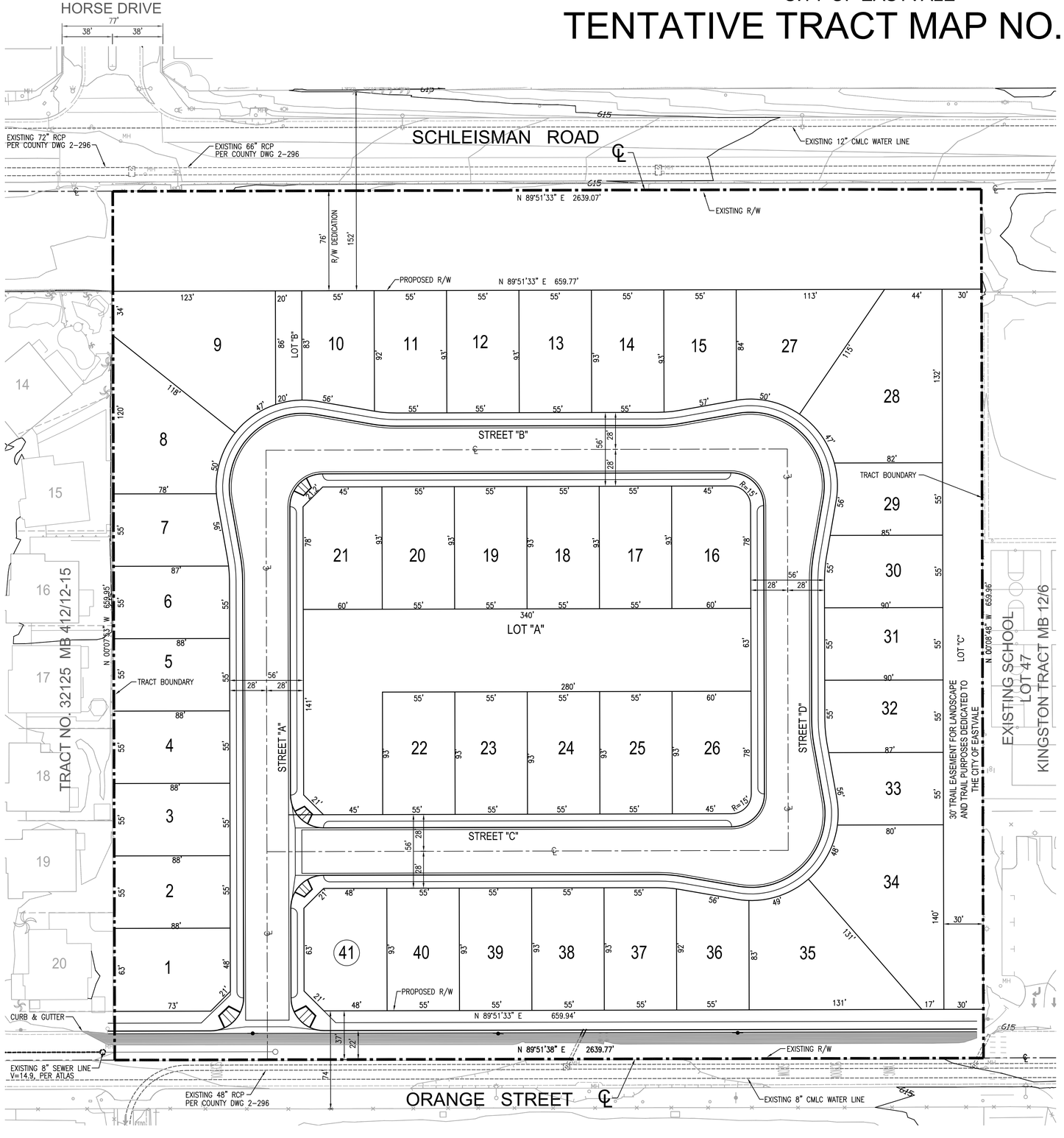
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SCALE	1"=40'
DRAWN	C.V.
CHECKED	R.J.A

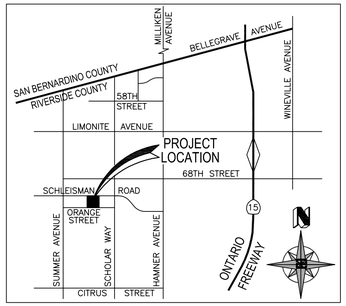
SHEET TITLE: PRELIMINARY GRADING, DRAINAGE AND UTILITY PLAN
PROJECT: MAGNOLIA RANCH
APN: 152-040-003
13175 ORANGE STREET
EASTVALE, CALIFORNIA
JOB NO.
SHEET NO. C-2

PLOT DATE: August 31, 2023 Bobby
Filename: I:\Woodside Homes\DWG's ENTITLEMENT\CONCEPT GRADING\PRELIMINARY GRADING & DRAINAGE STD.dwg

CITY OF EASTVALE

TENTATIVE TRACT MAP NO. 38167





VICINITY MAP

N.T.S.

LOT AREA			
LOT NO.	AREA IN S.F.	LOT NO.	AREA IN S.F.
1	5,432	22	5,115
2	4,840	23	5,115
3	4,840	24	5,115
4	4,840	25	5,115
5	4,840	26	5,532
6	4,838	27	7,188
7	4,549	28	10,615
8	7,218	29	4,494
9	9,471	30	4,884
10	4,775	31	4,942
11	5,107	32	4,917
12	5,115	33	4,541
13	5,115	34	9,548
14	5,115	35	8,231
15	4,878	36	4,797
16	5,531	37	5,110
17	5,115	38	5,115
18	5,115	39	5,115
19	5,115	40	5,115
20	5,115	41	5,634
21	5,468	LOT A	26,872
LOT B	1,682	LOT C	16,390

ASSESSOR'S PARCEL NO:

152-040-003

LEGAL DESCRIPTION:

LOT 47 OF KINSTON TRACT IN TE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA , AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO CONUNTY RECORDS.

SITE ADDRESS:

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

ENGINEER:

ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

ACREAGE:

EXISTING GROSS: 10.0 ACRES
PROPOSED NET: 8.28 ACRES

BENCHMARK:

RIVERSIDE COUNY BENCHMARK "ML-34-1 RESET 2008" 3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTERLY CURB, 1' FROM THE ECR AT THE INTERECTON OF SUMNER AVENUE AND ORANGE SREEET (S.D. CORO.

BASIS OF BEARINGS:

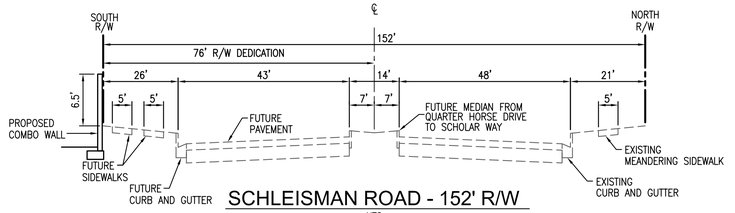
BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15 BEING: N89°51'33"E

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

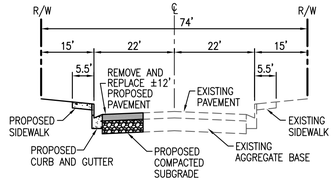
NOTES:

1.) PROPOSED IMPROVEMENT SCHEDULE: SCHEDULE "A"
2.) THE TENTATIVE MAP INCUDES THE ENTIRE CONTIGUOUS OWNERSHHIP OF THE LAND DIVEDER.



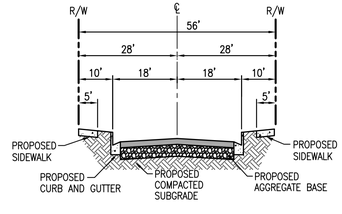
SCHLEISMAN ROAD - 152' R/W

NTS



ORANGE STREET - 74' R/W

NTS



INTERIOR STREETS - 56' R/W

STREET "A", "B", "C", AND "D"
RIVERSIDE COUNTY STD 105

NTS

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 INCH = 40 FT.

Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

REGISTERED PROFESSIONAL ENGINEER RAYMOND J. ALLARD No. 36652 CIVIL STATE OF CALIFORNIA

Prepared By:
ALLARD ENGINEERING
Civil Engineering • Land Surveying • Land Planning
16866 Seville Avenue Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

Raymond T. Allard R.C.E. 36652 Date

DATE	August, 2023
SCALE	1"=40'
DRAWN	C.V.
CHECKED	R.J.A

SHEET TITLE: TENTATIVE TRACT MAP NO. 38167
PROJECT: MAGNOLIA RANCH
APN: 152-040-003
13175 ORANGE STREET
EASTVALE, CALIFORNIA
JOB NO.

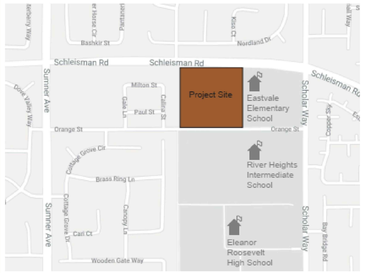
SHEET NO.
C-3

PLOT DATE: August 30, 2023 ballard

Filename: I:\Woodside Homes\DWG's\ENTITLEMENT\TENTATIVE TRACT MAP\TTM 38167_Eastvale.dwg

Woodside Homes
BETTER BY DESIGN

Vicinity Map



Property Information

- APN: 152-040-003
- Street Address:
  13175 Orange Street
  Eastvale, CA 92880

- Existing Land Use: Residential
- Proposed Land Use: Residential
- Existing General Plan Designation:
- Medium Density Residential (2.1-5 du/ac
- Existing Zoning Designation:
- A-2 - Heavy Agriculture

Property Owner:
The Kraig A. Kirschner 1998 Revocable Trust
14058 Euclid Ave.
Chino, CA 91710

Project Summary
- Gross Site Area: 10.0 Acres
- Developable Area: 8.28 Acres
  Less Public Street Dedications)
- Number of Homes: 41 Single-family detached homes
- Zoning Density: 4.95 du/ac
  Per Developable Area)
- Building Coverage: 139,371 SF (Conditioned + Unconditioned)
- Gross Building Area: 112,384 SF (Conditioned)
- Occupancy: R-3
- Type of Construction: V-B
- Sprinkler System: NFPA 13D
- Number of Stories: 1 and 2 Stories

Development Criteria*	Provided
Minimum Lot Standards	
Lot Size	4769 SF
Lot Width	55'
Lot Depth	83'
Maximum Height	27'
Minimum Primary Building Setbacks	
Front (To Garage Face)	20'
Front (To Living Area)	10'
Side (Corner)	10'
Side (Interior)	5'
Rear	15'

* Accessory Structures shall be subject to City of Eastvale Zoning Code Section 5.12



Project Summary

Gross Site Area: 10.0 Acres
Developable Area: 8.28 Acres
Total Units: 41 Homes
Density: 4.95 Units per Developable Acre

Legend
Plan 1 - (Two-Story, 2833 SF, 5 bedrooms + loft) 20 homes
Plan 2 - (Two_Story, 3153 SF, 5 bedrooms + loft) 21 homes
Total: 41 homes

Enhanced Elevation Locations

Parking Summary
- **Parking Required: 2 spaces/dwelling unit**
- **Parking Provided:**
  - **Garage: 2 spaces/dwelling unit**
  - **Driveways: 2 spaces/dwelling unit**
  - **Internal Streets: 58 spaces (parallel spaces on street)**

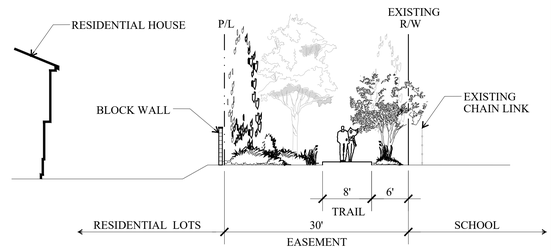
Open Space Summary
- **Net Site Area: 262,695 SF (excluding all streets + trail dedication)**
- **Common Area: 27,803 SF (Lot A + Lot B)**
- **Private Rear Yards: 98,012 SF**
- **Total: 125,815 SF (47.9% of net site area**

Trail Dedication
- **30' trail dedication to City**
- **Connection from Orange Ave to future Schleisman Road improvements**

Public Streets
- **56-foot right-of-way designed to County of Riverside Standards**
- **36-foot curb-to-curb section with parking on both sides**
- **5-foot sidewalk**
- **5-foot landscape area with street trees behind walk**

Amenity Space and Basin
- **63-foot wide paseo**
- **Variety of amenities including trail, bench and dog station, coffe table with seating, picnic tables, bocce ball.**
- **Maintained by Homeowners Association**

Orange Street Access & Frontage
- **Main Entry into Site**
- **Orange Street Frontage is designed to match existing frontage at subdivision to the west (attached walk, landscaping with street trees behind walk, community block wall, parallel parking on street)**
- **Existing power poles moved and replaced with metal poles to match adjacent developments**
- **Enhanced rear and side elevations where visible from public street**



SECTION "A"

SECTION "A"

ANNUAL WATER BUDGET ALLOWANCE						
Eto	56.6					
Conv. Factor	0.62	(Gallons per s.f.)				
Conv. Factor	748	(to hundred cu. Ft.)				
ETAF	0.5	Residential		DRIP	TURF DRIP	TURF SPRAY
System Efficiency	0.7		Actual	0.81	0.81	0.75
SLA	0		Plant Factor shrub	0.35	0.35	0.35
			Plant Factor turf	0.8	0.8	0.8
Plan No.	**ALL**	**0**	**0**	**0**	**0**	**0**
Shrub Area	69,109	0	0	0	0	0
Turf Spray	2,628	0	0	0	0	0
Turf Drip	0	0	0	0	0	0
Total Landscape	71,737	0	0	0	0	0
MAWA	1,258,697	0	0	0	0	0
ETWU SHRUB DRIP	677,715	0	0	0	0	0
ETWU TURF SPRAY	55,333	0	0	0	0	0
ETWU TURF DRIP	0	0	0	0	0	0
ETWU TOTAL	733,048	0	0	0	0	0
TURF %	4%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

MAWU = (Eto) (.62) ((ETAF x LA) + ((1-ETAF) x SLA))
ETWU = (Eto) x .62 x .5 x LA

ILLUSTRATIVE SITE PLAN & DEVELOPMENT STANDARDS
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN











*Conceptual images (provided herein are conceptual and subject to change)



LEGEND

1. Picnic Seating Area with decomposed granite , picnic tables, and specimen Magnolia shade trees
2. Succulent Garden Walk with decomposed granite, tree nooks for specimen Magnolia shade tree, citrus tree planting, and Adirondack seating.
3. Central Lawn Area for passive and active usage with real turf , bench seating, and shade trees.
4. Main project entry with specimen Magnolia trees.
5. Project signage wall feature with pin-mounted lettering.
6. Corn hole play area with real turf and shade trees
7. Four community cluster mailboxes, per USPS review and approval.
8. Proposed wall, pilaster, gate or fence, per Wall & Fence Plan.
9. Proposed tree, per Planting Plan.
10. 5' wide community natural colored concrete sidewalk, with light top cast finish and saw cut joints.
11. 4' wide unit entry natural colored concrete walk, with light top cast finish and saw cut joints.
12. Natural colored concrete driveway, with light broom finish and tooled joints.
13. Private yard area, homeowner maintained.
14. Common area landscape, builder installed and HOA maintained.
15. Community dog bag station (black in color), for pet owners.
16. Public steet R.O.W.
17. Proposed public street sidewalk, per Civil Plans.
18. Integral colored concrete.
19. Proposed AC condenser, per Architecture plans
20. Proposed curb ramp, per Civil Plans.
21. 8ft wide paseo walk connection between Schelisman Road and Orange Street.
22. Seating area with outdoor table and lounge seating.
23. Builder Installed, homeowner maintained private front yards.
24. Pedestrian connection to future linear park along Schleisman Road.
25. Enhanced landscape on both side of the community entry.
26. Enhanced Paving for Entry and Pedestrian path across.
27. Stripping at Pedestrian crossing.





SCHEMATIC LANDSCAPE PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN

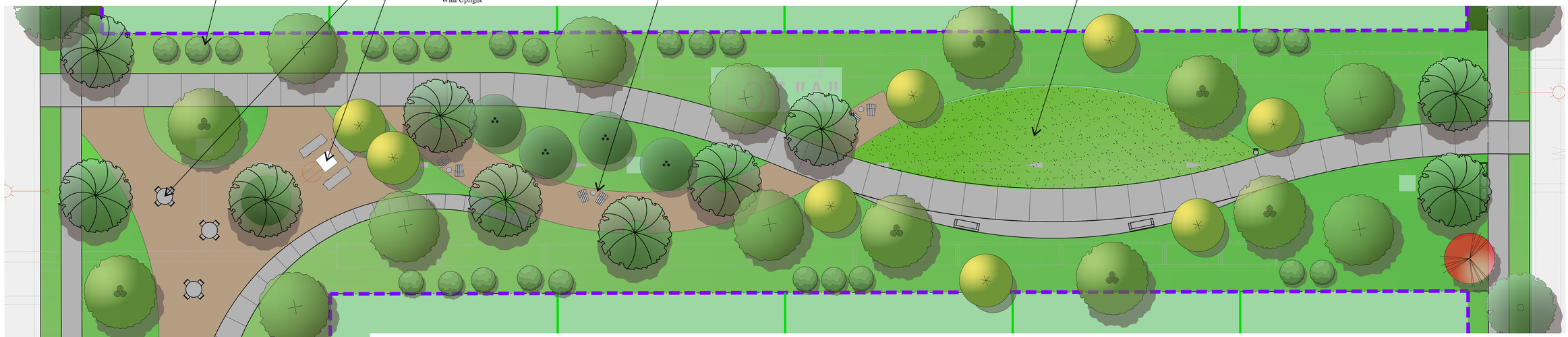
6 Buffer Planting
All Along Rear Yard Walls

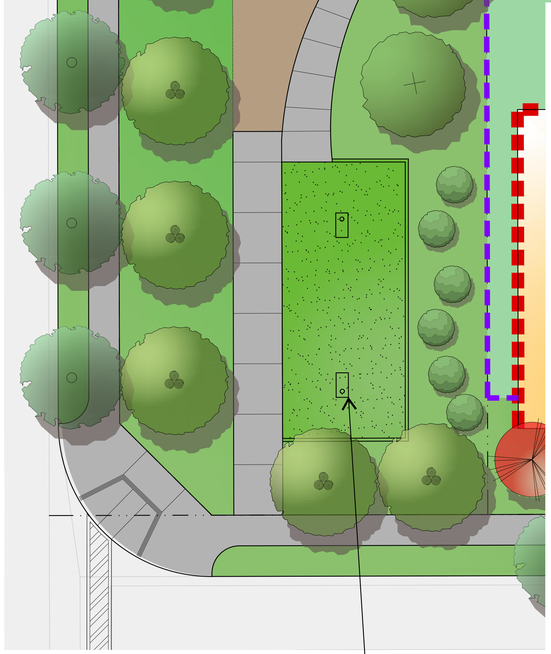
4 Outdoor Picnic Space
Decomposed Granite, Picnic Table Seating

3 Contemporary Concrete Furniture
Lounge Seating, Outdoor Table, Specimen Tree With Uplight

1 Succulent Garden Walk
Decomposed Granite, Tree Nooks For Shade Trees
Citrus Tree Planting, Adirondack Seating

2 Central Lawn Area
Passive and Active Usage, Real Turf, Bench Seating, Colored Concrete, Enhancement Shade Trees.





5 Corn Hole Play Area
Real/Faux Turf, Shade Trees


1


1



2


3


3


3


4


5


5

*Conceptual images (provided herein are conceptual and subject to change)

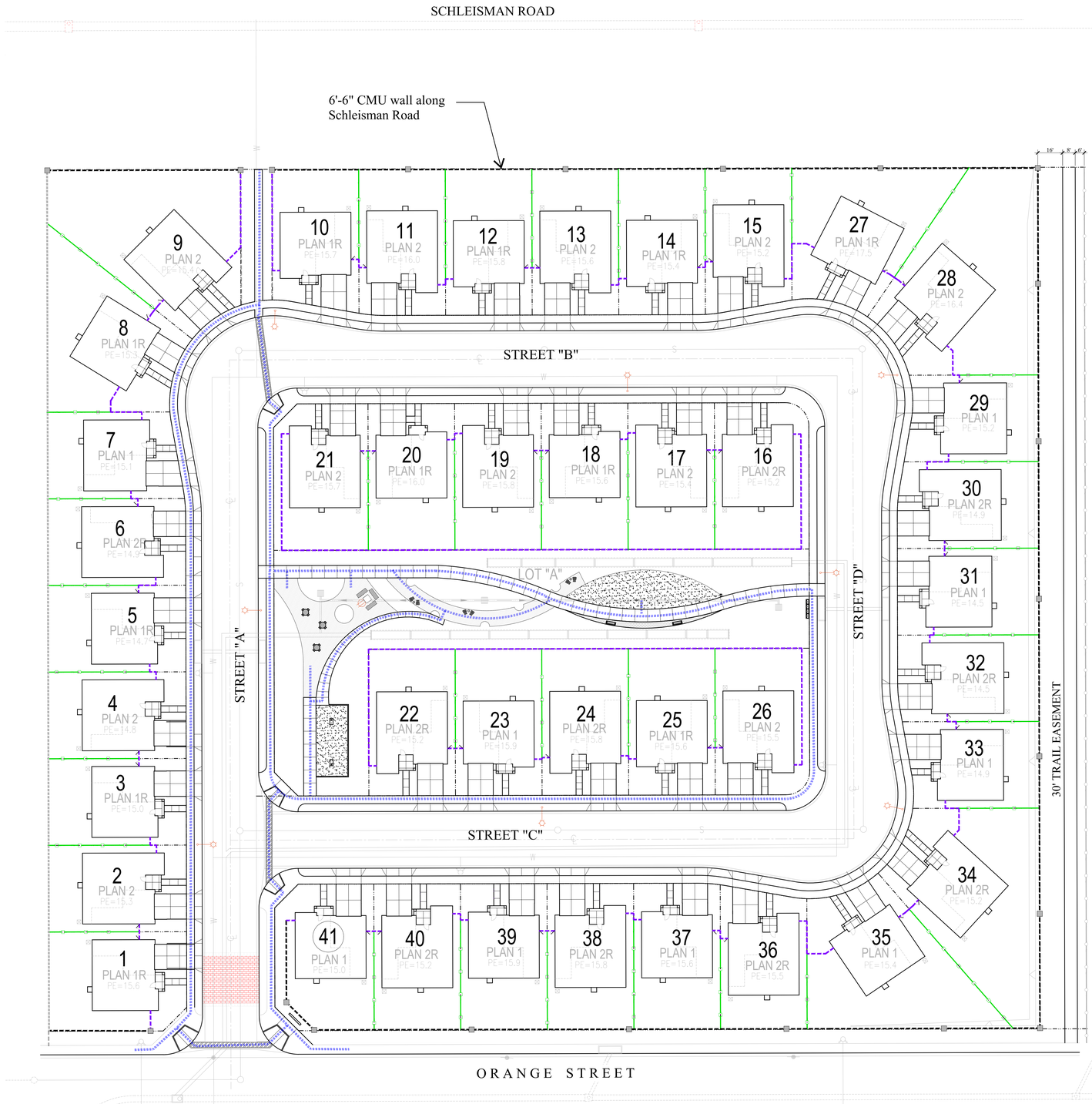
SCHEMATIC ENLARGEMENT PLAN
CENTRAL OPEN SPACE
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

10' 0 10' 30'
SCALE: 1" = 10'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN

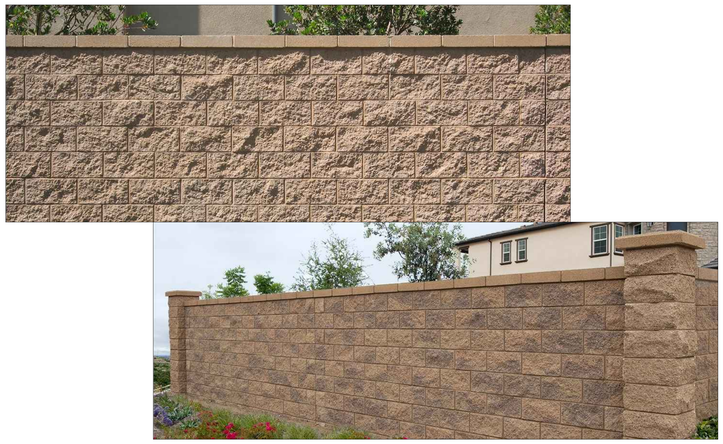


WALL LEGEND

- Existing ± 7' High wall to remain.
- Existing chain link fence to remain.
- 6'-0" High split-face CMU wall, 6'-6" High along Schleisman Road, with CMU cap (tan color)
- 6'-0" High split-face CMU Return wall, with CMU cap (tan color)
- 5'-6" High vinyl yard fence (tan color)
- 6'-6" High (16" sq.) split-face CMU pilaster, with CMU cap (tan color)
- 5'-6" High vinyl side yard gate (tan color)
- Project sign wall, per city standards and regulations
- ADA Path of Travel
- Concrete mow curb



Vinyl fence and gate



Split face block wall & pilaster



Project Sign Wall



Pedeestrian ADA access Gate

*Conceptual images (provide herein are conceptual and subject to change)

SCHEMATIC WALL & FENCE PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN



NOTES:
1. Irrigations (including spray and or drip) will be provided, in the Construction Document phase, and to be installed per local California water regulations (AB1881).
2. Transformers, back-flow preventers & other above-ground utilities to be screened with landscape as permitted per local codes & regulations.
3. The plant palette listed provides a list of plant material to select from when preparing final landscape construction documents for this project. however, substitutions may be required due to availability, soils tests, or other conditions.
4. All trees within 5' of hardscape to be installed with deep root barriers.
5. Future shrub and groundcover planting proposed during Construction Documents must comply with the project's Water Quality Management Plan to ensure that the landscape layout aligns with the required Best Management Practices (BMPs) for the facilities.

VINES & ESPALIERS		WUCOLS (R4)
Antigonon leptopus	Coral Vine	Low
Bougainvillea 'Monka'	Bougainvillea	Low
Macfadyena unguis-cati	Cat's Claw Vine	Low

SCHEMATIC PLANTING PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

TREES LEGEND

SYMBOL	TREES	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	WUCOLS
	SPECIMEN MAGNOLIA	MAGNOLIA G. 'MONLIA'	MAJESTIC BEAUTY MAGNOLIA	48" BOX STANDARD	19	M
	CANOPY DECIDUOUS	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	24" BOX STANDARD	14	M
	STREET	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX STANDARD	23	M
	LINEAR PARK	ULMUS PARVIFOLIA 'TRUE GREEN'	CHINESE ELM	24" BOX STANDARD	9	L
	EVERGREEN FLOWERING	ARBUTUS UNEDO	STRAWBERRY TREE	24" BOX STANDARD / MULTI-TRUNK	8	L
	DECIDUOUS FLOWERING	LAGERSTROEMIA I. 'ARAPAHO'	CRAPE MYRTLE	24" BOX STANDARD	56	M
	CITRUS TREE	CITRUS X SINENSIS 'DWARF VALENCIA'	DWARF ORANGE	24" BOX MULTI-TRUNK	5	M
	COLUMNAR	CUPRESSUS SEMPERVIRENS	ITALIAN CYPRESS	24" BOX STANDARD	76	L
	CITY PARKWAY SOUTH TREES TO BE MAINTAINED / TRIMMED BACK TO AVOID CONFLICT WITH EXISTNG POWER LINES. FINAL SELECTION PER CITY OF EASTVALE STDS.	TIPUANA TIPU	TIPU TREE	36" BOX STANDARD	11	M
	DECIDUOUS FLOWERING	CERCIS OCCIDENTALIS	WESTERN REDBUD	24" BOX STANDARD	12	L
	DECIDUOUS FLOWERING	LAGERSTROEMIA I. 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX STANDARD	16	M
	SHADE TREE	ULMUS PARVIFOLIA 'DRAKE'	DRAKE CHINESE ELM	24" BOX STANDARD	15	M
					TOTAL = 313	

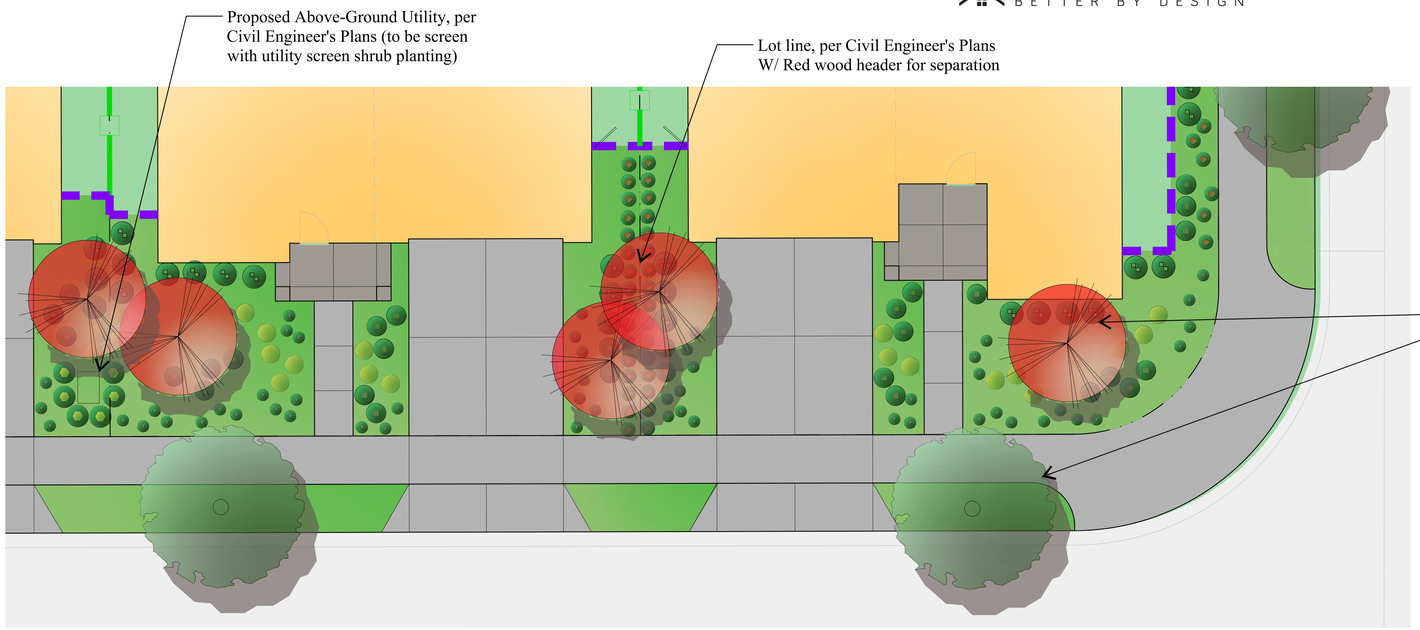
SHRUBS and GROUND COVER		WUCOLS (R4)
Anigozanthos	Kangaroo Paw	Low
Agave sp.	Agave	Low
Aloe sp.	Aloe	Low
Bougainvillea sp.	Bougainvillea	Low
Callistemon citrinus 'Little John'	Dwarf Bottlebrush	Low
Carex divulsa	Berkeley Sedges	Low
Carissa m. 'Green Carpet'	Dwarf Natal Plum	Low
Chamaerops humilis	Mediterranean Fan Palm	Low
Dasylirion longissimum	Mexican Grass Tree	Low
Delosperma cooperi	Trailing Ice Plant	Low
Dianella revoluta 'Little Rev'	Little Rev Flax Lily	Low
Heteromeles arbutifolia	Toyon	Low
Kalanchoe thyrsiflora	Flapjack Paddle Plant	Low
Lavandula stoechas 'Larkman Hazel'	Hazel Spanish Lavender	Low
Nassella pulchra	Purple Needlegrass	Low
Muhlenbergia capillaris 'Lenca'	Regal Misty Pink Muhly	Low
Rhus ovata	Sugar Bush	Low
Rosmarinus p. 'Huntington Carpet'	Groundcover Rosemary	Low
Westringia sp.	Westringia	Low
Yucca gloriosa	Spanish Dagger	Low

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN



TREES LEGEND

SYMBOL	TREES	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS
	STREET	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX STANDARD	M
	DECIDUOUS FLOWERING	LAGERSTROEMIA I. 'ARAPAHO'	CRAPE MYRTLE	24" BOX STANDARD	M











TYPICAL FRONT YARD PLANTING PALETTE

SYMBOL		BOTANICAL /COMMON NAME	TRUNK	SIZE	WUCOLS (R4)	QT.
	ACCENT	ANIGOZANTHOS (KANGAROO PAW)	SINGLE	5 GAL.	V. LOW	5
		AGAVE AMERICANA (DWARF CENTURY PLANT)	SINGLE	5 GAL.	V. LOW	
		AGAVE AMERICANA 'RAY OF LIGHT' (RAY OF LIGHT AGAVE)	SINGLE	5 GAL.	V. LOW	
		ALOE x 'BLUE ELF' (BLUE ELF ALOE)	SINGLE	5 GAL.	V. LOW	
	LARGE	WESTRINGIA F. 'WYNABBIE GEM' (WYNABBIE GEM COAST ROSEMARY)	SINGLE	15 GAL.	LOW	6
		TECOMA STANS 'LONESP' (GOLD STAR YELLOW BELLS)	SINGLE	15 GAL.	LOW	
		BOUGAINVILLEA x LA JOLLA (LA JOLLA BOUGAIN VILLEA)	SINGLE	15 GAL.	LOW	
	MEDIUM	WESTRINGIA F. 'MORNING LIGHT' (MORNING LIGHT COAST ROSEMARY)	SINGLE	5 GAL.	LOW	15
		WESTRINGIA F. 'LOW HORIZON' (LOW HORIZON COAST ROSEMARY)	SINGLE	5 GAL.	LOW	
	SMALL	DIANELLA REVOLUTA 'LITTLE REV' (SPREADING FLAX LILY)	SINGLE	1 GAL. / 5 GAL.	LOW	30
		CAREX DIVULSA (BERKELEY SEDGE)	SINGLE	1 GAL. / 5 GAL.	LOW	
	UTILITY SCREEN	WESTRINGIA F. 'WYNABBIE GEM' (WYNABBIE GEM COAST ROSEMARY)	SINGLE	15 GAL.	LOW	5
	GROUNDCOVER	DALEA CAPITATA (DALEA)	SINGLE	1GAL. / 5GAL.	V. LOW	16
					TOTAL	77

NOTES:
1. Irrigation (including drip and or spray) will be provided, in the Construction Document phase, and to be installed per local California Water regulations (AB1881).
2. Transformers, back-flow preventers & other above-ground utilities to be screened with landscape as permitted per local codes & regulations.
3. The plant palette listed provides a list of plant material to select from when preparing final landscape construction document for this project. however, substitutions may be required due to availability, soils test, or other conditions.
4. Proposed tree planting to not conflict with meters/ lines.

SCHEMATIC TYPICAL FRONT YARD PLANTING PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

10' 0 10' 30'
SCALE: 1" = 10'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN



1



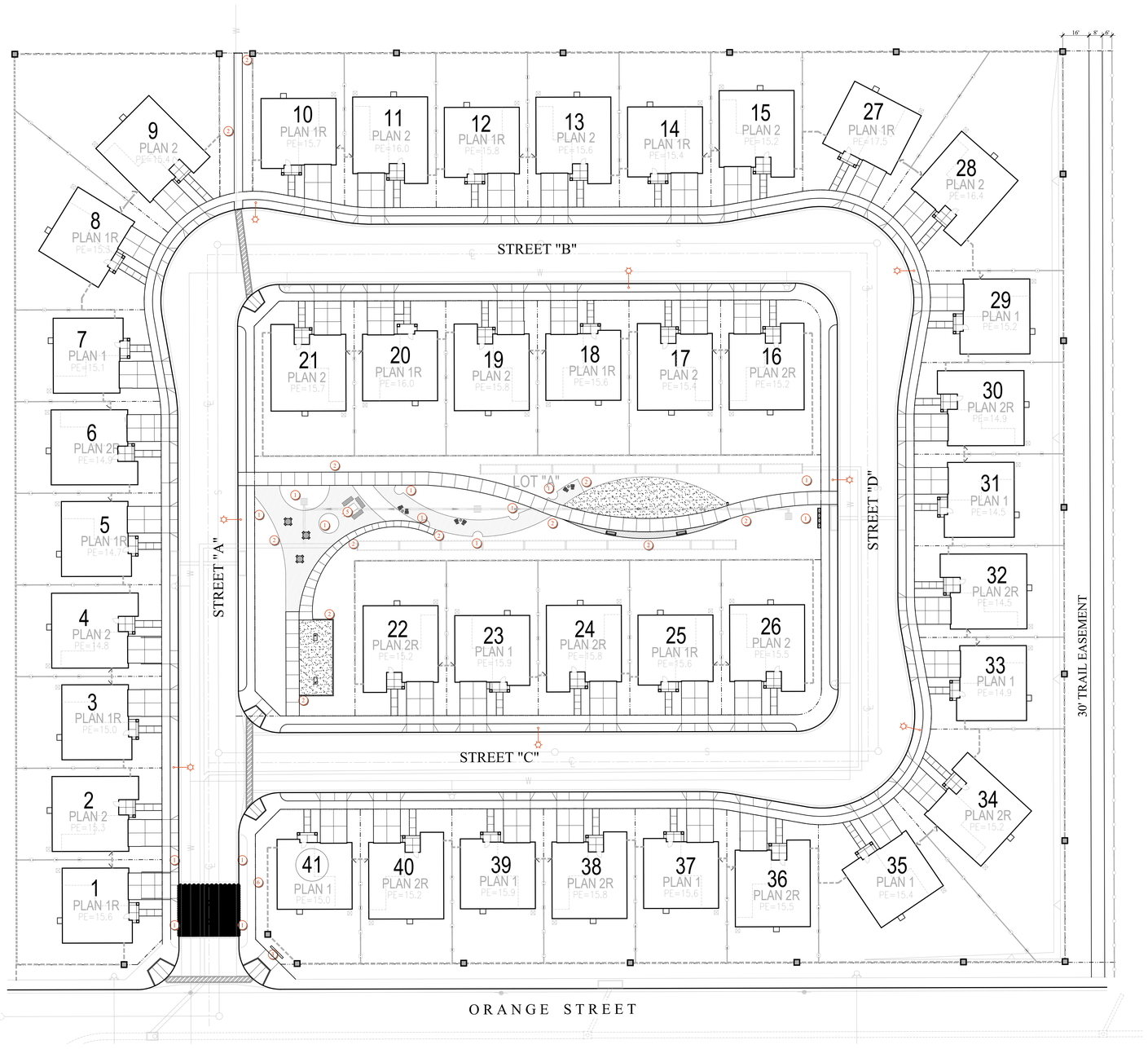
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4



3



LIGHTING LEGEND

1. Tree up light FX Luminaire FB Fits well into tight spaces.Order code: FB, Aluminum Alloy, (BZ) Bronze Metallic, Adjustable, (GM-SS) GutterMount w 1/2" thread for Accent LightsLamp: FB-3LED, 4.5W, 2700K, Beamspread: Spot22
2. Bollard, Kichler Louvered 2800K LED Bollard AZT16130AZT28 (Textured Architectural Bronze)Cast aluminum, Textured Architectural Bronze, Surface, with footingLamp: LED, 3.5W,5.67VA, 2700K Warm WhiteAccessories: Final location by Elec. Eng. Footing specs per Manufacturer.10
3. FX Luminaire QBDie-cast aluminum up light with powder coated finish. 2.16" W x 5.95" L x 2.93" H.Order code: QB, Aluminum Alloy, (BZ) Bronze Metallic, Adjustable, (GM-XX) GroundMountLamp: QB-1LED, 2.4W, 2700K, Beamspread: Very Wide Flood2
4. SVE-3 - Pole LightArea Pole Light, HID - Direct Lighting Sales, Model San Vicente #SVE-3Cast Aluminum, Textured Bronze, RA21 RadiusLamp: Per Elec. Eng., Per Elec. Eng., Per Elec. Eng.Accessories: On DBC-1 Base & 10' round pole.10
5. Exterior Electrical GFI OutletPer Electrical Eng., Per Electrical Eng., Wall or post
6. Low-voltage transformer - Kichler model #15PR300 SSCast Aluminum, Stainless Steel, Wall, Install with Mechanical Transformer Timer(#15557BK & Plug-In Transformer Remote Photocell (#15534K).300W4



2



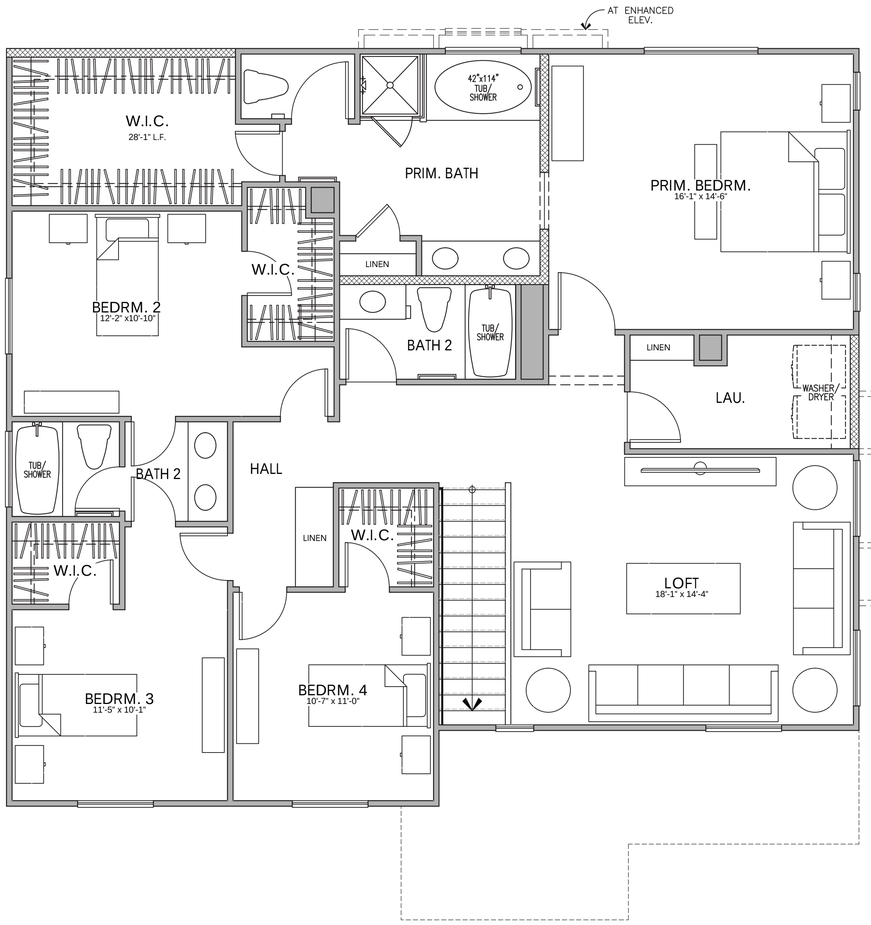
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SCHEMATIC LIGHTING PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

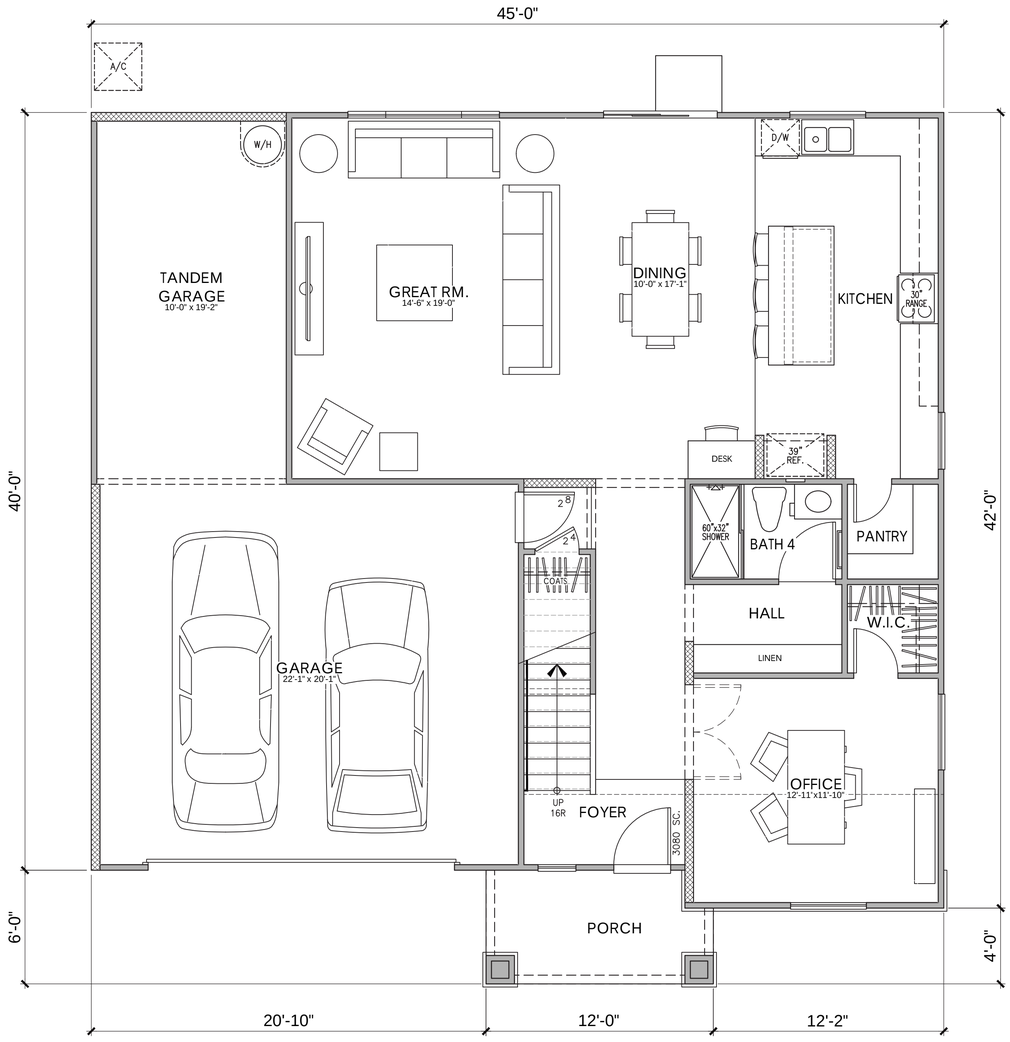
August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug. 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG



SECOND FLOOR PLAN



FIRST FLOOR PLAN

PLAN 1
AREA TABULATION

CONDITIONED SPACE	
FIRST FLOOR AREA	1,166 SQ. FT.
SECOND FLOOR AREA	1,667 SQ. FT.
TOTAL DWELLING	2,833 SQ. FT.
UNCONDITIONED SPACE	
GARAGE	661 SQ. FT.
PATIO	37 SQ. FT.

PLAN 1

4 BEDROOM, 4 BATH, OFFICE, LOFT

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-1

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

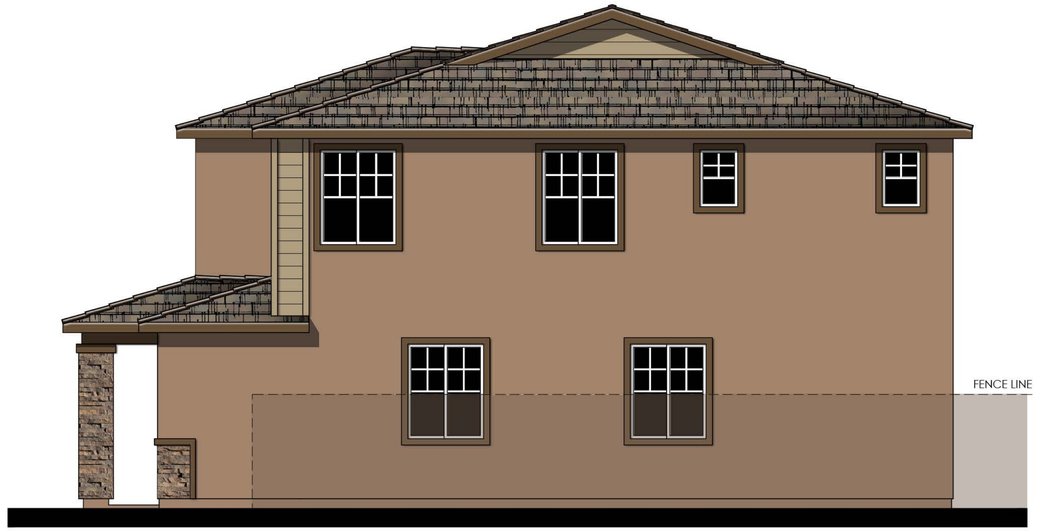
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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



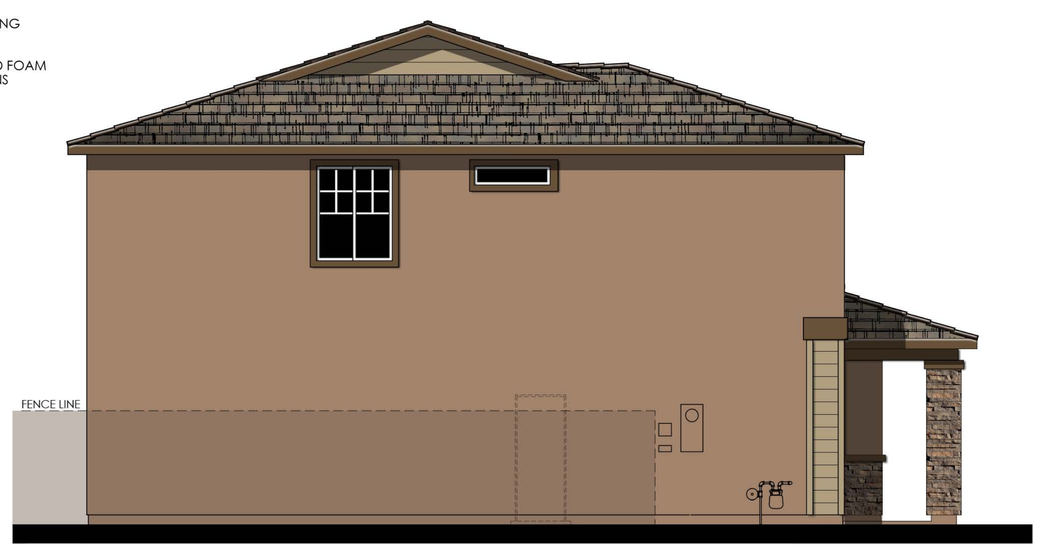
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 8" LAP SIDING
WINDOWS:	VINYL
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM
PORCH:	LIMESTONE COLUMNS
VENEER:	LIMESTONE



REAR



LEFT

COLOR SCHEME 3

PLAN 4524 "C"
COASTAL ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

08/22/2023

A-2

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

#20105



RIGHT



REAR

COLOR SCHEME 3

PLAN 4524 "C"

COASTAL ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-3

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

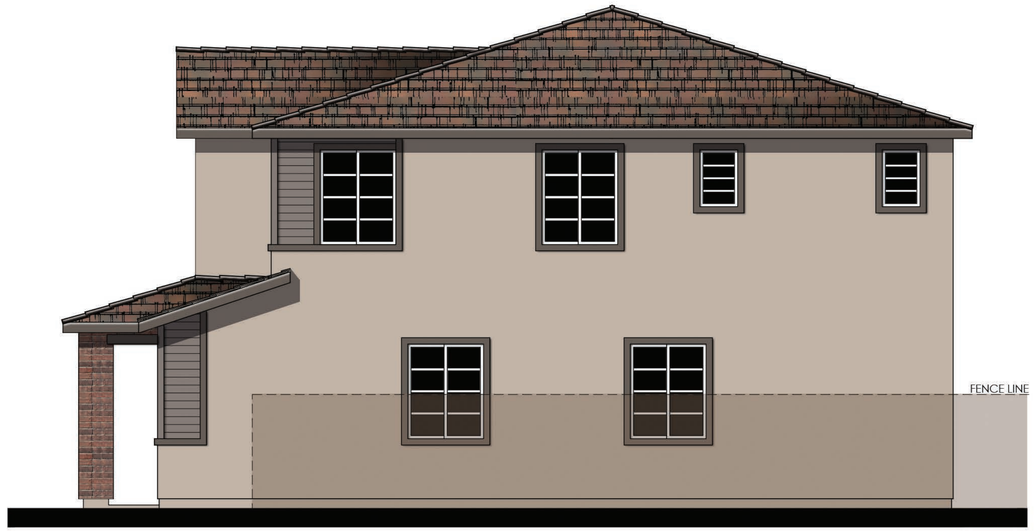
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Refer to landscape drawings for wall, tree, and shrub locations

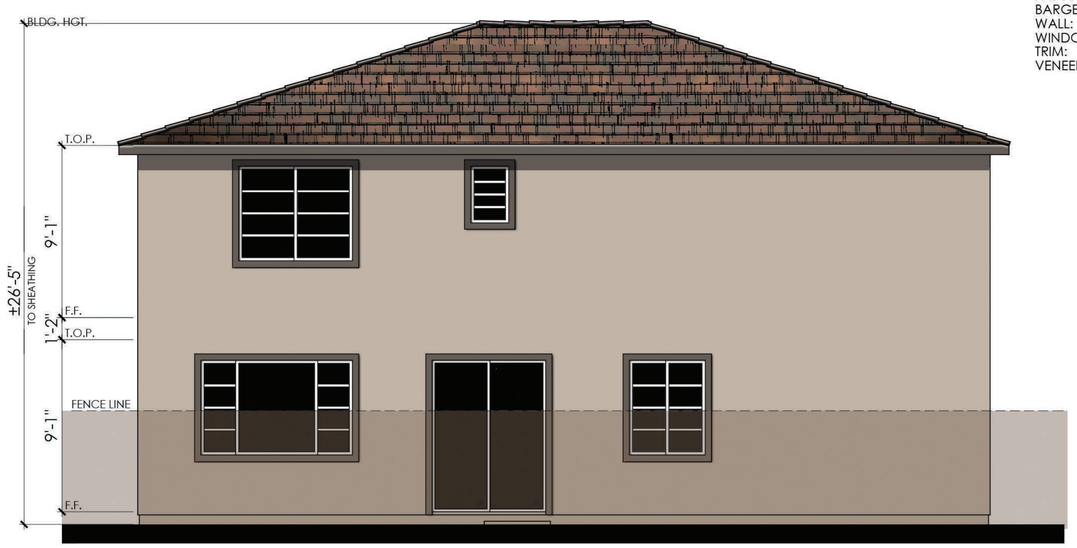
FRONT



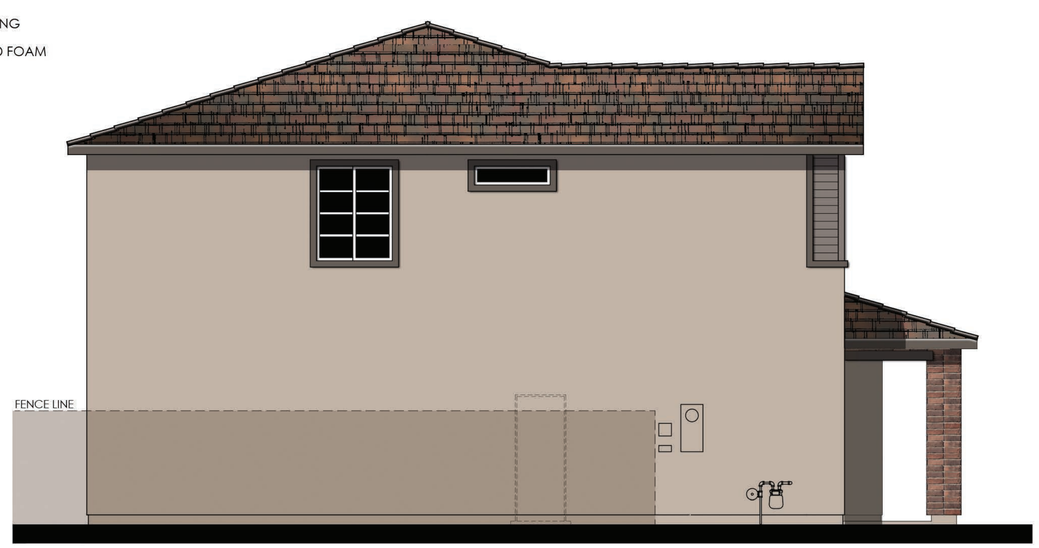
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOW
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 4" LAP SIDING
WINDOWS:	VINYL
TRIM:	STUCCO OVER RIGID FOAM
VENEER:	STACKED BRICK



REAR



LEFT

COLOR SCHEME 6

PLAN 4524 "D"
CONTEMPORARY ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

08/22/2023

A-4

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

#20105



RIGHT



REAR

COLOR SCHEME 6

PLAN 4524 "D"

CONTEMPORARY ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

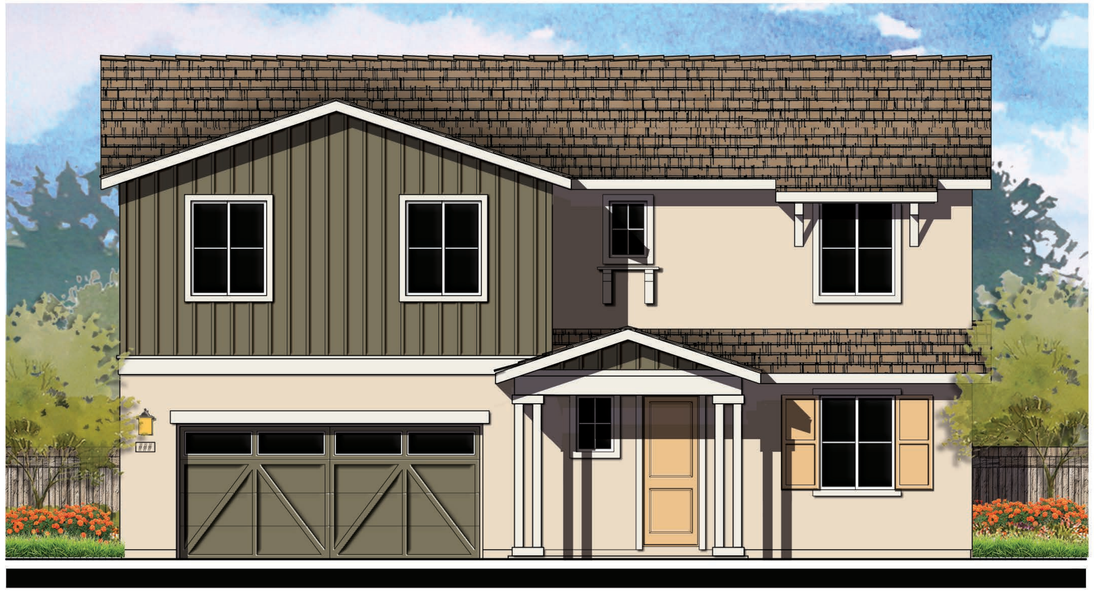
EASTVALE, CA

08/22/2023

A-5

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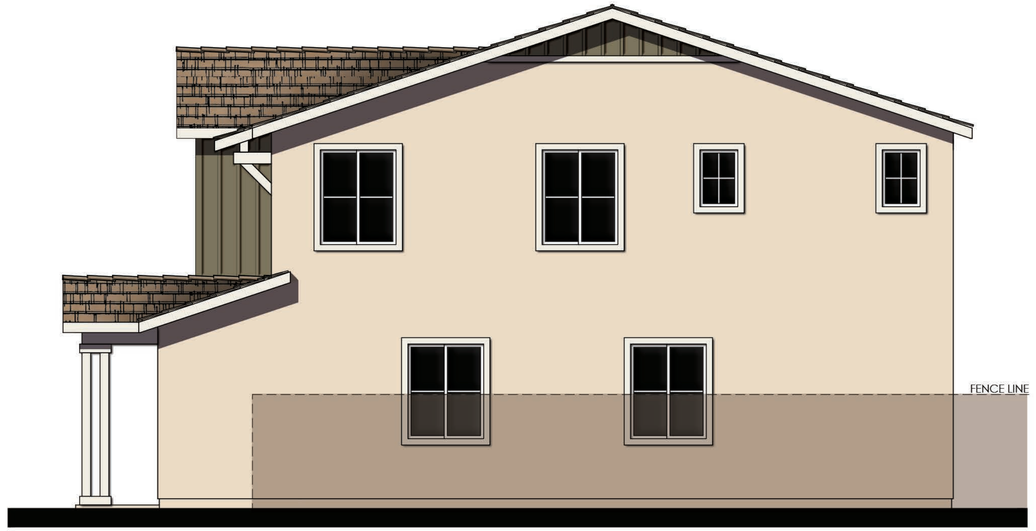
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Refer to landscape drawings for wall, tree, and shrub locations

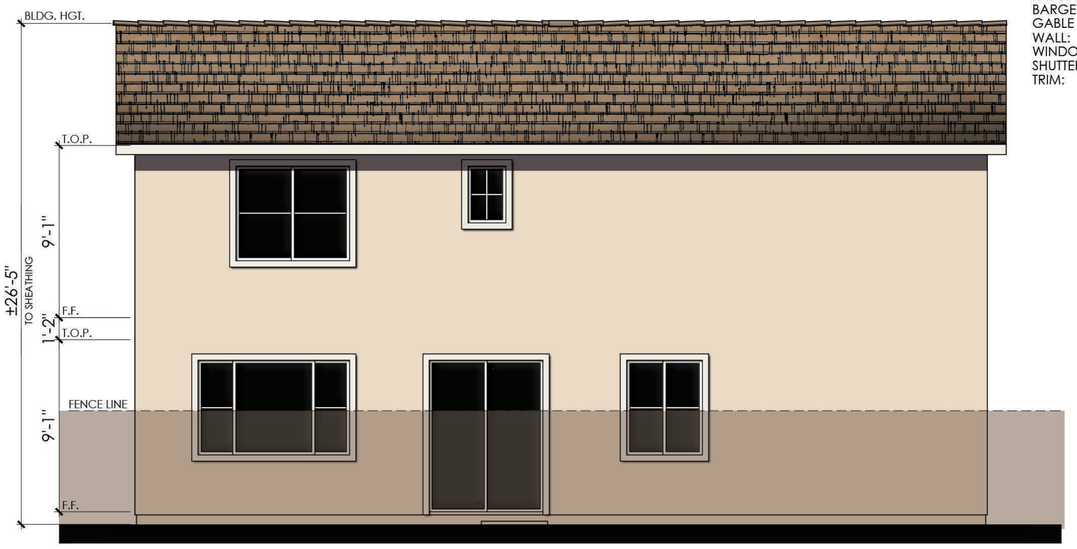
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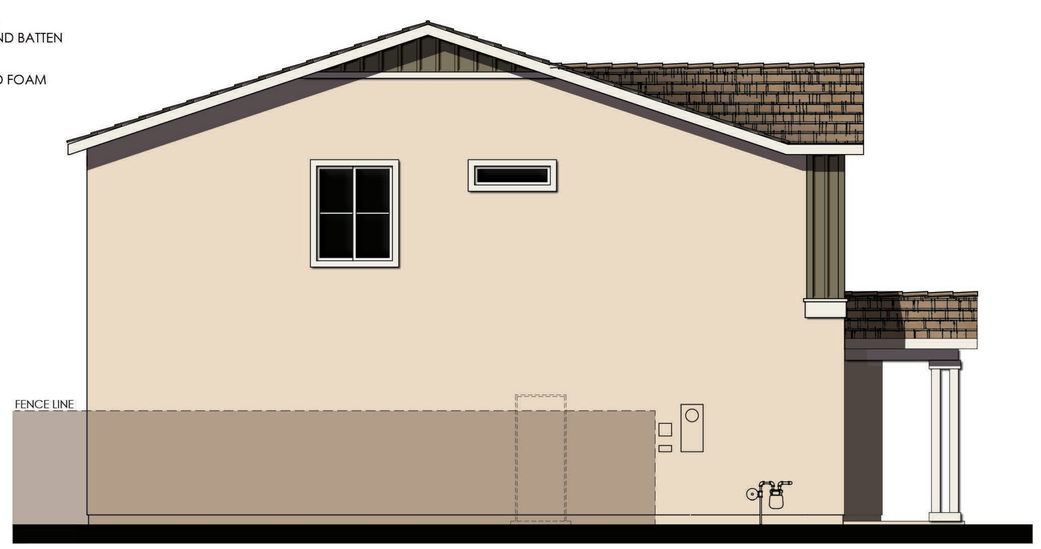
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MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
GABLE END:	BOARD AND BATTEN
WALL:	STUCCO/ BOARD AND BATTEN
WINDOWS:	VINYL W/ GRIDS
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM



REAR



LEFT

COLOR SCHEME 8

PLAN 4524 "E"

MODERN FARMHOUSE ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

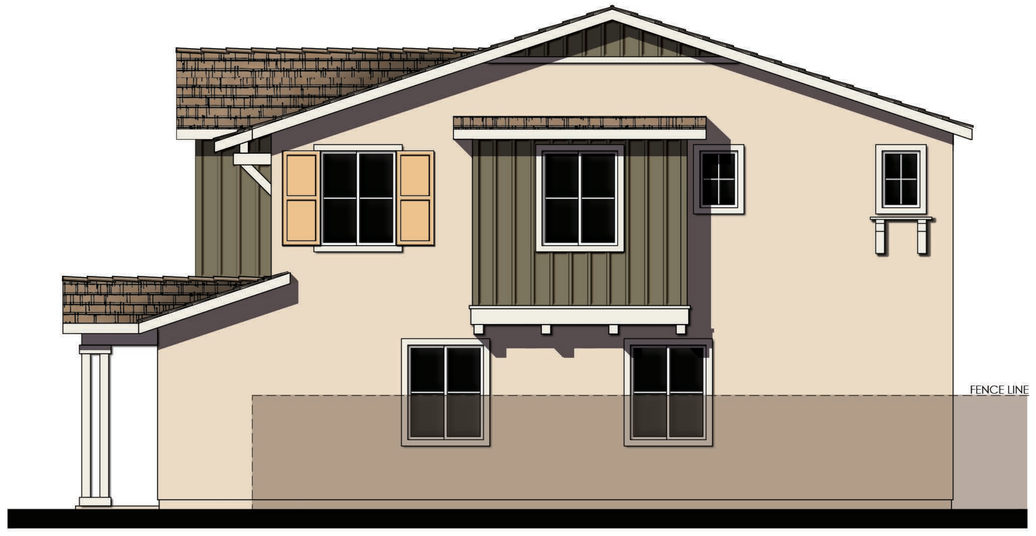
EASTVALE, CA

08/22/2023

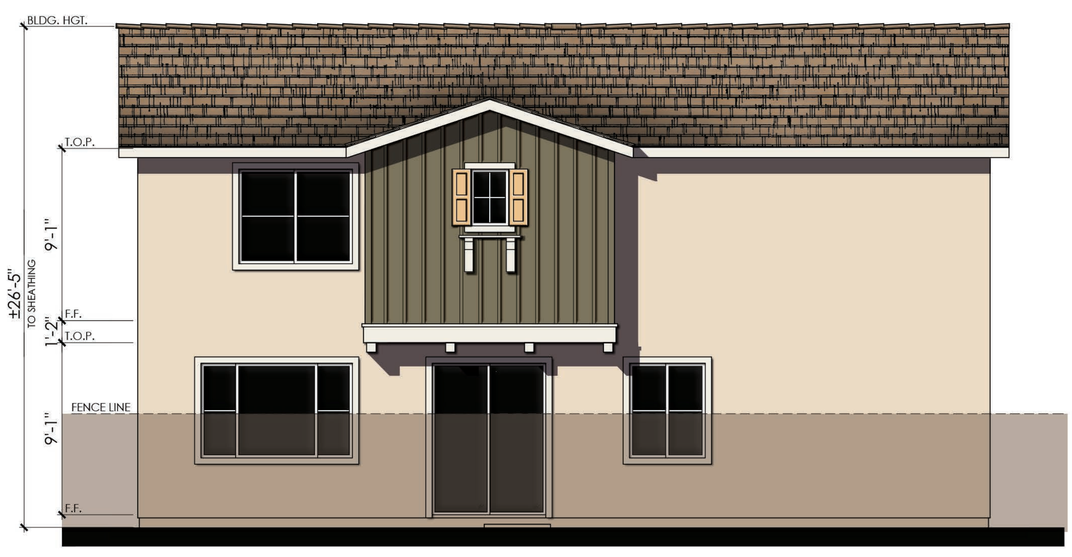
A-6

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RIGHT



REAR

COLOR SCHEME 8

PLAN 4524 "E"

MODERN FARMHOUSE ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

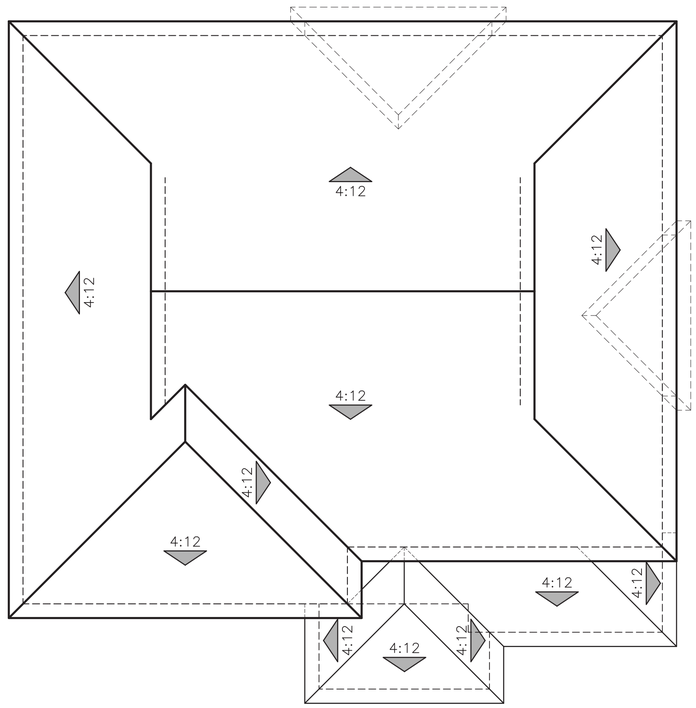
EASTVALE, CA

08/22/2023

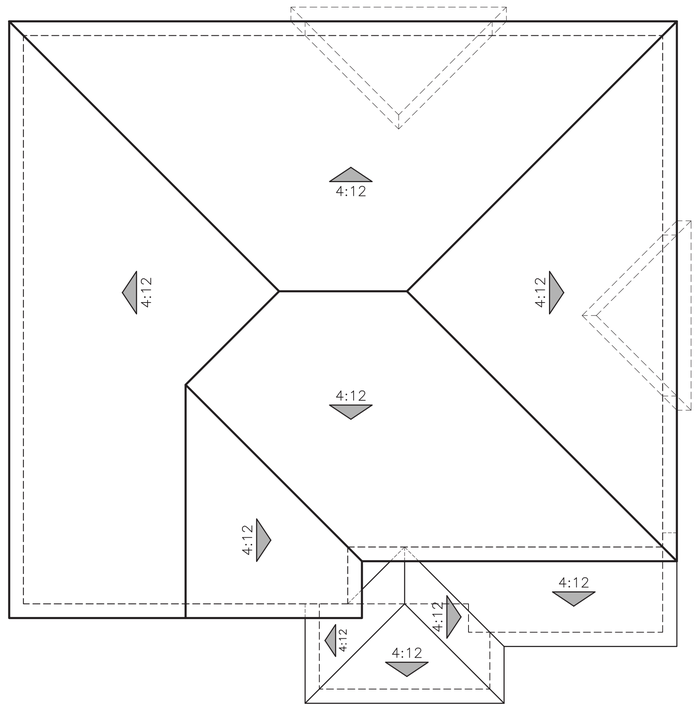
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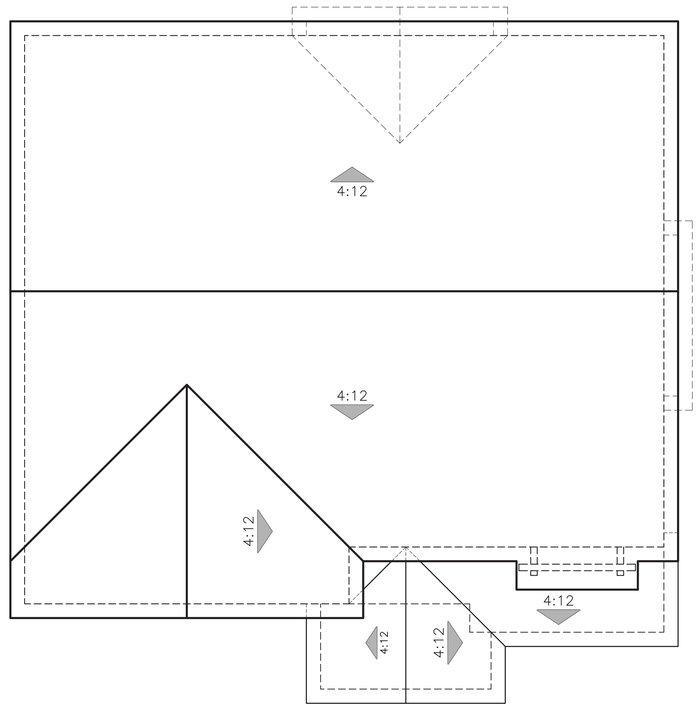
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"C" - COASTAL



"D" - CONTEMPORARY



"E" - MODERN FARMHOUSE

ROOF PLANS

PLAN 4524

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

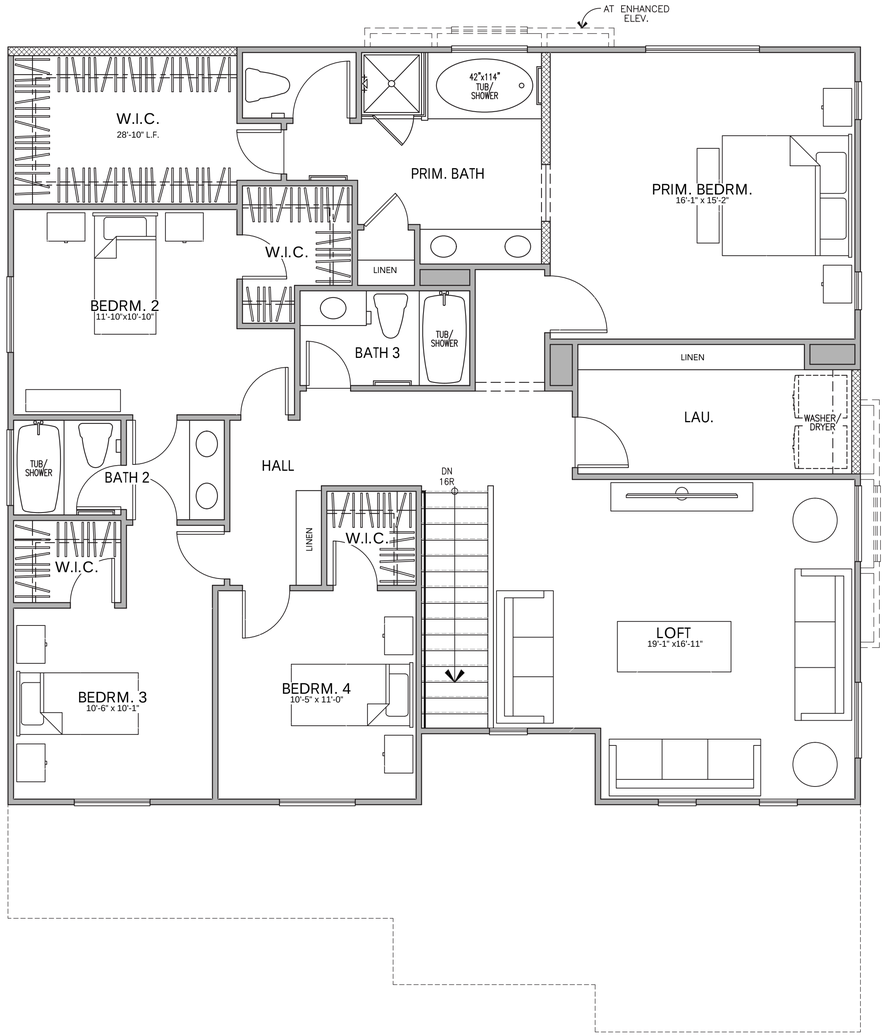
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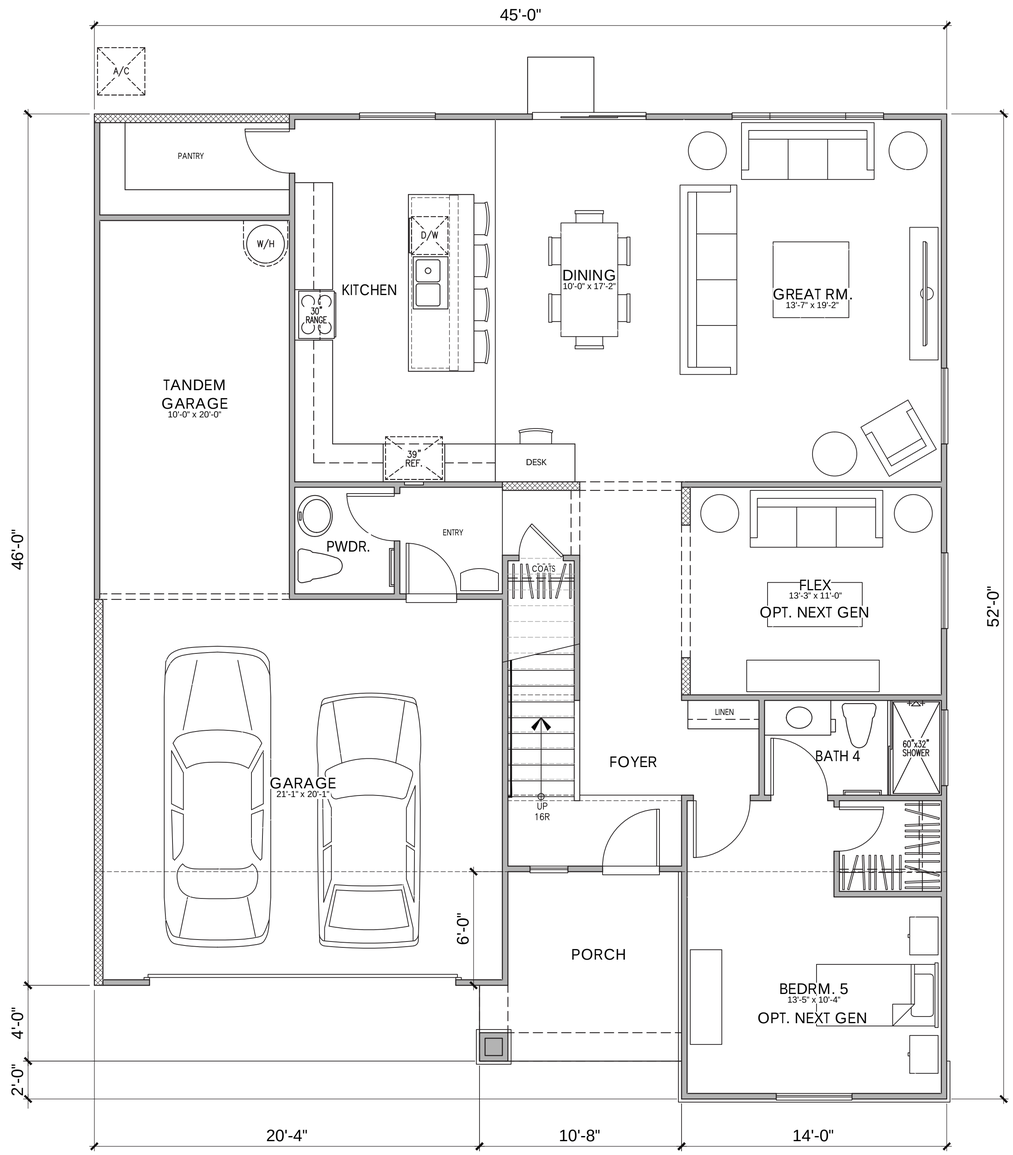
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#20105



SECOND FLOOR PLAN



FIRST FLOOR PLAN

PLAN 2
AREA TABULATION

CONDITIONED SPACE	
FIRST FLOOR AREA	1,453 SQ. FT.
SECOND FLOOR AREA	1,700 SQ. FT.
TOTAL DWELLING	3,153 SQ. FT.
UNCONDITIONED SPACE	
GARAGE	646 SQ. FT.
PATIO	98 SQ. FT.

0 2 4 8 12

PLAN 2

5 BEDROOM, 4.5 BATH, FLEX, LOFT, OPT. NEXT GEN SUITE

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-9

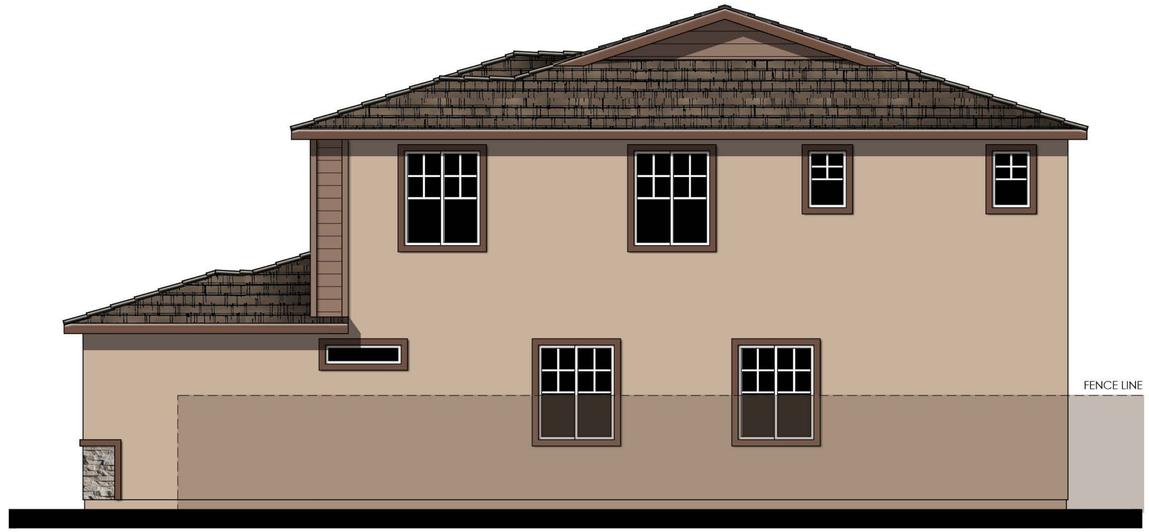
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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



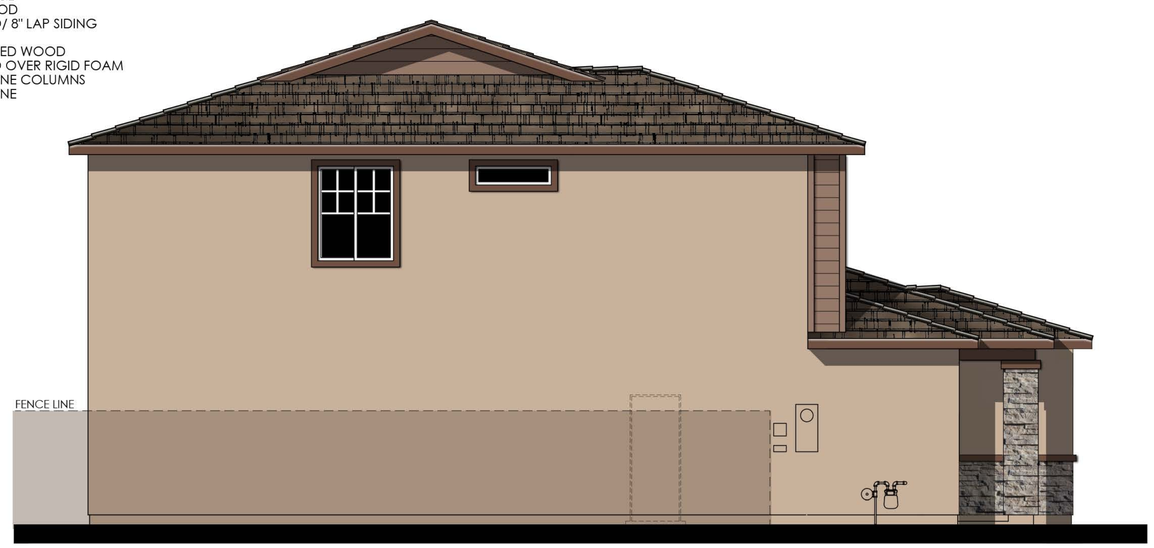
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 8" LAP SIDING
WINDOWS:	VINYL
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM
PORCH:	LIMESTONE COLUMNS
VENEER:	LIMESTONE



REAR



LEFT

COLOR SCHEME 1

PLAN 4528 "C"
COASTAL ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

08/22/2023

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RIGHT



REAR

COLOR SCHEME 1

PLAN 4528 "C"

COASTAL ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

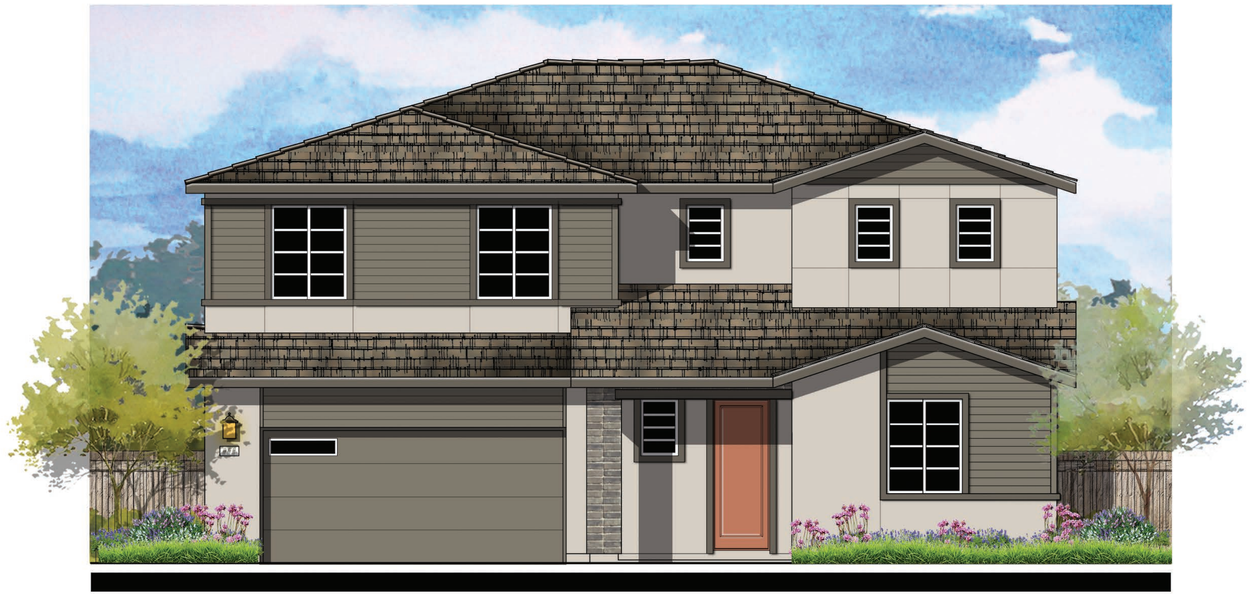
EASTVALE, CA

08/22/2023

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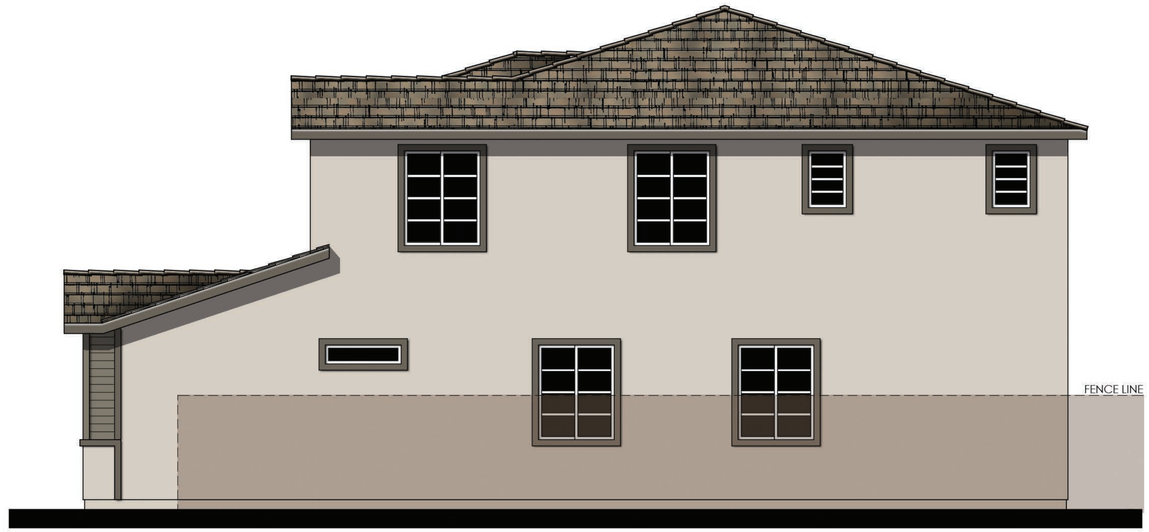
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Refer to landscape drawings for wall, tree, and shrub locations

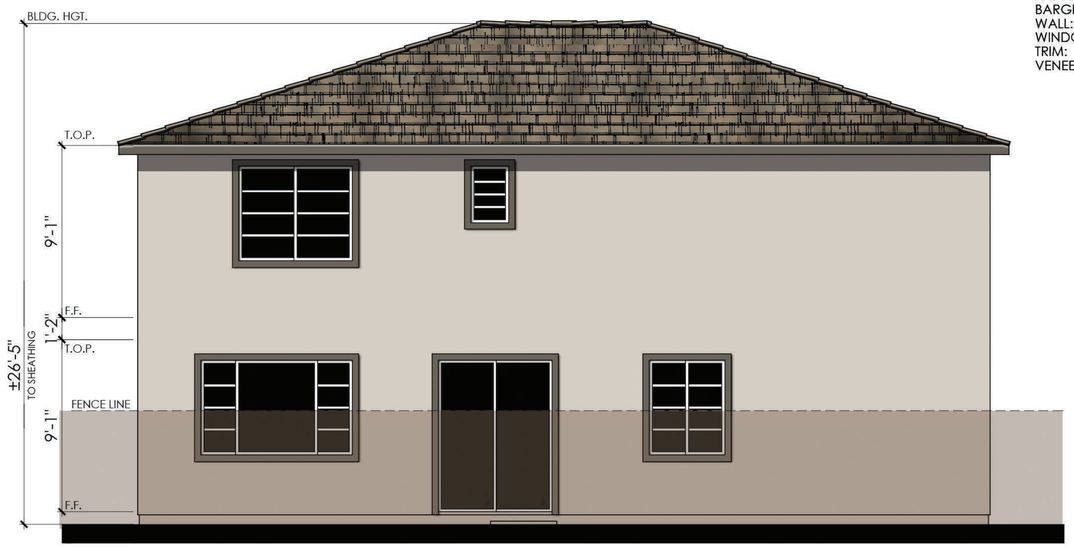
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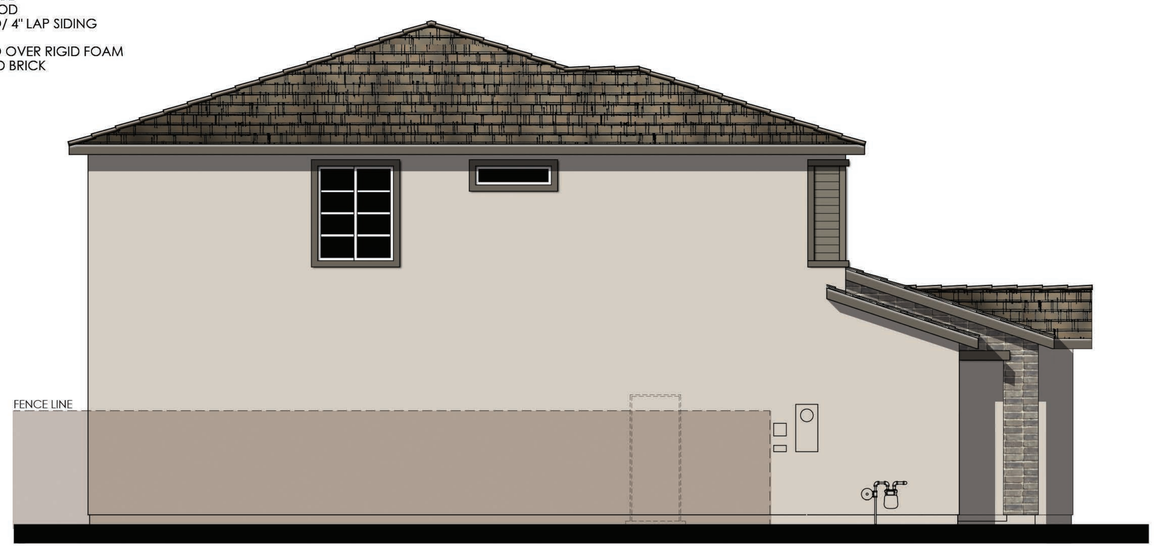
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MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOW
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 4" LAP SIDING
WINDOWS:	VINYL
TRIM:	STUCCO OVER RIGID FOAM
VENEER:	STACKED BRICK



REAR



LEFT

COLOR SCHEME 5

PLAN 4528 "D"
CONTEMPORARY ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

08/22/2023

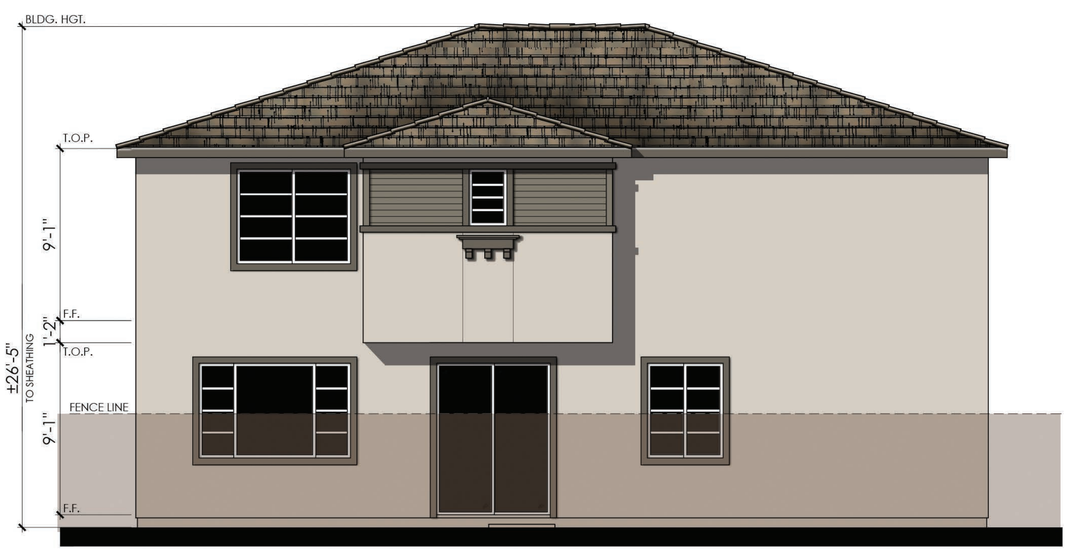
A-12

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RIGHT



REAR

COLOR SCHEME 5

PLAN 4528 "D"

CONTEMPORARY ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

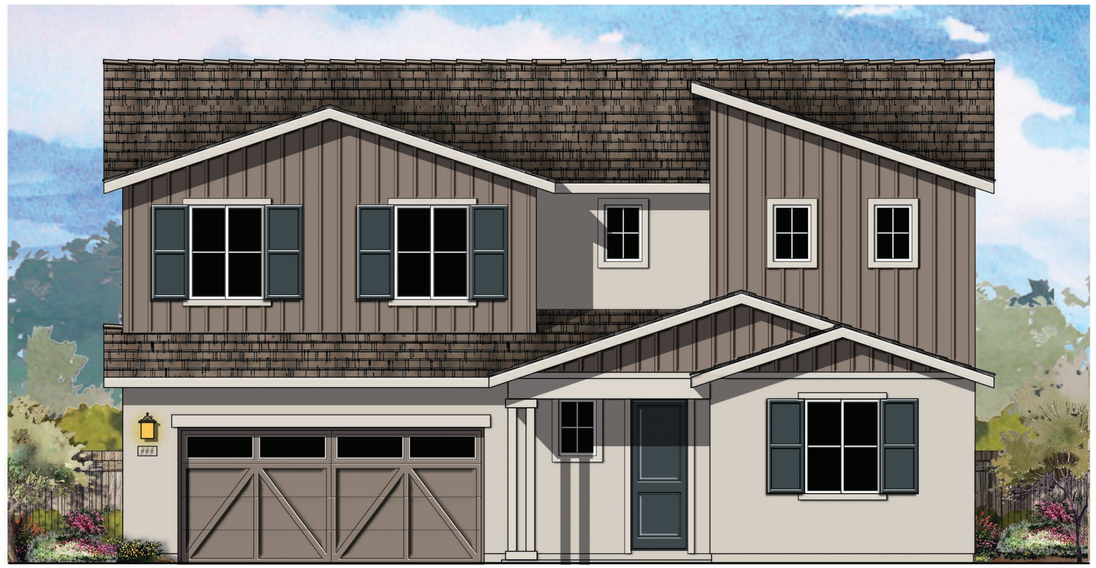
EASTVALE, CA

08/22/2023

A-13

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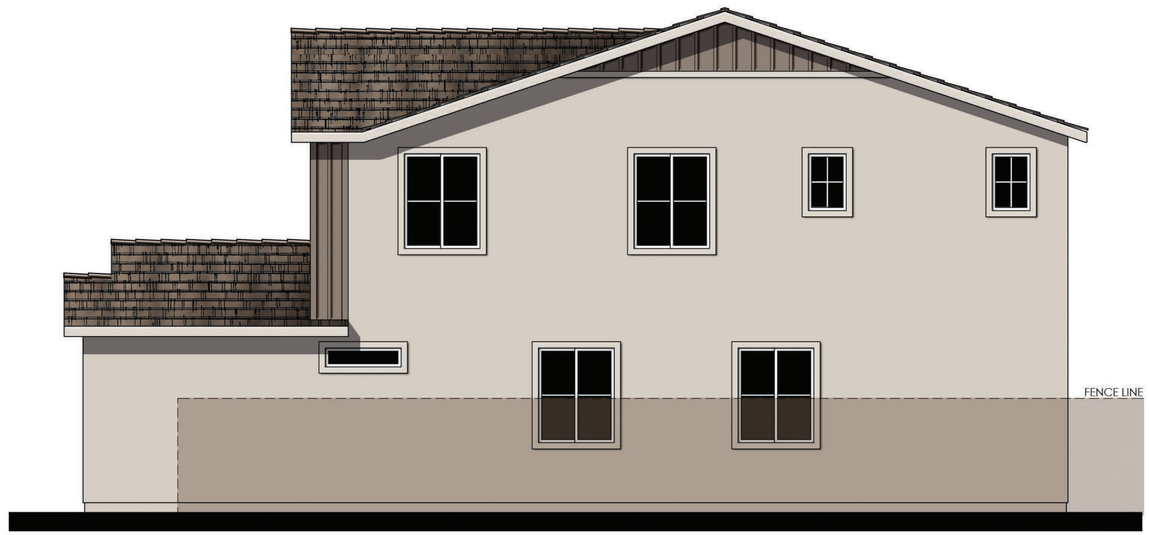
#20105



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Refer to landscape drawings for wall, tree, and shrub locations

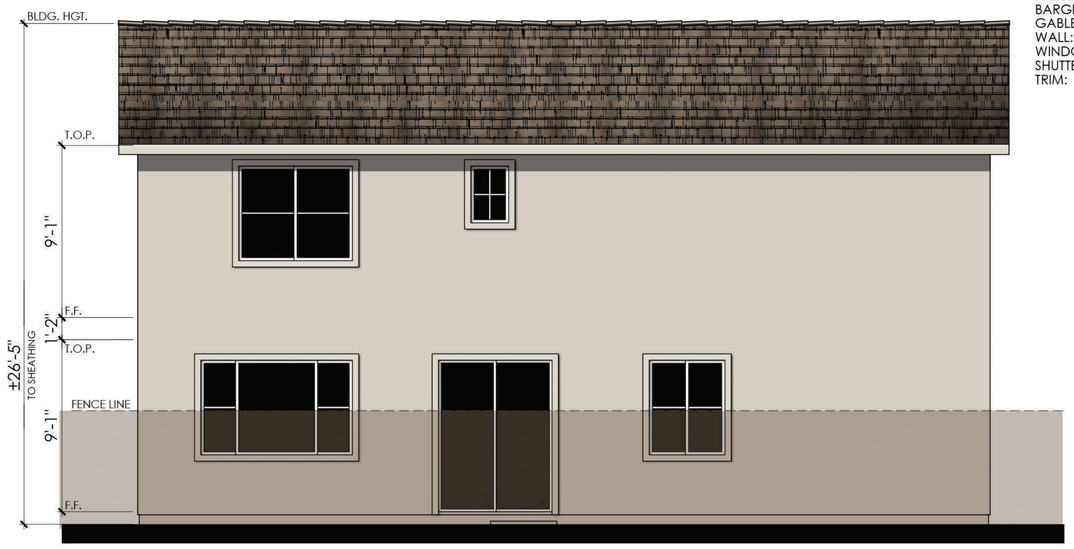
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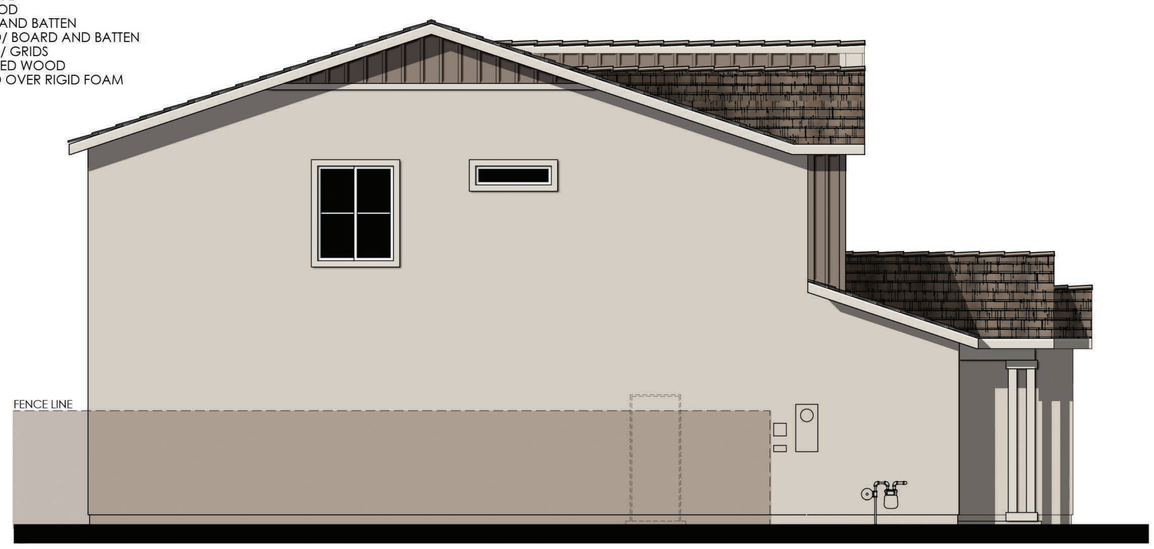
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MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
GABLE END:	BOARD AND BATTEN
WALL:	STUCCO/ BOARD AND BATTEN
WINDOWS:	VINYL W/ GRIDS
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM



REAR



LEFT

COLOR SCHEME 30

PLAN 4528 "E"

MODERN FARMHOUSE ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

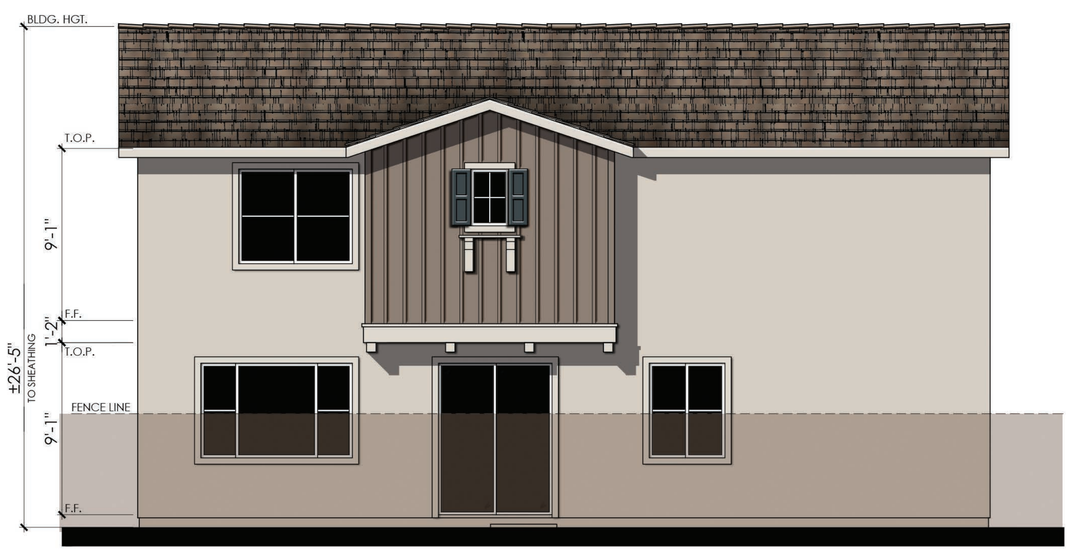
A-14

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#20105



RIGHT



REAR

COLOR SCHEME 9

PLAN 4528 "E"

MODERN FARMHOUSE ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

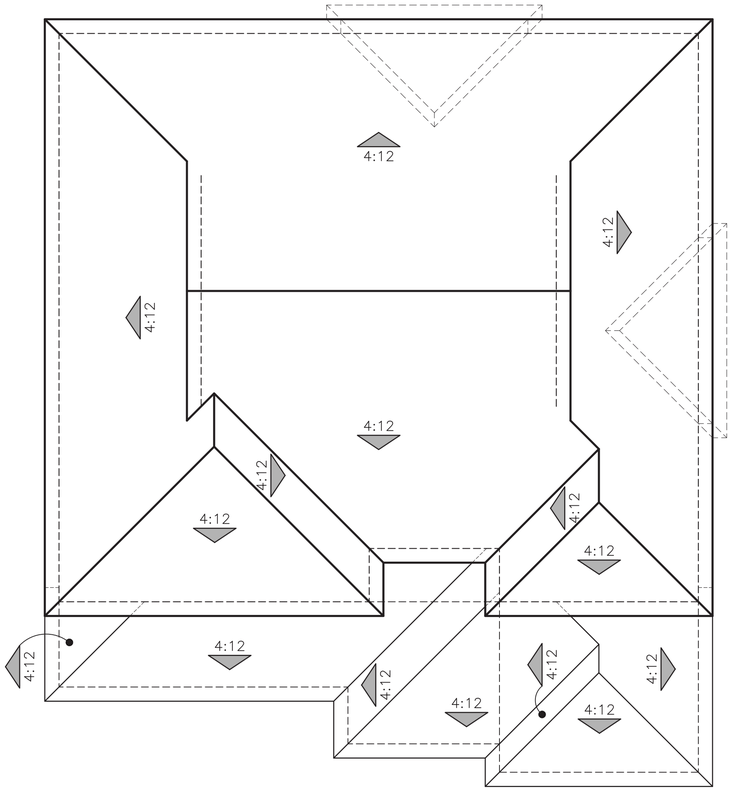
EASTVALE, CA

08/22/2023

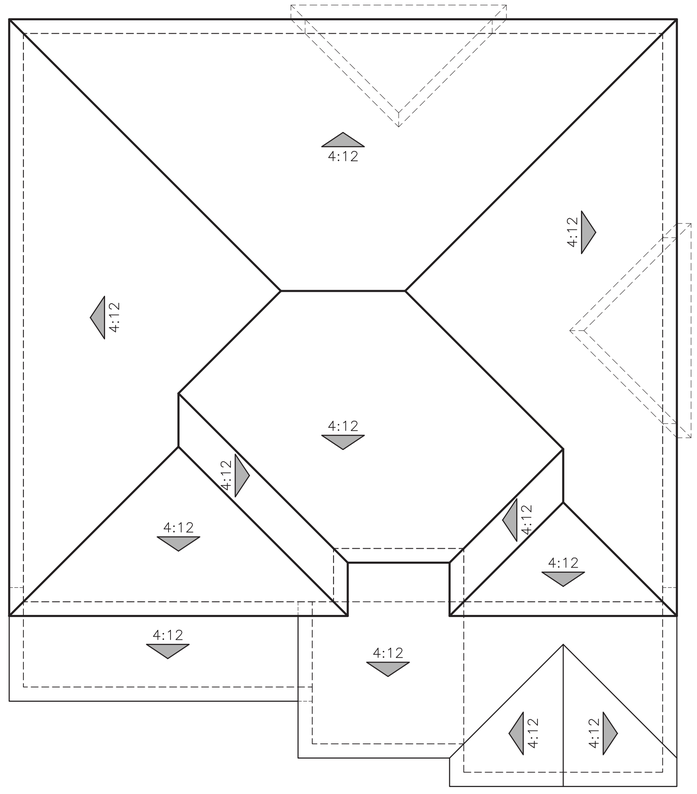
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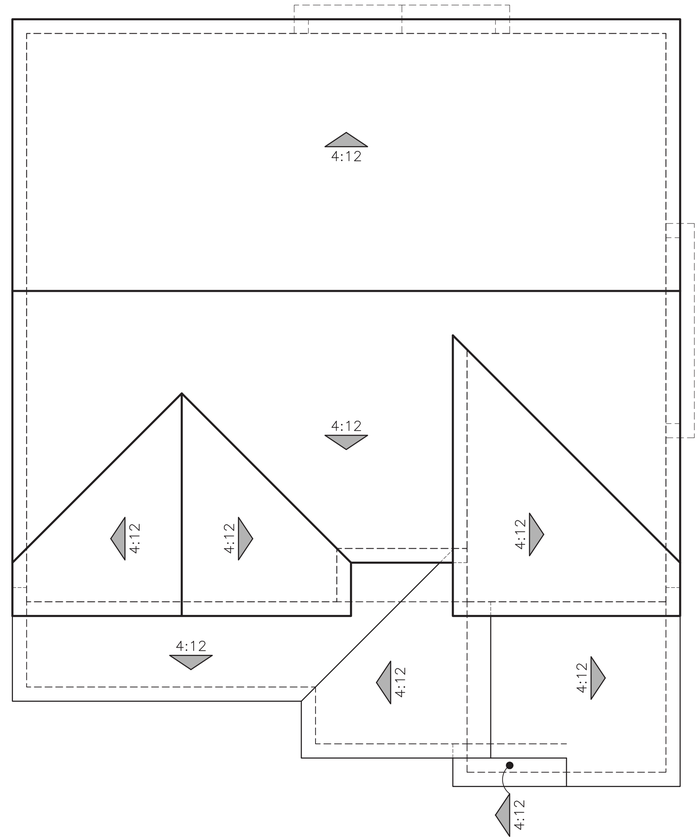
#20105



"C" - COASTAL



"D" - CONTEMPORARY



"E" - MODERN FARMHOUSE

ROOF PLANS

PLAN 4528

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

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#20105

MAGNOLIA RANCH

EASTVALE, CA

JOB #: 20105B
CREATED: 11/3/2021
Planning Rev: 8/16/2023

"C" ELEVATIONS COASTAL	SCHEME 1	SCHEME 2	SCHEME 3
STUCCO	1608	1547	1617
STUCCO PAINT MATCH***	SW6100 PRACTICAL BEIGE	SW6121 WHOLE WHEAT	SW9092 ICED MOCHA
FASCIA / TRIM	SW6068 BREVITY BROWN	SW6160 BEST BRONZE	SW9115 COWBOY BOOTS
LAP SIDING / CORNER BOARDS / GARAGE DOOR	SW6067 MOCHA	SW6159 HIGH TEA	SW9122 DRIED EDAMAME
FRONT DOOR / SHUTTERS	SW6020 MAROON	SW0012 EMPIRE GOLD	SW7710 BRANDYWINE
ROOF: FLAT SLATE SAXONY 900	1FACS3233 BROWN BLEND	1FECY4072 SAHARA QUARTZ BLD	1FECY4071 OCEAN JASPER BLD
STONE: EUROPEAN LEDGE	COTTONWOOD	LINEN	IRON MILL

"D" ELEVATIONS CONTEMPORARY	SCHEME 4	SCHEME 5	SCHEME 6
STUCCO	1515	1507	1559
STUCCO PAINT MATCH***	SW7638 JOGGING PATH	SW7632 MODERN GRAY	*SW6079 DIVERSE BEIGE*
FASCIA / TRIM	SW7645 THUNDER GRAY	SW7047 PORPOISE	SW7505 MANOR HOUSE
GARAGE DOOR / LAP SIDING / CORNER BOARDS	SW7743 MOUNTAIN ROAD	SW7046 ANONYMOUS	SW6004 MINK
FRONT DOOR	SW6221 MOODY BLUE	SW2854 CARIBBEAN CORAL	SW2838 POLISHED MAHOGANY
ROOF: FLAT SLATE	1FECY4070 SEA PEARL BLEND	1FECY0300 BRONZE PEARL BLD	1FACS7002 CHERRYWOOD
BRICK: STACK BOND INSTALLATION	TUNDRA CHALKDUST	TUNDRA ASHLAND	TUNDRA HARTFORD
GROUT:	MAC MISTY COVE	MAC MISTY COVE	MAC MISTY COVE

"E" ELEVATIONS FARMHOUSE	SCHEME 7	SCHEME 8	SCHEME 9
STUCCO	1572	1557	1528
STUCCO PAINT MATCH***	SW7757 HIGH REFLECTIVE WT	SW7573 EAGLET BEIGE	SW7632 MODERN GRAY
FASCIA / TRIM	SW7069 IRON ORE	SW7551 GREEK VILLA	SW7628 WINDFRESH WHITE
BOARD & BATTEN SIDING / GARAGE DR	SW2821 DOWNING STONE	SW7740 MESSENGER BAG	SW6074 SPALDING GRAY
FRONT DOOR / SHUTTERS	SW7069 IRON ORE	SW6373 HARVESTER	SW7625 MOUNT ETNA
ROOF: FLAT SHAKE	1FBCJ1430 CHARCOAL BLEND	1FBCJ0198 DUNES TAN	1FBCJ3181 SMOKEY TOPAZ BLD

STUCCO:	OMEGA
PAINT:	PPG PAINTS
ROOF:	NEWPOINT WESTLAKE
VENEER:	ELDORADO
GROUT:	ORCO or EQUAL

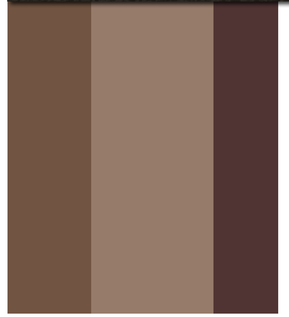
Woodside HOMES

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PLANNING + ARCHITECTURE

WRITTEN COLOR SCHEMES

COASTAL
SCHEME #1







Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 21, 2023

Kevin L. Crook Architect Inc
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COASTAL
SCHEME #2







Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 21, 2023

Kevin L. Crook Architect Inc
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COASTAL
SCHEME #3







Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

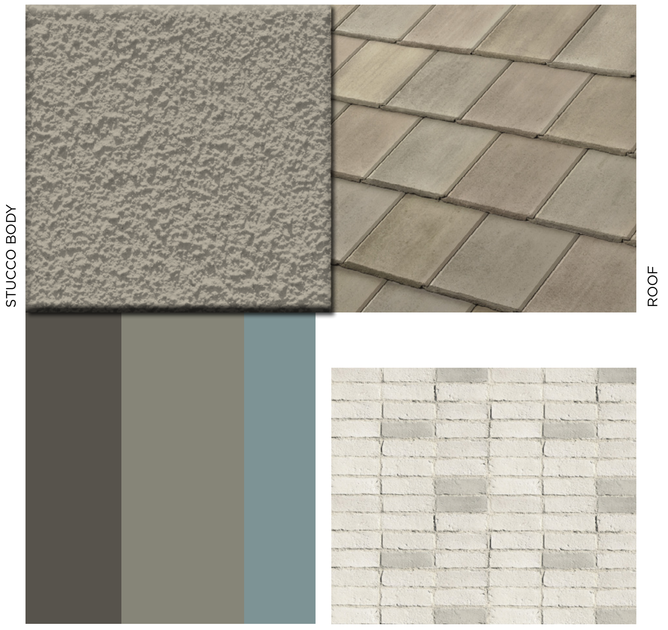
#20105
AUG. 21, 2023

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PLANNING + ARCHITECTURE

COLOR BOARDS - “C” COASTAL

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION.
REFER TO PAINT CHIPS AND MATERIALS BOARDS FOR ACTUAL COLORS.

CONTEMPORARY
SCHEME #4



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

CONTEMPORARY
SCHEME #5



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
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CONTEMPORARY
SCHEME #6



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

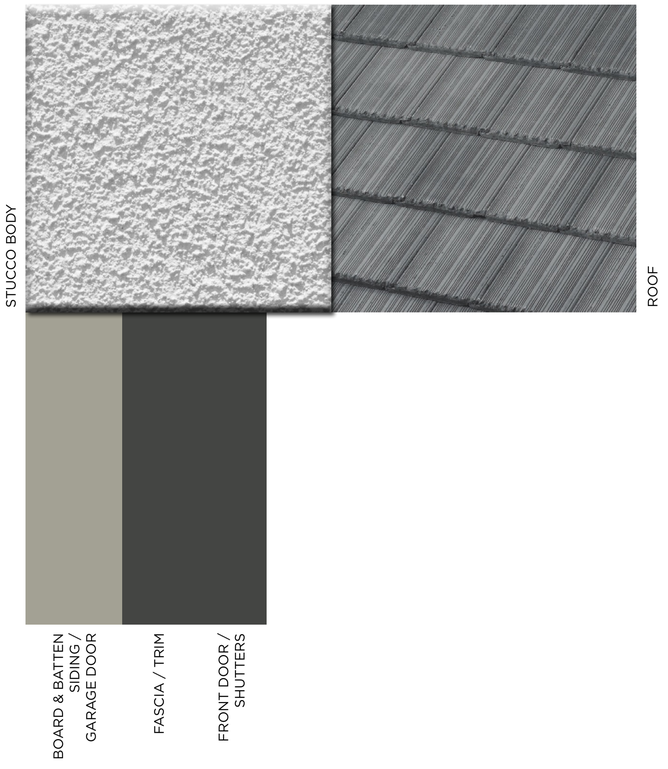
#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

COLOR BOARDS - “D” CONTEMPORARY

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION.
REFER TO PAINT CHIPS AND MATERIALS BOARDS FOR ACTUAL COLORS.

MODERN FARMHOUSE
SCHEME #7



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

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MODERN FARMHOUSE
SCHEME #8



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

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MODERN FARMHOUSE
SCHEME #9



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

COLOR BOARDS - “E” MODERN FARMHOUSE

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION.
REFER TO PAINT CHIPS AND MATERIALS BOARDS FOR ACTUAL COLORS.

INITIAL STUDY / MITIGATED NEGATIVE DECLARATION

Magnolia Ranch Residential Project
(PROJECT 23-20043)

Project Proponent:

Woodside Homes

Lead Agency:

CITY OF EASTVALE
Planning Department
12363 Limonite Avenue, Suite 910
Eastvale, CA 91752

September 2023

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1. INTRODUCTION AND PROJECT DESCRIPTION

A. PURPOSE AND PROJECT OVERVIEW

The City of Eastvale is processing applications for a Tentative Parcel Map and Major Development Review, referred to as PLN22-20024 (Magnolia Ranch Residential Project), for the development of a 41-unit single-family residential project on approximately 10 acres and located south of Schleisman Road, north of Orange Street, and directly west of Eastvale Elementary School. In addition, the City is processing a pre-application for the project under Senate Bill (SB) 330. PLN22-20024 is further described in Section I.C, below.

This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA; California Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.).

B. PROJECT LOCATION AND DESCRIPTION OF SURROUNDING AREA

The Magnolia Ranch Residential Project (project) site is located in the City of Eastvale, south of Schleisman Road, north of Orange Street, and directly west of Eastvale Elementary School. The project site consists of one approximately 10-acre parcel, identified as Assessor Parcel Number (APN) 152-040-003. The project site is partially developed with one occupied single-family residence, an outbuilding, and a concrete driveway connecting the residence to Orange Street. The regional and local vicinity of the project site are shown in ***Exhibit 1, Regional Vicinity*****,** and ***Exhibit 2, Project Location***.

According to the City's most recent Land Use Map (2019), the project site currently has a land use designation of Medium Density Residential (MDR), with an allowable density range of 2.1 to 5.0 dwelling units per acre [du/ac]. This is consistent with surrounding MDR development to the north and west. According to the City's most recent Zoning Map (2019), the project site is currently zoned Heavy Agriculture (A-2). The properties to the south of the project site are also zoned Heavy Agricultural (A-2). The neighborhoods to the north and west are zoned One Family Dwellings (R-1). However, as discussed under Section C., *Project Description* below, because the project site has a Residential land use designation and is consistent with the objective General Plan standards for the site, the project is not required to obtain approval of a Change of Zone under the provisions of AB 3194 and SB 330.

Land uses surrounding the project have been fully developed with educational facilities (specifically, Eastvale Elementary School to the east and River Heights Intermediate School to the south) and single-family residential neighborhoods consistent with their respective permitted densities and complete with right-of-way improvements such as sidewalks, lighting, and landscaping.

C. PROJECT DESCRIPTION

The project would develop 41 single-family detached residential units on an approximately 10-acre site (8.28 acres of which are developable following public street dedications of 1.72 acres). The density of the proposed project would be 4.95 du/ac, which is within the allowable density range of 2.1 to 5.0 du/ac for MDR uses.

The entitlements are discussed individually in the bulleted list below and illustrated in ***Exhibit 3, Conceptual Site Plan*****.**

- **Tentative Parcel Map:** To subdivide an approximately 10-acre lot (APN 152-040-003) into 41 parcel lots.
- **Major Development Review:** Site planning and architecture for the development of 41 single-family detached residential units.

Prior to project grading and construction, the project would require the vacating and demolition of the existing single-family residence and appurtenant structures onsite. The project applicant is currently in escrow to purchase the property from the existing residential landowner.

Assembly Bill (AB) 3194 and Senate Bill (SB) 330

The City has identified the project site as being subject to SB 330 (the Housing Crisis Act of 2019). In 2021, the City adopted Chapter 120.08, *No Net Loss Program*, in the Eastvale Municipal Code in order to establish an SB 330 compliance density bonus program, in satisfaction of the "no net loss" requirements of SB 330. Projects requesting Density Bonuses through the No Net Loss Program are subject to preliminary application processing as specified in Eastvale Municipal Code Chapter 120.08, in addition to environmental analysis under CEQA.

Under the streamlining provisions of AB 3194 and SB 330, a housing development cannot be required to rezone the property if it is consistent with the objective General Plan standards for the property. The public agency may require the housing development to comply with the objective zoning code standards applicable to the property, but only to the extent they facilitate the development at the density allowed by the General Plan.[1,2]

Development Concept

The single-family residential development would consist of 41 five-bedroom units ranging from 2,833 square feet (SF) to 3,153 SF. All units constructed would be two stories. The total building coverage would be approximately 139,371 SF with a gross building area of approximately 112,384 SF. The maximum building height of the residences would be 27 feet.

Amenities within the development would include an approximately 27,803 SF common area with picnic seating area, coffee table with seating, a central lawn area with real turf, corn hole play area, a trail, and a dog station. Two paseos would be provided onsite including a 63-foot-wide paseo with a native succulent garden walk in the central portion of the project site, and a 30-foot-wide paseo that would extend along the easterly property line and would include an easement in favor of the City of Eastvale to provide a public trail connection between Schleisman Road and Orange Steet. A pedestrian connection located between lots 9 and 10 would provide a trail connection for residents to access a future linear park along Schleisman Road.

[1] Best, Best and Krieger, LLP. 2022. https://www.bbklaw.com/news-events/insights/2019/legal-alerts/10/sb-330-limits-local-laws-over-housing-developments Accessed June 21, 2022.

[2] Holland & Knight. 2019. https://www.hklaw.com/en/insights/publications/2018/10/californias-2019-housing-laws-what-you-need-to-kno

The project would be constructed to conform with Chapter 5, *Development Standards*, of the City's Zoning Code and the City's adopted *Design Standards and Guidelines*, which include design standards related to building size, height, setback, and materials, as well as landscaping, signage, and other considerations. Refer to ***Appendix 1, Architectural Plan Set***.

Utilities

The following utilities/infrastructure systems and services are available to the project. Refer to ***Appendix 2, Preliminary Grading and Drainage Plan***.

- *Water and Sewer*. Water and sewer services would be provided to the project by the Jurupa Community Services District (JCSD).
- *Drainage*. The drainage system that would serve the project site is under the jurisdiction of Riverside County in accordance with the County's Master Drainage Plan (MDP).
- *Dry Utilities*. Electricity and natural gas services would be provided by Southern California Edison (SCE) and Southern California Gas Company (SoCalGas), respectively.

Access and Circulation

All project access and circulation improvements would be designed and constructed consistent with City design and engineering standards, as described in detail in Section 4.17, *Transportation*, of this IS/MND. The project would be subject to the City's Development Impact Fee (DIF) fee program and the Western Riverside Council of Governments' (WRCOG) Transportation Uniform Mitigation Fee (TUMF) program and would be required to pay the requisite DIF and TUMF fees at the rates then in effect pursuant to the DIF and TUMF ordinances.

As shown in ***Exhibit 3, Conceptual Site Plan***, on-site access/circulation would be provided via one driveway entrance located at Orange Street. Interior streets would be designed with a 56-foot right-of-way based on City standards with a 36-foot curb-to-curb section with parking on both sides. A 5-foot sidewalk and 5-foot landscaped area with street trees would be implemented.

Parking

Resident parking for the project would include a total of 222 parking spaces as follows: 2 garage spaces per dwelling unit; 2 driveway spaces per dwelling unit; and 58 parallel on-street spaces.

The project would exceed the City's minimum parking requirement of 82 spaces (2 spaces per dwelling unit) by 140 spaces, in accordance with Chapter 5, *Development Standards*, of the City's Zoning Code. Refer to ***Exhibit 3, Conceptual Site Plan***.

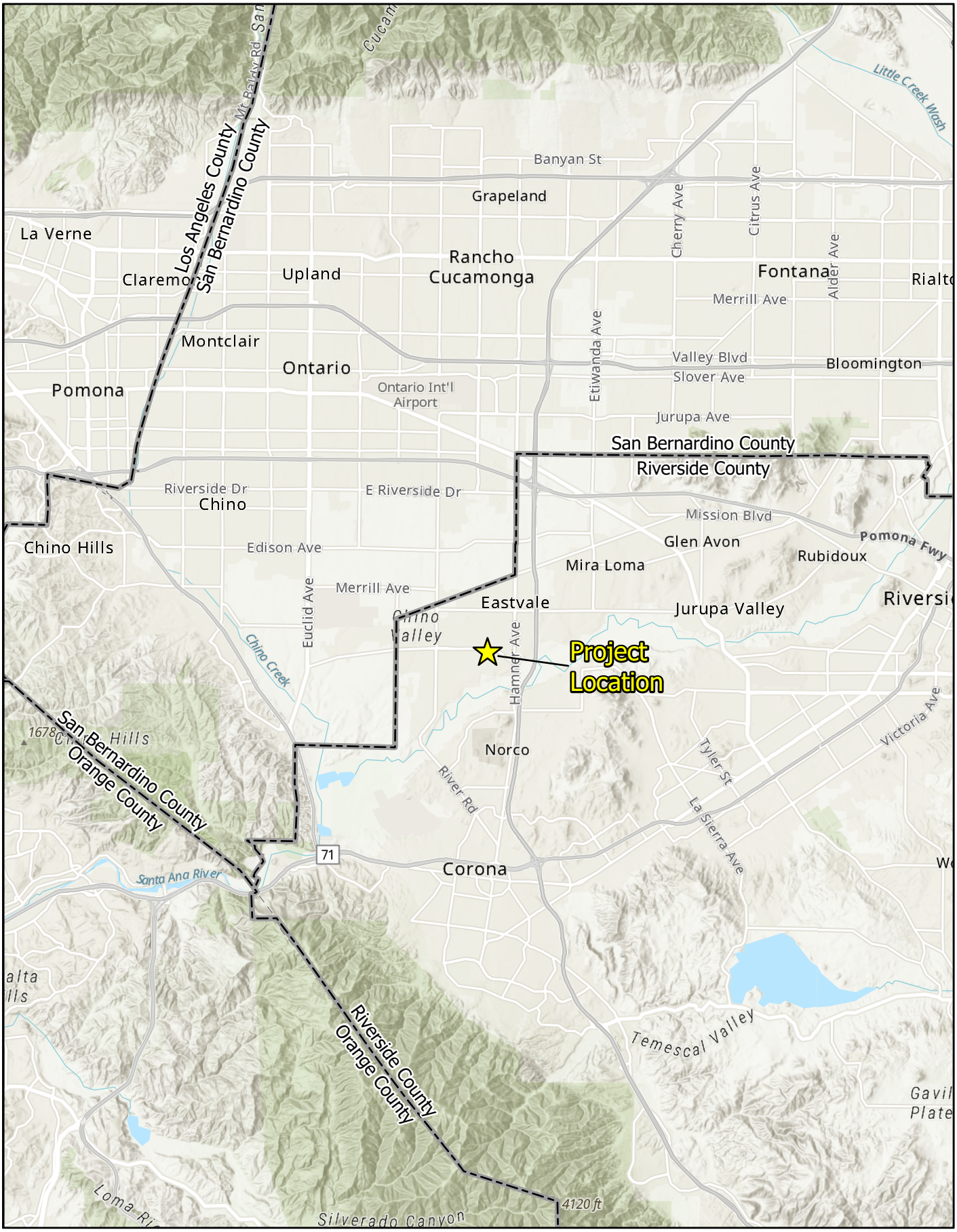
Landscaping

Ornamental water-efficient landscaping, including a variety of trees, shrubs, vines and ground cover and would be installed throughout the project site. A native succulent garden walk with decomposed granite, tree nooks for shade trees, aromatic citrus trees, and Adirondack seating would also be implemented in the central portion of the project site. Planting materials would be selected in accordance with Chapter 5, *Development Standards*, of the City's Zoning Code and the City's adopted *Design Standards and Guidelines.* Of the total 360,676 SF (8.28 acre) developable area on the project site, the total landscape coverage would be approximately

125,815 SF, equating to approximately 47.9 percent of the project site. Refer to ***Appendix 3, Conceptual Landscape Plan*****.**

Project Construction and Phasing

The project would be constructed in a single phase. Construction of the proposed project is anticipated to start around May 2024 and would be completed by July 2027.



MAGNOLIA RANCH RESIDENTIAL PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Michael Baker INTERNATIONAL

0 2.5 5 Miles

Source: ESRI

Regional Vicinity

Exhibit 1

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Michael Baker INTERNATIONAL

0 125 250 Feet

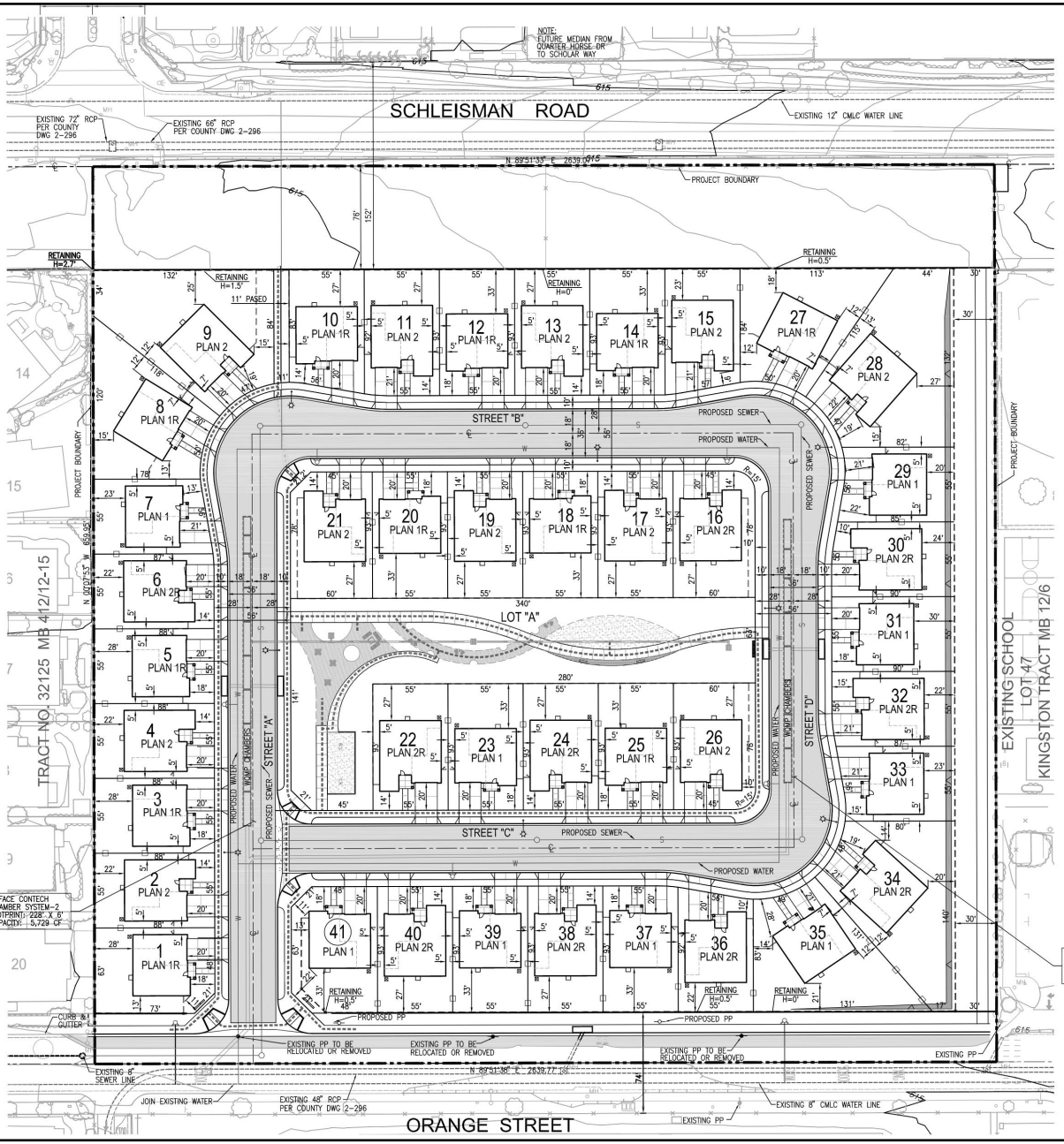
Source: ESRI

MAGNOLIA RANCH RESIDENTIAL PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Project Location

Exhibit 2

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MAGNOLIA RANCH RESIDENTIAL PROJECT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Conceptual Site Plan

Michael Baker INTERNATIONAL

NOT TO SCALE

Source: Allard Engineering

Exhibit 3

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2. ENVIRONMENTAL SETTING

A. Regulatory Setting

The Eastvale General Plan was adopted in 2012 and can be found on the City's website at https://www.eastvaleca.gov/home/showdocument?id=2360.

The City's Zoning Code was adopted in 2013 and can be found on the Eastvale Municipal Code hosting website at https://library.municode.com/ca/eastvale/codes/code_of_ordinances?nodeId= PTBLADECO. The Zoning Code is located under Part B of the Eastvale Municipal Code.

B. Physical Setting

The project site consists of approximately 10 acres located south of Schleisman Road, north of Orange Street, and directly west of Eastvale Elementary School. Schleisman Road is classified as a 6-lane Urban Arterial in the General Plan Circulation and Infrastructure Element, with three lanes of travel in each direction. The project site consists of one parcel, identified as APN 152-040-003, which is partially developed with one occupied single-family residence, an outbuilding, and a concrete driveway connecting the residence to Orange Street. The site topography can be considered as relatively flat terrain with elevations ranging from approximately 618 to 622 feet above mean sea level.

Land uses surrounding the project have been fully developed with educational facilities (specifically, Eastvale Elementary School to the east and River Heights Intermediate School to the south) and single-family residential neighborhoods consistent with their respective permitted densities and complete with right-of-way improvements such as sidewalks, lighting, and landscaping.

3. ENVIRONMENTAL CHECKLIST FORM

A. Project Information

1.	**Project Title:**	Magnolia Ranch Residential Project
2.	**Lead Agency Name and Address**	CITY OF EASTVALE Planning Department 12363 Limonite Avenue, Suite 910 Eastvale, CA 91752
3.	**Contact Person and Phone Number**	Jamie K. Cerda, Senior Planner (951) 703-4432
4.	**Project Location**	South of Schleisman Road, north of Orange Street, and directly west of Eastvale Elementary School (APN 152-040-003).
5.	**Project Sponsor Name and Address**	Woodside Homes Kori Liston 11870 Pierce Street, Suite 250 Riverside, CA 92505
6.	**General Plan Designation Existing**	Medium Density Residential (MDR)
	General Plan Designation Proposed	N/A
7.	**Zoning Existing**	Heavy Agriculture (A-2)
	Zoning Proposed	N/A
8.	**Description of Project**	Tentative Parcel Map, and Major Development Review, for the development of a 41-unit single-family residential project on approximately 10 acres.

9.	**Surrounding Land Use Designations and Zoning**		
	North	Land Use Designation	MDR, Medium Density Residential
		Zoning	R-1, One-Family Dwellings
	East	Land Use Designation	MDR, Medium Density Residential
		Zoning	A-2, Heavy Agriculture
	South	Land Use Designation	MDR, Medium Density Residential
		Zoning	A-2, Heavy Agriculture
	West	Land Use Designation	MDR, Medium Density Residential
		Zoning	R-1, One-Family Dwellings
10.	**Other Required Public Agency Approvals**		
	• Jurupa Community Services District (JCSD) – Water and wastewater connection permits • Santa Ana Regional Water Quality Control Board – Water Quality Management Plan (WQMP) Approval • State Water Resources Control Board – Stormwater Pollution Prevention Plan (SWPPP) Approval		
11.	**Have California Native American Tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3? If so, has consultation begun?**		
	Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File based on Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality. The City has established a Tribal Historic Preservation Office (THPO) contact list pursuant to Public Resources Code Section 21080.3. The City has distributed letters to applicable THPOs on the City's contact list, providing initial information about the project and inviting consultation. See Section 4.18, *Tribal Cultural Resources*, of this IS/MND for additional information.		

B. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact requiring mitigation to be reduced to a level that is less than significant as indicated in the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agriculture and Forestry Resources	☐ Hazards and Hazardous Materials	☐ Recreation
☐ Air Quality	☐ Hydrology and Water Quality	☒ Transportation
☒ Biological Resources	☐ Land Use and Planning	☒ Tribal Cultural Resources
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☐ Energy	☒ Noise	☐ Wildfire
☐ Geology and Soils	☐ Population and Housing	☐ Mandatory Findings of Significance

C. Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because of the incorporated mitigation measures and revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

City Representative

Gustavo Gonzales,
Community Development Director

Date

4. ENVIRONMENTAL ANALYSIS

4.1 AESTHETICS

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?			X	
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

DISCUSSION

1(a) Have a substantial adverse effect on a scenic vista?

Determination: Less Than Significant Impact.

According to the City's General Plan, the Santa Ana River corridor is an important resource of scenic beauty. The project site is located approximately one mile northwest of the Santa Ana River corridor. Views of the Santa Ana River are not afforded from the project site due to intervening topography, structures, and vegetation. Thus, the project would not have a substantial adverse effect on a scenic vista in this regard and impacts would be less than significant.

1(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Determination: No Impact.

There are no officially designated State scenic highways in the City. The nearest scenic highway is State Route 91 (SR-91) (designated as eligible for listing), which is located 5.4 miles south of the project site.[3] Views of the project site are not afforded from SR-91 due to intervening

[3] California Department of Transportation State Scenic Highway System Map. nd. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa Accessed May 17, 2022.

topography, structures, and vegetation. Thus, the project would not substantially damage scenic resources within a State scenic highway. No impact would occur in this regard.

1(c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Determination: Less Than Significant Impact.

The topography of the project site is relatively flat. The project site consists of one parcel, which is partially developed with one occupied single-family located at the center of the project site. The project site also includes an outbuilding and a concrete driveway connecting the residence to Orange Street. The site is surrounded by single-family residential development to the north and west, and by educational facilities to the south and east. The existing visual quality of the project site and surrounding area is low-to-moderate due to the urbanized setting of the project vicinity and lack of scenic resources.

The proposed project includes the demolition and removal of the existing single-family residence and appurtenances, storage buildings, and concrete driveway and foundations, followed by grading and construction of a 41-unit single-family residential development. The project would include installation of right-of-way improvements, including sidewalk, street lighting, and landscaping along Orange Street. The architectural design of the project (as illustrated in ***Appendix 1, Architectural Plan Set***), would adhere to the requirements of General Plan Policy DE-34, which requires that new project designs provide variation in color and materials to present aesthetically pleasing buildings and project features. The project design would also adhere to General Plan Policy DE-46, which states that security fencing shall be incorporated into the visual/architectural design of the project and be complementary to surrounding uses.

While project implementation would change the visual quality of the site and its surroundings, the proposed project would not degrade the visual quality of the project area because the project is consistent with the City's design guidelines and is consistent with the surrounding development. With adherence to the City's design policies and goals, impacts would be less than significant.

1(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Determination: Less Than Significant Impact.

As the project is located in an urbanized area, existing sources of light and glare typically come from vehicles traveling on Orange Street and Schleisman Road, streetlights, exterior lighting on surrounding development and sports fields associated with River Heights Intermediate School to the south, and reflection from windows and roofs on the surrounding development.

Construction Impacts

Construction of the project would be restricted to the City's permitted construction hours in accordance with Eastvale Municipal Code Chapter 8.52, *Noise Regulation*, and Section 8.52.020, *Exemptions*. Construction would be prohibited between 6:00 PM and 6:00 AM during the months

of June through September and 6:00 PM and 7:00 AM during the months of October through May. Although some lighting may be required in the early morning or late evening, the lighting would be minimal and consistent with the surrounding residential uses, as well as the lights from the traffic along Orange Street and Schleisman Road. Therefore, no adverse light or glare impacts to adjacent properties would result from temporary construction activities.

Operational Impacts

Project operations would create new light sources from interior and exterior illumination associated with building materials, windows, exterior lighting, and security lighting. Interior and exterior lighting would conform to California Green (CALGreen) Building Standards Code and Eastvale Municipal Code Chapter 120.05, *Development Standards*, and Section 120.05.050, *Outdoor Lighting*. All outdoor lighting would be automatic and programmable to turn on at certain times as necessary as well as adjustable to dim the light intensity between 40 percent and 80 percent to meet the efficiency requirements of California's Building Energy Efficiency Standards (Title 24, Parts 6 and 11).

Although the project would increase light and glare in the surrounding area, light and glare produced on-site would be similar to that of the surrounding development. Adherence to State and local standards and regulations would reduce impacts to a less than significant level. Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the proposed project:**					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?				X
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?			X	
c)	Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d)	Result in the loss of forestland or conversion of forestland to non-forest use?				X
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use?			X	

DISCUSSION

2(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

Determination: No Impact.

According to the California Department of Conservation's (DOC) Important Farmland Finder Map, the proposed project and surrounding areas are designated as Urban and Built-Up Land.[4] In addition, no agricultural uses are currently supported on the project site. Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to non-agricultural use. No impact would occur in this regard.

2(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Determination: Less Than Significant Impact.

The project site is zoned Heavy Agriculture (A-2) and is partially developed with one occupied single-family residence. The properties to the east and south of the project site are also zoned Heavy Agricultural (A-2). The neighborhoods to the north and west are zoned One Family Dwellings (R-1). However, because the project site has a Residential land use designation and is consistent with the objective General Plan standards for the site, the project is not required to obtain approval of a Change of Zone under the provisions of SB 330.

No agricultural operations currently occur at the project site. Further, the project site is not covered under an existing Williamson Act contract. Thus, impacts related to conflicting with existing zoning for agricultural use or a Williamson Act contract would be less than significant.

2(c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timber and zoned Timberland Production (as defined by Government Code Section 51104(g))?

Determination: No Impact.

The project site is zoned Heavy Agriculture (A-2) and is not occupied or used for forestland or timberland. Further, project implementation would not conflict with existing zoning or result in the rezoning of forestland, timberland, or timberland zoned Timberland Production. No impact would occur.

[4] California Department of Conservation. n.d. Important Farmland Finder website. Accessed May 17, 2022. https://www.conservation.ca.gov/dlrp/fmmp.

2(d) Result in the loss of forestland or conversion of forestland to non-forest use?

Determination: No Impact.

Refer to Response 4.2(c). No impact would occur in this regard.

2(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forestland to non-forest use?

Determination: Less Than Significant Impact.

Refer to Responses 4.2(a) through 4.2(d). Less than significant impacts would occur in this regard.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

4.3 AIR QUALITY

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Conflict with or obstruct implementation of the applicable air quality plan?			X	
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?			X	
c)	Expose sensitive receptors to substantial pollutant concentrations?			X	
d)	Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			X	

The analysis and findings throughout this section are based on the *Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project, City of Eastvale* (Air Quality, Energy and Greenhouse Gas Evaluation) prepared by Vista Environmental, dated July 26, 2022, provided as **Appendix 4** of this IS/MND.

DISCUSSION

3(a) Conflict with or obstruct implementation of the applicable air quality plan?

Determination: Less Than Significant Impact.

Eastvale is located within the South Coast Air Basin (SCAB). The South Coast Air Quality Management District (SCAQMD) has jurisdiction in the SCAB, which has a history of recorded air quality violations and is an area where both State and federal ambient air quality standards are exceeded. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The SCAQMD is required, pursuant to the federal Clean Air Act, to reduce emissions of the air pollutants for which the SCAB is in nonattainment.

In order to reduce emissions, the SCAQMD adopted the *2016 Air Quality Management Plan* (AQMP), which establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving State and federal air quality standards. The 2016 AQMP is a regional and multi-agency effort including the SCAQMD, California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the US Environmental Protection Agency (EPA).

The 2016 AQMP pollutant control strategies are based on the latest scientific and technical information and planning assumptions, including the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS), updated emission inventory methodologies for various source categories, and SCAG's latest growth forecasts. SCAG's latest growth forecasts were defined in consultation with local governments and with reference to local general plans. The SCAQMD considers projects that are consistent with the AQMP, which is intended to bring the SCAB into attainment for all criteria pollutants, to also have less than significant cumulative impacts.

A proposed project is considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key criteria of consistency:

1. Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

2. Whether the project will exceed the assumptions in the AQMP in 2016 or increments based on the year of project buildout and phase.

Criterion 1: Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in Section 9.1 of the Air Quality, Energy and Greenhouse Gas Evaluation, short-term construction impacts would not result in significant impacts based on the SCAQMD regional and local thresholds of significance. The Air Quality, Energy and Greenhouse Gas Evaluation also found that long-term operations impacts would not result in significant impacts based on the SCAQMD local and regional thresholds of significance; refer to Responses 4.3(b) and 4.3(c).

Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP. The project would be consistent with the first criterion in this regard.

Criterion 2: Exceed Assumptions in the AQMP?

Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends, and the 2016 AQMP addresses cumulative impacts in the Basin based on growth projections in the SCAG RTP/SCS. SCAG utilizes growth projections from local jurisdictions' adopted general plans; therefore, development consistent with the applicable general plan would be generally consistent with the growth projections in the 2016 AQMP. For this project, the City of Eastvale General Plan Land Use Map defines the assumptions that are represented in the AQMP.

The project site is zoned Heavy Agricultural (A-2). The properties to the east and south of the project site are also zoned Heavy Agricultural (A-2). The neighborhoods to the north and west are zoned One Family Dwellings (R-1). However, because the project site has a Residential land use designation and is consistent with the objective General Plan standards for the site, the

project is not required to obtain approval of a Change of Zone under the provisions of SB 330, as discussed further in Section 4.11, *Land Use and Planning*, of this IS/MND.

The SCAQMD acknowledges that strict consistency with all aspects of the AQMP is not required in order to make a finding of no conflict. Rather, a project is considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The project would implement contemporary energy-efficient technologies and regulatory/operational programs required per Title 24 (specifically CalGreen) and City standards. Generally, compliance with SCAQMD emissions reductions and control requirements also act to reduce project air pollutant emissions. In combination, project emissions-reducing design features and regulatory/operational programs are consistent with and support overarching AQMP air pollution reduction strategies. Project support of these strategies promotes timely attainment of AQMP air quality standards and would bring the project into conformance with the AQMP. Therefore, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the analysis above, the proposed project would not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact would occur.

3(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?

Determination: Less Than Significant Impact.

Construction Impacts

Short-term project-related construction activities would have the potential to generate air emissions. The construction-related criteria pollutant emissions for each phase are shown below in ***Table 3.1, Construction-Related Regional Criteria Pollutant Emissions*** and in ***Table 3.2, Construction-Related Local Criteria Pollutant Emissions***. As shown in ***Table 3.1*** and ***Table 3.2***, none of the project's short-term construction emissions would exceed regional or local SCAQMD criterial pollutant thresholds. Therefore, construction-related air quality impacts would be less than significant.

Table 3.1: Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition (Year 2022)[1]						
Onsite[2]	2.64	25.72	20.59	0.04	1.43	1.18
Offsite[3]	0.08	0.64	0.76	<0.01	0.26	0.08
Total	**2.72**	**26.36**	**21.35**	**0.04**	**1.69**	**1.26**
Site Preparation (Year 2023)[1]						
Onsite[2]	3.83	41.88	18.29	0.06	9.23	5.16
Offsite[3]	0.07	0.25	0.74	<0.01	0.24	0.07
Total	**3.90**	**42.13**	**19.03**	**0.06**	**9.47**	**5.23**
Grading (Year 2023)[1]						
Onsite[2]	3.91	41.69	28.08	0.07	5.20	2.83
Offsite[3]	0.13	2.46	1.39	0.01	0.65	0.20
Total	**4.03**	**44.15**	**29.46**	**0.09**	**5.85**	**3.03**
Building Construction (Year 2023)						
Onsite	1.57	14.38	16.24	0.03	0.70	0.66
Offsite	0.34	1.27	3.46	0.01	1.14	0.32
Total	**1.91**	**15.65**	**19.71**	**0.04**	**1.84**	**0.97**
Combined Year2025 Building Construction, Paving, and Architectural Coatings						
Onsite	47.60	24.19	32.60	0.05	1.14	1.07
Offsite	0.43	1.31	4.36	0.02	1.50	0.41
Total	**48.03**	**25.50**	**36.96**	**0.07**	**2.64**	**1.48**
Maximum Daily Construction Emissions	**48.03**	**44.15**	**36.96**	**0.09**	**9.47**	**5.23**
SCQAMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Vista Environmental. *Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project, City of Eastvale*, July 26, 2022, Table M – *Construction-Related Regional Criteria Pollutant Emissions*

Notes:

[1] Demolition, Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.

[2] Onsite emissions from equipment not operated on public roads.

[3] Offsite emissions from vehicles operating on public roads.Source: CalEEMod Version 2020.4.0.

Table 3.2: Construction-Related Local Criteria Pollutant Emissions

Construction Phase	Pollutant Emissions (pounds/day)[1]			
	NO_x	CO	PM_{10}	$PM_{2.5}$
Demolition[2]	25.80	20.69	1.46	1.19
Site Preparation[2]	41.91	18.39	9.26	5.17
Grading[2]	42.00	28.25	5.28	2.86
Building Construction (Year 2023)	14.54	16.68	0.84	0.70
Combined Building Construction (Year 2025, Paving and Architectural Coatings	24.35	33.15	1.33	1.12
Maximum Daily Construction Emissions	**42.00**	**33.15**	**9.26**	**5.17**
SCAQMD Localized Significant Thresholds[3]	**237**	**1,469**	**10**	**7**
Exceeds Threshold?	No	No	No	No

Source: Vista Environmental. *Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project, City of Eastvale*, July 26, 2022, Table N – *Construction-Related Local Criteria Pollutant Emissions.*

Notes:

1. The Pollutant Emissions include 100% of the On-Site emissions (off-road equipment and fugitive dust) and 1/8 of the Off-Site emissions (onroad trucks and worker vehicles), in order to account for the on-road emissions that occur within a ¼ mile of the project site.
2. Demolition, Site Preparation and Grading phases based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
3. The nearest offsite sensitive receptors to the project site are single-family homes located as near as 25 feet (8 meters) west of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
   Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 22, Norco/Corona.

Operational Impacts

Operation of the proposed project would result in a long-term but insignificant increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips, emissions from energy usage, onsite area source emissions, and off-road equipment created from the on-going use of the proposed project.

Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated vehicular trips from the Trip Generation Assessment into the CalEEMod model.

The project's Traffic Analysis (**Appendix 11**) found that the proposed project would generate approximately 388 trips per day.

Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet.

Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site.

Project Impacts

The worst-case summer or winter VOC, NO_x, CO, SO_2, PM_{10}, and $PM_{2.5}$ daily emissions created from the proposed project's long-term operations have been calculated and are summarized below in **Table 3.3, *Operations-Related Regional Criteria Pollutant Emissions*** and in **Table 3.4, *Operations-Related Local Criteria Pollutant Emissions.*** As shown in **Table 3.3** and **3.4**, a less than significant regional air quality impact would occur from operation of the proposed project.

Table 3.3: Operations-Related Regional Criteria Pollutant Emissions

	Pollutant Emissions (pounds/day)					
Activity	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area Sources[1]	3.10	0.04	3.38	<0.01	0.02	0.02
Energy Usage[2]	0.03	0.29	0.12	<0.01	0.02	0.02
Mobile Sources[3]	1.21	1.66	11.78	0.03	2.79	0.76
Total Emissions	**4.34**	**1.99**	**15.28**	**0.03**	**2.83**	**0.80**
SCQAMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Source: Vista Environmental. *Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project, City of Eastvale*, July 26, 2022, Table O – *Operational Regional Criteria Pollutant Emissions*.
Notes:
[1] Area sources consist of emissions from consumer products, architectural coatings, hearths (no hearths included in project) and landscapingequipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.Source: Calculated from CalEEMod Version 2020.4.0.

Table 3.4: Operations-Related Local Criteria Pollutant Emissions

	Pollutant Emissions (pounds/day)			
Onsite Emission Source	**NO_x**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area Sources	0.04	3.38	0.02	0.02
Energy Usage	0.29	0.12	0.02	0.02
Mobile Sources[1]	0.21	1.47	0.35	0.09
Total Emissions	**0.54**	**4.97**	**0.39**	**0.13**
SCAQMD Localized Significant Thresholds[2]	**237**	**1,469**	**3**	**2**
Exceeds Threshold?	No	No	No	No

Source: Vista Environmental. *Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project, City of Eastvale*, July 26, 2022, Table P – *Operations-Related Local Criteria Pollutant Emissions.*
Notes:
[3] Mobile sources based on 1/8 of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the project site.
[2] The nearest sensitive receptors to the project site are single-family homes located as near as 25 feet (8 meters) west of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 22, Norco/Corona.

3(c) Expose sensitive receptors to substantial pollutant concentrations?

Determination: Less Than Significant Impact.

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as

residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours.

Construction Impacts

Local Air Quality Impacts from Construction

The SCAQMD has published the "Fact Sheet for Applying CalEEMod to Localized Significance Thresholds." CalEEMod calculates construction emissions based on the number of equipment hours and the maximum daily disturbance activity possible for each piece of equipment. In order to compare CalEEMod reported emissions against the localized significance threshold (LST) lookup tables, the CEQA document should contain the following parameters:

(1) The off-road equipment list (including type of equipment, horsepower, and hours of operation) assumed for the day of construction activity with maximum emissions;

(2) The maximum number of acres disturbed on the peak day;

(3) Any emission control devices added onto off-road equipment; and

(4) Specific dust suppression techniques used on the day of construction activity with maximum emissions. The CalEEMod outputs in **Appendix 4** show the equipment used for this analysis.

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the project's potential to cause an individual and cumulatively significant impact.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. The project site is located in Source Receptor Area (SRA) 22, which covers the Norco and Corona areas to the San Bernardino County and Orange County Lines.

The nearest sensitive receptors to the project site are single-family residences that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School (to the east) is a covered lunch area that is as near as 25 feet east of the project site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. Based on this criterion and as calculated in ***Table 3.2*** and ***Table 3.4***, above, construction and operation of the proposed project would create a less than significant construction-related impact in regard to LSTs and that no mitigation would be required.

Toxic Air Contaminants

Toxic air contaminants (TACs) are another group of pollutants of concern. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different TACs. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

The greatest potential for TAC emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the proposed project. According to the Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003),[5] health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 30-year) resident exposure duration. Given the temporary and short-term construction schedule (approximately 29 months), the project would not result in a long-term (i.e., lifetime or 30-year) exposure as a result of project construction.

The project would comply with the CARB Air Toxics Control Measure that limits diesel-powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. Furthermore, construction-based particulate matter emissions (including diesel exhaust emissions) would not exceed any local or regional thresholds. Therefore, no significant short-term TAC impacts would occur during construction of the proposed project and impacts from TACs during construction would be less than significant.

Operational Impacts

Project-related air emissions may have the potential to exceed the State and federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the SCAB. The proposed project has been analyzed for the potential local carbon monoxide (CO) emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analysis addresses the vehicular CO emissions and local impacts from on-site operations per SCAQMD LST methodology.

Local CO Emission Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future CO levels without and with the project to the State and federal CO standards.

To determine if the proposed project could cause emission levels in excess of CO standards, a sensitivity analysis is typically conducted to determine the potential for CO "hot spots" at a number of intersections in the general project vicinity. Because of reduced speeds and vehicle

[5] Office of Environmental Health Hazard Assessment. 2015. Air Toxic Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessment. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. South Coast Air Quality Management District. 2003. Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis. http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobilesource-toxics-analysis.doc?sfvrsn=2.

queuing, "hot spots" potentially can occur at high traffic volume intersections with a level of service E or worse.

The analysis prepared for CO attainment in the SCAB by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the SCAB. CO attainment was thoroughly analyzed as part of the SCAQMD's *2003 Air Quality Management Plan* (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak CO concentrations in the SCAB are due to unusual meteorological and topographical conditions and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods: South Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the level of service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be level of service E during the morning peak hour and level of service F during the afternoon peak hour.

The project's Traffic Analysis (**Appendix 11**) showed that the project would generate a maximum of approximately 388 net new vehicle trips per day. The 1992 CO Plan showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. Therefore, as the highest traffic volumes fall far short of 100,000 vehicles, no CO "hot spot" modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the ongoing use of the proposed project.

3(d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Determination: Less Than Significant Impact.

Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities.[6] The project does not include any such uses identified by SCAQMD as being associated with odors. Potential sources that may emit odors during the ongoing operations of the proposed project would include odor emissions from the intermittent diesel delivery truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 regarding public nuisances, no significant impact related to odors would occur during the ongoing operations of the proposed project.

[6] South Coast Air Quality Management District. 1993. *CEQA Air Quality Handbook*.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust and architectural coatings. However, construction-related odors would be short term in nature and cease upon project completion. In addition, the project would be required to comply with the California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce the detectable odors from heavy-duty equipment exhaust. The project would also comply with the SCAQMD Rule 1113, which would minimize odor impacts from reactive organic gas (ROG) emissions during architectural coating. Any impacts to existing adjacent land uses would be short term and would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The following measure shall be incorporated into project plans as implementation of SCAQMD Rule 402:
    - A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
2. The following measures shall be incorporated into project plans as implementation of SCAQMD Rule 403:
    - All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.
    - The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project site are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.
    - The contractor shall ensure that traffic speeds on unpaved roads and in project site areas are reduced to 15 mph or less.
3. The following measure shall be incorporated into project plans as implementation of SCAQMD Rule 1113:
    - In order to limit the volatile organic compound (VOC) content of architectural coatings used in the SCAB, architectural coatings shall be no more than a low VOC default level of 50 grams per liter (g/L) unless otherwise specified in the SCAQMD Table of Standards.
4. All applicable measures shall be incorporated into project plans as implementation of SCAQMD Rule 1403 if asbestos is found during the demolition of existing structures.

MITIGATION MEASURES

No mitigation is required.

4.4 BIOLOGICAL RESOURCES

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		X		
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				X
c)	Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f)	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?		X		

The analysis and findings throughout this section are based on the *Biological Resources Assessment Eastvale Orange Street Residential Development Project, City of Eastvale, Riverside County, California* (Biological Resources Assessment), prepared by FirstCarbon Solutions, dated May 31, 2022, and as provided as Appendix 5 of this IS/MND.

Environmental Setting

Existing development on the project site includes a ranch-style single-family home. The property includes a large driveway and a front yard south of the main structure as well as an open-faced barn and several corrals located north of the main structure. Fenced fallow pastures dominate most of the property, presumably for grazing livestock. The vegetation found in these areas

consists of low-growing ruderal vegetation and non-native grasses. The fields show evidence of frequent disturbance from mowing, evidenced by tire tracks and vegetation that does not exceed more than a few inches in height. The project site is surrounded by urban development in all directions, including single-family residential homes located to north and west, and an elementary school and an intermediate school located to the east and south, respectively

The majority of the project site consists of ruderal fields, formerly used for pasturing livestock. The vegetation on the site shows evidence of recent mowing. Species observed on-site included redstem filaree (*Erodium cicutarium*), pineapple weed (*Matricaria discoidea*), cheeseweed (*Malva parviflora*), turkey mullein (*Croton setiger*), common horseweed, and Russian thistle. Non-native grasses observed included foxtail barley (*Hordeum jubatum*) and Mediterranean grass (*Schismus barbatus*).

Ornamental vegetation can be found within the front yard of the existing residence, including hedges, bird of paradise flower (*Strelitzia reginae*), two Italian cypress trees (*Cupressus sempervirens*), three Mexican fan palm trees (*Washingtonia robusta*), a lemon tree (*Citrus limon*), and a cherry tree (*Prunus avium*). No narrow endemic plant species were found on the project site, and such plant species are not expected to have the potential to occur on the project site. In addition, no riparian habitat or vernal pools occur on the project site, nor are there any potential jurisdictional waters or wetlands on the project site.

The project site is located within the boundaries of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) administered by the Western Riverside County Regional Conservation Authority (RCA). The City of Eastvale is a signatory to the MSHCP.

DISCUSSION

4(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Sensitive Plant Species

The MSHCP calls for focused studies of habitat evaluations for narrow endemic plant species. According to the Biological Resources Assessment, the disturbed state of the project site does not provide suitable habitat for any special-status species recorded in the California Natural Diversity Database (CNDDB) or California Native Plant Society (CNPS) searches due to the lack of natural vegetation communities and on-going man-made disturbance in the form of mowing. Therefore, no special-status plant species are expected to occur on the project site.

Sensitive Wildlife Species

The burrowing owl is designated as a species of special concern by the California Department of Fish and Wildlife (CDFW). The species is typically found in grassland, shrub steppe, and desert habitat types, however, can also be found in agricultural areas, ruderal fields, and pastures, as well as in urban environments such as vacant lots, flood control facilities, and open spaces.

Burrowing owls require underground burrows or other cavities for nesting, roosting and shelter. Burrows used by the owls are usually dug by other species such as California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*). As such, the presence of colonial mammal burrows is often an indication that burrowing owl may be present. Burrowing owls have also been found occupying man-made cavities, such as buried and non-functioning drainpipes, standpipes, and dry culverts.

The project site contains many small burrows all less than 3 inches in diameter, which are too small to be occupied by burrowing owl. (Burrowing owls typically require a burrow opening of at least 4 inches in diameter). However, the lack of suitably-size burrows does not preclude this species from occurring on-site, as burrowing owl may still utilize the site for foraging and are still capable of colonizing the project site. However, because the field survey was conducted outside of the burrowing owl breeding season (February 1–August 31), the possibility that burrowing owl could be present in the project vicinity cannot be entirely ruled out.

The proposed project would implement **Mitigation Measure BIO-1** to ensure potential impacts to burrowing owls are reduced to a less than significant level by requiring a pre-construction survey prior to ground-disturbing activities. With implementation of **Mitigation Measure BIO-1**, impacts to burrowing owl would be less than significant.

Birds

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The state of California has incorporated the protection of birds of prey in California Fish and Game Code (CFGC) Sections 3800, 3513, and 3503.5. All raptors and their nests are protected from take or disturbance under the MBTA (16 United States Code [USC] Section 703 et seq.) and California statute (CFGC Section 3503.5).

Direct impacts to native vegetation communities and removal of trees during project construction could result in direct impacts to bird nests, which would be considered significant absent mitigation. The project site contains several ornamental trees and bird houses present on-site that could provide suitable habitat for a variety of species of nesting birds.

Construction activities that occur during the avian nesting season (generally February 1 to August 31) could disturb nesting sites for bird species protected under the Fish and Game Code or MBTA. The removal of existing ornamental trees and bird houses during the nesting season could result in direct harm to nesting birds, while noise, light, and other man-made disturbances may cause nesting birds to abandon their nests.

Implementation of **Mitigation Measure BIO-2**, which requires a pre-construction nesting bird clearance survey to determine the presence/absence, location, and status of any active nests on or adjacent to the project site, would reduce potential impacts to nesting and migratory birds to less than significant by limiting the removal of trees, shrubs, or any other potential nesting habitat to outside the avian nesting season, which generally extends from February 1 through August 31. If the nesting bird clearance survey indicates the presence of nesting birds, **Mitigation Measure BIO-2** requires buffers to ensure that any nesting birds are protected pursuant to the

MBTA. Impacts for both sensitive wildlife species and migratory birds would be less than significant with mitigation incorporated.

4(b) Have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

Determination: No Impact.

According to the Biological Resources Assessment, no jurisdictional waters, riparian, riverine, or vernal pool areas exist on the project site. No impact would occur in this regard.

4(c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Determination: No Impact.

Based on the Biological Resource Assessment, no State or federally protected wetlands are located within the project site. No impact would occur in this regard.

4(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Determination: Less Than Significant Impact with Mitigation Incorporated.

The project area does not support any bodies of water or wetlands that attract large migration stopovers or attractants for avian species. Furthermore, the project is proposed on lands that are low quality, disturbed habitats surrounded by disturbed residential uses. However, the project site does contain several ornamental trees and bird houses that could provide suitable habitat for a variety of species of nesting birds.

The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. To reduce potential impacts to nesting birds, **Mitigation Measure BIO-2** requires a pre-construction survey to determine the presence/absence, location, and status of any active nests on or adjacent to the project site. If the pre-construction survey indicates the presence of nesting birds, **Mitigation Measure BIO-2** requires buffers to ensure that any nesting birds are protected pursuant to the MBTA. With implementation of **Mitigation Measure BIO-2**, the project's potential construction-related impacts to migratory birds would be reduced to a less than significant level.

4(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Determination: No Impact.

There are no local policies or ordinances with respect to biological resources that apply to the project site. Therefore, the project is not in conflict with local policies or ordinances. No impact would occur.

4(f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan?

Determination: Less Than Significant Impact with Mitigation Incorporated.

The project site is located within the boundaries of Western Riverside County MSHCP. According to the RCA MSHCP Information Map. The project site lies within a MSHCP survey area for burrowing owl and narrow endemic plants including San Diego ambrosia, Brand's phacelia, and San Miguel savory. Therefore, the proposed project is subject to the procedures outlined in the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*. Based on the Biological Resources Assessment findings, it is recommended that pre-construction surveys be conducted prior to any ground disturbance to avoid direct take of burrowing owls, as described in **Mitigation Measure BIO-1**.

Due to the disturbed/developed state of the project site, none of the plant species listed above are likely to occur on-site and focused surveys for these species are not recommended. However, **Mitigation Measure BIO-3**, which requires the project applicant to prepare a separate MSHCP Consistency Analysis report, is required to ensure the project would not conflict with the provisions of the MSHCP. With the implementation of **Mitigation Measure BIO-3,** the proposed project would not conflict with the provisions of the MSHCP and impacts would be reduced to less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. Eastvale Municipal Code Section 4.62.100, *Payment of Fees*, states that the Western Riverside County MSHCP fee shall be paid at the time a certificate of occupancy is issued for a residential unit or development project or upon final inspection, whichever occurs first. Furthermore, no final inspection shall be made, and no certificate of occupancy shall be issued, prior to full payment of the Western Riverside County Multiple Species Habitat Conservation Plan fee. However, this section shall not be construed to prevent payment of the fee prior to the issuance of an occupancy permit or final inspection.

MITIGATION MEASURES

BIO-1 The project shall conduct focused burrowing owl pre-construction surveys as follows:

1. No more than 30 days prior to the first ground-disturbing activities, the project applicant shall retain a qualified Biologist to conduct a pre-construction survey of the project site. The survey shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance

with the California Department of Fish and Wildlife (CDFW) and Western Riverside County Regional Conservation Authority (RCA) survey guidelines.

2. On the parcel where the activity is proposed, the Biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and burrowing owl. The survey shall take place near sunrise or sunset in accordance with the CDFW and RCA guidelines. All burrows or burrowing owl shall be identified and mapped. During the breeding season (February 1–August 31), surveys shall document whether burrowing owl are nesting on or directly adjacent to disturbance areas. During the non-breeding season (September 1–January 31), surveys shall document whether burrowing owl are using habitat on or directly adjacent to any disturbance area. Survey results shall be valid only for the season during which the survey is conducted.
3. If burrowing owl are not discovered, further mitigation is not required. If burrowing owl are observed during the pre-construction surveys, the applicant shall perform the following measures to limit the impact on the burrowing owls:

    A. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. Construction may occur during the breeding season if a qualified Biologist monitors the nest and determines that the birds have not begun egg-laying and incubation, or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1-January 31), the project applicant shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone.

    B. If it is not possible to avoid occupied burrows, passive relocation shall be implemented. Burrowing owl shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent re-occupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any burrowing owl inside the burrow.

BIO-2 The project applicant shall employ protective measures for active bird nests as follows (including pre-construction survey and implementation of avoidance buffer, if found):

1. Removal of trees shall be limited to only those necessary to construct the proposed project as reflected in the relevant project approval documents. It is recommended that a Biologist make sure the bird houses are not occupied and then block access to the bird houses for the duration of construction to avoid attracting nesting birds.

2. If construction occurs during the nesting season (February 1 to August 31), pre-construction surveys shall be conducted within 14 days prior to tree removal to determine whether or not active nests are present.
3. If an active nest is located during pre-construction surveys, a qualified Biologist shall determine an appropriately-sized avoidance buffer based on the species and anticipated disturbance level. A qualified Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s).
4. The qualified Biologist shall monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project, until the young have fledged.

BIO-3 Prior to the issuance of a grading permit, the project applicant shall prepare and submit a Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis report to City of Eastvale to document the project's consistency with the goals, objectives, and requirements of the MSHCP.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

With implementation of **Mitigation Measures BIO-1, BIO-2,** and **BIO-3,** as well as adherence to the standard conditions and requirements, the project would comply with the requirement of the MSHCP and the MBTA. Compliance would reduce impacts to less than significant levels.

4.5 CULTURAL RESOURCES

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				X
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

The analysis and findings throughout this section are based on the *Phase I Cultural Resources Assessment Orange Street Residential Development Project City of Eastvale, Riverside County, California* (Cultural Resources Assessment) prepared by FirstCarbon Solutions, dated May 31, 2022, and provided as **Appendix 6** of this IS/MND.

DISCUSSION

5(a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Determination: No Impact.

The Cultural Resources Assessment conducted for the proposed project included a pedestrian field survey and a records search to identify previously recorded prehistoric and historic cultural resources and cultural resource surveys within a 0.5-mile radius of the project area. The records search was conducted by the Eastern Information Center (EIC) of the California Historical Resources Information System at the University of California, Riverside.

Historical Resources Search Results

One linear historic resource has been recorded within a 0.5-mile radius north of the project area (P-33-016681) and no resources are located within the project boundaries. In addition, there are 12 area-specific survey reports on file with the EIC, three of which (RI-05049, RI-04980, and RI-05052) transect the northern boundary of the proposed project site, indicating that portions of the project site have been previously surveyed.

The records search results also indicated that the directories checked (including the National Register of Historic Places [NRHP], California Register of Historic Resources [CRHR], California Historical Landmarks (CHL) list, the California Points of Historical Interest [CPHI] list, and the

California Built Environment Resource Directory [BERD] for Riverside County), showed that there were no listed properties within the project area.

Historical Mapping and Photographs

A review of 13 historical aerial photographs depicting the project site from 1938 to 2016 indicate that the project site and the surrounding lands remained generally undeveloped and used for agricultural purposes until approximately 1994. Between 1967 and 1994, a homestead was built within the boundaries of the project site. The images from 1938 to 2002 depict gradual residential development surrounding the project site. Sometime after 1995, the surrounding area became more urbanized with construction of the Eastvale Elementary School east of the project site and River Heights Intermediate School located south of the project site.

Pedestrian Survey Results

No archaeological resources were identified during the pedestrian survey of the project area. There is a residential property on site, which according to the County of Riverside Assessors Office is under 50 years of age and thus ineligible for inclusion on the CRHR and should not be considered a potential historic resource under CEQA.

Sacred Lands File Results

A Sacred Lands File search was sent to the Native American Heritage Commission (NAHC) and a response was received indicating the results of their search was positive for the presence of tribal cultural resources (TCRs). The NAHC provided a list of 22 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential tribal cultural resources that may be affected by the proposed project are addressed, a letter containing project information requesting any additional information was sent to each tribal representative on February 5, 2020. A response from the Agua Caliente Band of Cahuilla Indians tribe was received on March 10, 2021, indicating that the project is not located within the Tribe's Traditional Use Area and defer to the other tribes ethnographically associated with the project site. No other responses have been received to date.

Conclusion

No historical resources were identified as part of the Cultural Resources Assessment conducted for the project. Therefore, no impact relative to historical resources would occur.

5(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Determination: Less Than Significant Impact with Mitigation Incorporated.

No archaeological resources were identified in the records searches or during the pedestrian survey. However, the positive results from the Sacred Lands Files search, and overall poor visibility across the project site increases the possibility that historic and prehistoric cultural resources may be encountered during the course of project construction. Based on the Cultural Resources Assessment, the potential for the proposed project to have an adverse effect on archaeological resources is considered to be moderate. As such, in accordance with the Cultural

Resources Assessment, the project would comply with the recommendation that a qualified Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for Archaeology perform an inspection of the project site following grubbing, ground clearing, and demolition, and prior to any grading or project-related ground disturbance.

Based on the Cultural Resources Assessment, full-time archaeological monitoring is not recommended at this time. However, if previously undocumented cultural resources are identified during ground-disturbing activities, **Mitigation Measure CUL-1** would be implemented to reduce potential impacts to historical and archaeological resources to a less than significant level.

5(c) Disturb any human remains, including those interred outside of formal cemeteries?

Determination: Less Than Significant Impact.

Construction activities, particularly grading, could potentially disturb human remains interred outside of a formal cemetery. Thus, the potential exists that human remains may be unearthed during grading and excavation activities associated with project construction. In the event that human remains are discovered during grading or other ground-disturbing activities associated with the proposed project, all work in that area shall be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds as detailed under the Standard Conditions & Requirements below. Less than significant impacts would occur.

STANDARD CONDITIONS & REQUIREMENTS

1. If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made.

   Following discovery and during assessment of the remains, work will be diverted at least 50 feet from the burial. The discovery shall be kept confidential, and secure to prevent disturbance. If left overnight, remains will be covered with a muslin cloth and steel plate over the excavation to protect the remains. If this method of protection is not feasible, a guard will be posted.

   If the Riverside County coroner determines the remains to be of Native American origin, the NAHC must be contacted by the coroner within 24 hours of the coroner's determination. The NAHC must then immediately identify the most likely descendants(s) for purposes of receiving notification of discovery. The most likely descendant(s) shall then make recommendations within 48 hours from the time that site access is granted and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 507.98.

MITIGATION MEASURES

CUL-1 If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the

Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Implementation of **Mitigation Measure CUL-1** would ensure that any archaeological resources inadvertently discovered during project grading or construction activities would be protected consistent with the recommendations of a qualified archaeologist, thereby reducing impacts to a less than significant level.

4.6 ENERGY

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b)	Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?			X	

The analysis and findings throughout this section are based on the *Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project, City of Eastvale* (Air Quality, Energy and Greenhouse Gas Evaluation) prepared by Vista Environmental, dated July 26, 2022, provided as **Appendix 4** of this IS/MND.

EXISTING CONDITIONS

Electricity

Electricity would be provided to the project by SCE. SCE provides electric power to more than 15 million persons, within a service area encompassing approximately 50,000 square miles. SCE derives electricity from varied energy resources including fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers.

Natural Gas

Natural gas would be provided to the project by SoCalGas. SoCalGas is regulated by the California Public Utilities Commission (CPUC), which regulates natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering and billing.

Transportation Energy Resources

The project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the project patrons and employees via commercial outlets. The transportation sector emits 41 percent of the total GHGs in the State and about 84 percent of smog-forming oxides of nitrogen (NO_x). Petroleum comprises about 92 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels.

DISCUSSION

6(a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Determination: Less Than Significant Impact.

Multiple energy-related regulations apply to the project including the following:

- Senate Bill (SB) 100 (Chapter 312, Statutes of 2018) requires the CPUC, California Energy Commission (CEC), California Air Resources Board (CARB), and all other State agencies to incorporate that policy into all relevant planning.
- California Assembly Bill (AB) 1493 enacted on July 22, 2002, required the California Air Resources Board (CARB) to develop and adopt regulations that reduce greenhouse gases (GHGs) emitted by passenger vehicles and light duty trucks.
- The 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) requires the design of building shells and building components to conserve energy.
- The California Green Building Standards (CALGreen) were developed in an effort to meet the goals of California's landmark initiative Assembly Bill (AB) 32, which established a comprehensive program of cost-effective reductions of GHGs to 1990 levels by 2020.

Construction Impacts

Construction is expected to commence around December 2022 and is anticipated to last approximately 18 months. Project construction would be completed in one phase. Staging of construction vehicles and equipment would occur on-site.

The proposed project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips (e.g. hauling of material to disposal facilities);
2. Electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Energy

During construction, the proposed project would consume electricity to construct the proposed residences. Electricity would be supplied to the project site by SCE and would be obtained from the existing electrical lines in the vicinity of the project site. The use of electricity from existing

power lines rather than temporary diesel or gasoline powered generators would minimize impacts on fuel consumption. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Since there are currently power lines in the vicinity of the project site, it is anticipated that only nominal improvements would be required to SCE distribution lines and equipment with development of the proposed project. Compliance with City's guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity. Therefore, a less than significant impact would occur relative to construction-related energy usage.

Construction-Related Natural Gas

Construction of the proposed project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since there is currently natural gas service in the vicinity of the project site, construction of the proposed project would be limited to installation of new natural gas connections within the project site. Development of the proposed project would likely not require extensive infrastructure improvements to serve the project site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, the proposed project would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated, which found that construction of the proposed project would consume 15,057 gallons of gasoline and 67,935 gallons of diesel

fuel. This equates to 0.001 percent of the gasoline and 0.05 percent of the diesel used annually in Riverside County. As such, the construction-related petroleum use would be nominal, when compared to current countywide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business. Therefore, a less than significant impact would occur relative to construction-related petroleum fuel use.

Operational Impacts

The on-going operation of the proposed project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips.

Operations-Related Electricity

Operation of the proposed project would result in consumption of electricity at the project site. As discussed in the Air Quality, Energy and Greenhouse Gas Evaluation, the proposed project would consume 53,083 kilowatt-hours per year of electricity. This equates to 0.0003 percent of the electricity consumed annually in the County of Riverside. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the County.

It should be noted that the proposed project would be required to meet the 2019 Title 24, Part 6 building energy efficiency standards that have been developed to meet the State's goal of zero-net-energy use for new homes. The zero net energy use would be achieved through a variety of measures to make new homes more energy efficient and by also requiring installation of photovoltaic systems of adequate size to generate enough electricity to meet the zero-net energy use standard. As discussed in the Air Quality, Energy and Greenhouse Gas Evaluation, the size of the PV system required for the project pursuant to the 2019 Title 24 standards was calculated and it was concluded that the proposed project would need to install at least 112.4 Kilowatts of photovoltaic panels within the proposed project. Although, the CalEEMod model found that with implementation of the 2019 Title 24 Part 6 standards, that the proposed project would continue to utilize a nominal amount of power, it should be noted that the electricity usage and emission rates utilized by the CalEEMod model are based on regional average usage rates for existing homes, which were not all built to the most current Title 24 Part 6, standards, so the CalEEMod model provides a conservative or worst-case analysis of electricity use from the proposed project. Therefore, it is anticipated the proposed project would be designed and built to minimize

electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, impacts with regard to electrical supply and infrastructure capacity would be less than significant.

Operations-Related Natural Gas

Operation of the proposed project would result in increased consumption of natural gas at the project site. As discussed in the Air Quality, Energy and Greenhouse Gas Evaluation, the proposed project would consume 1,160 million British thermal units (MBTU) per year of natural gas, which equates to 0.003 percent of the natural gas consumed annually in Riverside County. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that, the proposed project would comply with all federal, State, and City requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project would be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, impacts with regard to natural gas supply and infrastructure capacity would be less than significant.

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. As discussed in the Air Quality, Energy and Greenhouse Gas Evaluation, the proposed project would consume 46,681 gallons of gasoline per year from vehicle travel. This equates to 0.004 percent of the gasoline consumed annually in Riverside County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

It should be noted that, the proposed project would comply with all federal, State, and City requirements related to the consumption of transportation energy that includes California Code of Regulations Title 24, Part 10 California Green Building Standards that require that all new garages to install electrical panels of adequate size to support the installation of electric vehicle charging systems. Therefore, it is anticipated the proposed project would be designed and built to minimize transportation energy through the promotion of the use of electric-powered vehicles and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant.

Conclusion

In conclusion, the proposed project would comply with regulatory compliance measures outlined by the State and City related to air quality, GHG emissions, transportation/circulation, and water supply. Additionally, the proposed project would be constructed in accordance with all applicable

City Building and Fire Codes. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant.

6(b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Determination: Less Than Significant Impact.

The project site is located in an area that is substantially developed with an established transportation network. The proposed project's consistency with the applicable energy-related policies in the General Plan is evaluated in the Air Quality, Energy and Greenhouse Gas Evaluation, which concluded that the project would not conflict with the City's local plans for renewable energy or energy.

Access to/from the project site would occur from existing roads and, as a result, the project would not interfere with, nor otherwise obstruct, intermodal transportation plans or projects that may be proposed pursuant to the Intermodal Surface Transportation Efficiency Act (ISTEA) because SCAG is not planning for intermodal facilities in the project area.

Regarding the State's Energy Plan and Title 24 energy efficiency standards, the applicant is required to comply with the California Green Building Standard Code requirements for energy-efficient buildings and appliances as well as utility energy efficiency programs implemented by SCE and SoCalGas.

Regarding AB 1493 regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources.

Regarding the State's Renewables Portfolio Standards, the project would be required to meet or exceed the energy standards established in the CalGreen Code. CalGreen standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

In conclusion, the proposed project does not conflict with or obstruct a State or local plan for renewable energy or energy efficiency because the proposed project complies with the energy related policies in the General Plan, complies with applicable State laws, and does not obstruct any future plans for renewable energy or energy efficiency projects. Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

4.7 GEOLOGY AND SOILS

Would the proposed project:						
Issues			Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:					
	i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?			X	
	ii)	Strong seismic ground shaking?			X	
	iii)	Seismic-related ground failure, including liquefaction?			X	
	iv)	Landslides?				X
b)	Result in substantial soil erosion or the loss of topsoil?				X	
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?				X	
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X	
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?					X
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X	

The analysis and findings throughout this section are based on the *Geotechnical and Infiltration Evaluation for Proposed Single- and Multi-Family Residential Development Assessor's Parcel Number 152-040-003 Eastvale, Riverside County, California* (Geotechnical Evaluation), prepared by Geo Tek, Inc., dated January 28, 2021, and provided as **Appendix 7** of this IS/MND.

DISCUSSION

7(a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Determination: Less Than Significant Impact.

According to the Geotechnical Evaluation, there are no known active faults traversing the site. The project site is also not located in an Earthquake Fault Zone as mapped by the California Geological Survey[7]. The closest mapped active fault that could affect the project site is the Chino-Elsinore fault, which is located approximately 5 miles to the west. Therefore, the potential for fault rupture at the site is considered low. Although no active faults traverse the project site, as a condition of issuance of building and grading permits, the project would be required to comply with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, as well as with the 2022 California Building Code (CBC), which includes specific design measures intended to maximize structural stability in the event of an earthquake. Construction of the project would also be required to comply with current seismic design parameters and all other recommendations as contained in the Geotechnical Evaluation to ensure structural integrity in the event of an earthquake. Impacts would be less than significant.

ii) Strong seismic ground shaking?

Determination: Less Than Significant Impact.

The project site is located in seismically active Southern California with numerous fault systems in the region. As such, it should be anticipated that the project site will experience moderate to strong ground shaking in the near future. However, as a condition of issuance of grading and building permits, the project would be required to comply with current CBC seismic design parameters and all other recommendations as contained in the Geotechnical Evaluation. Compliance with these parameters would require proposed residential homes to be designed and constructed to withstand expected seismic activity and associated potential hazards, thereby minimizing risk to the public and property. The project would be designed and developed consistent with the CBC and standard engineering practices and reviewed in conjunction with the City Engineer. Therefore, impacts would be less than significant.

[7] California Geological Survey *Earthquake Zones of Required Investigation* interactive web map; accessed April 12, 2022; https://maps.conservation.ca.gov/cgs/EQZApp/

iii) Seismic-related ground failure, including liquefaction?

Determination: Less Than Significant Impact.

Liquefaction

Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine-to-medium grained, cohesionless soils. As the shaking action of an earthquake progresses, the soil grains are rearranged and the soil densifies within a short period of time. Rapid densification of the soil results in a buildup of pore-water pressure. When the pore-water pressure approaches the total overburden pressure, the soil reduces greatly in strength and temporarily behaves similarly to a fluid. Effects of liquefaction can include sand boils, settlement, and bearing capacity failures below structural foundations.

The Riverside County Map My County interactive mapping website has mapped the entire site as having a high liquefaction potential.[8] The State of California has not prepared liquefaction hazard maps for this area.

Groundwater was not encountered within the exploratory borings performed for the Geotechnical Evaluation. Based on the lack of water encountered in the borings and a review of the groundwater information contained on the State Department of Water Resources Water Data Library website, it was estimated that the depth to high groundwater at the project site is about 50 feet below grade.

Based on the presence of alluvial soils, and an estimated high groundwater depth of 50 feet and the "high" liquefaction potential for the site, an assessment of the liquefaction potential was performed for the Geotechnical Evaluation. The results of this analysis indicate that project site soils are not susceptible to liquefaction upon application of the design earthquake.

Furthermore, dry settlement potential of project site soils was also evaluated to assess the potential settlement of the unsaturated soils resulting from seismic activity. The results of the analysis indicated a seismic dry settlement estimation of less than 0.5 inch and was recommended for a seismic differential seismic settlement of 0.25 inch over a 40-foot span be considered for incorporation into design grading/compaction stage. Based on the estimated magnitude of seismic settlement, mitigation and/or special foundation design is not considered warranted. A copy of the liquefaction and seismic settlement analysis is presented in Appendix D of the Geotechnical Evaluation.

Infiltration

According to the Geotechnical Evaluation, soils from borings primarily consisted of clayey sand, silt, clay and silty sand within the 20 to 51.5-foot depth below grade

8 Riverside County Map My County interactive mapping website; accessed May 12, 2022; https://gis1.countyofriverside.us/Html5Viewer/index.html?viewer=MMC_Public

surface. The sandy soils were noted to possess a relative density ranging from dense to very dense and the silty/clayey soils generally possessed a stiff to hard consistency.

Groundwater was not encountered within exploratory borings performed for the Geotechnical Evaluation. Based on the lack of water encountered in the borings and a review of the groundwater information contained on the State Department of Water Resources Water Data Library website, it is estimated that the depth to high groundwater at the site would be at 50 feet below grade. Based on this depth to water, groundwater-related problems are not expected during or after construction.

However, it is possible that seasonal variations (temperature, rainfall, etc.) will cause fluctuations in the groundwater level. Additionally, perched water may be encountered at shallow depths following extensive rain events. If shallow perched water is encountered, the Geotechnical Evaluation thus anticipates that such an occurrence can be managed through with the installation of conventional sump pumps.

Therefore, impacts relative to seismic-related ground failure, liquefaction, and infiltration would be less than significant.

iv) Landslides?

Determination: No Impact.

The proposed project is not expected to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death from landslides. Although the project site is in an area of high seismic activity, because of the relatively flat terrain on the site and the surrounding properties, the site is at little risk for landslide. No impact would occur.

7(b) Result in substantial soil erosion or the loss of topsoil?

Determination: Less Than Significant Impact.

Proposed construction activities would include demolition an existing residence, clearing the site of debris and/or vegetation, soil excavation, grading, asphalt paving, residential home building construction, and landscaping. Such activities would disturb site soils, exposing them to the erosive effects of wind and water. However, all construction activities related to the proposed project would be subject to implementation of Best Management Practices (BMPs) for erosion control, as required under National Pollutant Discharge Elimination System (NPDES) regulations pursuant to the federal Clean Water Act. NPDES requirements for construction projects of one acre or more in area are set forth in the Construction General Permit issued by the State Water Resources Control Board (State Water Board Order No. 2009-0009-DWQ). Furthermore, the project's demolition of the existing residence, land clearing, grading, and construction activities would be required to comply with SCAQMD Rules 403 and 403.2 regulating fugitive dust emissions, thus minimizing wind erosion from such ground-disturbing activities. Therefore, the proposed project would not generate substantial erosion. Soil erosion impacts would be less than significant.

7(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Determination: Less Than Significant Impact.

Refer to Discussion 7a)iii and 7a)iv, above. Based on the low liquefaction and landslide potential, depth to groundwater, and flat topography, the project site is not considered to be located on a geologic unit or soil that is unstable or could become unstable as a result of the project. A less than significant impact would occur.

7(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Determination: Less Than Significant Impact.

Expansion Index (EI) testing performed on representative samples collected from the project site and has indicated the project site soils possess a "very low" to "low" expansion potential. The results of the EI testing are included in Appendix B of the Geotechnical Evaluation. The Geotechnical Evaluation recommended for foundation elements for the proposed residential homes to composed of entirely engineered fill soils and should be designed in accordance with the CBC. Therefore, with the project conditioned to adhere to this recommendation, impacts in regard to expansive soils would be reduced to less than significant.

7(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Determination: No Impact.

The proposed project would be served by the municipal sewer system of the Jurupa Community Services District (JCSD) and would therefore have no need for a septic system or other alternative wastewater disposal system. There would be no impact.

7(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Determination: Less Than Significant Impact.

The project site is located within the Inland Valley, within the Peninsular Ranges Geomorphic Province of California. The Inland Valley is situated between the San Bernardino Mountains to the northeast, the San Gabriel Mountains to the north, the Chino Hills to the southwest, and to the southeast by the hilly uplands that separate it from the San Jacinto Basin. These mountain ranges are part of the Transverse Ranges Geomorphic Province of California.

The Inland Valley is dominated by northwest-trending faults and adjacent anticlinal uplifts. The intervening deep synclinal troughs are filled with poorly consolidated Upper Pleistocene and unconsolidated Holocene sediments. Tectonism of the region is dominated by the interaction of the East Pacific Plate and the North American Plate along a transform boundary. The Inland Valley

has been filled with a variable thickness of relatively young, heterogeneous alluvial deposits. These deposits typically do not contain significant vertebrate fossils, at least within the uppermost layers.

According to the Geotechnical Evaluation, project site soils consisted primarily of clayey sand, silt, clay and silty sand within the 20 to 51.5-foot depth below grade surface. The project site is not anticipated to contain significant paleontological or geologic features. No prehistoric resources were identified during background research or field survey for the project site. As such, a less than significant impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

1. The project shall comply with the California Building Code and the City of Eastvale's grading requirements in Eastvale Municipal Code Section 130.08.040, *Street Grades*, and subject to the approval of the City Engineer.
2. The project shall comply with all recommendations contained in the project-specific Geotechnical Evaluation.

MITIGATION MEASURES

None required.

4.8 GREENHOUSE GAS EMISSIONS

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

DISCUSSION

The analysis and findings throughout this section are based on the *Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project, City of Eastvale* (Air Quality, Energy and Greenhouse Gas Evaluation) prepared by Vista Environmental, dated July 26, 2022, provided as **Appendix 4** of this IS/MND.

Background

Global Climate Change

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 420 million metric tons of carbon dioxide equivalent ($MTCO_2e$) per year.[9] Methane (CH_4) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which increases the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation is required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

[9] California Air Resources Board. 2019. California Greenhouse Gas Emissions for 2000 to 2017. Carbon dioxide equivalent (CO_2e) is a metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.

Regulations and Significance Criteria

Multiple regulations pertaining to GHG emissions apply to the project including the following, which are described in detail in the Air Quality and Greenhouse Gas Evaluation:

- Climate Change Action Plan: developed by the Intergovernmental Panel on Climate Change (IPCC) to address the reduction of GHGs in the United States, consisting of more than 50 voluntary programs. The IPCC concluded that a stabilization of GHGs at 400 to 450 ppm CO_2e concentration is required to keep global mean warming below two degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.
- Executive Order S-3-05: issued in June 2005, which established the following GHG emission reduction targets:
  - 2010: Reduce GHG emissions to 2000 levels
  - 2020: Reduce GHG emissions to 1990 levels
  - 2050: Reduce GHG emissions to 80 percent below 1990 levels
- Executive Order B-30-15: Issued in April 2015, requires Statewide GHG emissions to be reduced 40 percent below 1990 levels by 2030.
- Assembly Bill 32 (California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006): Adopted in 2006, focuses on reducing GHG emissions in California to 1990 levels by 2020 and defines GHGs as CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride and represents the first enforceable Statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. Under HSC Division 25.5, the California Air Resources Board (CARB) has the primary responsibility for reducing GHG emissions.
- Senate Bill 32 and Assembly Bill 197: Adopted in 2016, establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of State climate policies reach into disadvantaged communities.
- California Air Resources Board 2017 Scoping Plan: establishes a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program. The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the First Update to the Scoping Plan (2013).
- City of Eastvale: The City of Eastvale is part of the Western Riverside Council of Government (WRCOG). The WRCOG adopted the WRCOG Subregional Climate Action Plan (CAP) in September 2014. The Subregional CAP sets forth a subregional emissions reduction target, emissions reduction measures, and action steps to assist each community to demonstrate consistency with California's Global Warming Solutions Act of 2006 (AB 32). The CAP consists of a community-wide emissions reduction target of 15 percent below 2010 levels by 2020, and 49 percent below 2010 levels by 2035.

In addition, the City of Eastvale General Plan Air Quality and Conservation Element includes policies related to GHGs.

8(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Determination: Less Than Significant Impact.

Per City of Eastvale guidance, to determine whether the project's GHG emissions are significant, this analysis uses the SCAQMD screening threshold of 3,000 $MTCO_2e$ per year for all land uses.

Construction and operational activities associated with the proposed project would generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment; CalEEMod Version 2020.4.0 was used to calculate the GHG emissions from the proposed project. A summary of the results is shown in ***Table 8.1, Project-Related GHG Emissions***. As shown in ***Table 8.1***, project-related GHG emissions would total 557.29 $MTCO_2e$ per year. As stated above, according to the thresholds of significance, a cumulative global climate change impact would occur if GHG emissions created from the ongoing operations of the proposed project exceeded the SCAQMD draft threshold of 3,000 $MTCO_2e$ per year for all land uses. Therefore, the currently proposed project would not require emissions reductions. Further, the project will comply with all applicable regulations intended to reduce GHG emissions. As such, impacts would be less than significant.

Table 8.1: Project-Related GHG Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Area Sources	0.69	<0.01	0.00	0.71
Energy Usage	71.30	<0.01	<0.01	71.72
Mobile Sources	429.05	0.02	0.02	435.88
Solid Waste	4.87	0.29	0.00	12.07
Water and Wastewater	9.85	0.07	<0.01	12.13
Construction	24.48	<0.01	<0.01	24.78
Total Emissions	**540.25**	**0.39**	**0.02**	**557.29**
SCAQMD Draft Threshold				**3,000**
Exceed Threshold?				**No**

8(b) Conflict with an applicable plan, policy, or regulations adopted for the purpose of reducing the emissions of greenhouse gases?

Determination: Less Than Significant Impact.

The proposed project would not conflict with an applicable greenhouse gas reduction plan, policy or regulation. The applicable plan for the proposed project is the Eastvale General Plan, which provides guidance for the City's future development and includes policies related to greenhouse

gas emissions, refer to ***Table 8.2, Proposed Project Compliance with Applicable General Plan GHG Policies***, below. The proposed project would be consistent with each of the applicable policies, as demonstrated by ***Table 8.2***.

Additionally, as discussed above, the proposed project's total emissions do not exceed the SCAQMD draft threshold of 3,000 $MTCO_2e$ per year and is in compliance with overall community-wide reduction goals of the WRCOG CAP, AB 32, and SB 32. Furthermore, the project would comply with applicable CalGreen Building Standards and City of Eastvale's policies regarding sustainability (as dictated by the City's General Plan). Impacts would be less than significant.

Table 8.2: Proposed Project Compliance with Applicable General Plan GHG Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
AQ-18	Support local, regional, and Statewide efforts to reduce emissions of greenhouse gases linked to climate change.	**Consistent.** The proposed homes are required to be designed to meet Title 24 Part 6 Energy Efficiency Standards that require all new homes to be designed to be net zero energy usage that is achieved through the installation of PV solar panels, which will minimize the usage of carbon energy sources.
AQ-19	Analyze and mitigate, to the extent feasible, potentially significant increases in greenhouse gas emissions during project review, pursuant to the California Environmental Quality Act.	**Consistent.** As detailed above in Section 4.8, Impact 8(a), the proposed project was found to create less than significant levels of GHG emissions.
AQ-20	Continue to support the planting and maintenance of trees in the community to increase carbon sequestration.	**Consistent.** The Landscape Plan for the proposed project has been designed to incorporate as many trees as possible within the proposed project.

STANDARD CONDITIONS & REQUIREMENTS

The project would be required to comply with all mandates imposed by the State of California and the South Coast Air Quality Management District intended to reduce GHG emissions. The following are applicable to the project and would assist in the reduction of GHG emissions:

- Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) - requires CARB to adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill [SB] 375)
- California Code of Regulations, Title 24 (California Building Standards Code) – establishes energy efficiency requirements for new construction
- California Code of Regulations, Title 20, Division 2, Chapter 4 (Appliance Efficiency Regulations) – establishes energy efficiency requirements for appliances

- Senate Bill 100 (SB 1078) – requires that 100 percent of retail sales of electricity be generated from renewable or zero-carbon sources, by December 2045

MITIGATION MEASURES

None required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles or a public airport or public use airport, result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				X
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g)	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				x

The analysis and findings throughout this section are based on the *Phase I Environmental Site Assessment* (Phase I ESA) prepared by Hillman Consulting LLC, dated January 27, 2021, and provided as **Appendix 8** of this IS/MND.

DISCUSSION

9(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Determination: Less Than Significant Impact.

Exposure of the public or the environment to hazardous materials can occur through improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel, a transportation accident, environmentally unsound disposal methods, or fire, explosion, or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Project construction could expose construction workers and the public to temporary hazards related to the transport, use, and maintenance of construction materials (i.e., oil, diesel fuel, transmission fluid, etc.). These activities would be short-term, and the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. All project construction activities would demonstrate compliance with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials, ensuring that all potentially hazardous materials are used and handled in an appropriate manner. Impacts concerning the routine transport, use, or disposal of hazardous materials during project construction would be less than significant.

9(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Determination: Less Than Significant Impact.

Existing Conditions

One of the means through which human exposure to hazardous substance could occur is through accidental release. Incidents that result in an accidental release of hazardous substance into the environment can cause contamination of soil, surface water, and groundwater, in addition to any toxic fumes that might be generated. Human exposure of contaminated soil, soil vapor, or water can have potential health effects on a variety of factors, including the nature of the contaminant and the degree of exposure.

According to the Phase I ESA, site reconnaissance revealed no evidence of the following on the project site: hazardous substances; drums; chemical containers; underground storage tanks (USTs) or aboveground storage tanks (ASTs); interior stains or corrosion due to hazardous substance/petroleum products spills/releases; floor drains or sump pits; pits, ponds, lagoons, or standing water/pools of liquid; or onsite solid waste dumping. A septic system is present and utilized for onsite disposal of sanitary sewage, most likely located adjoining to the north of the residential structure. A pump system for a water well was observed at the southeastern portion of the project site. No visual observations indicative of a potential environmental concern were noted on the adjoining properties. In addition, a database records search of the Environmental

Data Resources (EDR) radius map revealed there are no potential historical high-risk uses at or in the vicinity of the project site.

Based on research of historical aerial photographs and topographical maps conducted for the Phase I ESA, the project site is described as being undeveloped, vacant land, with agricultural use from approximately 1931 through 1989, and residential use occurring after 1990. The project site is partially developed with one occupied single-family residence, an outbuilding, and a concrete driveway connecting the residence to Orange Street.

Construction Impacts

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law. Construction impacts in this regard would be less than significant.

Operational Impacts

The Phase I ESA revealed no evidence of recognized environmental conditions (RECs) in connection with the project site. Due to the previous agricultural uses discussed above, soil borings and samples were conducted onsite as part of the Phase I ESA due to the potential for soil contamination due to historic applications of pesticides. The samples were submitted for laboratory analysis of organo-chlorine pesticides (OCP) by U.S. Environmental Protection Agency (USEPA) Method 8081A, and analysis of Title 22 Metals by EPA Method 6010B as recommended by DTSC guidance. The results identified Heptachlor Epoxide pesticide from composite sample P17-20 at 0.027 mg/kg concentration, well below the 0.07 mg/kg screening limit for residential soils. No other OCPs were detected, as well as no elevated levels of heavy metals. Therefore, the Phase I ESA concluded that the historic usage of the project site as orchards/agricultural land is not considered to be a REC.

As discussed previously, based on the Phase I ESA conducted for the project, there is an existing onsite septic system and water well. However, prior to the proposed development, the existing onsite septic system would be removed and disposed of, and the existing onsite water well would be properly abandoned. Therefore, upon removal of the septic system and water well, potential hazardous materials impacts relative to operation of the project would be less than significant.

9(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Determination: Less Than Significant Impact.

There are three existing schools within one-quarter mile of the proposed project site: Eastvale Elementary School at 13031 Orange Street, immediately adjacent to the east of the project site; River Heights Intermediate School at 7227 Scholar Way, immediately adjacent to the east of the project site. The nearest high school is Roosevelt High School, at 7401 Scholar Way, approximately 0.3-mile south of the project site. However, operation and maintenance of the proposed project would not produce hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, the proposed project would not result in impacts related to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. A less than significant impact would occur in this regard.

9(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Determination: No Impact.

According to the Phase I ESA prepared for the proposed project, the project is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No impact would occur in this regard.

9(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles or a public airport or public use airport, result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?

Determination: No Impact.

The nearest public use airport is Chino Regional Airport, located approximately 3 miles northwest of the project site. According to Exhibit CH-6, *Compatibility Factors Map*, of the Riverside County Airport Land Use Compatibility Plan Policy Document (ALUCP), the project site is not located within the Chino Regional Airport Influence Area. Therefore, no impact would occur relative to airport safety hazards.

9(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Determination: Less Than Significant Impact.

Activities associated with the proposed project would not impede existing emergency response plans for the project site and/or other land uses in the project vicinity. As indicated in Section 4.17, *Transportation*, the project does not propose changes to the City's circulation system, such as sharp curves or dangerous intersections, and would not introduce incompatible uses to area

roadways. Proposed off-site roadway improvements, as required by the City Public Works Department, include streetscape improvements along Schleisman Road and Orange Street. Furthermore, should partial lane closures be required as part of project construction activities, implementation of a traffic management plan would minimize congestion and ensure safe travel, including emergency access in the project vicinity; refer to the "Standard Conditions and Requirements" discussion in Section 4.17, *Transportation,* of this IS/MND. Therefore, impacts would be less than significant.

9(g) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Determination: No Impact.

As discussed in Section 4.20, *Wildfire,* the project site is located in a developed urban area surrounded by residential and educational facility uses and is not located in a zone designated as Very High Fire Hazard by the California Department of Forestry and Fire Protection (CalFire). Urban levels of fire protection would be provided to the project area. In addition, the project would adhere to building codes and any conditions included through review by the Riverside County Fire Department (RCFD). No impact would occur in this regard.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

4.10 HYDROLOGY AND WATER QUALITY

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i) Result in substantial erosion or siltation on- or off-site?			X	
	ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
	iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
	iv) Impede or redirect flood flows?			X	
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

The analysis and findings throughout this section are based on the following: *APN No. 152-04-0003 Riverside County 13175 Orange Street SFR Preliminary Drainage Report* (Hydrology Study) prepared by Allard Engineering July 12, 2023, provided as **Appendix 9A** of this IS/MND; and the *Project Specific Water Quality Management Plan* (WQMP) prepared by Allard Engineering, dated July 12, 2023, provided as **Appendix 9B** of this IS/MND.

DISCUSSION

10(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Determination: Less Than Significant Impact.

As part of Section 402 of the Clean Water Act, the USEPA has established regulations under the NPDES program to control direct stormwater discharges. In California, the State Water Resources Control Board (SWRCB) administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The project site is within the jurisdiction of the Santa Ana RWQCB.

Impacts related to water quality typically range over three different periods: 1) during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; 2) following construction, prior to the establishment of ground cover, when the erosion potential may remain relatively high; and 3) following completion of the project, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

Project construction could result in short-term impacts to water quality due to the handling, storage, and disposal of construction materials, maintenance and operation of construction equipment, and earthmoving activities. These potential pollutants could damage downstream waterbodies. Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the SWRCB's General Permit for Discharges of Stormwater Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ (Construction General Permit). The Construction General Permit requires the project applicant to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would specify best management practices (BMPs) to be used during project construction to minimize or avoid water pollution, thereby reducing potential short-term impacts to water quality. Upon completion of the project, the project applicant would be required to submit a Notice of Termination to the SWRCB to indicate that construction has been completed.

To further minimize the potential for accidental release of pollutants during project construction, the routine transport, use, and disposal of construction materials would be required to adhere to applicable State and local standards and regulations for handling, storage, and disposal of hazardous substances; refer to Section 4.9, *Hazards and Hazardous Materials,* of this IS/MND. Compliance with such measures would prevent such substances from entering downstream water bodies via stormwater runoff and adversely affect existing water quality. Following conformance with the Construction General Permit, SWPPP, and implementation of BMPs, the project's short-term impacts to water quality and waste discharge requirements would be less than significant.

The project would be required to implement BMPs to minimize operational impacts to water quality. As detailed in the project's WQMP, potential sources of runoff pollutants include onsite storm drain inlets, landscaping/outdoor pesticide use, refuse areas, and plazas, sidewalks, and parking lots. As a result, the WQMP includes permanent and operational source control BMPs in Appendix 8, *Source Control Pollutant Sources/Source Control Checklist*, of Appendix 9B. These BMPs include, but are not limited to, the construction of on-site storm drain inlets, landscape planning and maintenance, storm drain signage, and private street sweeping. With implementation of these BMPs, the project's impacts to water quality would be less than significant.

10(b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?

Determination: Less Than Significant Impact.

The project site is partially developed with one occupied single-family residence, an outbuilding, and a concrete driveway connecting the residence to Orange Street. Project development would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management. Groundwater was not encountered within the exploratory borings performed for the Geotechnical Evaluation (Appendix 7). Based on the lack of water encountered in the borings and a review of the groundwater information contained on the State Department of Water Resources Water Data Library website, the Geotechnical Investigation estimated depth to high groundwater at the site is about 50 feet below grade, therefore, the project is not expected to substantially deplete groundwater supplies or interfere substantially with groundwater recharge during or after construction.

The project site is not currently used for groundwater recharge purposes. Water for the project would be provided by JCSD and the project would connect to the existing water system. Thus, project implementation would not substantially decrease groundwater supplies nor interfere substantially with groundwater recharge. Impacts would be less than significant in this regard.

10(c)(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

Determination: Less Than Significant Impact.

According to the project's *WQMP Site Map*, approximately 144,271 SF of impervious surfaces and approximately 216,406 SF of pervious surfaces would be created as a result of project development.

The project site currently contains roughly 78,200 SF of impervious concrete surfaces. Although the project would result in an increase in impervious surfaces (184 percent increase), the

proposed project overall would not substantially alter the existing drainage pattern of the site. As shown in the project's WQMP Exhibit **(Appendix 9B),** catch basins in Street A (adjacent to Lot 5) and Street D (adjacent to Lot 31) will convey runoff to underground retention/infiltration chambers in the public right-of-way to infiltrate and treat a total of 10,467 cubic feet of runoff with a drawdown rate of approximately 34-38 hours. Once the Infiltration/Retention Chamber Systems reach their capacity, the overflow will drain out using storm drain pipes from the Chamber System and will be conveyed to the frontage street (Orange Street) via the proposed 30" storm drain lateral onsite and finally conveyed to the existing City storm drain system (48" RCP) in Orange Street via 30" lateral.

As discussed in Response 4.10(a) above, the project would comply with the requirements of the Construction General Permit under the NPDES program, which would result in preparation of an SWPPP that outlines necessary BMPs to minimize erosion and water quality impacts during construction. Therefore, project development would not result in significant erosion or siltation impacts due to changes in drainage patterns and impacts would be less than significant.

10(c)(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Determination: Less Than Significant Impact.

Refer to Response 4.10(c)(i) above.

10(c)(iii) Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Determination: Less Than Significant Impact.

Refer to Responses 4.10(c)(i) above. On-site stormwater runoff associated with the project would be engineered to be conveyed through public street improvements and onsite infiltration to dispose of stormwater. Additionally, with required implementation of a SWPPP and WQMP as discussed above, the proposed project would not generate a substantial source of polluted runoff. The project would not create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems. A less than significant impact would occur.

4(c)(iv) Would the project impede or redirect flood flows?

Determination: Less Than Significant Impact.

The project site is relatively flat. The proposed project would include the development of a storm drainage system consistent with City requirements to convey stormwater runoff to a 48-inch RCP mainline storm drain system located on Orange Street. The proposed onsite drainage system conveys runoff to the existing storm drain system south of the site which is also consistence with the existing drainage pattern. Stormwater management practices as required under Eastvale Municipal Code Title 14, *Water and Sewers,* would further reduce any impacts to a less than

significant level. In addition, proposed on-site storm drain inlets, drain lines, catch basins, underground infiltration/retention chambers, front yard typical/onsite landscaping and streetscape landscaping to Orange Street would assist in minimizing the potential for impediment or redirect flood flows. Therefore, impacts would be less than significant.

10(d) In flood hazard, tsunami, or seiche zones, would the project result in a risk release of pollutants due to project inundation?

Determination: No Impact.

According to the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer Viewer, the project site is not located within a 100-year flood hazard area.[10] As a result, no impact would occur in this regard.

A tsunami is a series of ocean waves generated in the ocean by an impulsive disturbance. The proposed project site is located approximately 30 miles inland from the Pacific Ocean. Due to this location, tsunamis are not considered a threat. No impact would occur in this regard.

A seiche is an oscillating surface wave in a restricted or enclosed body of water generated by ground motion, usually during an earthquake. Inundation from a seiche can occur if the wave overflows a containment wall or the banks of a water body. However, because the proposed project is not adjacent to any marine or inland water bodies, impacts from seiche are not expected to occur. No impact would occur in this regard.

4(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Determination: Less Than Significant Impact.

The project site is located in the Santa Ana River Hydrologic Unit in the South Coast Hydrologic Region. The Santa Ana RWQCB oversees basin planning and water quality in the Santa Ana River Hydrologic Unit. The Santa Ana RWQCB prepares the Water Quality Control Plan for the Santa Ana River Basin (Basin Plan) to protect local surface waters and groundwater basins. The Basin Plan designates beneficial uses of waters in the region and provides objectives to maintain or improve water quality in the region.

The California Department of Water Resources (DWR) has initiated a technical process called Basin Prioritization, which utilizes the best available data and information to classify California's 515 groundwater basins into one of four categories high-, medium-, low-, or very low-priority, based on eight components that are identified in the California Water Code Section 10933(b). Each basin's priority determines which provisions of California Statewide Groundwater Elevation Monitoring (CASGEM) and the Sustainable Groundwater Management Act (SGMA) apply. SGMA requires medium- and high-priority basins to develop groundwater sustainability agencies (GSAs), develop groundwater sustainability plans (GSPs) and manage groundwater for long-term

[10] Federal Emergency Management Agency. n.d. National Flood Hazard Layer Viewer. Accessed May 13, 2022. https://www.fema.gov/national-flood-hazard-layer-nfhl.

sustainability. Based on a search of the DWR's online SGMA Basin Prioritization Dashboard, the project site is located in a groundwater basin area designated as "low and very low."[11]

As described in Response 4.10(c)(i) above, the project would install underground infiltration/retention chambers to satisfy the requirements of the NPDES permit. The proposed chambers would be designed to infiltrate, filter, and treat a total of 10,467 cubic feet of runoff with a drawdown rate of approximately 34-38 hours.

Since the NPDES permit is intended to protect water quality, compliance with the permit would ensure that the project would not impair existing or potential beneficial uses of nearby or downstream water bodies and would not conflict with or obstruct implementation of the Basin Plan. The proposed project does not propose the drilling of a well to obtain groundwater for consumption. The project would utilize an existing 8-inch potable water line in Orange Street and could utilize an existing 12-inch potable water lines in Schleisman Road if needed for pressure, and thus would not conflict with a groundwater management plan. Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The proposed project would be required to obtain coverage under the Santa Ana regional water quality control board's Statewide General Construction Permit (CGP), which requires the preparation, approval, and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include Best Management Practices (BMPs) to be implemented during and after project construction to minimize erosion and sedimentation of downstream watercourses.
2. The project is subject to the Riverside County Storm Water Permit, also issued by the Santa Ana RWQCB (Order No. R8-2010-003, NPDES No. CAS 618033, as amended by R8-2013-0024, NPDES No. CAS618033) for discharges into the Municipal Separate Storm Sewer Systems (MS4S) draining the county.
3. The project applicant will be required to prepare a final WQMP for the project, with BMPs incorporated in the plan.

MITIGATION MEASURES

None required.

[11] California Department of Water Resources SGMA Basin Prioritization Dashboard. Nd. https://gis.water.ca.gov/app/bp-dashboard/final/ Accessed August 9, 2022.

4.11 LAND USE AND PLANNING

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Physically divide an established community?			X	
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?			X	

DISCUSSION

11(a) Physically divide an established community?

Determination: Less Than Significant Impact.

The physical division of an established community is typically associated with construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility within an existing community or between a community and an outlying area.

None of the proposed project components would constitute a barrier that would physically divide an established community. No new linear features are included in the project. Access to and movement throughout the project area and the City would not be physically impaired due to the project.

Therefore, the proposed project would not physically divide an established community. Less than significant impacts would occur.

11(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Determination: Less Than Significant Impact.

SB 330

The City has identified the project site as being subject to SB 330 (the Housing Crisis Act of 2019). In 2021, the City adopted Chapter 120.08, *No Net Loss Program*, in the Eastvale Municipal Code in order to establish a SB 330 compliance density bonus program, in satisfaction of the "no net loss" requirements of SB 330. Projects requesting Density Bonuses through the No Net Loss Program are subject to preliminary application processing as specified in Eastvale Municipal Code Chapter 120.08, in addition to environmental analysis under CEQA.

Under the streamlining provisions of SB 330, a housing development cannot be required to rezone the property if it is consistent with the objective General Plan standards for the property.

The public agency may require the housing development to comply with the objective zoning code standards applicable to the property, but only to the extent they facilitate the development at the density allowed by the General Plan.[12]

Because the proposed project has completed both the preliminary application as required by Eastvale Municipal Code Chapter 120.08 and the environmental analysis contained in this IS/MND, the project is consistent with the provisions of SB 330 and a less than significant impact would occur.

General Plan

The project site is currently designated by the Eastvale General Plan as Medium Density Residential (MDR) and is bounded by MDR land uses on all sides. The density of the proposed project would be 4.95 du/ac, which is within the allowable density range of 2.1 to 5.0 du/ac for land with the MDR land use designation. As such, the project is consistent with the General Plan and impacts would be less than significant.

Zoning Code

The project site is zoned Heavy Agricultural (A-2). The properties to the east and south of the project site are also zoned Heavy Agricultural (A-2). The neighborhoods to the north and west are zoned One Family Dwellings (R-1). However, because the project site has a Residential land use designation and is consistent with the objective General Plan standards for the site, the project is not required to obtain approval of a Change of Zone under the provisions of SB 330, as described above.

The proposed project has been designed to meet the regulations of the Residential zoning. The project would comply with the minimum lot standards for area, width, and depth, as well as height, floor area ratio, and setback regulations. As such, the project would be consistent with the Zoning Code and impacts would be less than significant.

Conclusion

The proposed project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, Specific Plan, Local Coastal Program, or Zoning Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

[12] Best, Best and Krieger, LLP. 2022. https://www.bbklaw.com/news-events/insights/2019/legal-alerts/10/sb-330-limits-local-laws-over-housing-developments Accessed June 21, 2022.

4.12 MINERAL RESOURCES

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the State?				X
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan?				X

DISCUSSION

12(a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the State?

Determination: No Impact.

The project site has no history of use as a mineral resource recovery operation and is located in a predominantly developed area of the City. Areas identified as Mineral Resource Zone 2 (MRZ-2) are areas that contain identified mineral resources, and no areas within the project vicinity are mapped MRZ-2 by the Riverside County General Plan.[13] The project site, as with the majority of City, are mapped as Mineral Resource Zone 3 (MRZ-3) wherein the significance of mineral deposits is undetermined. As such, no mineral resources are anticipated within the project area. Thus, project implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. No impact would occur.

12(b) Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan?

Determination: No Impact.

Refer to Response 4.12(a), above. No mineral resources are anticipated within the project area. No impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

[13] Riverside County General Plan Update, Chapter 14, Mineral Resources, Figure 4.14.1. https://planning.rctlma.org/Portals/14/genplan/general_plan_2014/EnvironmentalImpactReport/04-14_MineralResources_2014-04-07.pdf, Accessed May 17, 2022.

4.13 NOISE

Would the proposed project result in:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b)	Generation of excessive groundborne vibration or groundborne noise levels?			X	
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	

The analysis and findings throughout this section are based on the *Magnolia Ranch Residential Project Noise Impact Analysis* (Noise Impact Analysis) prepared by Vista Environmental, dated July 26, 2022, provided as **Appendix 10** of this IS/MND. Refer to the Noise Impact Analysis for a complete discussion regarding noise metrics fundamentals.

DISCUSSION

Multiple regulations pertaining to noise apply to the project including the following, which are described in detail in the Noise Impact Analysis:

- Governor's Office of Planning and Research Noise Element Guidelines: Includes recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise.
- City of Eastvale General Plan Noise Element contains multiple policies relative to noise impacts that are applicable to the project.
- Eastvale Municipal Code Section 8.52.020, *Exemptions;* Section 8.52.040, *General Sound Level Standards;* and Section 120.05.130, *Noise, Odor and Vibration Performance Standards*, are applicable to the project.

EXISTING CONDITIONS

Existing Ambient Noise Levels

Existing ambient noise within the proposed project area is generally characterized by vehicle traffic on Schleisman Road that is adjacent to the north side of the project site and from Orange Street that is adjacent to the south side of the project site. There is also noise created from Eastvale Elementary School, adjacent to the east side of the project site.

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historical sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Table 13.1, City of Eastvale Noise Compatibility and Land Use Designation**,** shows the City's noise compatibility associated with each specific land use designation, as presented in the General Plan.

Table 13.1: City of Eastvale Noise Compatibility and Land Use Designation

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60-70 dBA	70-75 dBA	Greater than 75 dBA
All Non-Residential (Commercial, Industrial & Institutional)	Less than 70 dBA	70-75 dBA	Greater than 75 dBA	To be determined as part of the project review process
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65-70 dBA	70-75 dBA	Greater than 75 dBA

Source: City of Eastvale General Plan, Table N-3.

Notes: All noise levels shown in this table are designated Community Noise Equivalent Level (CNEL).

dBA = A-weighted decibel

13(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Determination: Less Than Significant Impact with Mitigation Incorporated.

Construction Impacts

The construction activities for the proposed project are anticipated to include: demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses; site preparation and grading; construction of 41 single-family homes; paving of onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site; and application of architectural coatings.

Noise impacts from construction of the proposed project have been analyzed through use of the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM). ***Table 13.2: Construction Equipment Noise Emissions and Usage Factors,*** below, provides a list of the construction equipment anticipated to be used for each phase of construction that was obtained from the *Air Quality, Energy, and Greenhouse Gas Impact Analysis Magnolia Ranch Residential Project* (Air Quality Analysis), prepared by Vista Environmental, July 26, 2022.

Table 13.2: Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Acoustical Use Factor[1]	L_{max} at 50 Feet (dBA)[2]
Demolition		
Concrete/Industrial Saw	20	90
Excavator	40	85
Rubber-Tired Dozer	40	85
Site Preparation		
Rubber-Tired Dozer	40	85
Crawler Tractor	40	84
Grading		
Excavator	40	85
Grader	40	85
Rubber-Tired Dozer	40	85
Scraper	40	85
Crawler Tractor	40	84
Building Construction		
Crane	16	85
Forklift (Gradall)	40	85
Generator	50	82
Crawler Tractor	40	84
Front End Loader	40	80
Backhoe	40	80
Welder	40	73
Paving		
Paver	50	85
Paving Equipment	50	85
Roller	20	85
Architectural Coating		
Air Compressor	40	80

Source: Vista Environmental. Noise Impact Analysis. July 26, 2022. Table H.
Notes: 1 = Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday
2 = Lmax = maximum noise levels; dBA = A-weighted decibel

Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 8.52.020(9) of the City's Municipal Code exempts construction noise that occurs between 6:00 AM and 6:00 PM June through September and between 7:00 AM and 6:00 PM October through May. However, General Plan Policy N-23, requires that infill development projects to prepare a Construction Noise Mitigation Plan prior to obtaining a grading permit. As such, as a standard condition, the project would require the use temporary noise barriers, designated equipment staging areas, limits on idling and the required use of mufflers on all construction equipment. Refer to the "Standard Conditions and Requirements" discussion below.

The City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction noise levels may result in a significant substantial temporary noise increase to the nearby sensitive receptors. In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, Federal Transit Agency (FTA) construction noise criteria thresholds were utilized in the project's construction noise level calculations, which shows that a significant construction noise impact would occur if construction noise exceeds 80 dBA during the daytime at any of the nearby homes and school. Construction noise levels at the nearest sensitive receptor by phase are shown in ***Table 13.3, Construction Noise Levels at the Nearest Sensitive Receptor***, below. Based on the Noise Impact Analysis, and as shown in ***Table 13.3***, the greatest noise impacts would occur during the grading phase, with a noise level as high as 72 dBA L_{eq} at the school to the east and 67 dBA L_{eq} at the nearest homes to the west. ***Table 13.3*** also shows that none of the construction phases would exceed the FTA noise standard of 80 dB at the nearby homes or school. Therefore, through adherence to the allowable construction times detailed in Section 8.52.020(9) of the Municipal Code and through implementation of the standard condition and requirement that requires the preparation of a construction-related noise mitigation plan, prior to the issuance of the grading plan for the proposed project, the proposed project would not create a substantial temporary increase in ambient noise levels from construction of the proposed project. Construction-related noise impacts would be less than significant.

Table 13.3: Construction Noise Levels at the Nearest Sensitive Receptor

Construction Phase	Construction Noise Level (dBA L_{eq}) at:	
	Nearest Homes to the West[1]	Nearest School to the East[2]
Demolition	65	70
Site Preparation	66	71
Grading	67	72
Building Construction	65	70
Paving	60	65
Painting	52	57
FTA Construction Noise Threshold[3]	**80**	**80**
Exceed Threshold?	**No**	**No**

Source: Vista Environmental. Noise Impact Analysis. July 26, 2022. Table M.

Notes: 1 = The nearest homes to the west are located as near as 340 feet from the center of the project site. 5 dB of estimated shielding was included to account for the 6 to 7 foot high CMU wall on the west side of the project site.

2 = The nearest school structure to the east is located as near as 340 feet from the center of the project site.

3 = The FTA Construction noise thresholds are detailed above in Table B of the Noise Impact Analysis.

Operational Impacts

Potential noise impacts associated with the operations of the proposed project would be from project-generated vehicular traffic on the nearby roadways. In addition, the proposed development would be adjacent to Schleisman Road and adjacent to Eastvale Elementary School, which may create exterior and interior noise levels in excess of City standards at the proposed homes. Both the off-site noise impacts to nearby existing homes and the on-site noise impacts to proposed homes were analyzed separately, discussed below.

Off-Site Traffic Noise Impacts

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not propose any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway; therefore, the proposed project's potential off-site noise impacts are focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.

The Noise Impact Analysis analyzed the proposed project's potential off-site traffic noise impacts for the existing year, opening year 2024, and future year 2040 scenarios. The Noise Impact Analysis concluded that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds under any of the above scenarios. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels and a less than significant impact would occur in this regard.

On-Site Traffic Noise Impacts

The proposed development would be adjacent to Schleisman Road to the north and adjacent to Eastvale Elementary School to the east, which may create exterior and interior noise levels in excess of City standards at the proposed homes. The roadway noise impacts and non-transportation noise impacts have been analyzed separately below.

Non-Transportation Noise Impacts to Proposed Homes

The noise impacts from Eastvale Elementary School are controlled by General Plan Policy N-7 that provides the City's standards for maximum exterior non-transportation noise levels. For the proposed single-family homes, General Plan Policy N-7 provides a noise standard of 60 dBA between 7 AM to 10 PM and 50 dBA between 10 PM to 7 AM at the exterior of the proposed single-family homes.

Based on the Noise Impact Analysis, an ambient noise measurement of 56.2 dBA L_{eq} between 7 AM to 10 PM and 49.1 dBA L_{eq} between 10 PM to 7 AM is applicable to the school. As such, the noise created from the outdoor areas of the school are below the City's non-transportation exterior noise standards for single-family homes provided in General Plan Policy N-7. Therefore, the non-transportation noise impacts created from the school to the proposed homes would be within the City noise standards. Impacts would be less than significant.

Roadway Noise Impacts to Proposed Homes

The north side of the proposed development would be adjacent to Schleisman Road. General Plan Policy N-6 requires exterior noise levels for new residential uses to be mitigated to the levels shown above in ***Table 13.1*** above, that shows the "Completely Compatible" noise standard of less than 60 dBA, "Tentatively Compatible" 60 to 70 dBA, "Normally Incompatible" 70 to 75 dBA, and "Completely Incompatible" greater than 75 dBA. General Plan Policy N-11 requires developers of new residential uses where the noise exceeds the "Completely Compatible" noise standard to ensure acceptable exterior and interior noise levels. General Plan Policy N-10 details that the maximum acceptable interior noise level from roadway noise sources is 45 dBA CNEL.

It is anticipated that the primary source of noise impacts to the project site would be traffic noise from Schleisman Road that is adjacent to the north side of the project site. The proposed homes would also experience some background traffic noise impacts from the proposed project's internal roadways and from Orange Street that is adjacent to the south side of the project site. As the traffic on these local streets would consist of low traffic volumes at slower speeds, the traffic noise from these roads would not make a significant contribution to the noise environment. As such, the noise levels from these roads were not analyzed. The exterior and interior noise impacts to the proposed homes have been analyzed separately below.

Exterior Noise Impacts to Proposed Homes

The anticipated exterior noise levels have been calculated for the backyards of representative homes that are adjacent to Schleisman Road. The calculated noise levels for backyards that are adjacent to Schleisman Road are shown below in ***Table 13.4: Proposed Homes Exterior Noise Levels from Schleisman Road. Table 13.4*** shows that without a sound wall, noise levels at all of the backyards adjacent to Schleisman Road would exceed the City's residential exterior noise

standard of 60 dBA CNEL. This would be considered a significant impact. Therefore, the project would be required to implement **Mitigation Measure NOI-1**, which requires construction of a minimum 6.5-foot-high concrete masonry unit (CMU) wall on the north side of all backyards that are adjacent to Schleisman Road. As shown in ***Table 13.4***, above, with implementation of **Mitigation Measure NOI-1**, the proposed homes exterior noise levels would be within the City's 60 dBA CNEL residential exterior noise standard and impacts would be reduced to a less than significant level.

Table 13.4: Proposed Homes Exterior Noise Levels from Schleisman Road

Building Number	Exterior Noise Level Without Sound Walls (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?	Exterior Noise Level With 6.5-Foot-High Sound Wall (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?
9	68.1	Yes	59.1	No
11	68.1	Yes	59.3	No
13	68.1	Yes	59.6	No
15	68.2	Yes	60.0	No
17	68.1	Yes	59.9	No

Source: Vista Environmental. Noise Impact Analysis. July 26, 2022. Table Q.

Interior Noise Impacts to Proposed Homes

To assess the interior noise levels, the same proposed homes analyzed for the exterior private backyard analysis were also analyzed for their interior noise levels. The exterior noise level at the façade of the first and second floors were calculated and the results are shown below in ***Table 13.5, Proposed Homes Interior Noise Levels from Schleisman Road***. ***Table 13.5*** also shows the interior noise levels calculated based on 25 dB of attenuation, which is the minimum exterior to interior noise reduction rate for new homes that are constructed to meet the required California Code of Regulations Title 24, Part 6 building energy-efficiency standards that require the installation of dual-paned windows as well as enhanced insulation requirements. The anticipated noise levels have been calculated at the facades of representative proposed homes to Schleisman Road and the results are shown below in ***Table 13.5***.

Table 13.5 shows that the interior noise level of all homes adjacent to Schleisman Road would be within the City's 45 dBA CNEL interior noise standard with project implementation. Impacts would be less than significant.

Table 13.5: Proposed Homes Interior Noise Levels from Schleisman Road

Building Number	Floor	Exterior at Façade	Interior[1]	Exceed 45 dBA Interior Threshold?
9	First	58.9	33.9	No
	Second	66.9	40.4	No
11	First	58.2	33.2	No
	Second	65.4	40.4	No
13	First	58.8	33.8	No
	Second	65.7	40.7	No
15	First	60.0	35.0	No
	Second	66.9	41.9	No
27	First	58.3	33.3	No
	Second	64.3	39.3	No

Source: Vista Environmental. Noise Impact Analysis. July 26, 2022. Table R.

Notes: 1 = Based on standard dual pane windows and doors with a 26 STC rating, which are required per Title 24 energy saving requirements.

Based on the significance criteria described above, the project-related noise level increases are considered less than significant with implementation of mitigation.

13(b) Generation of excessive groundborne vibration or groundborne noise levels?

Determination: Less Than Significant Impact.

Construction activity can result in varying degrees of groundborne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that groundborne vibration from project construction activities would cause only intermittent, localized intrusion. As discussed in Impact 4.13(a) above, the construction activities for the proposed project are anticipated to include: demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses; site preparation and grading; construction of 41 single-family homes; paving of onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site; and application of architectural coatings.

Vibration impacts from construction activities associated with the proposed project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 120.05.130(e) of the Eastvale Municipal Code provides a vibration standard for new development of any vibration that causes discomfort or annoyance to reasonable persons of normal sensitivity. However, Section 120.05.130(e) of the Eastvale Municipal Code exempts construction activities from this standard. Since neither the Eastvale Municipal Code nor the General Plan provide a quantifiable vibration threshold for temporary construction activities,

guidance from the *Transportation and Construction-Induced Vibration Guidance Manual*, prepared by Caltrans (April 2020) has been utilized, which defines the threshold of perception from transient sources such as off-road construction equipment at 0.25 inch per second peak particle velocity (PPV).

The primary source of vibration during construction would be from the operation of a bulldozer, which would create a vibration level of 0.089 inch per second PPV at 25 feet. The vibration level at the nearest offsite homes (25 feet to west) and school structure (25 feet to east) would be below the 0.25 inch per second PPV threshold detailed above. Therefore, impacts relative to groundborne vibration would be less than significant.

13(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Determination: Less Than Significant Impact.

The nearest public use airport is Chino Regional Airport located approximately 3 miles northwest of the project site. According to Exhibit CH-6, *Compatibility Factors Map*, of the Riverside County ALUCP Policy Document, the project site is not located within the Chino Regional Airport Influence Area, nor is the site located within any within any of the airport's noise contour areas.[14] As such, the project site would not be exposed to excessive noise levels from airport operations, and impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The project will be subject to the general sound level standards of Eastvale Municipal Code Section 8.52.040, *General Sound Level Standards*.
2. Prior to the issuance of the grading permit, the project applicant shall submit a construction-related noise mitigation plan to the City for review and approval. The plan shall depict the locations of where construction equipment will operate on the project site and how the noise from the construction equipment will be mitigated during construction of the project, through use of such methods as:
    1. Temporary noise attenuation fences;
    2. Preferential location of equipment
    3. Length of equipment use and idling time; and,
    4. Use of current noise suppression technology and equipment

[14] Riverside County Airport Land Use Commission. 2008. West County Airports Background Data. Exhibit CH-6, *Compatibility Factors Map.* September 2008.

MITIGATION MEASURES

NOI-1 Prior to issuance of grading permits, the project applicant shall prepare construction documents for approval by the City Engineer which shall include plans to construct a minimum 6.5-foot-high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

With implementation of **Mitigation Measure NOI-1**, impacts relative to noise would be reduced to a less than significant level.

4.14 POPULATION AND HOUSING

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			X	
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X	

DISCUSSION

14(a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Determination: Less Than Significant Impact.

A project could induce population growth in an area either directly, through the development of new residences or businesses, or indirectly, through the extension of roads or other infrastructure. In 2022, the California Department of Finance estimated that Eastvale had an average household size of 3.92 persons per household.[15] The most recent Regional Housing Needs Assessment (RHNA) allocation released by the Southern California Association of Governments (SCAG) for the City identifies the need for an additional 3,028 housing units in the City over the next eight years.[16] With 41 residential units as part of the proposed project, the project would generate approximately 161 residents and would accommodate approximately 1.35 percent of the City's RHNA allocation. Therefore, the project as proposed is consistent with the anticipated population growth that the City is required to plan for under its' 6th Cycle Housing Element. Impacts would be less than significant.

[15] California Department of Finance. 2022. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021-2022 with 2020 Census Benchmark. Accessed June 21, 2022. https://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

[16] Southern California Association of Governments. 2022. 6th Cycle Final RHNA Allocation Plan. Accessed June 21, 2022. https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1616462966.

14(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Determination: Less Than Significant Impact.

As described previously, prior to project grading and construction, the project would require the vacating and demolition of one existing residence onsite. The property owners are voluntarily selling their property and would be compensated for their property. At this time, no evictions are anticipated. It is expected that residents would have the ability to relocate based on the availability of existing housing stock in the area. In 2022, the California Department of Finance estimated that Eastvale had approximately 18,396 housing units within City limits, with a vacancy rate of 3.1 percent.[17] Therefore, substantial numbers of existing people or housing would not occur, and no replacement of housing would be needed. Impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

[17] California Department of Finance. 2022. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2021-2022 with 2020 Census Benchmark. https://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/. Accessed June 21, 2022.

4.15 PUBLIC SERVICES

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public series:				
	i) Fire protection?			X	
	ii) Police protection?			X	
	iii) Schools?			X	
	iv) Parks?			X	
	v) Other public facilities?			X	

DISCUSSION

15(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public series:

i) Fire protection?

Determination: Less Than Significant Impact.

The Riverside County Fire Department (RCFD) provides fire protection and safety services to the City of Eastvale. The RCFD operates two fire stations in Eastvale: Station #27 located approximately 0.6-mile east of the project site at 7067 Hamner Avenue, and Station #31 located 1.8 miles southwest of the project site at 14491 Chandler Street.

The proposed project would create an increased demand for fire protection services. However, the project would not induce significant or unplanned population growth; refer to Section 4.14, *Population and Housing*. Further, the proposed project would be conditioned to comply with the requirements of the RCFD for emergency access, fire

flow, fire protection standards, fire lanes, and other site design/building standards. The project would also be subject to the project design requirements set forth in the 2019 California Fire Code and the 2019 California Building Standards Code. The City would collect a one-time development impact fees pursuant to Eastvale Municipal Code Chapter 110.28, *Development Impact Fee Program,* which is imposed on all new development to help pay fair share of costs in upgrading the RCFD's fire facilities, as needed. Payment of these fees would offset the project's impacts to the acquisition, design, and construction of new fire facilities. Following collection of development impact fees and compliance with RCFD, California Fire Code, and CBC requirements, impacts to fire protection facilities would be less than significant.

ii) Police protection?

Determination: Less Than Significant Impact.

Police protection services are provided to the City under contract from the Riverside County Sheriff's Department. Specifically, police protection services for the project area are provided by the Jurupa Valley Sheriff's Station located at 7477 Mission Boulevard in Jurupa Valley, approximately 8.0 miles northeast of the project site.

The proposed project would create an increased demand for police protection services. However, the project would not induce significant or unplanned population growth; refer to Section 4.14, *Population and Housing.* The proposed development would be conditioned for the payment of the City's development impact fees pursuant to Eastvale Municipal Code Chapter 110.28, *Development Impact Fee Program*. The Riverside County Sheriff's Department would have the opportunity to review the project design plans and include conditions that would be required in order for the applicant to be issued development permits. As a 41-unit residential development project, the proposed project is not expected to result in any unusual circumstances that may generate high demand for police protection services. Therefore, payment of the City's development impact fees would fully mitigate any potential impact on Sheriff's Department facilities.

iii) Schools?

Determination: Less Than Significant Impact.

The proposed project site is located in the Corona-Norco Unified School District. The nearest elementary school is Eastvale Elementary School at 13031 Orange Street, immediately adjacent to the east of the project site. The nearest middle school is River Heights Intermediate School at 7227 Scholar Way, immediately adjacent to the south of the project site. The nearest high school is Roosevelt High School, at 7401 Scholar Way, approximately 0.3 miles south of the project site.

The project would not induce significant or unplanned population growth; refer to Section 4.14, *Population and Housing.* In addition, the project would be required to comply with Senate Bill (SB) 50 requirements, which allow school districts to collect

impact fees from developers of new projects. According to Section 65997 of the California Government Code, payment of statutory fees is the exclusive method of mitigating environmental effects related to the adequacy of school facilities when considering the approval or the establishment of conditions for the approval of a development project. Thus, upon payment of required fees by the project applicant consistent with existing State requirements, impacts would be less than significant.

iv) Parks?

Determination: Less Than Significant Impact.

Currently, four percent of land in Eastvale is designated for recreation. The JCSD owns and maintains 14 public parks and two community centers in the portion of Eastvale west of Hamner Avenue and the Jurupa Area Recreation and Park District (JARPD) provides four public parks in the portion of Eastvale east of Hamner Avenue. The nearest park, Harada Heritage Park, is approximately 0.3 miles north of the project, and may be utilized by residents of the project.

The proposed project would create an increased demand for parkland with the addition of new residents to the area. However, the project would not induce significant or unplanned population growth; refer to Section 4.14, *Population and Housing.* In addition, the project contains outdoor open space for use by the residents comprised of a 28,872 SF common area with a picnic seating area, lawn area, corn hole play area, trail, bench, dog station, and a 63-ft-wide paseo with a succulent garden walk. Two paseos have also been incorporated into the project's design for a total of approximately 40,724 SF. The first paseo extends along the easterly property line and will include an easement in favor of the City of Eastvale to provide a public trail connection between Schleisman Road and Orange Steet. The second paseo, located between lots 9 and 10, will provide a trail connect for resident to access a future linear park along Schleisman Road. As the project would not result in significant population growth and would provide onsite outdoor open space for use by residents, impacts to parks and recreation facilities would be less than significant.

v) Other public facilities?

Determination: Less Than Significant Impact.

The project would not induce significant or unplanned population growth; refer to Section 4.14, *Population and Housing.* The project involves the development of a 41-unit single-family residential development and does not propose new or physically altered public facilities. Thus, the proposed project would not result in an increase in the demand for other governmental services such as the economic development and other community support services commonly provided by the City. This impact would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. The project applicant is required to pay the established development impact fees in compliance with the Development Impact Fee Program in Chapter 110.28 of the Eastvale Municipal Code.
2. California Government Code Section 65996 indicates that payment of school impact fees is considered full mitigation for project impacts to a school district.

MITIGATION MEASURES

None required.

4.16 RECREATION

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

DISCUSSION

16(a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Determination: Less Than Significant Impact.

Refer to Response 4.15(a)(iv). It is not anticipated that the proposed project would generate a substantial number of new jobs or induce substantial unplanned population growth in the City. Further, the project would provide onsite outdoor open space for use by residents. Impacts would be less than significant in this regard.

16(b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Determination: Less Than Significant Impact.

Refer to Response 4.15(a)(iv). The proposed project includes amenities for use by residents but would not include the construction or expansion of any parks or recreational facilities. As described previously, the proposed project would not increase the demand for parks or other recreational facilities and would not require the construction or expansion of any such facilities. This impact would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

4.17 TRANSPORTATION

Would the proposed project:					
Issues		Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?		X		
b)	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d)	Result in inadequate emergency access?			X	

The analysis and findings throughout this section are based on the *Magnolia Ranch Traffic Analysis* (Traffic Analysis) prepared by Urban Crossroads, dated August 10, 2023, provided as Appendix 11 of this IS/MND.

DISCUSSION

17(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Determination: Less Than Significant Impact With Mitigation Incorporated.

Study Area

Based on the City-approved scoping agreement for the project, ***Table 17.1, Study Area Intersections***, shows the intersections within the City of Eastvale jurisdiction that are included in the traffic impact study area.

Relative to bicycle and pedestrian facilities, existing sidewalks are currently provided along the roadways adjacent to the project site. There are no existing bike lanes in the project area; however, future bicycle lanes are proposed for Orange Street, Sumner Avenue and Schleisman Road. Existing transit facilities provided by the Riverside Transit Agency in the project vicinity include Transit Route 3, which currently operates on 68th Street, Sumner Avenue, and Citrus Street.

Table 17.1: Study Area Intersections

Intersection Location	Jurisdiction
1. Sumner Avenue and Schleisman Road	City of Eastvale
2. Sumner Avenue and Orange Street	City of Eastvale
3. Driveway 1 and Orange Street	City of Eastvale
4. Scholar Way and Schleisman Road	City of Eastvale
5. Scholar Way and Orange Street	City of Eastvale
6. Scholar Way and Baltimore Street	City of Eastvale
7. Scholar Way and Citrus Street	City of Eastvale
8. Hamner Avenue and Schleisman Road	City of Eastvale

Source: Magnolia Ranch Traffic Analysis. 2023. Table 1-1.

Methodology

CEQA Guidelines Section 15064.3 was released on December 28, 2018, to address the determination of significance for transportation impacts. The new guideline requires that the analysis is based on vehicle miles traveled (VMT) instead of congestion (such as level of service, or LOS). The change in the focus of transportation analysis is the result of legislation (SB 743) and is intended to shift the emphasis from congestion to, among other things, reducing GHG emissions, promoting a diversity of land uses, and developing multimodal transportation networks. Pursuant to CEQA Guidelines Section 15064.3(c), this change in analysis is mandated to be used beginning July 1, 2020. Refer to Response 4.17(b) below for the project impacts relative to VMT.

Projects in the City are required to complete a transportation impact study, in addition to VMT assessment, to demonstrate consistency with the General Plan. As the City has maintained its requirement to utilize LOS as the mechanism for quantifying transportation and circulation impacts of planned projects (as discussed in Chapter 4, *Circulation and Infrastructure*, of the City's General Plan), an LOS analysis was conducted for the project's Traffic Analysis and is summarized below. Refer to **Appendix 11** for the complete LOS discussion.

LOS is used to qualitatively describe the performance of a roadway facility, ranging from LOS A (free-flow conditions) to LOS F (extreme congestion and system failure). Study area intersections within the City are analyzed using the methodology in accordance with the City's *Traffic Impact Analysis Preparation Guidelines* (May 2020) (City of Eastvale TIA Guidelines). The technique used to assess the performance of an intersection is known as the intersection delay method, based on the procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding LOS. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to LOS based on the thresholds shown in ***Table 17.2, Intersection LOS Thresholds***.

Table 17.2: Intersection LOS Thresholds

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized	Unsignalized
A	≤ 10.0	≤ 10.0
B	≤ 10.0 to ≤ 20.0	≤ 10.0 to ≤ 15.0
C	≤ 20.0 to ≤ 35.0	≤ 15.0 to ≤ 25.0
D	≤ 35.0 to ≤ 55.0	≤ 25.0 to ≤ 35.0
E	≤ 55.0 to ≤ 80.0	≤ 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Magnolia Ranch Traffic Analysis. 2023. Table 2-1.

The City of Eastvale General Plan Policy C-10 sets a standard of LOS C with LOS D as acceptable in commercial and employment areas and at intersections of any combination of major highways, urban arterials, secondary highways, or freeway ramps. Based on this criterion, where feasible, LOS D is the minimum acceptable LOS at each of the study intersections within the City of Eastvale.

Project Trip Generation

According to the Traffic Analysis, the project is anticipated to generate a total of 388 vehicle trip-ends per day with 28 AM peak hour trips and 38 PM peak hour trips.

Analysis Scenarios and Results

The following scenarios were analyzed during typical weekday AM and PM peak hour conditions:

- Existing (2021) Conditions
- Existing Plus Project Conditions
- Opening Year Cumulative (2025) Without and With Project Conditions
- Horizon Year (2040) Without and With Project Conditions

Existing (2021) Conditions

Based on the Traffic Analysis, the study intersections currently operate within acceptable LOS (D or better), with the exception of the Sumner Avenue/Schleisman Road intersection, which is operating at an unacceptable LOS F in the AM peak hour and LOS E in the PM peak hour under Existing (2021) traffic conditions.

Existing Plus Project Conditions

Based on the Traffic Analysis, no additional intersections are anticipated to operate at an unacceptable LOS with the addition of project traffic, consistent with Existing (2021) traffic conditions. The Sumner Avenue/Schleisman Road intersection would continue to operate at an unacceptable LOS F in the AM peak hour and LOS E in the PM peak hour under Existing Plus Project conditions.

The intersection operations analysis includes the roadway improvements that would be implemented by the project. Therefore, the following roadway improvements have been identified and included as **Mitigation Measures TRA-1** and **TRA-2**:

- Install a stop sign for egress traffic from the proposed project at Driveway 1 on Orange Street, which is proposed for full access.
- Project to restripe the existing eastbound through lane to provide an eastbound shared left-through lane.
- Construct Orange Street from the western project boundary to the eastern project boundary at its ultimate half-section width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan.

According to the Traffic Analysis (see **Appendix 11**, *Table 5-2, Summary of Intersection Analysis for Existing Plus Project Conditions with Improvements*), the roadway improvements required under **Mitigation Measures TRA-1** and **TRA-2** would result in a reduction of delay at the Sumner Avenue/Schleisman Road intersection from 114.2 seconds to 38.8 seconds in the AM peak hour, and from 60.1 seconds to 27.0 seconds in the PM peak hour. In addition, the LOS at this intersection would improve from F to D in the AM peak hour and from E to C in the PM peak hour. Therefore, with implementation of **Mitigation Measures TRA-1** and **TRA-2,** LOS impacts under the Existing Plus Project conditions would be reduced to less than significant.

Opening Year Cumulative (2025) Without and With Project Conditions

Based on the Traffic Analysis, no additional intersections are anticipated to operate at an unacceptable LOS under both the Opening Year Cumulative (2025) Without Project and With Project conditions. The Sumner Avenue/Schleisman Road intersection would continue to operate at an unacceptable LOS F in the AM peak hour and LOS E in the PM peak hour under Opening Year Cumulative (2025) conditions.

The intersection operations analysis includes the roadway improvements that would be implemented by the project, as described in **Mitigation Measures TRA-1** and **TRA-2**, below. According to the Traffic Analysis (see **Appendix 11**, *Table 6-2, Intersection Analysis for Opening Year Cumulative (2025) Conditions with Improvements*), the roadway improvements required by **Mitigation Measures TRA-1** and **TRA-2** would result in a reduction of delay at the Sumner Avenue/Schleisman Road intersection from 161.5 seconds to 54.0 seconds in the AM peak hour, and from 78.3 seconds to 31.8 seconds in the PM peak hour. In addition, the LOS at this intersection would improve from F to D in the AM peak hour and from E to C in the PM peak hour. Therefore, with implementation of **Mitigation Measures TRA-1** and **TRA-2,** LOS impacts under the Opening Year Cumulative (2025) conditions would be reduced to a less than significant level.

Horizon Year (2040) Without and With Project Conditions

Based on the Traffic Analysis, no additional intersections are anticipated to operate at an unacceptable LOS under both the Horizon Year (2040) Without Project and With Project conditions. The Sumner Avenue/Schleisman Road intersection would continue to operate at an

unacceptable LOS F in the AM peak hour and LOS F in the PM peak hour under Horizon Year (2040) conditions.

The intersection operations analysis includes the roadway improvements that would be implemented by the project, as described in **Mitigation Measures TRA-1** and **TRA-2**, below. According to the Traffic Analysis (see **Appendix 11**, *Table 7-3, Intersection Analysis for Horizon Year (2040) Conditions with Improvements*), the roadway improvements required by **Mitigation Measures TRA-1** and **TRA-2** would result in a reduction of delay at the Sumner Avenue/Schleisman Road intersection from >200 seconds to 51.9 seconds in the AM peak hour, and from >200 seconds to 51.2 seconds in the PM peak hour. In addition, the LOS at this intersection would improve from F to D in both the AM and PM peak hours. Therefore, with implementation of **Mitigation Measures TRA-1** and **TRA-2,** LOS impacts under the Horizon Year (2040) conditions would be reduced to a less than significant level.

17(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Determination: Less Than Significant Impact.

Changes to the CEQA Guidelines Section 15064.3 became effective July 1, 2020, which require all lead agencies to adopt VMT as a replacement for automobile delay-based LOS as the new measure for identifying transportation impacts for land use projects. On June 24, 2020, the City of Eastvale adopted Resolution No. 20-44, which establishes VMT impact thresholds for assessing consistency with CEQA Guidelines Section 15064.3, subdivision (b).

Based on the City's guidelines, land use projects that meet certain screening threshold criteria based on size, location, proximity to transit or trip-making potential may be presumed to have a less than significant transportation impact under CEQA and do not require a full detailed VMT analysis. The City utilizes three screening criteria as follows:

- Transit Priority Area (TPA): Projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary.
- Low VMT Area: Residential and office projects located within a low VMT-generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if there is a reasonably expectation that the project will generate VMT per service population that is similar to the existing land uses in the low VMT area.
- Project Type: Local-serving projects, including retail projects less than 50,000 SF, are presumed to have a less than significant impact absent substantial evidence to the contrary. Local serving retail generally improves the convenience of shopping close to home and has the effect of reducing vehicle travel.

The VMT evaluation of the project shows that the project meets the City's screening criteria based on the Low VMT Area criteria, and as such, a full VMT analysis is not required. Therefore, the project satisfies the project type screening criteria for a Low VMT Area and would result in a less than significant VMT impact, in accordance with VMT guidelines established by the City of Eastvale.

17(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Determination: Less Than Significant Impact.

The project does not involve any unusual conditions, or hazardous design features, such as sharp curves or dangerous intersections, or incompatible uses. The Traffic Analysis recommended roadway improvements (**Appendix 11)** would be constructed to be consistent with the identified roadway classifications and respective cross-sections in the City of Eastvale General Plan Circulation and Infrastructure Element. The project access and project improvements (i.e., signage, buildings, and landscaping) would be designed in accordance with City standards so that adequate sight distance for drivers entering and exiting the site is maintained. On-site traffic signing and striping would be implemented in conjunction with detailed construction plans for the project site. With implementation of the recommended configuration of the driveways and frontage improvements as part of the project design, a less than significant impact would occur.

17(d) Result in inadequate emergency access?

Determination: Less Than Significant Impact.

The access and circulation features on the project site would accommodate emergency ingress and egress. As discussed above, the proposed project would provide one access point be located at Orange Street. The proposed site access improvements would ensure that access is maintained for fire trucks, police units, and ambulance/paramedic vehicles.

The project is subject to the City's design review to ensure that the project as designed does not temporarily or permanently interfere with the provision of emergency access or with evacuation routes. All emergency access features are subject to and must satisfy the City of Eastvale design requirements and be approved by the Fire Department. During periods when partial road closures are required, the project applicant would be required to implement a temporary Traffic Management Plan (TMP) to minimize temporary impacts to emergency access and evacuation routes during the construction process. Therefore, the project would not result in inadequate emergency access and impacts would be less than significant.

STANDARD CONDITIONS & REQUIREMENTS

1. Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one lane of

travel in each direction must always be maintained for Orange Street and Schleisman Road throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.

MITIGATION MEASURES

TRA-1 **Driveway 1 & Orange Street (#4)**. Prior to ground disturbing activities, the City of Eastvale Traffic Engineer shall verify that the project plans identify a stop control for southbound exiting project traffic with a shared left-right turn lane. The City of Eastvale Traffic engineer shall also verify that project plans indicate the existing eastbound through lane is restriped to provide an eastbound shared left-through lane.

TRA-2 **Orange Street**. Prior to ground disturbing activities, the City of Eastvale Traffic Engineer shall verify that the project plans identify Orange Street from the western project boundary to the eastern project boundary at its ultimate half-section width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

With implementation of **Mitigation Measures TRA-1** and **TRA-2**, impacts relative to traffic and transportation would be reduced to a less than significant level.

4.18 TRIBAL CULTURAL RESOURCES

Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

DISCUSSION

18(a)(i) *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

18(a)(ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of*

Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Determination: Less Than Significant Impact With Mitigation Incorporated.

On June 21, 2021, the City provided written notification of the project in accordance with AB 52 to all of the Native American tribes that requested to receive such notifications from the city. Staff received a request from Gabrieleno Band of Mission Indians- Kizh Nation within the 30-day period, requesting to initiate consultation. The staff consulted with representatives of Kizh Nation and **Mitigation Measure TCR-1**, below, is required to address a concern over the potential for uncovering tribal cultural recourses or other tribal-affiliated resources during construction of the project. Implementation of **Mitigation Measure TCR-1** would reduce potentially significant impacts to Tribal Cultural Resources to a less than significant level.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

TCR-1 **Treatment and Disposition of Cultural Resources**. If tribal cultural resources are inadvertently discovered during ground disturbing actives for this project. The following procedures will be carried out for treatment and disposition of the discoveries:

A. **Temporary Curation and Storage**. During the course of construction, all discovered resources shall be temporarily curated in a secure location on-site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process.

B. **Treatment and Final Disposition.** The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City Planning Department with documentation of same:

i. **Reburial On-site.** Accommodate the process for on-site reburial of the discovered items with the consulting tribes. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.

ii. **Curation.** A curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists or researchers for further study. The collections and

associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

iii. **Disposition Dispute**. If more than one tribe is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center.

iv. **Final Report.** At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and tribal monitors within 60 days of completion of grading. This report shall:

- Document the impacts to the known resources on the property;
- Describe how each mitigation measure was fulfilled;
- Document the type of cultural resources recovered and the disposition of such resources;
- Provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting;
- In a confidential appendix, include the daily/weekly monitoring notes from the archaeologist.
- All reports produced will be submitted to the City, Eastern Information Center and consulting tribes.

SIGNIFICANCE OF IMPACT AFTER MITIGATION

Implementation of **Mitigation Measure TCR-1** would ensure that any tribal cultural and archaeological resources inadvertently discovered during project grading or construction activities would be protected consistent with the recommendations of a qualified archaeologist and the appropriate tribes, reducing impacts to less than significant.

4.19 UTILITIES AND SERVICE SYSTEMS

Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?			X	

DISCUSSION

19(a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Determination: Less Than Significant Impact.

The project site is served by the following utilities:

- Electricity – Southern California Edison (SCE)
- Water – Jurupa Community Services District (JCSD)
- Sewer – JCSD
- Storm Drain – City of Eastvale

- Cable – Spectrum
- Telephone – AT&T
- Natural Gas – Southern California Gas Company (SoCalGas)

Electric Power, Natural Gas, and Telecommunications

The project site is located in a developed area of the City and is situated within close proximity to existing electric power, natural gas, and telecommunications facilities. Therefore, substantial new utility infrastructure would not be required with project implementation.

Water

The project would require water for the irrigation of landscaped areas. However, it is not expected that water demand would increase substantially with project implementation. Water for the project would be provided by JCSD and would connect to the existing water main located in Orange Street. Therefore, the expansion of off-site water facilities would not be required to serve the project.

Storm Drain

The project's stormwater needs are met by the City of Eastvale and the Riverside County Flood Control and Water Conservation District. The project site would drain to the proposed underground infiltration/retention chambers for low flow infiltration until it reaches capacity. Once the Infiltration/Retention Chamber Systems reach their capacity, the overflow will drain out using storm drain pipes from the Chamber System and will be conveyed to the frontage street (Orange Street) via the proposed 30" storm drain lateral onsite and finally conveyed to the existing City storm drain system (48" RCP) in Orange Street via 30" lateral. Therefore, the expansion of off-site storm drain facilities would not be required to serve the project.

Wastewater Treatment

The project is located within the jurisdiction of the Santa Ana RWQCB, which applies requirements to the wastewater treatment facilities owned and operated by treatment providers. Sewer service is available from an existing 10-inch diameter sewer line in Schleisman Road and an existing 8-inch diameter sewer line in Orange Street. An 8-inch sewer line would be installed throughout the project in conveying wastewater to a point of connection with the existing sewer line on Orange Street. Therefore, the expansion of off-site wastewater facilities would not be required to serve the project.

19(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Determination: Less Than Significant Impact.

Water service would be provided to the project site by JCSD. JCSD relies predominantly on groundwater and desalinated brackish groundwater from the Chino Groundwater Basin for its

water supply,[18] as described in the City's General Plan. Through a joint powers authority, the JCSD partners with the Chino Desalter Authority, the owner and operator of two water treatment plants (desalters), to treat potable water for the JCSD service area. Each desalter has the current capacity to treat 12 million gallons per day (mgd) of water.

JCSD estimates water supply availability for normal, single-dry, and multiple-dry year scenarios from 2025 through 2045 in its 2020 Urban Water Management Plan. For all years and all scenarios, anticipated supply exceeds anticipated demand. ***Table 19.1, JCSD Normal and Single-Dry Year Supply and Demand in Acre-Feet per Year (AFY),*** summarizes supply, demand, and excess supply for the normal and single-dry year.

Table 19.1: JCSD Normal and Single-Dry Year Supply and Demand in Acre-Feet per Year (AFY)

	2025	2030	2035	2040	2045
Normal Year					
Supply	42,093	44,093	44,093	44,093	44,093
Demand	31,525	34,035	35,825	37,795	37,795
Excess Supply	10,568	10,058	8,268	6,298	6,298
Single Dry Year					
Supply	42,303	44,534	44,446	44,402	44,313
Demand	31,714	34,477	36,506	38,740	39,004
Excess Supply	10,589	10,057	7,940	5,662	5,309

Source: Jurupa Community Services District. 2020 Urban Water Management Plan. Tables 7-2 and 7-3.

Residential peak hour demands for distribution systems serving up to 400 residential units are calculated using a formula from the JCSD Standards Manual for Water and Sewer Systems. Residential maximum day demands are calculated by dividing the peak hour demand by 1.5. For the proposed project, the peak hourly flow would be 241.9 gallons per minute (GPM) and the maximum day demand is 161.3 GPM. Using this water demand rate, the project would result in an increase in water demand of 9,936 gallons per day, equivalent to approximately 11.1 acre-feet per year (AFY).[19] This increase represents an approximately 0.026 percent increase in demand in comparison to the current existing and excess supplies. Therefore, impacts would be less than significant.

[18] City of Eastvale. 2012. General Plan. Page 7-6, Water Supply. Accessed May 19, 2022. https://www.eastvaleca.gov/home/showdocument?id=2360

[19] Jurupa Community Services District. August 2020. Standards Manual for Water and Sewer Systems.

19(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Determination: Less Than Significant Impact.

Wastewater disposal is regulated under the federal Clean Water Act and the State Porter-Cologne Water Quality Control Act. The Santa Ana RWQCB regulates wastewater discharges in Eastvale, including the project site, and implements the Clean Water Act and the Porter-Cologne Act by administering the NPDES, issuing water discharge permits, and establishing BMPs. Development of the project site would result in wastewater flows that would be collected and treated at the Western Riverside County Regional Wastewater Authority plant, which serves Eastvale.

The proposed project would receive wastewater conveyance services from the JCSD. The JCSD discharges wastewater from this area to the Inland Empire Brine Line (IEBL), which pumps the wastewater to the Orange County Sanitation District (OCSD). The JCSD estimates that wastewater treatment plant capacity is currently 9.8 mgd with the ability to expand to 17 mgd. According to the JCSD Standards Manual,[20] single-family residential units in Eastvale are estimated to generate an average of 220 gallons per unit of wastewater per day. Therefore, the proposed project can be expected to contribute 9,020 gallons of wastewater flow to the IEBL and OCSD treatment plant daily.[21]

Since the project would only result in an increase of wastewater flows equal to 0.09 percent of current JCSD capacity,[22] adequate capacity is available to serve the proposed project. A less than significant impact would occur.

19(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Determination: Less Than Significant Impact.

Implementation of the project is anticipated to generate additional solid waste during the temporary, short-term construction phase, as well as the operational phase, but it would not be expected to result in inadequate landfill capacity. No landfills are located in Eastvale; however, solid waste services for the City are provided by the El Sobrante Landfill near the City of Corona, approximately 13 miles southeast of the project site. According to the California Department of Resources Recycling and Recovery (CalRecycle), the landfill has a maximum throughput of 16,054 tons per day. This landfill has a maximum permitted capacity of approximately 209.9 million cubic yards, and the landfill has a remaining capacity of approximately 143.9 million cubic yards. The landfill has an expected operational life through 2051.[23]

[20] Jurupa Community Services District. August 2020. Standards Manual for Water and Sewer Systems.

[21] Based on 41 units x 220 daily gallons per unit = 9,020 gallons daily.

[22] Based on 9,020 gallons per day demand ÷ 9,800,000 gallons per day capacity= 0.09 percent.

[23] CalRecycle. N.d. SWIS Facility Detail, El Sobrante Landfill (33-AA-0217). Accessed May 19, 2022. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2256?siteID=2402

CalRecycle's waste generation rates estimate a generation rate for 12.23 pounds of waste per household per day. Assuming 41 households, the residential portion of the project would result in 501.4 pounds of waste daily.[24] Considering the capacity of the El Sobrante Landfill, the project would not have a significant impact on local landfill capacity.

All construction activities would be subject to conformance with relevant federal, State, and local requirements related to solid waste disposal. Specifically, the project would be required to demonstrate compliance with the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939), which requires all California cities to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." The California Integrated Waste Management Act of 1989 requires that at least 50 percent of waste produced is recycled, reduced, or composted. The project would also be required to demonstrate compliance with the Green Building Code, which includes design and construction measures that act to reduce construction-related waste though material conservation measures and other construction-related efficiency measures. Compliance with these programs would ensure the project's construction-related solid waste impacts are less than significant.

19(e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Determination: Less Than Significant Impact.

Refer to Response 4.19(d). The project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure. As such, the project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. A less than significant impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

1. The project applicant will be required to comply with the recommendations of the Riverside County Waste Management Department and all federal, State, and local statutes and regulations related to solid waste, including the Solid Waste Reuse and Recycling Access Act of 1991.
2. The project applicant, developer, or successor in interest shall provide written verification that the Jurupa Community Services District can and will provide potable water service to the project.

MITIGATION MEASURES

None required.

[24] CalRecycle. n.d. Estimated Solid Waste Generation Rates – Residential Sector Generation Rates. Accessed May 19, 2022. https://www2.calrecycle.ca.gov/wastecharacterization/general/rates

4.20 WILDFIRE

Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

DISCUSSION

20(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Determination: No Impact.

The project site is located in a developed urban area surrounded by residential and commercial uses. According to the CalFire Fire Hazard Severity Zone Viewer,[25] and the Adopted State Responsibility Area Fire Hazard Severity Zone Maps,[26] the project site is not located in a zone designated as a Very High Fire Hazard Severity Zone. The proposed project would be required to comply with the provisions of the City of Eastvale Emergency Operations Plan, Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan, and the emergency access requirements of the California Fire Code, which include but are not limited to providing access with adjoining uses

[25] CalFire. nd. Fire and Resource Assessment Program: FHSZ Viewer. Accessed May 19, 2022. https://egis.fire.ca.gov/FHSZ/

[26] CalFire. 2007. Map of CalFire's Fire Hazard Severity Zones in the Local Responsibility Area – Western Riverside County. Accessed May 19, 2022. https://osfm.fire.ca.gov/media/6754/fhszl_map60.pdf

and providing suitable access for emergency vehicles. In addition, emergency access to the site would be maintained during construction. Therefore, no impact would occur.

20(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Determination: No Impact.

The project site is generally flat and does not support areas of steep slopes. In addition, the project site is located within an urbanized area of the city, where the risk of wildland fire is decreased. As such, the proposed project would not be located in a critical fire danger zone or adjacent to wildlands subject to wildfires. Urban levels of fire protection would be provided to the project area. In addition, the project would adhere to building codes and any conditions included through review by the RCFD. No impact would occur.

20(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Determination: No Impact.

The project site is located in a developed area of the city and is situated within close proximity to existing electric power, natural gas, and telecommunications facilities. The proposed residential uses on-site would not include any features that would have the potential to exacerbate fire risk or result in temporary or ongoing impacts to the environment. The project would provide access to adjoining uses and suitable access for emergency vehicles. Emergency access to the site would be maintained during construction. No impact would occur.

20(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Determination: No Impact.

The project site is relatively flat with no major changes in elevations. There are no channels or creeks running through the project site. The project site is not located within a 100-year flood hazard area. In addition, there are no known landslides at the project site, nor is the site in the path of any known or potential landslides. Therefore, the project would not expose people or structures to risks involving flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. No impact would occur.

STANDARD CONDITIONS & REQUIREMENTS

None required.

MITIGATION MEASURES

None required.

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)		X		
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

The following are mandatory findings of significance in accordance with Section 15065 of the CEQA Guidelines.

DISCUSSION

21(a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Determination: Less Than Significant Impact with Mitigation Incorporated.

As discussed in Section 4.4, *Biological Resources*, after implementation of **Mitigation Measures BIO-1, BIO-2**, and **BIO-3**, the proposed project would result in less than significant impacts to biological resources. Similarly, as discussed in Sections 4.5, *Cultural Resources*, and Section 4.18, *Tribal Cultural Resources*, after implementation of **Mitigation Measures CUL-1** and **TCR-1,** the proposed project would result in less than significant impacts to human remains, archaeological resources, paleontological resources, and tribal cultural resources.

21(b) Have impacts that are individually limited, but cumulatively considerable?

Determination: Less Than Significant Impact with Mitigation Incorporated.

A significant impact may occur if the project, in conjunction with related projects proposed for development in the City, would result in impacts that are less than significant when viewed separately but would be significant when viewed together. When considering the proposed project in combination with other past, present, and reasonably foreseeable future projects in the vicinity of the project site, the proposed project does not have the potential to cause impacts that are cumulatively considerable. As detailed in the above discussions, the proposed project would not result in any significant and unmitigable impacts in any environmental categories. In all cases, the impacts associated with the project are limited to the project site or are of such a negligible degree that they would not result in a significant contribution to any cumulative impacts.

21(c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Determination: Less Than Significant Impact with Mitigation Incorporated.

The proposed project does not have the potential to cause substantial adverse effects to humans, either directly or indirectly, once mitigation measures are implemented. While a number of the proposed project's impacts were identified as having the potential to significantly impact humans, with implementation of the identified mitigation measures herein, and standard requirements, these impacts would be less than significant. Therefore, the proposed project would not cause significant adverse direct or indirect impacts to humans.

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Appendix 1

Architectural Plan Set

Magnolia Ranch Residential Project

Initial Study

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

Woodside HOMES

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE
#20105

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#20105

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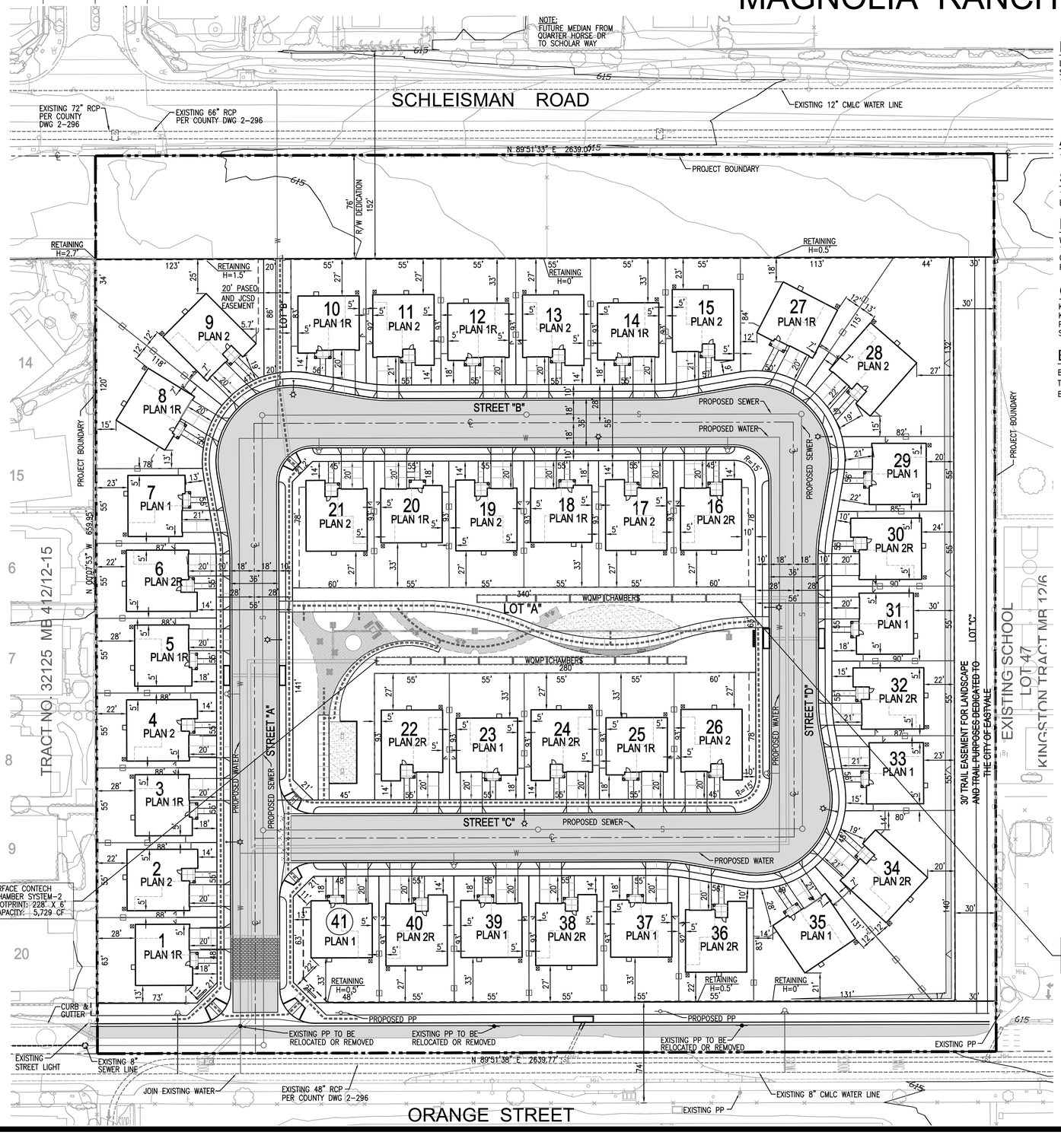
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CITY OF EASTVALE

PRELIMINARY TECHNICAL SITE PLAN
MAGNOLIA RANCH



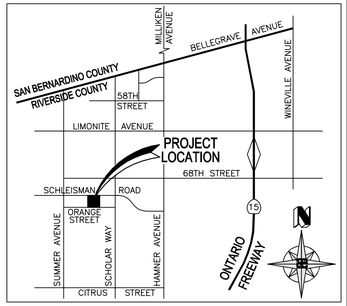
LEGAL DESCRIPTION

LOT 47 OF KINGSTON TRACT IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

SITE STATISTICS

GROSS SITE AREA: 10.0 ACRES
DEVELOPABLE AREA: 8.28 ACRES

TOTAL LOTS: 41 HOMES



VICINITY MAP
N.T.S.

ASSESSOR'S PARCEL NO.

152-040-003

SITE ADDRESS

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951)710-1900

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

BASIS OF BEARINGS

BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15
BEING: N 89°51'33" E

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

PLAN TYPE

PLAN 1 – 20 LOTS
PLAN 2 – 21 LOTS

ENGINEER

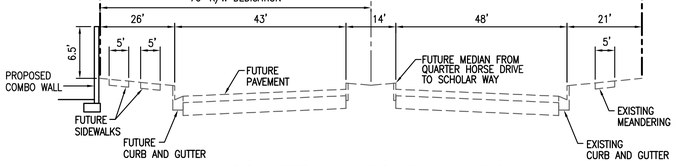
ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

BENCHMARK

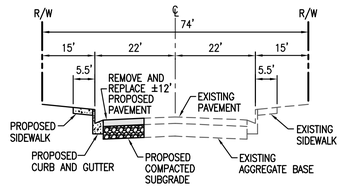
RIVERSIDE OCUNTY BENCHMARK "ML-34-1 RESET 2008"
3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTHERLY CURB, 10' FROM THE ECR AT THE INTERSECTION OF SUMNER AVENUE AND ORANGE STREET.

LEGEND

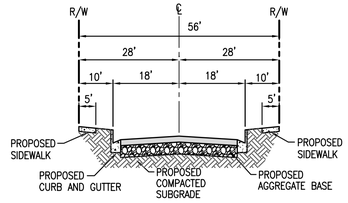
10	UNIT NUMBER
1%	DRAINAGE FLOW DIRECTION
795	EXISTING CONTOUR
S	SEWER LINE
W	WATER LINE
	STORM DRAIN
	PROJECT BOUNDARY
	CENTERLINE
	ADA PATH OF TRAVEL
	AC/AB
	PROPOSED STREET LIGHT



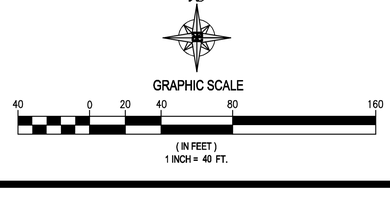
SCHLEISMAN ROAD - 152' R/W
NTS



ORANGE STREET - 74' R/W
NTS



INTERIOR STREETS - 56' R/W
STREET "A", "B", "C", AND "D"
RIVERSIDE COUNTY STD 105
NTS



Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

REGISTERED PROFESSIONAL ENGINEER RAYMOND J. ALLARD No. 36052 CIVIL STATE OF CALIFORNIA

Prepared By:
ALLARD ENGINEERING
Civil Engineering - Land Surveying - Land Planning
16866 Seville Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

Raymond J. Allard, R.C.E. 36052 Date

DATE	August, 2023
SCALE	1"=40'
DRAWN	C.V.
CHECKED	R.J.A

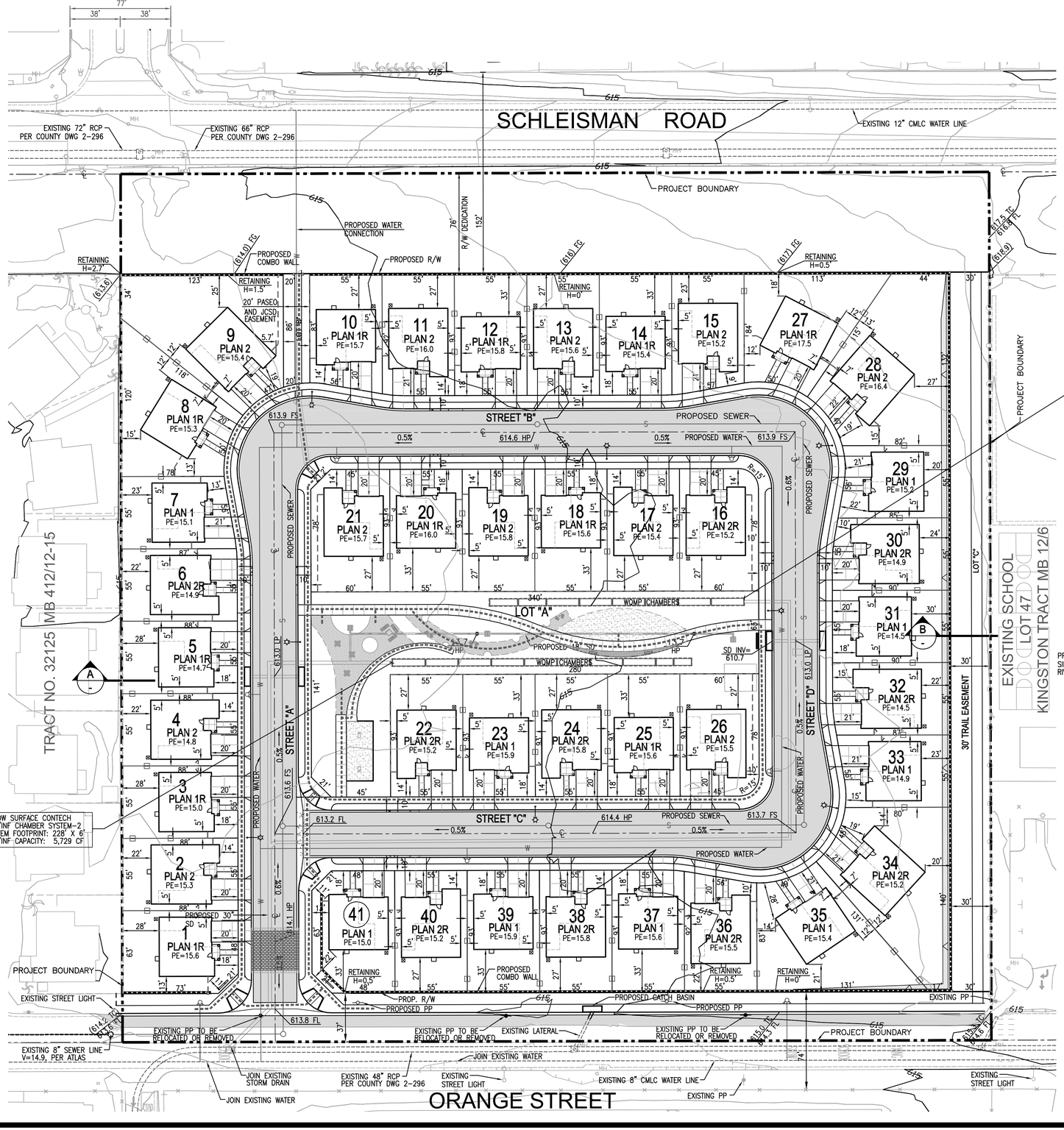
SHEET TITLE: PRELIMINARY TECHNICAL SITE PLAN
PROJECT: MAGNOLIA RANCH
APN: 152-040-003
13175 ORANGE STREET
EASTVALE, CALIFORNIA
JOB NO.

SHEET NO.
C-1

PLOT DATE: August 31, 2023 Bobby

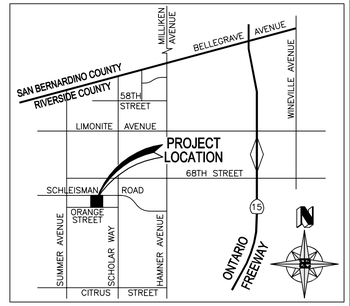
Filename: I:\Woodside Homes\DWG's\ENTITLEMENT\SITE PLAN\PRELIMINARY TECHNICAL SITE PLAN.dwg

PRELIMINARY GRADING AND DRAINAGE PLAN



LEGEND:

- (41) UNIT NUMBER
- 1% DRAINAGE FLOW DIRECTION
- S SEWER LINE
- W WATER LINE
- STORM DRAIN
- PROJECT BOUNDARY
- CENTERLINE
- 795 EXISTING CONTOUR
- FS FINISH SURFACE
- PROPOSED WALL WITH RETAINING
- AC/AB
- PROPOSED STREET LIGHT



VICINITY MAP

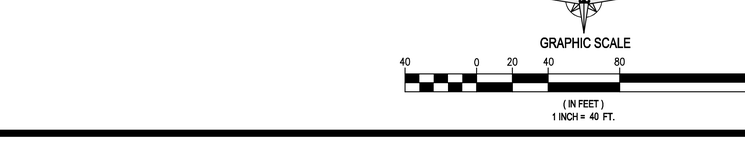
N.T.S.

FEMA ZONE

FLOOD ZONE: "X" MAP NO. 06065C0679G

EARTHWORK ESTIMATE:

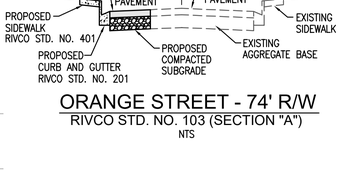
EXCAVATION	15,200	6,030
SHRINKAGE (10%)	−1,520	
OEX SHRINKAGE (5'@10%)		8,000
SUBSIDENCE		1,600
LOT PULLS		
41 DETACHED @ 150	6,150	
TOTAL	19,830	15,630
IMPORT	4,200	



SCHLEISMAN ROAD - 152' R/W

RIVCO STD. NO. 91

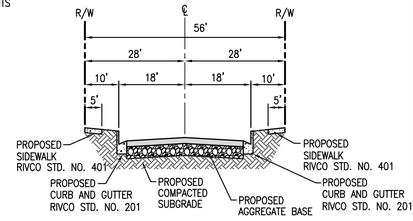
NTS



ORANGE STREET - 74' R/W

RIVCO STD. NO. 103 (SECTION "A")

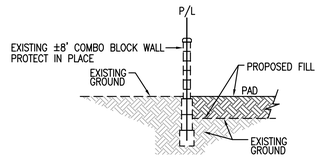
NTS



INTERIOR STREETS - 56' R/W

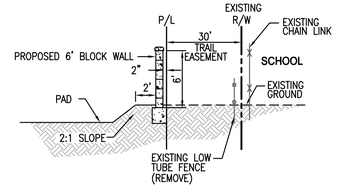
STREET "A", "B", "C", AND "D"
RIVERSIDE COUNTY STD 105

NTS



A - TYPICAL SECTION

NTS



B - TYPICAL SECTION

NTS

N

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 INCH = 40 FT.

Prepared For:
WOODSIDE 055, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

Prepared By:
ALLARD ENGINEERING
Civil Engineering - Land Surveying - Land Planning
16866 Sixmile Avenue
Riverside, California 92503
(909) 356-1815 Fax (909) 356-1795
Raymond J. Allard, R.C.E. 36052 Date

REGISTERED PROFESSIONAL ENGINEER RAYMOND J. ALLARD No. 36052 CIVIL STATE OF CALIFORNIA

DATE	August, 2023
SCALE	1"=40'
DRAWN	C.V.
CHECKED	R.J.A

SHEET TITLE: PRELIMINARY GRADING, DRAINAGE AND UTILITY PLAN

PROJECT: MAGNOLIA RANCH
APN: 152-040-003
13175 ORANGE STREET
EASTVALE, CALIFORNIA

JOB NO.

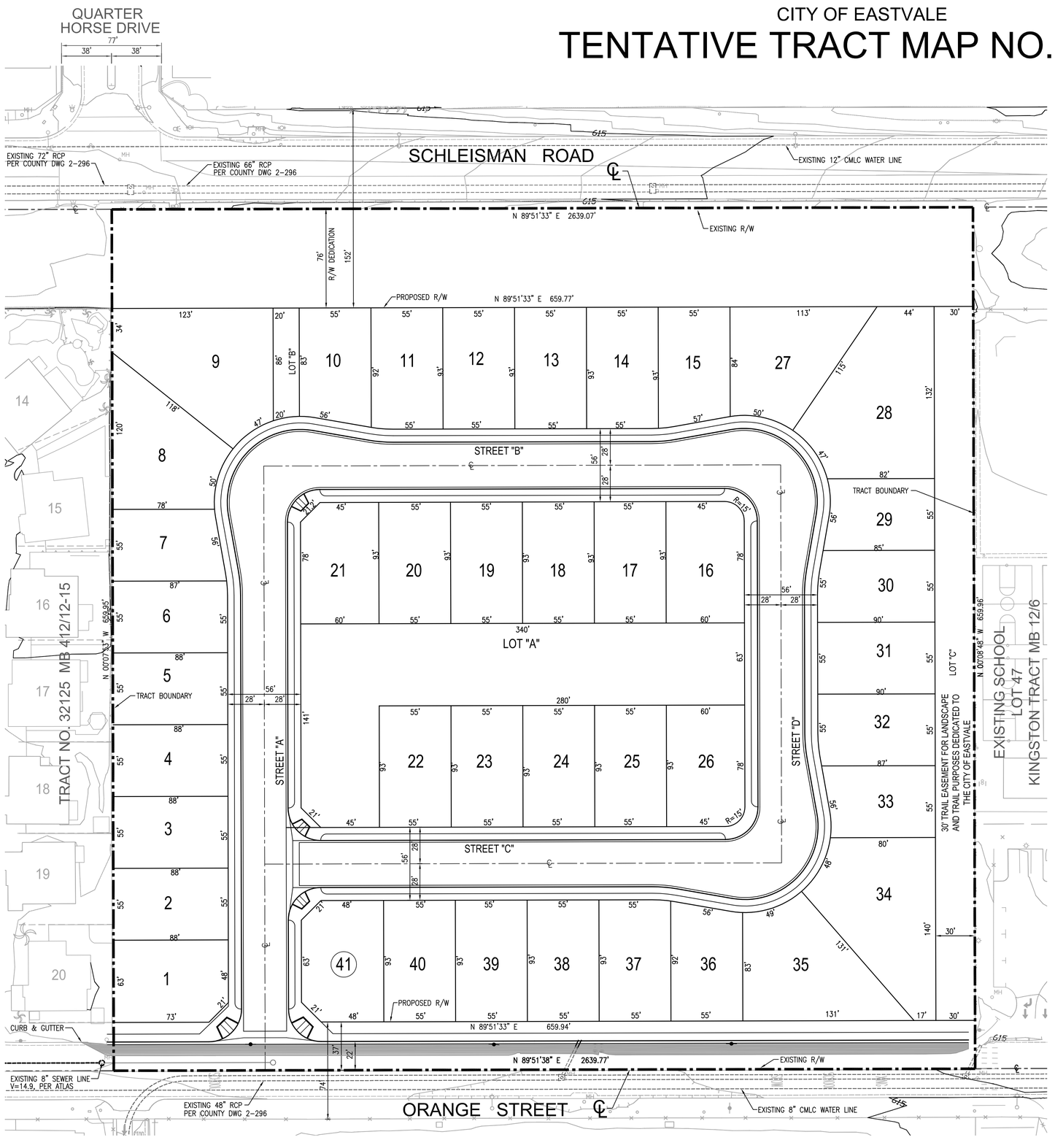
SHEET NO. C-2

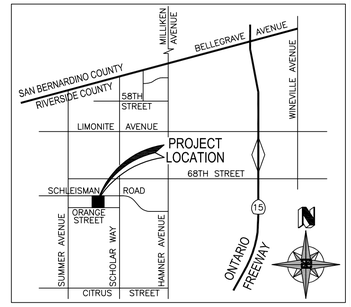
PLOT DATE: August 31, 2023 Bobby

Filename: I:\Woodside Homes\DWG's ENTITLEMENT\CONCEPT GRADING\PRELIMINARY GRADING & DRAINAGE STD.dwg

CITY OF EASTVALE

TENTATIVE TRACT MAP NO. 38167





VICINITY MAP

N.T.S.

LOT AREA			
LOT NO.	AREA IN S.F.	LOT NO.	AREA IN S.F.
1	5,432	22	5,115
2	4,840	23	5,115
3	4,840	24	5,115
4	4,840	25	5,115
5	4,840	26	5,532
6	4,838	27	7,188
7	4,549	28	10,615
8	7,218	29	4,494
9	9,471	30	4,884
10	4,775	31	4,942
11	5,107	32	4,917
12	5,115	33	4,541
13	5,115	34	9,548
14	5,115	35	8,231
15	4,878	36	4,797
16	5,531	37	5,110
17	5,115	38	5,115
18	5,115	39	5,115
19	5,115	40	5,115
20	5,115	41	5,634
21	5,468	LOT A	26,872
LOT B	1,682	LOT C	16,390

ASSESSOR'S PARCEL NO:

152-040-003

LEGAL DESCRIPTION:

LOT 47 OF KINSTON TRACT IN TE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA , AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO CONUNTY RECORDS.

SITE ADDRESS:

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

ENGINEER:

ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

ACREAGE:

EXISTING GROSS: 10.0 ACRES
PROPOSED NET: 8.28 ACRES

BENCHMARK:

RIVERSIDE COUNY BENCHMARK "ML-34-1 RESET 2008" 3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTERLY CURB, 1' FROM THE ECR AT THE INTERECTON OF SUMNER AVENUE AND ORANGE SREEET (S.D. CORO.

BASIS OF BEARINGS:

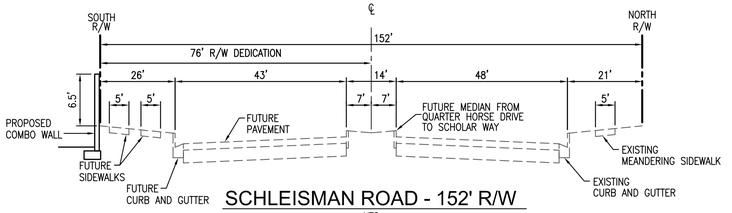
BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15 BEING: N89°51'33"E

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

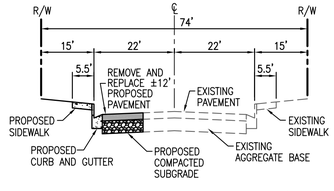
NOTES:

1.) PROPOSED IMPROVEMENT SCHEDULE: SCHEDULE "A"
2.) THE TENTATIVE MAP INCUDES THE ENTIRE CONTIGUOUS OWNERSHHIP OF THE LAND DIVEDER.



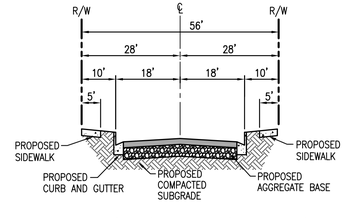
SCHLEISMAN ROAD - 152' R/W

NTS



ORANGE STREET - 74' R/W

NTS



INTERIOR STREETS - 56' R/W

STREET "A", "B", "C", AND "D"
RIVERSIDE COUNTY STD 105

NTS

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 INCH = 40 FT.

Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

REGISTERED PROFESSIONAL ENGINEER RAYMOND J. ALLARD No. 36652 CIVIL STATE OF CALIFORNIA

Prepared By:
ALLARD ENGINEERING
Civil Engineering • Land Surveying • Land Planning
16866 Seville Avenue Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

Raymond T. Allard R.C.E. 36652 Date

DATE	August, 2023
SCALE	1"=40'
DRAWN	C.V.
CHECKED	R.J.A

SHEET TITLE: TENTATIVE TRACT MAP NO. 38167

PROJECT: MAGNOLIA RANCH
APN: 152-040-003
13175 ORANGE STREET
EASTVALE, CALIFORNIA

JOB NO.

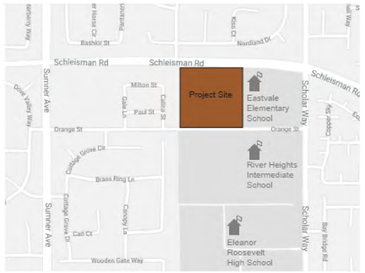
SHEET NO. C-3

PLOT DATE: August 30, 2023 ballard

Filename: I:\Woodside Homes\DWG's\ENTITLEMENT\TENTATIVE TRACT MAP\TTM 38167_Eastvale.dwg

Woodside Homes
BETTER BY DESIGN

Vicinity Map



Property Information

- APN: 152-040-003
- Street Address:
  13175 Orange Street
  Eastvale, CA 92880

- Existing Land Use: Residential
- Proposed Land Use: Residential
- Existing General Plan Designation:
- Medium Density Residential (2.1-5 du/ac
- Existing Zoning Designation:
- A-2 - Heavy Agriculture

Property Owner:
The Kraig A. Kirschner 1998 Revocable Trust
14058 Euclid Ave.
Chino, CA 91710

Project Summary
- Gross Site Area: 10.0 Acres
- Developable Area: 8.28 Acres
  Less Public Street Dedications)
- Number of Homes: 41 Single-family detached homes
- Zoning Density: 4.95 du/ac
  Per Developable Area)
- Building Coverage: 139,371 SF (Conditioned + Unconditioned)
- Gross Building Area: 112,384 SF (Conditioned)
- Occupancy: R-3
- Type of Construction: V-B
- Sprinkler System: NFPA 13D
- Number of Stories: 1 and 2 Stories

Development Criteria*	Provided
Minimum Lot Standards	
Lot Size	4769 SF
Lot Width	55'
Lot Depth	83'
Maximum Height	27'
Minimum Primary Building Setbacks	
Front (To Garage Face)	20'
Front (To Living Area)	10'
Side (Corner)	10'
Side (Interior)	5'
Rear	15'

* Accessory Structures shall be subject to City of Eastvale Zoning Code Section 5.12



Project Summary

Gross Site Area: 10.0 Acres
Developable Area: 8.28 Acres
Total Units: 41 Homes
Density: 4.95 Units per Developable Acre

Legend
Plan 1 - (Two-Story, 2833 SF, 5 bedrooms + loft) 20 homes
Plan 2 - (Two_Story, 3153 SF, 5 bedrooms + loft) 21 homes
Total: 41 homes

Enhanced Elevation Locations

Parking Summary
- **Parking Required: 2 spaces/dwelling unit**
- **Parking Provided:**
  - **Garage: 2 spaces/dwelling unit**
  - **Driveways: 2 spaces/dwelling unit**
  - **Internal Streets: 58 spaces (parallel spaces on street)**

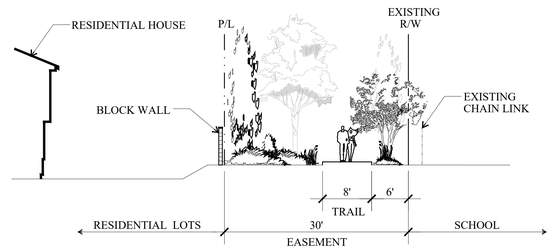
Open Space Summary
- **Net Site Area: 262,695 SF (excluding all streets + trail dedication)**
- **Common Area: 27,803 SF (Lot A + Lot B)**
- **Private Rear Yards: 98,012 SF**
- **Total: 125,815 SF (47.9% of net site area**

Trail Dedication
- **30' trail dedication to City**
- **Connection from Orange Ave to future Schleisman Road improvements**

Public Streets
- **56-foot right-of-way designed to County of Riverside Standards**
- **36-foot curb-to-curb section with parking on both sides**
- **5-foot sidewalk**
- **5-foot landscape area with street trees behind walk**

Amenity Space and Basin
- **63-foot wide paseo**
- **Variety of amenities including trail, bench and dog station, coffe table with seating, picnic tables, bocce ball.**
- **Maintained by Homeowners Association**

Orange Street Access & Frontage
- **Main Entry into Site**
- **Orange Street Frontage is designed to match existing frontage at subdivision to the west (attached walk, landscaping with street trees behind walk, community block wall, parallel parking on street)**
- **Existing power poles moved and replaced with metal poles to match adjacent developments**
- **Enhanced rear and side elevations where visible from public street**



SECTION "A"

SECTION "A"

ANNUAL WATER BUDGET ALLOWANCE						
Eto	56.6					
Conv. Factor	0.62	(Gallons per s.f.)				
Conv. Factor	748	(to hundred cu. Ft.)				
ETAF	0.5	Residential		DRIP	TURF DRIP	TURF SPRAY
System Efficiency	0.7		Actual	0.81	0.81	0.75
SLA	0		Plant Factor shrub	0.35	0.35	0.35
			Plant Factor turf	0.8	0.8	0.8
Plan No.	**ALL**	**0**	**0**	**0**	**0**	**0**
Shrub Area	69,109	0	0	0	0	0
Turf Spray	2,628	0	0	0	0	0
Turf Drip	0	0	0	0	0	0
Total Landscape	71,737	0	0	0	0	0
MAWA	1,258,697	0	0	0	0	0
ETWU SHRUB DRIP	677,715	0	0	0	0	0
ETWU TURF SPRAY	55,333	0	0	0	0	0
ETWU TURF DRIP	0	0	0	0	0	0
ETWU TOTAL	733,048	0	0	0	0	0
TURF %	4%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

MAWU = (Eto) (.62) ((ETAF x LA) + ((1-ETAF) x SLA))
ETWU = (Eto) x .62 x .5 x LA

ILLUSTRATIVE SITE PLAN & DEVELOPMENT STANDARDS
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN











*Conceptual images (provided herein are conceptual and subject to change)



LEGEND

1. Picnic Seating Area with decomposed granite , picnic tables, and specimen Magnolia shade trees
2. Succulent Garden Walk with decomposed granite, tree nooks for specimen Magnolia shade tree, citrus tree planting, and Adirondack seating.
3. Central Lawn Area for passive and active usage with real turf , bench seating, and shade trees.
4. Main project entry with specimen Magnolia trees.
5. Project signage wall feature with pin-mounted lettering.
6. Corn hole play area with real turf and shade trees
7. Four community cluster mailboxes, per USPS review and approval.
8. Proposed wall, pilaster, gate or fence, per Wall & Fence Plan.
9. Proposed tree, per Planting Plan.
10. 5' wide community natural colored concrete sidewalk, with light top cast finish and saw cut joints.
11. 4' wide unit entry natural colored concrete walk, with light top cast finish and saw cut joints.
12. Natural colored concrete driveway, with light broom finish and tooled joints.
13. Private yard area, homeowner maintained.
14. Common area landscape, builder installed and HOA maintained.
15. Community dog bag station (black in color), for pet owners.
16. Public steet R.O.W.
17. Proposed public street sidewalk, per Civil Plans.
18. Integral colored concrete.
19. Proposed AC condenser, per Architecture plans
20. Proposed curb ramp, per Civil Plans.
21. 8ft wide paseo walk connection between Schelisman Road and Orange Street.
22. Seating area with outdoor table and lounge seating.
23. Builder Installed, homeowner maintained private front yards.
24. Pedestrian connection to future linear park along Schleisman Road.
25. Enhanced landscape on both side of the community entry.
26. Enhanced Paving for Entry and Pedestrian path across.
27. Stripping at Pedestrian crossing.





SCHEMATIC LANDSCAPE PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN

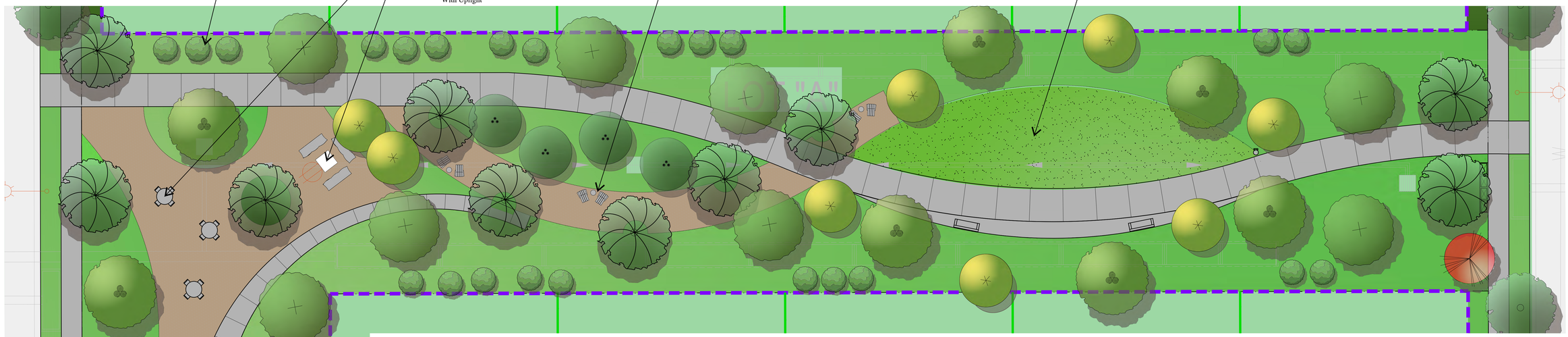
6 Buffer Planting
All Along Rear Yard Walls

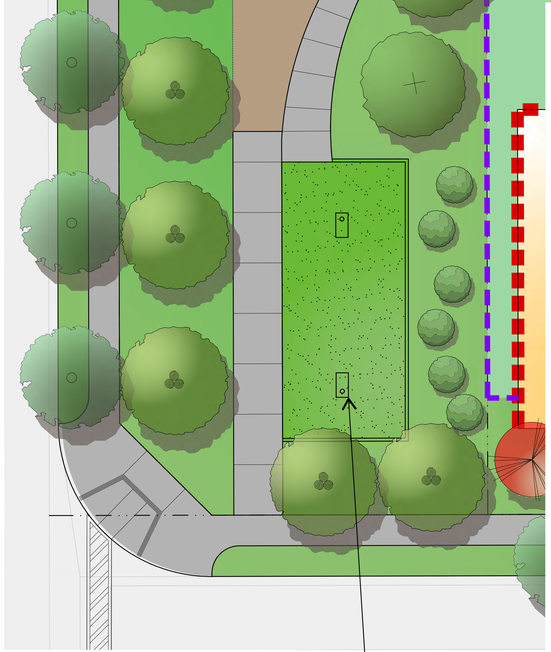
4 Outdoor Picnic Space
Decomposed Granite, Picnic Table Seating

3 Contemporary Concrete Furniture
Lounge Seating, Outdoor Table, Specimen Tree With Uplight

1 Succulent Garden Walk
Decomposed Granite, Tree Nooks For Shade Trees
Citrus Tree Planting, Adirondack Seating

2 Central Lawn Area
Passive and Active Usage, Real Turf, Bench Seating, Colored Concrete, Enhancement Shade Trees.





5 Corn Hole Play Area
Real/Faux Turf, Shade Trees


1


1



2


3


3


3


4


5


5

*Conceptual images (provided herein are conceptual and subject to change)

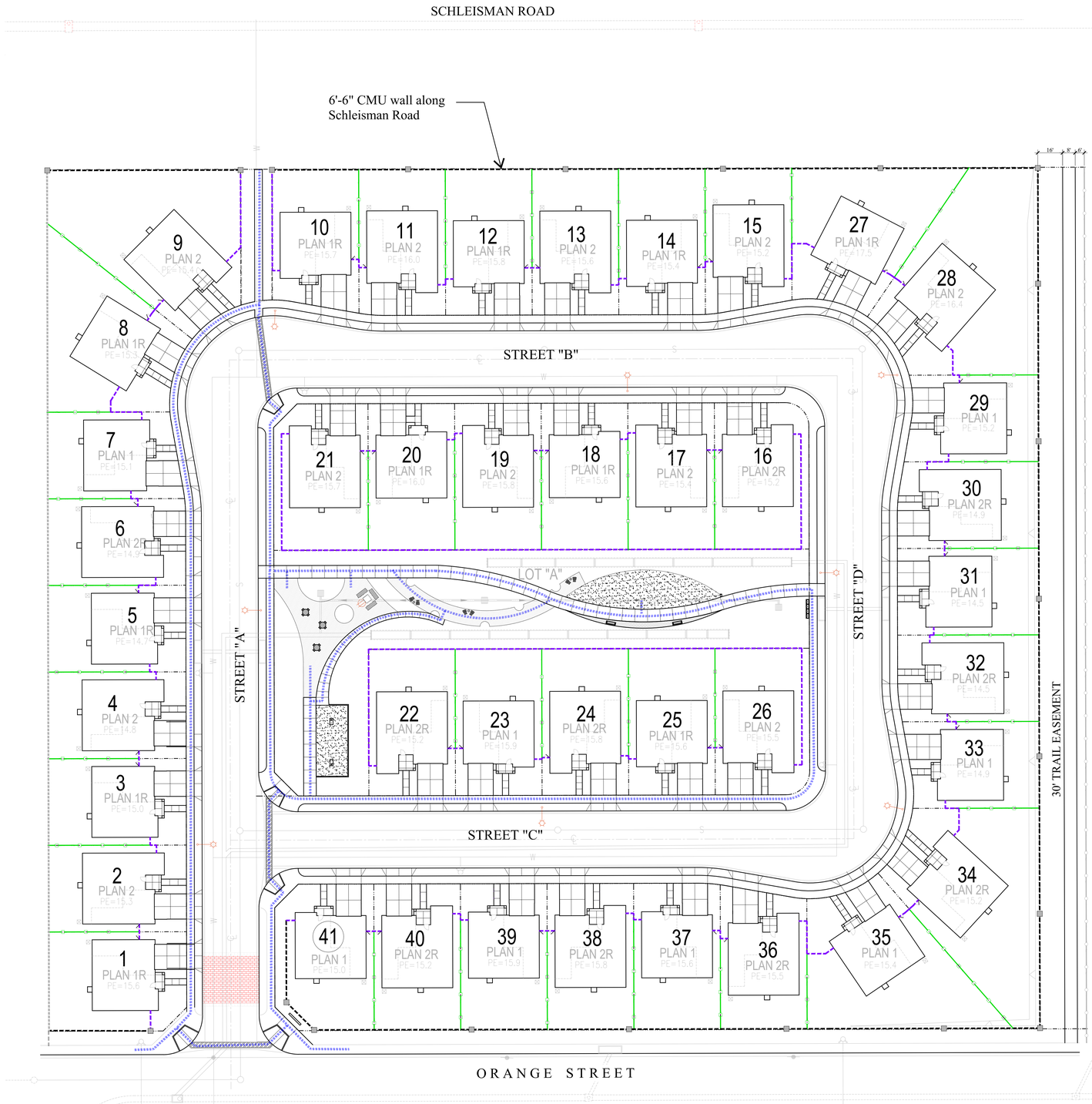
SCHEMATIC ENLARGEMENT PLAN
CENTRAL OPEN SPACE
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

10' 0 10' 30'
SCALE: 1" = 10'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN



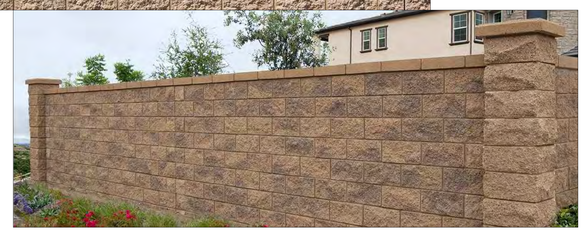
WALL LEGEND

- Existing ± 7' High wall to remain.
- Existing chain link fence to remain.
- 6'-0" High split-face CMU wall, 6'-6" High along Schleisman Road, with CMU cap (tan color)
- 6'-0" High split-face CMU Return wall, with CMU cap (tan color)
- 5'-6" High vinyl yard fence (tan color)
- 6'-6" High (16" sq.) split-face CMU pilaster, with CMU cap (tan color)
- 5'-6" High vinyl side yard gate (tan color)
- Project sign wall, per city standards and regulations
- ADA Path of Travel
- Concrete mow curb



Vinyl fence and gate

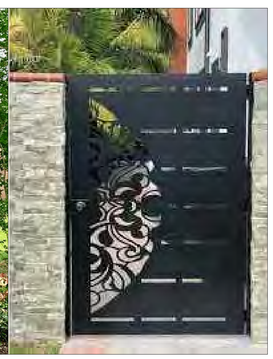




Split face block wall & pilaster



Project Sign Wall



Pedeestrian ADA access Gate

*Conceptual images (provide herein are conceptual and subject to change)

SCHEMATIC WALL & FENCE PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN



NOTES:
1. Irrigations (including spray and or drip) will be provided, in the Construction Document phase, and to be installed per local California water regulations (AB1881).
2. Transformers, back-flow preventers & other above-ground utilities to be screened with landscape as permitted per local codes & regulations.
3. The plant palette listed provides a list of plant material to select from when preparing final landscape construction documents for this project. however, substitutions may be required due to availability, soils tests, or other conditions.
4. All trees within 5' of hardscape to be installed with deep root barriers.
5. Future shrub and groundcover planting proposed during Construction Documents must comply with the project's Water Quality Management Plan to ensure that the landscape layout aligns with the required Best Management Practices (BMPs) for the facilities.

VINES & ESPALIERS		WUCOLS (R4)
Antigonon leptopus	Coral Vine	Low
Bougainvillea 'Monka'	Bougainvillea	Low
Macfadyena unguis-cati	Cat's Claw Vine	Low

SCHEMATIC PLANTING PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

TREES LEGEND

SYMBOL	TREES	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	WUCOLS
	SPECIMEN MAGNOLIA	MAGNOLIA G. 'MONLIA'	MAJESTIC BEAUTY MAGNOLIA	48" BOX STANDARD	19	M
	CANOPY DECIDUOUS	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	24" BOX STANDARD	14	M
	STREET	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX STANDARD	23	M
	LINEAR PARK	ULMUS PARVIFOLIA 'TRUE GREEN'	CHINESE ELM	24" BOX STANDARD	9	L
	EVERGREEN FLOWERING	ARBUTUS UNEDO	STRAWBERRY TREE	24" BOX STANDARD / MULTI-TRUNK	8	L
	DECIDUOUS FLOWERING	LAGERSTROEMIA I. 'ARAPAHO'	CRAPE MYRTLE	24" BOX STANDARD	56	M
	CITRUS TREE	CITRUS X SINENSIS 'DWARF VALENCIA'	DWARF ORANGE	24" BOX MULTI-TRUNK	5	M
	COLUMNAR	CUPRESSUS SEMPERVIRENS	ITALIAN CYPRESS	24" BOX STANDARD	76	L
	CITY PARKWAY SOUTH TREES TO BE MAINTAINED / TRIMMED BACK TO AVOID CONFLICT WITH EXISTNG POWER LINES. FINAL SELECTION PER CITY OF EASTVALE STDS.	TIPUANA TIPU	TIPU TREE	36" BOX STANDARD	11	M
	DECIDUOUS FLOWERING	CERCIS OCCIDENTALIS	WESTERN REDBUD	24" BOX STANDARD	12	L
	DECIDUOUS FLOWERING	LAGERSTROEMIA I. 'NATCHEZ'	WHITE CRAPE MYRTLE	24" BOX STANDARD	16	M
	SHADE TREE	ULMUS PARVIFOLIA 'DRAKE'	DRAKE CHINESE ELM	24" BOX STANDARD	15	M
					TOTAL = 313	

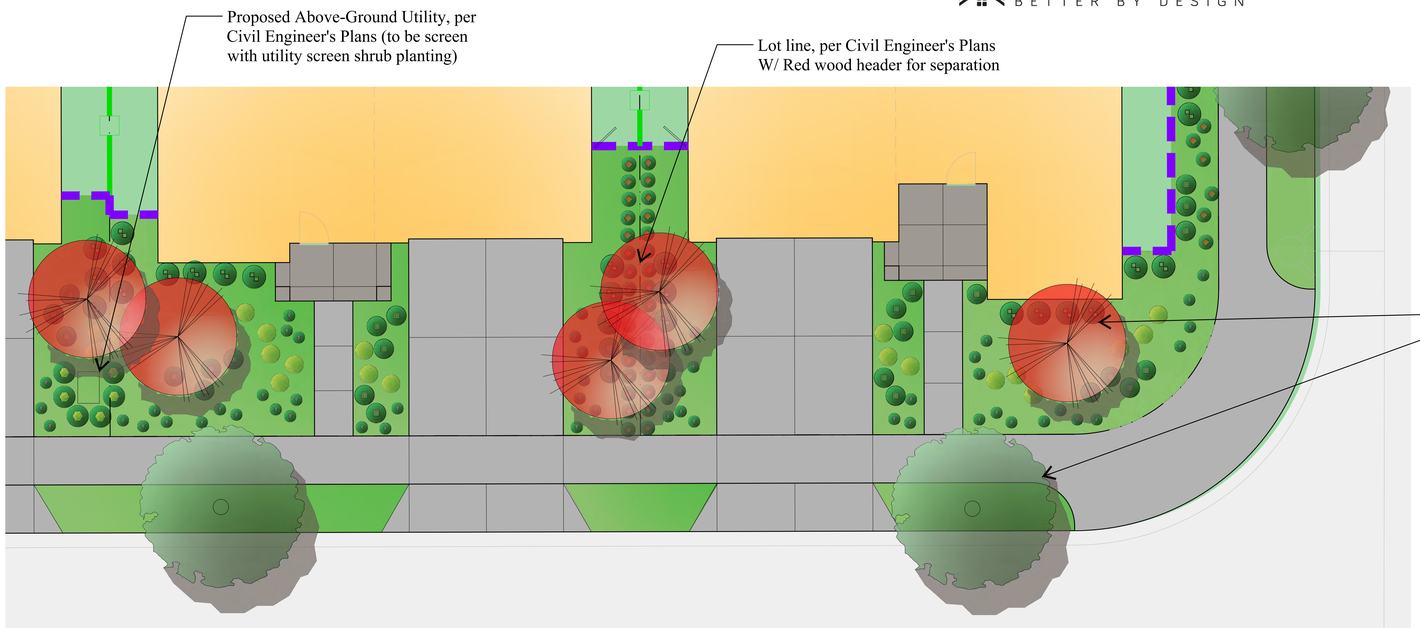
SHRUBS and GROUND COVER		WUCOLS (R4)
Anigozanthos	Kangaroo Paw	Low
Agave sp.	Agave	Low
Aloe sp.	Aloe	Low
Bougainvillea sp.	Bougainvillea	Low
Callistemon citrinus 'Little John'	Dwarf Bottlebrush	Low
Carex divulsa	Berkeley Sedges	Low
Carissa m. 'Green Carpet'	Dwarf Natal Plum	Low
Chamaerops humilis	Mediterranean Fan Palm	Low
Dasylirion longissimum	Mexican Grass Tree	Low
Delosperma cooperi	Trailing Ice Plant	Low
Dianella revoluta 'Little Rev'	Little Rev Flax Lily	Low
Heteromeles arbutifolia	Toyon	Low
Kalanchoe thyrsiflora	Flapjack Paddle Plant	Low
Lavandula stoechas 'Larkman Hazel'	Hazel Spanish Lavender	Low
Nassella pulchra	Purple Needlegrass	Low
Muhlenbergia capillaris 'Lenca'	Regal Misty Pink Muhly	Low
Rhus ovata	Sugar Bush	Low
Rosmarinus p. 'Huntington Carpet'	Groundcover Rosemary	Low
Westringia sp.	Westringia	Low
Yucca gloriosa	Spanish Dagger	Low

August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN



TREES LEGEND

SYMBOL	TREES	BOTANICAL NAME	COMMON NAME	SIZE	WUCOLS
	STREET	GEIJERA PARVIFLORA	AUSTRALIAN WILLOW	24" BOX STANDARD	M
	DECIDUOUS FLOWERING	LAGERSTROEMIA I. 'ARAPAHO'	CRAPE MYRTLE	24" BOX STANDARD	M











TYPICAL FRONT YARD PLANTING PALETTE

SYMBOL		BOTANICAL /COMMON NAME	TRUNK	SIZE	WUCOLS (R4)	QT.
	ACCENT	ANIGOZANTHOS (KANGAROO PAW)	SINGLE	5 GAL.	V. LOW	5
		AGAVE AMERICANA (DWARF CENTURY PLANT)	SINGLE	5 GAL.	V. LOW	
		AGAVE AMERICANA 'RAY OF LIGHT' (RAY OF LIGHT AGAVE)	SINGLE	5 GAL.	V. LOW	
		ALOE x 'BLUE ELF' (BLUE ELF ALOE)	SINGLE	5 GAL.	V. LOW	
	LARGE	WESTRINGIA F. 'WYNABBIE GEM' (WYNABBIE GEM COAST ROSEMARY)	SINGLE	15 GAL.	LOW	6
		TECOMA STANS 'LONESP' (GOLD STAR YELLOW BELLS)	SINGLE	15 GAL.	LOW	
		BOUGAINVILLEA x LA JOLLA (LA JOLLA BOUGAIN VILLEA)	SINGLE	15 GAL.	LOW	
	MEDIUM	WESTRINGIA F. 'MORNING LIGHT' (MORNING LIGHT COAST ROSEMARY)	SINGLE	5 GAL.	LOW	15
		WESTRINGIA F. 'LOW HORIZON' (LOW HORIZON COAST ROSEMARY)	SINGLE	5 GAL.	LOW	
	SMALL	DIANELLA REVOLUTA 'LITTLE REV' (SPREADING FLAX LILY)	SINGLE	1 GAL. / 5 GAL.	LOW	30
		CAREX DIVULSA (BERKELEY SEDGE)	SINGLE	1 GAL. / 5 GAL.	LOW	
	UTILITY SCREEN	WESTRINGIA F. 'WYNABBIE GEM' (WYNABBIE GEM COAST ROSEMARY)	SINGLE	15 GAL.	LOW	5
	GROUNDCOVER	DALEA CAPITATA (DALEA)	SINGLE	1GAL. / 5GAL.	V. LOW	16
					TOTAL	77

NOTES:
1. Irrigation (including drip and or spray) will be provided, in the Construction Document phase, and to be installed per local California Water regulations (AB1881).
2. Transformers, back-flow preventers & other above-ground utilities to be screened with landscape as permitted per local codes & regulations.
3. The plant palette listed provides a list of plant material to select from when preparing final landscape construction document for this project. however, substitutions may be required due to availability, soils test, or other conditions.
4. Proposed tree planting to not conflict with meters/ lines.

SCHEMATIC TYPICAL FRONT YARD PLANTING PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

August 30, 2023

10' 0 10' 30'
SCALE: 1" = 10'

Aug 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG

Woodside Homes
BETTER BY DESIGN



1



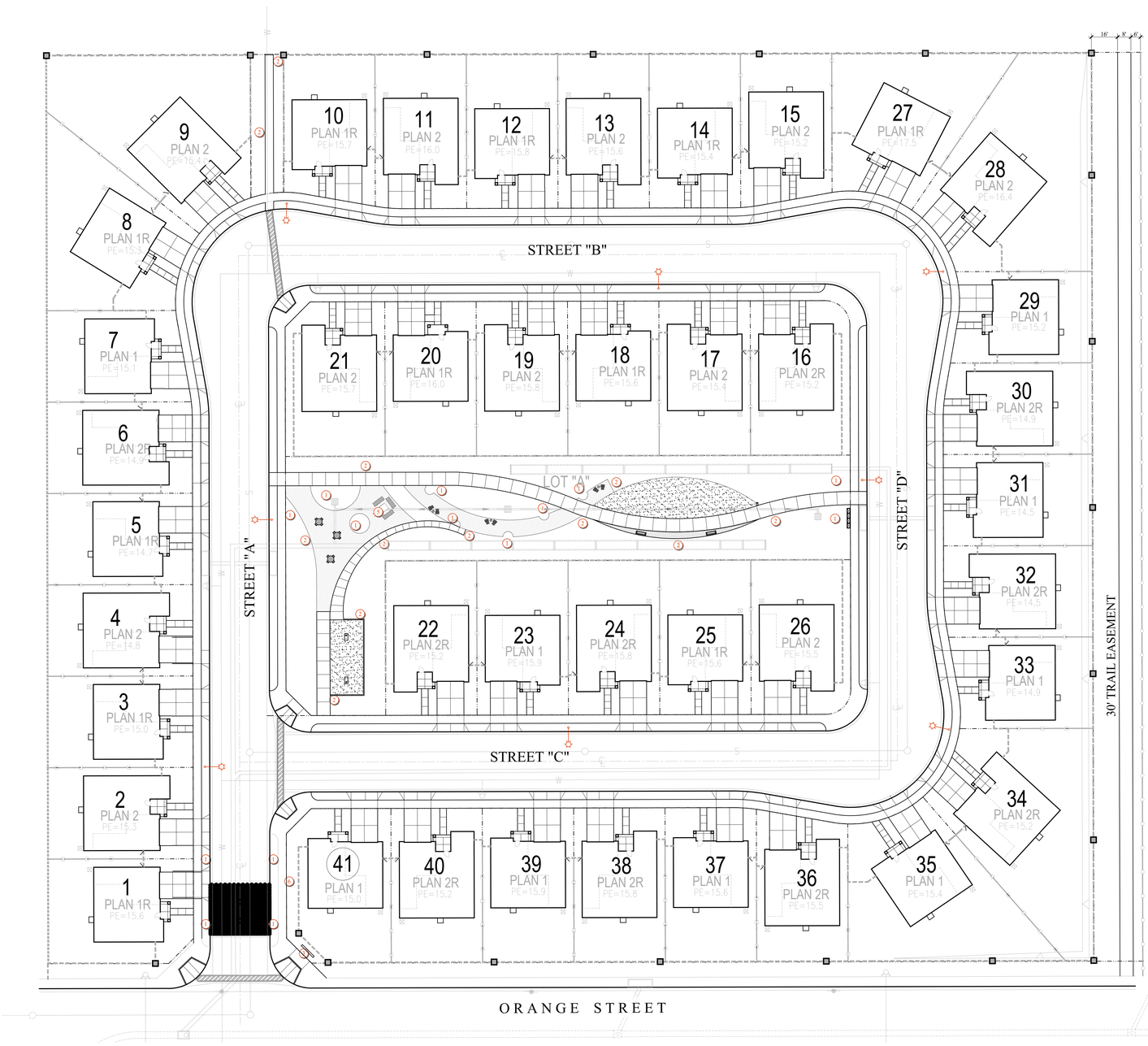
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4



3



LIGHTING LEGEND

1. Tree up light FX Luminaire FB Fits well into tight spaces.Order code: FB, Aluminum Alloy, (BZ) Bronze Metallic, Adjustable, (GM-SS) GutterMount w 1/2" thread for Accent LightsLamp: FB-3LED, 4.5W, 2700K, Beamspread: Spot22
2. Bollard, Kichler Louvered 2800K LED Bollard AZT16130AZT28 (Textured Architectural Bronze)Cast aluminum, Textured Architectural Bronze, Surface, with footingLamp: LED, 3.5W,5.67VA, 2700K Warm WhiteAccessories: Final location by Elec. Eng. Footing specs per Manufacturer.10
3. FX Luminaire QBDie-cast aluminum up light with powder coated finish. 2.16" W x 5.95" L x 2.93" H.Order code: QB, Aluminum Alloy, (BZ) Bronze Metallic, Adjustable, (GM-XX) GroundMountLamp: QB-1LED, 2.4W, 2700K, Beamspread: Very Wide Flood2
4. SVE-3 - Pole LightArea Pole Light, HID - Direct Lighting Sales, Model San Vicente #SVE-3Cast Aluminum, Textured Bronze, RA21 RadiusLamp: Per Elec. Eng., Per Elec. Eng., Per Elec. Eng.Accessories: On DBC-1 Base & 10' round pole.10
5. Exterior Electrical GFI OutletPer Electrical Eng., Per Electrical Eng., Wall or post
6. Low-voltage transformer - Kichler model #15PR300 SSCast Aluminum, Stainless Steel, Wall, Install with Mechanical Transformer Timer(#15557BK & Plug-In Transformer Remote Photocell (#15534K).300W4



2



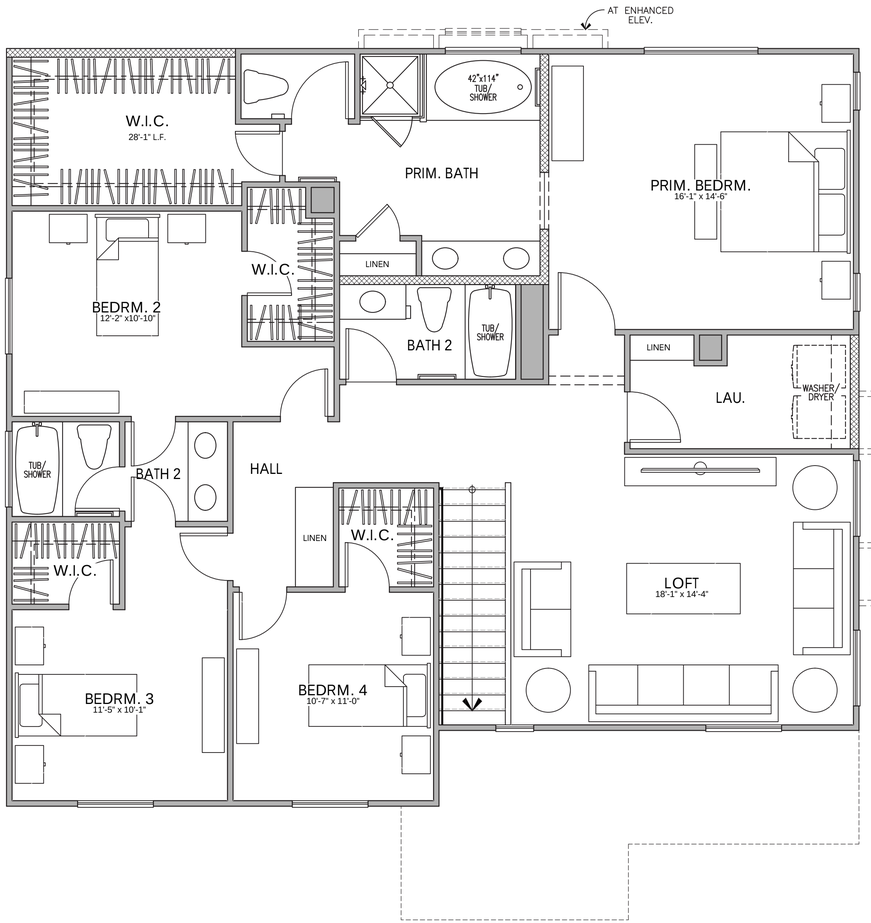
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SCHEMATIC LIGHTING PLAN
MAGNOLIA RANCH
EASTVALE, CALIFORNIA

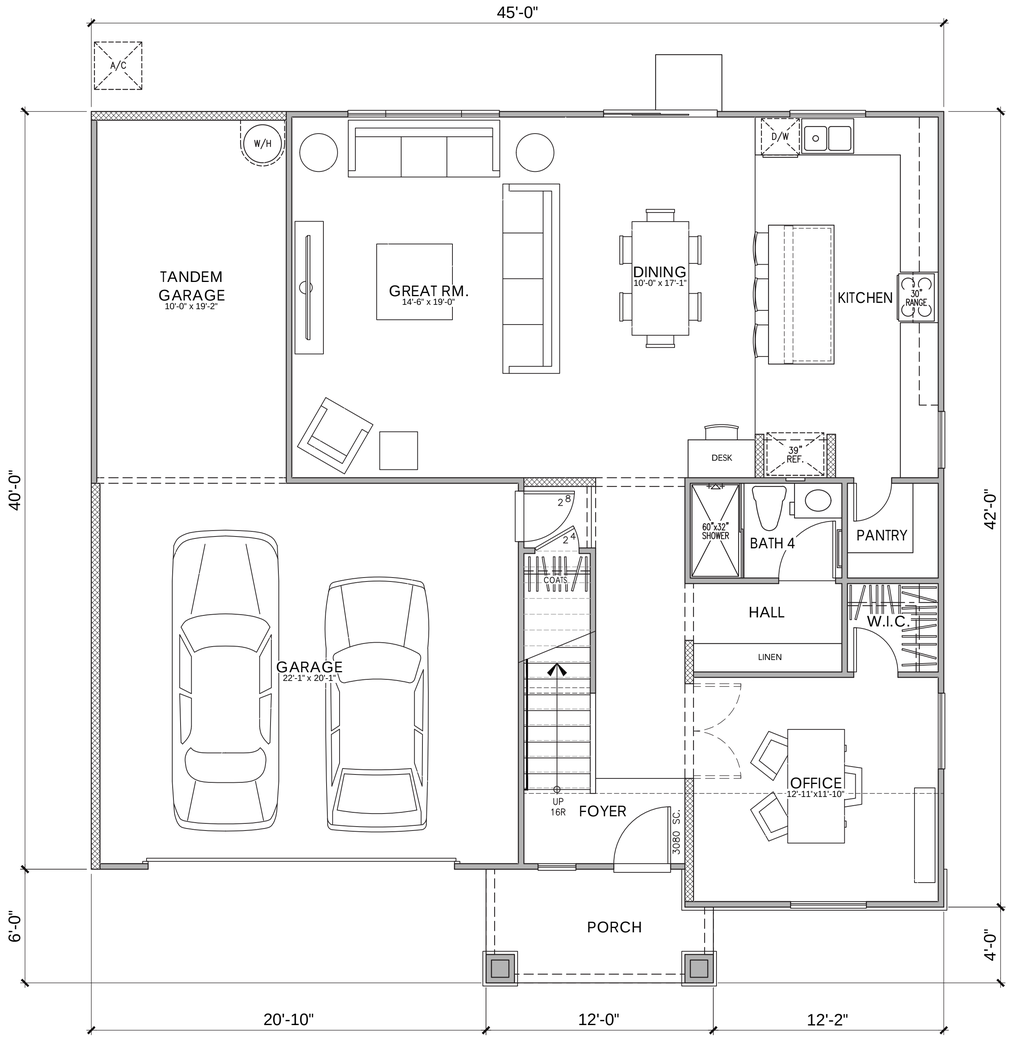
August 30, 2023

30' 0 30' 90'
SCALE: 1" = 30'

Aug. 30, 2023 MAG_CONCEPT T:\WOODSIDE HOMES\MAGNOLIA RANCH EASTVALE\CONCEPT\MAG_CONCEPT.DWG



SECOND FLOOR PLAN



FIRST FLOOR PLAN

PLAN 1
AREA TABULATION

CONDITIONED SPACE	
FIRST FLOOR AREA	1,166 SQ. FT.
SECOND FLOOR AREA	1,667 SQ. FT.
TOTAL DWELLING	2,833 SQ. FT.
UNCONDITIONED SPACE	
GARAGE	661 SQ. FT.
PATIO	37 SQ. FT.

PLAN 1

4 BEDROOM, 4 BATH, OFFICE, LOFT

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-1

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PLANNING + ARCHITECTURE

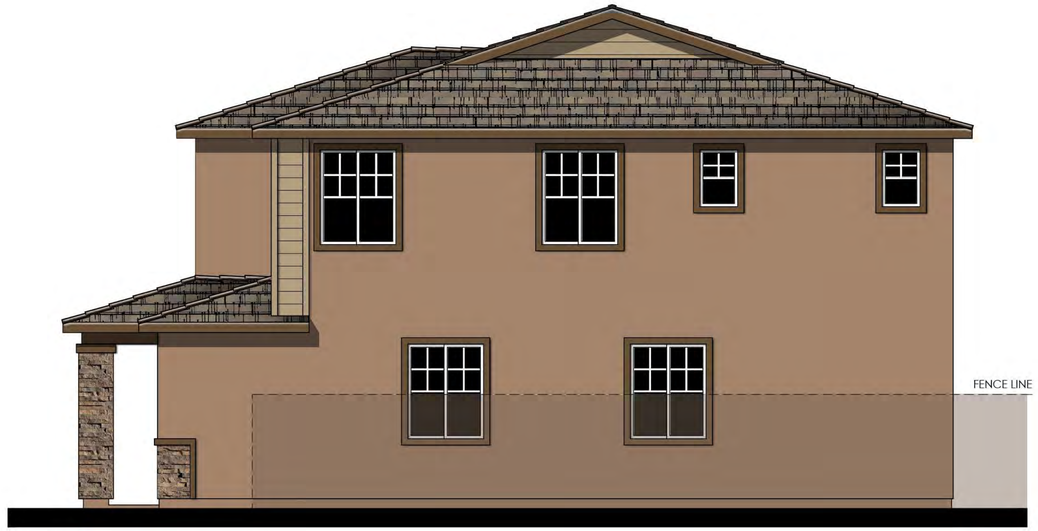
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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



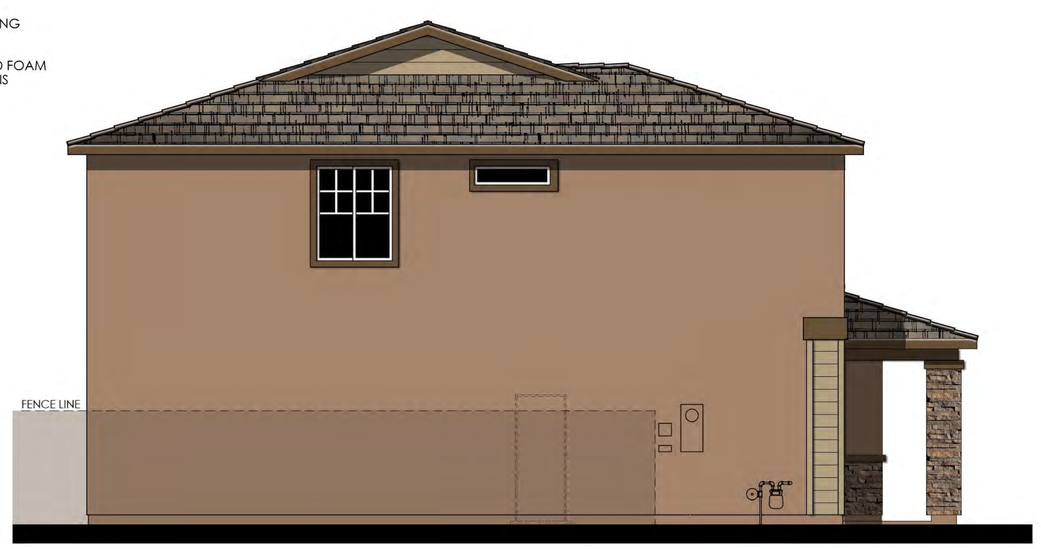
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 8" LAP SIDING
WINDOWS:	VINYL
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM
PORCH:	LIMESTONE COLUMNS
VENEER:	LIMESTONE



REAR



LEFT

COLOR SCHEME 3

PLAN 4524 "C"
COASTAL ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

08/22/2023

A-2

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

#20105



RIGHT



REAR

COLOR SCHEME 3

PLAN 4524 "C"

COASTAL ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-3

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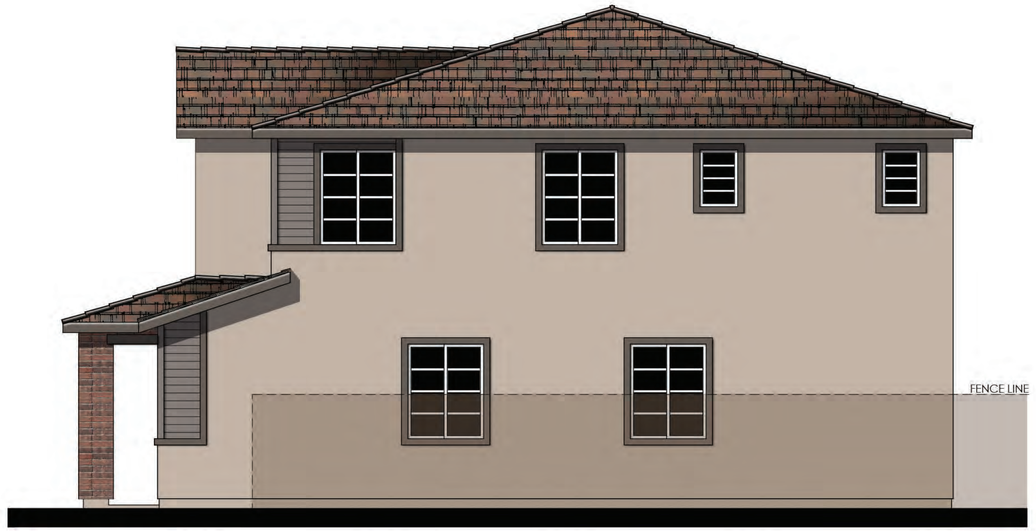
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Refer to landscape drawings for wall, tree, and shrub locations

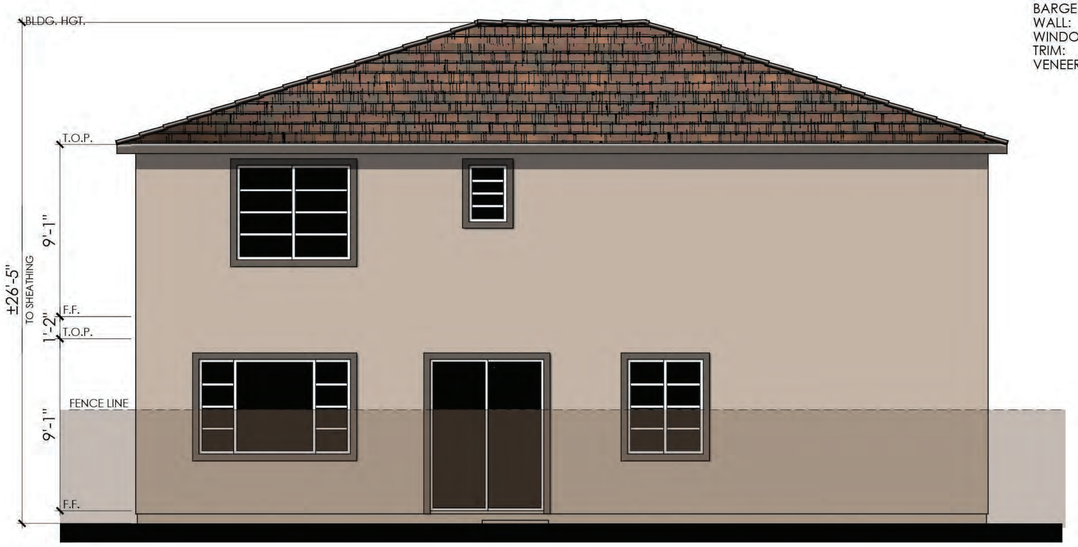
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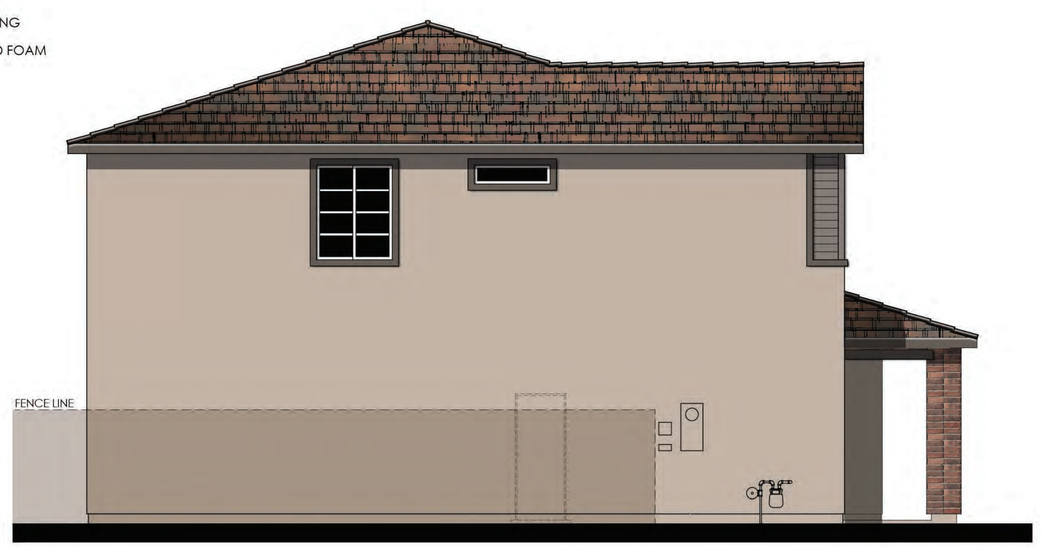
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOW
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 4" LAP SIDING
WINDOWS:	VINYL
TRIM:	STUCCO OVER RIGID FOAM
VENEER:	STACKED BRICK



REAR



LEFT

COLOR SCHEME 6

PLAN 4524 "D"

CONTEMPORARY ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-4

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#20105



RIGHT



REAR

COLOR SCHEME 6

PLAN 4524 "D"

CONTEMPORARY ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-5

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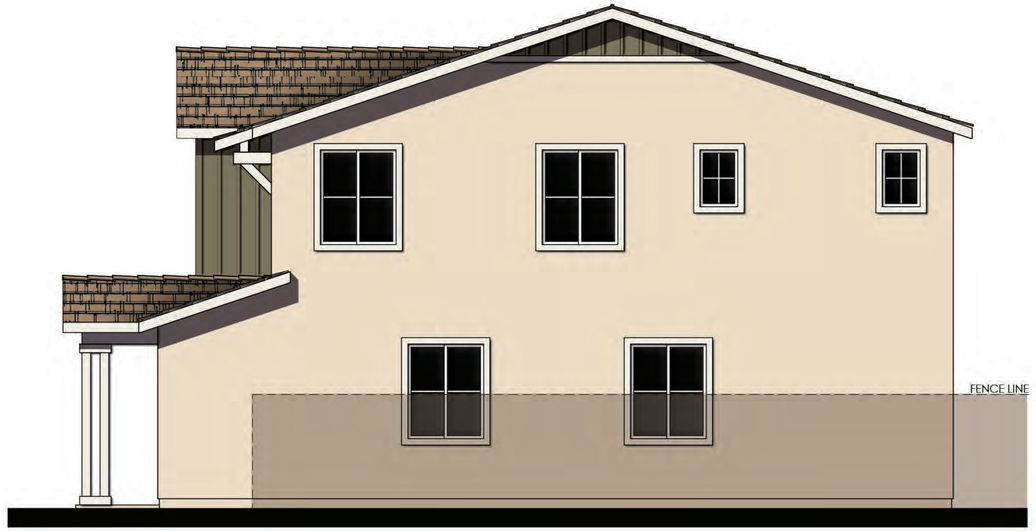
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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



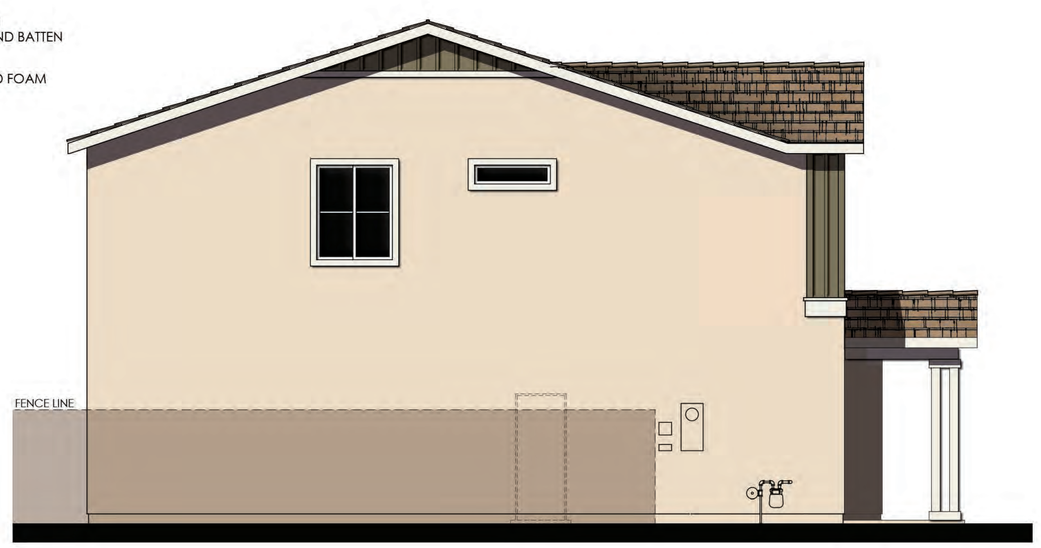
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
GABLE END:	BOARD AND BATTEN
WALL:	STUCCO/ BOARD AND BATTEN
WINDOWS:	VINYL W/ GRIDS
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM



REAR



LEFT

COLOR SCHEME 8

PLAN 4524 "E"

MODERN FARMHOUSE ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

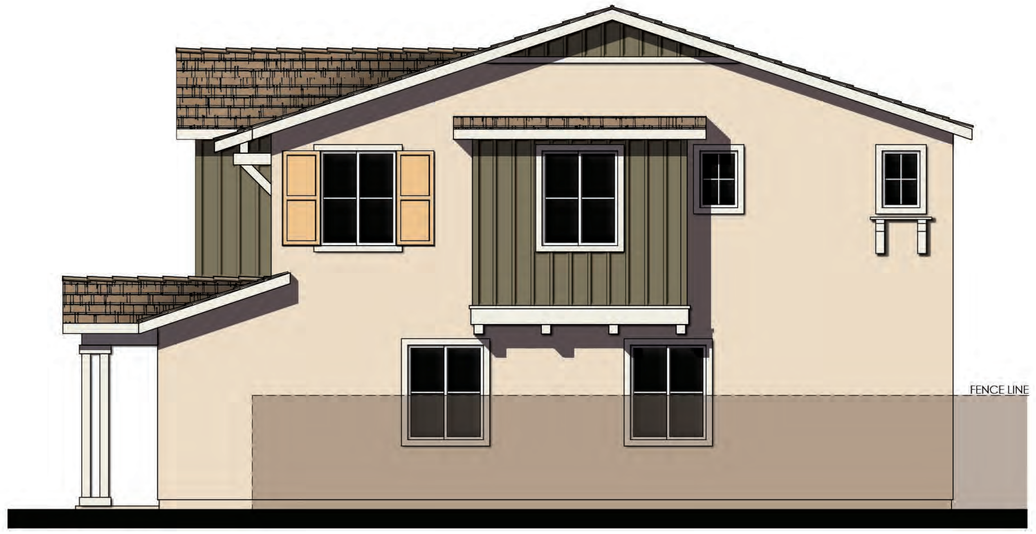
EASTVALE, CA

08/22/2023

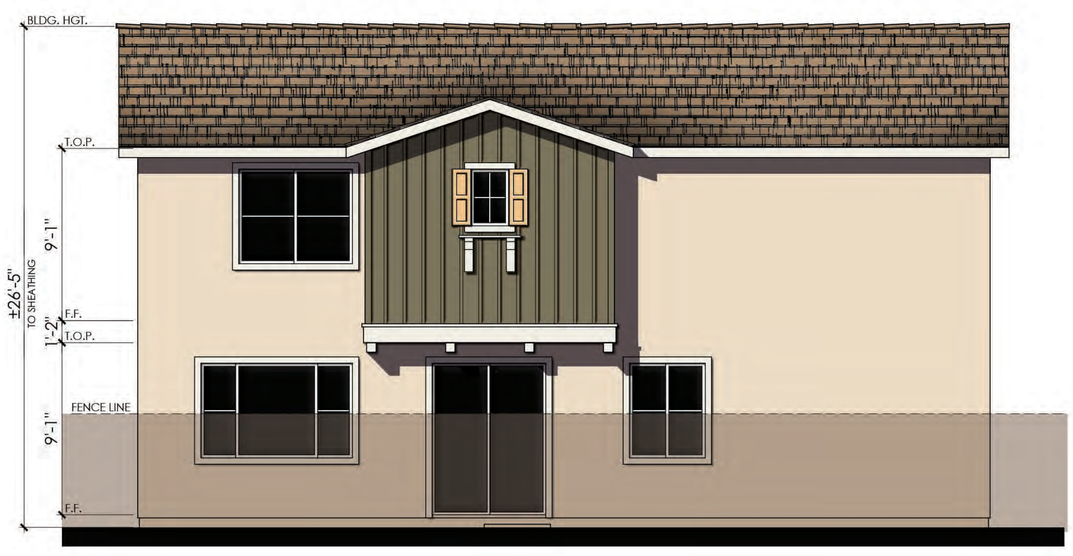
A-6

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#20105



RIGHT



REAR

COLOR SCHEME 8

PLAN 4524 "E"

MODERN FARMHOUSE ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

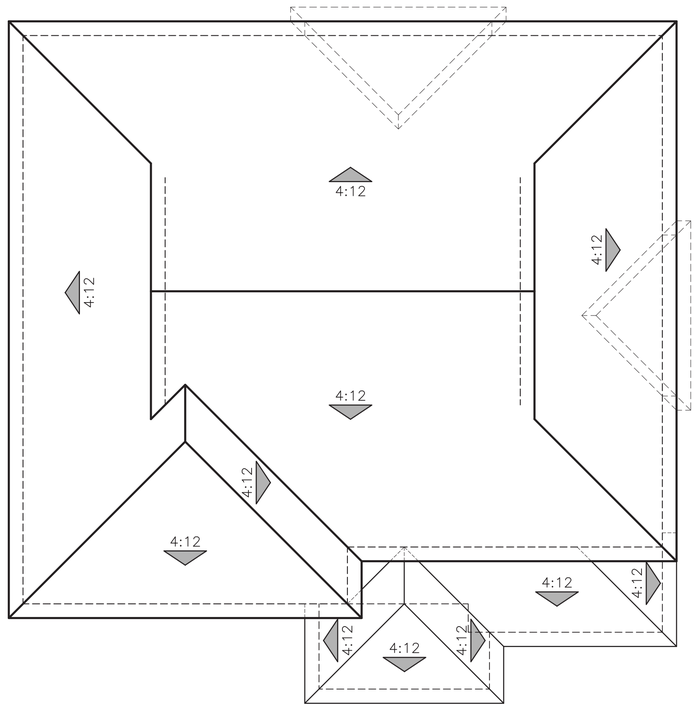
EASTVALE, CA

08/22/2023

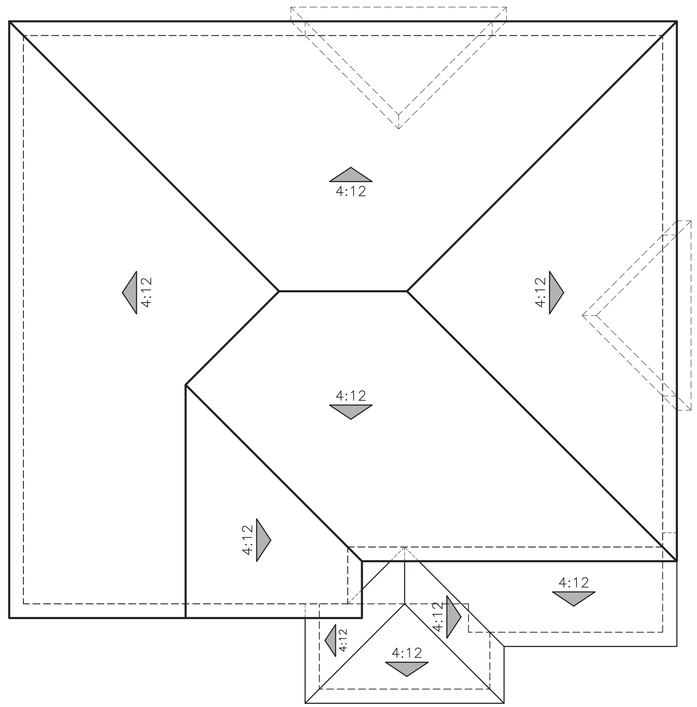
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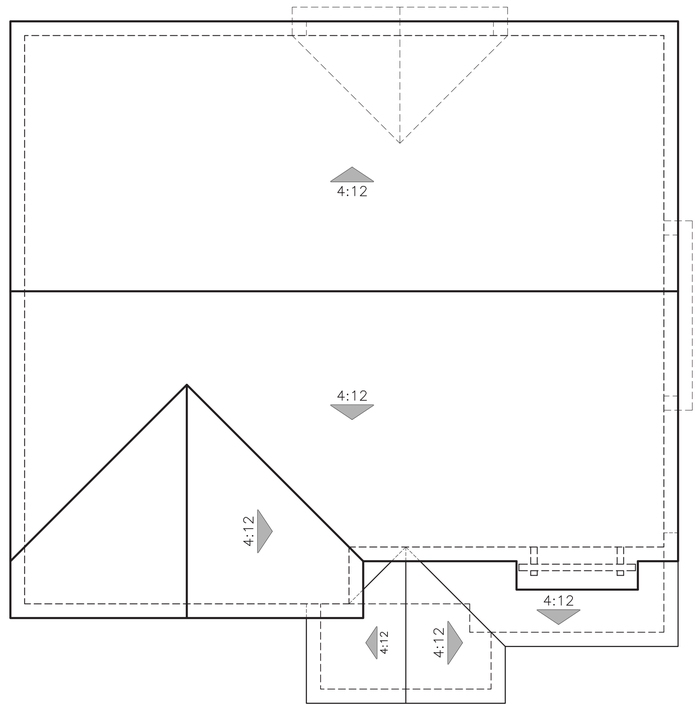
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"C" - COASTAL



"D" - CONTEMPORARY

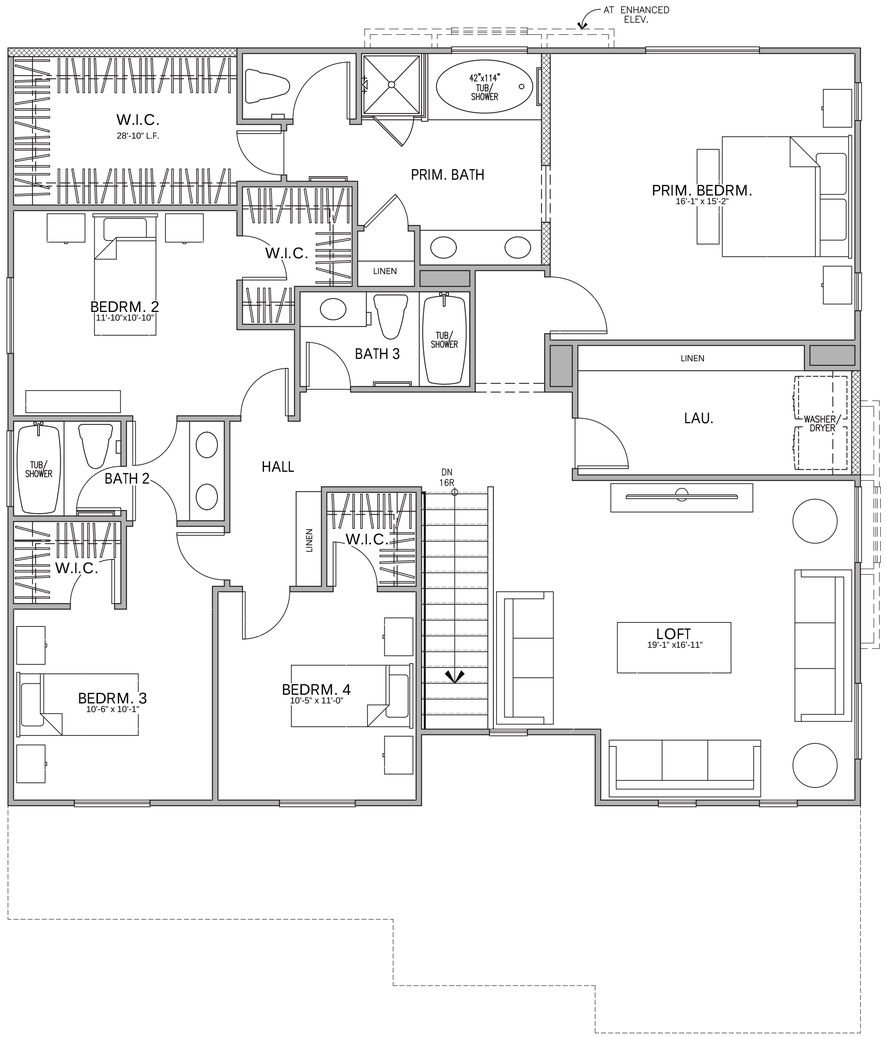


"E" - MODERN FARMHOUSE

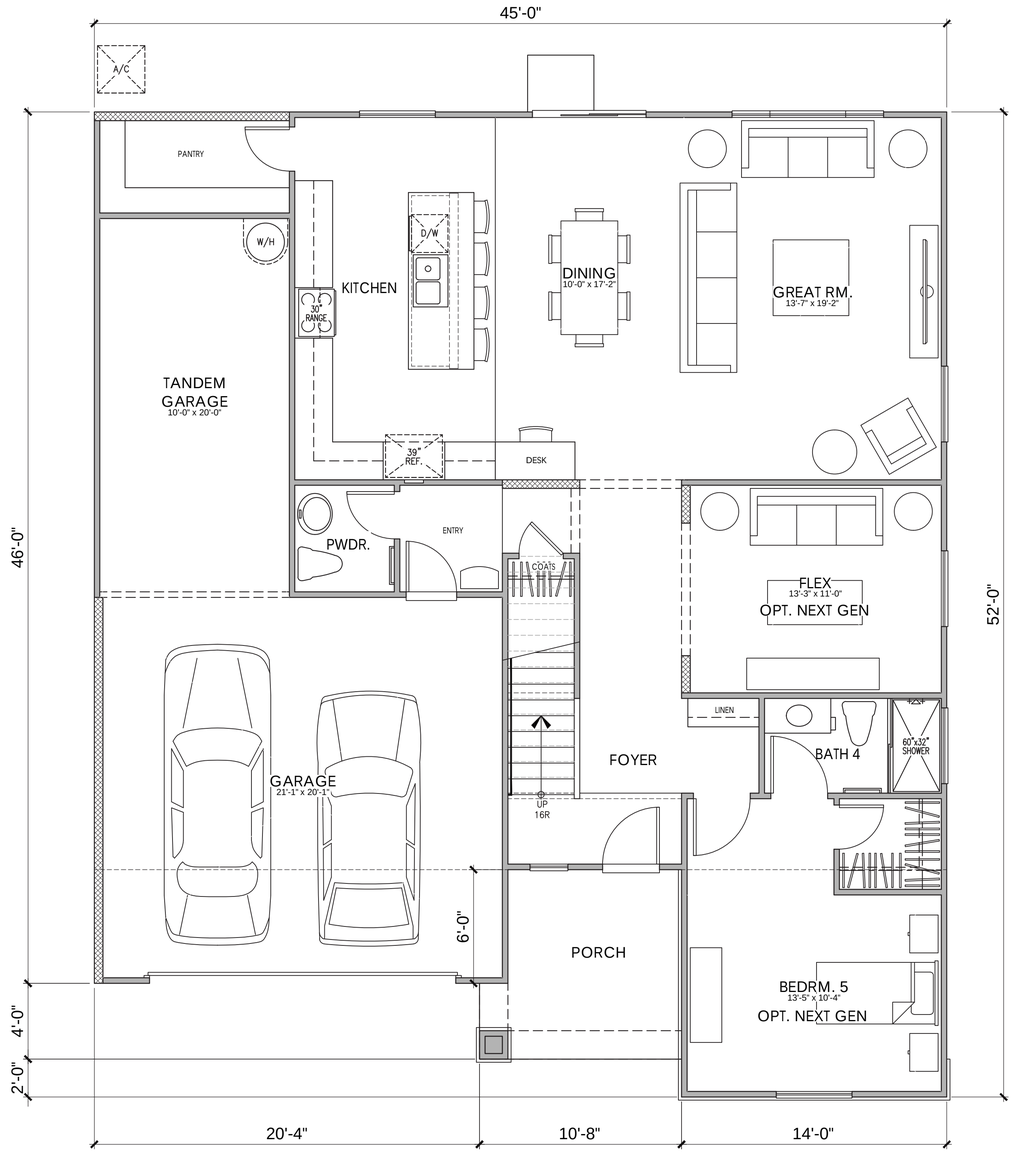
ROOF PLANS

PLAN 4524

0 2 4 8 12



SECOND FLOOR PLAN



FIRST FLOOR PLAN

PLAN 2
AREA TABULATION

CONDITIONED SPACE	
FIRST FLOOR AREA	1,453 SQ. FT.
SECOND FLOOR AREA	1,700 SQ. FT.
TOTAL DWELLING	3,153 SQ. FT.
UNCONDITIONED SPACE	
GARAGE	646 SQ. FT.
PATIO	98 SQ. FT.

0 2 4 8 12

PLAN 2

5 BEDROOM, 4.5 BATH, FLEX, LOFT, OPT. NEXT GEN SUITE

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

08/22/2023

A-9

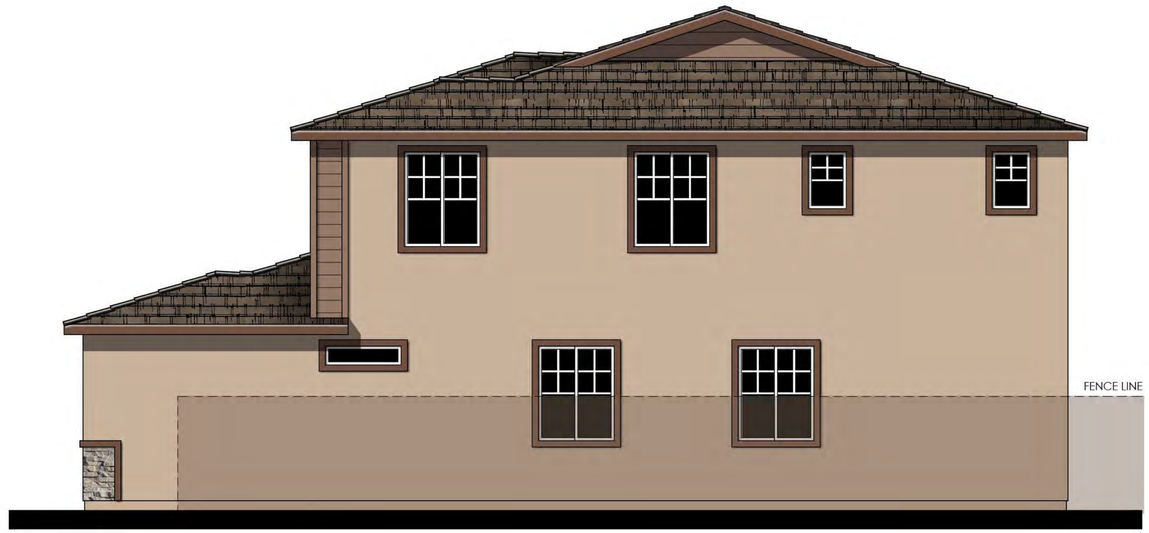
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#20105



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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



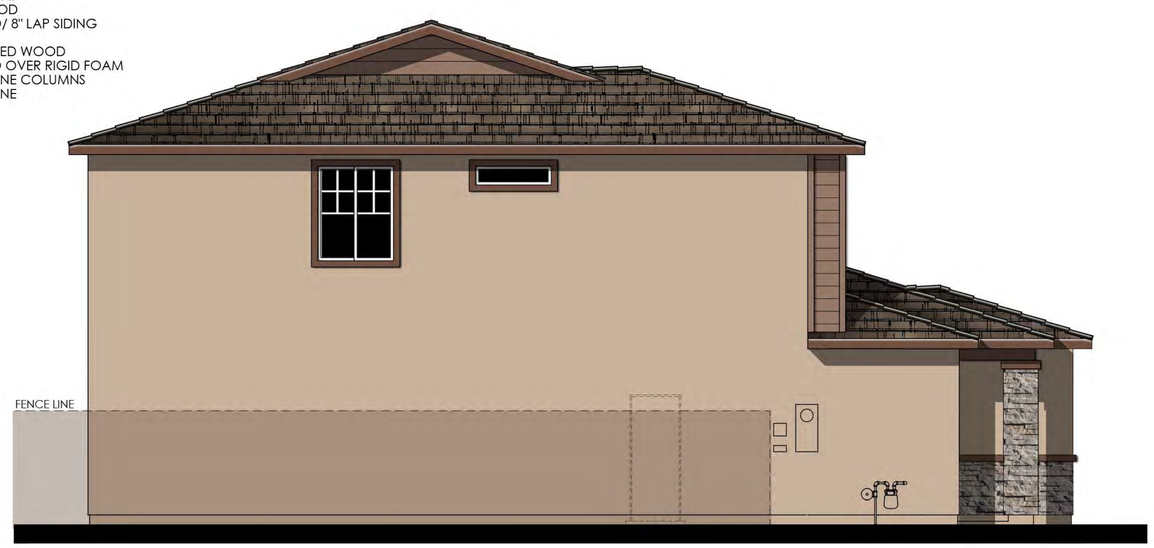
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 8" LAP SIDING
WINDOWS:	VINYL
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM
PORCH:	LIMESTONE COLUMNS
VENEER:	LIMESTONE



REAR



LEFT

COLOR SCHEME 1

PLAN 4528 "C"
COASTAL ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

08/22/2023

A-10

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

#20105



RIGHT



REAR

COLOR SCHEME 1

PLAN 4528 "C"

COASTAL ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

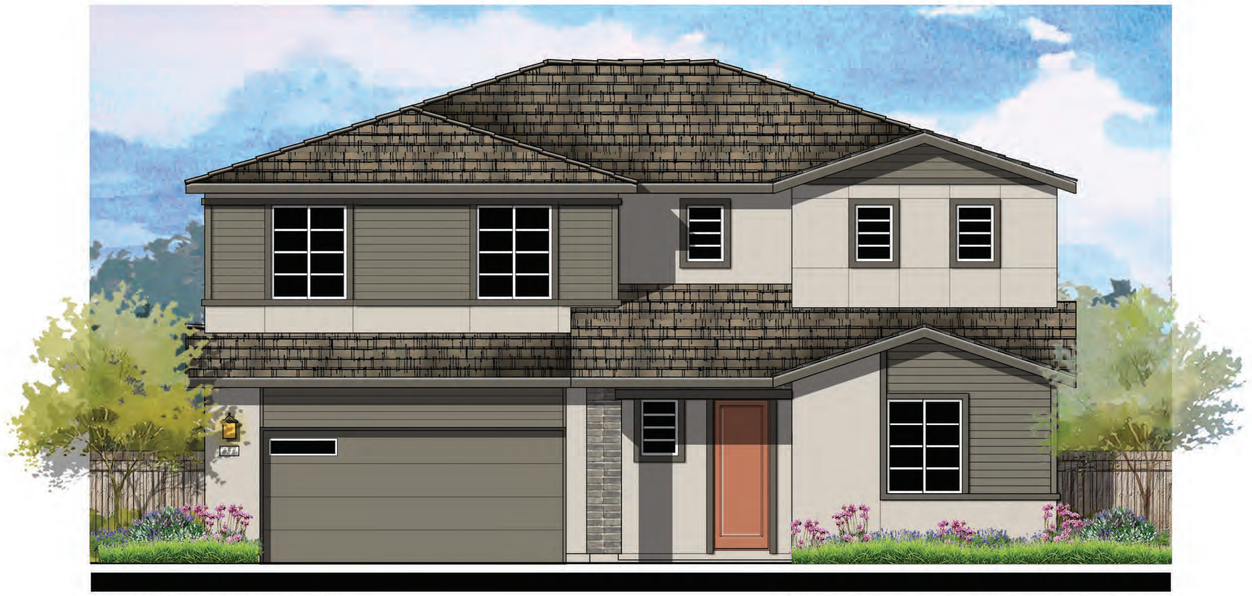
EASTVALE, CA

08/22/2023

A-11

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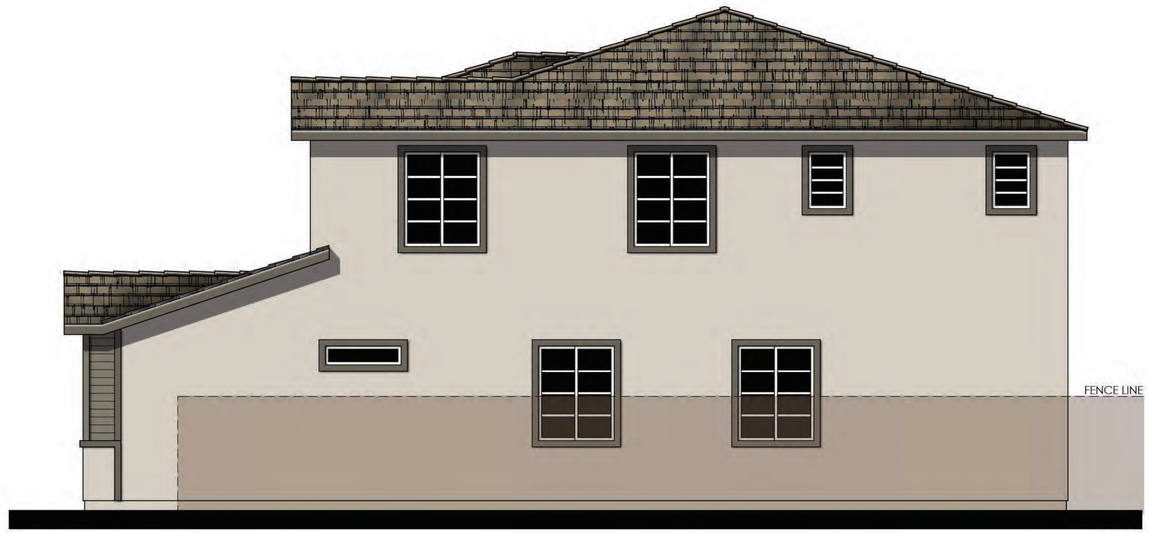
#20105



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Refer to landscape drawings for wall, tree, and shrub locations

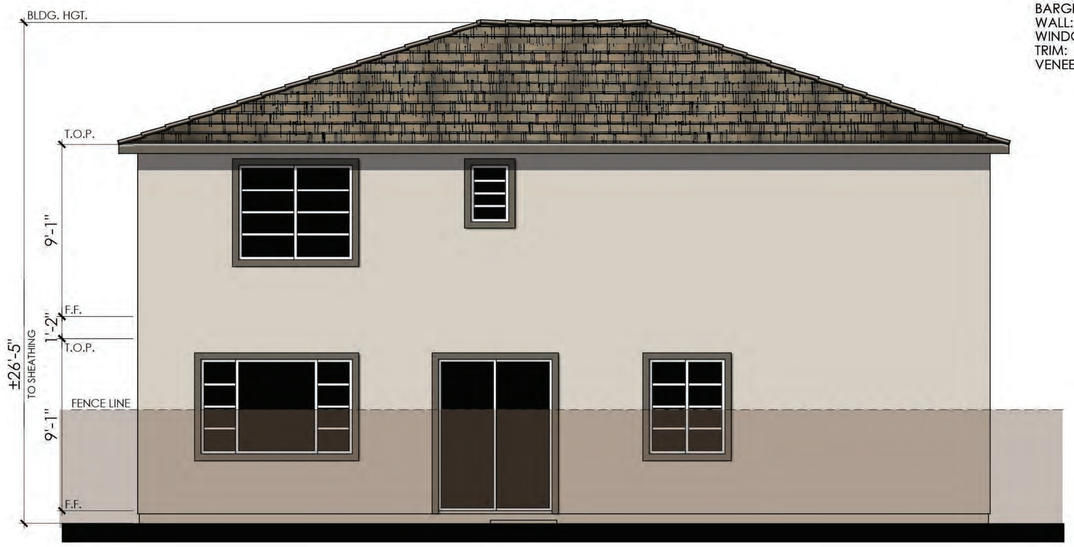
FRONT



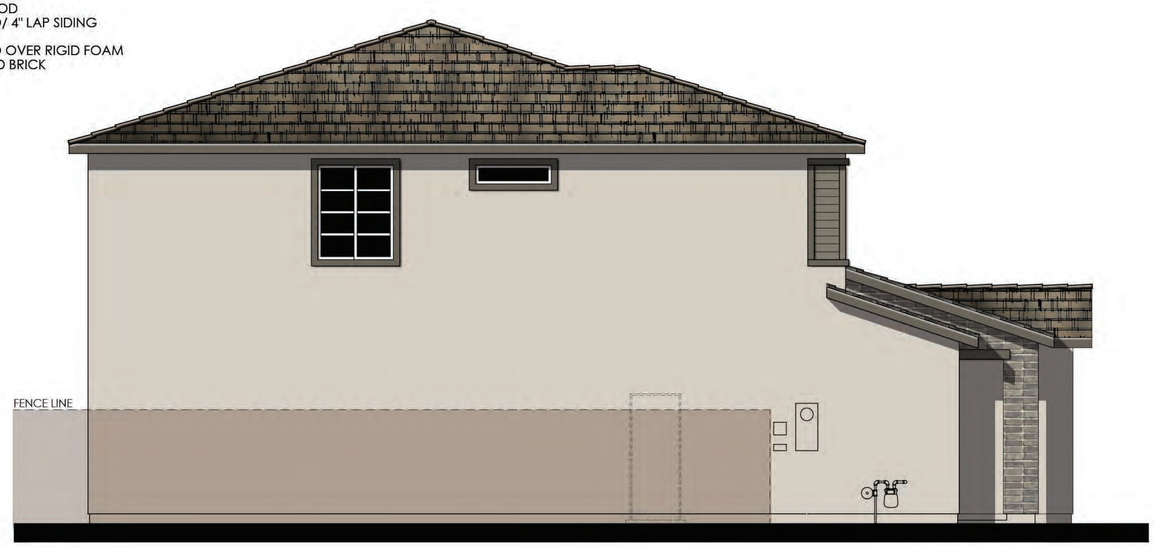
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOW
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
WALL:	STUCCO/ 4" LAP SIDING
WINDOWS:	VINYL
TRIM:	STUCCO OVER RIGID FOAM
VENEER:	STACKED BRICK



REAR



LEFT

COLOR SCHEME 5

PLAN 4528 "D"

CONTEMPORARY ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

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RIGHT



REAR

COLOR SCHEME 5

PLAN 4528 "D"

CONTEMPORARY ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

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EASTVALE, CA

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#20105



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Refer to landscape drawings for wall, tree, and shrub locations

FRONT



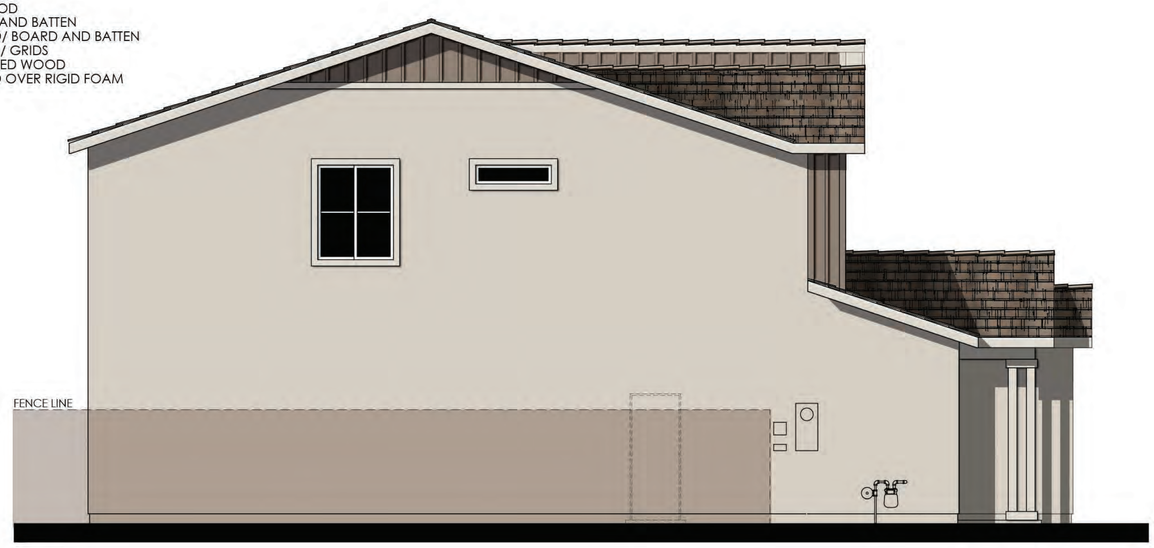
RIGHT

MATERIALS LEGEND
(WHERE OCCURS)

FRONT DOOR:	FIBERGLASS
GARAGE DOOR:	METAL SECTIONAL W/ WINDOWS
ROOF:	CONCRETE FLAT TILE
FASCIA:	2x6 WOOD
BARGE:	2x6 WOOD
GABLE END:	BOARD AND BATTEN
WALL:	STUCCO/ BOARD AND BATTEN
WINDOWS:	VINYL W/ GRIDS
SHUTTERS:	SIMULATED WOOD
TRIM:	STUCCO OVER RIGID FOAM



REAR



LEFT

COLOR SCHEME 30

PLAN 4528 "E"

MODERN FARMHOUSE ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

EASTVALE, CA

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#20105



RIGHT



REAR

COLOR SCHEME 9

PLAN 4528 "E"

MODERN FARMHOUSE ENHANCED ELEVATIONS

0 2 4 8 12

Woodside HOMES

MAGNOLIA RANCH

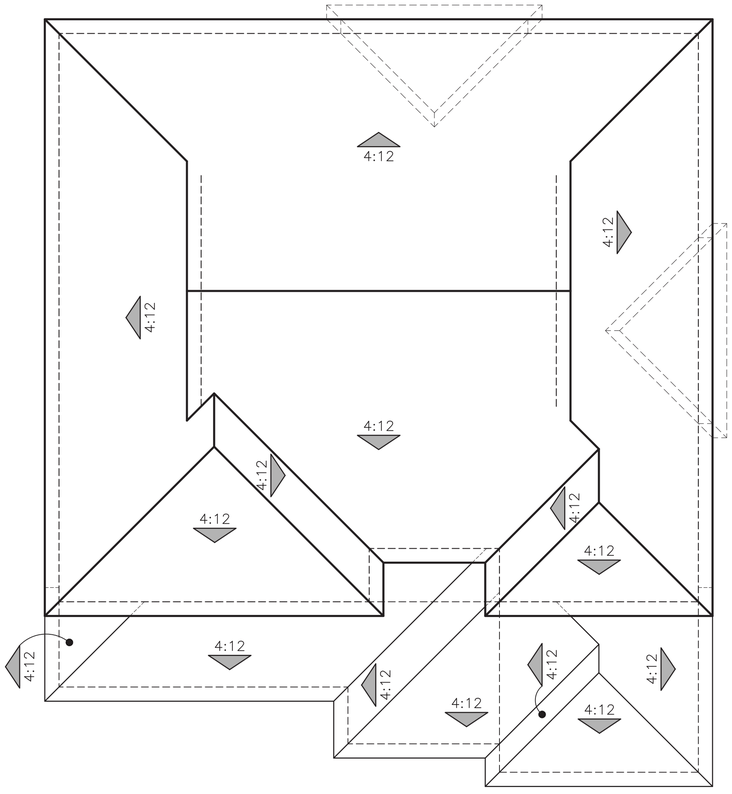
EASTVALE, CA

08/22/2023

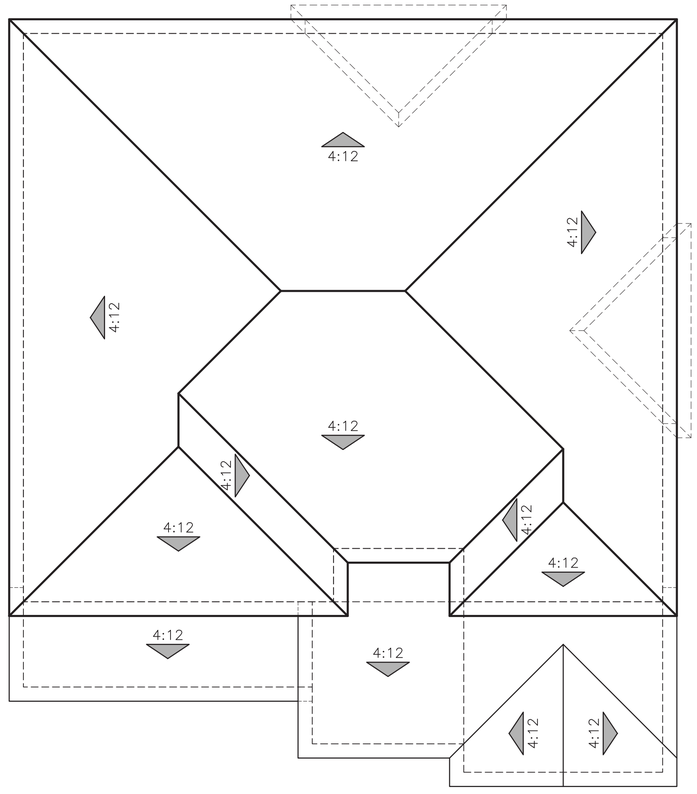
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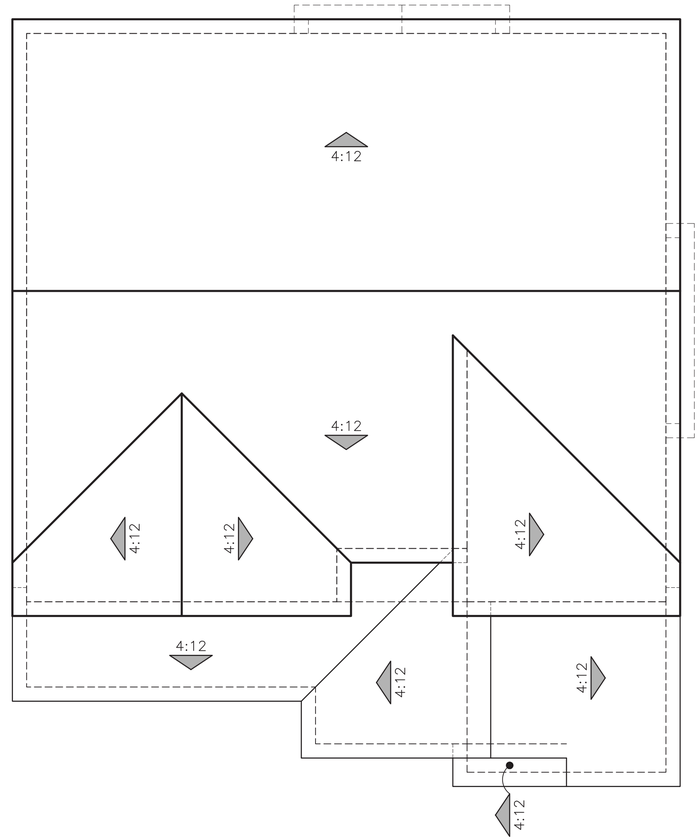
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"C" - COASTAL



"D" - CONTEMPORARY



"E" - MODERN FARMHOUSE

ROOF PLANS

PLAN 4528

0 2 4 8 12

MAGNOLIA RANCH

EASTVALE, CA

JOB #: 20105B
CREATED: 11/3/2021
Planning Rev: 8/16/2023

"C" ELEVATIONS COASTAL	SCHEME 1	SCHEME 2	SCHEME 3
STUCCO	1608	1547	1617
STUCCO PAINT MATCH***	SW6100 PRACTICAL BEIGE	SW6121 WHOLE WHEAT	SW9092 ICED MOCHA
FASCIA / TRIM	SW6068 BREVITY BROWN	SW6160 BEST BRONZE	SW9115 COWBOY BOOTS
LAP SIDING / CORNER BOARDS / GARAGE DOOR	SW6067 MOCHA	SW6159 HIGH TEA	SW9122 DRIED EDAMAME
FRONT DOOR / SHUTTERS	SW6020 MAROON	SW0012 EMPIRE GOLD	SW7710 BRANDYWINE
ROOF: FLAT SLATE SAXONY 900	1FACS3233 BROWN BLEND	1FECY4072 SAHARA QUARTZ BLD	1FECY4071 OCEAN JASPER BLD
STONE: EUROPEAN LEDGE	COTTONWOOD	LINEN	IRON MILL

"D" ELEVATIONS CONTEMPORARY	SCHEME 4	SCHEME 5	SCHEME 6
STUCCO	1515	1507	1559
STUCCO PAINT MATCH***	SW7638 JOGGING PATH	SW7632 MODERN GRAY	*SW6079 DIVERSE BEIGE*
FASCIA / TRIM	SW7645 THUNDER GRAY	SW7047 PORPOISE	SW7505 MANOR HOUSE
GARAGE DOOR / LAP SIDING / CORNER BOARDS	SW7743 MOUNTAIN ROAD	SW7046 ANONYMOUS	SW6004 MINK
FRONT DOOR	SW6221 MOODY BLUE	SW2854 CARIBBEAN CORAL	SW2838 POLISHED MAHOGANY
ROOF: FLAT SLATE	1FECY4070 SEA PEARL BLEND	1FECY0300 BRONZE PEARL BLD	1FACS7002 CHERRYWOOD
BRICK: STACK BOND INSTALLATION	TUNDRA CHALKDUST	TUNDRA ASHLAND	TUNDRA HARTFORD
GROUT:	MAC MISTY COVE	MAC MISTY COVE	MAC MISTY COVE

"E" ELEVATIONS FARMHOUSE	SCHEME 7	SCHEME 8	SCHEME 9
STUCCO	1572	1557	1528
STUCCO PAINT MATCH***	SW7757 HIGH REFLECTIVE WT	SW7573 EAGLET BEIGE	SW7632 MODERN GRAY
FASCIA / TRIM	SW7069 IRON ORE	SW7551 GREEK VILLA	SW7628 WINDFRESH WHITE
BOARD & BATTEN SIDING / GARAGE DR	SW2821 DOWNING STONE	SW7740 MESSENGER BAG	SW6074 SPALDING GRAY
FRONT DOOR / SHUTTERS	SW7069 IRON ORE	SW6373 HARVESTER	SW7625 MOUNT ETNA
ROOF: FLAT SHAKE	1FBCJ1430 CHARCOAL BLEND	1FBCJ0198 DUNES TAN	1FBCJ3181 SMOKEY TOPAZ BLD

STUCCO:	OMEGA
PAINT:	PPG PAINTS
ROOF:	NEWPOINT WESTLAKE
VENEER:	ELDORADO
GROUT:	ORCO or EQUAL

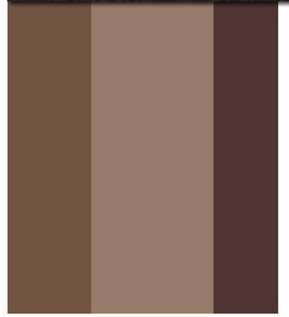
Woodside HOMES

Kevin L. Crook **Architect** Inc
PLANNING + ARCHITECTURE

WRITTEN COLOR SCHEMES

COASTAL
SCHEME #1







Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 21, 2023

Kevin L. Crook Architect Inc
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COASTAL
SCHEME #2







Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 21, 2023

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COASTAL
SCHEME #3







Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 21, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

COLOR BOARDS - “C” COASTAL

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION.
REFER TO PAINT CHIPS AND MATERIALS BOARDS FOR ACTUAL COLORS.

CONTEMPORARY
SCHEME #4



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

CONTEMPORARY
SCHEME #5



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

CONTEMPORARY
SCHEME #6



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

COLOR BOARDS - “D” CONTEMPORARY

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION.
REFER TO PAINT CHIPS AND MATERIALS BOARDS FOR ACTUAL COLORS.

MODERN FARMHOUSE
SCHEME #7



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

MODERN FARMHOUSE
SCHEME #8



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

MODERN FARMHOUSE
SCHEME #9



Woodside HOMES

MAGNOLIA RANCH
EASTVALE, CA

#20105
AUG. 17, 2023

Kevin L. Crook Architect Inc
PLANNING + ARCHITECTURE

COLOR BOARDS - “E” MODERN FARMHOUSE

*COLORS MAY VARY DUE TO SCREEN AND PRINTER CALIBRATION.
REFER TO PAINT CHIPS AND MATERIALS BOARDS FOR ACTUAL COLORS.

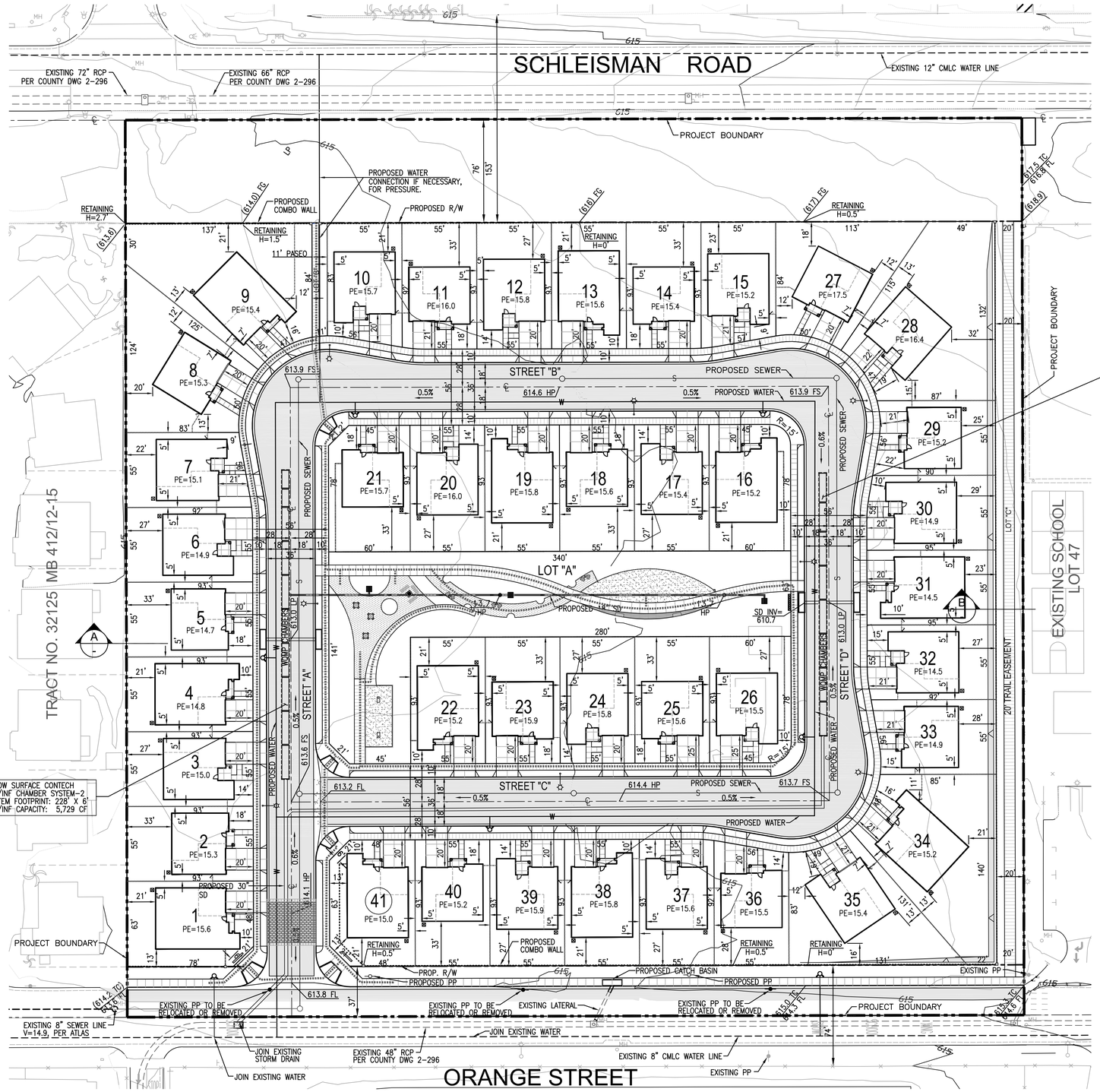
Appendix 2

Preliminary Grading and Drainage Plan

Magnolia Ranch Residential Project

Initial Study

PRELIMINARY GRADING AND DRAINAGE PLAN



LEGEND:

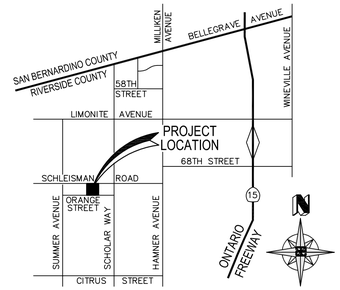
- (80) UNIT NUMBER
- 1% DRAINAGE FLOW DIRECTION
- SEWER LINE
- WATER LINE
- STORM DRAIN
- PROJECT BOUNDARY
- CENTERLINE
- 795 EXISTING CONTOUR
- AC/AB
- FS FINISH SURFACE
- PROPOSED WALL WITH RETAINING

FEMA ZONE

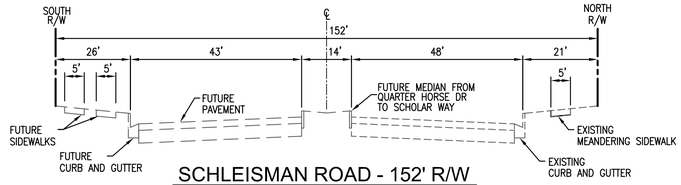
FLOOD ZONE: "X" MAP NO. 06065C0679G.

EARTHWORK ESTIMATE:

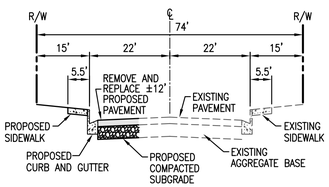
ESCAVATION	15,200	6,030
SHRINKAGE (10%)	−1,520	
OEX SHRINKAGE (5'@10%)		8,000
SUBSIDENCE		1,600
LOT PULLS		
41 DETACHED @ 150	6,150	
TOTAL	19,830	15,630
IMPORT	4,200	



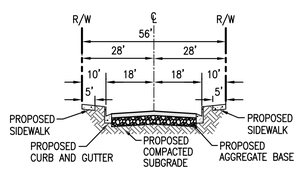
VICINITY MAP
N.T.S.



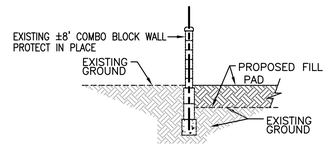
SCHLEISMAN ROAD - 152' R/W
NTS



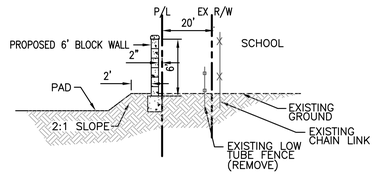
ORANGE STREET - 74' R/W
NTS



INTERIOR STREETS - 56' R/W
NTS



A TYPICAL SECTION
NTS



B TYPICAL SECTION
NTS



GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 INCH = 40 FT.

Prepared For:
MLC HOLDINGS, INC.
5 PETERS CANYON ROAD, SUITE 310
IRVINE, CA 92606
OFFICE: (949) 372-3310

REGISTERED PROFESSIONAL ENGINEER RAYMOND J. ALLARD No. 36052 Exp. 6/30/24 CIVIL STATE OF CALIFORNIA

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Raymond J. Allard, R.C.E. 36052 Date
(expires 6/30/2022)

DATE	July, 2022
SCALE	1"=40'
DRAWN	C.V.
CHECKED	R.J.A

SHEET TITLE: PRELIMINARY GRADING, DRAINAGE AND UTILITY PLAN
PROJECT: MAGNOLIA RANCH
APN: 152-040-003
13175 ORANGE STREET
EASTVALE, CALIFORNIA
JOB NO.

SHEET NO.
C-2

Filename: I:\MLC Holdings\Eastvale\DWGS\ENTITLEMENT\CONCEPT GRADING\PRELIMINARY GRADING & DRAINAGE SFD.dwg

Appendix 3

Conceptual Landscape Plan

Magnolia Ranch Residential Project

Initial Study











*Conceptual images (provided herein are conceptual and subject to change)



Schematic Landscape Plan

LEGEND

1. Picnic Seating Area with decomposed granite, picnic tables, and specimen Magnolia shade trees.
2. Succulent Garden Walk with decomposed granite, tree nooks for specimen Magnolia shade tree, citrus tree planting, and adirondack seating.
3. Central Lawn Area for passive and active usage with real turf, bench seating, and shade trees.
4. Main project entry with enhanced paving and specimen Magnolia Trees.
5. Project signage wall feature with pin-mounted lettering.
6. Corn hole play area with real turf and shade trees.
7. Four community cluster mailboxes, per USPS review and approval.
8. Proposed wall, pilaster, gate or fence, per Wall & Fence Plan.
9. Proposed tree, per Planting Plan.
10. 5' wide community natural colored concrete sidewalk, with light top-cast finish and saw-cut joints.
11. 4' wide unit entry natural colored concrete walk, with light top-cast finish and saw-cut joints.
12. Natural colored concrete driveway, with light broom finish and tooled joints.
13. Private yard area, homeowner maintained.
14. Common area landscape, builder installed and HOA maintained.
15. Community dog bag station (black in color), for pet owners.
16. Project Boundary.
17. Public street R.O.W.
18. Proposed public street sidewalk, per Civil plans.
19. Existing wall / chain link fence to remain.
20. Integral colored concrete.
21. Proposed AC condenser, per Architecture plans.
22. Proposed curb ramp, per Civil plans.
23. 8ft wide paseo walk connection between Schelisman Road and Orange Street.
24. Pedestrian gate connection to future linear park along Schleisman Road.
25. Fire-pit seating area with outdoor fire table and lounge seating.
26. Builder installed, homeowner maintained private front yards.





0 20' 40' 80'

Scale: 1" = 40'-0"

MLC Holdings, Inc.

Schematic - 2nd City Submittal_NEW SDP | Project No.: MLC04 | Date: July 28, 2022

L-1

MLC Holdings, Inc.

MAGNOLIA RANCH - Eastvale, CA

studio PAD Landscape Architecture
23276 S. Pointe Drive (Ste 109) Laguna Hills, CA 92653 (www.studio-PAD.com)

Appendix 4

Air Quality, Energy, and Greenhouse Gas Evaluation

Magnolia Ranch Residential Project

Initial Study

AIR QUALITY, ENERGY, AND GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

MAGNOLIA RANCH RESIDENTIAL PROJECT

CITY OF EASTVALE

Lead Agency:

City of Eastvale
12363 Limonite Street
Eastvale, CA 91752

Prepared by:

Vista Environmental
1021 Didrickson Way
Laguna Beach, CA 92651
949 510 5355
Greg Tonkovich, AICP

Project No. 21003

July 26, 2022

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BSFC	Brake Specific Fuel Consumption
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
Cf_4	tetrafluoromethane
C_2F_6	hexafluoroethane
CH_4	Methane
City	City of Eastvale
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
ºF	Fahrenheit
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse gas
GWP	Global warming potential
HAP	Hazardous Air Pollutants
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
kWhr	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds

MATES	Multiple Air Toxics Exposure Study
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NO_x	Nitrogen oxides
NO_2	Nitrogen dioxide
OPR	Office of Planning and Research
Pfc	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PPM	Parts per million
PPB	Parts per billion
PPT	Parts per trillion
RSP	Renaissance Specific Plan
RTIP	Regional Transportation Improvement Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SF_6	Sulfur Hexafluoride
SIP	State Implementation Plan
SO_x	Sulfur oxides
TAC	Toxic air contaminants
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile organic compounds

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Air Quality, Energy, and Greenhouse Gas (GHG) Emissions Impact Analysis has been completed to determine the air quality, energy, and GHG emissions impacts associated with the proposed Magnolia Ranch Residential project (proposed project). The following is provided in this report:

- A description of the proposed project;
- A description of the atmospheric setting;
- A description of the criteria pollutants and GHGs;
- A description of the air quality regulatory framework;
- A description of the energy conservation regulatory framework;
- A description of the GHG emissions regulatory framework;
- A description of the air quality, energy, and GHG emissions thresholds including the California Environmental Quality Act (CEQA) significance thresholds;
- An analysis of the conformity of the proposed project with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP);
- An analysis of the short-term construction related and long-term operational air quality, energy, and GHG emissions impacts; and
- An analysis of the conformity of the proposed project with all applicable energy and GHG emissions reduction plans and policies.

1.2 Site Locations and Study Area

The project site is located in the City of Eastvale (City). The approximately 10.0 gross acre project site is relatively flat and currently includes a ranch house with barn and associated fencing and facilities for livestock/horses. The project site is bounded by Schleisman Road to the north, Eastvale Elementary School to the east, Orange Street and River Heights Intermediate School to the south and single-family homes to the west. The project local study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

1.3 Proposed Project Description

The proposed project would consist of a residential development on 8.28 net acres that would include 41 detached single-family homes with approximately 22,000 square feet of common open space. New sidewalks will be provided along the north side of Orange Street, a walkway will run in a north-south direction adjacent to the east property line, and a walkway will run in an east-west direction through the common open space area. The proposed project would also include development of an internal road system and road improvements to the portion of Orange Street that is adjacent to the project site. It

should be noted that the project applicant is proposing to pay TUMF fees in lieu of road improvements to the portion of Schleisman Road that is adjacent to the project site, however in order to provide a conservative analysis, it has been assumed that this area will be graded as part of the proposed project. The proposed site plan is shown in Figure 2.

1.4 Executive Summary

Standard Air Quality, Energy, and GHG Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the SCAQMD and State of California (State).

South Coast Air Quality Management District Rules

The following lists the SCAQMD rules that are applicable, but not limited to the proposed project.

- Rule 402 Nuisance – Controls the emissions of odors and other air contaminants;
- Rule 403 Fugitive Dust – Controls the emissions of fugitive dust;
- Rule 445 Wood Burning Devices – Controls the emissions from fire places and fire pits;
- Rules 1108 and 1108.1 Cutback and Emulsified Asphalt – Controls the VOC content in asphalt;
- Rule 1113 Architectural Coatings – Controls the VOC content in paints and solvents;
- Rule 1143 Paint Thinners – Controls the VOC content in paint thinners; and
- Rule 1403 Asbestos Removal – Provides procedures for asbestos removal from buildings.

State of California Rules

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to the proposed project.

- CCR Title 13, Article 4.8, Chapter 9, Section 2449 – In use Off-Road Diesel Vehicles;
- CCR Title 13, Section 2025 – On-Road Diesel Truck Fleets;
- CCR Title 24 Part 6 – California Building Energy Standards; and
- CCR Title 24 Part 11 – California Green Building Standards.

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines air quality, energy, and GHG emissions checklist questions.

Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact.

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

Less than significant impact.

Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact.

Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact.

Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;

Less than significant impact.

Conflict with or obstruct a state or local plan for renewable energy;

Less than significant impact.

Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact.

Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Less than significant impact.

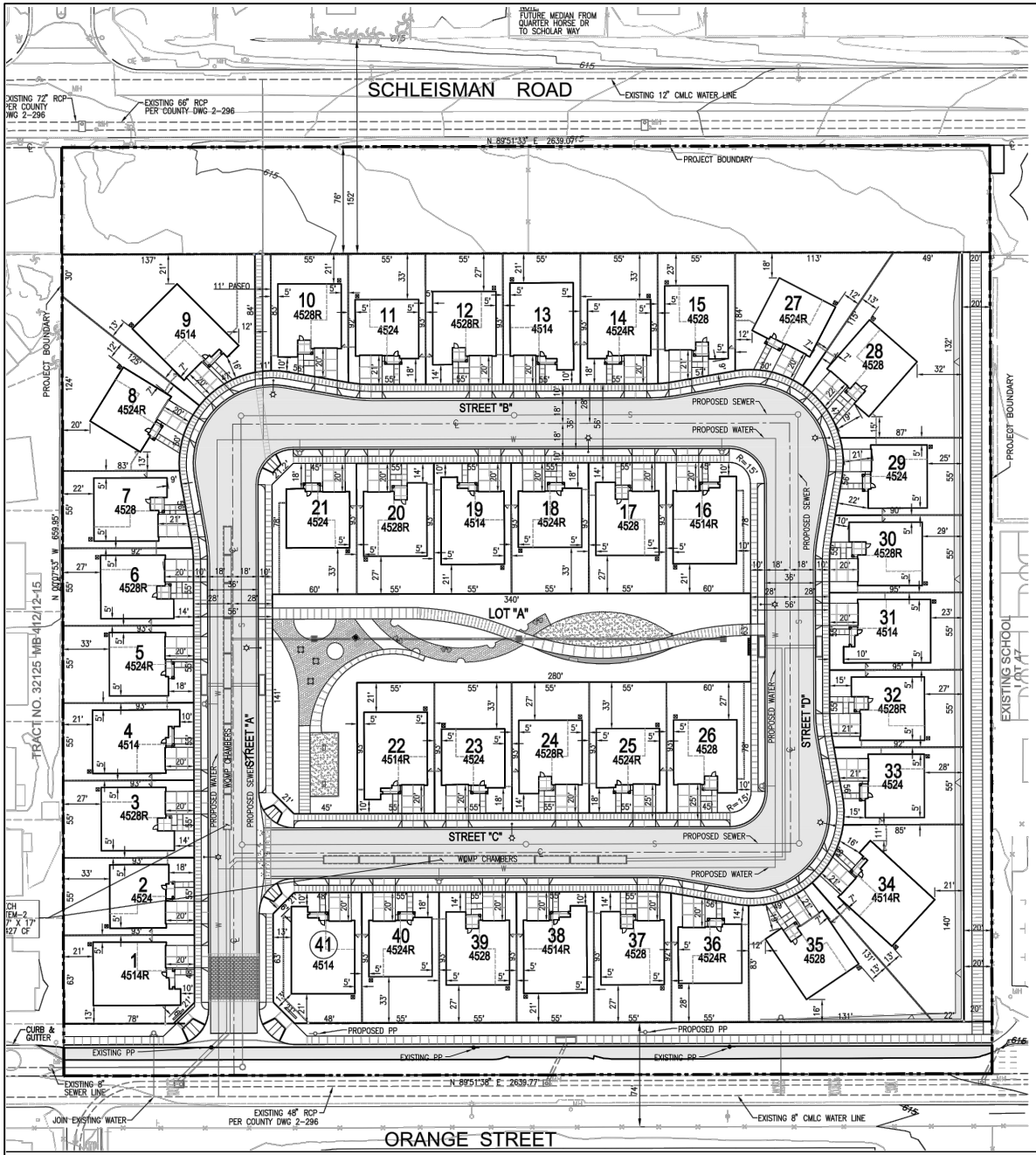
1.5 Mitigation Measures for the Proposed Project

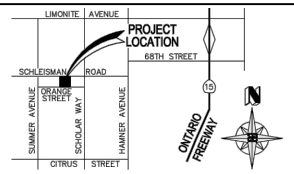
This analysis found that implementation of the State and SCAQMD air quality, energy, and GHG emissions reductions regulations were adequate to limit criteria pollutants, toxic air contaminants, odors, energy, and GHG emissions from the proposed project to less than significant levels. No mitigation measures are required for the proposed project with respect to air quality, energy, and GHG emissions.



VISTA ENVIRONMENTAL

Figure 1
Project Local Study Area





VICINITY MAP
N.T.S.

LEGAL DESCRIPTION

LOT 47 OF KINGSTON TRACT IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

ASSESSOR'S PARCEL NO.

152-040-003

SITE ADDRESS

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

MLC HOLDINGS, INC.
5 PETERS CANYON ROAD, SUITE 310
IRVINE, CA 92606
(949) 372-3310

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

ENGINEER

ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

BENCHMARK

RIVERSIDE COUNTY BENCHMARK "ML-34-1 RESET 2008" 3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTHERLY CURB, 10' FROM THE ECR AT THE INTERSECTION OF SUMNER AVENUE AND ORANGE STREET.

BASIS OF BEARINGS

BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15
BEING: N 89°51'33" E

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

LEGEND

10	UNIT NUMBER
1%	DRAINAGE FLOW DIRECTION
	SEWER LINE
	WATER LINE
	STORM DRAIN
	PROJECT BOUNDARY
	CENTERLINE
	ADA PATH OF TRAVEL
795	EXISTING CONTOUR
	AC/AB

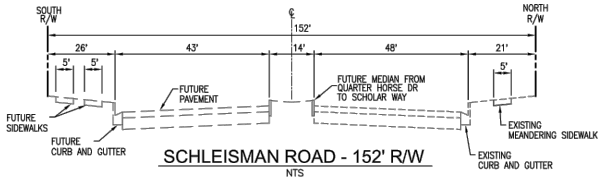
SITE STATISTICS

GROSS SITE AREA: 10.0 ACRES
DEVELOPABLE AREA: 8.28 ACRES

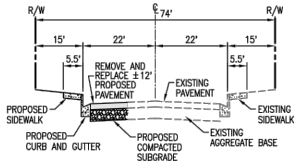
TOTAL LOTS: 41 HOMES

PLAN TYPE

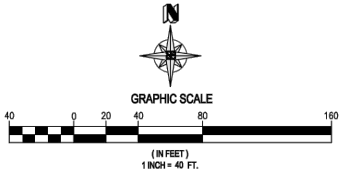
PLAN 4514 – 11 LOTS
PLAN 4524 – 15 LOTS
PLAN 4528 – 15 LOTS



SCHLEISMAN ROAD - 152' R/W
NTS



ORANGE STREET - 74' R/W
NTS



SOURCE: Allard Engineering.

VISTA ENVIRONMENTAL

Figure 2
Proposed Site Plan

2.0 AIR POLLUTANTS

Air pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

2.1 Criteria Pollutants and Ozone Precursors

The criteria pollutants consist of: ozone, nitrogen oxides (NOx), CO, sulfur oxides (SOx), lead, and particulate matter (PM). The ozone precursors consist of NO_x and VOC. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants and ozone precursors.

Nitrogen Oxides

NOx is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone is not usually emitted directly into the air, instead it is created by a chemical reaction between NOx and VOC in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NOx and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NOx and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NOx and VOC emissions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves,

gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Oxides

SOx gases are formed when fuel containing sulfur, such as coal and oil is burned, as well as from the refining of gasoline. SOx dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead

Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter

PM is the term for a mixture of solid particles and liquid droplets found in the air. PM is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) that are also known as *Respirable Particulate Matter* are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) that are also known as *Fine Particulate Matter* have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of ozone are referred to and regulated as VOCs (also

referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

VOC is not classified as a criteria pollutant, since VOCs by themselves are not a known source of adverse health effects. The primary health effects of VOCs result from the formation of ozone and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

2.2 Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, TACs are another group of pollutants of concern. TACs is a term that is defined under the California Clean Air Act and consists of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. There are over 700 hundred different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to *The California Almanac of Emissions and Air Quality 2013 Edition*, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). DPM is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a TAC in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos

Asbestos is listed as a TAC by CARB and as a HAP by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. The nearest likely locations of naturally occurring asbestos, as identified in the *General Location Guide for Ultramafic Rocks in California*, prepared by the California Division of Mines and Geology, is located in Santa Barbara County. The nearest historic asbestos mine to the project site, as identified in the *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California,* prepared by U.S. Geological Survey, is located at Asbestos Mountain, which is approximately 40 miles southeast of the project site in the San Jacinto Mountains. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

In addition to naturally occurring asbestos, asbestos was used extensively in building construction from the early 1940s through the 1970s as highly-effective and inexpensive fire-retardant material and thermal and acoustic insulator. Asbestos is most commonly found as thermal insulation on pipes, but also may be found in certain types of floor and ceiling tiles. There are two types of asbestos: “friable” and "non-friable.” Friable asbestos generally contains more than 1 percent asbestos by weight or area, and can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand, which releases fibers. Non friable asbestos generally contains more than 1 percent asbestos but cannot be pulverized under hand pressure and generally does not release asbestos fibers. The analysis of asbestos from demolition of the existing structures is provided below in Section 10.4.

3.0 GREENHOUSE GASES

3.1 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric GHGs, play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This

could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit.

Methane

CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is also commonly used as an aerosol spray propellant (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and race cars).

Chlorofluorocarbons

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6).

Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride

Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

3.2 Global Warming Potential

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO_2. The GHGs listed by the IPCC and the CEQA Guidelines are discussed in this section in order of abundance in the atmosphere. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. To simplify reporting and analysis, GHGs are commonly defined in terms of their GWP. The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2 equivalent (CO_2e). As such, the GWP of CO_2 is equal to 1. The GWP values used in this analysis are based on the 2007 IPCC Fourth Assessment Report, which are used in CARB's 2014 Scoping Plan Update and the CalEEMod Model Version 2020.4.0 and are detailed in Table A. The IPCC has updated the Global Warming Potentials of some gases in their Fifth Assessment Report, however the new values have not yet been incorporated into the CalEEMod model that has been utilized in this analysis.

Table A – Global Warming Potentials, Atmospheric Lifetimes and Abundances of GHGs

Gas	Atmospheric Lifetime (years)[1]	Global Warming Potential (100 Year Horizon)[2]	Atmospheric Abundance
Carbon Dioxide (CO_2)	50-200	1	379 ppm
Methane (CH_4)	9-15	25	1,774 ppb
Nitrous Oxide (N_2O)	114	298	319 ppb
HFC-23	270	14,800	18 ppt
HFC-134a	14	1,430	35 ppt
HFC-152a	1.4	124	3.9 ppt
PFC: Tetrafluoromethane (CF_4)	50,000	7,390	74 ppt
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200	2.9 ppt
Sulfur Hexafluoride (SF_6)	3,200	22,800	5.6 ppt

Notes:

[1] Defined as the half-life of the gas.
[2] Compared to the same quantity of CO_2 emissions and is based on the Intergovernmental Panel On Climate Change (IPCC) 2007 standard, which is utilized in CalEEMod (Version 2020.4.0),that is used in this report (CalEEMod User Guide, May 2021).
Definitions: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion
Source: IPCC 2007, EPA 2015

3.3 Greenhouse Gas Emissions Inventory

According to the Carbon Dioxide Information Analysis Center[1], 9,855 million metric tons (MMT) of CO_2e emissions were created globally in the year 2014. According to the Environmental Protection Agency (EPA), the breakdown of global GHG emissions by sector consists of: 25 percent from electricity and heat production; 21 percent from industry; 24 percent from agriculture, forestry and other land use activities; 14 percent from transportation; 6 percent from building energy use; and 10 percent from all other sources of energy use[2].

According to *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019,* prepared by EPA, in 2019 total U.S. GHG emissions were 6,558 million metric tons (MMT) of CO_2e emissions. Total U.S. emissions have increased by 4 percent between 1990 and 2016 and GHG emissions decreased by 13 percent between 2005 and 2019. The recent decrease in GHG emissions was a result of multiple factors, including population, economic growth, energy markets, and technological changes the include energy efficiency and energy fuel choices. Between 2018 and 2019, GHG emissions decreased by almost 2 percent due to multiple factors, including a one percent decrease in total energy use.

According to *California Greenhouse Gas Emissions for 2000 to 2019 Trends of Emissions and Other Indicators*, prepared by CARB, July 28, 2021, the State of California created 418.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2019. The 2019 emissions were 7.2 $MMTCO_2e$ lower than 2018 levels and almost 13 $MMTCO_2e$ below the State adopted year 2020 GHG limit of 431 $MMTCO_2e$. The breakdown of California GHG emissions by sector consists of: 39.7 percent from transportation; 21.1 percent from industrial; 14.1 percent from electricity generation; 7.6 percent from agriculture; 10.5 percent from residential and commercial buildings; 4.9 percent from high global warming potential sources, and 2.1 percent from waste.

1 Obtained from: https://cdiac.ess-dive.lbl.gov/trends/emis/tre_glob_2014.html
2 Obtained from: https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data

4.0 AIR QUALITY MANAGEMENT

The project site is located within the South Coast Air Basin (Air Basin). The air quality at the project site is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

4.1 Federal – United States Environmental Protection Agency

The Clean Air Act, first passed in 1963 with major amendments in 1970, 1977 and 1990, is the overarching legislation covering regulation of air pollution in the United States. The Clean Air Act has established the mandate for requiring regulation of both mobile and stationary sources of air pollution at the state and federal level. The EPA was created in 1970 in order to consolidate research, monitoring, standard-setting and enforcement authority into a single agency.

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. NAAQS pollutants were identified using medical evidence and are shown below in Table B.

Table B – State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O_3)	0.09 ppm / 1-hour 0.07 ppm / 8-hour	0.070 ppm, / 8-hour	a) Pulmonary function decrements and localized lung injury in humans and animals; (b) asthma exacerbation; (c) chronic obstructive pulmonary disease (COPD) exacerbation; (d) respiratory infection; (e) increased school absences, and hospital admissions and emergency department (ED) visits for combined respiratory diseases; (e) increased mortality; (f) possible metabolic effects. Vegetation damage; property damage
Carbon Monoxide (CO)	20.0 ppm / 1-hour 9.0 ppm / 8-hour	35.0 ppm / 1-hour 9.0 ppm / 8-hour	Visibility reduction (a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) possible impairment of central nervous system functions; (d) possible increased risk to fetuses; (f) possible increased risk of pulmonary disease; (g) possible emergency department visits for respiratory diseases overall and visits for asthma.
Nitrogen Dioxide (NO_2)	0.18 ppm / 1-hour 0.030 ppm / annual	100 ppb / 1-hour 0.053 ppm / annual	Short-term (a) asthma exacerbations (“asthma attacks”) Long-term (a) asthma development; (b) higher risk of all-cause, cardiovascular, and respiratory mortality. Both short and long term NO2 exposure is also associated with chronic obstructive pulmonary disease (COPD) risk. Potential impacts on cardiovascular health, mortality and cancer, aggravate chronic respiratory disease. Contribution to atmospheric discoloration

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Sulfur Dioxide (SO_2)	0.25 ppm / 1-hour 0.04 ppm / 24-hour	75 ppb / 1-hour	Respiratory symptoms (bronchoconstriction, possible wheezing or shortness of breath) during exercise or physical activity in persons with asthma. Possible allergic sensitization, airway inflammation, asthma development.
Respirable Particulate Matter (PM_{10})	50 µg/m^3 / 24-hour 20 µg/m^3 / annual	150 µg/m^3 / 24-hour	Short -term (a) increase in mortality rates; (b) increase in respiratory infections; (c) increase in number and severity of asthma attacks; (d) COPD exacerbation; (e) increase in combined respiratory-diseases and number of hospital admissions; (f) increased mortality due to cardiovascular or respiratory diseases; (g) increase in hospital admissions for acute respiratory conditions; (h) increase in school absences; (i) increase in lost work days; (j) decrease in respiratory function in children; (k) increase medication use in children and adults with asthma.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3 / 24-hour 12 µg/m^3 / annual	Long-term (a) reduced lung function growth in children; (b) changes in lung development; (c) development of asthma in children; (d) increased risk of cardiovascular diseases; (e) increased total mortality from lung cancer; (f) increased risk of premature death. Possible link to metabolic, nervous system, and reproductive and developmental effects for short-term and long-term exposure to PM2.5.
Sulfates	25 µg/m^3 / 24-hour	No Federal Standards	(a) Decrease in lung function; (b) aggravation of asthmatic symptoms; (c) vegetation damage; (d) Degradation of visibility; (e) property damage
Lead	1.5 µg/m^3 / 30-day	0.15 µg/m^3 /3-month rolling	(a) Learning disabilities; (b) impairment of blood formation and nerve function; (c) cardiovascular effects, including coronary heart disease and hypertension Possible male reproductive system effects
Hydrogen Sulfide	0.03 ppm / 1-hour	No Federal Standards	Exposure to lower ambient concentrations above the standard may result in objectionable odor and may be accompanied by symptoms such as headaches, nausea, dizziness, nasal irritation, cough, and shortness of breath

Source: Draft 2022 AQMP, SCAQMD, 2022.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. The CARB defines attainment as the category given to an area with no violations in the past three years. As indicated below in Table C, the Air Basin has been designated by EPA for the national standards as a non-attainment area for ozone and PM2.5 and partial non-attainment for lead. Currently, the Air Basin is in attainment with the national ambient air quality standards for CO, PM10, SO_2, and NO_2.

Table C – National Air Quality Standards Attainment Status – South Coast Air Basin

Criteria Pollutant	Averaging Time	Designation[a]	Attainment Date[b]
Ozone	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 (revised deadline)
	2015 8-Hour (0.07 ppm)[d]	Nonattainment (Extreme)	8/3/2038
	2008 8-Hour (0.075 ppm)[d]	Nonattainment (Extreme)	7/20/2032
	1997 8-Hour (0.08 ppm)[d]	Nonattainment (Extreme)	6/15/2024
PM2.5[e]	2006 24-Hour (35 µg/m^3)	Nonattainment (Serious)	12/31/2019
	2012 Annual (12 µg/m^3)	Nonattainment (Serious)	12/31/2021
	1997 Annual (15 µg/m^3)	Attainment (final determination pending)	4/5/2015 (attained 2013)
PM10[f]	1987 24-Hour (150 µg/m^3)	Attainment (Maintenance)	7/26/2013 (attained)
Lead[g]	2008 3-Months Rolling (0.15 µg/m^3)	Nonattainment (Partial) (Attainment determination requested)	12/31/2015
CO	1971 1-Hour (35 ppm)	Attainment (Maintenance)	6/11/2007
	1971 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007
NO_2[h]	2010 1-Hour (100 ppb)	Unclassifiable/Attainment	N/A (attained)
	1971 Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
SO_2[i]	2010 1-Hour (75 ppb)	Unclassifiable/Attainment	1/9/2018
	1971 24-Hour (0.14 ppm)	Unclassifiable/Attainment	3/19/1979

Source: SCAQMD, May 2022

Notes:

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable.

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.

c) The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard; original attainment date was 11/15/2010; the revised attainment date is 2/6/2023.

d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm, effective 12/28/20115 with classifications and implementation goals to be finalized by 10/1/2017; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone implementation rule, effective 4/6/2015; there are continuing obligations under the revoked 1997 and revised 2008 ozone NAAQS until they are attained.

e) The attainment deadline for the 2006 24-Hour PM2.5 NAAQS was 12/31/15 for the former "moderate" classification; the EPA approved reclassification to "serious", effective 2/12/16 with an attainment deadline of 12/31/2019; the 2012 (proposal year) annual PM2.5 NAAQS was revised on 1/15/2013, effective 3/18/2013, from 15 to 12 µg/m^3; new annual designations were final 1/15/2015, effective 4/15/2015; on 7/25/2016 the EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m^3) and 24-hour PM2.5 (65 µg/m^3) NAAQS, effective 8/24/2016.

f) The annual PM10 standard was revoked, effective 12/18/2006; the 24-hour PM10 NAAQS deadline was 12/31/2006; the Basin's Attainment Re-designation Request and PM10 Maintenance Plan was approved by the EPA on 6/26/2103, effective 7/26/2013.

g) Partial Nonattainment designation – Los Angeles County portion of the Basin only for near-source monitors; expect to remain in attainment based on current monitoring data; attainment re-designation request pending.

h) New 1-hour NO_2 NAAQS became effective 8/2/2010, with attainment designations 1/20/2012; annual NO_2 NAAQS retained.

i) The 1971 annual and 24-hour SO_2 NAAQS were revoked, effective 8/23/2010.

Despite substantial improvements in air quality over the past few decades, some air monitoring stations in the Air Basin still exceed the NAAQS and frequently record the highest ozone levels in the United States. In 2020, monitoring stations in the Air Basin exceeded the most current federal standards on a total of 181 days (49 percent of the year), including: 8-hour ozone (157 days over the 2015 ozone NAAQS), 24-hour PM2.5 (39 days), PM10 (3 days), and NO_2 (1 day). Nine of the top 10 stations in the nation most frequently exceeding the 2015 8-hour ozone NAAQS in 2020 were located within the Air Basin, including stations in San Bernardino, Riverside, and Los Angeles Counties (SCAQMD, 2022).

PM2.5 levels in the Air Basin have improved significantly in recent years. Since 2015, none of the monitoring stations in the Air Basin have recorded violations of the former 1997 annual PM2.5 NAAQS (15.0 µg/m^3). On July 25, 2016 the U.S. EPA finalized a determination that the Air Basin attained the 1997 annual (15.0 µg/m^3) and 24-hour PM2.5 (65 µg/m^3) NAAQS, effective August 24, 2016. However, the Air Basin does not meet the 2012 annual PM2.5 NAAQS (12.0 µg/m^3), with six monitoring stations having design values above the standard for the 2018-2020 period (SCAQMD, 2022).

4.2 State – California Air Resources Board

The CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CAAQS for criteria pollutants in the Air Basin are shown in Table D. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Table D – California Ambient Air Quality Standards Attainment Status – South Coast Air Basin

Criteria Pollutant	Averaging Time	Level[a]	Designation[b]
Ozone	1-Hour	0.09 ppm	Nonattainment
	8-Hour	0.070 ppm	Nonattainment
PM2.5	Annual	12 µg/m^3	Nonattainment
PM10	24-Hour	50 µg/m^3	Nonattainment
	Annual	20 µg/m^3	Nonattainment
Lead	30-Day Average	1.5 µg/m^3	Attainment
CO	1-Hour	20 ppm	Attainment
	8-Hour	9.0 ppm	Attainment
NO_2	1-Hour	0.18 ppm	Attainment
	Annual	0.030	Nonattainment[c] (CA 60 Near-road portion of San Bernardino, Riverside and Los Angeles Counties) Attainment (remainder of Basin)
SO_2	1-Hour	0.25 ppm	Attainment
	24-Hour	0.04 ppm	Attainment
Sulfates	24-Hour	25 µg/m^3	Attainment
Hydrogen Sulfide	1-Hour	0.03 ppm	Unclassified

Source: SCAQMD, May 2022

Notes:

a) CA State standards, or CAAQS, for ozone, SO_2, NO_2, PM10 and PM2.5 are values not to be exceeded; lead, sulfates and H_2S standards are values not to be equaled or exceeded; CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b) CA State designations shown were updated by CARB in 2019, based on the 2016-2018 3-year period; stated designations are based on a 3-year data period after consideration of outliers and exceptional events.

c) While this region is currently in Nonattainment, the CARB approved a redesignation to attainment to attainment based on 2018-2020 data on February 24, 2022.

As shown in Table D, the Air Basin has been designated by the CARB as a non-attainment area for ozone, PM10 and PM2.5 and partial nonattainment for NO_2. Currently, the Air Basin is in attainment with the ambient air quality standards for lead, CO, SO_2 and sulfates, and is unclassified for Hydrogen Sulfide.

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to all warehouse projects in the State.

Assembly Bill 2588

The Air Toxics "Hot Spots" Information and Assessment Act (Assembly Bill [AB] 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release in California. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

CARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the CARB adopted California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 to reduce DPM and NOx emissions from in-use off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. Performance requirements of the rule are based on a fleet's average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirement making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less). Currently, no commercial operation in California may add any equipment to their fleet that has a Tier 0 or Tier 1 engine. By January 1, 2018 medium and large fleets will be restricted from adding Tier 2 engines to their fleets and by January 2023, no commercial operation will be allowed to add Tier 2 engines to their fleets. It should be noted that commercial fleets may continue to use their existing Tier 0 and 1 equipment, if they can demonstrate that the average emissions from their entire fleet emissions meet the NOx emissions targets.

CARB Resolution 08-43 for On-Road Diesel Truck Fleets

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. By January 1, 2014, 50 percent of a truck fleet is required to have installed Best Available Control Technology (BACT) for NOx emissions and 100 percent of a truck fleet installed BACT for PM10 emissions. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California. All on-road diesel trucks utilized during construction of the proposed project will be required to comply with Resolution 08-43.

4.3 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. The *Final 2016 Air Quality Management Plan* (2016 AQMP) was adopted by the SCAQMD Board on March 3, 2016 and was adopted by CARB on March 23, 2017 for inclusion into the SIP. The 2016 AQMP was prepared in order to meet the following standards:

- 8-hour Ozone (75 ppb) by 2032
- Annual PM2.5 (12 µg/m3) by 2021-2025
- 8-hour Ozone (80 ppb) by 2024 (updated from the 2007 and 2012 AQMPs)
- 1-hour Ozone (120 ppb) by 2023 (updated from the 2012 AQMP)
- 24-hour PM2.5 (35 µg/m^3) by 2019 (updated from the 2012 AQMP)

In addition to meeting the above standards, the 2016 AQMP also includes revisions to the attainment demonstrations for the 1997 8-hour ozone NAAQS and the 1979 1-hour ozone NAAQS. The prior 2012 AQMP was prepared in order to demonstrate attainment with the 24-hour PM2.5 standard by 2014 through adoption of all feasible measures. The prior 2007 AQMP demonstrated attainment with the 1997 8-hour ozone (80 ppb) standard by 2023, through implementation of future improvements in control techniques and technologies. These "black box" emissions reductions represent 65 percent of the remaining NOx emission reductions by 2023 in order to show attainment with the 1997 8-hour ozone NAAQS. Given the magnitude of these needed emissions reductions, additional NOx control measures have been provided in the 2012 AQMP even though the primary purpose was to show compliance with 24-hour PM2.5 emissions standards.

The 2016 AQMP provides a new approach that focuses on available, proven and cost effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities to promote reductions in GHG emissions and TAC emissions as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the Air Basin. Instead, this is controlled through local jurisdictions in accordance to CEQA. In order to assist local jurisdictions with air quality compliance issues the *CEQA Air Quality Handbook* (SCAQMD CEQA Handbook), prepared by SCAQMD, 1993, with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs detailed in the AQMPs. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD

intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the Air Basin, and adverse impacts will be minimized.

The following lists the SCAQMD rules that are applicable but not limited to residential development projects in the Air Basin.

Rule 402 - Nuisance

Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Compliance with Rule 402 will reduce local air quality and odor impacts to nearby sensitive receptors.

Rule 403- Fugitive Dust

Rule 403 governs emissions of fugitive dust during construction activities and requires that no person shall cause or allow the emissions of fugitive dust such that dust remains visible in the atmosphere beyond the property line or the dust emission exceeds 20 percent opacity, if the dust is from the operation of a motorized vehicle. Compliance with this rule is achieved through application of standard Best Available Control Measures, which include but are not limited to the measures below. Compliance with these rules would reduce local air quality impacts to nearby sensitive receptors.

- Utilize either a pad of washed gravel 50 feet long, 100 feet of paved surface, a wheel shaker, or a wheel washing device to remove material from vehicle tires and undercarriages before leaving project site.
- Do not allow any track out of material to extend more than 25 feet onto a public roadway and remove all track out at the end of each workday.
- Water all exposed areas on active sites at least three times per day and pre-water all areas prior to clearing and soil moving activities.
- Apply nontoxic chemical stabilizers according to manufacturer specifications to all construction areas that will remain inactive for 10 days or longer.
- Pre-water all material to be exported prior to loading, and either cover all loads or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114.
- Replant all disturbed area as soon as practical.
- Suspend all grading activities when wind speeds (including wind gusts) exceed 25 miles per hour.
- Restrict traffic speeds on all unpaved roads to 15 miles per hour or less.

Rule 445- Fireplaces

Rule 445 governs emissions from fireplaces. This rule restricts the installation of wood-burning fireplaces into any new development and only allows the installation of dedicated gaseous-fueled fireplaces.

Rules 1108 and 1108.1 – Cutback and Emulsified Asphalt

Rules 1108 and 1108.1 govern the sale, use, and manufacturing of asphalt and limits the VOC content in asphalt. This rule regulates the VOC contents of asphalt used during construction as well as any on-going maintenance during operations. Therefore, all asphalt used during construction and operation of the proposed project must comply with SCAQMD Rules 1108 and 1108.1.

Rule 1113 – Architectural Coatings

Rule 1113 governs the sale, use, and manufacturing of architectural coatings and limits the VOC content in sealers, coatings, paints and solvents. This rule regulates the VOC contents of paints available during construction. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Rule 1143 – Paint Thinners

Rule 1143 governs the sale, use, and manufacturing of paint thinners and multi-purpose solvents that are used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations. This rule regulates the VOC content of solvents used during construction. Solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1143.

Rule 1403 – Asbestos Removal

Rule 1403 governs asbestos emissions from demolition and renovation activities. The existing structures on the project site shall be surveyed for asbestos prior to demolition activities. If asbestos is found within the existing structures, the asbestos shall be removed through utilization of the removal procedures detailed in Rule 1403.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal), adopted September 3, 2020and the *2019 Federal Transportation Improvement* Program (2019 FTIP), adopted September 2018, which addresses regional development and growth forecasts. Although the Connect SoCal and 2019 FTIP are primarily planning documents for future transportation projects a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Connect SoCal, 2019 FTIP, and AQMP are based on projections originating within the City and County General Plans.

4.4 Local – City of Eastvale

Local jurisdictions, such as the City of Eastvale, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the AQMPs.

Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the County and region will meet federal and state standards. Instead, the City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The *City of Eastvale General Plan* (General Plan), adopted June 13, 2012, provides the following air quality-related goals and policies that are applicable to the proposed project.

Goal AQ-1: Air quality that meets or exceeds all state and federal standards.

Policies

AQ-5: Sensitive receptors should be separated and protected from polluting point sources to the greatest extent possible.

AQ-6: Require site plan designs to protect people and land uses sensitive to air pollution.

AQ-7: The City encourages the use of pollution control measures such as landscaping, vegetation, and other materials, which trap particulate matter or control pollution.

AQ-8: The City encourages the planting of urban trees to remove pollutants from the air, provide shade, and decrease the negative impacts of heat on the air.

AQ-13: The City encourages the use of building materials and methods which reduce emissions and energy use.

AQ-14: The City encourages the use of energy-efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, and boiler units.

AQ-17: To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, the Environmental Protection Agency, and the California Air Resources Board.

5.0 ENERGY CONSERVATION MANAGEMENT

The regulatory setting related to energy conservation is primarily addressed through State and City regulations, which are discussed below.

5.1 State

Energy conservation management in the State was initiated by the 1974 Warren-Alquist State Energy Resources Conservation and Development Act that created the California Energy Resource Conservation and Development Commission (currently named California Energy Commission [CEC]), which was originally tasked with certifying new electric generating plants based on the need for the plant and the suitability of the site of the plant. In 1976 the Warren-Alquist Act was expanded to include new restrictions on nuclear generating plants, that effectively resulted in a moratorium of any new nuclear generating plants in the State. The following details specific regulations adopted by the State in order to reduce the consumption of energy.

California Code of Regulations (CCR) Title 20

On November 3, 1976 the CEC adopted the *Regulations for Appliance Efficiency Standards Relating to Refrigerators, Refrigerator-Freezers and Freezers and Air Conditioners,* which were the first energy-efficiency standards for appliances. The appliance efficiency regulations have been updated several times by the Commission and the most current version is the *2016 Appliance Efficiency Regulations*, adopted January 2017 and now includes almost all types of appliances and lamps that use electricity, natural gas as well as plumbing fixtures. The authority for the CEC to control the energy-efficiency of appliances is detailed in California Code of Regulations (CCR), Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1609.

California Code of Regulations (CCR) Title 24, Part 6

The CEC is also responsible for implementing the CCR Title 24, Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24 Part 6) that were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. In 2008 the State set an energy-use reduction goal of zero-net-energy use of all new homes by 2020 and the CEC was mandated to meet this goal through revisions to the Title 24, Part 6 regulations.

The Title 24 standards are updated on a three-year schedule and since 2008 the standards have been incrementally moving to the 2020 goal of the zero-net-energy use. Currently the 2019 Title 24 standards are in effect and have been designed so that the average new home built in California will now use zero-net-energy. The 2019 standards require that all single-family homes to have rooftop solar photovoltaic systems and when the solar systems are factored in, homes built under the 2019 standards will use about 53 percent less energy than homes built under the prior 2016 standards. In addition to requiring rooftop solar systems, the 2019 standards also encourage the use of battery storage and heat pump water heaters, require the more widespread use of LED lighting, as well as improve the building's thermal envelope through high performance attics, walls and windows. The 2019 standards also require improvements to ventilation systems by requiring highly efficient air filters to trap hazardous air particulates as well as improvements to kitchen ventilation systems.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (CalGreen) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The CalGreen Building Standards are also updated every three years and the current version is the 2019 California Green Building Standard Code that become effective on January 1, 2020.

The CALGreen Code contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles, which reduces pollutant emissions.

Some of the notable changes in the 2019 CALGreen Code over the prior 2016 CALGreen Code include: an alignment of building code engineering requirements with the national standards that include anchorage requirements for solar panels, provides design requirements for buildings in tsunami zones, increases Minimum Efficiency Reporting Value (MERV) for air filters from 8 to 13, increased electric vehicle charging requirements in parking areas, and sets minimum requirements for use of shade trees.

Executive Order N-79-20

The California Governor issued Executive Order N-79-20 on September 23, 2020 that requires all new passenger cars and trucks and commercial drayage trucks sold in California to be zero-emissions by the year 2035 and all medium- heavy-duty vehicles (commercial trucks) sold in the state to be zero-emission by 2045 for all operations where feasible. Executive Order N-79-20 also requires all off-road vehicles and equipment to transition to 100 percent zero-emission equipment, where feasible by 2035.

Senate Bill 100

Senate Bill 100 (SB 100) was adopted September 2018 and requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity. SB 100 supersedes the renewable energy requirements set by SB 350, SB 1078, SB 107, and SB X1-2. SB 100 codified the interim renewable energy thresholds from the prior Bills of: 33 percent by 2020, 40 percent by December 31, 2024, 45 percent by December 31, 2027, and 50 percent by December 31, 2030.

Executive Order B-48-18 and Assembly Bill 2127

The California Governor issued Executive Order B-48-18 on January 26, 2018 that orders all state entities to work with the private sector to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025. Currently there are approximately 350,000 electric vehicles operating in California, which represents approximately

1.5 percent of the 24 million vehicles total currently operating in California. Implementation of Executive Order B-48-18 would result in approximately 20 percent of all vehicles in California to be zero emission electric vehicles. Assembly Bill 2127 (AB 2127) was codified into statute on September 13, 2018 and requires that the CEC working with CARB prepare biannual assessments of the statewide electric vehicle charging infrastructure needed to support the levels of zero emission vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030.

Assembly Bill 1109

California Assembly Bill 1109 (AB 1109) was adopted October 2007, also known as the Lighting Efficiency and Toxics Reduction Act, prohibits the manufacturing of lights after January 1, 2010 that contain levels of hazardous substances prohibited by the European Union pursuant to the RoHS Directive. AB 1109 also requires reductions in energy usage for lighting and is structured to reduce lighting electrical consumption by: (1) At least 50 percent reduction from 2007 levels for indoor residential lighting; and (2) At least 25 percent reduction from 2007 levels for indoor commercial and all outdoor lighting by 2018. AB 1109 would reduce GHG emissions through reducing the amount of electricity required to be generated by fossil fuels in California.

Assembly Bill 1493

California Assembly Bill 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted on July 22, 2002 and required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2004, CARB approved the "Pavley I" regulations limiting the amount of GHGs that may be released from new passenger automobiles that are being phased in between model years 2009 through 2016. These regulations will reduce GHG emissions by 30 percent from 2002 levels by 2016. In June 2009, the EPA granted California the authority to implement GHG emission reduction standards for light duty vehicles, in September 2009, amendments to the Pavley I regulations were adopted by CARB and implementation of the "Pavley I" regulations started in 2009.

The second set of regulations "Pavley II" was developed in 2010, and is being phased in between model years 2017 through 2025 with the goal of reducing GHG emissions by 45 percent by the year 2020 as compared to the 2002 fleet. The Pavley II standards were developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the "LEV III" (third stage of the Low Emission Vehicle standards) into a single regulatory framework. The new rules reduce emissions from gasoline-powered cars as well as promote zero-emissions auto technologies such as electricity and hydrogen, and through increasing the infrastructure for fueling hydrogen vehicles. In 2009, the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles and these GHG emissions standards are currently being implemented nationwide.

The EPA has performed a midterm evaluation of the longer-term standards for model years 2022-2025, and based on the findings of this midterm evaluation, the EPA proposed The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026 that amends the corporate average fuel economy (CAFE) and GHG emissions standards for light vehicles for model years 2021 through 2026. The SAFE Vehicles Rule was published on April 30, 2020 and made effective on June 29, 2020.

5.2 Local – City of Eastvale

The applicable energy plan for the proposed project is the General Plan. The energy-related goals and policies in the General Plan that are applicable for the proposed project are shown below.

Goal AQ-4: Safe and reliable energy including energy from renewable sources to meet Eastvale's needs and enable continued economic growth.

Policies

AQ-26: Permit and encourage the use of passive solar devices and other state-of-the-art energy conservation measures.

AQ-27: Support and encourage voluntary efforts to provide active and passive solar access opportunities in new development.

AQ-28: The City encourages energy-efficient materials and systems, including shade design technologies, for buildings.

AQ-31: The City encourages urban design measures that support alternatives to private automobile use.

AQ-32: Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste disposed of in landfills.

AQ-33: The City encourages the incorporation of energy-efficient design elements beyond code requirements, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling.

AQ-34: The City shall review all development proposals to ensure that all services and utilities can be provided in an energy-efficient and effective manner.

AQ-36: The City shall support the inclusion of energy-efficient design and renewable energy technologies in public and private projects.

6.0 GLOBAL CLIMATE CHANGE MANAGEMENT

The regulatory setting related to global climate change is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to reduce GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for global climate change regulations are discussed below.

6.1 International

In 1988, the United Nations established the IPCC to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. The parties of the UNFCCC adopted the Kyoto Protocol, which set binding GHG reduction targets for 37 industrialized countries, the objective of reducing their collective GHG emissions by five percent below 1990 levels by 2012. The Kyoto Protocol has been ratified by 182 countries, but has not been ratified by the United States. It should be noted that Japan and Canada opted out of the Kyoto Protocol and the remaining developed countries that ratified the Kyoto Protocol have not met their Kyoto targets. The Kyoto Protocol expired in 2012 and the amendment for the second commitment period from 2013 to 2020 has not yet entered into legal force. The Parties to the Kyoto Protocol negotiated the Paris Agreement in December 2015, agreeing to set a goal of limiting global warming to less than 2 degrees Celsius compared with pre-industrial levels. The Paris Agreement has been adopted by 195 nations with 147 ratifying it, including the United States by President Obama, who ratified it by Executive Order on September 3, 2016. On June 1, 2017, President Trump announced that the United States is withdrawing from the Paris Agreement and on January 21, 2021 President Biden signed an executive order rejoining the Paris Agreement.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

6.2 Federal – United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for implementing federal policy to address global climate change. The Federal government administers a wide array of public-private partnerships to reduce U.S. GHG intensity. These programs focus on energy efficiency, renewable energy, methane, and other non-CO_2 gases, agricultural practices and implementation of technologies to achieve GHG reductions. EPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO2 and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions did not impose any requirements on industry or other entities, however, since 2009 the EPA has been providing GHG emission standards for vehicles and other stationary sources of GHG emissions that are regulated by the EPA. On September 13, 2013 the EPA Administrator signed 40 CFR Part 60, that limits emissions from new sources to 1,100 pounds of CO_2 per mega-watt hour (MWh) for fossil fuel-fired utility boilers and 1,000 pounds of CO_2 per MWh for large natural gas-fired combustion units.

On August 3, 2015, the EPA announced the Clean Power Plan, emissions guidelines for U.S. states to follow in developing plans to reduce GHG emissions from existing fossil fuel-fired power plants (Federal Register Vol. 80, No. 205, October 23 2015). On October 11, 2017, the EPA issued a formal proposal to repeal the Clean Power Plan and on June 19, 2019 the EPA replaced the Clean Power Plan with the Affordable Clean Energy rule that is anticipated to lower power sector GHG emissions by 11 million tons by the year 2030.

On April 30, 2020, the EPA and the National Highway Safety Administration published the Final Rule for the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). Part One of the Rule revokes California's authority to set its own GHG emissions standards and zero-emission vehicle mandates in California, which results in one emission standard to be used nationally for all passenger cars and light trucks that is set by the EPA.

6.3 State

The CARB has the primary responsible for implementing state policy to address global climate change, however there are State regulations related to global climate change that affect a variety of State agencies. CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both the federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2008, CARB approved a Climate Change Scoping Plan that proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The Climate Change Scoping Plan has a range of GHG reduction actions which include direct

regulations; alternative compliance mechanisms; monetary and non-monetary incentives; voluntary actions; market-based mechanisms such as a cap-and-trade system. In 2014, CARB approved the First Update to the Climate Change Scoping Plan (CARB, 2014) that identifies additional strategies moving beyond the 2020 targets to the year 2050. On December 14, 2017 CARB adopted the California's 2017 Climate Change Scoping Plan, November 2017 (CARB, 2017) that provides specific statewide policies and measures to achieve the 2030 GHG reduction target of 40 percent below 1990 levels by 2030 and the aspirational 2050 GHG reduction target of 80 percent below 1990 levels by 2050. In addition, the State has passed the following laws directing CARB to develop actions to reduce GHG emissions, which are listed below in chronological order, with the most current first.

Executive Order N-79-20

EO N-79-20 establish targets for when all new vehicles and equipment are zero-emission and is described in more detail above in Section 5.1 under Energy Conservation Management.

California Code of Regulations (CCR) Title 24, Part 6

The Title 24 Part 6 standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the Title 24 Part 6 building standards would also reduce GHG emissions, since as detailed above in Section 3.3 Greenhouse Gas Emissions Inventory, energy use for residential and commercial buildings creates 9.7 percent of the GHG emissions in the State.

California Code of Regulations (CCR) Title 24, Part 11

The CalGreen Building standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the CalGreen Building standards would also reduce GHG emissions, since as detailed above under Title 24, Part 6, energy usage from buildings creates 9.7 percent of GHG emissions in the State.

Senate Bill 100

SB 100 requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-48-18 and Assembly Bill 2127

Executive Order B-48-18 and AB 2127 provides measures to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025 and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-30-15, Senate Bill 32 and Assembly Bill 197

The California Governor issued Executive Order B-30-15 on April 29, 2015 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. This executive order aligns California's GHG reduction targets with those of other international governments, such as the European Union that set the same target for 2030 in October, 2014. This target will make it possible to reach the ultimate goal of reducing GHG emissions 80 percent under 1990 levels by 2050 that is based on scientifically established levels needed in the U.S.A to limit global warming below 2 degrees Celsius – the warming threshold at

which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels. Assembly Bill 197 (AB 197) (September 8, 2016) and Senate Bill 32 (SB 32) (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in Executive Order B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-29-15

The California Governor issued Executive Order B-29-15 on April 1, 2015 and directed the State Water Resources Control Board to impose restrictions to achieve a statewide 25% reduction in urban water usage and directed the Department of Water Resources to replace 50 million square feet of lawn with drought tolerant landscaping through an update to the State's Model Water Efficient Landscape Ordinance. The Ordinance also requires installation of more efficient irrigation systems, promotion of greywater usage and onsite stormwater capture, and limits the turf planted in new residential landscapes to 25 percent of the total area and restricts turf from being planted in median strips or in parkways unless the parkway is next to a parking strip and a flat surface is required to enter and exit vehicles. Executive Order B-29-15 would reduce GHG emissions associated with the energy used to transport and filter water.

Assembly Bill 341 and Senate Bills 939 and 1374

Senate Bill 939 (SB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills. Assembly Bill 341 (AB 341) was adopted in 2011 and builds upon the waste reduction measures of SB 939 and 1374, and set a new target of a 75 percent reduction in solid waste generated by the year 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 in order to support the State's climate action goals to reduce GHG emissions from transportation sources through coordinated regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires CARB to set regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each Metropolitan Planning Organizations (MPO) within the State. It was up to each MPO to adopt a sustainable communities strategy (SCS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP) to meet CARB's 2020 and 2035 GHG emission reduction targets. These reduction targets are required to be updated every eight years and the most current targets are detailed at: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets, which provides GHG emissions reduction targets for SCAG of 8 percent by 2020 and 19 percent by 2035.

The Connect SoCal (SCAG, 2020) provides a 2035 GHG emission reduction target of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal include new initiatives of land use, transportation and technology to meet the 19 percent GHG emission reduction target for 2035. CARB is also charged with reviewing SCAG's RTP/SCS for consistency with its assigned targets.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS. However, new provisions of CEQA incentivize, through streamlining and other

provisions, qualified projects that are consistent with an approved SCS and categorized as "transit priority projects."

Assembly Bill 1109

AB 1109 requires reductions in energy usage for lighting and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Executive Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

In 2009 CARB approved the proposed regulation to implement the LCFS. The standard was challenged in the courts, but has been in effect since 2011 and was re-approved by the CARB in 2015. The LCFS is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The LCFS is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet annually. Reformulated gasoline mixed with corn-derived ethanol and low-sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel. Compressed natural gas and liquefied natural gas also may be low-carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles, are also considered as low-carbon fuels.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the State CEQA guidelines that addresses GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporated GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate Action Plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the GHG emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project

complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.

- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of GHG emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports must specifically consider a project's energy use and energy efficiency potential.

Assembly Bill 32

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and utilize best management practices that are technologically feasible and cost effective.

In 2007 CARB released the calculated Year 1990 GHG emissions of 431 $MMTCO_2e$. The 2020 target of 431 $MMTCO_2e$ requires the reduction of 78 $MMTCO_2e$, or approximately 16 percent from the State's projected 2020 business as usual emissions of 509 $MMTCO_2e$ (CARB, 2014). Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO_2 in a calendar year to submit verification of GHG emissions by December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources, all of which became enforceable on or before January 1, 2010.

CARB's Scoping Plan that was adopted in 2009, proposes a variety of measures including: strengthening energy efficiency and building standards; targeted fees on water and energy use; a market-based cap-and-trade system; achieving a 33 percent renewable energy mix; and a fee regulation to fund the program. The 2014 update to the Scoping Plan identifies strategies moving beyond the 2020 targets to the year 2050.

The Cap-and-Trade Program established under the Scoping Plan sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, and has established a market for long-term investment in energy efficiency and cleaner fuels since 2012.

Executive Order S-3-05

In 2005 the California Governor issued Executive Order S 3-05, GHG Emission, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels;
- 2020: Reduce greenhouse gas emissions to 1990 levels;
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs. The State achieved its first goal of reducing GHG emissions to 2000 levels by 2010.

Assembly Bill 1493

AB 1493 or the Pavley Bill sets tailpipe GHG emissions limits for passenger vehicles in California as well as fuel economy standards and is described in more detail above in Section 5.1 under Energy Conservation Management.

6.4 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Air Basin. To that end, as a regional agency, the SCAQMD works directly with SCAG, county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. The SCAQMD is also responsible for GHG emissions for projects where it is the lead agency. However, for other projects in the Air Basin where it is not the lead agency, it is limited to providing resources to other lead agencies in order to assist them in determining GHG emission thresholds and GHG reduction measures. In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a Working Group, which is described below.

<u>SCAQMD Working Group</u>

Since neither CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that either provides a quantitative annual thresholds of 3,500 $MTCO_2e$ for residential uses, 1,400 $MTCO_2e$ for commercial uses, 3,000 $MTCO_2e$ for mixed uses, and 10,000 $MTCO_2e$ for industrial uses.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the Connect SoCal and 2019 FTIP addresses regional development and growth forecasts. Although the Connect SoCal and 2019 FTIP are primarily planning documents for future transportation projects a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The Connect SoCal, 2019 FTIP, and AQMP are based on projections originating within the City and County General Plans.

6.5 Local – City of Eastvale

Local jurisdictions, such as the City of Eastvale, have the authority and responsibility to reduce GHG emissions through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. In accordance with CEQA requirements and the CEQA review process, the City assesses the global climate change potential of new development projects, requires mitigation of potentially significant global climate change impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The General Plan provides the following GHG-related goals and policies that are applicable to the proposed project.

Goal AQ-2: Meet or exceed all current and future state-mandated targets for reducing emissions of greenhouse gases.

Policies

AQ-18: Support local, regional, and statewide efforts to reduce emissions of greenhouse gases linked to climate change.

AQ-19: Analyze and mitigate, to the extent feasible, potentially significant increases in greenhouse gas emissions during project review, pursuant to the California Environmental Quality Act.

AQ-20: Continue to support the planting and maintenance of trees in the community to increase carbon sequestration.

7.0 ATMOSPHERIC SETTING

7.1 South Coast Air Basin

The project site is located in the northwestern corner of Riverside County, which is part of the South Coast Air Basin (Air Basin) that includes the non-desert portions of Riverside, San Bernardino, and Los Angeles Counties and all of Orange County. The Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

7.2 Local Climate

The climate of western Riverside County, technically called an interior valley subclimate of the Southern California's Mediterranean-type climate, is characterized by hot dry summers, mild moist winters with infrequent rainfall, moderate afternoon breezes, and generally fair weather. Occasional periods of strong Santa Ana winds and winter storms interrupt the otherwise mild weather pattern. The clouds and fog that form along the area's coastline rarely extend as far inland as western Riverside County. When morning clouds and fog form, they typically burn off quickly after sunrise. The most important weather pattern from an air quality perspective is associated with the warm season airflow across the densely populated areas located west of the project site. This airflow brings polluted air into western Riverside County late in the afternoon. This transport pattern creates unhealthful air quality that may extend to the project site particularly during the summer months.

Winds are an important parameter in characterizing the air quality environment of a project site because they both determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in western Riverside County are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds allow for good local mixing, but as discussed above, these coastal winds carry significant amounts of industrial and automobile air pollutants from the densely urbanized western portion of the Air Basin into the interior valleys which become trapped by the mountains that border the eastern and northern edges of the Air Basin.

In the summer, strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloud.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution "hot spots" in heavily developed coastal areas of the Air Basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the Corona COOP Monitoring Station, which is the nearest weather station to the project site with historical data are shown below in Table E. Table E shows that July is typically the warmest month and January is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table E – Monthly Climate Data

Month	Average Maximum Temperature (°F)	Average Minimum Temperature (°F)	Average Total Precipitation (inches)
January	65.3	39.7	2.61
February	67.7	41.2	2.62
March	70.5	42.8	2.00
April	74.9	45.7	0.98
May	79.3	49.9	0.26
June	85.5	53.7	0.04
July	92.3	57.7	0.02
August	92.2	58.3	0.09
September	89.1	55.6	0.25
October	81.6	50.2	0.55
November	73.5	44.3	1.14
December	66.8	40.4	2.15
Annual	**78.2**	**48.3**	**12.71**

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2031

7.3 Monitored Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the Air Basin. Estimates of the existing emissions in the Air Basin provided in the 2012 AQMP, indicate that collectively, mobile sources account for 59 percent of the VOC, 88 percent of the NOx emissions and 40 percent of directly emitted PM2.5, with another 10 percent of PM2.5 from road dust. The 2016 AQMP found that since 2012 AQMP projections were made stationary source VOC emissions have decreased by approximately 12 percent, but mobile VOC emissions have increased by 5 percent. The percentage of NOx emissions remain unchanged between the 2012 and 2016 projections.

SCAQMD has divided the Air Basin into 38 air-monitoring areas. The project site is located in Air Monitoring Area 22, which is located in the northwestern portion of Riverside County and covers the Norco and Corona areas to the San Bernardino County and Orange County Lines. The nearest air monitoring station to the project site is the Mira Loma Van Buren Monitoring Station (Mira Loma Station), which is located approximately five miles northeast of the project site at 5130 Poinsettia Place, Jurupa Valley. However, it should be noted that due to the air monitoring station's distance from the project site, recorded air pollution levels at the Rubidoux Station reflect with varying degrees of accuracy, local air quality conditions at the project site. Table F shows that ozone and particulate matter (PM10 and PM2.5) are the air pollutants of primary concern in the project area, which are detailed below:

Table F – Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year[1] 2018	2019	2020
Ozone[1]:			
Maximum 1-Hour Concentration (ppm)	0.129	0.131	0.140
Days > CAAQS (0.09 ppm)	**21**	**26**	**51**
Maximum 8-Hour Concentration (ppm)	0.107	0.099	0.117
Days > NAAQS (0.070 ppm)	**57**	**64**	**89**
Days > CAAQs (0.070 ppm)	**57**	**65**	**96**
Nitrogen Dioxide[2]:			
Maximum 1-Hour Concentration (ppb)	54.5	56.0	58.1
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Inhalable Particulates (PM10) [1]:			
Maximum 24-Hour National Measurement (ug/m^3)	98.9	118.8	162.5
Days > NAAQS (150 ug/m^3)	0	0	**1**
Days > CAAQS (50 ug/m^3)	**22**	**14**	**16**
Annual Arithmetic Mean (AAM) (ug/m^3)	44.5	37.7	52.2
Annual > NAAQS (50 ug/m^3)	No	No	**Yes**
Annual > CAAQS (20 ug/m^3)	**Yes**	**Yes**	**Yes**
Ultra-Fine Particulates (PM2.5) [2]:			
Maximum 24-Hour National Measurement (ug/m^3)	86.0	54.7	60.9
Days > NAAQS (35 ug/m^3)	**6**	**10**	**12**
Annual Arithmetic Mean (AAM) (ug/m^3)	14.1	12.6	14.7
Annual > NAAQS and CAAQS (12 ug/m^3)	**Yes**	**Yes**	**Yes**

Notes: Exceedances are listed in **bold.** CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.
[1] Data obtained from the Mira Loma Station.
Source: http://www.arb.ca.gov/adam/

Ozone

The State 1-hour concentration standard for ozone has been exceeded between 21 and 26 days each year over the past three years at the Mira Loma Station. The State 8-hour ozone standard has been exceeded between 57 and 96 days each year over the past three years at the Mira Loma Station. The Federal 8-hour ozone standard has been exceeded between 57 and 89 days each year over the past three years at the Mira Loma Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of Southern California contribute to the

ozone levels experienced at this monitoring station, with the more significant areas being those directly upwind.

Nitrogen Dioxide

The Mira Loma Station did not record an exceedance of either the Federal or State 1-hour NO_2 standards for the last three years.

Particulate Matter

The State 24-hour concentration standard for PM10 has been exceeded between 14and 22 days each year over the past three years at the Mira Loma Station. Over the past three years the Federal 24-hour standard for PM10 has only been exceeded for one day in 2020 at the Mira Loma Station. The annual PM10 concentration at the Mira Loma Station has exceeded the State standard for the past three years and has exceeded the Federal standard for one of the past three years.

The Federal 24-hour concentration standard for PM2.5 has been exceeded between 6 and 12 days each year over the past three years at the Mira Loma Station. The annual PM2.5 concentration exceeded both the State and Federal standard for two of the past three years at the Loma Linda Station. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

7.4 Toxic Air Contaminant Levels in the Air Basin

In order to determine the Air Basin-wide risks associated with major airborne carcinogens, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES) studies. According to the MATES V study (SCAQMD, 2021), the project site has an estimated cancer risk of 406 per million persons chance of cancer in the vicinity of the project site. In comparison, the average cancer risk for the Air Basin is 455 per million persons. The MATES V study that monitored air toxins between May 1, 2018 to April 30, 2019 found that cancer risk from air toxics has declined significantly in the Air Basin with a 40 percent decrease in cancer risk since the monitoring for the MATES IV study that occurred between July 1, 2012 and June 30, 2013 and an 84 percent decrease in cancer risk since the monitoring for the MATES II study that occurred between April 1, 1998 and March 31, 1999.

The MATES V study also analyzed impacts specific to the communities experiencing environmental injustices (EJ communities) that were evaluated using the Senate Bill 535 definition of disadvantaged communities, which found that between MATES IV and MATES V, the cancer risk from air toxics decreased by 57 percent in EJ communities overall, compared to a 53 percent reduction in non-EJ communities.

In order to provide a perspective of risk, it is often estimated that the incidence in cancer over a lifetime for the U.S. population ranges between 1 in 3 to 4 and 1 in 3, or a risk of about 300,000 per million persons. The MATES-III study referenced a Harvard Report on Cancer Prevention, which estimated that of cancers associated with known risk factors, about 30 percent were related to tobacco, about 30 percent were

related to diet and obesity, and about 2 percent were associated with environmental pollution related exposures that includes hazardous air pollutants.

8.0 MODELING PARAMETERS AND ASSUMPTIONS

8.1 CalEEMod Model Input Parameters

The criteria air pollution and year 2030 GHG emissions impacts created by the proposed project have been analyzed through use of CalEEMod Version 2020.4.0. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for the South Coast Air Basin portion of Riverside County for employee, vendor and haul truck vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The project characteristics in the CalEEMod model were set to a project location of the South Coast Air Basin portion of Riverside County, a Climate Zone of 10, utility company of Southern California Edison and a project opening year of 2024. In addition, the EMFAC off-model adjustment factors for gasoline light duty vehicles was selected.

Land Use Parameters

The proposed project would consist of a residential development that would include 41 detached single-family homes (136,598 square feet of building space). The proposed project would include approximately 22,000 square feet of common open space that will include pathways throughout the development and a detention basin. Development of the proposed project will also include paving of the onsite roadway system, as well as road improvements to the portion of Orange Street that is adjacent to the project site that were also analyzed in the CalEEMod model. The proposed project's land use parameters that were entered into the CalEEMod model are shown in Table G.

Table G – CalEEMod Land Use Parameters

Proposed Land Use	Land Use Subtype in CalEEMod	Land Use Size[1]	Lot Acreage[2]	Building/Paving[3] (square feet)
Single-Family Homes	Single-Family Housing	41 DU	6.27	136,598
Common Open Space	City Park	0.51 AC	0.51	22,216
Onsite Roads and Improvements to Orange Street Road	Other Asphalt Surfaces	2.11 AC	2.11	91,912
Schleisman Road Dedication Area	Other Non-Asphalt Surfaces	1.11 AC	1.11	48,352

Notes:
[1] DU = Dwelling Unit; AC = Acres.
[2] Lot acreage calculated based on the total project site of 10 gross acres.
[3] Building/Paving square feet represent area where architectural coatings will be applied. Paved area based on CalEEMod default values.

Construction Parameters

Construction of the proposed project is anticipated to start around December 2022 and would be completed in 18 months, which is based on the CalEEMod default timing for a project of this size. The construction-related GHG emissions were based on a 30-year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The phases of construction activities that have been analyzed are detailed below and include: 1) Demolition, 2) Site Preparation; 3) Grading, 4) Building construction, 5) Paving; and 6) Application of architectural coatings.

The CalEEMod model provides the selection of "mitigation" to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this "mitigation" may represent regulatory requirements. This includes the required to adherence to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Demolition

The demolition phase would consist of demolishing the existing ranch house with barn and associated fencing and facilities for livestock/horses that total approximately 6,700 square feet of building space. In addition, the existing driveways and walkways on the project site would also be demolished, which covers approximately 8,000 square feet of the project site. The pavement was assumed to be an average of 4-inches thick and weigh 145 pounds per square foot, which results in 193 tons of pavement that would be removed from the project site. For the existing structures, CalEEMod utilizes a factor of 0.046 tons of debris of building material per building square foot. This results in 308 tons of debris that would be generated from demolition of the 6,700 square feet of existing building space. Therefore, the combined demolition of the structures and pavement area would require the removal of 502 tons of debris that would be exported from the site and would require a total of 50 haul truck trips (average 2.5 haul truck trips per day over duration of demolition phase).

The demolition phase has been modeled as starting in December 2022 and occurring over four weeks, which is based on the CalEEMod default timing. The demolition activities would generate 15 worker trips per day. In order to account for water truck emissions, six vendor truck emissions were added to the demolition phase. The onsite equipment would consist of one concrete/industrial saw, three excavators, and two rubber-tired dozers, which is based on the CalEEMod default equipment mix. The mitigation of "water all exposed areas three times per day" and "replace ground cover of area disturbed" were chosen in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Site Preparation

The site preparation phase would consist of removing any vegetation, tree stumps, and stones onsite prior to grading. The site preparation phase would occur after completion of the demolition phase and was modeled as occurring over two weeks, which is based on the CalEEMod default timing. The site preparation activities would require 18 worker trips per day. In order to account for water truck emissions, six vendor truck emissions were added to the site preparation phase. The onsite equipment would consist of three rubber-tired dozers, and four crawler tractors, which replaced the CalEEMod default value of four of either tractors, loaders, or backhoes, in order to provide a more conservative analysis. The mitigation of "water all exposed areas three times per day" and "replace ground cover of area disturbed" were chosen in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Grading

The grading phase would occur after completion of the site preparation phase and was modeled as occurring over six weeks, which is based on the CalEEMod default timing. The preliminary earthwork quantities for the proposed project show that 4,200 cubic yards of dirt will need to be imported to the project site. It is likely that the final earthwork quantities, will result in a balanced site with no dirt being

imported to the project site, however the import of 5,000 cubic yards of dirt to the project site was analyzed in CalEEMod, in order to provide a worst-case analysis. The import of 5,000 cubic yards of dirt would require a total of 625 haul truck trips (average 20.8 haul truck trips per day over duration of grading phase).

The onsite equipment would consist of two excavators, one grader, one rubber-tired dozer, two scrapers, and two crawler tractors, which replaced the CalEEMod default value of two of either tractors, loaders, or backhoes, in order to provide a more conservative analysis. The grading phase would generate 20 worker trips per day. In order to account for water truck emissions, six vendor truck emissions were added to the grading phase. The mitigation of "water all exposed areas three times per day" and "replace ground cover of area disturbed" were chosen in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Building Construction

The building construction would occur after the completion of the grading phase and was modeled as occurring over 14 months, which is based on the CalEEMod default timing. The building construction phase would generate 83 worker trips and 31 vendor trips per day. The onsite equipment would consist of the simultaneous operation of one crane, three forklifts, one generator, one welder, and three of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix.

Paving

The paving phase would consist of paving the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site. The paving phase would occur after the completion of the building construction phase and was modeled as occurring over four weeks, which is based on the CalEEMod default timing. The paving phase would generate 15 worker trips per day. The onsite equipment would consist of the simultaneous operation of two pavers, two paving equipment, and two rollers, which is based on the CalEEMod default equipment mix.

Architectural Coating

The application of architectural coatings would occur after the completion of the paving phase and was modeled as occurring over four weeks, which is based on the CalEEMod default timing. The architectural coating phase was modeled based on covering 276,611 square feet of residential interior area, 92,204 square feet of residential exterior area, and 8,416 square feet of roadway area. The architectural coating phase would generate 17 worker trips per day. The onsite equipment would consist of one air compressor, which is based on the CalEEMod default equipment mix.

Operational Emissions Modeling

The operations-related criteria air pollutant emissions and GHG emissions created by the proposed project have been analyzed through use of the CalEEMod model. The proposed project was analyzed in the CalEEMod model based on the land use parameters provided above and the parameters entered for each operational emission source is described below.

Mobile Sources

Mobile sources include emissions the additional vehicle miles generated from the proposed project. The weekday daily vehicle trip rates associated with the proposed project have been set to match the 388

project generated daily trips from the *Project Scoping Agreement for Land Use Project – PLN22-20024* (Traffic Scoping Agreement), prepared by Urban Crossroads, June 27, 2022. Since the Traffic Analysis did not provide Saturday or Sunday daily trip rates for the proposed project, the default CalEEMod daily trip generation rates of: 9.54 per single-family home on Saturdays; and 8.55 per single-family home on Sundays were utilized. Since the proposed open space area would be primarily utilized by the residents of the project and would not encourage people to drive to this open space area, the trip generation rate for the open space area was set to zero.

The CalEEMod model provides the selection of "mitigation" to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this "mitigation" may represent current conditions, such as development that is in close proximity to existing sidewalks, where a project built at such location would create less vehicle trips and associated emissions than a project that was not built in close proximity to existing sidewalks. The mobile source emissions analysis for the project included the CalEEMod "mitigation" of "improved pedestrian network on project site and connecting offsite".

Area Sources

Area sources include emissions from consumer products, landscape equipment, hearths and architectural coatings. The area source emissions were based on the on-going use of the proposed project in the CalEEMod model. According to the proposed project plans, no fireplaces or woodstoves would be installed into the proposed homes. As such, the number of woodstoves and fireplaces was set to zero in CalEEMod. No other changes were made to the default area source parameters in the CalEEMod model.

Energy Usage

Energy usage includes emissions from electricity and natural gas used onsite. The energy usage was based on the ongoing use of the proposed 41 single-family homes in the CalEEMod Model. No changes were made to the default energy usage parameters in the CalEEMod model.

The 2019 Title 24, Part 6 building energy efficiency standards went into effect January 1, 2020 and have been developed so that the average new home built in California will have zero-net-energy use. The 2019 Title 24 Part 6 standards also now require all new homes to install rooftop photovoltaic systems based on Section 150.1-C from: https://www.energy.ca.gov/2018publications/CEC-400-2018-020/CEC-400-2018-020-CMF.pdf

It should be noted that the Title 24 Report for the proposed project has not yet been prepared so the exact number of solar panels to be installed on the project site has not yet been calculated. However, Exception 3 to Section 150.1-c states that all two story homes shall provide a minimum of 1.0 Watt DC of solar panels per square foot of conditioned floor area. According to the Architectural Plans, the proposed project would have 112,384 square feet of conditioned floor area, which would result in the installation of 112.4 kilowatts of photovoltaic solar panels. Since the CalEEMod model requires that the total kilowatt-hours per year generated by the solar panels be entered into the model, the 112.4 kilowatts of solar panels was multiplied by 8 hours, to provide a conservative average hours per day of sunlight that the solar panels will generate electricity and then divided by 1.2 to account for the loss associated with converting the direct current (DC) power from the solar panels to the alternating current (AC) power on the electrical grid and then multiplying by 365 days, which resulted in the proposed solar panels generating 273,468 kilowatt-hours per year that was entered into the CalEEMod model

Solid Waste

Waste includes the GHG emissions associated with the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. The analysis was based on the default CalEEMod waste generation rate of 48 tons of solid waste per year from the proposed project. No changes were made to the default solid waste parameters or mitigation measures in the CalEEMod model.

The CalEEMod mitigation of a 50 percent reduction in landfill waste was selected to account for implementation of AB 341 that provides strategies to reduce, recycle or compost solid waste by 75 percent by 2020. Only 50 percent was selected, since AB 341 builds upon the waste reduction measures of SB 939 and 1374 and therefore, it was assumed approximately 25 percent of the waste reduction target has already been accounted for in the CalEEMod model.

Water and Wastewater

Water includes the water used for the interior of the buildings as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. The analysis was based on the default CalEEMod water usage rate of 2,671,320 gallons per year of indoor water use and 2,291,745 gallons per year of outdoor water use. No changes were made to the default water and wastewater parameters in the CalEEMod model.

The CalEEMod "mitigation" of the use of low flow faucets, showers and toilets and use of smart irrigation system controllers were selected to account for the implementation of the 2019 CCR Title 24 Part 11 (CalGreen) requirements, which lowered the calculated water use for the proposed project to 2,137,050 gallons per year of indoor water use and 2,151,949 gallons per year of outdoor water use.

8.2 Energy Use Calculations

The proposed project is anticipated to consume energy during both construction and operation of the proposed project and the parameters utilized to calculate energy use from construction and operation of the proposed project are detailed separately below.

Construction-Related Energy Use

Construction of the proposed project is anticipated to use energy in the forms of petroleum fuel for both off-road equipment as well as from the transport of workers and materials to and from the project site and the calculations for each source are described below.

Off-Road Construction Equipment

The off-road construction equipment fuel usage was calculated through use of the CalEEMod model's default off-road equipment assumptions detailed above in Section 8.1. For each piece of off-road equipment, the fuel usage was calculated through use of the *2017 Off-road Diesel Emission Factors* spreadsheet, prepared by CARB (https://ww3.arb.ca.gov/msei/ordiesel.htm). The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by CalEEMod default number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

Table H shows the off-road construction equipment fuel calculations based on the above formula. Table H shows that the off-road equipment utilized during construction of the proposed project would consume 58,190 gallons of diesel fuel.

Table H – Off-Road Equipment and Fuel Consumption from Construction of the Proposed Project

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours[1]	Fuel Used (gallons)
Demolition						
Concrete/Industrial Saws	1	81	0.73	8	160	543
Excavators	3	158	0.38	8	480	1,488
Rubber Tired Dozers	2	247	0.40	8	320	1,632
Site Preparation						
Rubber Tired Dozers	3	247	0.40	8	240	1,224
Crawler Tractors	4	212	0.43	8	320	1,506
Grading						
Excavators	2	158	0.38	8	480	1,488
Grader	1	187	0.41	8	240	950
Rubber Tired Dozer	1	247	0.40	8	240	1,224
Scrapers	2	367	0.48	8	480	4,356
Crawler Tractors	2	212	0.43	8	480	2,259
Building Construction						
Crane	1	231	0.29	7	2,100	7,263
Forklifts	3	89	0.20	8	7,200	7,355
Generator Set	1	84	0.74	8	2,400	8,562
Tractors/Loaders/Backhoes	3	97	0.37	7	6,300	12,977
Welder	1	46	0.45	8	2,400	2,851
Paving						
Pavers	2	130	0.42	8	320	902
Paving Equipment	2	132	0.36	8	320	785
Rollers	2	80	0.38	8	320	558
Architectural Coating						
Air Compressor	1	78	0.48	6	120	258
Total Off-Road Equipment Diesel Fuel Used during Construction (gallons)						**58,190**

Notes:
[1] Based on: 20 days for demolition, 10 days for Site Preparation, 30 days for Grading; 300 days for Building Construction; 20 days for Paving; and 20 days for Architectural Coating.
Source: CalEEMod Version 2020.4.0 (see Appendix A); CARB, 2017.

On-Road Construction-Related Vehicle Trips

The on-road construction-related vehicle trips fuel usage was calculated through use of the construction vehicle trip assumptions from the CalEEMod model run as detailed above in Section 8.1. The calculated total construction miles were then divided by the fleet average for the South Coast Air Basin miles per gallon rates for the year 2022 calculated through use of the EMFAC2017 model (https://www.arb.ca.gov/emfac/2017/) and the EMFAC2017 model printouts are shown in Appendix B. The worker trips were based on the entire fleet average miles per gallon rate for gasoline powered vehicles and the vendor trips were based on the Heavy-Heavy Duty Truck (HHDT), Medium Duty Vehicle (MDV), and Medium Heavy-Duty Vehicle (MHDV) fleet average miles per gallon rate for diesel-powered vehicles. Table I shows the on-road construction vehicle trips modeled in CalEEMod and the fuel usage calculations.

Table I – On-Road Vehicle Trips and Fuel Consumption from Construction of the Proposed Project

Vehicle Trip Types / Fuel Type	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles per Phase[1]	Fleet Average Miles per Gallon[2]	Fuel Used (gallons)
Demolition						
Worker (Gasoline)	15	14.7	221	4,410	26.0	170
Haul Truck (Diesel)	2.5	20.0	50	1,000	8.2	122
Vendor Truck (Diesel)	6	6.9	41	828	8.2	101
Site Preparation						
Worker (Gasoline)	18	14.7	265	2,646	26.0	102
Vendor Truck (Diesel)	6	6.9	41	414	8.2	50
Grading						
Worker (Gasoline)	20	14.7	294	8,820	26.0	339
Haul Truck (Diesel)	20.8	20.0	417	12,500	8.2	1,520
Vendor Truck (Diesel)	6	6.9	41	1,242	8.2	151
Building Construction						
Worker (Gasoline)	83	14.7	1,220	366,030	26.0	14,084
Vendor Truck (Diesel)	31	6.9	214	64,170	8.2	7,802
Paving						
Worker (Gasoline)	15	14.7	221	4,410	26.0	170
Architectural Coating						
Worker (Gasoline)	17	14.7	250	4,998	26.0	192
	Total Gasoline Fuel Used from On-Road Construction Vehicles (gallons)					**15,057**
	Total Diesel Fuel Used from On-Road Construction Vehicles (gallons)					**9,745**

Notes:
[1] Based on: 20 days for demolition, 10 days for Site Preparation, 30 days for Grading; 300 days for Building Construction; 20 days for Paving; and 20 days for Architectural Coating.
[2] From EMFAC 2017 model (see Appendix B). Worker Trips based on entire fleet of gasoline vehicles and Vendor Trips based on only truck fleet of diesel vehicles.
Source: CalEEMod Version 2020.4.0; CARB, 2018.

Table I shows that the on-road construction-related vehicle trips would consume 15,057 gallons of gasoline and 9,745 gallons of diesel fuel. As detailed above in Table H shows that the off-road construction equipment would consume 58,190 gallons of diesel fuel. This would result in the total consumption of 15,057 gallons of gasoline and 67,935 gallons of diesel fuel from construction of the proposed project.

Operations-Related Energy Use

The operation of the proposed project is anticipated to use energy in the forms of petroleum fuel, electricity, and natural gas, and the calculations for each source are described below.

Operational Petroleum Fuel

The on-road operations-related vehicle trips fuel usage was calculated through use of the total annual vehicle miles traveled assumptions from the CalEEMod model run as detailed above in Section 8.1, which found that operation of the proposed project would generate 1,282,589 vehicle miles traveled per year. The calculated total operational miles were then divided by the South Coast Air Basin average rates of 27.5 miles per gallon, which was calculated through use of the EMFAC2017 model and based on year 2024. The EMFAC2017 model printouts are shown in Appendix B. Based on the above calculation methodology, the operation of the proposed project would consume 46,681 gallons of gasoline per year.

Operational Electricity Use

The operations-related electricity usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that found the proposed project will use 53,083 kilowatt hours (kWh) per year with implementation of Title 24 Part 6 requirements that require the implementation of building energy efficiency standards that include the installation of photovoltaic systems on the rooftops of the proposed homes.

Operational Natural Gas Use

The operations-related natural gas usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that found the proposed project will use 1,160,000 kilo British Thermal Units (kBTU) per year, which is equivalent to 1,160 mega-British Thermal units (MBTU) per year of natural gas.

9.0 THRESHOLDS OF SIGNIFICANCE

9.1 Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the Air Basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table J.

Table J – SCAQMD Regional Criteria Pollutant Emission Thresholds of Significance

	Pollutant Emissions (pounds/day)						
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**Lead**
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

9.2 Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO_2, CO, PM10, and PM2.5.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. As detailed above in Section 7.3, the project site is located in Monitoring Area 22, which covers the Norco and Corona areas to the San Bernardino County and Orange County Lines.

The Look-Up Tables include site acreage sizes of 1-acre, 2-acres and 5-acres. The *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, prepared by SCAQMD, 2015, provides guidance on how to determine the appropriate site acreage size to utilize for a project. The Fact Sheet details the site acreage should be based on the maximum number of acres disturbed on the peak day of construction that is calculated on the construction equipment list utilized in the CalEEMod model, where crawler tractors, graders, and rubber-tired dozers are all assumed to disturb 0.5-acre in an 8-hour day and scrapers are assumed to disturb 1.0-acre in an 8-hour day. It should be noted that the methodology in the Fact Sheet was developed from the CalEEMod User Guide Appendix A, page 9, where the same acres disturbed per

equipment type is detailed and is utilized in the CalEEMod model in order to determine the acres per day disturbed during site preparation and grading phases.

Table K lists all of the construction equipment modeled in CalEEMod and utilizes the methodology in the Fact Sheet to calculate the acres disturbed per day. As shown in Table K, the maximum disturbed per day would occur during the grading phase when 4.0-acres would be disturbed. As such, the 2-acre and 5-acre project sites shown in the Look-Up Tables were interpolated in order to calculate the 4.0-acre threshold that has been utilized in this analysis.

Table K – Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day

Construction Activity	Equipment Type	Equipment Quantity	Acres Disturbed per piece of Equipment per Day[1]	Operating Hours per Day	Acres Disturbed per Day
Demolition	Concrete/Industrial Saws	1	0	8	0
	Excavators	3	0	8	0
	Rubber Tired Dozers	2	0.5	8	1.0
		Total Acres Disturbed per Day During Demolition			1.0
Site Preparation	Rubber Tired Dozers	3	0.5	8	1.5
	Crawler Tractors	4	0.5	8	2.0
		Total Acres Disturbed per Day During Site Preparation			3.5
Grading	Graders	1	0.5	8	0.5
	Excavators	2	0	8	0
	Rubber Tired Dozers	1	0.5	8	0.5
	Scrapers	2	1.0	8	2.0
	Crawler Tractors	2	0.5	8	1.0
		Total Acres Disturbed per Day During Grading			4.0
Building Construction	Cranes	1	0	7	0
	Forklifts	3	0	8	0
	Generator Sets	1	0	8	0
	Tractors/Loaders/Backhoes	3	0	7	0
	Welders	1	0	8	0
		Total Acres Disturbed per Day During Building Construction			0
Paving	Pavers	2	0	8	0
	Paving Equipment	2	0	8	0
	Rollers	2	0	8	0
		Total Acres Disturbed per Day During Paving			0
Architectural Coating	Air Compressor	1	0	6	0
		Total Acres Disturbed per Day During Architectural Coating			0
		Maximum Acres Disturbed during All Construction Activities			**4.0**

Notes:
[1] Based on the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds where crawler tractors, graders, and rubber-tired dozers disturb 0.5-acre in an 8-hour day and scrapers disturb 1.0-acre in an 8-hour day. All other equipment disturbs 0 acres per 8-hour day.
Source: CalEEMod Version 2020.4.0; SCAQMD, 2015.

The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet (8 meters) west of the project site. According to LST Methodology, any receptor located closer

than 25 meters (82 feet) shall be based on the 25-meter thresholds. Table L below shows the LSTs for NO_2, PM10 and PM2.5 for both construction and operational activities.

Table L – SCAQMD Local Air Quality Thresholds of Significance

Activity	Allowable Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Construction	237	1,469	10	7
Operation	237	1,469	3	2

Notes:
[1] The nearest sensitive receptors to the project site are single-family homes located as near as 25 feet (8 meters) west of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 22, Norco/Corona.

9.3 Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to toxic air contaminants (TACs), the *Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, (Diesel Analysis) prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create TACs through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the TAC and the toxicity of the HAP should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

9.4 Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

> "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
>
> The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

9.5 Energy Conservation

The *2020 CEQA California Environmental Quality Act Statutes & Guidelines* (2020 CEQA Guideline) now include an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Appendix F of the 2020 CEQA Statute and Guidelines, states the following:

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:
>
> (1) Decreasing overall per capita energy consumption,
>
> (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
>
> (3) Increasing reliance on renewable energy sources.

Since the Energy Section was recently added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, Appendix F, Subsection II.C of the 2018 CEQA Guidelines provides the following criteria for determining significance.

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
2. The effects of the project on local and regional energy supplies and on requirement for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

If the proposed project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

9.6 Greenhouse Gas Emissions

The proposed project is located within the jurisdiction of the SCAQMD. In order to identify significance criteria under CEQA for development projects, SCAQMD initiated a Working Group, which provided detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 $MTCO_2e$ for all land use projects. Although the SCAQMD provided substantial evidence supporting the use of the above threshold, as of November 2017, the SCAQMD Board has not yet considered or approved the Working Group's thresholds.

It should be noted that SCAQMD's Working Group's thresholds were prepared prior to the issuance of Executive Order B-30-15 on April 29, 2015 that provided a reduction goal of 40 percent below 1990 levels by 2030. This target was codified into statute through passage of AB 197 and SB 32 in September 2016. However, to date no air district or local agency within California has provided guidance on how to address

AB 197 and SB 32 with relation to land use projects. In addition, the California Supreme Court's ruling on *Cleveland National Forest Foundation v. San Diego Association of Governments* (Cleveland v. SANDAG), Filed July 13, 2017 stated:

> SANDAG did not abuse its discretion in declining to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal. In its response to comments, the EIR said: "It is uncertain what role regional land use and transportation strategies can or should play in achieving the EO's 2050 emissions reduction target. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major 'decarbonization' of electricity supplies and fuels, and major improvements in energy efficiency [citation].

Although, the above court case was referencing California's GHG emission targets for the year 2050, at this time it is also unclear what role land use strategies can or should play in achieving the AB 197 and SB 32 reduction goal of 40 percent below 1990 levels by 2030. As such this analysis has relied on the SCAQMD Working Group's recommended thresholds. Therefore, the proposed project would be considered to create a significant cumulative GHG impact if the proposed project would exceed the annual threshold of 3,000 $MTCO_2e$.

The GHG emissions analysis for both construction and operation of the proposed project can be found below in Sections 10.8 and 10.9.

10.0 IMPACT ANALYSIS

10.1 CEQA Thresholds of Significance

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality, energy, and GHG emissions would occur if the proposed project is determined to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

10.2 Air Quality Compliance

The proposed project would not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMP). The following section discusses the proposed project's consistency with the SCAQMD AQMP.

SCAQMD Air Quality Management Plan

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD AQMP. Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional thresholds of significance discussed above in Section 9.1 or local thresholds of significance discussed above in Section 9.2. The ongoing operation of the proposed project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance discussed above in Section 9.1. The analysis for long-term local air quality impacts showed that local pollutant concentrations would not exceed the air quality standards. Therefore, a less than significant long-term impact would occur and no mitigation would be required.

Therefore, based on the information provided above, the proposed project would be consistent with the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The AQMP is developed through use of the planning forecasts provided in the Connect SoCal and 2019 FTIP. The Connect SoCal is a major planning document for the regional transportation and land use network within Southern California. The Connect SoCal is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The 2019 FTIP provides long-range planning for future transportation improvement projects that are constructed with state and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this project, the City of Eastvale General Plan's Land Use Plan Land Use Plan defines the assumptions that are represented in AQMP.

The project site is currently designated as Medium Density Residential in the General Plan Land Use Plan. The proposed residential project is an allowed use under the Medium Density Residential designation. Therefore, the proposed project would not result in an inconsistency with the current land use designations with respect to the regional forecasts utilized by the AQMPs. As such, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

Level of Significance

Less than significant impact.

10.3 Cumulative Net Increase in Non-Attainment Pollution

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf). In this report the AQMD clearly states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility- wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project- specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. The following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the SCAQMD standards.

Construction Emissions

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings. The construction emissions have been analyzed for both regional and local air quality impacts.

Construction-Related Regional Impacts

The CalEEMod model has been utilized to calculate the construction-related regional emissions from the proposed project and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter daily construction-related criteria pollutant emissions from the proposed project for each phase of construction activities are shown below in Table M and the CalEEMod daily

printouts are shown in Appendix A. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table M also shows the combined regional criteria pollutant emissions from building construction (year 2023), paving and architectural coating phases of construction.

Table M – Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Demolition (Year 2022)[1]						
Onsite[2]	2.64	25.72	20.59	0.04	1.43	1.18
Offsite[3]	0.08	0.64	0.76	<0.01	0.26	0.08
Total	**2.72**	**26.36**	**21.35**	**0.04**	**1.69**	**1.26**
Site Preparation (Year 2023)[1]						
Onsite[2]	3.83	41.88	18.29	0.06	9.23	5.16
Offsite[3]	0.07	0.25	0.74	<0.01	0.24	0.07
Total	**3.90**	**42.13**	**19.03**	**0.06**	**9.47**	**5.23**
Grading (Year 2023)[1]						
Onsite[2]	3.91	41.69	28.08	0.07	5.20	2.83
Offsite[3]	0.13	2.46	1.39	0.01	0.65	0.20
Total	**4.03**	**44.15**	**29.46**	**0.09**	**5.85**	**3.03**
Building Construction (Year 2023)						
Onsite	1.57	14.38	16.24	0.03	0.70	0.66
Offsite	0.34	1.27	3.46	0.01	1.14	0.32
Total	**1.91**	**15.65**	**19.71**	**0.04**	**1.84**	**0.97**
Combined Year 2024 Building Construction, Paving, and Architectural Coatings						
Onsite	47.60	24.19	32.60	0.05	1.14	1.07
Offsite	0.43	1.31	4.36	0.02	1.50	0.41
Total	**48.03**	**25.50**	**36.96**	**0.07**	**2.64**	**1.48**
Maximum Daily Construction Emissions	**48.03**	**44.15**	**36.96**	**0.09**	**9.47**	**5.23**
SCQAMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Demolition, Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] Onsite emissions from equipment not operated on public roads.
[3] Offsite emissions from vehicles operating on public roads.
Source: CalEEMod Version 2020.4.0.

Table M shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds during either demolition, site preparation, grading, or the combined building construction, paving and architectural coatings phases. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from construction were analyzed through utilizing the methodology described in *Localized Significance Threshold Methodology* (LST Methodology), prepared by SCAQMD, revised October 2009. The LST Methodology found the primary criteria pollutant emissions of concern are NOx, CO, PM10, and PM2.5. In order to determine if any of these pollutants require a detailed analysis of the local air quality impacts, each phase of construction was screened using the SCAQMD's Mass Rate LST Look-up Tables. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily onsite emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality.

Table N shows the onsite emissions from the CalEEMod model for the different construction phases and the calculated localized emissions thresholds that have been detailed above in Section 9.2. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table N also shows the combined local criteria pollutant emissions from year 2024 building construction, paving and architectural coating phases of construction.

Table N – Construction-Related Local Criteria Pollutant Emissions

Construction Phase	Pollutant Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Demolition[2]	25.80	20.69	1.46	1.19
Site Preparation[2]	41.91	18.39	9.26	5.17
Grading[2]	42.00	28.25	5.28	2.86
Building Construction (Year 2023)	14.54	16.68	0.84	0.70
Combined Building Construction (Year 2024), Paving and Architectural Coatings	24.35	33.15	1.33	1.12
Maximum Daily Construction Emissions	**42.00**	**33.15**	**9.26**	**5.17**
SCAQMD Local Construction Thresholds[3]	**237**	**1,469**	**10**	**7**
Exceeds Threshold?	No	No	No	No

Notes:
[1] The Pollutant Emissions include 100% of the On-Site emissions (off-road equipment and fugitive dust) and 1/8 of the Off-Site emissions (on road trucks and worker vehicles), in order to account for the on-road emissions that occur within a ¼ mile of the project site.
[2] Demolition, Site Preparation and Grading phases based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[3] The nearest offsite sensitive receptors to the project site are single-family homes located as near as 25 feet (8 meters) west of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 22, Norco/Corona.

The data provided in Table N shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds during either demolition, site preparation, grading, or the combined building construction, paving, and architectural coatings phases. Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Operational Emissions

The on-going operation of the proposed project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips, emissions from energy usage, onsite area source emissions, and off-road equipment created from the on-going use of the proposed project. The following section provides an analysis of potential long-term air quality impacts due to regional air quality and local air quality impacts with the on-going operations of the proposed project.

Operations-Related Regional Criteria Pollutant Analysis

The operations-related regional criteria air quality impacts created by the proposed project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter VOC, NOx, CO, SO_2, PM10, and PM2.5 daily emissions created from the proposed project's long-term operations have been calculated and are summarized below in Table O and the CalEEMod daily emissions printouts are shown in Appendix A.

Table O – Operational Regional Criteria Pollutant Emissions

	Pollutant Emissions (pounds/day)					
Activity	**VOC**	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area Sources[1]	3.10	0.04	3.38	<0.01	0.02	0.02
Energy Usage[2]	0.03	0.29	0.12	<0.01	0.02	0.02
Mobile Sources[3]	1.21	1.66	11.78	0.03	2.79	0.76
Total Emissions	**4.35**	**1.99**	**15.28**	**0.03**	**2.83**	**0.80**
SCQAMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, architectural coatings, hearths (no hearths included in project) and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.
Source: Calculated from CalEEMod Version 2020.4.0.

The data provided in Table O shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

Friant Ranch Case

The operations-related regional criteria air quality impacts In *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (also referred to as "*Friant Ranch*"), the California Supreme Court held that when an EIR concluded that when a project would have significant impacts to air quality impacts, an EIR should "make a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." In order to determine compliance with this Case, the Court developed a multi-part test that includes the following:

1) The air quality discussion shall describe the specific health risks created from each criteria pollutant, including diesel particulate matter.

This Analysis details the specific health risks created from each criteria pollutant above in Section 4.1 and specifically in Table B. In addition, the specific health risks created from diesel particulate matter is detailed above in Section 2.2 of this analysis. As such, this analysis meets the part 1 requirements of the Friant Ranch Case.

2) The analysis shall identify the magnitude of the health risks created from the Project. The Ruling details how to identify the magnitude of the health risks. Specifically, on page 24 of the ruling it states "The Court of Appeal identified several ways in which the EIR could have framed the analysis so as to adequately inform the public and decision makers of possible adverse health

effects. The County could have, for example, identified the Project's impact on the days of nonattainment per year."

The Friant Ranch Case found that an EIR's air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided. As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf) (Brief), SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes. The SCAQMD discusses that it may be infeasible to quantify health risks caused by projects similar to the proposed Project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). The Brief states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s)). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk, it does not necessarily mean anyone will contract cancer as a result of the Project. The Brief also cites the author of the CARB methodology, which reported that a PM2.5 methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NOX or VOC emissions from relatively small projects, due to photochemistry and regional model limitations. The Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

On the other hand, for extremely large regional projects (unlike the proposed project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 pounds per day of NOx and 89,180 pounds per day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone. As shown above in Table M, project-related construction activities would generate a maximum of 48.03 pounds per day of VOC and 44.15 pounds per day of NOx and as shown above in Table O, operation of the proposed project would generate 4.35 pounds per day of VOC and 1.99 pounds per day NOx. The proposed project would not generate anywhere near these levels of 6,620 pounds per day of NOx or 89,190 pounds per day of VOC emissions. Therefore, the proposed project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

Notwithstanding, this analysis does evaluate the proposed project's localized impact to air quality for emissions of CO, NOX, PM10, and PM2.5 by comparing the proposed project's onsite emissions to the SCAQMD's applicable LST thresholds. As evaluated in this analysis, the proposed project would not result in emissions that exceeded the SCAQMD's LSTs. Therefore, the proposed project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NOX, PM10, and PM2.5.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a

regional impact to the Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analyzes the vehicular CO emissions and local impacts from on-site operations.

Local CO Hotspot Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards of 20 ppm over one hour or 9 ppm over eight hours.

At the time of the 1993 Handbook, the Air Basin was designated nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Air Basin and in the state have steadily declined. In 2007, the Air Basin was designated in attainment for CO under both the CAAQS and NAAQS. SCAQMD conducted a CO hot spot analysis for attainment at the busiest intersections in Los Angeles during the peak morning and afternoon periods and did not predict a violation of CO standards[3]. Since the nearby intersections to the proposed project are much smaller with less traffic than what was analyzed by the SCAQMD, no local CO Hotspot are anticipated to be created from the proposed project and no CO Hotspot modeling was performed. Therefore, a less than significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Local Criteria Pollutant Impacts from Onsite Operations

Project-related air emissions from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances may have the potential to create emissions areas that exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from onsite operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the methodology described in LST Methodology. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Table P shows the onsite emissions from the CalEEMod model that includes area sources, energy usage, onsite off-road equipment, and vehicles operating in the immediate vicinity of the project site and the calculated emissions thresholds.

[3] The four intersections analyzed by the SCAQMD were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning and LOS F in the evening peak hour.

Table P – Operations-Related Local Criteria Pollutant Emissions

Onsite Emission Source	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Area Sources	0.04	3.38	0.02	0.02
Energy Usage	0.29	0.12	0.02	0.02
Mobile Sources[1]	0.21	1.47	0.35	0.09
Total Emissions	**0.54**	**4.98**	**0.39**	**0.14**
SCAQMD Local Operational Thresholds[2]	**237**	**1,469**	**3**	**2**
Exceeds Threshold?	No	No	No	No

Notes:
[3] Mobile sources based on 1/8 of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the project site.
[2] The nearest sensitive receptors to the project site are single-family homes located as near as 25 feet (8 meters) west of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for two and five acres in Air Monitoring Area 22, Norco/Corona.

The data provided in Table P shows that the on-going operations of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to onsite emissions and no mitigation would be required.

Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

Level of Significance

Less than significant impact.

10.4 Sensitive Receptors

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the proposed project, which may expose sensitive receptors to substantial concentrations have been calculated above in Section 10.3 for both construction and operations, which are discussed separately below. The discussion below also includes an analysis of the potential impacts from local criteria pollutant and toxic air contaminant emissions. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Construction-Related Sensitive Receptor Impacts

Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the proposed project have been analyzed above in Section 10.3 and found that the construction of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, construction of the

proposed project would create a less than significant construction-related impact to local air quality and no mitigation would be required.

Toxic Air Contaminants Impacts from Construction

Construction activities associated with the proposed project are anticipated to generate TAC emissions from DPM associated with the operation of trucks and off-road equipment and from possible asbestos in the structures to be demolished.

Diesel Particulate Matter Emissions

The greatest potential for toxic air contaminant emissions would be related to DPM emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30 year exposure period for the nearby sensitive receptors (OEHHA, 2015).

Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet's usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0 or Tier 1 equipment and by January 2023 no commercial operator is allowed to purchase Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. As of January, 2019, 25 percent or more of all contractors' equipment fleets must be Tier 2 or higher. Therefore, no significant short-term toxic air contaminant impacts from DPM emissions would occur during construction of the proposed project.

Asbestos Emissions

It is possible that the existing onsite structures to be demolished contains asbestos. According to SCAQMD Rule 1403 requirements, prior to the start of demolition activities, the existing structures located onsite shall be thoroughly surveyed for the presence of asbestos by a person that is certified by Cal/OSHA for asbestos surveys. Rule 1403 requires that the SCAQMD be notified a minimum of 10 days before any demolition activities begin with specific details of all asbestos to be removed, start and completion dates of demolition, work practices and engineering controls to be used to contain the asbestos emissions, estimates on the amount of asbestos to be removed, the name of the waste disposal site where the asbestos will be taken, and names and addresses of all contractors and transporters that will be involved in the asbestos removal process. Therefore, through adherence to the asbestos removal requirements, detailed in SCAQMD Rule 1403, a less than significant asbestos impact would occur during construction of the proposed project

As such, construction of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Operations-Related Sensitive Receptor Impacts

The on-going operations of the proposed project may expose sensitive receptors to substantial pollutant concentrations of local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from onsite operations. The following analyzes the vehicular CO emissions. Local criteria pollutant impacts from onsite operations, and toxic air contaminant impacts.

Local CO Hotspot Impacts from Project-Generated Vehicle Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential impacts to sensitive receptors. The analysis provided above in Section 10.3 shows that no local CO Hotspots are anticipated to be created at any nearby intersections from the vehicle traffic generated by the proposed project. Therefore, operation of the proposed project would result in a less than significant exposure of offsite sensitive receptors to substantial pollutant concentrations.

Local Criteria Pollutant Impacts from Onsite Operations

The local air quality impacts from the operation of the proposed project would occur from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances. The analysis provided above in Section 9.3 found that the operation of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

Particulate matter (PM) from diesel exhaust is the predominant TAC in most areas and according to *The California Almanac of Emissions and Air Quality 2013 Edition*, prepared by CARB, about 80 percent of the outdoor TAC cancer risk is from diesel exhaust. Some chemicals in diesel exhaust, such as benzene and formaldehyde have been listed as carcinogens by State Proposition 65 and the Federal Hazardous Air Pollutants program. Due to the nominal number of diesel truck trips that are anticipated to be generated by the on-going operation of the proposed residential project, a less than significant TAC impact would occur during the on-going operations of the proposed project and no mitigation would be required.

Therefore, operation of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Level of Significance

Less than significant impact.

10.5 Odor Emissions

The proposed project would not result in other emissions, such as those leading to odors that would adversely affect a substantial number of people. The local concentrations of criteria pollutant emissions, TAC emissions, and CO concentrations that may adversely impact a substantial number of people have been analyzed above in Section 10.4 for both construction and operations, which found that these types of emissions would create less than significant impacts. As such, the following analysis is limited to odors that would have the potential to adversely affect a substantial number of people.

Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as SCAQMD Rule 1108 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

The proposed project would consist of a residential development. Potential sources that may emit odors during the on-going operations of the proposed project would primarily occur from the trash storage areas. Pursuant to City regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402 and City trash storage regulations, no significant impact related to odors would occur during the on-going operations of the proposed project. Therefore, a less than significant odor impact would occur and no mitigation would be required.

Level of Significance

Less than significant impact

10.6 Energy Consumption

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources are provided below.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. In 2020, Riverside County consumed 16,858 Gigawatt-hours per year of electricity[4].

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. In 2020, Riverside County consumed 436.94 Million Therms of natural gas[5].

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2017, 1,052 million gallons of gasoline and 148 million gallons of diesel was sold in Riverside County[6].

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of

4 Obtained from: http://www.ecdms.energy.ca.gov/elecbycounty.aspx
5 Obtained from: http://www.ecdms.energy.ca.gov/gasbycounty.aspx
6 Obtained from: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/

the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings.

The proposed project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips (e.g. hauling of material to disposal facilities);
2. Electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

During construction the proposed project would consume electricity to construct the proposed warehouse and infrastructure. Electricity would be supplied to the project site by Southern California Edison and would be obtained from the existing electrical lines in the vicinity of the project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on fuel consumption. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Since there are currently power lines in the vicinity of the project site, it is anticipated that only nominal improvements would be required to Southern California Edison Utility distribution lines and equipment with development of the proposed project. Compliance with City's guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Construction-Related Natural Gas

Construction of the proposed project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since there is currently natural gas service in the vicinity of the project site, construction of the proposed project would be limited to installation of new natural gas connections within the project site. Development of the proposed project would likely not require extensive infrastructure improvements to serve the project site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines

below surface. In addition, prior to ground disturbance, the proposed project would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown above in Section 8.2, which found that construction of the proposed project would consume 15,057 gallons of gasoline and 67,935 gallons of diesel fuel. This equates to 0.001 percent of the gasoline and 0.05 percent of the diesel used annually in Riverside County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The on-going operation of the proposed project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips.

Operations-Related Electricity

Operation of the proposed project would result in consumption of electricity at the project site. As detailed above in Section 8.2 the proposed project would consume 53,083 kilowatt-hours per year of electricity. This equates to 0.0003 percent of the electricity consumed annually in the County of Riverside. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the County.

It should be noted that the proposed project will be required to meet the 2019 Title 24, Part 6 building energy efficiency standards that have been developed to meet the State's goal of zero-net-energy use for new homes. The zero net energy use will be achieved through a variety of measures to make new homes more energy efficient and by also requiring installation of photovoltaic systems of adequate size to generate enough electricity to meet the zero-net energy use standard. The size of the PV system required

for the project pursuant to the 2019 Title 24 standards was calculated above in Section 8.1, which found that the proposed project would need to install at least 112.4 Kilowatts of photovoltaic panels within the proposed project. Although, the CalEEMod model found that with implementation of the 2019 Title 24 Part 6 standards, that the proposed project would continue to utilize a nominal amount of power, it should be noted that the electricity usage and emission rates utilized by the CalEEMod model are based on regional average usage rates for existing homes, which were not all built to the most current Title 24 Part 6, standards, so the CalEEMod model provides a conservative or worst-case analysis of electricity use from the proposed project. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, impacts with regard to electrical supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

Operations-Related Natural Gas

Operation of the proposed project would result in increased consumption of natural gas at the project site. As detailed above in Section 8.2 the proposed project would consume 1,160 MBTU per year of natural gas. This equates to 0.003 percent of the natural gas consumed annually in Riverside County. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that, the proposed project would comply with all Federal, State, and City requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, impacts with regard to natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. As detailed above in Section 8.2 the proposed project would consume 46,681 gallons of gasoline per year from vehicle travel. This equates to 0.004 percent of the gasoline consumed annually in Riverside County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

It should be noted that, the proposed project would comply with all Federal, State, and City requirements related to the consumption of transportation energy that includes California Code of Regulations Title 24, Part 10 California Green Building Standards that require that all new garages to install electrical panels of adequate size to support the installation of electric vehicle charging systems. Therefore, it is anticipated the proposed project will be designed and built to minimize transportation energy through the promotion of the use of electric-powered vehicles and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

In conclusion, the proposed project would comply with regulatory compliance measures outlined by the State and City related to Air Quality, GHG Emissions, Transportation/Circulation, and Water Supply. Additionally, the proposed project would be constructed in accordance with all applicable City Building and Fire Codes. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.7 Energy Plan Consistency

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the proposed project is the General Plan (City of Eastvale, 2012). The proposed project's consistency with the applicable energy-related policies in the General Plan are shown in Table Q.

Table Q – Proposed Project Compliance with Applicable General Plan Energy Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
AQ-26	Permit and encourage the use of passive solar devices and other state-of-the-art energy conservation measures.	**Consistent.** The proposed homes are required to be designed to meet Title 24 Part 6 Energy Efficiency Standards that require all new homes to be designed to be net zero energy usage that is achieved through the installation of rooftop PV solar panels, which is a type of passive solar.
AQ-27	Support and encourage voluntary efforts to provide active and passive solar access opportunities in new development.	**Consistent.** As detailed above, the proposed homes will include rooftop PV solar panels.
AQ-28	The City encourages energy-efficient materials and systems, including shade design technologies, for buildings.	**Consistent.** The Landscape Plan for the proposed project has been designed to place trees to provide shade on the buildings and parking areas.
AQ-31	The City encourages urban design measures that support alternatives to private automobile use.	**Consistent.** The proposed project has been designed with a sidewalk system that connects to the existing sidewalks on Orange Street, in order to promote a walkable community.
AQ-32	Utilize source reduction, recycling, and other appropriate measures to reduce the amount of solid waste disposed of in landfills.	**Consistent.** Trash service provided for the proposed project will be required to meet the recycling requirements detailed in AB 341 that requires 75 percent of waste diverted from landfills. Specifically, each home will be provided separate bins for trash and recycling.
AQ-33	The City encourages the incorporation of energy-efficient design elements beyond code requirements, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling.	**Consistent.** As detailed above, the proposed project will be designed to incorporate shade trees and rooftop PV solar panels. The proposed project will exceed the Title 24 Part 6 minimum requirements.
AQ-34	The City shall review all development proposals to ensure that all services and utilities can be	**Consistent.** The proposed project is required to obtain "will serve" letters from all utility providers in

Policy No.	General Plan Policy	Proposed Project Implementation Actions
	provided in an energy-efficient and effective manner.	order to ensure that the utilities can be provided in an effective manner.
AQ-36	The City shall support the inclusion of energy-efficient design and renewable energy technologies in public and private projects.	**Consistent.** As detailed above, the proposed homes will include rooftop PV solar systems and will be designed to meet the most current Title 24 Part 6 Energy Efficiency Standards.

Source: City of Eastvale, 2012.

As shown in Table Q, the proposed project would be consistent with all applicable energy-related policies from the General Plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.8 Generation of Greenhouse Gas Emissions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project would consist of the development of a residential development with 41 single-family homes. The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, and construction equipment. The project's GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed in Section 7.1 above. A summary of the results is shown below in Table R and the CalEEMod model run annual printouts are provided in Appendix F.

Table R – Project Related Greenhouse Gas Annual Emissions

	Greenhouse Gas Emissions (Metric Tons per Year)			
Category	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[1]	0.69	<0.01	0.00	0.71
Energy Usage[2]	71.30	<0.01	<0.01	71.72
Mobile Sources[3]	429.05	0.02	0.02	435.88
Solid Waste[4]	4.87	0.29	0.00	12.07
Water and Wastewater[5]	9.85	0.07	<0.01	12.13
Construction[6]	24.48	<0.01	<0.01	24.78
Total Emissions	540.25	0.39	0.02	**557.29**
SCAQMD Draft Threshold				**3,000**
Exceed Threshold?				**No**

Notes:
[1] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consists of GHG emissions from electricity and natural gas usage.
[3] Mobile sources consist of GHG emissions from vehicles.
[4] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[5] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[6] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
Source: CalEEMod Version 2020.4.0.

The data provided in Table R shows that the proposed project would create 557.29 $MTCO_2e$ per year. According to the SCAQMD draft threshold of significance detailed above in Section 9.5, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,000 $MTCO_2e$ per year. Therefore, a less than significant generation of greenhouse gas emissions would occur from development of the proposed project. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.9 Greenhouse Gas Plan Consistency

The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The applicable plan for the proposed project is the General Plan (City of Eastvale, 2012). The proposed project's consistency with the applicable GHG-related policies in the General Plan are shown in Table S.

Table S – Proposed Project Compliance with Applicable General Plan GHG Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
AQ-18	Support local, regional, and statewide efforts to reduce emissions of greenhouse gases linked to climate change.	**Consistent.** The proposed homes are required to be designed to meet Title 24 Part 6 Energy Efficiency Standards that require all new homes to be designed to be net zero energy usage that is achieved through the installation of rooftop PV solar panels, which will minimize the usage of carbon energy sources.
AQ-19	Analyze and mitigate, to the extent feasible, potentially significant increases in greenhouse gas emissions during project review, pursuant to the California Environmental Quality Act.	**Consistent.** As detailed above in Section 10.8, the proposed project was found to create less than significant levels of GHG emissions.
AQ-20	Continue to support the planting and maintenance of trees in the community to increase carbon sequestration.	**Consistent.** The Landscape Plan for the proposed project has been designed to incorporate as many trees as possible within the proposed project.

Source: City of Eastvale, 2012.

As shown in Table S, the proposed project would be consistent with all applicable GHG-related policies from the General Plan. In addition, as detailed above Section 10.8, the proposed project is anticipated to create 557.29 $MTCO_2e$ per year, which is well below the SCAQMD draft threshold of significance of 3,000 $MTCO_2e$ per year. The SCAQMD developed this threshold through a Working Group, which also developed detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 $MTCO_2e$ for all land use type projects, which was based on substantial evidence supporting the use of the recommended thresholds. Therefore, the proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases

Level of Significance

Less than significant impact.

11.0 REFERENCES

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APPENDIX A

CalEEMod Model Daily Printouts

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Magnolia Ranch Residential

Riverside-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.11	Acre	2.11	91,911.60	0
Other Non-Asphalt Surfaces	1.11	Acre	1.11	48,351.60	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	41.00	Dwelling Unit	6.27	136,598.00	117

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Site = 10 gross acres

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Grading: 2 Excavators, 1 Grader, 1 Rubber Tired Dozer, 2 Scrapers & 2 Crawler Tractors

Off-road Equipment -

Off-road Equipment - Site Preparation: 3 Rubber Tired Dozers & 4 Crawler Tractors

Trips and VMT - 6 vendor trips added to Demo, Site Prep and Grading phases to account for water truck emissions

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demo - 6,700 sq ft of Building = 308 tons + 8,000 sq ft of pavement = 193 tons. Total 502 tons of demo.

Grading - Grading - Import of 5,000 cu yds of dirt

Vehicle Trips - Weekday trip rate set to match TIA of 388 daily trips. City Park set to zero.

Woodstoves - No woodstoves or fireplaces

Construction Off-road Equipment Mitigation - Water Exposed Area 3x per day and Replace Ground Cover selected to account for SCAQMD Rule 403 Minimum requirements

Mobile Land Use Mitigation - Improve Pedestrian Network onsite and connecting offsite.

Energy Mitigation - 273,468 kWh generated from solar PV panels

Water Mitigation - Install low-flow fixtures and use water-efficient irrigation selected to account for Title 24 Part 11 min requirements

Waste Mitigation - 50% reduction in waste selected to account for AB 341

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	34.85	0.00
tblFireplaces	NumberNoFireplace	4.10	41.00
tblFireplaces	NumberWood	2.05	0.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	73,800.00	136,598.00
tblLandUse	LotAcreage	13.31	6.27
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.46
tblWoodstoves	NumberCatalytic	2.05	0.00
tblWoodstoves	NumberNoncatalytic	2.05	0.00

2.0 Emissions Summary

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.7160	26.3307	21.3513	0.0429	0.7903	1.2509	2.0411	0.1494	1.1631	1.3124	0.0000	4,170.9172	4,170.9172	1.0596	0.0451	4,210.8570
2023	4.0328	44.0151	29.4624	0.0860	22.0176	1.7604	23.7780	10.3959	1.6196	12.0155	0.0000	8,459.7624	8,459.7624	2.2627	0.2138	8,580.0281
2024	44.9255	14.6236	19.4302	0.0402	1.1263	0.6262	1.7525	0.3032	0.5891	0.8923	0.0000	3,936.1853	3,936.1853	0.7171	0.1015	3,982.1324
Maximum	**44.9255**	**44.0151**	**29.4624**	**0.0860**	**22.0176**	**1.7604**	**23.7780**	**10.3959**	**1.6196**	**12.0155**	**0.0000**	**8,459.7624**	**8,459.7624**	**2.2627**	**0.2138**	**8,580.0281**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.7160	26.3307	21.3513	0.0429	0.4353	1.2509	1.6862	0.0956	1.1631	1.2587	0.0000	4,170.9172	4,170.9172	1.0596	0.0451	4,210.8570
2023	4.0328	44.0151	29.4624	0.0860	7.7138	1.7604	9.4742	3.6102	1.6196	5.2298	0.0000	8,459.7624	8,459.7624	2.2627	0.2138	8,580.0281
2024	44.9255	14.6236	19.4302	0.0402	1.1263	0.6262	1.7525	0.3032	0.5891	0.8923	0.0000	3,936.1853	3,936.1853	0.7171	0.1015	3,982.1324
Maximum	**44.9255**	**44.0151**	**29.4624**	**0.0860**	**7.7138**	**1.7604**	**9.4742**	**3.6102**	**1.6196**	**5.2298**	**0.0000**	**8,459.7624**	**8,459.7624**	**2.2627**	**0.2138**	**8,580.0281**

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	61.25	0.00	53.17	63.05	0.00	48.10	0.00	0.00	0.00	0.00	0.00	0.00

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376
Energy	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Mobile	1.2182	1.5919	11.9820	0.0277	2.8240	0.0212	2.8452	0.7534	0.0198	0.7732		2,869.4552	2,869.4552	0.1348	0.1291	2,911.2971
Total	**4.3545**	**1.9237**	**15.4881**	**0.0298**	**2.8240**	**0.0636**	**2.8876**	**0.7534**	**0.0623**	**0.8157**	**0.0000**	**3,249.3628**	**3,249.3628**	**0.1478**	**0.1360**	**3,293.5722**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376
Energy	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Mobile	1.2080	1.5667	11.7795	0.0272	2.7675	0.0208	2.7883	0.7383	0.0195	0.7578		2,813.4725	2,813.4725	0.1329	0.1270	2,854.6419
Total	**4.3443**	**1.8985**	**15.2856**	**0.0292**	**2.7675**	**0.0632**	**2.8307**	**0.7383**	**0.0619**	**0.8002**	**0.0000**	**3,193.3801**	**3,193.3801**	**0.1459**	**0.1339**	**3,236.9170**

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.23	1.31	1.31	1.81	2.00	0.63	1.97	2.00	0.59	1.89	0.00	1.72	1.72	1.28	1.54	1.72

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/1/2022	12/28/2022	5	20	
2	Site Preparation	Site Preparation	1/2/2023	1/13/2023	5	10	
3	Grading	Grading	1/14/2023	2/24/2023	5	30	
4	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
5	Paving	Paving	4/20/2024	5/17/2024	5	20	
6	Architectural Coating	Architectural Coating	5/18/2024	6/14/2024	5	20	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 120

Acres of Paving: 3.22

Residential Indoor: 276,611; Residential Outdoor: 92,204; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,416 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	50.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	625.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	83.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5404	0.0000	0.5404	0.0818	0.0000	0.0818			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.5404**	**1.2427**	**1.7831**	**0.0818**	**1.1553**	**1.2371**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.9100e-003	0.3193	0.0710	1.4400e-003	0.0438	3.7100e-003	0.0475	0.0120	3.5500e-003	0.0156		153.3380	153.3380	2.0700e-003	0.0242	160.5880
Vendor	9.7600e-003	0.2537	0.0882	1.0900e-003	0.0384	3.6600e-003	0.0421	0.0111	3.5000e-003	0.0146		115.7672	115.7672	1.2300e-003	0.0172	120.9138
Worker	0.0591	0.0383	0.5980	1.5200e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		155.0309	155.0309	3.8400e-003	3.8100e-003	156.2632
Total	**0.0768**	**0.6113**	**0.7572**	**4.0500e-003**	**0.2499**	**8.2100e-003**	**0.2581**	**0.0675**	**7.8200e-003**	**0.0754**		**424.1361**	**424.1361**	**7.1400e-003**	**0.0451**	**437.7650**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1855	0.0000	0.1855	0.0281	0.0000	0.0281			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1855**	**1.2427**	**1.4281**	**0.0281**	**1.1553**	**1.1833**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.9100e-003	0.3193	0.0710	1.4400e-003	0.0438	3.7100e-003	0.0475	0.0120	3.5500e-003	0.0156		153.3380	153.3380	2.0700e-003	0.0242	160.5880
Vendor	9.7600e-003	0.2537	0.0882	1.0900e-003	0.0384	3.6600e-003	0.0421	0.0111	3.5000e-003	0.0146		115.7672	115.7672	1.2300e-003	0.0172	120.9138
Worker	0.0591	0.0383	0.5980	1.5200e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		155.0309	155.0309	3.8400e-003	3.8100e-003	156.2632
Total	**0.0768**	**0.6113**	**0.7572**	**4.0500e-003**	**0.2499**	**8.2100e-003**	**0.2581**	**0.0675**	**7.8200e-003**	**0.0754**		**424.1361**	**424.1361**	**7.1400e-003**	**0.0451**	**437.7650**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569		1.7577	1.7577		1.6171	1.6171		5,514.0891	5,514.0891	1.7834		5,558.6733
Total	**3.8307**	**41.8798**	**18.2937**	**0.0569**	**21.7780**	**1.7577**	**23.5357**	**10.3315**	**1.6171**	**11.9486**		**5,514.0891**	**5,514.0891**	**1.7834**		**5,558.6733**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7600e-003	0.1960	0.0807	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6300e-003	0.0127		111.1626	111.1626	1.1300e-003	0.0164	116.0860
Worker	0.0658	0.0406	0.6603	1.7700e-003	0.2012	9.4000e-004	0.2021	0.0534	8.7000e-004	0.0542		181.1165	181.1165	4.1400e-003	4.2200e-003	182.4783
Total	**0.0725**	**0.2367**	**0.7411**	**2.8200e-003**	**0.2396**	**2.6500e-003**	**0.2423**	**0.0644**	**2.5000e-003**	**0.0669**		**292.2791**	**292.2791**	**5.2700e-003**	**0.0207**	**298.5644**

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4742	0.0000	7.4742	3.5458	0.0000	3.5458			0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569		1.7577	1.7577		1.6171	1.6171	0.0000	5,514.0891	5,514.0891	1.7834		5,558.6733
Total	**3.8307**	**41.8798**	**18.2937**	**0.0569**	**7.4742**	**1.7577**	**9.2319**	**3.5458**	**1.6171**	**5.1629**	**0.0000**	**5,514.0891**	**5,514.0891**	**1.7834**		**5,558.6733**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.7600e-003	0.1960	0.0807	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6300e-003	0.0127		111.1626	111.1626	1.1300e-003	0.0164	116.0860
Worker	0.0658	0.0406	0.6603	1.7700e-003	0.2012	9.4000e-004	0.2021	0.0534	8.7000e-004	0.0542		181.1165	181.1165	4.1400e-003	4.2200e-003	182.4783
Total	**0.0725**	**0.2367**	**0.7411**	**2.8200e-003**	**0.2396**	**2.6500e-003**	**0.2423**	**0.0644**	**2.5000e-003**	**0.0669**		**292.2791**	**292.2791**	**5.2700e-003**	**0.0207**	**298.5644**

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.2852	0.0000	10.2852	3.7715	0.0000	3.7715			0.0000			0.0000
Off-Road	3.9073	41.6934	28.0758	0.0715		1.6703	1.6703		1.5367	1.5367		6,924.8682	6,924.8682	2.2396		6,980.8593
Total	**3.9073**	**41.6934**	**28.0758**	**0.0715**	**10.2852**	**1.6703**	**11.9555**	**3.7715**	**1.5367**	**5.3082**		**6,924.8682**	**6,924.8682**	**2.2396**		**6,980.8593**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	2.0805	0.5721	0.0115	0.3646	0.0251	0.3897	0.1000	0.0240	0.1240		1,222.4910	1,222.4910	0.0173	0.1926	1,280.3291
Vendor	6.7600e-003	0.1960	0.0807	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6300e-003	0.0127		111.1626	111.1626	1.1300e-003	0.0164	116.0860
Worker	0.0731	0.0452	0.7337	1.9700e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		201.2406	201.2406	4.5900e-003	4.6900e-003	202.7537
Total	**0.1254**	**2.3217**	**1.3865**	**0.0145**	**0.6266**	**0.0279**	**0.6545**	**0.1703**	**0.0266**	**0.1969**		**1,534.8942**	**1,534.8942**	**0.0231**	**0.2138**	**1,599.1689**

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5299	0.0000	3.5299	1.2944	0.0000	1.2944			0.0000			0.0000
Off-Road	3.9073	41.6934	28.0758	0.0715		1.6703	1.6703		1.5367	1.5367	0.0000	6,924.8682	6,924.8682	2.2396		6,980.8593
Total	**3.9073**	**41.6934**	**28.0758**	**0.0715**	**3.5299**	**1.6703**	**5.2002**	**1.2944**	**1.5367**	**2.8311**	**0.0000**	**6,924.8682**	**6,924.8682**	**2.2396**		**6,980.8593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0456	2.0805	0.5721	0.0115	0.3646	0.0251	0.3897	0.1000	0.0240	0.1240		1,222.4910	1,222.4910	0.0173	0.1926	1,280.3291
Vendor	6.7600e-003	0.1960	0.0807	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6300e-003	0.0127		111.1626	111.1626	1.1300e-003	0.0164	116.0860
Worker	0.0731	0.0452	0.7337	1.9700e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		201.2406	201.2406	4.5900e-003	4.6900e-003	202.7537
Total	**0.1254**	**2.3217**	**1.3865**	**0.0145**	**0.6266**	**0.0279**	**0.6545**	**0.1703**	**0.0266**	**0.1969**		**1,534.8942**	**1,534.8942**	**0.0231**	**0.2138**	**1,599.1689**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0349	1.0128	0.4170	5.4200e-003	0.1986	8.8200e-003	0.2074	0.0572	8.4400e-003	0.0656		574.3401	574.3401	5.8600e-003	0.0849	599.7779
Worker	0.3032	0.1874	3.0449	8.1600e-003	0.9277	4.3500e-003	0.9321	0.2460	4.0100e-003	0.2501		835.1485	835.1485	0.0191	0.0195	841.4278
Total	**0.3382**	**1.2002**	**3.4619**	**0.0136**	**1.1263**	**0.0132**	**1.1395**	**0.3032**	**0.0125**	**0.3157**		**1,409.4886**	**1,409.4886**	**0.0249**	**0.1043**	**1,441.2056**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0349	1.0128	0.4170	5.4200e-003	0.1986	8.8200e-003	0.2074	0.0572	8.4400e-003	0.0656		574.3401	574.3401	5.8600e-003	0.0849	599.7779
Worker	0.3032	0.1874	3.0449	8.1600e-003	0.9277	4.3500e-003	0.9321	0.2460	4.0100e-003	0.2501		835.1485	835.1485	0.0191	0.0195	841.4278
Total	**0.3382**	**1.2002**	**3.4619**	**0.0136**	**1.1263**	**0.0132**	**1.1395**	**0.3032**	**0.0125**	**0.3157**		**1,409.4886**	**1,409.4886**	**0.0249**	**0.1043**	**1,441.2056**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0344	1.0129	0.4122	5.3300e-003	0.1986	8.7600e-003	0.2073	0.0572	8.3800e-003	0.0656		565.4883	565.4883	6.0600e-003	0.0834	590.5039
Worker	0.2827	0.1670	2.8511	7.9000e-003	0.9277	4.1600e-003	0.9319	0.2460	3.8300e-003	0.2499		814.9981	814.9981	0.0173	0.0181	820.8208
Total	**0.3171**	**1.1799**	**3.2634**	**0.0132**	**1.1263**	**0.0129**	**1.1392**	**0.3032**	**0.0122**	**0.3154**		**1,380.4864**	**1,380.4864**	**0.0233**	**0.1015**	**1,411.3247**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0344	1.0129	0.4122	5.3300e-003	0.1986	8.7600e-003	0.2073	0.0572	8.3800e-003	0.0656		565.4883	565.4883	6.0600e-003	0.0834	590.5039
Worker	0.2827	0.1670	2.8511	7.9000e-003	0.9277	4.1600e-003	0.9319	0.2460	3.8300e-003	0.2499		814.9981	814.9981	0.0173	0.0181	820.8208
Total	**0.3171**	**1.1799**	**3.2634**	**0.0132**	**1.1263**	**0.0129**	**1.1392**	**0.3032**	**0.0122**	**0.3154**		**1,380.4864**	**1,380.4864**	**0.0233**	**0.1015**	**1,411.3247**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2646**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0511	0.0302	0.5153	1.4300e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		147.2888	147.2888	3.1200e-003	3.2700e-003	148.3411
Total	**0.0511**	**0.0302**	**0.5153**	**1.4300e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**147.2888**	**147.2888**	**3.1200e-003**	**3.2700e-003**	**148.3411**

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2646**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0511	0.0302	0.5153	1.4300e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		147.2888	147.2888	3.1200e-003	3.2700e-003	148.3411
Total	**0.0511**	**0.0302**	**0.5153**	**1.4300e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**147.2888**	**147.2888**	**3.1200e-003**	**3.2700e-003**	**148.3411**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	44.6869					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**44.8676**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0579	0.0342	0.5840	1.6200e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		166.9273	166.9273	3.5400e-003	3.7100e-003	168.1199
Total	**0.0579**	**0.0342**	**0.5840**	**1.6200e-003**	**0.1900**	**8.5000e-004**	**0.1909**	**0.0504**	**7.8000e-004**	**0.0512**		**166.9273**	**166.9273**	**3.5400e-003**	**3.7100e-003**	**168.1199**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	44.6869					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**44.8676**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0579	0.0342	0.5840	1.6200e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		166.9273	166.9273	3.5400e-003	3.7100e-003	168.1199
Total	**0.0579**	**0.0342**	**0.5840**	**1.6200e-003**	**0.1900**	**8.5000e-004**	**0.1909**	**0.0504**	**7.8000e-004**	**0.0512**		**166.9273**	**166.9273**	**3.5400e-003**	**3.7100e-003**	**168.1199**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.2080	1.5667	11.7795	0.0272	2.7675	0.0208	2.7883	0.7383	0.0195	0.7578		2,813.4725	2,813.4725	0.1329	0.1270	2,854.6419
Unmitigated	1.2182	1.5919	11.9820	0.0277	2.8240	0.0212	2.8452	0.7534	0.0198	0.7732		2,869.4552	2,869.4552	0.1348	0.1291	2,911.2971

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	387.86	391.14	350.55	1,308,764	1,282,589
Total	387.86	391.14	350.55	1,308,764	1,282,589

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Other Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Single Family Housing	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
NaturalGas Unmitigated	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3177.44	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Total		**0.0343**	**0.2928**	**0.1246**	**1.8700e-003**		**0.0237**	**0.0237**		**0.0237**	**0.0237**		**373.8161**	**373.8161**	**7.1600e-003**	**6.8500e-003**	**376.0375**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.17744	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Total		**0.0343**	**0.2928**	**0.1246**	**1.8700e-003**		**0.0237**	**0.0237**		**0.0237**	**0.0237**		**373.8161**	**373.8161**	**7.1600e-003**	**6.8500e-003**	**376.0375**

6.0 Area Detail

6.1 Mitigation Measures Area

Magnolia Ranch Residential - Riverside-South Coast County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376
Unmitigated	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2449					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7555					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1017	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187		6.0915	6.0915	5.8500e-003		6.2376
Total	**3.1020**	**0.0390**	**3.3815**	**1.8000e-004**		**0.0187**	**0.0187**		**0.0187**	**0.0187**	**0.0000**	**6.0915**	**6.0915**	**5.8500e-003**	**0.0000**	**6.2376**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2449					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7555					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1017	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187		6.0915	6.0915	5.8500e-003		6.2376
Total	**3.1020**	**0.0390**	**3.3815**	**1.8000e-004**		**0.0187**	**0.0187**		**0.0187**	**0.0187**	**0.0000**	**6.0915**	**6.0915**	**5.8500e-003**	**0.0000**	**6.2376**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Magnolia Ranch Residential

Riverside-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.11	Acre	2.11	91,911.60	0
Other Non-Asphalt Surfaces	1.11	Acre	1.11	48,351.60	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	41.00	Dwelling Unit	6.27	136,598.00	117

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Site = 10 gross acres

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Grading: 2 Excavators, 1 Grader, 1 Rubber Tired Dozer, 2 Scrapers & 2 Crawler Tractors

Off-road Equipment -

Off-road Equipment - Site Preparation: 3 Rubber Tired Dozers & 4 Crawler Tractors

Trips and VMT - 6 vendor trips added to Demo, Site Prep and Grading phases to account for water truck emissions

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demo - 6,700 sq ft of Building = 308 tons + 8,000 sq ft of pavement = 193 tons. Total 502 tons of demo.

Grading - Grading - Import of 5,000 cu yds of dirt

Vehicle Trips - Weekday trip rate set to match TIA of 388 daily trips. City Park set to zero.

Woodstoves - No woodstoves or fireplaces

Construction Off-road Equipment Mitigation - Water Exposed Area 3x per day and Replace Ground Cover selected to account for SCAQMD Rule 403 Minimum requirements

Mobile Land Use Mitigation - Improve Pedestrian Network onsite and connecting offsite.

Energy Mitigation - 273,468 kWh generated from solar PV panels

Water Mitigation - Install low-flow fixtures and use water-efficient irrigation selected to account for Title 24 Part 11 min requirements

Waste Mitigation - 50% reduction in waste selected to account for AB 341

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	34.85	0.00
tblFireplaces	NumberNoFireplace	4.10	41.00
tblFireplaces	NumberWood	2.05	0.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	73,800.00	136,598.00
tblLandUse	LotAcreage	13.31	6.27
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.46
tblWoodstoves	NumberCatalytic	2.05	0.00
tblWoodstoves	NumberNoncatalytic	2.05	0.00

2.0 Emissions Summary

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.7113	26.3632	21.2433	0.0427	0.7903	1.2509	2.0412	0.1494	1.1631	1.3124	0.0000	4,156.5558	4,156.5558	1.0595	0.0453	4,196.5361
2023	4.0240	44.1526	29.3392	0.0858	22.0176	1.7604	23.7780	10.3959	1.6196	12.0155	0.0000	8,443.0516	8,443.0516	2.2625	0.2142	8,563.4511
2024	44.9221	14.6912	18.9093	0.0395	1.1263	0.6263	1.7526	0.3032	0.5891	0.8924	0.0000	3,861.1996	3,861.1996	0.7171	0.1022	3,907.3504
Maximum	**44.9221**	**44.1526**	**29.3392**	**0.0858**	**22.0176**	**1.7604**	**23.7780**	**10.3959**	**1.6196**	**12.0155**	**0.0000**	**8,443.0516**	**8,443.0516**	**2.2625**	**0.2142**	**8,563.4511**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.7113	26.3632	21.2433	0.0427	0.4353	1.2509	1.6862	0.0956	1.1631	1.2587	0.0000	4,156.5558	4,156.5558	1.0595	0.0453	4,196.5361
2023	4.0240	44.1526	29.3392	0.0858	7.7138	1.7604	9.4742	3.6102	1.6196	5.2298	0.0000	8,443.0516	8,443.0516	2.2625	0.2142	8,563.4511
2024	44.9221	14.6912	18.9093	0.0395	1.1263	0.6263	1.7526	0.3032	0.5891	0.8924	0.0000	3,861.1996	3,861.1996	0.7171	0.1022	3,907.3504
Maximum	**44.9221**	**44.1526**	**29.3392**	**0.0858**	**7.7138**	**1.7604**	**9.4742**	**3.6102**	**1.6196**	**5.2298**	**0.0000**	**8,443.0516**	**8,443.0516**	**2.2625**	**0.2142**	**8,563.4511**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	61.25	0.00	53.17	63.05	0.00	48.10	0.00	0.00	0.00	0.00	0.00	0.00

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376
Energy	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Mobile	1.0386	1.6884	10.5832	0.0257	2.8240	0.0212	2.8452	0.7534	0.0199	0.7733		2,664.2363	2,664.2363	0.1377	0.1318	2,706.9567
Total	**4.1749**	**2.0201**	**14.0893**	**0.0278**	**2.8240**	**0.0636**	**2.8876**	**0.7534**	**0.0623**	**0.8157**	**0.0000**	**3,044.1439**	**3,044.1439**	**0.1508**	**0.1387**	**3,089.2318**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376
Energy	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Mobile	1.0287	1.6616	10.4138	0.0252	2.7675	0.0208	2.7883	0.7383	0.0195	0.7578		2,612.3810	2,612.3810	0.1359	0.1297	2,654.4188
Total	**4.1650**	**1.9934**	**13.9199**	**0.0273**	**2.7675**	**0.0632**	**2.8308**	**0.7383**	**0.0619**	**0.8002**	**0.0000**	**2,992.2886**	**2,992.2886**	**0.1489**	**0.1365**	**3,036.6939**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.24	1.32	1.20	1.80	2.00	0.61	1.97	2.00	0.59	1.89	0.00	1.70	1.70	1.21	1.54	1.70

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/1/2022	12/28/2022	5	20	
2	Site Preparation	Site Preparation	1/2/2023	1/13/2023	5	10	
3	Grading	Grading	1/14/2023	2/24/2023	5	30	
4	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
5	Paving	Paving	4/20/2024	5/17/2024	5	20	
6	Architectural Coating	Architectural Coating	5/18/2024	6/14/2024	5	20	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 120

Acres of Paving: 3.22

Residential Indoor: 276,611; Residential Outdoor: 92,204; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,416 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	50.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	625.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	83.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5404	0.0000	0.5404	0.0818	0.0000	0.0818			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.5404**	**1.2427**	**1.7831**	**0.0818**	**1.1553**	**1.2371**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.5300e-003	0.3368	0.0730	1.4400e-003	0.0438	3.7200e-003	0.0475	0.0120	3.5600e-003	0.0156		153.4551	153.4551	2.0600e-003	0.0242	160.7102
Vendor	9.3500e-003	0.2673	0.0916	1.0900e-003	0.0384	3.6700e-003	0.0421	0.0111	3.5100e-003	0.0146		115.8935	115.8935	1.2100e-003	0.0172	121.0492
Worker	0.0552	0.0398	0.4846	1.3800e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		140.4261	140.4261	3.8100e-003	3.9000e-003	141.6847
Total	**0.0721**	**0.6438**	**0.6492**	**3.9100e-003**	**0.2499**	**8.2300e-003**	**0.2581**	**0.0675**	**7.8400e-003**	**0.0754**		**409.7746**	**409.7746**	**7.0800e-003**	**0.0453**	**423.4440**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1855	0.0000	0.1855	0.0281	0.0000	0.0281			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.1855**	**1.2427**	**1.4281**	**0.0281**	**1.1553**	**1.1833**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	7.5300e-003	0.3368	0.0730	1.4400e-003	0.0438	3.7200e-003	0.0475	0.0120	3.5600e-003	0.0156		153.4551	153.4551	2.0600e-003	0.0242	160.7102
Vendor	9.3500e-003	0.2673	0.0916	1.0900e-003	0.0384	3.6700e-003	0.0421	0.0111	3.5100e-003	0.0146		115.8935	115.8935	1.2100e-003	0.0172	121.0492
Worker	0.0552	0.0398	0.4846	1.3800e-003	0.1677	8.4000e-004	0.1685	0.0445	7.7000e-004	0.0452		140.4261	140.4261	3.8100e-003	3.9000e-003	141.6847
Total	**0.0721**	**0.6438**	**0.6492**	**3.9100e-003**	**0.2499**	**8.2300e-003**	**0.2581**	**0.0675**	**7.8400e-003**	**0.0754**		**409.7746**	**409.7746**	**7.0800e-003**	**0.0453**	**423.4440**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.7780	0.0000	21.7780	10.3315	0.0000	10.3315			0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569		1.7577	1.7577		1.6171	1.6171		5,514.0891	5,514.0891	1.7834		5,558.6733
Total	**3.8307**	**41.8798**	**18.2937**	**0.0569**	**21.7780**	**1.7577**	**23.5357**	**10.3315**	**1.6171**	**11.9486**		**5,514.0891**	**5,514.0891**	**1.7834**		**5,558.6733**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2600e-003	0.2079	0.0834	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6400e-003	0.0127		111.4385	111.4385	1.1100e-003	0.0165	116.3777
Worker	0.0616	0.0422	0.5362	1.6000e-003	0.2012	9.4000e-004	0.2021	0.0534	8.7000e-004	0.0542		164.1079	164.1079	4.1200e-003	4.3200e-003	165.4988
Total	**0.0679**	**0.2501**	**0.6196**	**2.6500e-003**	**0.2396**	**2.6500e-003**	**0.2423**	**0.0644**	**2.5100e-003**	**0.0669**		**275.5463**	**275.5463**	**5.2300e-003**	**0.0208**	**281.8765**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.4742	0.0000	7.4742	3.5458	0.0000	3.5458			0.0000			0.0000
Off-Road	3.8307	41.8798	18.2937	0.0569		1.7577	1.7577		1.6171	1.6171	0.0000	5,514.0891	5,514.0891	1.7834		5,558.6733
Total	**3.8307**	**41.8798**	**18.2937**	**0.0569**	**7.4742**	**1.7577**	**9.2319**	**3.5458**	**1.6171**	**5.1629**	**0.0000**	**5,514.0891**	**5,514.0891**	**1.7834**		**5,558.6733**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.2600e-003	0.2079	0.0834	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6400e-003	0.0127		111.4385	111.4385	1.1100e-003	0.0165	116.3777
Worker	0.0616	0.0422	0.5362	1.6000e-003	0.2012	9.4000e-004	0.2021	0.0534	8.7000e-004	0.0542		164.1079	164.1079	4.1200e-003	4.3200e-003	165.4988
Total	**0.0679**	**0.2501**	**0.6196**	**2.6500e-003**	**0.2396**	**2.6500e-003**	**0.2423**	**0.0644**	**2.5100e-003**	**0.0669**		**275.5463**	**275.5463**	**5.2300e-003**	**0.0208**	**281.8765**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.2852	0.0000	10.2852	3.7715	0.0000	3.7715			0.0000			0.0000
Off-Road	3.9073	41.6934	28.0758	0.0715		1.6703	1.6703		1.5367	1.5367		6,924.8682	6,924.8682	2.2396		6,980.8593
Total	**3.9073**	**41.6934**	**28.0758**	**0.0715**	**10.2852**	**1.6703**	**11.9555**	**3.7715**	**1.5367**	**5.3082**		**6,924.8682**	**6,924.8682**	**2.2396**		**6,980.8593**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0419	2.2045	0.5842	0.0115	0.3646	0.0252	0.3898	0.1000	0.0241	0.1240		1,224.4029	1,224.4029	0.0172	0.1929	1,282.3267
Vendor	6.2600e-003	0.2079	0.0834	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6400e-003	0.0127		111.4385	111.4385	1.1100e-003	0.0165	116.3777
Worker	0.0685	0.0469	0.5958	1.7800e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		182.3421	182.3421	4.5800e-003	4.8000e-003	183.8876
Total	**0.1167**	**2.4592**	**1.2634**	**0.0143**	**0.6266**	**0.0279**	**0.6545**	**0.1703**	**0.0267**	**0.1970**		**1,518.1834**	**1,518.1834**	**0.0229**	**0.2142**	**1,582.5919**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5299	0.0000	3.5299	1.2944	0.0000	1.2944			0.0000			0.0000
Off-Road	3.9073	41.6934	28.0758	0.0715		1.6703	1.6703		1.5367	1.5367	0.0000	6,924.8682	6,924.8682	2.2396		6,980.8593
Total	**3.9073**	**41.6934**	**28.0758**	**0.0715**	**3.5299**	**1.6703**	**5.2002**	**1.2944**	**1.5367**	**2.8311**	**0.0000**	**6,924.8682**	**6,924.8682**	**2.2396**		**6,980.8593**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0419	2.2045	0.5842	0.0115	0.3646	0.0252	0.3898	0.1000	0.0241	0.1240		1,224.4029	1,224.4029	0.0172	0.1929	1,282.3267
Vendor	6.2600e-003	0.2079	0.0834	1.0500e-003	0.0384	1.7100e-003	0.0401	0.0111	1.6400e-003	0.0127		111.4385	111.4385	1.1100e-003	0.0165	116.3777
Worker	0.0685	0.0469	0.5958	1.7800e-003	0.2236	1.0500e-003	0.2246	0.0593	9.7000e-004	0.0603		182.3421	182.3421	4.5800e-003	4.8000e-003	183.8876
Total	**0.1167**	**2.4592**	**1.2634**	**0.0143**	**0.6266**	**0.0279**	**0.6545**	**0.1703**	**0.0267**	**0.1970**		**1,518.1834**	**1,518.1834**	**0.0229**	**0.2142**	**1,582.5919**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0324	1.0741	0.4311	5.4300e-003	0.1986	8.8500e-003	0.2074	0.0572	8.4700e-003	0.0656		575.7655	575.7655	5.7400e-003	0.0852	601.2846
Worker	0.2842	0.1944	2.4725	7.3900e-003	0.9277	4.3500e-003	0.9321	0.2460	4.0100e-003	0.2501		756.7196	756.7196	0.0190	0.0199	763.1333
Total	**0.3166**	**1.2685**	**2.9036**	**0.0128**	**1.1263**	**0.0132**	**1.1395**	**0.3032**	**0.0125**	**0.3157**		**1,332.4851**	**1,332.4851**	**0.0248**	**0.1051**	**1,364.4179**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0324	1.0741	0.4311	5.4300e-003	0.1986	8.8500e-003	0.2074	0.0572	8.4700e-003	0.0656		575.7655	575.7655	5.7400e-003	0.0852	601.2846
Worker	0.2842	0.1944	2.4725	7.3900e-003	0.9277	4.3500e-003	0.9321	0.2460	4.0100e-003	0.2501		756.7196	756.7196	0.0190	0.0199	763.1333
Total	**0.3166**	**1.2685**	**2.9036**	**0.0128**	**1.1263**	**0.0132**	**1.1395**	**0.3032**	**0.0125**	**0.3157**		**1,332.4851**	**1,332.4851**	**0.0248**	**0.1051**	**1,364.4179**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0318	1.0742	0.4262	5.3400e-003	0.1986	8.7900e-003	0.2073	0.0572	8.4100e-003	0.0656		566.9015	566.9015	5.9500e-003	0.0837	591.9965
Worker	0.2658	0.1732	2.3163	7.1600e-003	0.9277	4.1600e-003	0.9319	0.2460	3.8300e-003	0.2499		738.5992	738.5992	0.0172	0.0185	744.5462
Total	**0.2976**	**1.2474**	**2.7425**	**0.0125**	**1.1263**	**0.0130**	**1.1392**	**0.3032**	**0.0122**	**0.3155**		**1,305.5007**	**1,305.5007**	**0.0232**	**0.1022**	**1,336.5427**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0318	1.0742	0.4262	5.3400e-003	0.1986	8.7900e-003	0.2073	0.0572	8.4100e-003	0.0656		566.9015	566.9015	5.9500e-003	0.0837	591.9965
Worker	0.2658	0.1732	2.3163	7.1600e-003	0.9277	4.1600e-003	0.9319	0.2460	3.8300e-003	0.2499		738.5992	738.5992	0.0172	0.0185	744.5462
Total	**0.2976**	**1.2474**	**2.7425**	**0.0125**	**1.1263**	**0.0130**	**1.1392**	**0.3032**	**0.0122**	**0.3155**		**1,305.5007**	**1,305.5007**	**0.0232**	**0.1022**	**1,336.5427**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2646**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0480	0.0313	0.4186	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		133.4818	133.4818	3.1200e-003	3.3500e-003	134.5565
Total	**0.0480**	**0.0313**	**0.4186**	**1.2900e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**133.4818**	**133.4818**	**3.1200e-003**	**3.3500e-003**	**134.5565**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.2764					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2646**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0480	0.0313	0.4186	1.2900e-003	0.1677	7.5000e-004	0.1684	0.0445	6.9000e-004	0.0452		133.4818	133.4818	3.1200e-003	3.3500e-003	134.5565
Total	**0.0480**	**0.0313**	**0.4186**	**1.2900e-003**	**0.1677**	**7.5000e-004**	**0.1684**	**0.0445**	**6.9000e-004**	**0.0452**		**133.4818**	**133.4818**	**3.1200e-003**	**3.3500e-003**	**134.5565**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	44.6869					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**44.8676**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0544	0.0355	0.4744	1.4700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		151.2794	151.2794	3.5300e-003	3.7900e-003	152.4974
Total	**0.0544**	**0.0355**	**0.4744**	**1.4700e-003**	**0.1900**	**8.5000e-004**	**0.1909**	**0.0504**	**7.8000e-004**	**0.0512**		**151.2794**	**151.2794**	**3.5300e-003**	**3.7900e-003**	**152.4974**

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	44.6869					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**44.8676**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0544	0.0355	0.4744	1.4700e-003	0.1900	8.5000e-004	0.1909	0.0504	7.8000e-004	0.0512		151.2794	151.2794	3.5300e-003	3.7900e-003	152.4974
Total	**0.0544**	**0.0355**	**0.4744**	**1.4700e-003**	**0.1900**	**8.5000e-004**	**0.1909**	**0.0504**	**7.8000e-004**	**0.0512**		**151.2794**	**151.2794**	**3.5300e-003**	**3.7900e-003**	**152.4974**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.0287	1.6616	10.4138	0.0252	2.7675	0.0208	2.7883	0.7383	0.0195	0.7578		2,612.3810	2,612.3810	0.1359	0.1297	2,654.4188
Unmitigated	1.0386	1.6884	10.5832	0.0257	2.8240	0.0212	2.8452	0.7534	0.0199	0.7733		2,664.2363	2,664.2363	0.1377	0.1318	2,706.9567

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	387.86	391.14	350.55	1,308,764	1,282,589
Total	387.86	391.14	350.55	1,308,764	1,282,589

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Other Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Single Family Housing	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
NaturalGas Unmitigated	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3177.44	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Total		**0.0343**	**0.2928**	**0.1246**	**1.8700e-003**		**0.0237**	**0.0237**		**0.0237**	**0.0237**		**373.8161**	**373.8161**	**7.1600e-003**	**6.8500e-003**	**376.0375**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	3.17744	0.0343	0.2928	0.1246	1.8700e-003		0.0237	0.0237		0.0237	0.0237		373.8161	373.8161	7.1600e-003	6.8500e-003	376.0375
Total		**0.0343**	**0.2928**	**0.1246**	**1.8700e-003**		**0.0237**	**0.0237**		**0.0237**	**0.0237**		**373.8161**	**373.8161**	**7.1600e-003**	**6.8500e-003**	**376.0375**

6.0 Area Detail

6.1 Mitigation Measures Area

Magnolia Ranch Residential - Riverside-South Coast County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376
Unmitigated	3.1020	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187	0.0000	6.0915	6.0915	5.8500e-003	0.0000	6.2376

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2449					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7555					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1017	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187		6.0915	6.0915	5.8500e-003		6.2376
Total	**3.1020**	**0.0390**	**3.3815**	**1.8000e-004**		**0.0187**	**0.0187**		**0.0187**	**0.0187**	**0.0000**	**6.0915**	**6.0915**	**5.8500e-003**	**0.0000**	**6.2376**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2449					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.7555					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1017	0.0390	3.3815	1.8000e-004		0.0187	0.0187		0.0187	0.0187		6.0915	6.0915	5.8500e-003		6.2376
Total	**3.1020**	**0.0390**	**3.3815**	**1.8000e-004**		**0.0187**	**0.0187**		**0.0187**	**0.0187**	**0.0000**	**6.0915**	**6.0915**	**5.8500e-003**	**0.0000**	**6.2376**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

EMFAC2017 Model Printouts

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Air Basin
Region: SOUTH COAST
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
SOUTH CO.	2022	HHDT	Aggregatec	Aggregatec	GAS	77.19581	7790.40352	1544.534	1.875688287
SOUTH CO.	2022	LDA	Aggregatec	Aggregatec	GAS	6370883	246404319.3	30101253	7989.700531
SOUTH CO.	2022	LDT1	Aggregatec	Aggregatec	GAS	716397.4	26563674.69	3305301	1003.18171
SOUTH CO.	2022	LDT2	Aggregatec	Aggregatec	GAS	2182002	82381240.23	10234301	3339.886942
SOUTH CO.	2022	LHDT1	Aggregatec	Aggregatec	GAS	171358.6	6138928.512	2552988	583.2281345
SOUTH CO.	2022	LHDT2	Aggregatec	Aggregatec	GAS	29049.29	1009215.767	432791.1	110.1260053
SOUTH CO.	2022	MCY	Aggregatec	Aggregatec	GAS	288756.3	1994249.265	577512.7	54.92216124
SOUTH CO.	2022	MDV	Aggregatec	Aggregatec	GAS	1530646	54105469.86	7077024	2704.447563
SOUTH CO.	2022	MH	Aggregatec	Aggregatec	GAS	34090.76	324253.0827	3410.439	62.96118679
SOUTH CO.	2022	MHDT	Aggregatec	Aggregatec	GAS	24783.34	1316472.619	495865	259.391887
SOUTH CO.	2022	OBUS	Aggregatec	Aggregatec	GAS	5832.051	240794.901	116687.7	47.77312679
SOUTH CO.	2022	SBUS	Aggregatec	Aggregatec	GAS	2563.073	102707.6059	10252.29	11.26572543
SOUTH CO.	2022	UBUS	Aggregatec	Aggregatec	GAS	952.146	89255.99818	3808.584	18.40085629

vehicle miles per day (All Categories)	420678372	16,187	1,000 gall per day
		16,187,162	gallons per day
Fleet Avg Miles per gallon	26.0		

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Air Basin
Region: SOUTH COAST
Calendar Year: 2022
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
SOUTH CO.	2022	HHDT	Aggregate	Aggregate	DSL	98507.93	11795119.18	994224.5278	1762.986535
SOUTH CO.	2022	LDA	Aggregate	Aggregate	DSL	57443	2304136.238	272823.0302	47.39159146
SOUTH CO.	2022	LDT1	Aggregate	Aggregate	DSL	378.1209	8809.098622	1319.110799	0.391172549
SOUTH CO.	2022	LDT2	Aggregate	Aggregate	DSL	13854.2	592642.9638	68308.95137	16.65070839
SOUTH CO.	2022	LHDT1	Aggregate	Aggregate	DSL	115788.9	4681447.455	1456478.318	217.1134019
SOUTH CO.	2022	LHDT2	Aggregate	Aggregate	DSL	45909.32	1809192.293	577481.5034	92.8866097
SOUTH CO.	2022	MDV	Aggregate	Aggregate	DSL	32417.61	1305872.927	158948.6889	47.80332863
SOUTH CO.	2022	MH	Aggregate	Aggregate	DSL	12198.84	117488.268	1219.883938	11.12023591
SOUTH CO.	2022	MHDT	Aggregate	Aggregate	DSL	119796	7716034.126	1201941.571	720.1602731
SOUTH CO.	2022	OBUS	Aggregate	Aggregate	DSL	4149.674	316404.315	40441.57981	37.45917989
SOUTH CO.	2022	SBUS	Aggregate	Aggregate	DSL	6354.465	200786.3158	73329.64442	26.4174734
SOUTH CO.	2022	UBUS	Aggregate	Aggregate	DSL	14.14142	1478.085683	56.56567323	0.246796198

Diesel Truck (HHDT, MDV, MHDT) vehicle miles per day	20,817,026	2,531	1,000 gall per day
		2,530,950	gallons per day
Diesel Truck Fleet Avg Miles per gallon	8.2		

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Air Basin
Region: SOUTH COAST
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
SOUTH CO	2024	HHDT	Aggregatec	Aggregatec	GAS	73.4	8361	1468	1.9
SOUTH CO	2024	LDA	Aggregatec	Aggregatec	GAS	6543321.5	247047080	30912773	7604.7
SOUTH CO	2024	LDT1	Aggregatec	Aggregatec	GAS	758038.3	27517267	3506784	990.1
SOUTH CO	2024	LDT2	Aggregatec	Aggregatec	GAS	2256847.0	83361536	10593017	3162.7
SOUTH CO	2024	LHDT1	Aggregatec	Aggregatec	GAS	169468.4	5984463	2524826	556.7
SOUTH CO	2024	LHDT2	Aggregatec	Aggregatec	GAS	29259.5	998729	435923	106.8
SOUTH CO	2024	MCY	Aggregatec	Aggregatec	GAS	306168.3	2050950	612337	56.8
SOUTH CO	2024	MDV	Aggregatec	Aggregatec	GAS	1550012.1	53715244	7176828	2521.8
SOUTH CO	2024	MH	Aggregatec	Aggregatec	GAS	33327.2	318279	3334	60.1
SOUTH CO	2024	MHDT	Aggregatec	Aggregatec	GAS	25072.2	1303434	501644	250.5
SOUTH CO	2024	OBUS	Aggregatec	Aggregatec	GAS	5824.2	231713	116530	44.8
SOUTH CO	2024	SBUS	Aggregatec	Aggregatec	GAS	2862.3	111917	11449	12.1
SOUTH CO	2024	UBUS	Aggregatec	Aggregatec	GAS	963.4	90309	3854	17.1

vehicle miles per day (All Categories)	422739281	15,386	1,000 gall per day
		15,386,053	gallons per day

Fleet Avg Miles per gallon	27.5

APPENDIX C

CalEEMod Model Annual Printouts

Magnolia Ranch Residential - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Magnolia Ranch Residential

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	2.11	Acre	2.11	91,911.60	0
Other Non-Asphalt Surfaces	1.11	Acre	1.11	48,351.60	0
City Park	0.51	Acre	0.51	22,215.60	0
Single Family Housing	41.00	Dwelling Unit	6.27	136,598.00	117

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Site = 10 gross acres

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Grading: 2 Excavators, 1 Grader, 1 Rubber Tired Dozer, 2 Scrapers & 2 Crawler Tractors

Off-road Equipment -

Off-road Equipment - Site Preparation: 3 Rubber Tired Dozers & 4 Crawler Tractors

Trips and VMT - 6 vendor trips added to Demo, Site Prep and Grading phases to account for water truck emissions

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demo - 6,700 sq ft of Building = 308 tons + 8,000 sq ft of pavement = 193 tons. Total 502 tons of demo.

Grading - Grading - Import of 5,000 cu yds of dirt

Vehicle Trips - Weekday trip rate set to match TIA of 388 daily trips. City Park set to zero.

Woodstoves - No woodstoves or fireplaces

Construction Off-road Equipment Mitigation - Water Exposed Area 3x per day and Replace Ground Cover selected to account for SCAQMD Rule 403 Minimum requirements

Mobile Land Use Mitigation - Improve Pedestrian Network onsite and connecting offsite.

Energy Mitigation - 273,468 kWh generated from solar PV panels

Water Mitigation - Install low-flow fixtures and use water-efficient irrigation selected to account for Title 24 Part 11 min requirements

Waste Mitigation - 50% reduction in waste selected to account for AB 341

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberGas	34.85	0.00
tblFireplaces	NumberNoFireplace	4.10	41.00
tblFireplaces	NumberWood	2.05	0.00
tblGrading	MaterialImported	0.00	5,000.00
tblLandUse	LandUseSquareFeet	73,800.00	136,598.00
tblLandUse	LotAcreage	13.31	6.27
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	ST_TR	1.96	0.00
tblVehicleTrips	SU_TR	2.19	0.00
tblVehicleTrips	WD_TR	0.78	0.00
tblVehicleTrips	WD_TR	9.44	9.46
tblWoodstoves	NumberCatalytic	2.05	0.00
tblWoodstoves	NumberNoncatalytic	2.05	0.00

2.0 Emissions Summary

Magnolia Ranch Residential - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0271	0.2636	0.2127	4.3000e-004	7.8600e-003	0.0125	0.0204	1.4800e-003	0.0116	0.0131	0.0000	37.7361	37.7361	9.6100e-003	4.1000e-004	38.0990
2023	0.2862	2.5940	2.6552	5.9800e-003	0.3955	0.1127	0.5082	0.1439	0.1054	0.2493	0.0000	530.8382	530.8382	0.1020	0.0135	537.4177
2024	0.5325	0.6955	0.9348	1.8700e-003	0.0478	0.0304	0.0782	0.0129	0.0285	0.0414	0.0000	165.9295	165.9295	0.0295	3.7800e-003	167.7932
Maximum	**0.5325**	**2.5940**	**2.6552**	**5.9800e-003**	**0.3955**	**0.1127**	**0.5082**	**0.1439**	**0.1054**	**0.2493**	**0.0000**	**530.8382**	**530.8382**	**0.1020**	**0.0135**	**537.4177**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0271	0.2636	0.2127	4.3000e-004	4.3100e-003	0.0125	0.0168	9.5000e-004	0.0116	0.0126	0.0000	37.7361	37.7361	9.6100e-003	4.1000e-004	38.0989
2023	0.2862	2.5940	2.6552	5.9800e-003	0.2227	0.1127	0.3353	0.0728	0.1054	0.1782	0.0000	530.8378	530.8378	0.1020	0.0135	537.4173
2024	0.5325	0.6955	0.9348	1.8700e-003	0.0478	0.0304	0.0782	0.0129	0.0285	0.0414	0.0000	165.9293	165.9293	0.0295	3.7800e-003	167.7931
Maximum	**0.5325**	**2.5940**	**2.6552**	**5.9800e-003**	**0.2227**	**0.1127**	**0.3353**	**0.0728**	**0.1054**	**0.1782**	**0.0000**	**530.8378**	**530.8378**	**0.1020**	**0.0135**	**537.4173**

Magnolia Ranch Residential - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	39.10	0.00	29.07	45.25	0.00	23.57	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	12-1-2022	2-28-2023	1.2357	1.2357
2	3-1-2023	5-31-2023	0.5754	0.5754
3	6-1-2023	8-31-2023	0.5749	0.5749
4	9-1-2023	11-30-2023	0.5696	0.5696
5	12-1-2023	2-29-2024	0.5469	0.5469
6	3-1-2024	5-31-2024	0.6332	0.6332
7	6-1-2024	8-31-2024	0.2309	0.2309
		Highest	1.2357	1.2357

Magnolia Ranch Residential - Riverside-South Coast County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5603	4.8700e-003	0.4227	2.0000e-005		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003	0.0000	0.6908	0.6908	6.6000e-004	0.0000	0.7073
Energy	6.2500e-003	0.0534	0.0227	3.4000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	119.8018	119.8018	6.0700e-003	1.7300e-003	120.4684
Mobile	0.1872	0.3027	1.9492	4.6600e-003	0.4950	3.7700e-003	0.4988	0.1322	3.5300e-003	0.1358	0.0000	437.5767	437.5767	0.0222	0.0214	444.5158
Waste						0.0000	0.0000		0.0000	0.0000	9.7456	0.0000	9.7456	0.5760	0.0000	24.1443
Water						0.0000	0.0000		0.0000	0.0000	0.8475	10.6841	11.5316	0.0880	2.1600e-003	14.3753
Total	**0.7537**	**0.3610**	**2.3946**	**5.0200e-003**	**0.4950**	**0.0104**	**0.5054**	**0.1322**	**0.0102**	**0.1424**	**10.5931**	**568.7534**	**579.3464**	**0.6929**	**0.0253**	**604.2111**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5603	4.8700e-003	0.4227	2.0000e-005		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003	0.0000	0.6908	0.6908	6.6000e-004	0.0000	0.7073
Energy	6.2500e-003	0.0534	0.0227	3.4000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	71.3035	71.3035	1.9800e-003	1.2300e-003	71.7198
Mobile	0.1854	0.2978	1.9176	4.5700e-003	0.4851	3.7000e-003	0.4888	0.1296	3.4700e-003	0.1331	0.0000	429.0545	429.0545	0.0219	0.0211	435.8823
Waste						0.0000	0.0000		0.0000	0.0000	4.8728	0.0000	4.8728	0.2880	0.0000	12.0722
Water						0.0000	0.0000		0.0000	0.0000	0.6780	9.1749	9.8529	0.0704	1.7400e-003	12.1311
Total	**0.7519**	**0.3561**	**2.3630**	**4.9300e-003**	**0.4851**	**0.0104**	**0.4954**	**0.1296**	**0.0101**	**0.1397**	**5.5508**	**510.2237**	**515.7745**	**0.3829**	**0.0240**	**532.5128**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.24**	**1.34**	**1.32**	**1.79**	**2.00**	**0.67**	**1.97**	**2.00**	**0.59**	**1.90**	**47.60**	**10.29**	**10.97**	**44.73**	**5.02**	**11.87**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	12/1/2022	12/28/2022	5	20	
2	Site Preparation	Site Preparation	1/2/2023	1/13/2023	5	10	
3	Grading	Grading	1/14/2023	2/24/2023	5	30	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	2/25/2023	4/19/2024	5	300	
5	Paving	Paving	4/20/2024	5/17/2024	5	20	
6	Architectural Coating	Architectural Coating	5/18/2024	6/14/2024	5	20	

Acres of Grading (Site Preparation Phase): 35

Acres of Grading (Grading Phase): 120

Acres of Paving: 3.22

Residential Indoor: 276,611; Residential Outdoor: 92,204; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 8,416 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Crawler Tractors	4	8.00	212	0.43
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	2	8.00	212	0.43
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	6.00	50.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	6.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	6.00	625.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	83.00	31.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.4000e-003	0.0000	5.4000e-003	8.2000e-004	0.0000	8.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**5.4000e-003**	**0.0124**	**0.0178**	**8.2000e-004**	**0.0116**	**0.0124**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.3700e-003	7.2000e-004	1.0000e-005	4.3000e-004	4.0000e-005	4.7000e-004	1.2000e-004	4.0000e-005	1.5000e-004	0.0000	1.3915	1.3915	2.0000e-005	2.2000e-004	1.4573
Vendor	1.0000e-004	2.6600e-003	9.0000e-004	1.0000e-005	3.8000e-004	4.0000e-005	4.2000e-004	1.1000e-004	4.0000e-005	1.4000e-004	0.0000	1.0507	1.0507	1.0000e-005	1.6000e-004	1.0974
Worker	5.2000e-004	4.1000e-004	5.1100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3037	1.3037	3.0000e-005	4.0000e-005	1.3153
Total	**7.0000e-004**	**6.4400e-003**	**6.7300e-003**	**3.0000e-005**	**2.4600e-003**	**9.0000e-005**	**2.5500e-003**	**6.7000e-004**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**3.7459**	**3.7459**	**6.0000e-005**	**4.2000e-004**	**3.8700**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8500e-003	0.0000	1.8500e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**1.8500e-003**	**0.0124**	**0.0143**	**2.8000e-004**	**0.0116**	**0.0118**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.3700e-003	7.2000e-004	1.0000e-005	4.3000e-004	4.0000e-005	4.7000e-004	1.2000e-004	4.0000e-005	1.5000e-004	0.0000	1.3915	1.3915	2.0000e-005	2.2000e-004	1.4573
Vendor	1.0000e-004	2.6600e-003	9.0000e-004	1.0000e-005	3.8000e-004	4.0000e-005	4.2000e-004	1.1000e-004	4.0000e-005	1.4000e-004	0.0000	1.0507	1.0507	1.0000e-005	1.6000e-004	1.0974
Worker	5.2000e-004	4.1000e-004	5.1100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3037	1.3037	3.0000e-005	4.0000e-005	1.3153
Total	**7.0000e-004**	**6.4400e-003**	**6.7300e-003**	**3.0000e-005**	**2.4600e-003**	**9.0000e-005**	**2.5500e-003**	**6.7000e-004**	**9.0000e-005**	**7.4000e-004**	**0.0000**	**3.7459**	**3.7459**	**6.0000e-005**	**4.2000e-004**	**3.8700**

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3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1089	0.0000	0.1089	0.0517	0.0000	0.0517	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0192	0.2094	0.0915	2.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	25.0115	25.0115	8.0900e-003	0.0000	25.2137
Total	**0.0192**	**0.2094**	**0.0915**	**2.8000e-004**	**0.1089**	**8.7900e-003**	**0.1177**	**0.0517**	**8.0900e-003**	**0.0598**	**0.0000**	**25.0115**	**25.0115**	**8.0900e-003**	**0.0000**	**25.2137**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0300e-003	4.1000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5048	0.5048	1.0000e-005	7.0000e-005	0.5271
Worker	2.9000e-004	2.2000e-004	2.8300e-003	1.0000e-005	9.9000e-004	0.0000	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7617	0.7617	2.0000e-005	2.0000e-005	0.7681
Total	**3.2000e-004**	**1.2500e-003**	**3.2400e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.2665**	**1.2665**	**3.0000e-005**	**9.0000e-005**	**1.2952**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0374	0.0000	0.0374	0.0177	0.0000	0.0177	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0192	0.2094	0.0915	2.8000e-004		8.7900e-003	8.7900e-003		8.0900e-003	8.0900e-003	0.0000	25.0115	25.0115	8.0900e-003	0.0000	25.2137
Total	**0.0192**	**0.2094**	**0.0915**	**2.8000e-004**	**0.0374**	**8.7900e-003**	**0.0462**	**0.0177**	**8.0900e-003**	**0.0258**	**0.0000**	**25.0115**	**25.0115**	**8.0900e-003**	**0.0000**	**25.2137**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0300e-003	4.1000e-004	1.0000e-005	1.9000e-004	1.0000e-005	2.0000e-004	5.0000e-005	1.0000e-005	6.0000e-005	0.0000	0.5048	0.5048	1.0000e-005	7.0000e-005	0.5271
Worker	2.9000e-004	2.2000e-004	2.8300e-003	1.0000e-005	9.9000e-004	0.0000	9.9000e-004	2.6000e-004	0.0000	2.7000e-004	0.0000	0.7617	0.7617	2.0000e-005	2.0000e-005	0.7681
Total	**3.2000e-004**	**1.2500e-003**	**3.2400e-003**	**2.0000e-005**	**1.1800e-003**	**1.0000e-005**	**1.1900e-003**	**3.1000e-004**	**1.0000e-005**	**3.3000e-004**	**0.0000**	**1.2665**	**1.2665**	**3.0000e-005**	**9.0000e-005**	**1.2952**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1543	0.0000	0.1543	0.0566	0.0000	0.0566	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0586	0.6254	0.4211	1.0700e-003		0.0251	0.0251		0.0231	0.0231	0.0000	94.2320	94.2320	0.0305	0.0000	94.9939
Total	**0.0586**	**0.6254**	**0.4211**	**1.0700e-003**	**0.1543**	**0.0251**	**0.1793**	**0.0566**	**0.0231**	**0.0796**	**0.0000**	**94.2320**	**94.2320**	**0.0305**	**0.0000**	**94.9939**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.6000e-004	0.0329	8.6600e-003	1.7000e-004	5.3900e-003	3.8000e-004	5.7700e-003	1.4800e-003	3.6000e-004	1.8400e-003	0.0000	16.6463	16.6463	2.3000e-004	2.6200e-003	17.4339
Vendor	1.0000e-004	3.0900e-003	1.2300e-003	2.0000e-005	5.7000e-004	3.0000e-005	5.9000e-004	1.6000e-004	2.0000e-005	1.9000e-004	0.0000	1.5143	1.5143	2.0000e-005	2.2000e-004	1.5814
Worker	9.7000e-004	7.2000e-004	9.4200e-003	3.0000e-005	3.3000e-003	2.0000e-005	3.3100e-003	8.8000e-004	1.0000e-005	8.9000e-004	0.0000	2.5390	2.5390	6.0000e-005	7.0000e-005	2.5604
Total	**1.7300e-003**	**0.0367**	**0.0193**	**2.2000e-004**	**9.2600e-003**	**4.3000e-004**	**9.6700e-003**	**2.5200e-003**	**3.9000e-004**	**2.9200e-003**	**0.0000**	**20.6995**	**20.6995**	**3.1000e-004**	**2.9100e-003**	**21.5756**

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3.4 Grading - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0530	0.0000	0.0530	0.0194	0.0000	0.0194	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0586	0.6254	0.4211	1.0700e-003		0.0251	0.0251		0.0231	0.0231	0.0000	94.2319	94.2319	0.0305	0.0000	94.9938
Total	**0.0586**	**0.6254**	**0.4211**	**1.0700e-003**	**0.0530**	**0.0251**	**0.0780**	**0.0194**	**0.0231**	**0.0425**	**0.0000**	**94.2319**	**94.2319**	**0.0305**	**0.0000**	**94.9938**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.6000e-004	0.0329	8.6600e-003	1.7000e-004	5.3900e-003	3.8000e-004	5.7700e-003	1.4800e-003	3.6000e-004	1.8400e-003	0.0000	16.6463	16.6463	2.3000e-004	2.6200e-003	17.4339
Vendor	1.0000e-004	3.0900e-003	1.2300e-003	2.0000e-005	5.7000e-004	3.0000e-005	5.9000e-004	1.6000e-004	2.0000e-005	1.9000e-004	0.0000	1.5143	1.5143	2.0000e-005	2.2000e-004	1.5814
Worker	9.7000e-004	7.2000e-004	9.4200e-003	3.0000e-005	3.3000e-003	2.0000e-005	3.3100e-003	8.8000e-004	1.0000e-005	8.9000e-004	0.0000	2.5390	2.5390	6.0000e-005	7.0000e-005	2.5604
Total	**1.7300e-003**	**0.0367**	**0.0193**	**2.2000e-004**	**9.2600e-003**	**4.3000e-004**	**9.6700e-003**	**2.5200e-003**	**3.9000e-004**	**2.9200e-003**	**0.0000**	**20.6995**	**20.6995**	**3.1000e-004**	**2.9100e-003**	**21.5756**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9852	254.9852	0.0607	0.0000	256.5017
Total	**0.1730**	**1.5823**	**1.7868**	**2.9600e-003**		**0.0770**	**0.0770**		**0.0724**	**0.0724**	**0.0000**	**254.9852**	**254.9852**	**0.0607**	**0.0000**	**256.5017**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7000e-003	0.1169	0.0466	6.0000e-004	0.0215	9.7000e-004	0.0225	6.2200e-003	9.3000e-004	7.1500e-003	0.0000	57.3734	57.3734	5.8000e-004	8.4800e-003	59.9160
Worker	0.0296	0.0220	0.2866	8.3000e-004	0.1004	4.8000e-004	0.1008	0.0267	4.4000e-004	0.0271	0.0000	77.2701	77.2701	1.9000e-003	2.0300e-003	77.9216
Total	**0.0333**	**0.1389**	**0.3332**	**1.4300e-003**	**0.1219**	**1.4500e-003**	**0.1233**	**0.0329**	**1.3700e-003**	**0.0342**	**0.0000**	**134.6435**	**134.6435**	**2.4800e-003**	**0.0105**	**137.8376**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1730	1.5823	1.7868	2.9600e-003		0.0770	0.0770		0.0724	0.0724	0.0000	254.9849	254.9849	0.0607	0.0000	256.5013
Total	**0.1730**	**1.5823**	**1.7868**	**2.9600e-003**		**0.0770**	**0.0770**		**0.0724**	**0.0724**	**0.0000**	**254.9849**	**254.9849**	**0.0607**	**0.0000**	**256.5013**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7000e-003	0.1169	0.0466	6.0000e-004	0.0215	9.7000e-004	0.0225	6.2200e-003	9.3000e-004	7.1500e-003	0.0000	57.3734	57.3734	5.8000e-004	8.4800e-003	59.9160
Worker	0.0296	0.0220	0.2866	8.3000e-004	0.1004	4.8000e-004	0.1008	0.0267	4.4000e-004	0.0271	0.0000	77.2701	77.2701	1.9000e-003	2.0300e-003	77.9216
Total	**0.0333**	**0.1389**	**0.3332**	**1.4300e-003**	**0.1219**	**1.4500e-003**	**0.1233**	**0.0329**	**1.3700e-003**	**0.0342**	**0.0000**	**134.6435**	**134.6435**	**2.4800e-003**	**0.0105**	**137.8376**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7396	92.7396	0.0219	0.0000	93.2879
Total	**0.0589**	**0.5378**	**0.6467**	**1.0800e-003**		**0.0245**	**0.0245**		**0.0231**	**0.0231**	**0.0000**	**92.7396**	**92.7396**	**0.0219**	**0.0000**	**93.2879**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0425	0.0168	2.1000e-004	7.8300e-003	3.5000e-004	8.1800e-003	2.2600e-003	3.4000e-004	2.6000e-003	0.0000	20.5417	20.5417	2.2000e-004	3.0300e-003	21.4509
Worker	0.0101	7.1100e-003	0.0976	2.9000e-004	0.0365	1.7000e-004	0.0367	9.6900e-003	1.5000e-004	9.8400e-003	0.0000	27.4250	27.4250	6.3000e-004	6.8000e-004	27.6446
Total	**0.0114**	**0.0496**	**0.1144**	**5.0000e-004**	**0.0443**	**5.2000e-004**	**0.0448**	**0.0120**	**4.9000e-004**	**0.0124**	**0.0000**	**47.9667**	**47.9667**	**8.5000e-004**	**3.7100e-003**	**49.0955**

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3.5 Building Construction - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0589	0.5378	0.6467	1.0800e-003		0.0245	0.0245		0.0231	0.0231	0.0000	92.7395	92.7395	0.0219	0.0000	93.2878
Total	**0.0589**	**0.5378**	**0.6467**	**1.0800e-003**		**0.0245**	**0.0245**		**0.0231**	**0.0231**	**0.0000**	**92.7395**	**92.7395**	**0.0219**	**0.0000**	**93.2878**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3200e-003	0.0425	0.0168	2.1000e-004	7.8300e-003	3.5000e-004	8.1800e-003	2.2600e-003	3.4000e-004	2.6000e-003	0.0000	20.5417	20.5417	2.2000e-004	3.0300e-003	21.4509
Worker	0.0101	7.1100e-003	0.0976	2.9000e-004	0.0365	1.7000e-004	0.0367	9.6900e-003	1.5000e-004	9.8400e-003	0.0000	27.4250	27.4250	6.3000e-004	6.8000e-004	27.6446
Total	**0.0114**	**0.0496**	**0.1144**	**5.0000e-004**	**0.0443**	**5.2000e-004**	**0.0448**	**0.0120**	**4.9000e-004**	**0.0124**	**0.0000**	**47.9667**	**47.9667**	**8.5000e-004**	**3.7100e-003**	**49.0955**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1885
Paving	2.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.2000e-004	4.4100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2391	1.2391	3.0000e-005	3.0000e-005	1.2490
Total	**4.5000e-004**	**3.2000e-004**	**4.4100e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.2391**	**1.2391**	**3.0000e-005**	**3.0000e-005**	**1.2490**

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3.6 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.8800e-003	0.0953	0.1463	2.3000e-004		4.6900e-003	4.6900e-003		4.3100e-003	4.3100e-003	0.0000	20.0265	20.0265	6.4800e-003	0.0000	20.1884
Paving	2.7600e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0126**	**0.0953**	**0.1463**	**2.3000e-004**		**4.6900e-003**	**4.6900e-003**		**4.3100e-003**	**4.3100e-003**	**0.0000**	**20.0265**	**20.0265**	**6.4800e-003**	**0.0000**	**20.1884**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	3.2000e-004	4.4100e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2391	1.2391	3.0000e-005	3.0000e-005	1.2490
Total	**4.5000e-004**	**3.2000e-004**	**4.4100e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.2391**	**1.2391**	**3.0000e-005**	**3.0000e-005**	**1.2490**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5569
Total	**0.4487**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5569**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.6000e-004	5.0000e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.0000e-004	0.0000	1.4043	1.4043	3.0000e-005	4.0000e-005	1.4155
Total	**5.2000e-004**	**3.6000e-004**	**5.0000e-003**	**2.0000e-005**	**1.8700e-003**	**1.0000e-005**	**1.8800e-003**	**5.0000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4043**	**1.4043**	**3.0000e-005**	**4.0000e-005**	**1.4155**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4469					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8100e-003	0.0122	0.0181	3.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5568
Total	**0.4487**	**0.0122**	**0.0181**	**3.0000e-005**		**6.1000e-004**	**6.1000e-004**		**6.1000e-004**	**6.1000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5568**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	3.6000e-004	5.0000e-003	2.0000e-005	1.8700e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.0000e-004	0.0000	1.4043	1.4043	3.0000e-005	4.0000e-005	1.4155
Total	**5.2000e-004**	**3.6000e-004**	**5.0000e-003**	**2.0000e-005**	**1.8700e-003**	**1.0000e-005**	**1.8800e-003**	**5.0000e-004**	**1.0000e-005**	**5.0000e-004**	**0.0000**	**1.4043**	**1.4043**	**3.0000e-005**	**4.0000e-005**	**1.4155**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Improve Pedestrian Network

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1854	0.2978	1.9176	4.5700e-003	0.4851	3.7000e-003	0.4888	0.1296	3.4700e-003	0.1331	0.0000	429.0545	429.0545	0.0219	0.0211	435.8823
Unmitigated	0.1872	0.3027	1.9492	4.6600e-003	0.4950	3.7700e-003	0.4988	0.1322	3.5300e-003	0.1358	0.0000	437.5767	437.5767	0.0222	0.0214	444.5158

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Single Family Housing	387.86	391.14	350.55	1,308,764	1,282,589
Total	387.86	391.14	350.55	1,308,764	1,282,589

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Other Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Other Non-Asphalt Surfaces	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189
Single Family Housing	0.537845	0.056225	0.173186	0.138405	0.025906	0.007191	0.011447	0.018769	0.000611	0.000309	0.023821	0.001097	0.005189

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	9.4140	9.4140	7.9000e-004	1.0000e-004	9.4626
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	57.9124	57.9124	4.8900e-003	5.9000e-004	58.2111
NaturalGas Mitigated	6.2500e-003	0.0534	0.0227	3.4000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	61.8895	61.8895	1.1900e-003	1.1300e-003	62.2572
NaturalGas Unmitigated	6.2500e-003	0.0534	0.0227	3.4000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	61.8895	61.8895	1.1900e-003	1.1300e-003	62.2572

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.15976e+006	6.2500e-003	0.0534	0.0227	3.4000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	61.8895	61.8895	1.1900e-003	1.1300e-003	62.2572
Total		**6.2500e-003**	**0.0534**	**0.0227**	**3.4000e-004**		**4.3200e-003**	**4.3200e-003**		**4.3200e-003**	**4.3200e-003**	**0.0000**	**61.8895**	**61.8895**	**1.1900e-003**	**1.1300e-003**	**62.2572**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Family Housing	1.15976e+006	6.2500e-003	0.0534	0.0227	3.4000e-004		4.3200e-003	4.3200e-003		4.3200e-003	4.3200e-003	0.0000	61.8895	61.8895	1.1900e-003	1.1300e-003	62.2572
Total		**6.2500e-003**	**0.0534**	**0.0227**	**3.4000e-004**		**4.3200e-003**	**4.3200e-003**		**4.3200e-003**	**4.3200e-003**	**0.0000**	**61.8895**	**61.8895**	**1.1900e-003**	**1.1300e-003**	**62.2572**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	326551	57.9124	4.8900e-003	5.9000e-004	58.2111
Total		**57.9124**	**4.8900e-003**	**5.9000e-004**	**58.2111**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	-68367	-12.1246	-0.0010	-0.0001	-12.1871
Other Asphalt Surfaces	-68367	-12.1246	-0.0010	-0.0001	-12.1871
Other Non-Asphalt Surfaces	-68367	-12.1246	-0.0010	-0.0001	-12.1871
Single Family Housing	258184	45.7878	3.8600e-003	4.7000e-004	46.0240
Total		**9.4141**	**8.0000e-004**	**1.1000e-004**	**9.4626**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5603	4.8700e-003	0.4227	2.0000e-005		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003	0.0000	0.6908	0.6908	6.6000e-004	0.0000	0.7073
Unmitigated	0.5603	4.8700e-003	0.4227	2.0000e-005		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003	0.0000	0.6908	0.6908	6.6000e-004	0.0000	0.7073

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0447					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5029					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0127	4.8700e-003	0.4227	2.0000e-005		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003	0.0000	0.6908	0.6908	6.6000e-004	0.0000	0.7073
Total	**0.5603**	**4.8700e-003**	**0.4227**	**2.0000e-005**		**2.3400e-003**	**2.3400e-003**		**2.3400e-003**	**2.3400e-003**	**0.0000**	**0.6908**	**0.6908**	**6.6000e-004**	**0.0000**	**0.7073**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0447					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.5029					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0127	4.8700e-003	0.4227	2.0000e-005		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003	0.0000	0.6908	0.6908	6.6000e-004	0.0000	0.7073
Total	**0.5603**	**4.8700e-003**	**0.4227**	**2.0000e-005**		**2.3400e-003**	**2.3400e-003**		**2.3400e-003**	**2.3400e-003**	**0.0000**	**0.6908**	**0.6908**	**6.6000e-004**	**0.0000**	**0.7073**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.8529	0.0704	1.7400e-003	12.1311
Unmitigated	11.5316	0.0880	2.1600e-003	14.3753

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.607655	1.1973	1.0000e-004	1.0000e-005	1.2035
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.67132 / 1.68409	10.3343	0.0879	2.1500e-003	13.1719
Total		**11.5316**	**0.0880**	**2.1600e-003**	**14.3753**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 0.570589	1.1242	9.0000e-005	1.0000e-005	1.1300
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	2.13705 / 1.58136	8.7287	0.0703	1.7300e-003	11.0011
Total		**9.8529**	**0.0704**	**1.7400e-003**	**12.1311**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.8728	0.2880	0.0000	12.0722
Unmitigated	9.7456	0.5760	0.0000	24.1443

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.04	8.1200e-003	4.8000e-004	0.0000	0.0201
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	47.97	9.7375	0.5755	0.0000	24.1242
Total		**9.7456**	**0.5760**	**0.0000**	**24.1443**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.02	4.0600e-003	2.4000e-004	0.0000	0.0101
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	23.985	4.8687	0.2877	0.0000	12.0621
Total		**4.8728**	**0.2880**	**0.0000**	**12.0722**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number

11.0 Vegetation

Appendix 5

Biological Resources Assessment

Magnolia Ranch Residential Project

Initial Study

FIRSTCARBONSOLUTIONS™

Biological Resources Assessment
Eastvale Orange Street Residential Development Project
City of Eastvale, Riverside County, California

Project Applicant:
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Irvine, CA 92606

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Date: May 31, 2022

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SECTION 1: INTRODUCTION

FirstCarbon Solutions (FCS) prepared this Biological Resources Assessment (BRA) for the Eastvale Orange Street Residential Development Project (proposed project). The purpose of the BRA is to (1) document existing and potentially occurring biological resources on the project site and adjacent areas; (2) analyze potential project-related impacts on regulated biological resources; (3) summarize relevant local, State, and federal regulations; and (4) recommend appropriate measures to mitigate potential impacts on biological resources to less-than-significant levels.

1.1 - Project Location

The proposed project site is 10 gross acres (8.28 net acres) in size and located at 13175 Orange Street, in the City of Eastvale, in Riverside County, California (Exhibit 1). The project site is located south of Schleisman Road, approximately 1.25 miles west of Interstate 15 (I-15), and approximately 1.5 miles north of the Santa Ana River (Exhibit 2). Regional access to the project parcel is provided by I-15, which is located approximately 1.22 miles east of the project site, and local access is provided by Schleisman Road and Orange Street. The site consists of Assessor's Parcel Number (APN) 152-040-003, and is located within the *Corona North, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

1.2 - Project Description

MLC Holdings Inc. (Client) is proposing to develop a residential development community, consisting of 41 single-family detached homes on 8.28 acres for a density of 4.95 dwelling units per acre (du/acre). The homes would range from 2,054 square feet to 3,153 square feet in size and consist of 11 one-story homes with four bedrooms and 30 two-story homes with five bedrooms and a loft. The proposed project would include vehicular access from Schleisman Road and secondary access from Orange Street. The proposed project would provide two garage spaces and two driveway spaces per dwelling unit, for a total of 164 spaces, as well as an additional 59 parallel street parking spaces. A 45-foot-wide paseo would be located in the center of the community that would consist of a trail, bench, and dog station that would be maintained by the Homeowner's Association (HOA).

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Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

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Source: bing Aerial Imagery.

FIRSTCARBON SOLUTIONS™

1,000 500 0 1,000 Feet

Exhibit 2
Local Vicinity Map

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SECTION 2: REGULATORY SETTING

2.1 - Federal

2.1.1 - Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the Federal Endangered Species Act (FESA). Section 9 of FESA protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." FESA protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

2.1.2 - Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq*.).

2.1.3 - Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq*.) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

2.1.4 - Clean Water Act

Section 404

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. The USACE has established a series of nationwide permits that authorize certain activities in waters of the United States if a proposed activity can demonstrate compliance with standard conditions. Normally, the USACE requires an individual permit for an activity that will affect an area equal to or greater than 0.5 acre or greater than 0.5 acre of waters of the United States. A project that results in impacts to less than 0.5 acre of waters of the United States can normally be conducted pursuant to one of the nationwide permits if it is consistent with the standard permit conditions. The USACE also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to between 0.1 and 0.5 acre. Use of any nationwide permit is contingent on the activities having no impacts on endangered species.

Section 401

As stated in Section 401 of the CWA, "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act." Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

2.2 - State

2.2.1 - CEQA Guidelines

The following California Environmental Quality Act (CEQA) Guidelines Appendix G checklist questions serve as thresholds of significance when evaluating the potential impacts of a proposed project on biological resources. Impacts are considered significant if a project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

2.2.2 - California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to FESA but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify

"reasonable and prudent alternatives" to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State's prohibition against take of a listed species if the "take" of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

2.2.3 - California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California's rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA. Fish and Game Code Section 2081 established an incidental take permit program for state-listed species. The CDFW maintains a list of "candidate species," which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq*.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way." Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

In addition to formal listing under FESA and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a "Species of Special Concern." The CDFW maintains lists of "Species of Special Concern" that serve as species "watch lists." Species with this status may have limited distributions or limited populations, and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500 to 5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. "Take" of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that "may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake" or "deposit debris, waste, or other materials that could pass into any river, stream, or lake." "River, stream, or lake" includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

2.2.4 - California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the State" (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the State" (Water Code § 13050(e)).

2.2.5 - California Native Plant Society

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed Extinct in California
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere
- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which we need more information—A Review List
- **Rank 4:** Plants of limited distribution—A Watch List

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing on the CNPS List ranked 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. While only some of the plants ranked 3 and 4 meet the definitions of threatened or endangered species, potential impacts to these species or their habitats should be analyzed during the preparation of environmental documents pursuant to CEQA, as they may meet the definition of Rare or Endangered under the CEQA Guidelines Section 15380 criteria.

2.2.6 - Regional and Local

Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in Western Riverside County. The MSHCP Plan Area encompasses approximately 1.26 million acres (1,966 square miles); it includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line, as well as the jurisdictional areas of the cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. The MSHCP serves as an HCP pursuant to Section 10(a)(1)(B) of FESA, as well as a Natural Community Conservation Plan (NCCP) under the NCCP Act of 2001. The MSHCP allows the participating jurisdictions to authorize "take" of plant and wildlife species identified within the Plan Area. The USFWS and CDFW have authority to regulate the take of Threatened, Endangered, and rare Species. Under the MSHCP, these agencies may grant "Take Authorization" for otherwise lawful actions–such as public and private development that may incidentally take or harm individual species or their habitat outside of the MSHCP Conservation Area–in exchange for the assembly and management of a coordinated MSHCP Conservation Area.

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SECTION 3: METHODS

3.1 - Literature Review

This literature review provides a baseline from which to evaluate project impacts on biological resources potentially occurring on the project site and in the surrounding area.

3.1.1 - Existing Documentation

This report was based on the result of a previous due diligence memorandum prepared for the project site on February 10, 2021, by FCS. As part of the literature review, an FCS Biologist also examined existing environmental documentation for the project site and vicinity including literature pertaining to the habitat requirements of special-status species with the potential to occur in the project vicinity; and federal register listings, protocols, and species data provided by the USFWS and CDFW.

3.1.2 - Topographic Maps and Aerial Photographs

An FCS Biologist reviewed current USGS 7.5-minute topographic quadrangle map(s)and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity.[1] Information obtained from the topographic maps included elevation, general watershed information, and potential drainage feature locations using Google Earth in conjunction with the United States Environmental Protection Agency (EPA) Watershed Assessment, Tracking, and Environmental Results System (WATERS).[2] Aerial photographs provided a perspective of the current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors.

3.1.3 - Soil Surveys

The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series (i.e., group of soils with similar profiles) occurring within a particular area.[3] These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units that provide specific information regarding soil characteristics. Many special-status plant species have a limited distribution based exclusively on soil type. Therefore, pertinent USDA soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish whether the soil conditions on-site are suitable for any special-status plant species.

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1 United States Geological Survey (USGS). 2021. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed January 18, 2021.

2 United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed January 18, 2021.

3 Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed January 18, 2021.

3.1.4 - Special-status Species Database Search

An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the CNDDB and the CNPS Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California for the *Corona North, California,* USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles.[4,5]

The CNDDB Biogeographic Information and Observation System (BIOS 5) database was used to determine the distance between the known occurrences of special-status species and the project site.[6]

3.1.5 - Trees

Prior to conducting the reconnaissance-level field survey, an FCS Biologist reviewed applicable City and County ordinances pertaining to tree preservation and protection and ascertained whether tree replacement measures or permits for the removal of protected trees are required.

3.1.6 - Jurisdictional Waters and Wetlands

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed EPA WATERS and aerial photography to identify potential natural drainage features and water bodies.[7] In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flows and considered potentially subject to state and federal regulatory authority as waters of the United States and/or State. A preliminary assessment was conducted to determine the location of any existing drainages and limits of project-related grading activities, to aid in determining whether a formal delineation of waters of the United States or State is necessary.

3.1.7 - Western Riverside County Multiple Species Habitat Conservation Plan

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed the Western Riverside County Regional Riverside Conservation Authority (RCA) MSHCP Information Map in order to determine what biological constraints are applicable to the proposed project.[8]

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4 California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed January 18, 2021.

5 California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed January 18, 2021.

6 California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 18, 2021.

7 United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system. Accessed January 18, 2021.

8 Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

3.2 - Field Survey

An FCS Biologist conducted a reconnaissance-level field survey of the field site, and took notes on general site conditions, vegetation, and suitability of habitat for various special-status elements. Site photographs are provided in Appendix A. A preliminary assessment was conducted to determine the location of any existing drainages and the limits of project-related grading activities, to aid in determining whether a formal delineation of waters of the United States or State is necessary.

3.2.1 - Vegetation

An FCS Biologist identified common plant species observed during the reconnaissance-level survey based on visual characteristics and morphology and recorded their observations in a field notebook. Uncommon and fewer familiar plants were identified with the use of taxonomical guides, including Jepson eFlora and Calflora.[9,10] Taxonomic nomenclature used in this study follows The Jepson Manual: Vascular Plants of California.[11] Common plant names, when not available from The Jepson Manual, were taken from other regionally specific references. Vegetation types and boundaries were noted on aerial photos, verified through field observation, and digitized using ESRI ArcGIS software® ArcMap 10.8. By incorporating collected field data and interpreting aerial photography, a map of habitat types, land cover types, and other biological resources within the project site was prepared. Vegetation community and land cover types used to help classify habitat types are based on the Manual of California Vegetation (MCV) and cross-referenced with the CDFW Natural Communities List.[12,13]

3.2.2 - Wildlife

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded. Notations were made regarding suitable habitat for those special-status species determined to have the potential to occur within the project site.[14] Appropriate field guides were used to assist in species identification during surveys, such as Peterson, Reid, and Stebbins.[15,16,17] Online resources such as eBird and California Herps were also consulted, as necessary. [18,19]

[9] Jepson Flora Project (eds.) 2021. Jepson eFlora, https://ucjeps.berkeley.edu/eflora/. Accessed January 18, 2021.
[10] Calflora. 2021. Calflora: Information on California plants for education, research, and conservation. Website: http://www.calflora.org/. Accessed January 18, 2021.
[11] Baldwin, B. et al. 2012. The Jepson Manual: Vascular Plants of California. Berkeley: University of California Press. County of San Bernardino (Bernardino). 2007 (amended 2015).
[12] Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp.
[13] California Department of Fish and Wildlife (CDFW). 2021. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities. Accessed Updated September 9, 2020.
[14] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed January 18, 2021.
[15] Peterson, T.R. 2010. A Field Guide to Birds of Western North America, Fourth Edition. Boston: Houghton Mifflin Harcourt.
[16] Reid, F. 2006. A Field Guide to Mammals of North America, Fourth Edition. Boston: Houghton Mifflin Harcourt.
[17] Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. Third Edition. Boston: Houghton Mifflin Harcourt.
[18] eBird. 2021. Online bird occurrence database. Website: http://ebird.org/content/ebird/. Accessed January 18, 2021.
[19] California Herps. 2021. A Guide to the Amphibians and Reptiles of California. Website: http://www.californiaherps.com/ Accessed January 18, 2021.

3.2.3 - Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated “islands” of wildlife habitat, forming separated populations. Corridors act as an effective link between populations.

The project site was evaluated for evidence of a wildlife movement corridor during the reconnaissance-level survey. The scope of the biological resource assessment did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. Rather, the focus of this study was to determine whether a change in land use at the project site could have significant impacts on the regional movement of wildlife. Conclusions are based on the information compiled during the literature review, including aerial photographs, USGS topographic maps and resource maps for the vicinity; the field survey; and professional experience with the desired topography, habitat, and resource requirements of the special-status species potentially utilizing the project site and vicinity.

SECTION 4: RESULTS

This section summarizes the results of the literature search, database review, as well as three consecutive botanical and wildlife field surveys conducted by FCS Biologist, Alec Villanueva, on January 19, 2021. Weather conditions during the field survey were sunny and clear, with an approximate temperature of 62°F (degrees Fahrenheit). Wind speeds averaged 22 miles per hour (mph).

4.1 - Environmental Setting

Existing development on the project site includes a ranch-style single-family home. The property includes a large driveway and a front yard south of the main structure as well as an open-faced barn and several corrals located north of the main structure. Fenced fallow pastures dominate most of the property, presumably for grazing livestock. The vegetation found in these areas consists of low-growing ruderal vegetation and non-native grasses. The fields show evidence of frequent disturbance from mowing, evidenced by tire tracks and vegetation that does not exceed more than a few inches in height. The project site is surrounded by urban development in all directions, including single-family residential homes located to north and west, and an elementary school and an intermediate school located to the east and south, respectively (Exhibit 2; Attachment A).

4.1.1 - Topography

Topography within the study area is generally flat and ranges in elevation from approximately 610 to 620 feet above mean sea level, with the high point in the northeast corner generally sloping toward the southwest corner.

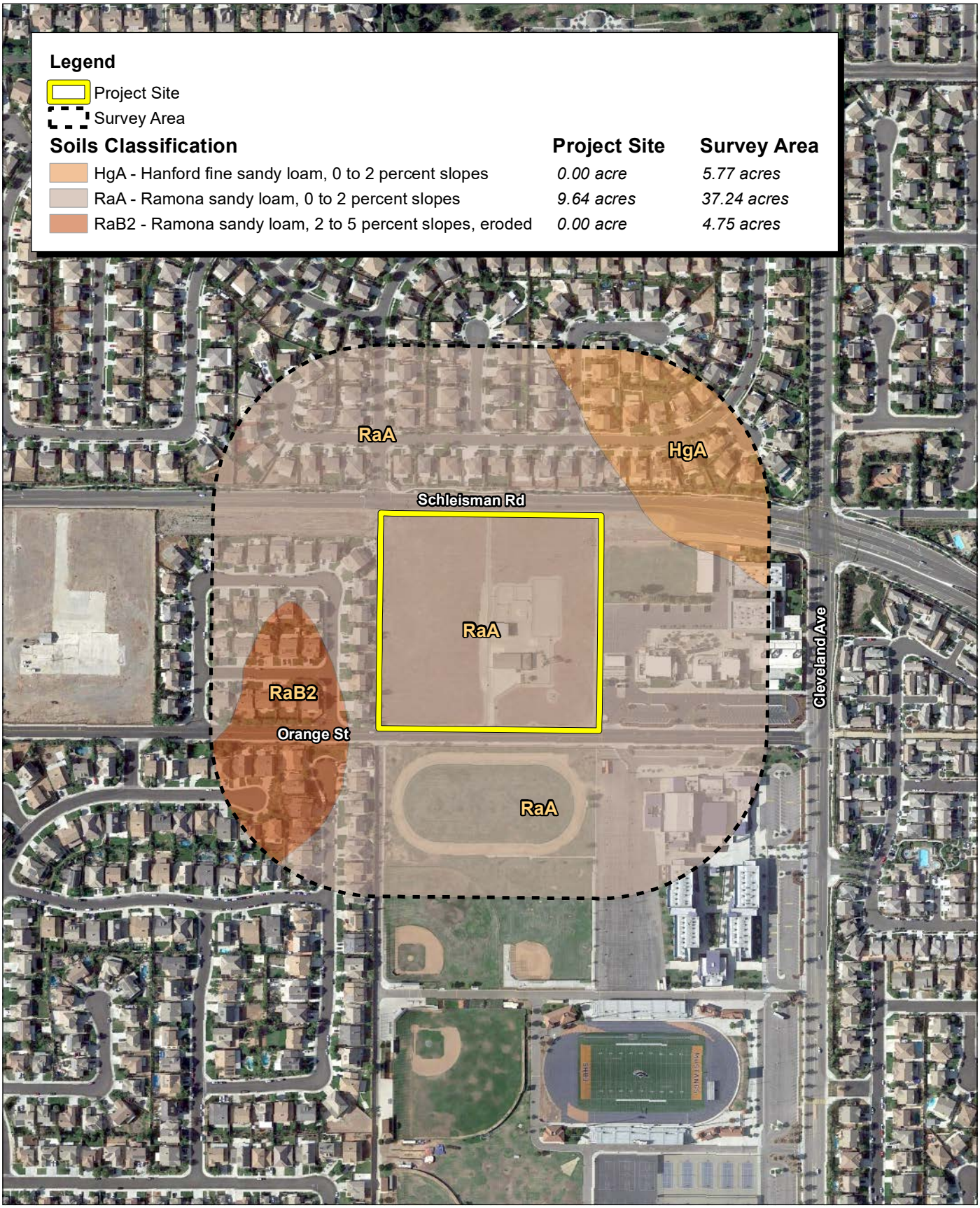
4.1.2 - Soils

Soils on the site are mapped by the NRCS as Ramona sandy loam (Exhibit 4).[20] Ramona Series soils can be found mostly in the interior valleys of Central California and the western part of Southern California. Ramona Series soils are formed in alluvium derived mostly from granitic and related rock sources. Ramona Series soils are typically well-drained with moderately-slow permeability and are also slightly acidic. This soil type is used mostly for the production of grain, grain-hay, pasture, irrigated citrus, olives, truck crops, and deciduous fruits. Uncultivated areas often have a cover of annual grasses, forbs, chamise, or chaparral vegetation.[21]

[20] Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey. United States Department of Agriculture (USDA). Website: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed January 20, 2021.

[21] Natural Resources Conservation Service (NRCS). 2021. Soil Survey Official Soil Series Descriptions. United States Department of Agriculture (USDA). Website: http://www.nrcs.usda.gov/. Accessed January 20, 2021.

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Source: Google Earth Aerial Imagery. USDA Soils Data Mart, Western Riverside Area.

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Exhibit 3
Soils Map

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4.2 - Vegetation Communities and Land Cover

4.2.1 - Ruderal/Disturbed–8.10 Acres

Ruderal/Disturbed habitat is classified as areas that have been physically disturbed by previous legal human activity, and which are no longer recognizable as a native or naturalized vegetation association, but which continue to retain a soil substrate. Vegetation, if present, is typically composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance, or show signs of past or present animal usage that precludes them from providing viable natural habitat for uses other than dispersal.

Examples of disturbed land include areas that have been graded or repeatedly cleared for fuel management purposes, as well as areas that have experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old home-sites. Common species typically associated with the ruderal/disturbed vegetation community include Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), sow thistle (*Sonchus oleraceus*), common horseweed (*Conyza canadensis*), and a sub-dominance of non-native grasses.

The majority of the project site consists of ruderal fields, formerly used for pasturing livestock. The vegetation on the site shows evidence of recent mowing. Species observed on-site included redstem filaree (*Erodium cicutarium*), pineapple weed (*Matricaria discoidea*), cheeseweed (*Malva parviflora*), turkey mullein (*Croton setiger*), common horseweed, and Russian thistle. Non-native grasses observed included foxtail barley (*Hordeum jubatum*) and Mediterranean grass (*Schismus barbatus*) (Exhibit 5; Attachment A).

4.2.2 - Urban/Developed–1.55 Acres

Developed land is characterized by permanent or semi-permanent structures, pavement, or hardscape, and landscaped areas that often require irrigation. The urban/developed vegetation community includes land that has been constructed upon or otherwise covered with a permanent man-made surface. Areas where no natural land is evident, or because large amounts of debris or other materials have been placed upon it, may also be considered. Vegetation within the urban/developed land consists of ornamental landscape vegetation with little to no native species observed.

The center of the project site contains a driveway, a residential home, a shed, and several corrals (Exhibit 2). Ornamental vegetation can be found within the front yard of the residence, including hedges, bird of paradise flower (*Strelitzia reginae*), two Italian cypress trees (*Cupressus sempervirens*), three Mexican fan palm trees (*Washingtonia robusta*), a lemon tree (*Citrus* × *limon*), and a cherry tree (*Prunus avium*). Ruderal species including those listed above can also be between cracks in the pavement and growing in some of the corrals.

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Source: Google Earth Aerial Imagery.

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Exhibit 4
Vegetation and Land Cover Map

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4.3 - Wildlife

The vegetation community and land cover types discussed above, may provide habitat for generalist and opportunistic wildlife species that are able to tolerate high levels of habitat disturbance and human-modified environments. Wildlife activity during the field survey was low and consisted exclusively of avian species, likely as a result of the high winds during the field survey.

4.3.1 - Birds

Bird species observed on-site during the field survey included mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and western meadowlark (*Sturnella neglecta*). The project site contains several ornamental palms (*Washingtonia robusta*) and Italian cypress trees that could provide suitable habitat for migratory or resident nesting birds. Four birdhouses in usable condition were observed on-site. Additionally, a remnant of a bird nest was observed in the corner of the on-site shed (Appendix A–Photograph 16).

4.3.2 - Mammals

Several small burrows less than 3 inches in diameter were observed throughout the ruderal vegetation that covers a majority of the project site. Such burrows could be constructed by small rodents such as Botta's pocket gopher (*Thomomys bottae*). Evidence of domesticated cat (*Felis catus*) in the form of scat was also observed on-site. No signs of bat roosts were observed during the field survey.

4.3.3 - Reptiles

The project site may also provide suitable habitat for reptiles adapted to human-modified environments including western fence lizard (*Sceloporus occidentalis*) and western side-blotched Lizard (*Uta stansburiana elegans*).

4.3.4 - Species Likely Absent

No amphibian or fish species were observed on-site during the field survey due to the lack of suitable aquatic habitat. Additionally, the project site does not contain suitable or foraging habitat for most amphibian species and dispersal to the project site is limited by the surrounding land use.

4.4 - Wildlife Movement Corridors

The project site was evaluated generally for evidence of wildlife movement corridors during the field survey; the scope of the survey did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. The project site is entirely developed and is surrounded on all sides by urban development and roadways and other man-made structures that serve as barriers to wildlife movement; therefore, the project site does not function as a wildlife movement corridor.

The nearest known wildlife corridor is the Santa Ana River, located approximately a mile south of the project site.

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SECTION 5: SENSITIVE BIOLOGICAL RESOURCES

The following section discusses the existing site conditions and potential for sensitive biological resources to occur within the project site.

5.1 - Sensitive Natural Communities

The CDFW maintains a list of natural communities which attempts to classify vegetation types found within the State of California and rank them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities. Wetlands and riparian habitats are also typically considered sensitive natural communities and are addressed in the environmental review process.

The project site does not contain any sensitive natural communities.

5.2 - Special-status Plants

Fifty-five special-status plant species and CNPS sensitive species have been recorded within the *Corona North, California,* Topographic Quadrangle Map and the eight surrounding quadrangles by the CNDDB and CNPSEI.[22,23,24] The Special-status Plant Species Table (Appendix B, Table 1) lists 8 special-status plants have been recorded within a 5-mile radius of the project site.[25] The table also includes the species' status, required habitat, and potential to occur within the project site. Special-status plant species that were determined to have no potential to occur on-site are included in the table, along with the justification for their exclusion from further discussion. The following species were analyzed:

1. Chaparral sand-verbena (*Abronia villosa* var. *aurita*)
2. Lucky morning-glory (*Calystegia felix*)
3. Smooth tarplant (*Centromadia pungens* ssp. *laevis*)
4. Many-stemmed dudleya (*Dudleya multicaulis*)
5. Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)
6. Jokerst's monardella (*Monardella australis* ssp. *jokerstii*)
7. Salt spring checkerbloom (*Sidalcea neomexicana*)
8. San Bernardino aster (*Symphyotrichum defoliatum*

The recorded species require specific habitat conditions associated with specific vegetation communities such as coastal sage scrub, riparian scrub, chaparral, grassland, cismontane woodlands, or wet meadows and playas; none of which are present on the project site. The disturbed state of

[22] United States Geological Survey (USGS). 2021. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con

[23] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed January 18, 2021.

[24] California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed January 18, 2021.

[25] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 18, 2021.

the project site does not provide suitable habitat for any special-status species recorded in the CNDDB or CNPS searches due to the lack of natural vegetation communities and on-going man-made disturbance in the form of mowing. Therefore, no special-status plant species are expected to occur on the project site.

5.3 - Special-status Wildlife

Fifty-three federal and State-listed threatened and/or endangered wildlife species and State Species of Special Concern that have been recorded within the *Corona North, California,* Topographic Quadrangle Map. The Special-status Wildlife Species Table (Appendix B, Table 2) identifies 28 special-status wildlife species have been recorded within a 5-mile radius of the project site.[26] The table includes the species' status, required habitat types and features, and potential to occur within the project site. Appendix B, Table 2, includes all special-status wildlife species that have been determined unlikely to occur on-site, primarily based on the absence of suitable habitat and the lack of recorded occurrence in the project vicinity, along with the justification for their exclusion from further discussion.

5.3.1 - Burrowing Owl

Burrowing owl (*Athene cunicularia*) occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species utilizes, modifies, and nests in burrows created by other species, most notably the California ground squirrel (*Otospermophilus beecheyi*).

The project site contains many small burrows all less than 3 inches in diameter, which are too small to be occupied by burrowing owl. (Burrowing owls typically require a burrow opening of at least 4 inches in diameter).[27] However, the lack of suitably-size burrows does not preclude this species from occurring on-site, as burrowing owl may still utilize the site for foraging and are still capable of colonizing the project site. As of the date of this report, the CNDDB shows 26 records of burrowing owl within 5 miles of the project site.[28]

5.3.2 - Nesting Birds

The project site contains a few ornamental trees of sufficient size to provide suitable nesting locations for migratory or resident nesting birds. A total of four birdhouses are also present on-site that could provide suitable nesting locations for smaller birds.

[26] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 18, 2021.
[27] California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation, Sacramento: California Department of Fish and Wildlife.
[28] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed January 20, 2021.

5.4 - Jurisdictional Waters and Wetlands

No wetlands or other hydrological features that meet the criteria as waters of the United States or waters of the State were observed within the proposed project site during the reconnaissance-level survey.

5.5 - Protected Trees

The Eastvale Municipal Code was reviewed regarding any applicable ordinances regarding tree preservation.[29] The project site does not contain any trees that would be regulated under the City of Eastvale Tree Ordinance as the code is only applicable to "street trees."

5.6 - Western Riverside County Multiple Species Habitat Conservation Plan

The project is located within the boundaries of Western Riverside County MSHCP. According to the Western Riverside County RCA MSHCP Information Map, the project site is located within a MSHCP survey area for burrowing owl and narrow endemic plants including San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*).[30] Due to the disturbed/developed state of the project site, none of these plant species are likely to occur on-site; however, as stated above, marginally suitable habitat for burrowing owl is present on-site. No other MSHCP covered species or biological resource was observed on-site during the field survey.

[29] City of Eastvale Code of Ordinances. 2021. Title 130, Subdivisions. Chapter 130.48. Street Trees. Website: https://library.municode.com/ca/eastvale/codes/code_of_ordinances. Accessed January 22, 2021.

[30] Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

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Rhaphiomidas terminatus abdominalis
Delhi Sands flower-loving fly

Arizona elegans occidentalis
California glossy snake

Symphyotrichum defoliatum
San Bernardino aster

Laterallus jamaicensis coturniculus
California black rail

Aquila chrysaetos
golden eagle

Centromadia pungens ssp. laevis
smooth tarplant

Icteria virens
yellow-breasted chat

Buteo swainsoni
Swainson's hawk

Vireo bellii pusillus
least Bell's vireo

Oncorhynchus mykiss irideus pop. 10
steelhead - southern California DPS

Southern Cottonwood Willow Riparian Forest
Southern Cottonwood Willow Riparian Forest

Lasiurus xanthinus
western yellow bat

Aspidoscelis hyperythra
orange-throated whiptail

Calystegia felix
lucky morning-glory

Coturnicops noveboracensis
yellow rail

Athene cunicularia
burrowing owl

Oncorhynchus mykiss irideus pop. 10
steelhead - southern California DPS

Legend

- Project Site
- 5-Mile Radius
- Plant (circular)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (specific)
- Multiple (specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)

The following species (not shown on map) are also known to occur within this 5-mile radius area:

Scientific Name	Common Name
Abronia villosa var. aurita	chaparral sand-verbena
Agelaius tricolor	tricolored blackbird
Aimophila ruficeps canescens	southern California rufous-crowned sparrow
Anniella stebbinsi	Southern California legless lizard
Aspidoscelis hyperythra	orange-throated whiptail
Bombus crotchii	Crotch bumble bee
Catostomus santaanae	Santa Ana sucker
Coleonyx variegatus abbotti	San Diego banded gecko
Crotalus ruber	red-diamond rattlesnake
Dipodomys stephensi	Stephens' kangaroo rat
Dudleya multicaulis	many-stemmed dudleya
Elanus leucurus	white-tailed kite
Empidonax traillii extimus	southwestern willow flycatcher
Emys marmorata	western pond turtle
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar
Eumops perotis californicus	western mastiff bat
Gila orcuttii	arroyo chub
Monardella australis ssp. jokerstii	Jokerst's monardella
Nyctinomops femorosaccus	pocketed free-tailed bat
Polioptila californica californica	coastal California gnatcatcher
Setophaga petechia	yellow warbler
Sidalcea neomexicana	salt spring checkerbloom
Southern California Arroyo Chub/Santa Ana Sucker Stream	Southern California Arroyo Chub/Santa Ana Sucker Stream

CNDDB version 06/2021. Please Note:
The occurrences shown on this map represent the known locations of the species listed here as of the date of this version. There may be additional occurrences or additional species within this area which have not yet been surveyed and/or mapped. Lack of information in the CNDDB about a species or an area can never be used as proof that no special status species occur in an area.

Source: Bing Street Imagery. California Natural Diversity Database (CNDDB), June 2021.

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Exhibit 5
CNDDB Special-Status Plant Species Occurrences (5-mile radius)

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SECTION 6: IMPACT ANALYSIS AND RECOMMENDATIONS

The following discussion addresses potential project impacts on regulated biological resources, including special-status species, and recommends measures to avoid and/or mitigate impacts to a less-than-significant level under CEQA.

6.1 - Impacts to Special-status Wildlife

6.1.1 - Burrowing Owl

Burrowing owl, a California Species of Special Concern, was assessed as having a moderate potential to occur on the project site. Though they are not expected to breed or nest on the project site, they may use the site for short periods during migratory movements through the area. Because FCS conducted the field survey outside of the burrowing owl breeding season (February 1–August 31), the possibility that burrowing owl could be present in the project vicinity cannot be entirely ruled out. Therefore, the construction and operation of the proposed project still has potential (albeit low potential) to impact to burrowing owl habitat or burrowing owl.

The proposed project is located within a MSHCP survey area for burrowing owl and contains marginally suitable habitat for this species.[31] In accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*, it is recommended that the applicant commission a focused burrow survey (Step II, Part A) and pre-construction surveys to avoid direct take of burrowing owl.[32]

To avoid potential project impacts on burrowing owl that may temporarily utilize the project site and to ensure impacts to burrowing owls are less than significant under CEQA, it is recommended the project applicant implement the following Mitigation Measures (MMs):

MM BIO-1 Burrowing Owl Pre-Construction Surveys

1. No more than 30 days prior to the first ground-disturbing activities, the project applicant shall retain a qualified Biologist to conduct a pre-construction survey of the project site. The survey shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with the California Department of Fish and Wildlife (CDFW) and Western Riverside County Regional Riverside Conservation Authority (RCA) survey guidelines.
2. On the parcel where the activity is proposed, the Biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and burrowing owl. The survey shall take

[31] Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

[32] Western Riverside County Regional Conservation Authority (RCA). 2005. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. November 7.

place near sunrise or sunset in accordance with the CDFW and RCA guidelines. All burrows or burrowing owl shall be identified and mapped. During the breeding season (February 1–August 31), surveys shall document whether burrowing owl are nesting on or directly adjacent to disturbance areas. During the non-breeding season (September 1–January 31), surveys shall document whether burrowing owl are using habitat on or directly adjacent to any disturbance area. Survey results shall be valid only for the season during which the survey is conducted.

3. If burrowing owl are not discovered, further mitigation is not required. If burrowing owl are observed during the pre-construction surveys, the applicant shall perform the following measures to limit the impact on the burrowing owls:
4. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. Construction may occur during the breeding season if a qualified Biologist monitors the nest and determines that the birds have not begun egg-laying and incubation, or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1-January 31), the project applicant shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone.
5. If it is not possible to avoid occupied burrows, passive relocation shall be implemented. Burrowing owl shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent re-occupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any burrowing owl inside the burrow.

6.1.2 - Nesting Birds

The several ornamental trees and bird houses present on-site could provide suitable habitat for a variety of species of nesting birds. Construction activities that occur during the avian nesting season (generally February 1 to August 31) could disturb nesting sites for bird species protected under the Fish and Game Code or MBTA. The removal of trees during the nesting season could result in direct harm to nesting birds, while noise, light, and other man-made disturbances may cause nesting birds to abandon their nests.

The project applicant shall implement the following avoidance and minimization measures to ensure that project impacts on nesting birds are less than significant:

MM BIO-2 Protection of Active Bird Nests (includes pre-construction survey and implementation of avoidance buffer, if found).

1. Removal of trees shall be limited to only those necessary to construct the proposed project as reflected in the relevant project approval documents. It is recommended that a Biologist make sure the bird houses are not occupied and then block access to the bird houses for the duration of construction to avoid attracting nesting birds.
2. If construction occurs during the nesting season (February 1 to August 31), pre-construction surveys shall be conducted within 14 days prior to tree removal to determine whether or not active nests are present.
3. If an active nest is located during pre-construction surveys, a qualified Biologist shall determine an appropriately-sized avoidance buffer based on the species and anticipated disturbance level. A qualified Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s).
4. The qualified Biologist shall monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project, until the young have fledged.

6.2 - Compliance with Western Riverside County Multiple Species Habitat Conservation Plan

The project site is located within the boundaries of Western Riverside County MSHCP. According to the RCA MSHCP Information Map. The project site lies within a MSHCP survey area for burrowing owl and narrow endemic plants including San Diego ambrosia, Brand's phacelia, and San Miguel savory.[33] Therefore, the proposed project shall follow the procedures outlined *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*. [34] Step I of these procedures requires a habitat assessment that can be satisfied by the same due diligence field survey that this report summarizes. Based on the findings of this report, it is recommended that pre-construction surveys be conducted prior to any ground disturbance to avoid direct take of burrowing owls, as described in MM BIO-1.

Due to the disturbed/developed state of the project site, none of the plant species listed above are likely to occur on-site and focused surveys for these species are not recommended. The project applicant shall prepare a separate MSHCP Consistency Analysis report to summarize and analyze any MSHCP requirements and biological constraints that apply to potential development within the

[33] Western Riverside County Regional Conservation Authority (RCA). 2021. MSHCP Information Map. Website: https://wrcrca.maps.arcgis.com/apps/webappviewer/index.html?id=a73e69d2a64d41c29ebd3acd67467abd. Accessed January 18, 2021.

[34] Western Riverside County Regional Conservation Authority (RCA). 2005. Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area. November 7.

proposed project area and to document the project's consistency with the goals, objectives, and requirements of the MSHCP. With the implementation of these measures the proposed project would be in compliance with the provisions of the MSHCP.

MM BIO-3 Western Riverside County MSHCP Compliance

Prior to the issuance of a grading permit, the project applicant shall prepare and submit a Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis report to City of Eastvale to document the project's consistency with the goals, objectives, and requirements of the MSHCP.

Appendix A:
Site Photographs

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Photograph 1: Project site facing north from southern boundary (Orange Street).



Photograph 2: Southeastern corner of the project site facing northwest.



Photograph 3: Project site facing west from eastern boundary.



Photograph 4: Northeastern corner of the project site facing southwest.



Photograph 5: Project site facing south from northern boundary.



Photograph 6: Northwestern corner of the project site facing southeast.



Photograph 7: Project site facing east from western boundary.



Photograph 8: Southwestern corner of the project site facing northeast.



Photograph 9: Open-side shed facing north.



Photograph 10: Side yard and patio facing northwest.



Photograph 11: Rear lot facing south.



Photograph 12: Small burrows observed throughout the site. 5-inch notecard for size comparison.



Photograph 13: Birdhouse located on front porch.



Photograph 14: Birdhouse located in the side yard.



Photograph 15: Birdhouse located near front gate.



Photograph 16: Remnant bird nest inside barn.

Appendix B:
Special-status Species Tables

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Table 1: Special-status Plant Species Evaluated

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale
	USFWS[1]	CDFW[2]	CNPS[3]		
Abronia villosa var. *aurita* chaparral sand-verbena	—	—	1B.1	Chaparral, coastal scrub, desert dunes. Areas with sandy soils. Elevation: -60-1570 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Calystegia felix lucky morning-glory	—	—	1B.1	Meadows and seeps, riparian scrub. Sometimes occurs where alkaline and alluvial soils are present. Elevation: 9 – 205 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Centromadia pungens ssp. laevis smooth tarplant	—	—	1B.1	Occurs in valley and foothill grassland, chenopod scrub, meadows, playas, and riparian woodland. Prefers alkali meadows, alkali scrub. May also occur in disturbed places. Elevation: 0 – 640 m. Bloom period: April – September	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Dudleya multicaulis many-stemmed dudleya	—	—	1B.2	Chaparral, coastal scrub, valley and foothill grassland. Grows in heavy, often clayey soils or grassy slopes. Elevation: 1 – 910 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Eriastrum densifolium ssp. *sanctorum* Santa Ana River woollystar	FE	SE	1B.1	Can be found in chaparral and coastal scrub habitat. Prefers sandy soils on river floodplains or terraced fluvial deposits at elevations between Elevation: 180 – 700 m. Bloom period: May – September	**None.** The project site does not contain suitable floodplain/fluvial deposits to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Monardella australis ssp. *jokerstii* Jokerst's monardella	—	—	1B.1	Occurs in lower montane coniferous forest, chapparal. Often found growing on steep scree or talus slopes between breccia. May also occur on alluvial benches along drainages and washes. Elevation: 210 – 1740 m. Bloom period:	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale
	USFWS[1]	CDFW[2]	CNPS[3]		
Sidalcea neomexicana salt spring checkerbloom	—	—	2B.2	Found in playas, chaparral, coastal scrub, lower montane coniferous forest, Mojave desert scrub, alkali springs and marshes. Elevation: 0 – 1,530 m. Bloom period: March – June	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Symphyotrichum defoliatum San Bernardino aster	—	—	1B.2	Found in meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, grassland. Prefers vernally mesic grassland or near ditches, streams, and springs; especially disturbed areas. Elevation: 2 – 2,040 m. Bloom period: July – November	**None.** The project site does not contain suitable vegetation communities or soils conditions to support this species. Previous anthropogenic disturbances further preclude this species from occurring.

Code Designations

[1] Federal Status: 2020 USFWS Listing

- **ESU** = Evolutionary Significant Unit is a distinctive population.
- **FE** = Listed as endangered under the FESA.
- **FT** = Listed as threatened under the FESA.
- **FC** = Candidate for listing (threatened or endangered) under FESA.
- **FD** = Delisted in accordance with the FESA.
- **FPD** = Federally Proposed to be Delisted.
- **MBTA** = protected by the Migratory Bird Treaty Act
- **—** = Not federally listed

[2] State Status: 2020 CDFW Listing

- **SE** = Listed as endangered under the CESA.
- **ST** = Listed as threatened under the CESA.
- **SSC** = Species of Special Concern as identified by the CDFW.
- **FP** = Listed as fully protected under FGC.
- **CFG** = FGC =protected by FGC 3503.5
- **CR** = Rare in California.
- **—** = Not state listed

[3] CNPS: 2020 CNPS Listing

- **Rank 1A** = Plants species that presumed extinct in California.
- **Rank 1B** = Plant species that are rare, threatened, or endangered in California and elsewhere.
- **Rank 2** = Plant species that are rare, threatened, or endangered in California, but more common elsewhere.
- **Rank 3** = Plants about which we need more information—A Review List
- **Rank 4** = Plants of limited distribution—A Watch List

Blooming period: Months in parentheses are uncommon.

[4] **Habitat Description**: Habitat description adapted from CNDDB[1] and CNPS online inventory[2] or other specified source.

[1] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed October 22, 2020.

[2] California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: http://www.rareplants.cnps.org/. Accessed May 12, 2021.

Table 2: Special-status Wildlife Species Evaluated

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Birds				
Agelaius tricolor tricolored blackbird	— MBTA	ST SSC	Forages in open habitats such as farm fields, pastures, cattle pens, large lawns. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Breeds in large freshwater marshes, dense stands of hydrophytic vegetation (cattails, bulrushes, etc.)	**None.** The project parcel does contain suitable foraging habitat nor suitable freshwater marsh to support this species.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	— MBTA	— WL	Resident in southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	**None.** The project site does not contain suitable vegetation communities or rocky hillsides to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Aquila chrysaetos golden eagle	— MBTA	— FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**None.** The project site does not contain suitable nesting habitat or prey base to support this species. Previous anthropogenic disturbances further preclude this species from occurring.
Athene cunicularia burrowing owl	— MBTA	— SSC CFG	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	**Low.** The project parcel does contain ruderal habitat suitable for foraging. However, no burrows suitable for nesting were observed. Multiple occurrences recorded are located within 5 miles surrounding the project parcel.
Buteo swainsoni Swainson's hawk	— MBTA	ST SSC CFG	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**None.** The project site does not contain suitable nesting habitat or prey base to support this species. Previous anthropogenic disturbances further preclude this species from occurring. Species is believed to be locally extirpated.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT MBTA	SE	Found in riparian forest along the broad lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods; understory consists of blackberry, nettles, and wild grape.	**None.** The project parcel does contain suitable riparian habitat to support this species.

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Coturnicops noveboracensis yellow rail	— MBTA	— SSC	Grassy marshes, meadows. In summer, favors large wet meadows or shallow marshes dominated by sedges and grasses. Typically in fresh or brackish marsh with water no more than a foot deep. In winter mostly in coastal salt marsh, especially drier areas with dense stands of spartina; also rice fields, damp meadows near coast.	**None.** The project parcel does not contain suitable freshwater marsh habitat to support this species.
Elanus leucurus white-tailed kite	— MBTA	— FP	Often found near foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland or isolated dense-topped trees for nesting and perching. Forages in open grasslands, meadows, or marshes.	**Low.** The project parcel does contain ruderal habitat which may be suitable for foraging. However, the project site lacks suitable nesting habitat. Nearest recorded BIOS occurrences are located approximately 4.7 miles southwest of the project parcel near Prado Regional Park.
Empidonax traillii extimus southwestern willow flycatcher	FE MBTA	SE	Riparian woodlands in Southern California.	**None.** The project parcel does contain suitable riparian habitat to support this species.
Icteria virens yellow-breasted chat	— MBTA	— SSC	Summer resident of Southern California. Inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft. of ground.	**None.** The project parcel does not contain suitable riparian vegetation to support this species.
Laterallus jamaicensis coturniculus California black rail	— MBTA	ST FP	Inhabits freshwater marshes, wet meadows, and shallow margins of saltwater marshes bordering larger bays. Requires water depth of about 1 inch that does not fluctuate during the year, and dense vegetation for nesting.	**None.** The project parcel does not contain suitable freshwater marsh habitat to support this species.
Polioptila californica californica coastal California gnatcatcher	FT MBTA	— SSC	An obligate, permanent resident of coastal sage scrub below 2,500 feet in Southern California. May also be found in arid washes, on mesas, and slopes.	**None.** The project parcel does not contain suitable sage scrub vegetation to support this species.
Setophaga petechia yellow warbler	— MBTA	— SSC	Occurs riparian habitats in close proximity to water. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders. May also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	**None.** The project parcel does not contain suitable riparian vegetation to support this species.

Scientific Name Common Name	Status USFWS[1]	 CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]
Vireo bellii pusillus least Bell's vireo	FE MBTA	SE	A summer resident of Southern California. Nests in low riparian habitat in the vicinity of water or in dry river bottoms. Nests placed along margins of bushes or in twigs projecting into pathways, usually willows, coyote bush, mule fat, or mesquite. Occurs below 2,000 feet.	**None.** The project parcel does not contain suitable riparian vegetation to support this species.
Fish				
Catostomus santaanae Santa Ana sucker	FT	—	Endemic to Los Angeles basin south coastal streams. Are habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	**None.** There are no streams or rivers present within the project to support this species. Nearest occurrence is approximately a mile south of the project site within the Santa Ana River.
Gila orcuttii arroyo chub	—	— SSC	Native to the streams and rivers of the Los Angeles plain in Southern California. Arroyo chub are adapted to survive in streams that fluctuate between large winter storm flows, and low summer flows, and the low dissolved oxygen and wide temperature fluctuations. Feeds on plants such as algae and water fern, as well as insects and mollusks.	**None.** There are no streams or rivers present within the project site to support this species. Nearest occurrence is approximately a mile south of the project site within the Santa Ana River.
Oncorhynchus mykiss irideus (pop. 10) steelhead (southern California DPS)	FE	—	Habitat needs vary depending on the time in the life cycle. In the freshwater phase, freely flowing, cool, clean, highly oxygenated water is essential. In Southern California there is a winter run occurring January through March. Eggs are hatched in streams with gravel bottoms. Juvenile fish prefer pools with protective debris and a variety of hiding areas. Juveniles ultimately make their way to estuarine waters and to the ocean where they reach maturity.	**None.** There are no streams or rivers present within the project site to support this species. Nearest occurrence is a mile south of the project site within the Santa Ana River. This species is believed to be largely extirpated from Santa Ana watershed.
Insects				
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	FE	—	Found only in small parts of San Bernardino and Riverside counties, in areas of fine sandy soil, known as Delhi series sands. While formerly widespread, this habitat has been intensively developed in the past century, primarily for agriculture, though more recently for industry and housing. Only an estimated 2-3 percent of the original habitat remains undeveloped.	**None.** No suitable habitat is present within the project site due to lack of Delhi series soils and its associated vegetation communities. Nearest known population is located in the Jurupa Hills, approximately 6 miles northeast of the project site.
Mammals				
Dipodomys stephensi *Stephens' kangaroo rat*	FE	ST	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	**None.** The project site does not contain suitable vegetation communities to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale[4]
	USFWS[1]	CDFW[2]		
Eumops perotis californicus *western mastiff bat*	—	— SSC	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	**None.** The project site does not contain suitable roosting habitat in the form of cliffs, high buildings, dense trees or tunnels.
Lasiurus xanthinus *western yellow bat*	—	— SSC	Prefers open habitats or habitat mosaics, with access to trees for cover, and open areas or habitat edges for feeding. Roosts in dense foliage of medium-to-large trees. Feeds primarily on moths. Requires a water source nearby.	**None.** The project site does not contain suitable roosting habitat due to the lack of trees with dense foliage.
Nyctinomops femorosaccus *pocketed free-tailed bat*	—	— SSC	Found in a variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, or desert riparian habitat. Prefers rocky areas with high cliffs.	**None.** The project site does not contain suitable roosting habitat in the form of cliffs and other rocky areas.
Reptiles				
Anniella stebbinsi Southern California legless lizard	—	— SSC	Found in a variety of habitats. Generally found in areas of sparse vegetation where sandy or loose loamy soils with a high moisture content are present. The range of this species extends generally south of the Transverse Range, extending to northwestern Baja California. Disjunct populations in the Tehachapi and Piute Mountains in Kern County also exist.	**None.** The project parcel does not contain suitable soils or vegetation communities to support this species. Moisture is essential for this species. The project parcel is highly arid, and no typical habitat is present.
Arizona elegans occidentalis California glossy snake	—	— SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral preferably open areas with loose soil for easy burrowing.	**None.** The project site does not contain suitable vegetation communities and rocky habitats to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.
Aspidoscelis hyperythra orange-throated whiptail	—	— WL	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its primary food: termites.	**None.** The project site does not contain suitable vegetation communities and termite colonies to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.
Coleonyx variegatus abbotti San Diego banded gecko	—	— SSC	Prefers rocky areas in coastal sage and chaparral.	**None.** The project site does not contain suitable vegetation communities and rocky habitats to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.
Crotalus ruber red-diamond rattlesnake	—	— SSC	Found in chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas with dense vegetation. Requires rodent burrows, cracks in rocks, or surface cover objects. Often found in disturbed areas.	**None.** The project site does not contain suitable vegetation communities and rocky habitats to support this species. Previous anthropogenic disturbances and man-made barriers further preclude this species from occurring.

Scientific Name Common Name	Status USFWS[1]	Status CDFW[2]	Habitat Description[3]	Potential to Occur and Rationale[4]
Emys marmorata western pond turtle	—	— SSC	Occurs in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**None.** The project parcel does not contain suitable aquatic habitat to support this species.

Code Designations

[1] Federal Status: 2020 USFWS Listing		[2] State Status: 2020 CDFW Listing	
ESU	= Evolutionary Significant Unit is a distinctive population.	**SE**	= Listed as endangered under the CESA.
FE	= Listed as endangered under the FESA.	**ST**	= Listed as threatened under the CESA.
FT	= Listed as threatened under the FESA.	**SSC**	= Species of Special Concern as identified by the CDFW.
FC	= Candidate for listing (threatened or endangered) under FESA.	**FP**	= Listed as fully protected under FGC.
FD	= Delisted in accordance with the FESA.	**CFG**	= FGC =protected by FGC 3503.5
FPD	= Federally Proposed to be Delisted.	**CE**	= Candidate endangered under the CESA.
MBTA	= protected by the Migratory Bird Treaty Act	**—**	= Not state listed
—	= Not federally listed		

[3] **Habitat Description**: Habitat description adapted from CNDDB[3] or other specified source*.
[4] **Potential to Occur and Rationale**: Location of recorded species occurrences determined by geospatial information from BIOS 5[4] or other specified source*.

[3] California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx. Accessed May 12, 2021.
[4] California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: https://map.dfg.ca.gov/bios/. Accessed May 12, 2021.

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Appendix C:
Database Searches

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Ontario (3411716) OR Guasti (3411715) OR Fontana (3411714) OR Prado Dam (3311786) OR Corona North (3311785) OR Riverside West (3311784) OR Black Star Canyon (3311776) OR Corona South (3311775) OR Lake Mathews (3311774))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Allium marvinii Yucaipa onion	PMLIL02330	None	None	G1	S1	1B.2
Allium munzii Munz's onion	PMLIL022Z0	Endangered	Threatened	G1	S1	1B.1
Ambrosia pumila San Diego ambrosia	PDAST0C0M0	Endangered	None	G1	S1	1B.1
Ammodramus savannarum grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
Anniella stebbinsi Southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Asio otus long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus brauntonii Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Baccharis malibuensis Malibu baccharis	PDAST0W0W0	None	None	G1	S1	1B.1
Berberis nevinii Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Branchinecta sandiegonensis San Diego fairy shrimp	ICBRA03060	Endangered	None	G2	S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
California Walnut Woodland California Walnut Woodland	CTT71210CA	None	None	G2	S2.1	
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus weedii var. intermedius intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
Calystegia felix lucky morning-glory	PDCON040P0	None	None	G1Q	S1	1B.1
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Carolella busckana Busck's gallmoth	IILEM2X090	None	None	G1G3	SH	
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Ceratochrysis longimala Desert cuckoo wasp	IIHYM71040	None	None	G1	S1	
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	PDPGN040J1	None	Endangered	G2T1	S1	1B.1
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chorizanthe polygonoides var. longispina long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2
Cicindela tranquebarica viridissima greenest tiger beetle	IICOL02201	None	None	G5T1	S1	
Cladium californicum California saw-grass	PMCYP04010	None	None	G4	S2	2B.2
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T3T4	S1S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Diplectrona californica California diplectronan caddisfly	IITRI23010	None	None	G1G2	S1S2	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	Candidate Endangered	G5T1	S1	SSC
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eriastrum densifolium ssp. sanctorum Santa Ana River woollystar	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Hesperocyparis forbesii Tecate cypress	PGCUP040C0	None	None	G2	S2	1B.1
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lepechinia cardiophylla heart-leaved pitcher sage	PDLAM0V020	None	None	G3	S2S3	1B.2
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lepus californicus bennettii San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	SSC
Lycium parishii Parish's desert-thorn	PDSOL0G0D0	None	None	G4	S1	2B.3
Malacothamnus parishii Parish's bush-mallow	PDMAL0Q0C0	None	None	GXQ	SX	1A
Monardella australis ssp. jokerstii Jokerst's monardella	PDLAM18112	None	None	G4T1?	S1?	1B.1
Monardella hypoleuca ssp. intermedia intermediate monardella	PDLAM180A4	None	None	G4T2?	S2?	1B.3
Monardella pringlei Pringle's monardella	PDLAM180J0	None	None	GX	SX	1A
Muhlenbergia californica California muhly	PMPOA480A0	None	None	G4	S4	4.3
Muhlenbergia utilis aparejo grass	PMPOA481X0	None	None	G4	S2S3	2B.2
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
Neolarra alba white cuckoo bee	IIHYM81010	None	None	GH	SH	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nolina cismontana chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G4	S3	SSC
Nyctinomops macrotis big free-tailed bat	AMACD04020	None	None	G5	S3	SSC
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	AFCHA0209J	Endangered	None	G5T1Q	S1	
Pandion haliaetus osprey	ABNKC01010	None	None	G5	S4	WL
Penstemon californicus California beardtongue	PDSCR1L110	None	None	G3	S2	1B.2
Pentachaeta aurea ssp. allenii Allen's pentachaeta	PDAST6X021	None	None	G4T1	S1	1B.1
Perognathus longimembris brevinasus Los Angeles pocket mouse	AMAFD01041	None	None	G5T1T2	S1S2	SSC
Phacelia keckii Santiago Peak phacelia	PDHYD0C4G1	None	None	G1	S1	1B.3
Phacelia stellaris Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	IIDIP05021	Endangered	None	G1T1	S1	
Rhinichthys osculus ssp. 3 Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
Riversidian Alluvial Fan Sage Scrub Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Southern California Arroyo Chub/Santa Ana Sucker Stream	CARE2330CA	None	None	GNR	SNR	
Southern California Arroyo Chub/Santa Ana Sucker Stream						
Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Coast Live Oak Riparian Forest						
Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Cottonwood Willow Riparian Forest						
Southern Interior Cypress Forest	CTT83230CA	None	None	G2	S2.1	
Southern Interior Cypress Forest						
Southern Riparian Forest	CTT61300CA	None	None	G4	S4	
Southern Riparian Forest						
Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Riparian Scrub						
Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Sycamore Alder Riparian Woodland						
Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Southern Willow Scrub						
Spea hammondii	AAABF02020	None	None	G3	S3	SSC
western spadefoot						
Sphenopholis obtusata	PMPOA5T030	None	None	G5	S2	2B.2
prairie wedge grass						
Spinus lawrencei	ABPBY06100	None	None	G3G4	S3S4	
Lawrence's goldfinch						
Symphyotrichum defoliatum	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino aster						
Taricha torosa	AAAAF02032	None	None	G4	S4	SSC
Coast Range newt						
Thamnophis hammondii	ARADB36160	None	None	G4	S3S4	SSC
two-striped gartersnake						
Thysanocarpus rigidus	PDBRA2Q070	None	None	G1G2	S1	1B.2
rigid fringepod						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						

Record Count: 118

CNPS California Native Plant Society

*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

Inventory of Rare and Endangered Plants

Plant List

55 matches found. *Click on scientific name for details*

Search Criteria
Found in Quads 3411716, 3411715, 3411714, 3311786, 3311785, 3311784, 3311776 3311775 and 3311774;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Federal Listing Status	State Listing Status	CA Rare Plant Rank	Habitats	Lowest Elevation	Highest Elevation	Blooming Period
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb			1B.1	• Chaparral • Coastal scrub • Desert dunes	75 m	1600 m	(Jan)Mar-Sep
Allium munzii	Munz's onion	Alliaceae	perennial bulbiferous herb	FE	CT	1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Pinyon and juniper woodland • Valley and foothill grassland	297 m	1070 m	Mar-May
Ambrosia pumila	San Diego ambrosia	Asteraceae	perennial rhizomatous herb	FE		1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland • Vernal pools	20 m	415 m	Apr-Oct
Astragalus brauntonii	Braunton's milk-vetch	Fabaceae	perennial herb	FE		1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland	4 m	640 m	Jan-Aug
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb			1B.2	• Coastal bluff scrub • Coastal dunes • Coastal scrub	3 m	460 m	Mar-Oct

							• Valley and foothill grassland			
Baccharis malibuensis	Malibu baccharis	Asteraceae	perennial deciduous shrub			1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	150 m	305 m	Aug
Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	FE	CE	1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Riparian scrub	70 m	825 m	(Feb)Mar-Jun
Calandrinia breweri	Brewer's calandrinia	Montiaceae	annual herb			4.2	• Chaparral • Coastal scrub	10 m	1220 m	(Jan)Mar-Jun
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb			4.2	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	15 m	700 m	(Feb)Mar-Jun
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb			4.2	• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland	100 m	1700 m	May-Jul
Calochortus weedii var. intermedius	intermediate mariposa lily	Liliaceae	perennial bulbiferous herb			1B.2	• Chaparral • Coastal scrub • Valley and foothill grassland	105 m	855 m	May-Jul
Calystegia felix	lucky morning-glory	Convolvulaceae	annual rhizomatous herb			1B.1	• Meadows and seeps (sometimes alkaline) • Riparian scrub (alluvial)	30 m	215 m	Mar-Sep
Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb			3	• Coastal bluff scrub • Cismontane woodland • Coastal dunes • Coastal scrub	0 m	300 m	Mar-May(Jun)

							• Valley and foothill grassland			
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb			4.2	• Chaparral • Coastal scrub	90 m	2200 m	(Feb)Mar-May(Jun)
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb			1B.1	• Chenopod scrub • Meadows and seeps • Playas • Riparian woodland • Valley and foothill grassland	0 m	640 m	Apr-Sep
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb			4.2	• Chaparral • Coastal scrub • Lower montane coniferous forest	300 m	1900 m	May-Aug
Chorizanthe parryi var. fernandina	San Fernando Valley spineflower	Polygonaceae	annual herb	FC	CE	1B.1	• Coastal scrub (sandy) • Valley and foothill grassland	150 m	1220 m	Apr-Jul
Chorizanthe parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb			1B.1	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	275 m	1220 m	Apr-Jun
Chorizanthe polygonoides var. longispina	long-spined spineflower	Polygonaceae	annual herb			1B.2	• Chaparral • Coastal scrub • Meadows and seeps • Valley and foothill grassland • Vernal pools	30 m	1530 m	Apr-Jul
Chorizanthe xanti var. leucotheca	white-bracted spineflower	Polygonaceae	annual herb			1B.2	• Coastal scrub (alluvial fans) • Mojavean desert scrub • Pinyon and juniper woodland	300 m	1200 m	Apr-Jun
Cladium californicum	California sawgrass	Cyperaceae	perennial rhizomatous herb			2B.2	• Meadows and seeps • Marshes and swamps Alkaline or Freshwater	60 m	1600 m	Jun-Sep
Convolvulus simulans	small-flowered	Convolvulaceae	annual herb			4.2	• Chaparral (openings)	30 m	740 m	Mar-Jul

	morning-glory						• Coastal scrub • Valley and foothill grassland			
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb			4.2	• Coastal scrub • Valley and foothill grassland • Vernal pools	25 m	940 m	(Mar)Apr-Nov(Dec)
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	FE	CE	1B.1	• Chaparral • Cismontane woodland • Coastal scrub (alluvial fan)	200 m	760 m	Apr-Jun
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb			1B.2	• Chaparral • Coastal scrub • Valley and foothill grassland	15 m	790 m	Apr-Jul
Eriastrum densifolium ssp. sanctorum	Santa Ana River woollystar	Polemoniaceae	perennial herb	FE	CE	1B.1	• Chaparral • Coastal scrub (alluvial fan)	91 m	610 m	Apr-Sep
Erythranthe diffusa	Palomar monkeyflower	Phrymaceae	annual herb			4.3	• Chaparral • Lower montane coniferous forest	1220 m	1830 m	Apr-Jun
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb			4.2	• Chaparral • Coastal scrub • Valley and foothill grassland	20 m	955 m	Mar-May
Hesperocyparis forbesii	Tecate cypress	Cupressaceae	perennial evergreen tree			1B.1	• Closed-cone coniferous forest • Chaparral	80 m	1500 m	
Hordeum intercedens	vernal barley	Poaceae	annual herb			3.2	• Coastal dunes • Coastal scrub • Valley and foothill grassland (saline flats and depressions) • Vernal pools	5 m	1000 m	Mar-Jun
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb			1B.1	• Chaparral (maritime) • Cismontane woodland • Coastal scrub	70 m	810 m	Feb-Jul(Sep)
Juglans californica	Southern	Juglandaceae	perennial			4.2	• Chaparral	50 m	900 m	Mar-Aug

	California black walnut		deciduous tree		• Cismontane woodland • Coastal scrub • Riparian woodland			
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	1B.1	• Marshes and swamps (coastal salt) • Playas • Vernal pools	1 m	1220 m	Feb-Jun
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	1B.2	• Closed-cone coniferous forest • Chaparral • Cismontane woodland	520 m	1370 m	Apr-Jul
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	4.3	• Chaparral • Coastal scrub	1 m	885 m	Jan-Jul
Lilium humboldtii ssp. ocellatum	ocellated Humboldt lily	Liliaceae	perennial bulbiferous herb	4.2	• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Riparian woodland	30 m	1800 m	Mar-Jul(Aug)
Microseris douglasii ssp. platycarpha	small-flowered microseris	Asteraceae	annual herb	4.2	• Cismontane woodland • Coastal scrub • Valley and foothill grassland • Vernal pools	15 m	1070 m	Mar-May
Monardella australis ssp. jokerstii	Jokerst's monardella	Lamiaceae	perennial rhizomatous herb	1B.1	• Chaparral • Lower montane coniferous forest	1350 m	1750 m	Jul-Sep
Monardella hypoleuca ssp. intermedia	intermediate monardella	Lamiaceae	perennial rhizomatous herb	1B.3	• Chaparral • Cismontane woodland • Lower montane coniferous forest (sometimes)	400 m	1250 m	Apr-Sep
Monardella pringlei	Pringle's monardella	Lamiaceae	annual herb	1A	• Coastal scrub (sandy)	300 m	400 m	May-Jun
Muhlenbergia californica	California muhly	Poaceae	perennial rhizomatous	4.3	• Chaparral • Coastal	100 m	2000 m	Jun-Sep

			herb		scrub • Lower montane coniferous forest • Meadows and seeps			
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	1B.1	• Coastal scrub • Meadows and seeps • Valley and foothill grassland (alkaline) • Vernal pools	3 m	1210 m	Apr-Jul
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	1B.2	• Chaparral • Coastal scrub	140 m	1275 m	(Mar)May-Jul
Penstemon californicus	California beardtongue	Plantaginaceae	perennial herb	1B.2	• Chaparral • Lower montane coniferous forest • Pinyon and juniper woodland	1170 m	2300 m	May-Jun(Aug)
Pentachaeta aurea ssp. allenii	Allen's pentachaeta	Asteraceae	annual herb	1B.1	• Coastal scrub (openings) • Valley and foothill grassland	75 m	520 m	Mar-Jun
Phacelia keckii	Santiago Peak phacelia	Hydrophyllaceae	annual herb	1B.3	• Closed-cone coniferous forest • Chaparral	545 m	1600 m	May-Jun
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	1B.1	• Coastal dunes • Coastal scrub	1 m	400 m	Mar-Jun
Pickeringia montana var. tomentosa	woolly chaparral-pea	Fabaceae	evergreen shrub	4.3	• Chaparral	0 m	1700 m	May-Aug
Polygala cornuta var. fishiae	Fish's milkwort	Polygalaceae	perennial deciduous shrub	4.3	• Chaparral • Cismontane woodland • Riparian woodland	100 m	1000 m	May-Aug
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	2B.2	• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	0 m	2100 m	(Jul)Aug-Nov(Dec)
Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	4.2	• Chaparral • Coastal scrub	20 m	1200 m	Mar-Jul(Aug)
	chaparral	Asteraceae	annual herb	2B.2	• Chaparral	15 m	800 m	Jan-

Senecio aphanactis	ragwort				• Cismontane woodland • Coastal scrub			Apr(May)
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	2B.2	• Chaparral • Coastal scrub • Lower montane coniferous forest • Mojavean desert scrub • Playas	15 m	1530 m	Mar-Jun
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	2B.2	• Cismontane woodland • Meadows and seeps	300 m	2000 m	Apr-Jul
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	1B.2	• Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Meadows and seeps • Marshes and swamps • Valley and foothill grassland (vernally mesic)	2 m	2040 m	Jul-Nov(Dec)

Suggested Citation

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IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Riverside County, California



Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

NOT FOR CONSULTATION

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

Stephens' Kangaroo Rat Dipodomys stephensi (incl. D. cascus) Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/3495

Birds

NAME	STATUS

Coastal California Gnatcatcher Polioptila californica californica Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/8178

Least Bell's Vireo Vireo bellii pusillus Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/5945

Southwestern Willow Flycatcher Empidonax traillii extimus Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/6749

Fishes

NAME	STATUS

Santa Ana Sucker Catostomus santaanae Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/3785

Insects

NAME	STATUS

Delhi Sands Flower-loving Fly Rhaphiomidas terminatus abdominalis Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1540

Flowering Plants

NAME	STATUS

NOT FOR CONSULTATION

San Diego Ambrosia Ambrosia pumila — Endangered
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/8287

Santa Ana River Woolly-star Eriastrum densifolium ssp. sanctorum — Endangered
Wherever found
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6575

Thread-leaved Brodiaea Brodiaea filifolia — Threatened
Wherever found
There is **final** critical habitat for this species. The location of the critical habitat is not available.
https://ecos.fws.gov/ecp/species/6087

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

NOT FOR CONSULTATION

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php

- Nationwide conservation measures for birds
  http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

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NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31

Burrowing Owl Athene cunicularia — Breeds Mar 15 to Aug 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9737

Clark's Grebe Aechmophorus clarkii — Breeds Jan 1 to Dec 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Common Yellowthroat Geothlypis trichas sinuosa — Breeds May 20 to Jul 31
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/2084

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31
This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Long-billed Curlew Numenius americanus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/5511

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Rufous Hummingbird selasphorus rufus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

NOT FOR CONSULTATION

Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Song Sparrow Melospiza melodia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee Pipilo maculatus clementae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10
Whimbrel Numenius phaeopus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10

NOT FOR CONSULTATION

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

NOT FOR CONSULTATION

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Appendix 6

Cultural Resources Survey

Magnolia Ranch Residential Project

Initial Study

FIRSTCARBONSOLUTIONS™

Phase I Cultural Resources Assessment
Orange Street Residential Development Project City of Eastvale, Riverside County, California

USGS *Corona North* 7.5-minute Quadrangle Map
Jurupa (Stearns) Land Grant
Assessor's Parcel Number (APN) 152-040-003

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Report Date: May 31, 2022

THIS REPORT CONTAINS SENSITIVE INFORMATION RELATING TO CULTURAL RESOURCES AND IS NOT INTENDED FOR PUBLIC DISTRIBUTION PURSUANT TO PUBLIC RESOURCES CODE, SECTION 21082.3(C)(2).

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MANAGEMENT SUMMARY

At the request of the MLC, Holdings Inc. (Client), FirstCarbon Solutions (FCS) conducted a Phase I Cultural Resource Assessment (Phase I CRA) Orange Street Residential Development Project (proposed project) located in the City of Eastvale, in Riverside County, California. The purpose of the assessment was to identify the presence or absence of potentially significant cultural resources within the project area, and if impacted by the proposed development, propose recommendations for mitigation. Completion of this investigation fulfills the requirements of the California Environmental Quality Act (CEQA) under Section 15064.5. This report follows the California Office of Historic Preservation (OHP) procedures for cultural resource surveys and the OHP Archaeological Resource Management Report (ARMR) format for archaeological reports.

On February 25, 2021, a records search was conducted at the Eastern Information Center (EIC) located at University of California, Riverside, for the project site and a 0.5-mile radius area beyond the project boundaries. To identify additional historic properties or resources, the search also included current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Built Environment Resource Directory (BERD) for Riverside County. The results of the records search indicate that only one linear historic resource has been recorded north of the project site within the 0.5-mile search radius, and no historic or prehistoric resources have been recorded within the project boundaries. In addition, there are 12 area-specific survey reports on file with the EIC, three of which (RI-05049, RI-04980, and RI-05052) transect the northern boundary of the proposed project site, indicating that portions of the project site have been previously surveyed.

On January 15, 2021, FCS sent a request to the Native American Heritage Commission (NAHC) in an effort to determine if any sacred sites are listed on its Sacred Lands File for the project site. A response was received on February 1, 2021, indicating that the Sacred Lands File was positive for the presence of Native American cultural resources in the immediate project area. The NAHC included a list of 22 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential Tribal Cultural Resources (TRCs) that may be affected by the proposed project are addressed, a letter containing project information requesting any additional information was sent to each tribal representative on February 4, 2020. A response from the Agua Caliente Band of Cahuilla Indians Tribe was received on March 10, 2021, indicating that the proposed project is not located within the Tribe's Traditional Use Area and defer to the other tribes ethnographically associated with the project site. No other responses have been received to date. Correspondence with the NAHC can be found in Appendix C.

On April 2, 2021, FCS Staff Archaeologists, Natalie Adame and Kweku Williams, MA, conducted a pedestrian survey for unrecorded cultural resources within the project boundaries of the proposed project site. The survey had to split into a western and eastern side due to home and livestock stables positioned in the middle of the project site. The survey began on the westside of the project site, along the southeast border, and moved west, using north-south transects, spaced at 15-meter

intervals whenever possible. Soil visibility was poor across the project site, raging >5 percent due to the heavy vegetation and tall grasses. Areas of exposed soil consisted of light brown sandy loam with gravel inclusions. There is a residential property on site, which according to the County of Riverside Assessors Office is under 50 years of age and thus ineligible for inclusion on the CRHR and should not be considered a potential historic resources under CEQA.

Survey conditions were documented using digital photographs and field notes. During the survey, Mr. Williams and Ms. Adame examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics. No additional resources were encountered.

Based on the results of the records searches, archival research, tribal correspondence, and pedestrian survey, FCS considers the potential for the proposed project to have an adverse effect on cultural resources to be moderate. No prehistoric or historic resources were identified during the pedestrian survey, however the positive results from the NAHC and lack of soil visibility during the pedestrian survey increases the probability that potential resources may be encountered during project subsurface construction activities and demolition.

FCS therefore recommends that a qualified Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for Archaeology perform an inspection of the site following grubbing, ground clearing, and demolition, and prior to any grading or project related ground disturbance. In the event exposed soils indicate cultural materials may be present, this may be followed by regular or periodic archaeological monitoring as determined by the Archaeologist, but full-time archaeological monitoring is not recommended at this time. Additional recommended procedures for the inadvertent discovery of archaeological resources or human remains are included in this report.

SECTION 1: INTRODUCTION

1.1 - Project Location

The project site is 10 gross acres (8.28 net acres) in size and located at 13175 Orange Street, in the City of Eastvale, in Riverside County, California (Exhibit 1). The project site is located within the Jurupa (Stearns) Land Grant of the *Corona North, California* United States Geological Survey (USGS) 7.5-minute Quadrangle Topographic Map (Exhibit 2). The project is bounded by Orange Street to the south, Schleisman Road to the north, residential neighborhood to the west and Eastvale Elementary School to the east, and encompasses Assessor's Parcel Numbers (APNs) 152-040-003 (Exhibit 3).

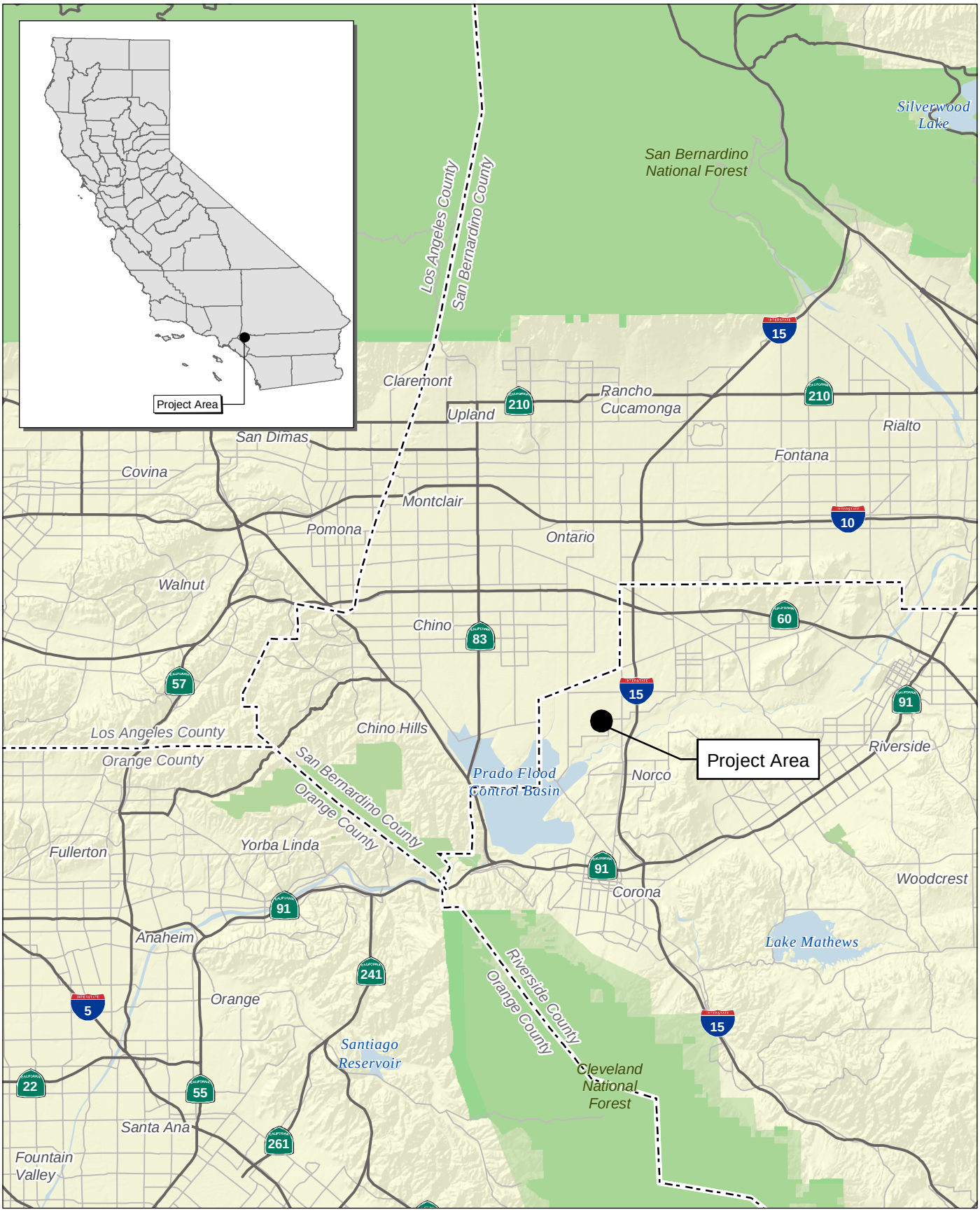
1.2 - Project Description

MLC Holdings Inc. (Client) is proposing to develop a residential development community, consisting of 41 single-family detached homes on 8.28 acres for a density of 4.95 dwelling units per acre (du/acre). The homes would range from 2,054 square feet to 3,153 square feet in size and consist of 11 one-story homes with four bedrooms and 30 two-story homes with five bedrooms and a loft. The proposed project would include vehicular access from Schleisman Road and secondary access from Orange Street. The proposed project would provide two garage spaces and two driveway spaces per dwelling unit, for a total of 164 spaces, as well as an additional 59 parallel street parking spaces. A 45-foot-wide paseo would be located in the center of the community that would consist of a trail, bench, and dog station that would be maintained by the Homeowner's Association (HOA).

1.3 - Assessment Team

FCS Staff Archaeologists, Natalie Adame and Kweku Williams MA, conducted the pedestrian survey and Ms. Adame authored this report. Dr. Dana DePietro, RPA, provided senior review and served as principal investigator. Ms. Adame, Mr. Williams, and Dr. DePietro exceed the professional standards set for their respective roles by the Secretary of the Interior. Professional qualifications for Ms. Adame, Mr. Williams, and Dr. DePietro can be found in Appendix A.

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Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

FIRSTCARBON SOLUTIONS™

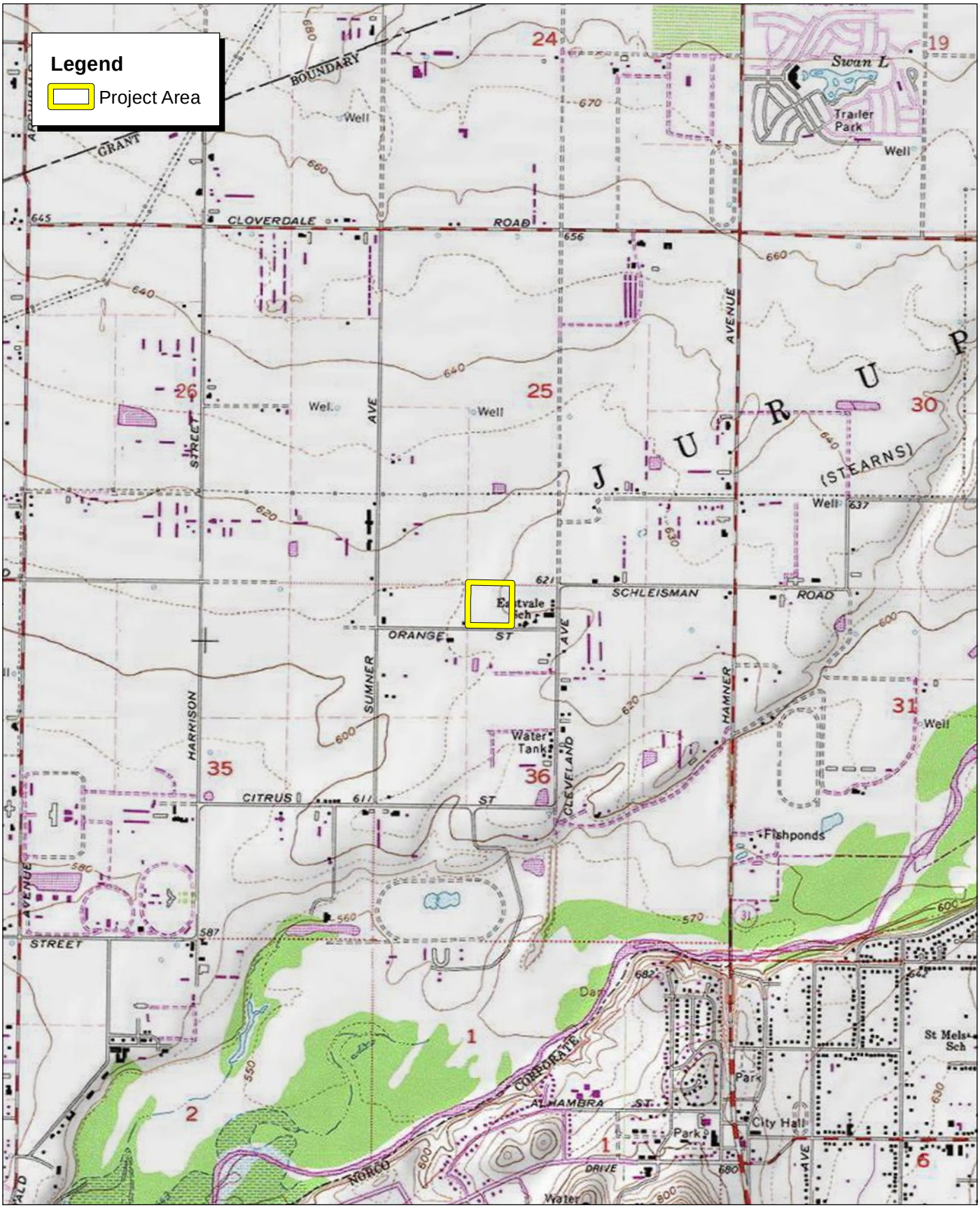
5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

49400023 • 06/2021 | 1_regional.mxd

MLC HOLDINGS, INC.
EASTVALE ORANGE STREET RESIDENTIAL DEVELOPMENT PROJECT
CULTURAL RESOURCE ASSESSMENT

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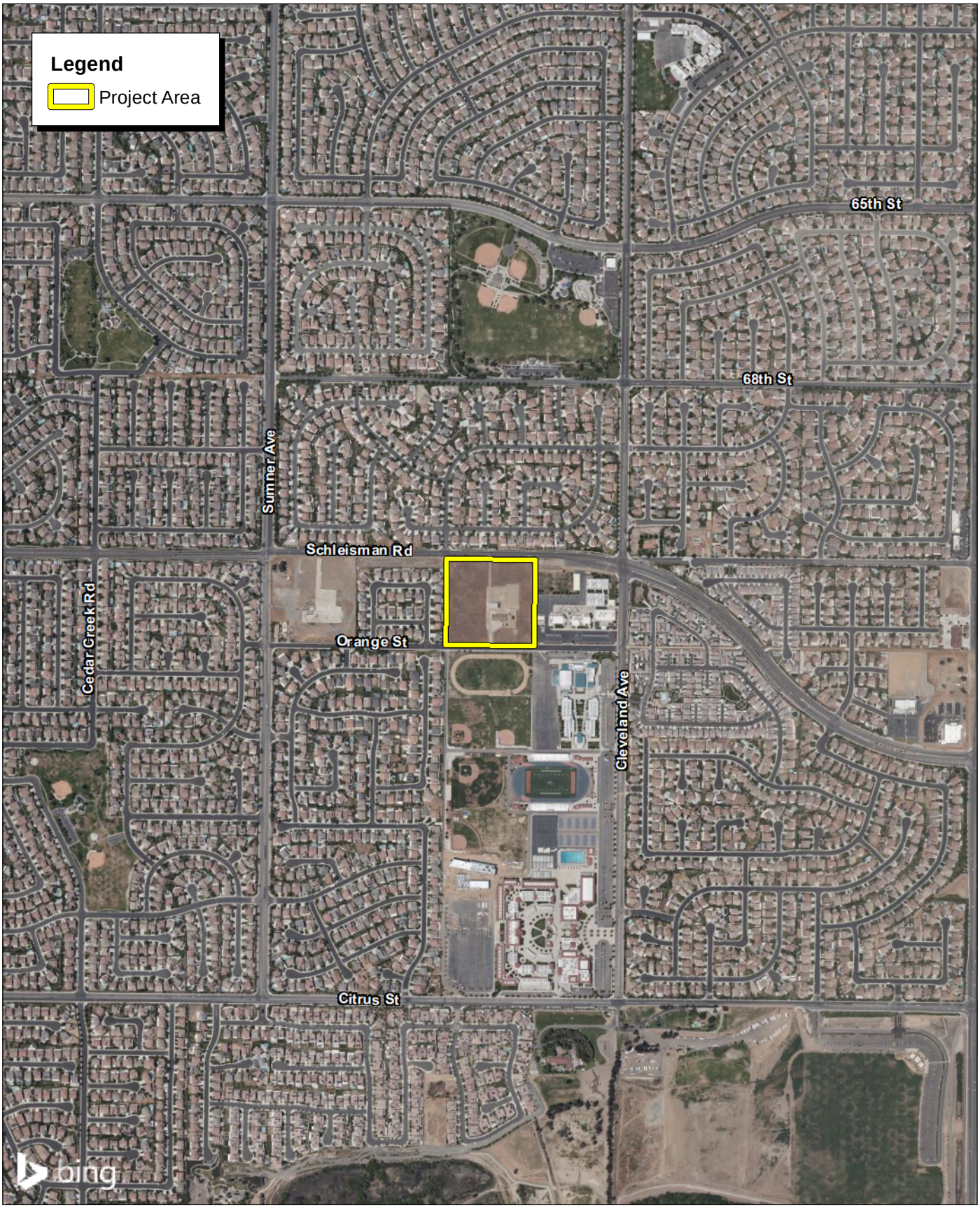
Source: USGS Corona North 7.5' Quadrangle / Land Grant: Jurupa (Stearns)

FIRSTCARBON SOLUTIONS™

2,000 1,000 0 2,000 Feet

Exhibit 2
Local Vicinity Map
Topographic Base

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Source: bing Aerial Imagery.

FIRSTCARBON SOLUTIONS™

1,000 500 0 1,000 Feet

Exhibit 3
Local Vicinity Map
Aerial Base

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SECTION 2: CULTURAL SETTING

Following is a brief overview of the prehistory, ethnography, and historic background, providing context in which to understand the background and relevance of sites found in the general project area. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview.

Further details can be found in ethnographic studies, mission records, and major published sources, including Beardsley (1948), Bennyhoff (1950), Fredrickson (1973), Kroeber (1925), Chartkoff and Chartkoff (1984), and Moratto (1984).

2.1 - Prehistoric Background

Fagan (2003), Moratto (1984), and Chartkoff and Chartkoff (1984) provide recent overviews of California archaeology and historical reviews of the inland Southern California among other locales. An early and widely used regional chronology for coastal Southern California is Wallace's four-part Horizon format (1955), which was later updated and revised by Warren (1968) and more recently by Chartkoff and Chartkoff (1984), and King (1990 and 2000). The sequence provides a framework that relates societal change to change in material culture; the advantages and weaknesses of Southern California chronological sequences are reviewed by Warren (in Moratto 1984), Chartkoff and Chartkoff (1984), and Heizer (ed. 1978).

2.1.1 - Paeloamericans

In North America, radiocarbon dates from existing samples of archaeological materials demonstrate human presence as early as 15,000 years Before Present (BP) (Waters et al. 2018). The lithics from the earliest (14,000 to 15,000 BP) documented sites in North America include cores, flakes and flake tools (e.g., 5 blades, 14 bladelets, 12 bifaces, one discoidal flake core, 23 edge-modified tools that includes scrapers and gravers from the Debra L. Friedkin site in, Texas) with an absence of projectile points (Waters et al. 2011, 2018). The first known projectile points in North America are from 13,000 years BP, with lanceolate fluted points (Clovis Complex) in sites from central and eastern North America, and stemmed projectile points from sites in areas of western North America that were not glaciated (Jenkins et al. 2012; Beck and Jones 2010). Glennan (1972) provides an early study of the hypothesis of Pre-Clovis in Southern California. The oldest California radiocarbon date as of 2007 from archaeological materials confirms a human presence in the northeastern part of the State (from site CA-SIS-218) as early as 13,500 years BP (Jones and Klar 2007). The radiocarbon date corresponds to the period of fluted points and fluted points have been found throughout California (Rondeau et al. 2007; Rondeau 2009) although projectile points and other chronologically and culturally informative materials are absent from the SIS-218 sample.

2.1.2 - Millingstone Complex or Early Period

During the early post glacial period after 8,500 BP the Southern California climate became warmer and drier (Fagan 2003). Groundstone artifacts that include manos and metates correspond to the Early Period. The Early period in Southern California begins as early or earlier than 8,000 BP and ends

by about 2,800 BP (King 1990). The Early period corresponds to the earliest known sites in Southern California with year-round habitation and cemeteries. Manos and metates consist of a variety of types. Mano and metates of the Early period in Southern California, correspond to types from studies in the U.S. southwest that efficiently grind small, oily annual and biennial wild seeds (Adams 1999; Ciolek-Torello 1995; Gilman 1988; Lancaster 1984; Whittlesey 1995). Most annual and biennial wild seed plant types in Southern California are best adapted for warm and dry environments (e.g., Hemizonia fasciculata, which is a summer seed source). Annual and biennial seed crops are highly reliable, nutritious, and productive. Annual and biennial seed producers are also, diverse and afford reliable seed production throughout the year. Compared to later periods, utilitarian artifacts are most frequently found with Early Period burials.

Manos and metates are “kitchen tools” and concentrate within residential areas of Early period habitation sites in Southern California (King and Merrill 2002; Merrill 2015). Other kinds of lithics that correspond to the Early period include many kinds of core tools (e.g., hammers, choppers, and scraper planes), knives, bifaces, scrapers (many types), gravers, burins, dart points, and compound bone fishhooks. Sedentism apparently increased in areas with abundant resources that were available for longer periods. Arid inland regions and offshore desert islands (e.g., San Nicolas Island) provided less opportunity for long term residence without trade and possibly for more mobile subsistence. The Early period ends about 2,800 BP (King 1990).

2.1.3 - Middle Period

The Middle Period lasted from about 2,800 BP to 750 BP (King 1990). Excavated assemblages retain many attributes of the Early Period but with more diverse artifact types. Middle Period sites can contain large-stemmed or notched small projectile points suggestive of bow and arrow use, especially near the end of the Period, and the use of portable grinding tools continued. Intensive use of mortar and pestles signaled processing of acorns as the primary vegetative staple as opposed to a mixed diet of seeds and acorns. Because of a general lack of data, neither the settlement and subsistence systems nor the cultural evolution of this Period are well understood, but it is very likely that the nomadic ways continued. It has been proposed that sedentism increased with the exploitation of storable food resources, such as acorns, but coastal sites from the Period exhibit higher fishing activity than in previous periods. The first permanently occupied villages make their appearance in this Period (Chartkoff and Chartkoff 1984).

2.1.4 - Late Prehistoric

Extending from 750 BP to Spanish Contact in 1769, the Late Prehistoric includes changes in trade networks and political and secular economic subsystems. There was also a differentiation of types of political economies. Exploitation of marine resources continued to intensify. Assemblages characteristically contain projectile points, and toward the end of the Period the size of the points decreased and notched and stemmed bases appeared, which implies the use of the bow and arrow. Use of personal ornaments such as shell beads, were widely distributed east of the coast, suggesting well-organized and codified trade networks. Additional assemblages in this Period included steatite bowls, asphaltum, grave goods, and elaborate shell ornaments. The use of bedrock milling stations was widespread during this horizon. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Village size increased during this time, and

some of these villages may have held 1,500 or more residents (Chartkoff and Chartkoff 1984). Analyses of skeletons showed that the first signs of malnutrition appeared in this Period, signaling greater competition for food resources (Fagan 2003).

The earliest part of this Period may have seen an incursion of Cupan-Takic speakers from the Great Basin (the "Shoshonean wedge" of Kroeber 1925) may have replaced the Hokan speakers in the area. At the time of Spanish conquest, Cupan-Takic speakers were distributed throughout Orange County, western Riverside County, and the Los Angeles Basin (Gabrieliño, Juaneño, and Cahuilla peoples). Serran-Takic speakers are now represented by the Serranos in the San Bernardino Mountains. Recent work (O'Neil 2002) suggests that the "Shoshonean wedge" is misnamed—the original Los Angeles inhabitants replaced by the incoming Takic-speakers may have actually been Yuman speakers (similar to those in the California Delta region of the Colorado River) and not Hokan Salinan-Seri (Chumash) speakers as was suggested by Kroeber.

At the time of Spanish conquest, local indigenous groups were composed of constantly moving and shifting clans and cultures. Early ethnographers applied the concept of territorial boundaries to local indigenous groups purely as a conceptualization device, and the data was based on fragmented information provided to them from second-hand sources. At least three Native American groups, the Cahuilla, Serrano, and Gabrieliño are known to have occupied or utilized resources within the vicinity of the project site at different points in history. A brief overview of these three tribal groups follows.

2.2 - Native American Background

2.2.1 - The Tongva (Gabrieliño)

Ethnographic accounts of Native Americans indicate that the Tongva (or Gabrieliño) once occupied the region that encompasses the project area. At the time of contact with Europeans, the Tongva were the main occupants of the southern Channel Islands, the Los Angeles basin, much of Orange County, and extended as far east as the western San Bernardino Valley. The term "Gabrieliño" came from the tribe's association with Mission San Gabriel Arcangel, established in 1771. However, today the tribe prefers to be known by their ancestral name, Tongva. The Tongva are believed to have been one of the most populous and wealthy Native American tribes in Southern California prior to European contact, second only to the Chumash (Bean and Smith 1978; McCawley 1996; Moratto 1984).

The Tongva occupied numerous villages with populations ranging from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Tongva society was organized by kinship groups, with each group composed of several related families who together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources (Bean and Smith 1978; McCawley 1996; Miller 1991). Vegetable staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, snakes, and the Tongva also fished (Bean and Smith 1978; McCawley 1996; Miller 1991).

By the late 18th Century, Tongva population had significantly dwindled due to the introduction of diseases and dietary deficiencies. Tongva communities near the missions disintegrated as individuals succumbed to Spanish control, fled the region, or died. Later, many of the Tongva fell into indentured

servitude to Anglo-Americans. By the early 1900s, few Tongva people had survived and much of their culture had been lost (Bean and Smith 1978; McCawley 1996; Miller 1991). However, in the 1970s, a revival of the Tongva culture began which continues to this day with growing interest and support.

2.2.2 - The Cahuilla

The project area is located in the region known to have been occupied by the Cahuilla Indians. Cahuilla territory was bounded on the north by the San Bernardino Mountains, on the east by the Orocopia Mountains, on the west by the Santa Ana River, the San Jacinto Plain and the eastern slope of the Palomar Mountains, and on the south by Borrego Springs and the Chocolate Mountains (Bean 1978).

The diversity of the territory provided the Cahuilla with a variety of foods. It has been estimated that the Cahuilla exploited more than 500 native and non-native plants (Bean and Saubel 1972). Acorns, mesquite, screw beans, piñon nuts, and various types of cacti were used. A variety of seeds, wild fruits and berries, tubers, roots, and greens were also a part of the Cahuilla diet. A marginal agricultural existence provided corn, beans, squashes, and melons. Rabbits and small animals were also hunted to supplement the diet. During high stands of Ancient Lake Cahuilla, fish, migratory birds, and marshland vegetation were also taken for sustenance and utilitarian purposes (Bean 1978).

Structures within permanent villages ranged from small brush shelters to dome-shaped or rectangular dwellings. Villages were situated near water sources, in the canyons near springs, or on alluvial fans at man-made walk-in wells (Bean 1972). Mortuary practices entailed cremation of the dead. Upon a person's death, the body was bound or put inside a net and then taken to a place where the body would be cremated. Secondary interments also occurred. A mourning ceremony took place about a year after a person's death. During this ceremony, an image of the deceased was burned along with other goods (Lando and Modesto 1977; Strong 1929).

Precontact Cahuilla population has been estimated as low as 2,500 to as high as 10,000. At the time of first contact with Europeans, around 1774, the Cahuilla numbered approximately 6,000. Although they were the first to come into contact with the Cahuilla, the Spanish had little to do with those of the desert region. Some of the Cahuilla who lived in the plains and valleys west of the desert and mountains, however, were missionized through the asistencia located near present day San Bernardino. Cahuilla political, economic, and religious autonomy was maintained until 1877 when the United States government established Indian reservations in the region. Protestant missionaries came into the area to convert and civilize the Native American population. During this era, traditional cultural practices, such as cremation of the dead, were prohibited. Today, the Cahuilla reside on eight separate reservations in southern California, located from Banning in the north to Warner Springs in the south and from Hemet in the west to Thermal in the east (Bean 1978).

2.3 - Regional Historic Background

2.3.1 - The Spanish Period (1769–1821)

The first Europeans to traverse the territory that constitutes modern Riverside County were Spanish soldier Pedro Fages and Father Francisco Garcés. This expedition to locate deserting soldiers eventually brought the group through the foothills of the San Jacinto Mountains, along Coyote Canyon, on the southern edge of Riverside County. They then continued into the Anza Valley, the San Jacinto Valley, Riverside and eventually into San Bernardino and the Cajon Pass. Later, in 1774, Captain Juan Bautista de Anza would also utilize Coyote Canyon and enter the confines of modern Riverside County as his expedition searched for an overland route from Sonora to coastal Southern California. These expeditions sparked an influx of non-natives to Southern California, and the first of these groups were the Spanish. Associated with the Spanish migration is the establishment of missions and military presidios along the coast of California. Although neither the missions nor presidios were ever located within the confines of modern Riverside County, their influence was far reaching. Land belonging to Mission San Gabriel extended to inland Southern California, east of the periphery of the Coachella Valley. Mission officials then converted portions of these holdings into ranchos during the Mexican period. Several ranchos were located in modern Riverside County, and the project area is located in the Jurupa Rancho.

2.3.2 - The Mexican Period (1821–1848)

Administration of the Southern California ranchos shifted to Mexican hands about 1824, but effective control did not occur until the early 1830s. Once the ranchos were secularized, the Mexican administrators began granting vast tracts of the original Mission properties to members of prominent families who had helped cut ties from the Spanish system. In 1838, title to the Mission San Gabriel's outpost in this area, the Jurupa Rancho, was granted to Juan Bandini, the appointed administrator of the Mission San Gabriel. This land grant was the first officially recognized Mexican land grant within modern Riverside County. The Jurupa Rancho consisted of roughly 30,000 acres, bounded by the Jurupa Hills to the north, the Santa Ana River to the south and east, and the Chino Rancho to the west.

During the period of the Mexican ranchos, rancho owners were constantly harassed by thieves and native groups from the Mojave region. Groups whose intent was to steal horses and cattle often attacked the northern part of the Rancho San Bernardino, so that Juan Bandini donated the very northeastern portion of the Jurupa Rancho for resettlement in 1842. By 1843, Bandini further fragmented the Jurupa Rancho, selling a sizable portion to Benjamin D. Wilson, who then sold the property known as Jurupa (Rubidoux) Rancho to Louis Rubidoux in 1847. The Rancho would be further divided within the upcoming decade.

2.3.3 - Riverside County

Riverside County is the 4th largest county in California in both size and population. It is 7,206 square miles and is home to 4,470,546 people. It is bordered by Orange County to the west, San Bernardino County to the north, San Diego County to the south, and Arizona to the east. Riverside County was

formed in 1893 from a small portion of San Bernardino County and a larger part of San Diego County and received its name from the already established City of Riverside (County of Riverside 2020).

The majority of Riverside County was part of Rancho San Jacinto Viejo, which was given to Don José Antonio Estudillo; Sierra (Yorba) Rancho, and Rincon Grant, which were given to Bernardo Yorba through land grants that were given to prominent Spanish families by the Spanish Government. Following the establishment of the community of Riverside, it maintained the same agricultural business practices that brought commerce to the region; however, the success in fruit growing and export of good, the profitable land, proximity to a water source, the arrival of several investors and the acquisition of irrigation rights, leading to the formation of the Riverside Land and Irrigation Company, Riverside was rapidly becoming an attractive destination to settle in. The addition of the Southern Pacific Railroad in the region further facilitated the distribution of goods and travelers, bringing financial prosperity and more business to Riverside. Rapid growth meant that institutions needed to be formed to meet the needs of the growing population, and in 1891 the first attempt to form a new county was held (Brown and Boyd 1922; Guinn 1902).

Riverside continues to be one of the fastest growing counites in California with a population of 2,470,546 people (United States Census Bureau 2020). It's ecological diversity, with rivers, deserts, mountains and beaches, affordable housing, the Wine Country near Temecula and renowned UC Riverside are key factors in the continued appeal of the County.

2.3.4 - City of Eastvale

The City of Eastvale was originally part of the Riverside School District that formed in 1893. The name Eastvale may have come given that the majority of the new school district was located east of the Milton Vale Ranch, *east* of the *Vale* Ranch. Likewise, from a suggestion of the Fuller Family, whose land housed the new elementary school, which was located *eas*t of the previous *Valley School*. The Fuller Family was one of the prominent Eastvale families, residing in Eastvale from 1889 to the mid-1950's. The Fuller's ventured in several business, having found success in cattle and racehorse breeding and transportation, establishing the Pioneer Truck and Transfer Company in the early 1900's and successfully transitioning from horse drawn carriages to motor vehicles, thus playing a pivotal role in the bringing business to the small community. Following the creation of Riverside County and the Eastvale School District in 1893, the community of Eastvale continued to gradually grow, attracting agricultural and dairy farmers, maintaining its rural identity until the 2000's. Beginning in 2007, citizens of Eastvale began the process of giving cityhood to Eastvale, establishing the Eastvale Incorporation Committee, officially incorporating Eastvale on October 1, 2010. Today, Eastvale continues to grow at a rapid pace, attracting future residents with its delicately planned residential neighborhoods and opportunities with the ever growing business and commerce expansion (eastvale.gov; Meissner & Johnson 2013)

SECTION 3: RESULTS

3.1 - Records Search

3.1.1 - Eastern Information Center

On February 25, 2021, a records search for the project site and a 0.5-mile radius beyond the project boundaries was conducted at the EIC located at University of California, Riverside. To identify additional historic properties or resources, the current inventories of the NRHP, CRHR, CHL list, CPHI list, and the BERD for Riverside County were reviewed to determine the existence of previously documented historic and prehistoric resources.

The results of the records search indicate that only one historic linear historic resource north of the project site has been recorded within the 0.5-mile search radius, and no resources are located within the project boundary (Table 1). In addition, 12 area-specific survey reports (Table 2) are on file with the EIC, three of which (RI-05049, RI-04980, and RI-05052) transect the northern boundary of the proposed project site, indicating that portions of the project site have been previously surveyed (Table 2). Complete EIC records search results may be found in Appendix B.

Table 1: Cultural Resources within 0.5-mile of the Project Area

Resource No.	Resource Description	Date Recorded
P-33-016681	Southern Sierras Powerline; AH15: Standing Structure	2007; 2011; 2016; 2018
Source: EIC Records Search. January 15, 2021.		

Table 2: Previous Investigations within 0.5 mile of the Project Area

Report No.	Report Title/Project Focus	Author	Date
RI-05049	Archeological Survey Report: A Phase I Cultural Resources Investigation for the Proposed Eastvale Water and Sewer Master Plan, Riverside County, California.	McKenna et. Al	2003
RI-05052	Archeological Survey Report: A Phase I Cultural Resources Investigation for the Proposed Eastvale Water and Sewer Master Plan, Riverside County, California.	McKenna et. Al	2003
RI- 04980	A Phase I Cultural Resources Investigation of Approximately 200 Acres of Land (TTM 30931) in the Jurupa Area of Riverside County, California.	McKenna et. Al	2003
RI-03889	Environmental Impact Evaluation: A Cultural Resources Impact Assessment of the 748 Acre Eastvale Project.	Christopher Dover	2002

Report No.	Report Title/Project Focus	Author	Date
RI-04712	Cultural and Paleontological Resources Assessment, Cloverdale Park.	Riordan Goodwin and Robert Reynolds	2002
RI-05394	Archeological Resources Assessment and Paleontological Records Search for Tract Map #31323 (APN# 134-250-010), County of Riverside, California.	Michael Dice	2003
RI-07310	Cultural Resources Records Search and Site Visit for Cingular Telecommunications Facility Candidate RS-0044-01 (Light Standard/Antenna Installation), 13100 65th Street, Corona, Riverside County, California.	Wayne Bonner, Marnie Aislin-Kay	2006
RI-07388	Final Phase I Cultural Resources Survey Report, Tentative Tract Map #34014, 7080 and 7090 Cleveland Avenue, Norco Area, Riverside County, California.	Michael Dice	2006
RI-08813	Letter Report: Request for Comments Regarding Proposed Harada Site, 13099 65th Street, Eastvale, Riverside County, California, TCNS# 81039.	Dorothy Knowlton	2012
RI-09194	Cultural Resources Summary for the Proposed Verizon Wireless, Inc., Property at the Providence Park Site, 7447 Cleveland Avenue, Corona, Riverside County, California 92880.	Heather Puckett	2013
RI-10222	Cultural Resources Record Search and Archaeological Survey Results for the Proposed Royal Street Communications, California, LLC, Site LA2241A (Harada Heritage Park) located at 13100 65th Street, Corona, Riverside County, California, 92880.	Diane Bonner and Robert J. Wlodarski	2009
RI-10408	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC RS0395(CLU6338) [Harada Heritage Park], 13099 65th Street, Eastvale, Riverside County, California, CASPR No. 3551454994.	Sarah F. Williams and Carie D. Wills.	2018
S-004881	West Valley Coach Center-archaeological reconnaissance.	William Roop	1978
Source: EIC Records Search. January 15, 2021. Reports within the project boundaries are identified in bold.			

3.1.2 - Historic Aerials

A review of 13 historical aerial photographs depicting the project site from 1938 to 2016 indicate that the project site and the surrounding lands remained generally undeveloped and used for agricultural purposes until approximately 1994. Between 1967 and 1994 a homestead was built within the boundaries of the project site. The images from 1938 to 2002 depict gradual residential

development surrounding the project site. Sometime after 1995 the surrounding area became more urbanized with construction of the Eastvale Elementary School east of the project site and River Heights Intermediate School located south of the project site (Historic Aerials 2020).

3.1.3 - Native American Heritage Commission

On January 15, 2021, FCS sent a request to the NAHC in an effort to determine if any sacred sites are listed on its Sacred Lands File for the project site. A response was received on February 1, 2021, indicating the results of their search was positive for the presence of TCRs. The NAHC provided a list of 22 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential tribal cultural resources that may be affected by the proposed project are addressed, a letter containing project information requesting any additional information was sent to each tribal representative on February 5, 2020. A response from the Agua Caliente Band of Cahuilla Indians tribe was received on March 10, 2021, indicating that the project is not located within the Tribe's Traditional Use Area and defer to the other tribes ethnographically associated with the project site. No other responses have been received to date. No other responses have been received to date. Correspondence related to the NAHC letters and tribal representatives can be found in Appendix C.

3.2 - Pedestrian Survey

On April 2, 2021, FCS Staff Archaeologist's Natalie Adame and Kweku Williams, MA, conducted a pedestrian survey for unrecorded cultural resources within the project boundaries of the proposed project site. The survey had to split in a western and eastern side due to home and -livestock stables positioned in the middle of the project site. The survey began on the westside of the project site, along the southeast border, and moved west, using north-south transects, spaced at 15-meter intervals whenever possible. Soil visibility was poor, throughout the project site, raging >5 percent due to the heavy vegetation and tall grasses. Areas of exposed soil consisted of light brown sandy loam with gravel inclusions. There is a residential property on site, which according to the County of Riverside Assessors Office is under 50 years of age and thus ineligible for inclusion on the CRHR and should not be considered potential historic resources under CEQA.

Survey conditions were documented using digital photographs and field notes. During the survey, Mr. Williams and Ms. Adame examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics).

To the extent possible, all areas of the project site were inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. No historic or prehistoric cultural resources or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert, etc.) were found within the project site. Pedestrian Survey photos can be found in Appendix D.

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SECTION 4: SUMMARY AND RECOMMENDATIONS

4.1 - Summary

In accordance with CEQA Guidelines, FCS assessed the potential impacts of the proposed project for known and potential cultural resources at the project site. Results from the EIC indicate that there are no cultural resources within the project site, and only a single historic resource has been recorded within the 0.5 mile radius. In addition, 12 area-specific survey reports are on file with the EIC for the project site and its 0.5-mile, three of which (RI-05049, RI-04980, and RI-05052) transect the northern boundary of the proposed project site, indicating that the project site has been previously surveyed. The results of the pedestrian field survey failed to identify additional unrecorded cultural resources within the project site, however grasses and ground cover greatly reduced the visibility of native soils.

The NAHC Sacred Lands File search contained positive results, but subsequent correspondence with Native American representatives did not identify any TCRs that may be adversely affected by the proposed project. Although the pedestrian survey failed to locate any cultural resources, the pedestrian survey did confirm the presence of a residential property, which according to the County of Riverside Assessors Office is under 50 years of age and thus ineligible for inclusion on the CRHR and should not be considered potential a historic resources under CEQA

4.2 - Recommendations

4.2.1 - Cultural Resources Recommendations

Based on the results of the records searches, archival research, tribal correspondence, and pedestrian survey, FCS considers the potential for the proposed project to have an adverse effect on cultural resources to be moderate. No archaeological resources were identified in the records searches or during the pedestrian survey; however, the positive results from the Sacred Lands Files search, and overall poor visibility across the project site increases the possibility that historic and prehistoric cultural resources may be encountered during the course of project construction.

FCS therefore recommends that a qualified Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for Archaeology perform an inspection of the site following grubbing, ground clearing, and demolition, and prior to any grading or project related ground disturbance. In the event exposed soils indicate cultural materials may be present, this may be followed by regular or periodic archaeological monitoring as determined by the Archaeologist, but full-time archaeological monitoring is not recommended at this time.

The following section recommends measures that would result in avoidance or minimization of potential project-related impacts to cultural resources on-site, and recommended procedures to be followed in the event cultural resources are encountered during project construction:

4.3 - Inadvertent Discovery Procedures

4.3.1 - Inadvertent Discovery of Human Remains

There is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed.

In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 shall be followed. In this instance, once project-related earthmoving begins and if there is inadvertent discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98, or
2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project site in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the Commission;
   - The descendent identified fails to make a recommendation; or
   - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

4.3.2 - Inadvertent Discovery of Cultural Resources

It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources. If buried cultural resources are discovered during construction, operations shall stop in the immediate vicinity of the find and a qualified Archaeologist shall be consulted to determine whether the resource requires further study. The qualified Archeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate DPR forms and evaluated for significance in terms of CEQA criteria.

If the resources are determined to be unique historic resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the Archaeological Monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

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SECTION 5: REFERENCES

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Appendix A: Personnel Qualifications

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FIRSTCARBON SOLUTIONS™

DANA DOUGLAS DePIETRO, PH.D.—Cultural Resources Lead (North)

OVERVIEW

- More than 15 Years' Experience in Archaeology and Cultural Resources

Education

- Ph.D., Near Eastern Art and Archaeology, University of California at Berkeley, 2012
- M.A., Near Eastern Art and Archaeology, University of California at Berkeley, 2005
- B.A., Archaeology and History (double major), University of California at San Diego, 2002

Fellowships and Awards

- Albright Institute Educational and Cultural Affairs Fellowship (2015)
- Katherine Davis Foundation Projects for Peace Prize (2012)
- International House Gateway Fellowship (2011-2012)
- The George Franklin Dales Foundation Fellowship for Archaeological Research (2011)
- CAORC Multi-Country Dissertation Research Fellowship (2010)

Dana DePietro, Ph.D. is a Registered Professional Archaeologist who meets the Secretary of Interior's standards for historic preservation programs in archaeology. Dr. DePietro has over 15 years of experience in all aspects of cultural resource management, including prehistoric and historic archaeology, paleontology, materials conservation, history of art and architecture, and community engagement. He has experience in compliance with the National Environmental Policy Act (NEPA), the California Environment Quality Act (CEQA), the National Historic Preservation Act (NHPA), and the Archaeological Resources Protection Act (ARAP). Dr. DePietro has completed cultural resource projects that have involved agency, client, Native American, and subcontractor coordination; treatment plans and research design development; archival research; field reconnaissance; site testing; data recovery excavation; construction monitoring; site recordation; site protection/preservation, mapping/ cartography; spatial analysis/GIS; laboratory analysis; materials conservation; artifact curation and exhibition; and report production. He has completed projects in California within the jurisdiction of the Bureau of Land Management (BLM) and other federal agencies requiring compliance with Section 106 of the NHPA. He has also completed projects throughout California under CEQA for state and local governments and municipalities, including the California Department of Transportation (Caltrans) and has worked with clients to insure deliverables meet and exceed the standards set by the State Historic Preservation Office (SHPO).

RELATED EXPERIENCE AND CLIENT SUMMARY

FirstCarbon Solutions

As the Lead Archaeologist/Cultural Resource Specialist for FCS, Dr. DePietro conducts evaluations and performs field documentation of historic and prehistoric cultural resources; prepares environmental impact reports (EIRs), cultural resources assessments (CRAs), DPR forms and Section 106 reports; conducts mapping, GIS analysis, and state and county record searches; leads archaeological surveys and field monitoring efforts; and coordinates with state, federal and tribal officials and institutions for a variety of FCS projects, including the following:

DANA DOUGLAS DePIETRO, PH.D.—Cultural Resources Lead (North)

- Atherton Baptist Homes Master Plan/Phase II, City of Alhambra, Los Angeles County
- Biological and Cultural Resources Assistance 140-Acre Project Site Woodcrest, Riverside County, CA
- Blanchard Road Industrial EIR Project, City of San Jose, Santa Clara County, CA
- Bonadelle Tract 6120 AQ/GHG and Bio Tech Studies, City of Clovis, Fresno County, CA
- CEQA Analysis for Mayhew Way Project, City of Walnut Creek, Contra Costa County
- 2268 El Camino Real, Mountain View—II CEQA Compliance Checklist Project, City of Mountain View, Santa Clara County
- CEQA Documentation for New Science Building, City of Fairfield, Solano County
- CEQA Services for Clover Spring Open Space Preserve Project, City of Cloverdale, Sonoma County
- Chico Walmart Expansion Project, City of Chico, CA
- Cultural Resources Services for Froom Ranch/El Villagio Specific Plan, City of San Luis Obispo, CA
- Cultural Resource & Historic Evaluation for Sacramento Dome Theatre, City of Sacramento, CA
- Cultural Resources Services for Haven Berryessa Block 7 & 8 San Jose Flea Market, San Jose, CA
- Caltrans NEPA/CEQA Documentation and Permitting for the Dogtown Road Bridges Replacement Projects (San Domingo Creek, French Gulch, and Indian Creek), Calaveras County, CA
- Due Diligence for Meadowlark Project in Pleasanton, CA
- Due Diligence Services for the Montalcino Property, Napa County, CA
- Due Diligence Site Review for Parcel APN 68-241-30 located at 260 Bartlett Way Santa Cruz, CA
- Due Diligence Level IA Entitlements for the Boscell Road Osgood Project, City of Fremont, CA
- Trellis Residential Project EIR, City of Walnut Creek, CA
- El Dorado Materials Recovery Facility Remodeling Project, El Dorado County, CA
- Farmstand IS/MND, City of Healdsburg, CA
- La Paloma Winery Demo Project IS/MND, City of Clovis, CA
- Kaiser Dublin Medical Center EIR, City of Dublin, California
- Merced Gateway Master Plan Project EIR, City of Merced, CA
- Phase 1 Cultural Resource Assessment for 44 acres TTM No. 19992, Rancho Cucamonga, CA
- Bonadelle Tract 6120 Cultural Resources Study, City of Clovis, CA
- Professional Services to Support the Development of a Preferred Development Plan and Associated Regulatory Strategies for the Solano 360 Project, Solano County, CA
- Tassajara Parks EIR, Contra Costa County, California

Other Relevant Experience

The Society for Humanitarian Archaeological Research and Exploration

Dr. DePietro is the Founder and Executive Director of The Society for Humanitarian Archaeological Research and Exploration. He manages the projects, staff, and the daily operation of this not-for-profit organization. Dr. DePietro likewise establishes relationships with partner universities and institutions, writes grant proposals, supervises fundraising projects, and maintains accounts, financial records, and the organization's online presence.

University of California at Berkeley

Dr. DePietro was a lecturer at the University of California, Berkeley from August 2003 to January 2015. During his tenure, he prepared University-level source and lectures in the history of the modern and ancient Middle East, performed student advising and evaluation, and university administrative duties. Dr. DePietro provided resources and opportunities that empower people to critically engage with other cultures as well as with their own communities.

DANA DOUGLAS DePIETRO, PH.D.—Cultural Resources Lead (North)

Penn State University—Tel Akko Total Archaeology Project

Dr. DePietro was the Director of Community Engagement from 2013 to 2014 at the Penn State University for the Tel Akko Total Archaeology Project. He developed and executed a community engagement program, supervised staff and community participants, taught excavation and conservation techniques to groups of young people in Akko, and performed outreach, dialogue, and program developments in partnership[with community leaders.

Harvard University—Leon Levy Expedition to Ashkelon, Israel

Dr. De Pietro was the excavation supervisor during the summers of 2007-2013 for the Harvard University—Leon Levy Expedition to Ashkelon, Israel. He supervised the excavation and stratagraphic interpretation and instructed students in excavation techniques, data collection, photography, analysis, and publication.

Early Iron Age Cemetery Excavation—Dhamar, Yemen

Dr. De Pietro was the Area Supervisor during the summer of 2004 for the Early Iron Age Cemetery Excavation in Dhamar, Yemen. He supervised the excavation and stratagraphic interpretation, taught excavation techniques, strategy and implementation, field conservation, surveying techniques, data collection and analysis, and site management.

Journal of Associated Graduates in Near Eastern Studies (JAGNES)

Dr. DePietro was the Associate Editor from August 2003 to May 2012 for the Journal of Associated Graduates in Near Eastern Studiers (JAGNES). He solicited and proofread submissions, fundraising, and advertisements.

"Travel Today: Egypt" Magazine

Dr. De Pietro was an Archaeological Correspondent from December 2002 to February 2005. He wrote magazine articles, conducted relevant interviews and research, and procured photos and images to compliment articles.

FIRSTCARBON SOLUTIONS™

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

OVERVIEW

- More than 12 years of experience

Education

- Master of Arts, Archaeology and Physical Anthropology, Northern Illinois University, DeKalb, IL, 2014
- Bachelor of Arts, Anthropology and World History, Cum Laude, State University of New York, Albany, NY, 2010

License

- Registered Professional Archaeologist, License No. 17953, 2019

Affiliations

- Phi Beta Delta Honor Society for International Scholars, 2012 to present
- Lambda Alpha National Anthropology Honor Society, 2009 to present

Awards and Fellowships

- Superior Exhibit Award for *Trowels and Fair Trade: Revealing the Underground Railroad and Contemporary Slavery* exhibit, Anthropology Museum, Northern Illinois University, Illinois Association of Museums, IL, 2013
- Rhoten A. Smith Fellowship, Northern Illinois University, DeKalb, IL, 2012–2014
- Anthropology Foundation Fund Award, Northern Illinois University, DeKalb, IL, 2012

Kweku Williams, MA, RPA, is a Registered Professional Archaeologist (License No. 17953) with more than 12 years of experience specializing in archaeology and physical anthropology. He possesses knowledge on excavation practices, artifact analysis, and osteology. Mr. Williams has worked on the field in sites around the US and parts of Europe, as well as in the academe where he served as Adjunct Professor in Anthropology at Berkeley City College, Berkeley, California, and Las Positas College, Livermore, California.

RELATED EXPERIENCE AND CLIENT SUMMARY

FirstCarbon Solutions

Tulocay Cemetery Project for Holman Teague Roche Anglin, LLP Archaeological Monitoring, City of Napa, CA

FCS provided archaeological monitoring for excavations during boundary determination testing at Tulocay Cemetery. Mr. Williams served as Archaeological Monitor.

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

Ritz-Carlton Napa Valley Resort Hotel Project Data Recovery of CA-NAP-928, City of Napa, CA

FCS is currently assisting the US Army Corps of Engineers (USACE) with the data recovery of CA-NAP-928. FCS is implementing the Memorandum of Agreement (MOA) and Historic Properties Treatment Plan (HPTP) for the Ritz-Carlton Napa Valley Resort Project, which was determined to have an adverse effect on the prehistoric site CA-NAP-928. The project proponent is a private developer whose application for the hotel site (which included a wetland) prompted Section 106 review by the USACE, San Francisco District. The project would result in the complete displacement of CA-NAP-928, which was determined eligible for listing in the National Register of Historic Places under criterion D for its data potential. To address this adverse effect, the USACE and the California State Historic Preservation Officer executed an MOA calling for the implementation of the HPTP. Treatment includes data recovery of the large, complex, multi-period site, involving the analysis of macrobotanical remains, lithics, fire-affected rock, obsidian hydration analysis, C-14 dating, and the treatment and recovery of faunal and human osteological remains. FCS is also working closely with Scott Gabaldon, the Chairperson of the Mishewal Wappo Tribe of Alexander Valley, who has assigned one Native American monitor to be present at the site during all ground-disturbing activities. Mr. Williams is providing archaeological testing and monitoring services for the project.

Previous Field Experience

Applied EarthWorks, Inc. and Cogstone Resource Management, Inc., Crowder Canyon, San Bernardino County, CA

Mr. Williams worked with Applied EarthWorks, Inc. and Cogstone Resource Management as a Field Technician on the Project State Route Realignment—Crowder Canyon Data Recovery Project for California Department of Transportation (Caltrans).

Schoharie Valley Field School, State University of New York, Albany, NY

Mr. Williams received training in archaeological techniques in surveying, excavation, and artifact analysis and preservation from Dr. Christina Rieth.

Cultural Resources Survey Program, New York State Museum, New York, NY

Under the supervision of Dr. Christina Rieth, Mr. Williams served as Archaeological Field Technician and conducted archaeological surveys and excavation for the New York State Museum.

Far Western Anthropological Research Group, Multiple Locations

As Field Technician, Mr. Williams' work included excavation and osteological recovery in compliance with the Native American Graves Protection and Repatriation Act with the Enterprise people; excavation testing for infrastructure development in Camp Pendleton for the Department of Defense; excavation and teaching demonstration in archaeological practices at Camp Tawonga, California; excavation and boundary site testing for a known archaeological site in Aliso Creek for the USACE; test excavation at Mariposa Leach Field for the US Forest Service (USFS); artifact processing for the Feather River West Levy project of the USACE and the Enterprise Tribal Group; the Moke 3700-Acre Survey in Pioneer, California for the USFS; the Onyx Ranch Survey in Mojave, California, for the Bureau of Land Management; Goleta Data Recovery for the Caltrans; archaeological field surveys, monitoring, and

excavation/burial recovery for the Feather River West Levee Project in Live Oak, California; and archaeological field surveys and excavation in Mariposa Grove at the Yosemite National Park.

Ka'Kabish Field School, Orange Walk, Belize

Through Trent University, Canada, Mr. Williams worked with Dr. Helen Haines as Crew Chief and Field Manager at the Ka'Kabish Field School in the province of Orange Walk, Belize.

Archaeological Field School in Salemi, Sicily, Italy

Through Northern Illinois University's Archaeological Field School, Mr. Williams collected data for his Master's thesis and received further training in archaeological techniques in surveying, excavation, and artifact analysis and preservation from Dr. Michael Kolb.

Hydro-archaeology Project, Universidad de Granada, Andalusia, Spain

Mr. Williams assisted Dr. José Maria Cervantes in mapping waterways in Andalusia, Spain.

Academic Positions

Berkeley City College, Berkeley, CA

Mr. Williams served as Adjunct Professor in Anthropology, teaching Introduction to Physical Anthropology, Introduction to Cultural Anthropology, and Introduction to Archaeology.

Las Positas College, Livermore, CA

Mr. Williams served as Adjunct Professor in Anthropology teaching Introduction to Physical Anthropology, Introduction to Cultural Anthropology, Introduction to Forensic Anthropology, and Introduction to Archaeology.

Archaeology Camp, College of Liberal Arts and Science, Northern Illinois University, DeKalb, IL

Mr. Williams served as Co-coordinator and Counselor for the Archaeology Camp of the College of Liberal Arts and Science in Northern Illinois University, DeKalb.

Anthropology Museum, Northern Illinois University, DeKalb, IL

Mr. Williams served as Graduate Assistant in Northern Illinois University, DeKalb's Anthropology Museum, where he coordinated the exhibit development team, provided tours and lectures on the content of exhibits, and fostered appreciation for education and cultural diversity. He also assisted in the development and installation of the *Fast Food Nation: 10,000 B.C.* and *Trowels and Fair Trade: Revealing the Underground Railroad and Contemporary Slavery* exhibits.

Department of Anthropology, Northern Illinois University, DeKalb, IL

As Teaching Assistant, Mr. Williams taught Introduction to Physical Anthropology, where he discussed The Life History and Social Behavior of the Mountain Gorilla, and Exploratory Archaeology, where he discussed The Rise of the City States of Mesopotamia, The Bronze Age in the Western Mediterranean, and Classic Period of the Maya Lowlands.

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

Ka'Kabish Field School, Orange Walk, Belize

Through Trent University, Canada, Mr. Williams served as Field School Instructor where he provided students with the essentials for archaeological studies, such as laying out units, mapping (plan view and profile), calculating elevations and stadia metric distances, the essentials of logistical management of unit forms, proper notetaking in field journals, and the collection and labeling of artifact bags.

Academic Events and Speaking Engagements

- Learning Community Revolutionary Scholars First Year Experience, Berkeley City College, Berkeley, CA, Fall 2017
- Panelist on the Islamophobia Open Talk, Muslim Student Association and Peace and Social Justice Student Association, Las Positas College, Livermore, CA, Fall 2016
- Panelist on the African-American Science, Technology, Engineering, and Math Panel, Black Student Union, Las Positas College, Livermore, CA, Spring 2016
- Midwestern Mesoamerican Archaeological Conference, Northern Illinois University, DeKalb, IL, Spring 2014

Community Service

Mr. Williams participated in Northern Illinois University Cares Day where he participated in the beautification of DeKalb historical landmarks and public parks.

Publications

Williams, K.A. (2014). *Space and Specialization: Understanding the Medieval Economic Behavior through Ceramics in Salemi, Sicily* (master's thesis). Northern Illinois University, Illinois, United States.

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NATALIE ADAME—ARCHAEOLOGICAL MONITOR

OVERVIEW

- More than 2 years of experience

Education

- Bachelor of Arts, Biological Anthropology, Minor in Geology, California State University, East Bay, Hayward, CA, 2016
- Associate of Arts, Geology, Mt. San Antonio College, Walnut, CA, 2011

Skill

- Esri Aeronautical Reconnaissance Coverage Geographic Information System (ArcGIS)

Natalie Adame has more than 2 years of experience in archaeology, which she gained from extensive fieldwork and museum experience. Ms. Adame has established excellent research skills exemplified by her ability to prepare comprehensive reports and presentations. Her experience includes performing land use analyses and preparing Initial Studies and EIRs for various development projects. As an Archaeological Monitor/Field Technician, Ms. Adame implements Worker Environmental Awareness Programs (WEAP) 'tailgate' training sessions and coordinates with construction staff and Native American Monitors, construction monitoring, and the salvage and recordation of archaeological resources.

RELATED EXPERIENCE AND CLIENT SUMMARY

Biological, Archaeological, and Paleontological Monitoring and Reporting Services, Los Angeles Regional Interoperable Communications System, Los Angeles County, CA

FCS is providing monitoring and reporting services during the construction of more than 150 land mobile radio (LMR) facilities at sites located primarily in Los Angeles County. The LMR sites contain the infrastructure and equipment necessary to provide voice communications coverage throughout the County for emergency responders. These locations are widely dispersed across the County in both urban (intensively developed) and rural (less developed) settings and include coastal locations, sites in downtown Los Angeles, remote mountain peaks across the County, and the northern high desert. FCS is conducting the biological, archaeological, and paleontological pre-construction and construction monitoring and reporting services in accordance with the Construction Management Requirements outlined in the NEPA Environmental Assessment that FCS prepared for the project. Ms. Adame is a Field Archaeological Monitor on the project.

Barton Road Logistics Facility Project EIR, Technical Studies, and Peer Review, City of Colton, CA

FCS is providing CEQA documentation and peer review services for the Barton Road Logistics Facility Project in the City of Colton, in San Bernardino County. The proposed project includes the demolition of four industrial buildings, an office building, and parking lot. The proposed project would construct two state-of-the-art speculative concrete tilt-up industrial warehouse logistics facilities with a total square footage of 960,040 square feet. The project will develop Best-in-Class industrial facilities in the City of Colton that are designed to meet contemporary industry standards, can easily accommodate a wide

variety of warehouse and distribution uses, and are economically competitive with similar warehouse facilities in the local Inland Empire marketplace. FCS is preparing an EIR with supporting stand-alone Air Quality and Greenhouse Gas (GHG) Emissions Analysis with Health Risk Assessment, Biological Resources Assessment, Phase I Cultural Resources Assessment (CRA), Noise Impact Analysis, and Traffic Impact Analysis. Our team will also peer review the Geotechnical Report. The Phase I Cultural Resources Assessment will provide an evaluation and recommendations regarding potential construction related impacts to cultural resources. Ms. Adame is a Field Archaeological Monitor on the project.

Library/Learning Resource Center Building Project Biological and Cultural Construction Monitoring Services for the Solano Community College District, Fairfield, CA

FCS prepared the IS/MND and provided the subsequent biological and cultural construction monitoring services for the construction of a new 59,252-gross-square-foot, 2-story Library/Learning Resources Center building on the Fairfield Campus of the Solano Community College Campus. The building would be constructed on an open quad in the center of campus, replacing an open lawn. FCS conducted AB 52 consultation in coordination with the District and tribal representatives from the Yocha Dehe Wintun Nation to address concerns about tribal cultural resources in the immediate vicinity of the site. In additional to preparing a full PI-CRA, FCS drafted mitigation measures in coordination with the Tribe and District to effectively allow the project to proceed while protecting the Tribal Cultural resources in question. The District approved the project in May 2016, with the approval of the tribe and all parties involved. FCS will provide coordination with Tribal representatives from the Yocha Dehe Wintun Nation, as well as a "tailgate" sensitivity training session for construction personnel. Ms. Adame is a Field Archaeological Monitor on the project.

Prior Work Experience

Archaeologist, Material Culture Consulting, City of Pomona, CA

As an archaeologist, Ms. Adame performed excavations, recorded prehistoric and historic artifacts, and catalogued data using ArcGIS. She conducted Phase I, II, and III Environmental Site Assessments (ESAs) and drafted EIRs. Ms. Adame also prepared Department of Parks and Recreation (DPR) forms, searched records, and monitored projects in the State and county.

Field Archaeologist, ICF International, City of Los Angeles, CA

As a field archaeologist, Ms. Adame conducted environment surveys, performed excavations, and catalogued prehistoric and historic artifacts using ArcGIS. She prepared Federal Environment Management environmental reviews, DPR forms, and ESAs. Ms. Adame also worked with different transportation agencies, including the Orange County Transportation Authority, OC 405 Partners, LA Metro, and the California Department of Transportation.

Field Archaeologist, Dudek , City of Pasadena, CA

As a field archaeologist, Ms. Adame performed architectural and cultural historical assessments and conducted surveys for various projects to evaluate conflicts during construction period. Her responsibilities also include evaluating historic resource significance, cataloguing exhibit pieces, and gathering daily records of environmental compliances.

FIRSTCARBON SOLUTIONS™

NATALIE ADAME—ARCHAEOLOGICAL MONITOR

Grants and Proposal Writer – Applied Anthropology Coursework, California State University, East Bay, City of Hayward, CA

As a Grants and Proposal Writer, Ms. Adame analyzed organizational cultures, conducted needs assessment, and prepared social impact reports. Part of her task was to identify the appropriate research disciplines necessary for specific jobs.

Student Museum Docent, California State University, East Bay, City of Hayward, CA

Ms. Adame served as a docent at the university's C.E. Smith Museum of Anthropology. Her responsibilities include preparing materials for exhibits, researching and writing about artifacts, and mounting display materials in the museum.

Appendix B:
South Central Coastal Information Center Records Search Results

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Resource List

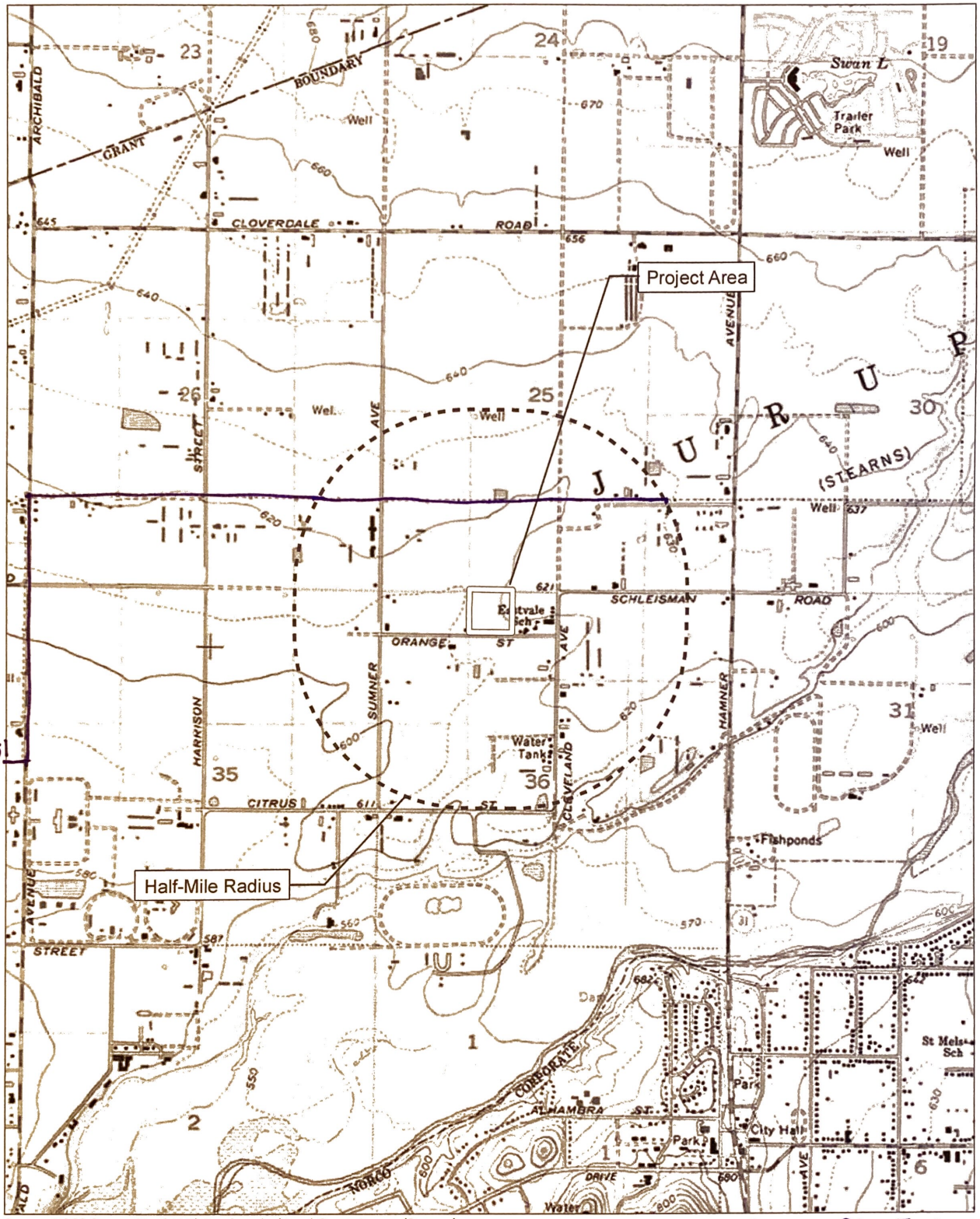
Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-016681	CA-RIV-013014	Other - Southern Sierras Powerline; Voided - P-33-028983; Other - PR-002	Site	Historic	AH15	2007 (Dice, Michael, Michael Brandman Associates); 2011 (Robbin D. Hoffman, ICF); 2016 (J.M. Sanka, L&L Environmental, Inc.); 2018 (Robert Cunningham, ECORP Consulting, Inc.)	RI-08536, RI-08772, RI-09730

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-03889	NADB-R - 1084796; Voided - MF-4247	1993	DROVER, CHRISTOPHER	ENVIRONMENTAL IMPACT EVALUATION: A CULTURAL RESOURCES IMPACT ASSESSMENT OF THE 748 ACRE EASTVALE PROJECT, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR	33-006006
RI-04712	NADB-R - 1086079; Submitter - KBH231	2002	GOODWIN, RIORDAN and ROBERT E. REYNOLDS	CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT, CLOVERDALE PARK, RIVERSIDE COUNTY, CALIFORNIA	LSA ASSOCIATES, INC., RIVERSIDE	
RI-04980	NADB-R - 1086342; Submitter - 07-03-08-796	2003	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 200 ACRES OF LAND (TTM 30931) IN THE JURUPA AREA OF RIVERSIDE COUNTY, CALIFORNIA	MCKENNA ET AL.	
RI-05049	NADB-R - 1086411	2003	MCKENNA ET AL.	ARCHAEOLOGICAL SURVEY REPORT: A PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED EASTVALE WATER AND SEWER MASTER PLAN, RIVERSIDE COUNTY, CALIFORNIA	MCKENNA ET AL.	33-000652, 33-001042, 33-001043, 33-001436, 33-001451, 33-003357, 33-006006, 33-006524, 33-006525, 33-006668, 33-006669, 33-006688
RI-05052	NADB-R - 1086414; Submitter - Job No. 11-02-03-690	2003	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED EASTVALE WATER AND SEWER MASTER PLAN, RIVERSIDE COUNTY, CALIFORNIA	McKENNA et al., Whittier, CA	33-000652, 33-001042, 33-001043, 33-001436, 33-001451, 33-003357, 33-006006, 33-006524, 33-006525, 33-006668, 33-006669, 33-006688
RI-05394	NADB-R - 1086757; Other - 22120021	2003	DICE, MICHAEL	ARCHAEOLOGICAL RESORUCES ASSESSMENT AND PALEONTOLOGICAL RECORDS SEARCH FOR TRACT MAP #31323 (APN# 134-250-010), COUNTY OF RIVERSIDE, CA	MICHAEL BRANDMAN ASSOCIATES	
RI-07310		2006	Wayne Bonner and Marnie Aislin-Kay	Cultural Resources Records Search and Site Visit for Cingular Telecommunications Facility Candidate RS-0044-01 (Light Standard/Antenna Installation), 13100 65th Street, Corona, Riverside County, California	Michael Brandman Associates	
RI-07388		2006	Dice, Michael	Final, Phase I Cultural Resources Survey Report, Tentative Tract Map #34014, 7080 and 7090 Cleveland Avenue, Norco Area, Riverside County, California.	MBA	
RI-08813		2012	Dorothy Knowlton	Letter Report: Request for Comments Regarding Proposed Harada Site, 13099 65th Street, Eastvale, Riverside County, CA, TCNS# 81039	TetraTech, Inc.	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-09194		2013	Heather R. Pukett	Cultural Resources Summary for the Proposed Verizon Wireless, Inc., Property at the Providence Park Site, 7447 Cleveland Avenue, Corona, Riverside County, California 92880	Tetra Tech	
RI-10222		2009	Diane F. Bonner and Robert J. Wlodarski	Cultural Resources Record Search and Archaeological Survey Results for the Proposed Royal Street Communications, California, LLC, Site LA2241A (Harada Heritage Park) located at 13100 65th Street, Corona, Riverside County, California, 92880	Historical Environmental Archaeological Research Team (H.E.A.R.T.)	
RI-10408	OHP PRN - FCC_2018_0423_002	2018	Sarah A. Williams and Carie D. Wills	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC RS0395(CLU6338) [Harada Heritage Park], 13099 65th Street, Eastvale, Riverside County, California, CASPR No. 3551454994	Evironmental Assessment Specialists, Inc.	



33-01681

4940.0023 Orange St. Eastvale DD

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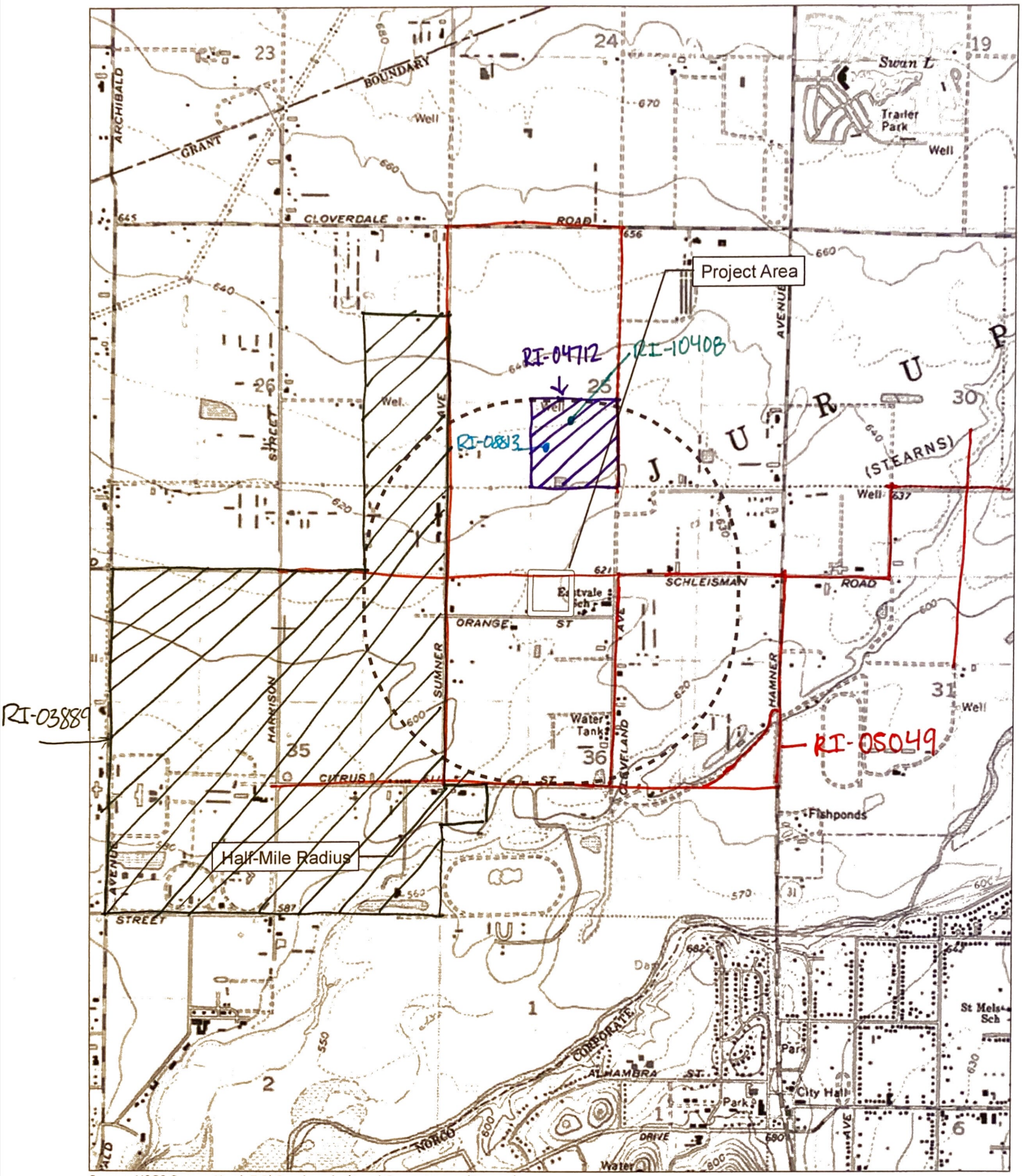
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Record Search Map

49400023 • 01/2021 | 49400023_record_search.mxd

Resources

CITY OF EASTVALE
ORANGE STREET RESIDENTIAL DEVELOPMENT
DUE DILIGENCE CHECKLIST



4940.0023 Orange St. Eastvale DD

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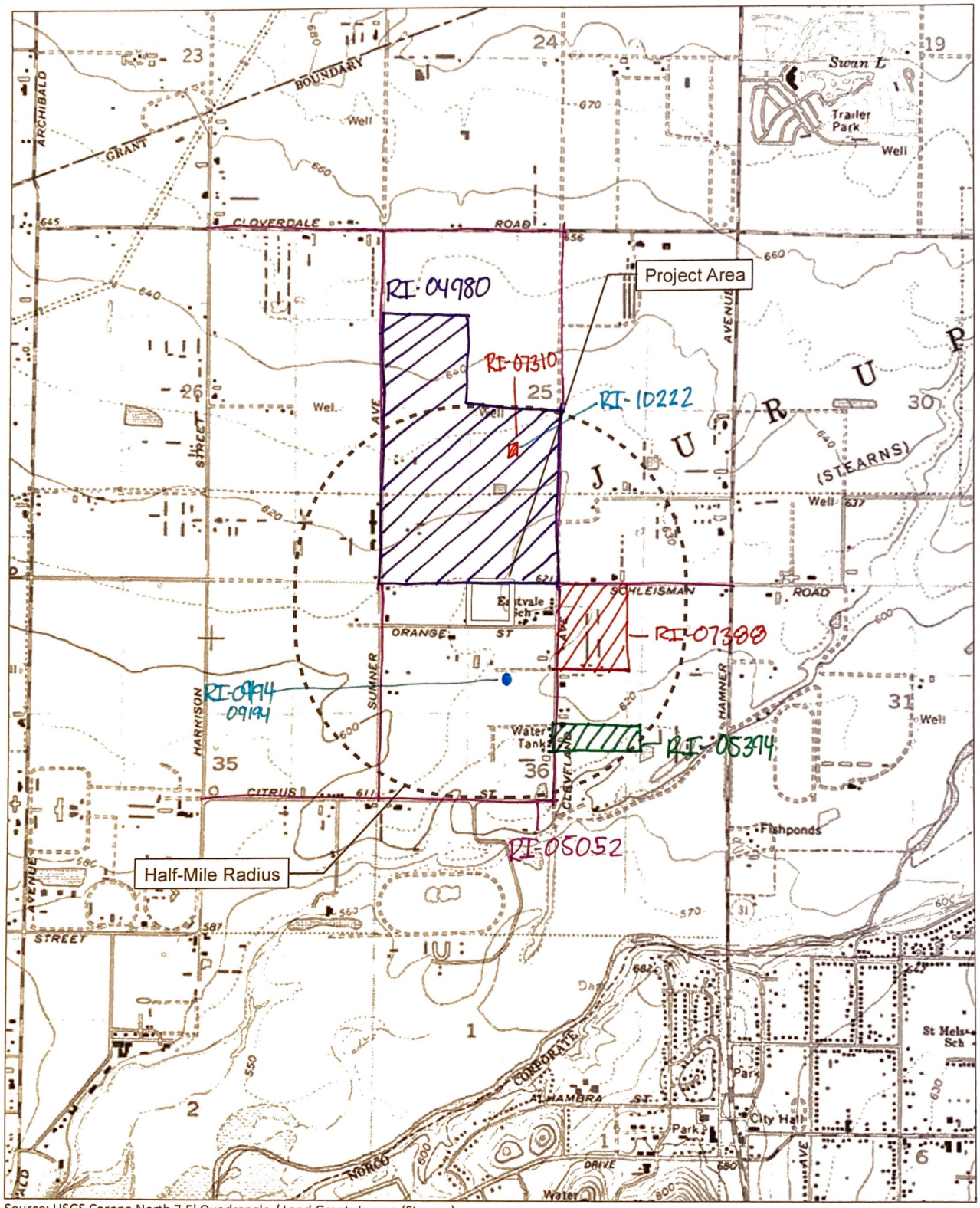
Record Search Map

49400023 • 01/2021 | 49400023_record_search.mxd

Page 1/2

Reports

CITY OF EASTVALE
ORANGE STREET RESIDENTIAL DEVELOPMENT
DUE DILIGENCE CHECKLIST



Source: USGS Corona North 7.5' Quadrangle / Land Grant: Jurupa (Stearns)

4940.0023 Orange St. Eastvale D.D

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Record Search Map

49400023 • 01/2021 | 49400023_record_search.mxd

Appendix C:
Native American Heritage Commission and Tribal Correspondence

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Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

■ **CEQA Tribal Consultation List (AB 52)** – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*

☐ **General Plan (SB 18)** - *Per Government Code § 65352.3.*

Local Action Type:

☐ **General Plan** ☐ **General Plan Element** ☐ **General Plan Amendment**

☐ **Specific Plan** ☐ **Specific Plan Amendment** ☐ **Pre-planning Outreach Activity**

Required Information

Project Title: Orange Street Residential Development

Local Government/Lead Agency: City of Eastvale

Contact Person: Stefanie Griffin

Street Address: 1350 Treat Boulevard, Suite 380

City: Walnut Creek **Zip:** 94597

Phone: 209.608.0028 **Fax:**

Email: sgriffin@fcs-intl.com; spignotti@fcs-intl.com

Specific Area Subject to Proposed Action

County: Riverside **City/Community:** Eastvale

Project Description:

MLC Holdings, Inc. (Client) is seeking assistance in preparing CEQA-level Due Diligence Memorandums for the proposed development of 138 residential dwelling units on 8.28 acres. The project site is located at 13175 Orange Street the City of Eastvale, on the north side of Orange Street and the south side of Schleisman Road between Calina Street and Scholar Way.

Additional Request

■ **Sacred Lands File Search** - *Required Information:*

USGS Quadrangle Name(s): Corona North
Land Grant: Jurupa (Stearns)

Township: **Range:** **Section(s):**

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 1, 2021

Stefanie Griffin
City of Eastvale

Via Email to: sgriffin@fcs-intl.com & spignotti@fcs-intl.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Orange Street Residential Development Project, Riverside County

Dear Ms. Griffin:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the tribes on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Riverside County
2/1/2021

Agua Caliente Band of Cahuilla Indians
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Campo Band of Diegueno Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 — Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
michaelg@leaningrock.net

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
wmicklin@leaningrock.net

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 — Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 — Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street — Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Orange Street Residential Development Project, Riverside County.

Native American Heritage Commission
Tribal Consultation List
Riverside County
2/1/2021

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos, Chairperson
P.O. Box 1302 — Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

Mesa Grande Band of Diegueno Mission Indians
Michael Linton, Chairperson
P.O Box 270 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

Pala Band of Mission Indians
Shasta Gaughen, Tribal Historic Preservation Officer
PMB 50, 35008 Pala Temecula Rd. — Cupeno, Luiseno
Pala, CA, 92059
Phone: (760) 891 - 3515
Fax: (760) 742-3189
sgaughen@palatribe.com

Pechanga Band of Luiseno Indians
Mark Macarro, Chairperson
P.O. Box 1477 — Luiseno
Temecula, CA, 92593
Phone: (951) 770 - 6000
Fax: (951) 695-1778
epreston@pechanga-nsn.gov

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

Rincon Band of Luiseno Indians
Cheryl Madrigal, Tribal Historic Preservation Officer
One Government Center Lane — Luiseno
Valley Center, CA, 92082
Phone: (760) 297 - 2635
crd@rincon-nsn.gov

Rincon Band of Luiseno Indians
Bo Mazzetti, Chairperson
One Government Center Lane — Luiseno
Valley Center, CA, 92082
Phone: (760) 749 - 1051
Fax: (760) 749-5144
bomazzetti@aol.com

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov

Soboba Band of Luiseno Indians
Scott Cozart, Chairperson
P. O. Box 487 — Cahuilla
San Jacinto, CA, 92583 — Luiseno
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Orange Street Residential Development Project, Riverside County.

Sycuan Band of the Kumeyaay Nation
Cody Martinez, Chairperson
1 Kwaaypaay Court Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 2613
Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Orange Street Residential Development Project, Riverside County.

Cell +1 773-641-0130

FirstCarbon Solutions (FCS)
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From: Maddie Dolan <mdolan@fcs-intl.com>
Sent: Thursday, March 11, 2021 11:37 AM
To: Ti Ngo <tngo@fcs-intl.com>
Subject: FW: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Madelyn Dolan
Environmental Services, Analyst

FirstCarbon Solutions (FCS)
An ADEC Innovation
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From: Padilla, Lacy (TRBL) <lpadilla@aguacaliente.net>
Sent: Wednesday, March 10, 2021 11:00 AM
To: Maddie Dolan <mdolan@fcs-intl.com>
Subject: RE: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Greetings,

A records check of the Tribal Historic preservation office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, we defer to the other tribes in the area. This letter shall conclude our consultation efforts.

Thank you,

Lacy Padilla
Archaeologist
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive Palm Springs, CA 92264
D: 760-699-6956 I C: 760-333-5222

From: Maddie Dolan <mdolan@fcs-intl.com>
Sent: Friday, February 5, 2021 2:55 PM
To: THPO Consulting <ACBCI-THPO@aguacaliente.net>
Subject: RE: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Hello,

I should further clarify that the Sacred Lands File search came back positive and suggested you may be able to provide more information. Please excuse my error. Have great weekend!

Best,
Madelyn Dolan
Environmental Services, Analyst

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From: Maddie Dolan
Sent: Friday, February 5, 2021 12:23 PM
To: 'ACBCI-THPO@aguacaliente.net' <ACBCI-THPO@aguacaliente.net>
Cc: Stefanie Griffin <sgriffin@fcs-intl.com>
Subject: RE: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Hi there,

I wanted clarify an inaccuracy in the letter attached to my previous email. The letter states that the California Historical Resources Information System (CHRIS) search did not return any results. However, we have not actually received results back from the CHRIS search. Please let me know if you have any questions.

Best regards,
Madelyn Dolan
Environmental Services, Analyst

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From: Maddie Dolan
Sent: Thursday, February 4, 2021 5:41 PM
To: ACBCI-THPO@aguacaliente.net
Cc: Cultural Resources <culturalres@fcs-intl.com>
Subject: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Hello,

Attached is a request for information pertaining to a cultural resources assessment of the proposed Orange Street Residential project, located in Eastvale, CA. Please feel free to contact Dr. Dana DePietro at ddepietro@fcs-intl.com if you would like to provide input. Thank you for your assistance.

Best regards,

Madelyn Dolan
Environmental Services, Analyst

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Appendix D:
Project Photographs

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Photograph 1: Start of Transect-1 (T), from the southeast corner, on the west side of the project boundary. View north.



Photograph 2: End of T-1, from the northeast corner, on the west side of the project boundary. View south.



Photograph 3: Start of T-3, from the southern border, on the west side of the project boundary. View north.



Photograph 4: End of T-3, from the northern border, on the west side of the project boundary. View south.



Photograph 5: Start of T-4 and final transect on the western side, from the northern border. View south.



Photograph 6: End of T-4 and final transect on the western side, from the southern border. View north.



Photograph 7: Start of T-5, along the livestock stables, on eastern side of project boundary. View north.



Photograph 8: End of T-5, along the northern border, on eastern side of project boundary. View south.



Photograph 7: Start of T-7, along the livestock stables, on eastern side of the project boundary, View north.



Photograph 8: End of T-7, along the northern border, on eastern side of project boundary. View south.



Photograph 7: Start of T-9, along southern border on eastern side of project boundary. View north.



Photograph 8: End of T-9, along northern border on eastern side of project boundary. View north.



Photograph 7: Overview of project site, from the SE corner. View northwest.



Photograph 8: Overview of property on-site. View north.

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Appendix E:
Regulatory Framework

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REGULATORY FRAMEWORK

Local, state, and federal government agencies have developed laws and regulations designed to protect significant cultural resources that may be affected by projects regulated, funded, or undertaken by the agency. Federal and state laws that govern the preservation of historic and archaeological resources of national, state, regional, and local significance include the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA). In addition, laws specific to work conducted on federal lands include the Archaeological Resources Protection Act, the American Antiquities Act, and the Native American Graves Protection and Repatriation Act.

The following federal or CEQA criteria were used to evaluate the significance of potential impacts on cultural resources for the proposed project. An impact is considered significant if it would affect a resource eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), or if it is identified as a unique archaeological resource.

Federal-Level Evaluations

Federal agencies are required to consider the effects of their actions on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings under Section 106 of the NHPA regulations Section (36 Code of Federal Regulations [CFR] 800). Additionally, federal agencies are responsible for initiating NHPA Section 106 review and completing the steps that are outlined in these regulations. They must determine if NHPA Section 106 applies to a given project and, if so, initiate review in consultation with the State Historic Preservation Officer (SHPO) and/or the Tribal Historic Preservation Officer (THPO). Federal agencies are also responsible for involving the public and other interested parties. Furthermore, NHPA Section 106 requires that any federal or federally assisted undertaking, or any undertaking requiring federal licensing or permitting, consider the effect of the action on historic properties listed in or eligible for the NRHP. Under the Code of Federal Regulations, 36 CFR Part 800.8, federal agencies are specifically encouraged to coordinate compliance with NHPA Section 106 and the NEPA process. The implementing regulations "Protection of Historic Properties" are found in 36 CFR Part 800. Resource eligibility for listing on the NRHP is detailed in 36 CFR Part 63 and the criteria for resource evaluation are found in 36 CFR Part 60.4 [a-d].

The NHPA established the NRHP as the official federal list for cultural resources that are considered important for their historical significance at the local, state, or national level. To be determined eligible for listing in the NRHP, properties must meet specific criteria for historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP include—significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

a) That are associated with events that have made significant contributions to the broad patterns of our history; or

b) That are associated with the lives of persons significant in our past; or

c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that; represent a significant and distinguishable entity whose components may lack individual distinction; or

d) That have yielded, or may be likely to yield, information important in prehistory or history.

Criterion D is usually reserved for archaeological resources. Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

Criteria Considerations

Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, buildings that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the NRHP. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) A religious property deriving primary significance from architectural or artistic distinction or historical importance.

b) A building or structure removed from its original location, but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event.

c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life.

d) A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events.

e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived.

f) A property primarily commemorative in intent if design, age, tradition, or symbolic value

g) A property achieving significance within the past 50 years if it is of exceptional importance.

Thresholds of Significance

In consultation with the SHPO/THPO and other entities that attach religious and cultural significance to identified historic properties, the agency shall apply the criteria of adverse effect to historic properties within the Area of Potential Effect (APE). The agency official shall consider the views of consulting parties and the public when considering adverse effects.

Federal Criteria of Adverse Effects

Under federal regulations, 36 CFR Part 800.5, an adverse effect is found when an undertaking alters, directly or indirectly, any of the characteristics of a historic property that qualifies the property for inclusion in the NR in a manner that diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration will be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for listing in the NR. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

According to 36 CFR Part 800.5, adverse effects on historic properties include, but are not limited to:

- Physical destruction of or damage to all or part of the property.
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties per 36 CFR Part 68 and applicable guidelines.
- Removal of the property from its historic location.
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization.
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long term preservation of the property's historic significance.

If Adverse Effects are Found

If adverse effects are found, the agency official shall continue consultation as stipulated in 36 CFR Part 800.6. The agency official shall consult with the SHPO/THPO and other consulting parties to develop alternatives to the undertaking that could avoid, minimize, or mitigate adverse effects to historic resources. According to 36 CFR Part 800.14(d), if adverse effects cannot be avoided then standard treatments established by the ACHP may be used as a basis for a Memorandum of Agreement (MOA).

According to 36 CFR Part 800.11(e), the filing of an approved MOA, and appropriate documentation, concludes the NHPA Section 106 process. The MOA must be signed by all consulting parties and approved by the ACHP prior to construction activities. If no adverse effects are found and the SHPO/THPO or the ACHP do not object within 30 days of receipt, the agencies' responsibilities under NHPA Section 106 will be satisfied upon completion of report and documentation as stipulated in 36

CFR Part 800.11. The information must be made available for public review upon request, excluding information covered by confidentiality provisions.

State-Level Evaluation Processes

An archaeological site may be considered a historical resource if it is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California per Public Resources Code (PRC) Section 5020.1(j) or, if it meets the criteria for listing on the CRHR per the California Code of Regulations (CCR) at Title 14 CCR Section 4850.

The most recent amendments to the CEQA Guidelines direct lead agencies to first evaluate an archaeological site to determine if it meets the criteria for listing in the CRHR. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CRHR, potential adverse impacts to it must be considered as stated in PRC Sections 21084.1 and 21083.2(l). If an archaeological site is considered not to be a historical resource, but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it would be treated in accordance with the provisions of that section.

With reference to PRC Section 21083.2, each site found within a project area will be evaluated to determine if it is a unique archaeological resource. A unique archaeological resource is described as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

As used in this report, a "non-unique archaeological resource" means an archaeological artifact, object, or site that does not meet the criteria for eligibility for listing on the CR, as noted in subdivision (g) of PRC Section 21083.2. A non-unique archaeological resource requires no further consideration, other than the simple recording of its components and features. Isolated artifacts are typically considered non-unique archaeological resources. Historic structures that have had their superstructures demolished or removed can be considered historic archaeological sites and are evaluated following the processes used for prehistoric sites. Finally, the California State Office of Historic Preservation recognizes an age threshold of 45 years. Cultural resources built less than 45 years ago may qualify for consideration, but only under the most extraordinary circumstances.

Title 14 of the CCR, Chapter 3, Section 15064.5 is associated with determining the significance of impacts to archaeological and historical resources. Here, the term historical resource includes the following:

1. A resource listed in, or determined eligible by the State Historical Resources Commission, for listing in the CRHR (PRC § 5024.1; Title 14 CCR, § 4850 *et seq*.).
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the PRC Section 5024.1(g) requirements, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be historically significant if the resource meets the criteria for listing on the CRHR (PRC § 5024.1; Title 14 CCR § 4852) including the following:
   A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
   B. Is associated with the lives of persons important in our past.
   C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
   D. Has yielded, or may be likely to yield, information important in prehistory or history.

Typically, archaeological sites exhibiting significant features qualify for the CRHR under Criterion D because such features have information important to the prehistory of California. A lead agency may determine that a resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1 even if it is:

- Not listed in or determined to be eligible for listing in the CRHR.
- Not included in a local register of historical resources pursuant to PRC Section 5020.1(k).
- Identified in a historical resources survey per PRC Section 5024.1(g).

Threshold of Significance

If a project will have a significant impact on a cultural resource, several steps must be taken to determine if the cultural resource is a "unique archaeological resource" under CEQA. If analysis and/or testing determine that the resource is a unique archaeological resource and therefore subject to mitigation prior to development, a threshold of significance should be developed. The threshold of significance is a point where the qualities of significance are defined, and the resource is determined to be unique under CEQA. A significant impact is regarded as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced to a point that it no longer meets the significance criteria. Should analysis indicate that project development will destroy the unique elements of a resource; CEQA regulations require that that the project implement appropriate and feasible

mitigation measures. The preferred form of mitigation is to preserve the resource in place, in an undisturbed state. However, as that is not always possible or feasible, appropriate mitigation measures may include, but are not limited to:

1. Planning construction to avoid the resource.
2. Deeding conservation easements.
3. Capping the site prior to construction.

If a resource is determined to be a "non-unique archaeological resource," no further consideration of the resource by the lead agency is necessary.

Tribal Consultation

The following serves as an overview of the procedures and timeframes for the Tribal Consultation process, for the complete Tribal Consultation Guidelines, please refer to the State of California Office of Planning and Research website.

Prior to the amendment or adoption of general or specific plans, local governments must notify the appropriate tribes of the opportunity to conduct consultation for the purpose of preserving or mitigating impacts to cultural places located on land within the local government's jurisdiction that is affected by the plan adoption or amendment. The tribal contacts for this list are maintained by the NAHC and are distinct from the Most Likely Descendent (MLD) list. It is suggested that local governments send written notice by certified mail with return receipt requested. The tribes have 90 days from the date they receive notification to request consultation. In addition, prior to adoption or amendment of a general or specific plan, local government must refer the proposed action to tribes on the NAHC list that have traditional lands located within the city or county's jurisdiction. Notice must be sent regardless of prior consultation. The referral must allow a 45-day comment period.

In brief, notices from the local government to the tribes should include:

- A clear statement of purpose.
- A description of the proposed general or specific plan, the reason for the proposal, and the specific geographic areas affected.
- Detailed maps to accompany the description.
- Deadline date for the tribes to respond.
- Government representative(s) contact information.
- Contact information for project proponent/applicant, if applicable.

The basic schedule for this process is:

- **30 days**: time the NAHC has to provide tribal contact information to the local government; this is recommended, not mandatory.

- **90 days**: time the tribe has to respond indicating whether or not they want to consult. Note: tribes can agree to a shorter timeframe. In addition, consultation does not begin until/unless requested by the tribe within 90 days of receiving notice of the opportunity to consult. The consultation period, if requested, is open-ended. The tribes and local governments can discuss issues for as long as necessary or productive, and need not result in agreement.
- **45 days**: time the local government has to refer proposed action, such as adoption or amendment to a general or specific plan, to agencies, including the tribes. Referral is required even if there has been prior consultation. This opens the 45-day comment period.
- **10 days:** time the local government has to provide the tribes with notice of a public hearing.

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Appendix 6

Cultural Resources Survey

Magnolia Ranch Residential Project

Initial Study

FIRSTCARBONSOLUTIONS™

Phase I Cultural Resources Assessment
Orange Street Residential Development Project City of Eastvale, Riverside County, California

USGS *Corona North* 7.5-minute Quadrangle Map
Jurupa (Stearns) Land Grant
Assessor's Parcel Number (APN) 152-040-003

Prepared for:
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Dana De Pietro, PhD, RPA

Report Date: May 31, 2022

THIS REPORT CONTAINS SENSITIVE INFORMATION RELATING TO CULTURAL RESOURCES AND IS NOT INTENDED FOR PUBLIC DISTRIBUTION PURSUANT TO PUBLIC RESOURCES CODE, SECTION 21082.3(C)(2).

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MANAGEMENT SUMMARY

At the request of the MLC, Holdings Inc. (Client), FirstCarbon Solutions (FCS) conducted a Phase I Cultural Resource Assessment (Phase I CRA) Orange Street Residential Development Project (proposed project) located in the City of Eastvale, in Riverside County, California. The purpose of the assessment was to identify the presence or absence of potentially significant cultural resources within the project area, and if impacted by the proposed development, propose recommendations for mitigation. Completion of this investigation fulfills the requirements of the California Environmental Quality Act (CEQA) under Section 15064.5. This report follows the California Office of Historic Preservation (OHP) procedures for cultural resource surveys and the OHP Archaeological Resource Management Report (ARMR) format for archaeological reports.

On February 25, 2021, a records search was conducted at the Eastern Information Center (EIC) located at University of California, Riverside, for the project site and a 0.5-mile radius area beyond the project boundaries. To identify additional historic properties or resources, the search also included current inventories of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Built Environment Resource Directory (BERD) for Riverside County. The results of the records search indicate that only one linear historic resource has been recorded north of the project site within the 0.5-mile search radius, and no historic or prehistoric resources have been recorded within the project boundaries. In addition, there are 12 area-specific survey reports on file with the EIC, three of which (RI-05049, RI-04980, and RI-05052) transect the northern boundary of the proposed project site, indicating that portions of the project site have been previously surveyed.

On January 15, 2021, FCS sent a request to the Native American Heritage Commission (NAHC) in an effort to determine if any sacred sites are listed on its Sacred Lands File for the project site. A response was received on February 1, 2021, indicating that the Sacred Lands File was positive for the presence of Native American cultural resources in the immediate project area. The NAHC included a list of 22 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential Tribal Cultural Resources (TRCs) that may be affected by the proposed project are addressed, a letter containing project information requesting any additional information was sent to each tribal representative on February 4, 2020. A response from the Agua Caliente Band of Cahuilla Indians Tribe was received on March 10, 2021, indicating that the proposed project is not located within the Tribe's Traditional Use Area and defer to the other tribes ethnographically associated with the project site. No other responses have been received to date. Correspondence with the NAHC can be found in Appendix C.

On April 2, 2021, FCS Staff Archaeologists, Natalie Adame and Kweku Williams, MA, conducted a pedestrian survey for unrecorded cultural resources within the project boundaries of the proposed project site. The survey had to split into a western and eastern side due to home and livestock stables positioned in the middle of the project site. The survey began on the westside of the project site, along the southeast border, and moved west, using north-south transects, spaced at 15-meter

intervals whenever possible. Soil visibility was poor across the project site, raging >5 percent due to the heavy vegetation and tall grasses. Areas of exposed soil consisted of light brown sandy loam with gravel inclusions. There is a residential property on site, which according to the County of Riverside Assessors Office is under 50 years of age and thus ineligible for inclusion on the CRHR and should not be considered a potential historic resources under CEQA.

Survey conditions were documented using digital photographs and field notes. During the survey, Mr. Williams and Ms. Adame examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics. No additional resources were encountered.

Based on the results of the records searches, archival research, tribal correspondence, and pedestrian survey, FCS considers the potential for the proposed project to have an adverse effect on cultural resources to be moderate. No prehistoric or historic resources were identified during the pedestrian survey, however the positive results from the NAHC and lack of soil visibility during the pedestrian survey increases the probability that potential resources may be encountered during project subsurface construction activities and demolition.

FCS therefore recommends that a qualified Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for Archaeology perform an inspection of the site following grubbing, ground clearing, and demolition, and prior to any grading or project related ground disturbance. In the event exposed soils indicate cultural materials may be present, this may be followed by regular or periodic archaeological monitoring as determined by the Archaeologist, but full-time archaeological monitoring is not recommended at this time. Additional recommended procedures for the inadvertent discovery of archaeological resources or human remains are included in this report.

SECTION 1: INTRODUCTION

1.1 - Project Location

The project site is 10 gross acres (8.28 net acres) in size and located at 13175 Orange Street, in the City of Eastvale, in Riverside County, California (Exhibit 1). The project site is located within the Jurupa (Stearns) Land Grant of the *Corona North, California* United States Geological Survey (USGS) 7.5-minute Quadrangle Topographic Map (Exhibit 2). The project is bounded by Orange Street to the south, Schleisman Road to the north, residential neighborhood to the west and Eastvale Elementary School to the east, and encompasses Assessor's Parcel Numbers (APNs) 152-040-003 (Exhibit 3).

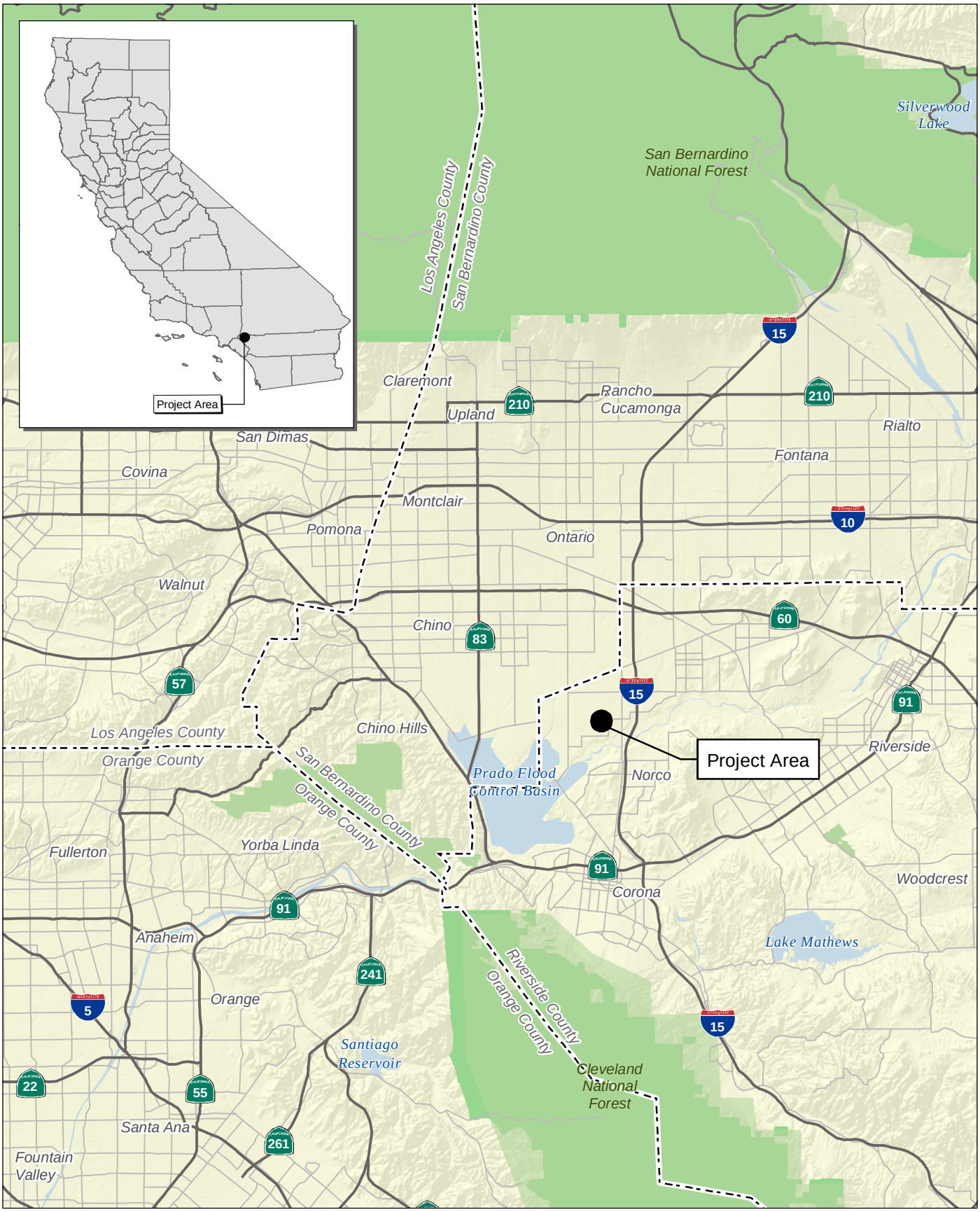
1.2 - Project Description

MLC Holdings Inc. (Client) is proposing to develop a residential development community, consisting of 41 single-family detached homes on 8.28 acres for a density of 4.95 dwelling units per acre (du/acre). The homes would range from 2,054 square feet to 3,153 square feet in size and consist of 11 one-story homes with four bedrooms and 30 two-story homes with five bedrooms and a loft. The proposed project would include vehicular access from Schleisman Road and secondary access from Orange Street. The proposed project would provide two garage spaces and two driveway spaces per dwelling unit, for a total of 164 spaces, as well as an additional 59 parallel street parking spaces. A 45-foot-wide paseo would be located in the center of the community that would consist of a trail, bench, and dog station that would be maintained by the Homeowner's Association (HOA).

1.3 - Assessment Team

FCS Staff Archaeologists, Natalie Adame and Kweku Williams MA, conducted the pedestrian survey and Ms. Adame authored this report. Dr. Dana DePietro, RPA, provided senior review and served as principal investigator. Ms. Adame, Mr. Williams, and Dr. DePietro exceed the professional standards set for their respective roles by the Secretary of the Interior. Professional qualifications for Ms. Adame, Mr. Williams, and Dr. DePietro can be found in Appendix A.

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Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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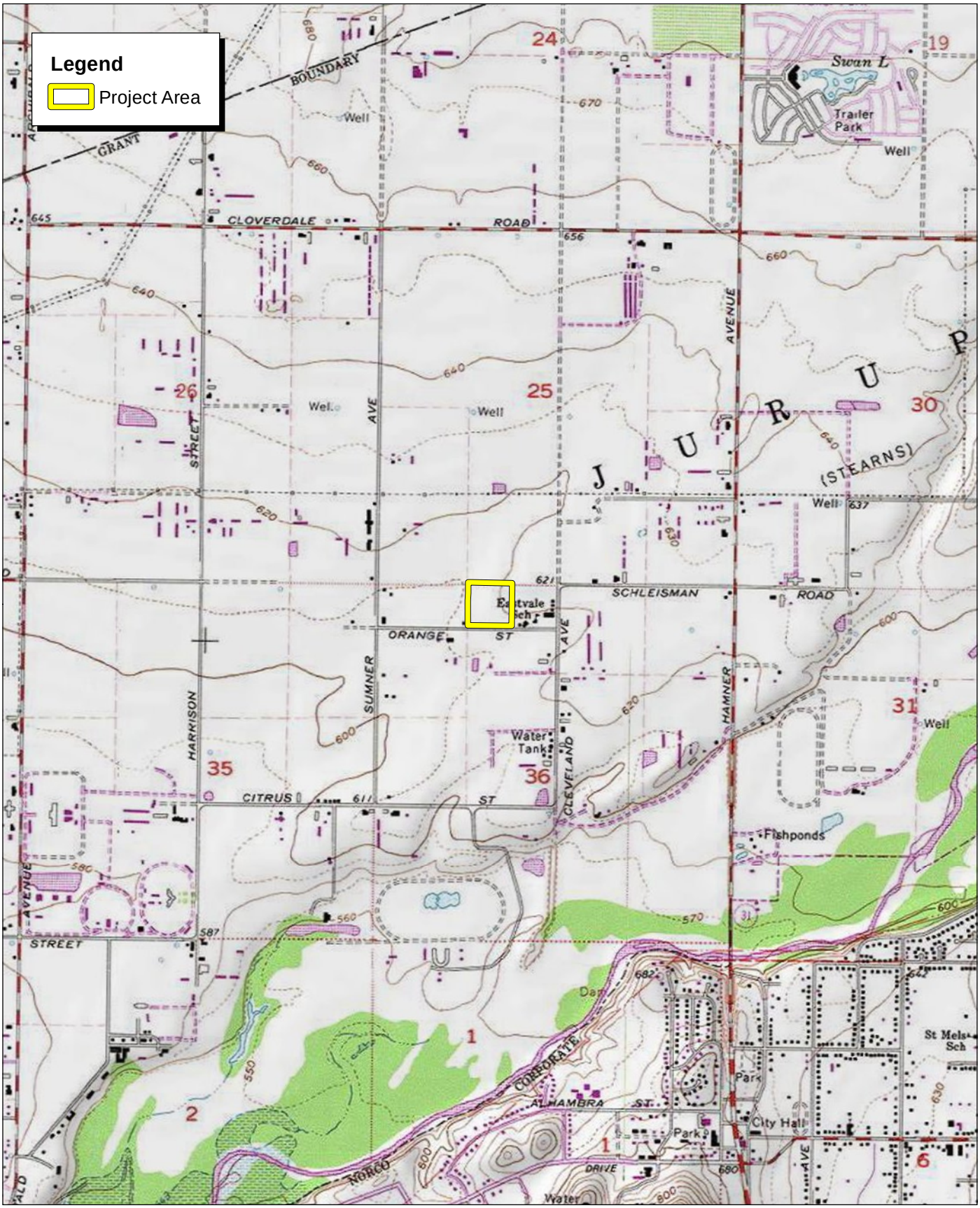
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Exhibit 1
Regional Location Map

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MLC HOLDINGS, INC.
EASTVALE ORANGE STREET RESIDENTIAL DEVELOPMENT PROJECT
CULTURAL RESOURCE ASSESSMENT

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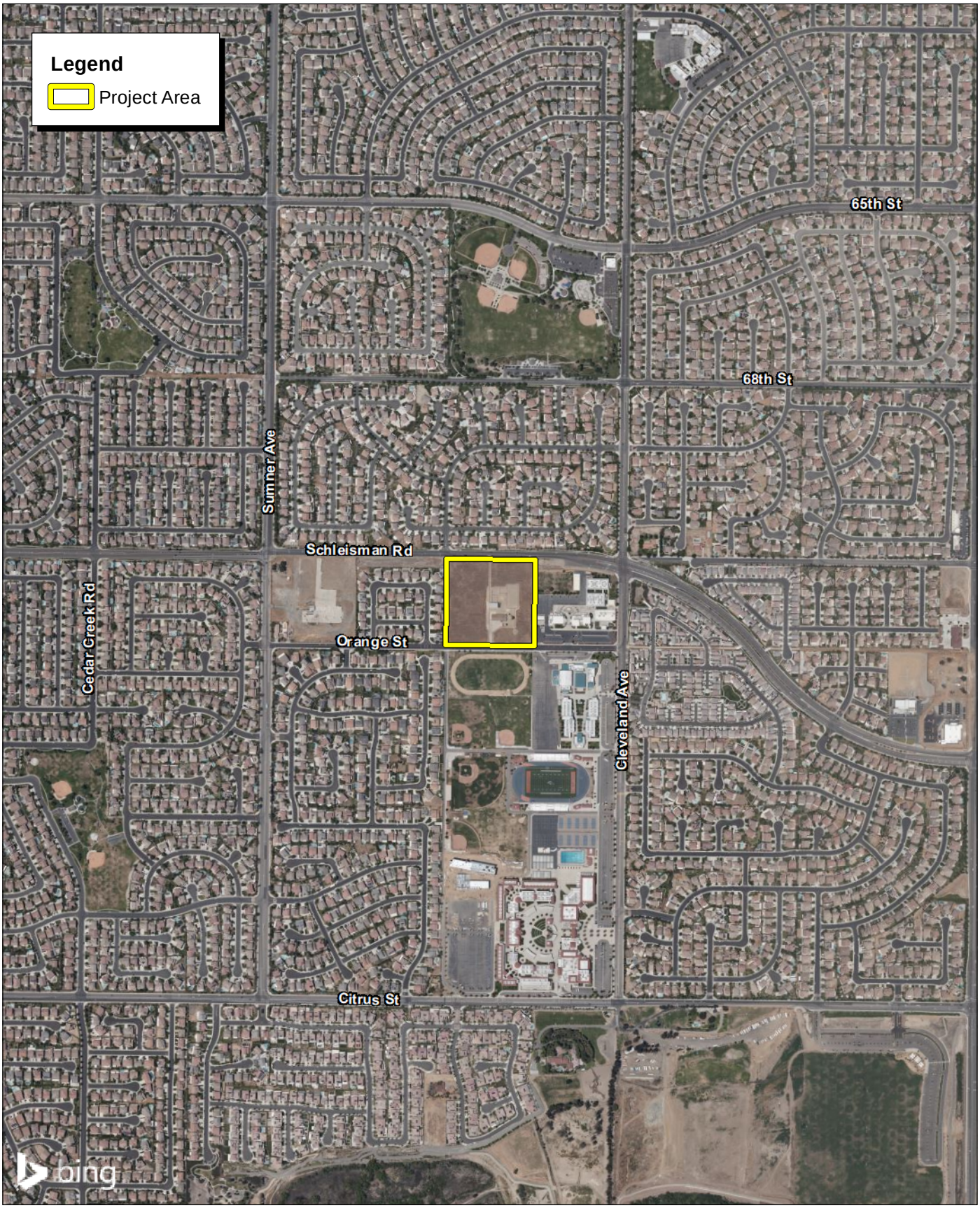
Source: USGS Corona North 7.5' Quadrangle / Land Grant: Jurupa (Stearns)

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2,000 1,000 0 2,000 Feet

Exhibit 2
Local Vicinity Map
Topographic Base

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Source: bing Aerial Imagery.

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1,000 500 0 1,000 Feet

Exhibit 3
Local Vicinity Map
Aerial Base

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SECTION 2: CULTURAL SETTING

Following is a brief overview of the prehistory, ethnography, and historic background, providing context in which to understand the background and relevance of sites found in the general project area. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview.

Further details can be found in ethnographic studies, mission records, and major published sources, including Beardsley (1948), Bennyhoff (1950), Fredrickson (1973), Kroeber (1925), Chartkoff and Chartkoff (1984), and Moratto (1984).

2.1 - Prehistoric Background

Fagan (2003), Moratto (1984), and Chartkoff and Chartkoff (1984) provide recent overviews of California archaeology and historical reviews of the inland Southern California among other locales. An early and widely used regional chronology for coastal Southern California is Wallace's four-part Horizon format (1955), which was later updated and revised by Warren (1968) and more recently by Chartkoff and Chartkoff (1984), and King (1990 and 2000). The sequence provides a framework that relates societal change to change in material culture; the advantages and weaknesses of Southern California chronological sequences are reviewed by Warren (in Moratto 1984), Chartkoff and Chartkoff (1984), and Heizer (ed. 1978).

2.1.1 - Paeloamericans

In North America, radiocarbon dates from existing samples of archaeological materials demonstrate human presence as early as 15,000 years Before Present (BP) (Waters et al. 2018). The lithics from the earliest (14,000 to 15,000 BP) documented sites in North America include cores, flakes and flake tools (e.g., 5 blades, 14 bladelets, 12 bifaces, one discoidal flake core, 23 edge-modified tools that includes scrapers and gravers from the Debra L. Friedkin site in, Texas) with an absence of projectile points (Waters et al. 2011, 2018). The first known projectile points in North America are from 13,000 years BP, with lanceolate fluted points (Clovis Complex) in sites from central and eastern North America, and stemmed projectile points from sites in areas of western North America that were not glaciated (Jenkins et al. 2012; Beck and Jones 2010). Glennan (1972) provides an early study of the hypothesis of Pre-Clovis in Southern California. The oldest California radiocarbon date as of 2007 from archaeological materials confirms a human presence in the northeastern part of the State (from site CA-SIS-218) as early as 13,500 years BP (Jones and Klar 2007). The radiocarbon date corresponds to the period of fluted points and fluted points have been found throughout California (Rondeau et al. 2007; Rondeau 2009) although projectile points and other chronologically and culturally informative materials are absent from the SIS-218 sample.

2.1.2 - Millingstone Complex or Early Period

During the early post glacial period after 8,500 BP the Southern California climate became warmer and drier (Fagan 2003). Groundstone artifacts that include manos and metates correspond to the Early Period. The Early period in Southern California begins as early or earlier than 8,000 BP and ends

by about 2,800 BP (King 1990). The Early period corresponds to the earliest known sites in Southern California with year-round habitation and cemeteries. Manos and metates consist of a variety of types. Mano and metates of the Early period in Southern California, correspond to types from studies in the U.S. southwest that efficiently grind small, oily annual and biennial wild seeds (Adams 1999; Ciolek-Torello 1995; Gilman 1988; Lancaster 1984; Whittlesey 1995). Most annual and biennial wild seed plant types in Southern California are best adapted for warm and dry environments (e.g., Hemizonia fasciculata, which is a summer seed source). Annual and biennial seed crops are highly reliable, nutritious, and productive. Annual and biennial seed producers are also, diverse and afford reliable seed production throughout the year. Compared to later periods, utilitarian artifacts are most frequently found with Early Period burials.

Manos and metates are “kitchen tools” and concentrate within residential areas of Early period habitation sites in Southern California (King and Merrill 2002; Merrill 2015). Other kinds of lithics that correspond to the Early period include many kinds of core tools (e.g., hammers, choppers, and scraper planes), knives, bifaces, scrapers (many types), gravers, burins, dart points, and compound bone fishhooks. Sedentism apparently increased in areas with abundant resources that were available for longer periods. Arid inland regions and offshore desert islands (e.g., San Nicolas Island) provided less opportunity for long term residence without trade and possibly for more mobile subsistence. The Early period ends about 2,800 BP (King 1990).

2.1.3 - Middle Period

The Middle Period lasted from about 2,800 BP to 750 BP (King 1990). Excavated assemblages retain many attributes of the Early Period but with more diverse artifact types. Middle Period sites can contain large-stemmed or notched small projectile points suggestive of bow and arrow use, especially near the end of the Period, and the use of portable grinding tools continued. Intensive use of mortar and pestles signaled processing of acorns as the primary vegetative staple as opposed to a mixed diet of seeds and acorns. Because of a general lack of data, neither the settlement and subsistence systems nor the cultural evolution of this Period are well understood, but it is very likely that the nomadic ways continued. It has been proposed that sedentism increased with the exploitation of storable food resources, such as acorns, but coastal sites from the Period exhibit higher fishing activity than in previous periods. The first permanently occupied villages make their appearance in this Period (Chartkoff and Chartkoff 1984).

2.1.4 - Late Prehistoric

Extending from 750 BP to Spanish Contact in 1769, the Late Prehistoric includes changes in trade networks and political and secular economic subsystems. There was also a differentiation of types of political economies. Exploitation of marine resources continued to intensify. Assemblages characteristically contain projectile points, and toward the end of the Period the size of the points decreased and notched and stemmed bases appeared, which implies the use of the bow and arrow. Use of personal ornaments such as shell beads, were widely distributed east of the coast, suggesting well-organized and codified trade networks. Additional assemblages in this Period included steatite bowls, asphaltum, grave goods, and elaborate shell ornaments. The use of bedrock milling stations was widespread during this horizon. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Village size increased during this time, and

some of these villages may have held 1,500 or more residents (Chartkoff and Chartkoff 1984). Analyses of skeletons showed that the first signs of malnutrition appeared in this Period, signaling greater competition for food resources (Fagan 2003).

The earliest part of this Period may have seen an incursion of Cupan-Takic speakers from the Great Basin (the "Shoshonean wedge" of Kroeber 1925) may have replaced the Hokan speakers in the area. At the time of Spanish conquest, Cupan-Takic speakers were distributed throughout Orange County, western Riverside County, and the Los Angeles Basin (Gabrieliño, Juaneño, and Cahuilla peoples). Serran-Takic speakers are now represented by the Serranos in the San Bernardino Mountains. Recent work (O'Neil 2002) suggests that the "Shoshonean wedge" is misnamed—the original Los Angeles inhabitants replaced by the incoming Takic-speakers may have actually been Yuman speakers (similar to those in the California Delta region of the Colorado River) and not Hokan Salinan-Seri (Chumash) speakers as was suggested by Kroeber.

At the time of Spanish conquest, local indigenous groups were composed of constantly moving and shifting clans and cultures. Early ethnographers applied the concept of territorial boundaries to local indigenous groups purely as a conceptualization device, and the data was based on fragmented information provided to them from second-hand sources. At least three Native American groups, the Cahuilla, Serrano, and Gabrieliño are known to have occupied or utilized resources within the vicinity of the project site at different points in history. A brief overview of these three tribal groups follows.

2.2 - Native American Background

2.2.1 - The Tongva (Gabrieliño)

Ethnographic accounts of Native Americans indicate that the Tongva (or Gabrieliño) once occupied the region that encompasses the project area. At the time of contact with Europeans, the Tongva were the main occupants of the southern Channel Islands, the Los Angeles basin, much of Orange County, and extended as far east as the western San Bernardino Valley. The term "Gabrieliño" came from the tribe's association with Mission San Gabriel Arcangel, established in 1771. However, today the tribe prefers to be known by their ancestral name, Tongva. The Tongva are believed to have been one of the most populous and wealthy Native American tribes in Southern California prior to European contact, second only to the Chumash (Bean and Smith 1978; McCawley 1996; Moratto 1984).

The Tongva occupied numerous villages with populations ranging from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Tongva society was organized by kinship groups, with each group composed of several related families who together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources (Bean and Smith 1978; McCawley 1996; Miller 1991). Vegetable staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, snakes, and the Tongva also fished (Bean and Smith 1978; McCawley 1996; Miller 1991).

By the late 18th Century, Tongva population had significantly dwindled due to the introduction of diseases and dietary deficiencies. Tongva communities near the missions disintegrated as individuals succumbed to Spanish control, fled the region, or died. Later, many of the Tongva fell into indentured

servitude to Anglo-Americans. By the early 1900s, few Tongva people had survived and much of their culture had been lost (Bean and Smith 1978; McCawley 1996; Miller 1991). However, in the 1970s, a revival of the Tongva culture began which continues to this day with growing interest and support.

2.2.2 - The Cahuilla

The project area is located in the region known to have been occupied by the Cahuilla Indians. Cahuilla territory was bounded on the north by the San Bernardino Mountains, on the east by the Orocopia Mountains, on the west by the Santa Ana River, the San Jacinto Plain and the eastern slope of the Palomar Mountains, and on the south by Borrego Springs and the Chocolate Mountains (Bean 1978).

The diversity of the territory provided the Cahuilla with a variety of foods. It has been estimated that the Cahuilla exploited more than 500 native and non-native plants (Bean and Saubel 1972). Acorns, mesquite, screw beans, piñon nuts, and various types of cacti were used. A variety of seeds, wild fruits and berries, tubers, roots, and greens were also a part of the Cahuilla diet. A marginal agricultural existence provided corn, beans, squashes, and melons. Rabbits and small animals were also hunted to supplement the diet. During high stands of Ancient Lake Cahuilla, fish, migratory birds, and marshland vegetation were also taken for sustenance and utilitarian purposes (Bean 1978).

Structures within permanent villages ranged from small brush shelters to dome-shaped or rectangular dwellings. Villages were situated near water sources, in the canyons near springs, or on alluvial fans at man-made walk-in wells (Bean 1972). Mortuary practices entailed cremation of the dead. Upon a person's death, the body was bound or put inside a net and then taken to a place where the body would be cremated. Secondary interments also occurred. A mourning ceremony took place about a year after a person's death. During this ceremony, an image of the deceased was burned along with other goods (Lando and Modesto 1977; Strong 1929).

Precontact Cahuilla population has been estimated as low as 2,500 to as high as 10,000. At the time of first contact with Europeans, around 1774, the Cahuilla numbered approximately 6,000. Although they were the first to come into contact with the Cahuilla, the Spanish had little to do with those of the desert region. Some of the Cahuilla who lived in the plains and valleys west of the desert and mountains, however, were missionized through the asistencia located near present day San Bernardino. Cahuilla political, economic, and religious autonomy was maintained until 1877 when the United States government established Indian reservations in the region. Protestant missionaries came into the area to convert and civilize the Native American population. During this era, traditional cultural practices, such as cremation of the dead, were prohibited. Today, the Cahuilla reside on eight separate reservations in southern California, located from Banning in the north to Warner Springs in the south and from Hemet in the west to Thermal in the east (Bean 1978).

2.3 - Regional Historic Background

2.3.1 - The Spanish Period (1769–1821)

The first Europeans to traverse the territory that constitutes modern Riverside County were Spanish soldier Pedro Fages and Father Francisco Garcés. This expedition to locate deserting soldiers eventually brought the group through the foothills of the San Jacinto Mountains, along Coyote Canyon, on the southern edge of Riverside County. They then continued into the Anza Valley, the San Jacinto Valley, Riverside and eventually into San Bernardino and the Cajon Pass. Later, in 1774, Captain Juan Bautista de Anza would also utilize Coyote Canyon and enter the confines of modern Riverside County as his expedition searched for an overland route from Sonora to coastal Southern California. These expeditions sparked an influx of non-natives to Southern California, and the first of these groups were the Spanish. Associated with the Spanish migration is the establishment of missions and military presidios along the coast of California. Although neither the missions nor presidios were ever located within the confines of modern Riverside County, their influence was far reaching. Land belonging to Mission San Gabriel extended to inland Southern California, east of the periphery of the Coachella Valley. Mission officials then converted portions of these holdings into ranchos during the Mexican period. Several ranchos were located in modern Riverside County, and the project area is located in the Jurupa Rancho.

2.3.2 - The Mexican Period (1821–1848)

Administration of the Southern California ranchos shifted to Mexican hands about 1824, but effective control did not occur until the early 1830s. Once the ranchos were secularized, the Mexican administrators began granting vast tracts of the original Mission properties to members of prominent families who had helped cut ties from the Spanish system. In 1838, title to the Mission San Gabriel's outpost in this area, the Jurupa Rancho, was granted to Juan Bandini, the appointed administrator of the Mission San Gabriel. This land grant was the first officially recognized Mexican land grant within modern Riverside County. The Jurupa Rancho consisted of roughly 30,000 acres, bounded by the Jurupa Hills to the north, the Santa Ana River to the south and east, and the Chino Rancho to the west.

During the period of the Mexican ranchos, rancho owners were constantly harassed by thieves and native groups from the Mojave region. Groups whose intent was to steal horses and cattle often attacked the northern part of the Rancho San Bernardino, so that Juan Bandini donated the very northeastern portion of the Jurupa Rancho for resettlement in 1842. By 1843, Bandini further fragmented the Jurupa Rancho, selling a sizable portion to Benjamin D. Wilson, who then sold the property known as Jurupa (Rubidoux) Rancho to Louis Rubidoux in 1847. The Rancho would be further divided within the upcoming decade.

2.3.3 - Riverside County

Riverside County is the 4th largest county in California in both size and population. It is 7,206 square miles and is home to 4,470,546 people. It is bordered by Orange County to the west, San Bernardino County to the north, San Diego County to the south, and Arizona to the east. Riverside County was

formed in 1893 from a small portion of San Bernardino County and a larger part of San Diego County and received its name from the already established City of Riverside (County of Riverside 2020).

The majority of Riverside County was part of Rancho San Jacinto Viejo, which was given to Don José Antonio Estudillo; Sierra (Yorba) Rancho, and Rincon Grant, which were given to Bernardo Yorba through land grants that were given to prominent Spanish families by the Spanish Government. Following the establishment of the community of Riverside, it maintained the same agricultural business practices that brought commerce to the region; however, the success in fruit growing and export of good, the profitable land, proximity to a water source, the arrival of several investors and the acquisition of irrigation rights, leading to the formation of the Riverside Land and Irrigation Company, Riverside was rapidly becoming an attractive destination to settle in. The addition of the Southern Pacific Railroad in the region further facilitated the distribution of goods and travelers, bringing financial prosperity and more business to Riverside. Rapid growth meant that institutions needed to be formed to meet the needs of the growing population, and in 1891 the first attempt to form a new county was held (Brown and Boyd 1922; Guinn 1902).

Riverside continues to be one of the fastest growing counites in California with a population of 2,470,546 people (United States Census Bureau 2020). It's ecological diversity, with rivers, deserts, mountains and beaches, affordable housing, the Wine Country near Temecula and renowned UC Riverside are key factors in the continued appeal of the County.

2.3.4 - City of Eastvale

The City of Eastvale was originally part of the Riverside School District that formed in 1893. The name Eastvale may have come given that the majority of the new school district was located east of the Milton Vale Ranch, *east* of the *Vale* Ranch. Likewise, from a suggestion of the Fuller Family, whose land housed the new elementary school, which was located *eas*t of the previous *Valley School*. The Fuller Family was one of the prominent Eastvale families, residing in Eastvale from 1889 to the mid-1950's. The Fuller's ventured in several business, having found success in cattle and racehorse breeding and transportation, establishing the Pioneer Truck and Transfer Company in the early 1900's and successfully transitioning from horse drawn carriages to motor vehicles, thus playing a pivotal role in the bringing business to the small community. Following the creation of Riverside County and the Eastvale School District in 1893, the community of Eastvale continued to gradually grow, attracting agricultural and dairy farmers, maintaining its rural identity until the 2000's. Beginning in 2007, citizens of Eastvale began the process of giving cityhood to Eastvale, establishing the Eastvale Incorporation Committee, officially incorporating Eastvale on October 1, 2010. Today, Eastvale continues to grow at a rapid pace, attracting future residents with its delicately planned residential neighborhoods and opportunities with the ever growing business and commerce expansion (eastvale.gov; Meissner & Johnson 2013)

SECTION 3: RESULTS

3.1 - Records Search

3.1.1 - Eastern Information Center

On February 25, 2021, a records search for the project site and a 0.5-mile radius beyond the project boundaries was conducted at the EIC located at University of California, Riverside. To identify additional historic properties or resources, the current inventories of the NRHP, CRHR, CHL list, CPHI list, and the BERD for Riverside County were reviewed to determine the existence of previously documented historic and prehistoric resources.

The results of the records search indicate that only one historic linear historic resource north of the project site has been recorded within the 0.5-mile search radius, and no resources are located within the project boundary (Table 1). In addition, 12 area-specific survey reports (Table 2) are on file with the EIC, three of which (RI-05049, RI-04980, and RI-05052) transect the northern boundary of the proposed project site, indicating that portions of the project site have been previously surveyed (Table 2). Complete EIC records search results may be found in Appendix B.

Table 1: Cultural Resources within 0.5-mile of the Project Area

Resource No.	Resource Description	Date Recorded
P-33-016681	Southern Sierras Powerline; AH15: Standing Structure	2007; 2011; 2016; 2018
Source: EIC Records Search. January 15, 2021.		

Table 2: Previous Investigations within 0.5 mile of the Project Area

Report No.	Report Title/Project Focus	Author	Date
RI-05049	Archeological Survey Report: A Phase I Cultural Resources Investigation for the Proposed Eastvale Water and Sewer Master Plan, Riverside County, California.	McKenna et. Al	2003
RI-05052	Archeological Survey Report: A Phase I Cultural Resources Investigation for the Proposed Eastvale Water and Sewer Master Plan, Riverside County, California.	McKenna et. Al	2003
RI- 04980	A Phase I Cultural Resources Investigation of Approximately 200 Acres of Land (TTM 30931) in the Jurupa Area of Riverside County, California.	McKenna et. Al	2003
RI-03889	Environmental Impact Evaluation: A Cultural Resources Impact Assessment of the 748 Acre Eastvale Project.	Christopher Dover	2002

Report No.	Report Title/Project Focus	Author	Date
RI-04712	Cultural and Paleontological Resources Assessment, Cloverdale Park.	Riordan Goodwin and Robert Reynolds	2002
RI-05394	Archeological Resources Assessment and Paleontological Records Search for Tract Map #31323 (APN# 134-250-010), County of Riverside, California.	Michael Dice	2003
RI-07310	Cultural Resources Records Search and Site Visit for Cingular Telecommunications Facility Candidate RS-0044-01 (Light Standard/Antenna Installation), 13100 65th Street, Corona, Riverside County, California.	Wayne Bonner, Marnie Aislin-Kay	2006
RI-07388	Final Phase I Cultural Resources Survey Report, Tentative Tract Map #34014, 7080 and 7090 Cleveland Avenue, Norco Area, Riverside County, California.	Michael Dice	2006
RI-08813	Letter Report: Request for Comments Regarding Proposed Harada Site, 13099 65th Street, Eastvale, Riverside County, California, TCNS# 81039.	Dorothy Knowlton	2012
RI-09194	Cultural Resources Summary for the Proposed Verizon Wireless, Inc., Property at the Providence Park Site, 7447 Cleveland Avenue, Corona, Riverside County, California 92880.	Heather Puckett	2013
RI-10222	Cultural Resources Record Search and Archaeological Survey Results for the Proposed Royal Street Communications, California, LLC, Site LA2241A (Harada Heritage Park) located at 13100 65th Street, Corona, Riverside County, California, 92880.	Diane Bonner and Robert J. Wlodarski	2009
RI-10408	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC RS0395(CLU6338) [Harada Heritage Park], 13099 65th Street, Eastvale, Riverside County, California, CASPR No. 3551454994.	Sarah F. Williams and Carie D. Wills.	2018
S-004881	West Valley Coach Center-archaeological reconnaissance.	William Roop	1978
Source: EIC Records Search. January 15, 2021. Reports within the project boundaries are identified in bold.			

3.1.2 - Historic Aerials

A review of 13 historical aerial photographs depicting the project site from 1938 to 2016 indicate that the project site and the surrounding lands remained generally undeveloped and used for agricultural purposes until approximately 1994. Between 1967 and 1994 a homestead was built within the boundaries of the project site. The images from 1938 to 2002 depict gradual residential

development surrounding the project site. Sometime after 1995 the surrounding area became more urbanized with construction of the Eastvale Elementary School east of the project site and River Heights Intermediate School located south of the project site (Historic Aerials 2020).

3.1.3 - Native American Heritage Commission

On January 15, 2021, FCS sent a request to the NAHC in an effort to determine if any sacred sites are listed on its Sacred Lands File for the project site. A response was received on February 1, 2021, indicating the results of their search was positive for the presence of TCRs. The NAHC provided a list of 22 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential tribal cultural resources that may be affected by the proposed project are addressed, a letter containing project information requesting any additional information was sent to each tribal representative on February 5, 2020. A response from the Agua Caliente Band of Cahuilla Indians tribe was received on March 10, 2021, indicating that the project is not located within the Tribe's Traditional Use Area and defer to the other tribes ethnographically associated with the project site. No other responses have been received to date. No other responses have been received to date. Correspondence related to the NAHC letters and tribal representatives can be found in Appendix C.

3.2 - Pedestrian Survey

On April 2, 2021, FCS Staff Archaeologist's Natalie Adame and Kweku Williams, MA, conducted a pedestrian survey for unrecorded cultural resources within the project boundaries of the proposed project site. The survey had to split in a western and eastern side due to home and -livestock stables positioned in the middle of the project site. The survey began on the westside of the project site, along the southeast border, and moved west, using north-south transects, spaced at 15-meter intervals whenever possible. Soil visibility was poor, throughout the project site, raging >5 percent due to the heavy vegetation and tall grasses. Areas of exposed soil consisted of light brown sandy loam with gravel inclusions. There is a residential property on site, which according to the County of Riverside Assessors Office is under 50 years of age and thus ineligible for inclusion on the CRHR and should not be considered potential historic resources under CEQA.

Survey conditions were documented using digital photographs and field notes. During the survey, Mr. Williams and Ms. Adame examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior walls, foundations) or historic debris (e.g., glass, metal, ceramics).

To the extent possible, all areas of the project site were inspected for culturally modified soils or other indicators of potential historic or prehistoric resources. No historic or prehistoric cultural resources or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert, etc.) were found within the project site. Pedestrian Survey photos can be found in Appendix D.

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SECTION 4: SUMMARY AND RECOMMENDATIONS

4.1 - Summary

In accordance with CEQA Guidelines, FCS assessed the potential impacts of the proposed project for known and potential cultural resources at the project site. Results from the EIC indicate that there are no cultural resources within the project site, and only a single historic resource has been recorded within the 0.5 mile radius. In addition, 12 area-specific survey reports are on file with the EIC for the project site and its 0.5-mile, three of which (RI-05049, RI-04980, and RI-05052) transect the northern boundary of the proposed project site, indicating that the project site has been previously surveyed. The results of the pedestrian field survey failed to identify additional unrecorded cultural resources within the project site, however grasses and ground cover greatly reduced the visibility of native soils.

The NAHC Sacred Lands File search contained positive results, but subsequent correspondence with Native American representatives did not identify any TCRs that may be adversely affected by the proposed project. Although the pedestrian survey failed to locate any cultural resources, the pedestrian survey did confirm the presence of a residential property, which according to the County of Riverside Assessors Office is under 50 years of age and thus ineligible for inclusion on the CRHR and should not be considered potential a historic resources under CEQA

4.2 - Recommendations

4.2.1 - Cultural Resources Recommendations

Based on the results of the records searches, archival research, tribal correspondence, and pedestrian survey, FCS considers the potential for the proposed project to have an adverse effect on cultural resources to be moderate. No archaeological resources were identified in the records searches or during the pedestrian survey; however, the positive results from the Sacred Lands Files search, and overall poor visibility across the project site increases the possibility that historic and prehistoric cultural resources may be encountered during the course of project construction.

FCS therefore recommends that a qualified Archaeologist who meets the Secretary of Interior's Professional Qualification Standards for Archaeology perform an inspection of the site following grubbing, ground clearing, and demolition, and prior to any grading or project related ground disturbance. In the event exposed soils indicate cultural materials may be present, this may be followed by regular or periodic archaeological monitoring as determined by the Archaeologist, but full-time archaeological monitoring is not recommended at this time.

The following section recommends measures that would result in avoidance or minimization of potential project-related impacts to cultural resources on-site, and recommended procedures to be followed in the event cultural resources are encountered during project construction:

4.3 - Inadvertent Discovery Procedures

4.3.1 - Inadvertent Discovery of Human Remains

There is always the possibility that ground-disturbing activities during construction may uncover previously unknown buried human remains. Should this occur, Section 7050.5 of the California Health and Safety Code applies, and the following procedures shall be followed.

In the event of an accidental discovery or recognition of any human remains, Public Resource Code Section 5097.98 shall be followed. In this instance, once project-related earthmoving begins and if there is inadvertent discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the County Coroner is contacted to determine if the remains are Native American and if an investigation of the cause of death is required. If the coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours, and the NAHC shall identify the person or persons it believes to be the "most likely descendant" of the deceased Native American. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resources Code Section 5097.98, or
2. Where the following conditions occur, the landowner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the project site in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the Commission;
   - The descendent identified fails to make a recommendation; or
   - The landowner or his authorized representative rejects the recommendation of the descendent, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

4.3.2 - Inadvertent Discovery of Cultural Resources

It is always possible that ground-disturbing activities during construction may uncover previously unknown, buried cultural resources. If buried cultural resources are discovered during construction, operations shall stop in the immediate vicinity of the find and a qualified Archaeologist shall be consulted to determine whether the resource requires further study. The qualified Archeologist shall make recommendations to the Lead Agency on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines. Potentially significant cultural resources consist of but are not limited to stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project area should be recorded on appropriate DPR forms and evaluated for significance in terms of CEQA criteria.

If the resources are determined to be unique historic resources as defined under Section 15064.5 of the CEQA Guidelines, mitigation measures shall be identified by the Archaeological Monitor and recommended to the Lead Agency. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds.

No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency where they would be afforded long-term preservation to allow future scientific study.

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Appendix A: Personnel Qualifications

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FIRSTCARBON SOLUTIONS™

DANA DOUGLAS DePIETRO, PH.D.—Cultural Resources Lead (North)

OVERVIEW

- More than 15 Years' Experience in Archaeology and Cultural Resources

Education

- Ph.D., Near Eastern Art and Archaeology, University of California at Berkeley, 2012
- M.A., Near Eastern Art and Archaeology, University of California at Berkeley, 2005
- B.A., Archaeology and History (double major), University of California at San Diego, 2002

Fellowships and Awards

- Albright Institute Educational and Cultural Affairs Fellowship (2015)
- Katherine Davis Foundation Projects for Peace Prize (2012)
- International House Gateway Fellowship (2011-2012)
- The George Franklin Dales Foundation Fellowship for Archaeological Research (2011)
- CAORC Multi-Country Dissertation Research Fellowship (2010)

Dana DePietro, Ph.D. is a Registered Professional Archaeologist who meets the Secretary of Interior's standards for historic preservation programs in archaeology. Dr. DePietro has over 15 years of experience in all aspects of cultural resource management, including prehistoric and historic archaeology, paleontology, materials conservation, history of art and architecture, and community engagement. He has experience in compliance with the National Environmental Policy Act (NEPA), the California Environment Quality Act (CEQA), the National Historic Preservation Act (NHPA), and the Archaeological Resources Protection Act (ARAP). Dr. DePietro has completed cultural resource projects that have involved agency, client, Native American, and subcontractor coordination; treatment plans and research design development; archival research; field reconnaissance; site testing; data recovery excavation; construction monitoring; site recordation; site protection/preservation, mapping/ cartography; spatial analysis/GIS; laboratory analysis; materials conservation; artifact curation and exhibition; and report production. He has completed projects in California within the jurisdiction of the Bureau of Land Management (BLM) and other federal agencies requiring compliance with Section 106 of the NHPA. He has also completed projects throughout California under CEQA for state and local governments and municipalities, including the California Department of Transportation (Caltrans) and has worked with clients to insure deliverables meet and exceed the standards set by the State Historic Preservation Office (SHPO).

RELATED EXPERIENCE AND CLIENT SUMMARY

FirstCarbon Solutions

As the Lead Archaeologist/Cultural Resource Specialist for FCS, Dr. DePietro conducts evaluations and performs field documentation of historic and prehistoric cultural resources; prepares environmental impact reports (EIRs), cultural resources assessments (CRAs), DPR forms and Section 106 reports; conducts mapping, GIS analysis, and state and county record searches; leads archaeological surveys and field monitoring efforts; and coordinates with state, federal and tribal officials and institutions for a variety of FCS projects, including the following:

DANA DOUGLAS DePIETRO, PH.D.—Cultural Resources Lead (North)

- Atherton Baptist Homes Master Plan/Phase II, City of Alhambra, Los Angeles County
- Biological and Cultural Resources Assistance 140-Acre Project Site Woodcrest, Riverside County, CA
- Blanchard Road Industrial EIR Project, City of San Jose, Santa Clara County, CA
- Bonadelle Tract 6120 AQ/GHG and Bio Tech Studies, City of Clovis, Fresno County, CA
- CEQA Analysis for Mayhew Way Project, City of Walnut Creek, Contra Costa County
- 2268 El Camino Real, Mountain View—II CEQA Compliance Checklist Project, City of Mountain View, Santa Clara County
- CEQA Documentation for New Science Building, City of Fairfield, Solano County
- CEQA Services for Clover Spring Open Space Preserve Project, City of Cloverdale, Sonoma County
- Chico Walmart Expansion Project, City of Chico, CA
- Cultural Resources Services for Froom Ranch/El Villagio Specific Plan, City of San Luis Obispo, CA
- Cultural Resource & Historic Evaluation for Sacramento Dome Theatre, City of Sacramento, CA
- Cultural Resources Services for Haven Berryessa Block 7 & 8 San Jose Flea Market, San Jose, CA
- Caltrans NEPA/CEQA Documentation and Permitting for the Dogtown Road Bridges Replacement Projects (San Domingo Creek, French Gulch, and Indian Creek), Calaveras County, CA
- Due Diligence for Meadowlark Project in Pleasanton, CA
- Due Diligence Services for the Montalcino Property, Napa County, CA
- Due Diligence Site Review for Parcel APN 68-241-30 located at 260 Bartlett Way Santa Cruz, CA
- Due Diligence Level IA Entitlements for the Boscell Road Osgood Project, City of Fremont, CA
- Trellis Residential Project EIR, City of Walnut Creek, CA
- El Dorado Materials Recovery Facility Remodeling Project, El Dorado County, CA
- Farmstand IS/MND, City of Healdsburg, CA
- La Paloma Winery Demo Project IS/MND, City of Clovis, CA
- Kaiser Dublin Medical Center EIR, City of Dublin, California
- Merced Gateway Master Plan Project EIR, City of Merced, CA
- Phase 1 Cultural Resource Assessment for 44 acres TTM No. 19992, Rancho Cucamonga, CA
- Bonadelle Tract 6120 Cultural Resources Study, City of Clovis, CA
- Professional Services to Support the Development of a Preferred Development Plan and Associated Regulatory Strategies for the Solano 360 Project, Solano County, CA
- Tassajara Parks EIR, Contra Costa County, California

Other Relevant Experience

The Society for Humanitarian Archaeological Research and Exploration

Dr. DePietro is the Founder and Executive Director of The Society for Humanitarian Archaeological Research and Exploration. He manages the projects, staff, and the daily operation of this not-for-profit organization. Dr. DePietro likewise establishes relationships with partner universities and institutions, writes grant proposals, supervises fundraising projects, and maintains accounts, financial records, and the organization's online presence.

University of California at Berkeley

Dr. DePietro was a lecturer at the University of California, Berkeley from August 2003 to January 2015. During his tenure, he prepared University-level source and lectures in the history of the modern and ancient Middle East, performed student advising and evaluation, and university administrative duties. Dr. DePietro provided resources and opportunities that empower people to critically engage with other cultures as well as with their own communities.

DANA DOUGLAS DePIETRO, PH.D.—Cultural Resources Lead (North)

Penn State University—Tel Akko Total Archaeology Project

Dr. DePietro was the Director of Community Engagement from 2013 to 2014 at the Penn State University for the Tel Akko Total Archaeology Project. He developed and executed a community engagement program, supervised staff and community participants, taught excavation and conservation techniques to groups of young people in Akko, and performed outreach, dialogue, and program developments in partnership[with community leaders.

Harvard University—Leon Levy Expedition to Ashkelon, Israel

Dr. De Pietro was the excavation supervisor during the summers of 2007-2013 for the Harvard University—Leon Levy Expedition to Ashkelon, Israel. He supervised the excavation and stratagraphic interpretation and instructed students in excavation techniques, data collection, photography, analysis, and publication.

Early Iron Age Cemetery Excavation—Dhamar, Yemen

Dr. De Pietro was the Area Supervisor during the summer of 2004 for the Early Iron Age Cemetery Excavation in Dhamar, Yemen. He supervised the excavation and stratagraphic interpretation, taught excavation techniques, strategy and implementation, field conservation, surveying techniques, data collection and analysis, and site management.

Journal of Associated Graduates in Near Eastern Studies (JAGNES)

Dr. DePietro was the Associate Editor from August 2003 to May 2012 for the Journal of Associated Graduates in Near Eastern Studiers (JAGNES). He solicited and proofread submissions, fundraising, and advertisements.

"Travel Today: Egypt" Magazine

Dr. De Pietro was an Archaeological Correspondent from December 2002 to February 2005. He wrote magazine articles, conducted relevant interviews and research, and procured photos and images to compliment articles.

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KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

OVERVIEW

- More than 12 years of experience

Education

- Master of Arts, Archaeology and Physical Anthropology, Northern Illinois University, DeKalb, IL, 2014
- Bachelor of Arts, Anthropology and World History, Cum Laude, State University of New York, Albany, NY, 2010

License

- Registered Professional Archaeologist, License No. 17953, 2019

Affiliations

- Phi Beta Delta Honor Society for International Scholars, 2012 to present
- Lambda Alpha National Anthropology Honor Society, 2009 to present

Awards and Fellowships

- Superior Exhibit Award for *Trowels and Fair Trade: Revealing the Underground Railroad and Contemporary Slavery* exhibit, Anthropology Museum, Northern Illinois University, Illinois Association of Museums, IL, 2013
- Rhoten A. Smith Fellowship, Northern Illinois University, DeKalb, IL, 2012–2014
- Anthropology Foundation Fund Award, Northern Illinois University, DeKalb, IL, 2012

Kweku Williams, MA, RPA, is a Registered Professional Archaeologist (License No. 17953) with more than 12 years of experience specializing in archaeology and physical anthropology. He possesses knowledge on excavation practices, artifact analysis, and osteology. Mr. Williams has worked on the field in sites around the US and parts of Europe, as well as in the academe where he served as Adjunct Professor in Anthropology at Berkeley City College, Berkeley, California, and Las Positas College, Livermore, California.

RELATED EXPERIENCE AND CLIENT SUMMARY

FirstCarbon Solutions

Tulocay Cemetery Project for Holman Teague Roche Anglin, LLP Archaeological Monitoring, City of Napa, CA

FCS provided archaeological monitoring for excavations during boundary determination testing at Tulocay Cemetery. Mr. Williams served as Archaeological Monitor.

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

Ritz-Carlton Napa Valley Resort Hotel Project Data Recovery of CA-NAP-928, City of Napa, CA

FCS is currently assisting the US Army Corps of Engineers (USACE) with the data recovery of CA-NAP-928. FCS is implementing the Memorandum of Agreement (MOA) and Historic Properties Treatment Plan (HPTP) for the Ritz-Carlton Napa Valley Resort Project, which was determined to have an adverse effect on the prehistoric site CA-NAP-928. The project proponent is a private developer whose application for the hotel site (which included a wetland) prompted Section 106 review by the USACE, San Francisco District. The project would result in the complete displacement of CA-NAP-928, which was determined eligible for listing in the National Register of Historic Places under criterion D for its data potential. To address this adverse effect, the USACE and the California State Historic Preservation Officer executed an MOA calling for the implementation of the HPTP. Treatment includes data recovery of the large, complex, multi-period site, involving the analysis of macrobotanical remains, lithics, fire-affected rock, obsidian hydration analysis, C-14 dating, and the treatment and recovery of faunal and human osteological remains. FCS is also working closely with Scott Gabaldon, the Chairperson of the Mishewal Wappo Tribe of Alexander Valley, who has assigned one Native American monitor to be present at the site during all ground-disturbing activities. Mr. Williams is providing archaeological testing and monitoring services for the project.

Previous Field Experience

Applied EarthWorks, Inc. and Cogstone Resource Management, Inc., Crowder Canyon, San Bernardino County, CA

Mr. Williams worked with Applied EarthWorks, Inc. and Cogstone Resource Management as a Field Technician on the Project State Route Realignment—Crowder Canyon Data Recovery Project for California Department of Transportation (Caltrans).

Schoharie Valley Field School, State University of New York, Albany, NY

Mr. Williams received training in archaeological techniques in surveying, excavation, and artifact analysis and preservation from Dr. Christina Rieth.

Cultural Resources Survey Program, New York State Museum, New York, NY

Under the supervision of Dr. Christina Rieth, Mr. Williams served as Archaeological Field Technician and conducted archaeological surveys and excavation for the New York State Museum.

Far Western Anthropological Research Group, Multiple Locations

As Field Technician, Mr. Williams' work included excavation and osteological recovery in compliance with the Native American Graves Protection and Repatriation Act with the Enterprise people; excavation testing for infrastructure development in Camp Pendleton for the Department of Defense; excavation and teaching demonstration in archaeological practices at Camp Tawonga, California; excavation and boundary site testing for a known archaeological site in Aliso Creek for the USACE; test excavation at Mariposa Leach Field for the US Forest Service (USFS); artifact processing for the Feather River West Levy project of the USACE and the Enterprise Tribal Group; the Moke 3700-Acre Survey in Pioneer, California for the USFS; the Onyx Ranch Survey in Mojave, California, for the Bureau of Land Management; Goleta Data Recovery for the Caltrans; archaeological field surveys, monitoring, and

excavation/burial recovery for the Feather River West Levee Project in Live Oak, California; and archaeological field surveys and excavation in Mariposa Grove at the Yosemite National Park.

Ka'Kabish Field School, Orange Walk, Belize

Through Trent University, Canada, Mr. Williams worked with Dr. Helen Haines as Crew Chief and Field Manager at the Ka'Kabish Field School in the province of Orange Walk, Belize.

Archaeological Field School in Salemi, Sicily, Italy

Through Northern Illinois University's Archaeological Field School, Mr. Williams collected data for his Master's thesis and received further training in archaeological techniques in surveying, excavation, and artifact analysis and preservation from Dr. Michael Kolb.

Hydro-archaeology Project, Universidad de Granada, Andalusia, Spain

Mr. Williams assisted Dr. José Maria Cervantes in mapping waterways in Andalusia, Spain.

Academic Positions

Berkeley City College, Berkeley, CA

Mr. Williams served as Adjunct Professor in Anthropology, teaching Introduction to Physical Anthropology, Introduction to Cultural Anthropology, and Introduction to Archaeology.

Las Positas College, Livermore, CA

Mr. Williams served as Adjunct Professor in Anthropology teaching Introduction to Physical Anthropology, Introduction to Cultural Anthropology, Introduction to Forensic Anthropology, and Introduction to Archaeology.

Archaeology Camp, College of Liberal Arts and Science, Northern Illinois University, DeKalb, IL

Mr. Williams served as Co-coordinator and Counselor for the Archaeology Camp of the College of Liberal Arts and Science in Northern Illinois University, DeKalb.

Anthropology Museum, Northern Illinois University, DeKalb, IL

Mr. Williams served as Graduate Assistant in Northern Illinois University, DeKalb's Anthropology Museum, where he coordinated the exhibit development team, provided tours and lectures on the content of exhibits, and fostered appreciation for education and cultural diversity. He also assisted in the development and installation of the *Fast Food Nation: 10,000 B.C.* and *Trowels and Fair Trade: Revealing the Underground Railroad and Contemporary Slavery* exhibits.

Department of Anthropology, Northern Illinois University, DeKalb, IL

As Teaching Assistant, Mr. Williams taught Introduction to Physical Anthropology, where he discussed The Life History and Social Behavior of the Mountain Gorilla, and Exploratory Archaeology, where he discussed The Rise of the City States of Mesopotamia, The Bronze Age in the Western Mediterranean, and Classic Period of the Maya Lowlands.

KWEKU WILLIAMS, MA, RPA—ARCHAEOLOGICAL MONITOR

Ka'Kabish Field School, Orange Walk, Belize

Through Trent University, Canada, Mr. Williams served as Field School Instructor where he provided students with the essentials for archaeological studies, such as laying out units, mapping (plan view and profile), calculating elevations and stadia metric distances, the essentials of logistical management of unit forms, proper notetaking in field journals, and the collection and labeling of artifact bags.

Academic Events and Speaking Engagements

- Learning Community Revolutionary Scholars First Year Experience, Berkeley City College, Berkeley, CA, Fall 2017
- Panelist on the Islamophobia Open Talk, Muslim Student Association and Peace and Social Justice Student Association, Las Positas College, Livermore, CA, Fall 2016
- Panelist on the African-American Science, Technology, Engineering, and Math Panel, Black Student Union, Las Positas College, Livermore, CA, Spring 2016
- Midwestern Mesoamerican Archaeological Conference, Northern Illinois University, DeKalb, IL, Spring 2014

Community Service

Mr. Williams participated in Northern Illinois University Cares Day where he participated in the beautification of DeKalb historical landmarks and public parks.

Publications

Williams, K.A. (2014). *Space and Specialization: Understanding the Medieval Economic Behavior through Ceramics in Salemi, Sicily* (master's thesis). Northern Illinois University, Illinois, United States.

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NATALIE ADAME—ARCHAEOLOGICAL MONITOR

OVERVIEW

- More than 2 years of experience

Education

- Bachelor of Arts, Biological Anthropology, Minor in Geology, California State University, East Bay, Hayward, CA, 2016
- Associate of Arts, Geology, Mt. San Antonio College, Walnut, CA, 2011

Skill

- Esri Aeronautical Reconnaissance Coverage Geographic Information System (ArcGIS)

Natalie Adame has more than 2 years of experience in archaeology, which she gained from extensive fieldwork and museum experience. Ms. Adame has established excellent research skills exemplified by her ability to prepare comprehensive reports and presentations. Her experience includes performing land use analyses and preparing Initial Studies and EIRs for various development projects. As an Archaeological Monitor/Field Technician, Ms. Adame implements Worker Environmental Awareness Programs (WEAP) 'tailgate' training sessions and coordinates with construction staff and Native American Monitors, construction monitoring, and the salvage and recordation of archaeological resources.

RELATED EXPERIENCE AND CLIENT SUMMARY

Biological, Archaeological, and Paleontological Monitoring and Reporting Services, Los Angeles Regional Interoperable Communications System, Los Angeles County, CA

FCS is providing monitoring and reporting services during the construction of more than 150 land mobile radio (LMR) facilities at sites located primarily in Los Angeles County. The LMR sites contain the infrastructure and equipment necessary to provide voice communications coverage throughout the County for emergency responders. These locations are widely dispersed across the County in both urban (intensively developed) and rural (less developed) settings and include coastal locations, sites in downtown Los Angeles, remote mountain peaks across the County, and the northern high desert. FCS is conducting the biological, archaeological, and paleontological pre-construction and construction monitoring and reporting services in accordance with the Construction Management Requirements outlined in the NEPA Environmental Assessment that FCS prepared for the project. Ms. Adame is a Field Archaeological Monitor on the project.

Barton Road Logistics Facility Project EIR, Technical Studies, and Peer Review, City of Colton, CA

FCS is providing CEQA documentation and peer review services for the Barton Road Logistics Facility Project in the City of Colton, in San Bernardino County. The proposed project includes the demolition of four industrial buildings, an office building, and parking lot. The proposed project would construct two state-of-the-art speculative concrete tilt-up industrial warehouse logistics facilities with a total square footage of 960,040 square feet. The project will develop Best-in-Class industrial facilities in the City of Colton that are designed to meet contemporary industry standards, can easily accommodate a wide

variety of warehouse and distribution uses, and are economically competitive with similar warehouse facilities in the local Inland Empire marketplace. FCS is preparing an EIR with supporting stand-alone Air Quality and Greenhouse Gas (GHG) Emissions Analysis with Health Risk Assessment, Biological Resources Assessment, Phase I Cultural Resources Assessment (CRA), Noise Impact Analysis, and Traffic Impact Analysis. Our team will also peer review the Geotechnical Report. The Phase I Cultural Resources Assessment will provide an evaluation and recommendations regarding potential construction related impacts to cultural resources. Ms. Adame is a Field Archaeological Monitor on the project.

Library/Learning Resource Center Building Project Biological and Cultural Construction Monitoring Services for the Solano Community College District, Fairfield, CA

FCS prepared the IS/MND and provided the subsequent biological and cultural construction monitoring services for the construction of a new 59,252-gross-square-foot, 2-story Library/Learning Resources Center building on the Fairfield Campus of the Solano Community College Campus. The building would be constructed on an open quad in the center of campus, replacing an open lawn. FCS conducted AB 52 consultation in coordination with the District and tribal representatives from the Yocha Dehe Wintun Nation to address concerns about tribal cultural resources in the immediate vicinity of the site. In additional to preparing a full PI-CRA, FCS drafted mitigation measures in coordination with the Tribe and District to effectively allow the project to proceed while protecting the Tribal Cultural resources in question. The District approved the project in May 2016, with the approval of the tribe and all parties involved. FCS will provide coordination with Tribal representatives from the Yocha Dehe Wintun Nation, as well as a "tailgate" sensitivity training session for construction personnel. Ms. Adame is a Field Archaeological Monitor on the project.

Prior Work Experience

Archaeologist, Material Culture Consulting, City of Pomona, CA

As an archaeologist, Ms. Adame performed excavations, recorded prehistoric and historic artifacts, and catalogued data using ArcGIS. She conducted Phase I, II, and III Environmental Site Assessments (ESAs) and drafted EIRs. Ms. Adame also prepared Department of Parks and Recreation (DPR) forms, searched records, and monitored projects in the State and county.

Field Archaeologist, ICF International, City of Los Angeles, CA

As a field archaeologist, Ms. Adame conducted environment surveys, performed excavations, and catalogued prehistoric and historic artifacts using ArcGIS. She prepared Federal Environment Management environmental reviews, DPR forms, and ESAs. Ms. Adame also worked with different transportation agencies, including the Orange County Transportation Authority, OC 405 Partners, LA Metro, and the California Department of Transportation.

Field Archaeologist, Dudek , City of Pasadena, CA

As a field archaeologist, Ms. Adame performed architectural and cultural historical assessments and conducted surveys for various projects to evaluate conflicts during construction period. Her responsibilities also include evaluating historic resource significance, cataloguing exhibit pieces, and gathering daily records of environmental compliances.

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NATALIE ADAME—ARCHAEOLOGICAL MONITOR

Grants and Proposal Writer – Applied Anthropology Coursework, California State University, East Bay, City of Hayward, CA

As a Grants and Proposal Writer, Ms. Adame analyzed organizational cultures, conducted needs assessment, and prepared social impact reports. Part of her task was to identify the appropriate research disciplines necessary for specific jobs.

Student Museum Docent, California State University, East Bay, City of Hayward, CA

Ms. Adame served as a docent at the university's C.E. Smith Museum of Anthropology. Her responsibilities include preparing materials for exhibits, researching and writing about artifacts, and mounting display materials in the museum.

Appendix B:
South Central Coastal Information Center Records Search Results

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Resource List

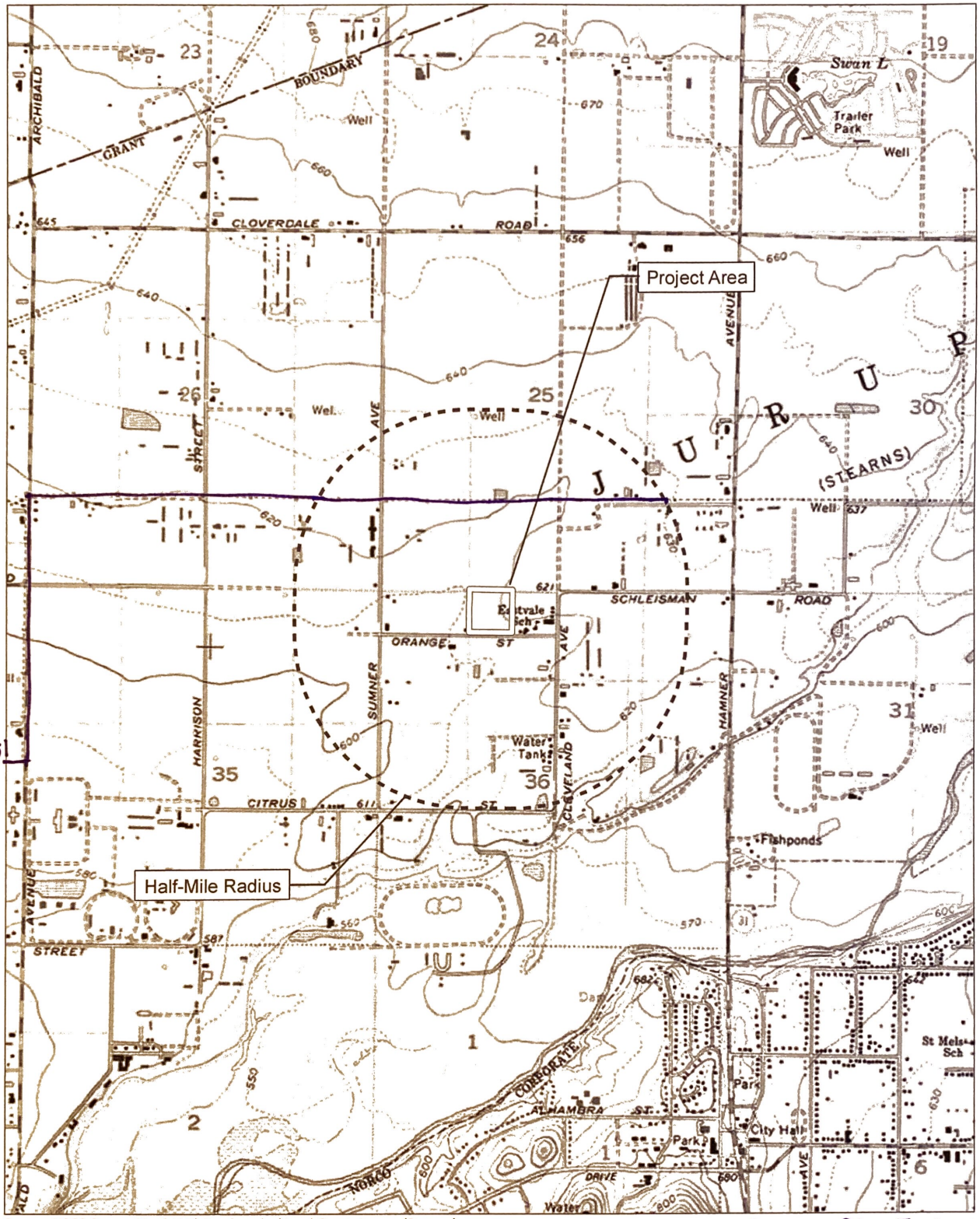
Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-33-016681	CA-RIV-013014	Other - Southern Sierras Powerline; Voided - P-33-028983; Other - PR-002	Site	Historic	AH15	2007 (Dice, Michael, Michael Brandman Associates); 2011 (Robbin D. Hoffman, ICF); 2016 (J.M. Sanka, L&L Environmental, Inc.); 2018 (Robert Cunningham, ECORP Consulting, Inc.)	RI-08536, RI-08772, RI-09730

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-03889	NADB-R - 1084796; Voided - MF-4247	1993	DROVER, CHRISTOPHER	ENVIRONMENTAL IMPACT EVALUATION: A CULTURAL RESOURCES IMPACT ASSESSMENT OF THE 748 ACRE EASTVALE PROJECT, RIVERSIDE COUNTY, CALIFORNIA	AUTHOR	33-006006
RI-04712	NADB-R - 1086079; Submitter - KBH231	2002	GOODWIN, RIORDAN and ROBERT E. REYNOLDS	CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT, CLOVERDALE PARK, RIVERSIDE COUNTY, CALIFORNIA	LSA ASSOCIATES, INC., RIVERSIDE	
RI-04980	NADB-R - 1086342; Submitter - 07-03-08-796	2003	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION OF APPROXIMATELY 200 ACRES OF LAND (TTM 30931) IN THE JURUPA AREA OF RIVERSIDE COUNTY, CALIFORNIA	MCKENNA ET AL.	
RI-05049	NADB-R - 1086411	2003	MCKENNA ET AL.	ARCHAEOLOGICAL SURVEY REPORT: A PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED EASTVALE WATER AND SEWER MASTER PLAN, RIVERSIDE COUNTY, CALIFORNIA	MCKENNA ET AL.	33-000652, 33-001042, 33-001043, 33-001436, 33-001451, 33-003357, 33-006006, 33-006524, 33-006525, 33-006668, 33-006669, 33-006688
RI-05052	NADB-R - 1086414; Submitter - Job No. 11-02-03-690	2003	MCKENNA ET AL.	A PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED EASTVALE WATER AND SEWER MASTER PLAN, RIVERSIDE COUNTY, CALIFORNIA	McKENNA et al., Whittier, CA	33-000652, 33-001042, 33-001043, 33-001436, 33-001451, 33-003357, 33-006006, 33-006524, 33-006525, 33-006668, 33-006669, 33-006688
RI-05394	NADB-R - 1086757; Other - 22120021	2003	DICE, MICHAEL	ARCHAEOLOGICAL RESORUCES ASSESSMENT AND PALEONTOLOGICAL RECORDS SEARCH FOR TRACT MAP #31323 (APN# 134-250-010), COUNTY OF RIVERSIDE, CA	MICHAEL BRANDMAN ASSOCIATES	
RI-07310		2006	Wayne Bonner and Marnie Aislin-Kay	Cultural Resources Records Search and Site Visit for Cingular Telecommunications Facility Candidate RS-0044-01 (Light Standard/Antenna Installation), 13100 65th Street, Corona, Riverside County, California	Michael Brandman Associates	
RI-07388		2006	Dice, Michael	Final, Phase I Cultural Resources Survey Report, Tentative Tract Map #34014, 7080 and 7090 Cleveland Avenue, Norco Area, Riverside County, California.	MBA	
RI-08813		2012	Dorothy Knowlton	Letter Report: Request for Comments Regarding Proposed Harada Site, 13099 65th Street, Eastvale, Riverside County, CA, TCNS# 81039	TetraTech, Inc.	

Report List

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
RI-09194		2013	Heather R. Pukett	Cultural Resources Summary for the Proposed Verizon Wireless, Inc., Property at the Providence Park Site, 7447 Cleveland Avenue, Corona, Riverside County, California 92880	Tetra Tech	
RI-10222		2009	Diane F. Bonner and Robert J. Wlodarski	Cultural Resources Record Search and Archaeological Survey Results for the Proposed Royal Street Communications, California, LLC, Site LA2241A (Harada Heritage Park) located at 13100 65th Street, Corona, Riverside County, California, 92880	Historical Environmental Archaeological Research Team (H.E.A.R.T.)	
RI-10408	OHP PRN - FCC_2018_0423_002	2018	Sarah A. Williams and Carie D. Wills	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC RS0395(CLU6338) [Harada Heritage Park], 13099 65th Street, Eastvale, Riverside County, California, CASPR No. 3551454994	Evironmental Assessment Specialists, Inc.	



33-01681

4940.0023 Orange St. Eastvale DD

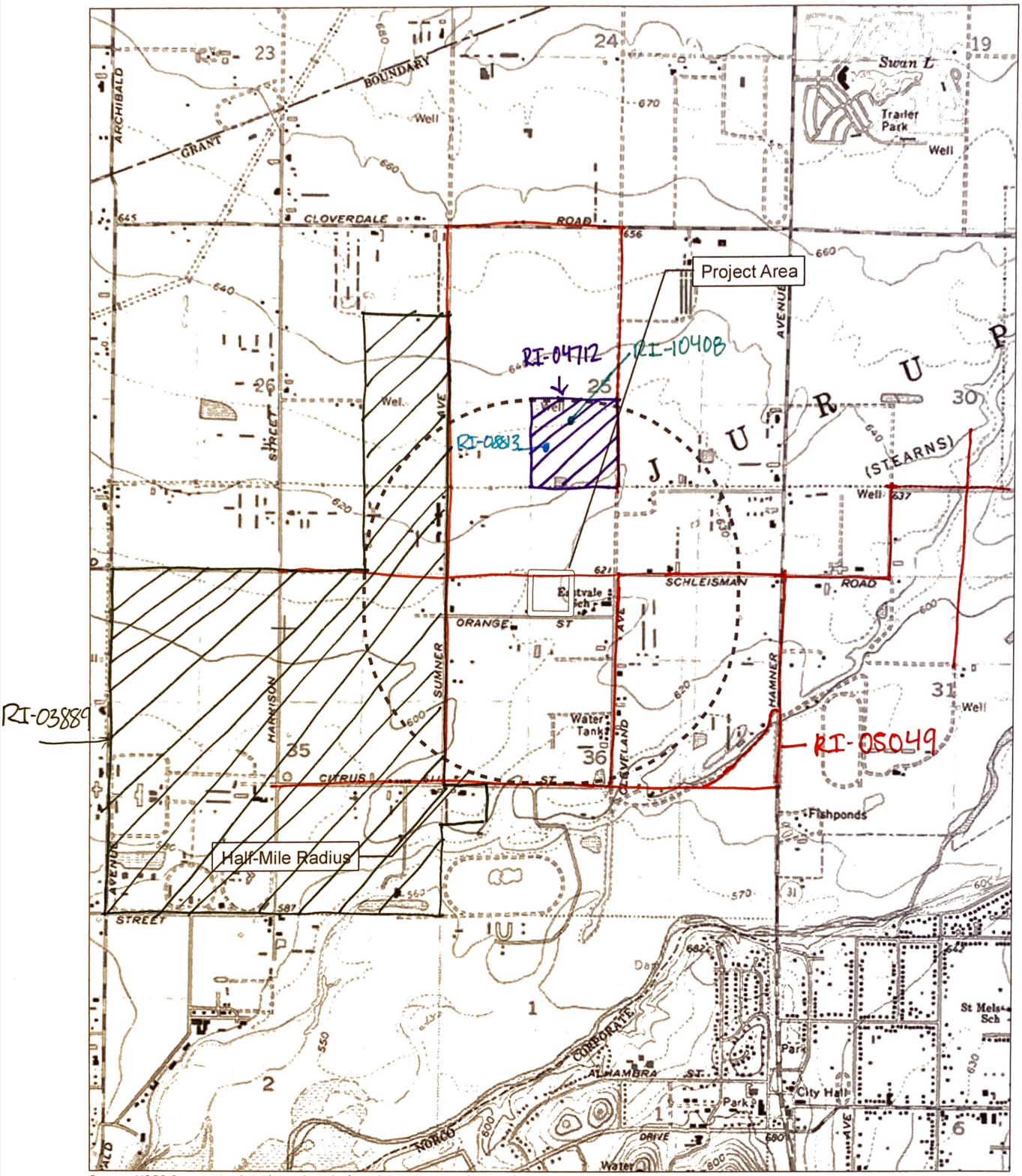
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Record Search Map

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Resources

CITY OF EASTVALE
ORANGE STREET RESIDENTIAL DEVELOPMENT
DUE DILIGENCE CHECKLIST



4940.0023 Orange St. Eastvale DD

FIRSTCARBON SOLUTIONS™

2,000 1,000 0 2,000 Feet

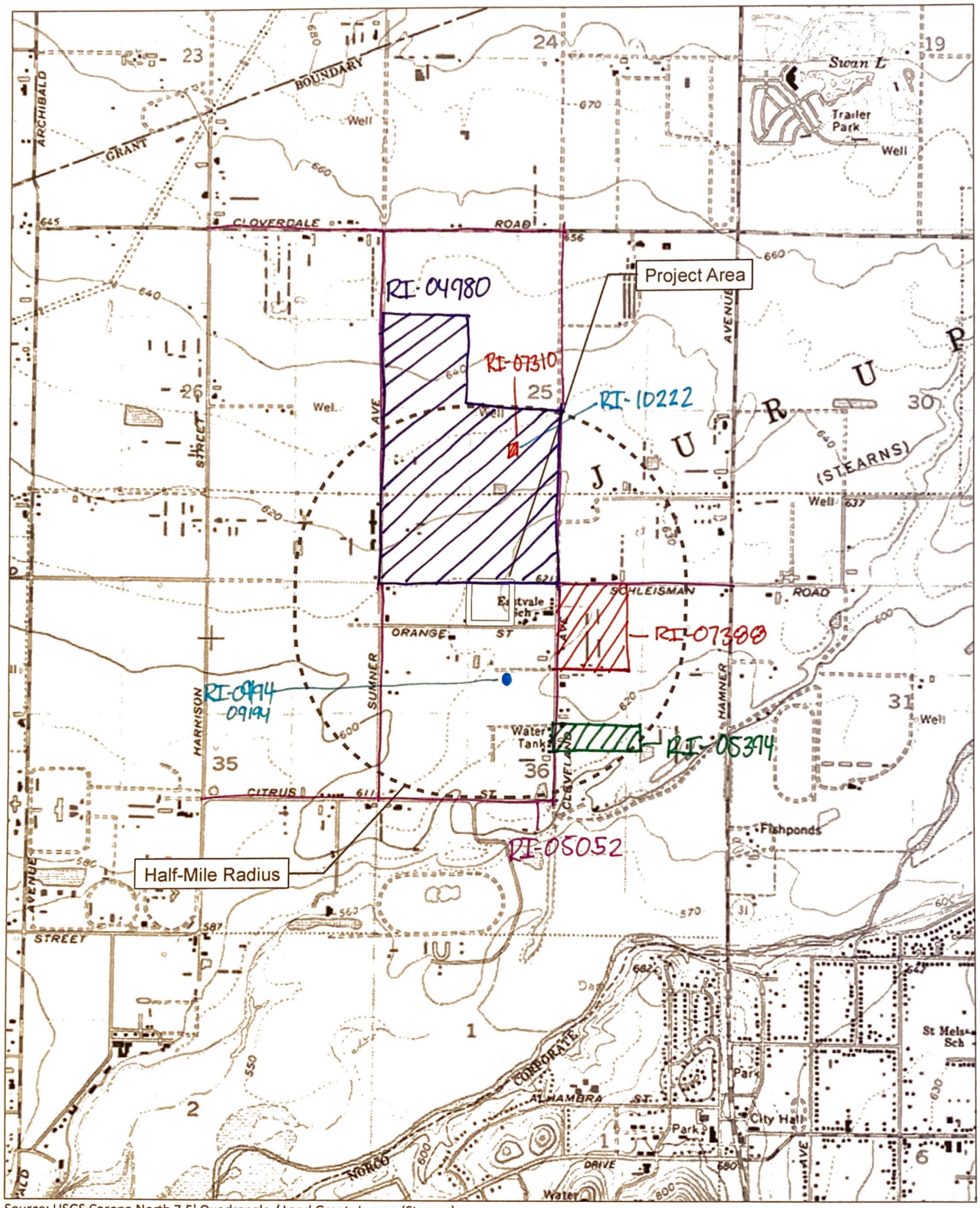
Record Search Map

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Reports

CITY OF EASTVALE
ORANGE STREET RESIDENTIAL DEVELOPMENT
DUE DILIGENCE CHECKLIST



Source: USGS Corona North 7.5' Quadrangle / Land Grant: Jurupa (Stearns)

4940.0023 Orange St. Eastvale D.D

FIRSTCARBON SOLUTIONS™

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Record Search Map

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Appendix C:
Native American Heritage Commission and Tribal Correspondence

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Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

■ **CEQA Tribal Consultation List (AB 52)** – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*

☐ **General Plan (SB 18)** - *Per Government Code § 65352.3.*

Local Action Type:

☐ **General Plan** ☐ **General Plan Element** ☐ **General Plan Amendment**

☐ **Specific Plan** ☐ **Specific Plan Amendment** ☐ **Pre-planning Outreach Activity**

Required Information

Project Title: Orange Street Residential Development

Local Government/Lead Agency: City of Eastvale

Contact Person: Stefanie Griffin

Street Address: 1350 Treat Boulevard, Suite 380

City: Walnut Creek **Zip:** 94597

Phone: 209.608.0028 **Fax:**

Email: sgriffin@fcs-intl.com; spignotti@fcs-intl.com

Specific Area Subject to Proposed Action

County: Riverside **City/Community:** Eastvale

Project Description:

MLC Holdings, Inc. (Client) is seeking assistance in preparing CEQA-level Due Diligence Memorandums for the proposed development of 138 residential dwelling units on 8.28 acres. The project site is located at 13175 Orange Street the City of Eastvale, on the north side of Orange Street and the south side of Schleisman Road between Calina Street and Scholar Way.

Additional Request

■ **Sacred Lands File Search** - *Required Information:*

USGS Quadrangle Name(s): Corona North
Land Grant: Jurupa (Stearns)

Township: **Range:** **Section(s):**

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

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COMMISSIONER
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Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

February 1, 2021

Stefanie Griffin
City of Eastvale

Via Email to: sgriffin@fcs-intl.com & spignotti@fcs-intl.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Orange Street Residential Development Project, Riverside County

Dear Ms. Griffin:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the tribes on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Riverside County
2/1/2021

Agua Caliente Band of Cahuilla Indians
Jeff Grubbe, Chairperson
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6800
Fax: (760) 699-6919

Agua Caliente Band of Cahuilla Indians
Patricia Garcia-Plotkin, Director
5401 Dinah Shore Drive — Cahuilla
Palm Springs, CA, 92264
Phone: (760) 699 - 6907
Fax: (760) 699-6924
ACBCI-THPO@aguacaliente.net

Campo Band of Diegueno Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 — Diegueno
Campo, CA, 91906
Phone: (619) 478 - 9046
Fax: (619) 478-5818
rgoff@campo-nsn.gov

Ewiiaapaayp Band of Kumeyaay Indians
Michael Garcia, Vice Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
michaelg@leaningrock.net

Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto, Chairperson
4054 Willows Road — Diegueno
Alpine, CA, 91901
Phone: (619) 445 - 6315
Fax: (619) 445-9126
wmicklin@leaningrock.net

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 — Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 — Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street — Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

La Posta Band of Diegueno Mission Indians
Gwendolyn Parada, Chairperson
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
LP13boots@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Orange Street Residential Development Project, Riverside County.

Native American Heritage Commission
Tribal Consultation List
Riverside County
2/1/2021

La Posta Band of Diegueno Mission Indians
Javaughn Miller, Tribal Administrator
8 Crestwood Road — Diegueno
Boulevard, CA, 91905
Phone: (619) 478 - 2113
Fax: (619) 478-2125
jmiller@LPtribe.net

Manzanita Band of Kumeyaay Nation
Angela Elliott Santos, Chairperson
P.O. Box 1302 — Diegueno
Boulevard, CA, 91905
Phone: (619) 766 - 4930
Fax: (619) 766-4957

Mesa Grande Band of Diegueno Mission Indians
Michael Linton, Chairperson
P.O Box 270 — Diegueno
Santa Ysabel, CA, 92070
Phone: (760) 782 - 3818
Fax: (760) 782-9092
mesagrandeband@msn.com

Pala Band of Mission Indians
Shasta Gaughen, Tribal Historic Preservation Officer
PMB 50, 35008 Pala Temecula Rd. — Cupeno, Luiseno
Pala, CA, 92059
Phone: (760) 891 - 3515
Fax: (760) 742-3189
sgaughen@palatribe.com

Pechanga Band of Luiseno Indians
Mark Macarro, Chairperson
P.O. Box 1477 — Luiseno
Temecula, CA, 92593
Phone: (951) 770 - 6000
Fax: (951) 695-1778
epreston@pechanga-nsn.gov

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

Rincon Band of Luiseno Indians
Cheryl Madrigal, Tribal Historic Preservation Officer
One Government Center Lane — Luiseno
Valley Center, CA, 92082
Phone: (760) 297 - 2635
crd@rincon-nsn.gov

Rincon Band of Luiseno Indians
Bo Mazzetti, Chairperson
One Government Center Lane — Luiseno
Valley Center, CA, 92082
Phone: (760) 749 - 1051
Fax: (760) 749-5144
bomazzetti@aol.com

Santa Rosa Band of Cahuilla Indians
Lovina Redner, Tribal Chair
P.O. Box 391820 — Cahuilla
Anza, CA, 92539
Phone: (951) 659 - 2700
Fax: (951) 659-2228
lsaul@santarosa-nsn.gov

Soboba Band of Luiseno Indians
Scott Cozart, Chairperson
P. O. Box 487 — Cahuilla
San Jacinto, CA, 92583 — Luiseno
Phone: (951) 654 - 2765
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Orange Street Residential Development Project, Riverside County.

Sycuan Band of the Kumeyaay Nation
Cody Martinez, Chairperson
1 Kwaaypaay Court Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 2613
Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Orange Street Residential Development Project, Riverside County.

Cell +1 773-641-0130

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From: Maddie Dolan <mdolan@fcs-intl.com>
Sent: Thursday, March 11, 2021 11:37 AM
To: Ti Ngo <tngo@fcs-intl.com>
Subject: FW: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Madelyn Dolan
Environmental Services, Analyst

FirstCarbon Solutions (FCS)
An ADEC Innovation
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From: Padilla, Lacy (TRBL) <lpadilla@aguacaliente.net>
Sent: Wednesday, March 10, 2021 11:00 AM
To: Maddie Dolan <mdolan@fcs-intl.com>
Subject: RE: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Greetings,

A records check of the Tribal Historic preservation office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, we defer to the other tribes in the area. This letter shall conclude our consultation efforts.

Thank you,

Lacy Padilla
Archaeologist
Agua Caliente Band of Cahuilla Indians
5401 Dinah Shore Drive Palm Springs, CA 92264
D: 760-699-6956 I C: 760-333-5222

From: Maddie Dolan <mdolan@fcs-intl.com>
Sent: Friday, February 5, 2021 2:55 PM
To: THPO Consulting <ACBCI-THPO@aguacaliente.net>
Subject: RE: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Hello,

I should further clarify that the Sacred Lands File search came back positive and suggested you may be able to provide more information. Please excuse my error. Have great weekend!

Best,
Madelyn Dolan
Environmental Services, Analyst

FirstCarbon Solutions (FCS)
An ADEC Innovation
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From: Maddie Dolan
Sent: Friday, February 5, 2021 12:23 PM
To: 'ACBCI-THPO@aguacaliente.net' <ACBCI-THPO@aguacaliente.net>
Cc: Stefanie Griffin <sgriffin@fcs-intl.com>
Subject: RE: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Hi there,

I wanted clarify an inaccuracy in the letter attached to my previous email. The letter states that the California Historical Resources Information System (CHRIS) search did not return any results. However, we have not actually received results back from the CHRIS search. Please let me know if you have any questions.

Best regards,
Madelyn Dolan
Environmental Services, Analyst

FirstCarbon Solutions (FCS)
An ADEC Innovation
LinkedIn | Facebook | Twitter

From: Maddie Dolan
Sent: Thursday, February 4, 2021 5:41 PM
To: ACBCI-THPO@aguacaliente.net
Cc: Cultural Resources <culturalres@fcs-intl.com>
Subject: 4940.0023 Tribal Consultation Request for Proposed Orange Street Residential Project

Hello,

Attached is a request for information pertaining to a cultural resources assessment of the proposed Orange Street Residential project, located in Eastvale, CA. Please feel free to contact Dr. Dana DePietro at ddepietro@fcs-intl.com if you would like to provide input. Thank you for your assistance.

Best regards,

Madelyn Dolan
Environmental Services, Analyst

FirstCarbon Solutions (FCS)
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Appendix D:
Project Photographs

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Photograph 1: Start of Transect-1 (T), from the southeast corner, on the west side of the project boundary. View north.



Photograph 2: End of T-1, from the northeast corner, on the west side of the project boundary. View south.



Photograph 3: Start of T-3, from the southern border, on the west side of the project boundary. View north.



Photograph 4: End of T-3, from the northern border, on the west side of the project boundary. View south.



Photograph 5: Start of T-4 and final transect on the western side, from the northern border. View south.



Photograph 6: End of T-4 and final transect on the western side, from the southern border. View north.



Photograph 7: Start of T-5, along the livestock stables, on eastern side of project boundary. View north.



Photograph 8: End of T-5, along the northern border, on eastern side of project boundary. View south.



Photograph 7: Start of T-7, along the livestock stables, on eastern side of the project boundary, View north.



Photograph 8: End of T-7, along the northern border, on eastern side of project boundary. View south.



Photograph 7: Start of T-9, along southern border on eastern side of project boundary. View north.



Photograph 8: End of T-9, along northern border on eastern side of project boundary. View north.



Photograph 7: Overview of project site, from the SE corner. View northwest.



Photograph 8: Overview of property on-site. View north.

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Appendix E:
Regulatory Framework

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REGULATORY FRAMEWORK

Local, state, and federal government agencies have developed laws and regulations designed to protect significant cultural resources that may be affected by projects regulated, funded, or undertaken by the agency. Federal and state laws that govern the preservation of historic and archaeological resources of national, state, regional, and local significance include the National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the California Environmental Quality Act (CEQA). In addition, laws specific to work conducted on federal lands include the Archaeological Resources Protection Act, the American Antiquities Act, and the Native American Graves Protection and Repatriation Act.

The following federal or CEQA criteria were used to evaluate the significance of potential impacts on cultural resources for the proposed project. An impact is considered significant if it would affect a resource eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR), or if it is identified as a unique archaeological resource.

Federal-Level Evaluations

Federal agencies are required to consider the effects of their actions on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings under Section 106 of the NHPA regulations Section (36 Code of Federal Regulations [CFR] 800). Additionally, federal agencies are responsible for initiating NHPA Section 106 review and completing the steps that are outlined in these regulations. They must determine if NHPA Section 106 applies to a given project and, if so, initiate review in consultation with the State Historic Preservation Officer (SHPO) and/or the Tribal Historic Preservation Officer (THPO). Federal agencies are also responsible for involving the public and other interested parties. Furthermore, NHPA Section 106 requires that any federal or federally assisted undertaking, or any undertaking requiring federal licensing or permitting, consider the effect of the action on historic properties listed in or eligible for the NRHP. Under the Code of Federal Regulations, 36 CFR Part 800.8, federal agencies are specifically encouraged to coordinate compliance with NHPA Section 106 and the NEPA process. The implementing regulations "Protection of Historic Properties" are found in 36 CFR Part 800. Resource eligibility for listing on the NRHP is detailed in 36 CFR Part 63 and the criteria for resource evaluation are found in 36 CFR Part 60.4 [a-d].

The NHPA established the NRHP as the official federal list for cultural resources that are considered important for their historical significance at the local, state, or national level. To be determined eligible for listing in the NRHP, properties must meet specific criteria for historic significance and possess certain levels of integrity of form, location, and setting. The criteria for listing on the NRHP include—significance in American history, architecture, archaeology, engineering, and culture as present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

a) That are associated with events that have made significant contributions to the broad patterns of our history; or

b) That are associated with the lives of persons significant in our past; or

c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that; represent a significant and distinguishable entity whose components may lack individual distinction; or

d) That have yielded, or may be likely to yield, information important in prehistory or history.

Criterion D is usually reserved for archaeological resources. Eligible properties must meet at least one of the criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character.

Criteria Considerations

Ordinarily, cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, buildings that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the NRHP. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

a) A religious property deriving primary significance from architectural or artistic distinction or historical importance.

b) A building or structure removed from its original location, but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event.

c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life.

d) A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events.

e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived.

f) A property primarily commemorative in intent if design, age, tradition, or symbolic value

g) A property achieving significance within the past 50 years if it is of exceptional importance.

Thresholds of Significance

In consultation with the SHPO/THPO and other entities that attach religious and cultural significance to identified historic properties, the agency shall apply the criteria of adverse effect to historic properties within the Area of Potential Effect (APE). The agency official shall consider the views of consulting parties and the public when considering adverse effects.

Federal Criteria of Adverse Effects

Under federal regulations, 36 CFR Part 800.5, an adverse effect is found when an undertaking alters, directly or indirectly, any of the characteristics of a historic property that qualifies the property for inclusion in the NR in a manner that diminishes the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration will be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for listing in the NR. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative.

According to 36 CFR Part 800.5, adverse effects on historic properties include, but are not limited to:

- Physical destruction of or damage to all or part of the property.
- Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties per 36 CFR Part 68 and applicable guidelines.
- Removal of the property from its historic location.
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.
- Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization.
- Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long term preservation of the property's historic significance.

If Adverse Effects are Found

If adverse effects are found, the agency official shall continue consultation as stipulated in 36 CFR Part 800.6. The agency official shall consult with the SHPO/THPO and other consulting parties to develop alternatives to the undertaking that could avoid, minimize, or mitigate adverse effects to historic resources. According to 36 CFR Part 800.14(d), if adverse effects cannot be avoided then standard treatments established by the ACHP may be used as a basis for a Memorandum of Agreement (MOA).

According to 36 CFR Part 800.11(e), the filing of an approved MOA, and appropriate documentation, concludes the NHPA Section 106 process. The MOA must be signed by all consulting parties and approved by the ACHP prior to construction activities. If no adverse effects are found and the SHPO/THPO or the ACHP do not object within 30 days of receipt, the agencies' responsibilities under NHPA Section 106 will be satisfied upon completion of report and documentation as stipulated in 36

CFR Part 800.11. The information must be made available for public review upon request, excluding information covered by confidentiality provisions.

State-Level Evaluation Processes

An archaeological site may be considered a historical resource if it is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California per Public Resources Code (PRC) Section 5020.1(j) or, if it meets the criteria for listing on the CRHR per the California Code of Regulations (CCR) at Title 14 CCR Section 4850.

The most recent amendments to the CEQA Guidelines direct lead agencies to first evaluate an archaeological site to determine if it meets the criteria for listing in the CRHR. If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CRHR, potential adverse impacts to it must be considered as stated in PRC Sections 21084.1 and 21083.2(l). If an archaeological site is considered not to be a historical resource, but meets the definition of a "unique archeological resource" as defined in PRC Section 21083.2, then it would be treated in accordance with the provisions of that section.

With reference to PRC Section 21083.2, each site found within a project area will be evaluated to determine if it is a unique archaeological resource. A unique archaeological resource is described as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

As used in this report, a "non-unique archaeological resource" means an archaeological artifact, object, or site that does not meet the criteria for eligibility for listing on the CR, as noted in subdivision (g) of PRC Section 21083.2. A non-unique archaeological resource requires no further consideration, other than the simple recording of its components and features. Isolated artifacts are typically considered non-unique archaeological resources. Historic structures that have had their superstructures demolished or removed can be considered historic archaeological sites and are evaluated following the processes used for prehistoric sites. Finally, the California State Office of Historic Preservation recognizes an age threshold of 45 years. Cultural resources built less than 45 years ago may qualify for consideration, but only under the most extraordinary circumstances.

Title 14 of the CCR, Chapter 3, Section 15064.5 is associated with determining the significance of impacts to archaeological and historical resources. Here, the term historical resource includes the following:

1. A resource listed in, or determined eligible by the State Historical Resources Commission, for listing in the CRHR (PRC § 5024.1; Title 14 CCR, § 4850 *et seq*.).
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the PRC Section 5024.1(g) requirements, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript, which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be historically significant if the resource meets the criteria for listing on the CRHR (PRC § 5024.1; Title 14 CCR § 4852) including the following:
   A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
   B. Is associated with the lives of persons important in our past.
   C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
   D. Has yielded, or may be likely to yield, information important in prehistory or history.

Typically, archaeological sites exhibiting significant features qualify for the CRHR under Criterion D because such features have information important to the prehistory of California. A lead agency may determine that a resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1 even if it is:

- Not listed in or determined to be eligible for listing in the CRHR.
- Not included in a local register of historical resources pursuant to PRC Section 5020.1(k).
- Identified in a historical resources survey per PRC Section 5024.1(g).

Threshold of Significance

If a project will have a significant impact on a cultural resource, several steps must be taken to determine if the cultural resource is a "unique archaeological resource" under CEQA. If analysis and/or testing determine that the resource is a unique archaeological resource and therefore subject to mitigation prior to development, a threshold of significance should be developed. The threshold of significance is a point where the qualities of significance are defined, and the resource is determined to be unique under CEQA. A significant impact is regarded as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource will be reduced to a point that it no longer meets the significance criteria. Should analysis indicate that project development will destroy the unique elements of a resource; CEQA regulations require that that the project implement appropriate and feasible

mitigation measures. The preferred form of mitigation is to preserve the resource in place, in an undisturbed state. However, as that is not always possible or feasible, appropriate mitigation measures may include, but are not limited to:

1. Planning construction to avoid the resource.
2. Deeding conservation easements.
3. Capping the site prior to construction.

If a resource is determined to be a "non-unique archaeological resource," no further consideration of the resource by the lead agency is necessary.

Tribal Consultation

The following serves as an overview of the procedures and timeframes for the Tribal Consultation process, for the complete Tribal Consultation Guidelines, please refer to the State of California Office of Planning and Research website.

Prior to the amendment or adoption of general or specific plans, local governments must notify the appropriate tribes of the opportunity to conduct consultation for the purpose of preserving or mitigating impacts to cultural places located on land within the local government's jurisdiction that is affected by the plan adoption or amendment. The tribal contacts for this list are maintained by the NAHC and are distinct from the Most Likely Descendent (MLD) list. It is suggested that local governments send written notice by certified mail with return receipt requested. The tribes have 90 days from the date they receive notification to request consultation. In addition, prior to adoption or amendment of a general or specific plan, local government must refer the proposed action to tribes on the NAHC list that have traditional lands located within the city or county's jurisdiction. Notice must be sent regardless of prior consultation. The referral must allow a 45-day comment period.

In brief, notices from the local government to the tribes should include:

- A clear statement of purpose.
- A description of the proposed general or specific plan, the reason for the proposal, and the specific geographic areas affected.
- Detailed maps to accompany the description.
- Deadline date for the tribes to respond.
- Government representative(s) contact information.
- Contact information for project proponent/applicant, if applicable.

The basic schedule for this process is:

- **30 days**: time the NAHC has to provide tribal contact information to the local government; this is recommended, not mandatory.

- **90 days**: time the tribe has to respond indicating whether or not they want to consult. Note: tribes can agree to a shorter timeframe. In addition, consultation does not begin until/unless requested by the tribe within 90 days of receiving notice of the opportunity to consult. The consultation period, if requested, is open-ended. The tribes and local governments can discuss issues for as long as necessary or productive, and need not result in agreement.
- **45 days**: time the local government has to refer proposed action, such as adoption or amendment to a general or specific plan, to agencies, including the tribes. Referral is required even if there has been prior consultation. This opens the 45-day comment period.
- **10 days:** time the local government has to provide the tribes with notice of a public hearing.

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Appendix 7

Geotechnical Evaluation

Magnolia Ranch Residential Project

Initial Study

GEOTECHNICAL & INFILTRATION EVALUATION

FOR

PROPOSED SINGLE- AND MULTI-FAMILY RESIDENTIAL DEVELOPMENT
ASSESSOR'S PARCEL NUMBER 152-040-003
EASTVALE, RIVERSIDE COUNTY, CALIFORNIA

PREPARED FOR

MLC HOLDINGS, INC.
5 PETERS CANYON ROAD, SUITE 310
IRVINE, CALIFORNIA 92606

PREPARED BY

GEOTEK, INC.
1548 NORTH MAPLE STREET
CORONA, CALIFORNIA 92880

PROJECT NO. 2603-CR **JANUARY 28, 2020**

GEOTEK

GeoTek, Inc.
1548 North Maple Street, Corona, California 92880
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January 28, 2021
Project No. 2603-CR

MLC Holdings, Inc.
5 Peters Canyon Road, Suite 310
Irvine, California 92606

Attention: Mr. Bret Ilich

Subject: Geotechnical and Infiltration Evaluation
Proposed Single- and Multi-Family Residential Development
Assessor's Parcel Number 152-040-003
Eastvale, Riverside County, California

Dear Mr. Ilich:

We are pleased to provide the results of our geotechnical and infiltration evaluation for the subject project located in Eastvale, Riverside County, California. This report presents the results of our evaluation and discussion of our findings.

Based on the results of our evaluation, development of the property appears feasible from a geotechnical viewpoint provided that the recommendations presented in this report and in future reports are incorporated into design and construction.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,
GeoTek, Inc.





Edward H. LaMont
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Figure 1 – Site Location and General Topography Map
Figure 2 – Boring Location Map

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Appendix B – Laboratory Test Results
Appendix C – Infiltration Test Results
Appendix D – Liquefaction & Seismic Settlement Analysis
Appendix E – General Grading Guidelines

1. PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to evaluate the geotechnical conditions for the proposed development. Services provided for this study included the following:

- Research and review of available geologic and geotechnical data, and general information pertinent to the site,
- Excavation of six (6) geotechnical borings extended to depths ranging from approximately 20 to 51-½ feet below grade;
- Excavation of two (2) borings to a depth of about 5 feet each for infiltration testing;
- Collection of bulk and undisturbed samples from the test borings;
- Performance of laboratory testing on select soil samples;
- Review and evaluation of site seismicity, and
- Compilation of this geotechnical and infiltration evaluation report which presents our findings and a general summary of pertinent geotechnical conditions relevant for site development.

The intent of this report is to aid in the evaluation of the site for future development from a geotechnical perspective. The professional opinions and geotechnical information contained in this report will likely need to be updated based on our review of final site development plans. These should be provided to GeoTek for review when available.

2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

2.1 SITE DESCRIPTION

The project is a nearly square shaped approximate 10-acre site located north of Orange Street and easterly of Calina Lane in Eastvale, California. The site currently occupied by a single-family residence, flatwork, landscaping and animal pens. The site topography can be considered as relatively flat terrain with elevations ranging from approximately 618 to 622 feet above mean sea level. The general site location is presented on the attached Figure 1.

2.2 PROPOSED DEVELOPMENT

It is our understanding that site developments will consist of a total of 138 homesites consisting of two-story single-family residential structures and three-story multi-family residential structures and associated parking/drive areas, recreational improvements and lot improvements. Stormwater facilities are also proposed as part of the planned development. We anticipate that the residential structures will be supported by a shallow post-tensioned foundation system. Although structural loading information was not available at the time of this report preparation, we anticipate maximum column and wall loads on the order of 50 kips and 3 kips per foot, respectively. Once actual structural loads are known that information should be provided to GeoTek to determine if modifications to the recommendations contained in this report are warranted.

Based on the relatively flat topography at each site, we anticipate that the maximum depth of cut or fill will be less than about five (5) feet, not including any remedial grading.

As site development planning progresses and plans become available, the plans should be provided to GeoTek for review and comment. Additional engineering analyses may be necessary in order to provide specific earthwork recommendations and geotechnical design parameters for actual site development.

3. FIELD EXPLORATION & LABORATORY TESTING

3.1 FIELD EXPLORATION

GeoTek performed a field exploration at this site on January 6, 2021 which consisted of excavating six (6) exploratory borings to depths ranging from about 20 to 51-½ feet. In addition, two (2) percolation test borings about 5 feet deep were advanced. The borings were drilled with a hollow-stem auger drill rig and logged by a GeoTek geologist.

The approximate locations of our site explorations are shown on the Boring Location Map, Figure 2. Logs of the borings are provided in Appendix A.

3.2 LABORATORY TESTING

Laboratory testing was performed on selected relatively undisturbed and bulk soil samples collected during the field exploration. The purpose of the laboratory testing was to confirm the field classification of the soil materials encountered and to evaluate the soils physical

properties for use in the engineering design and analysis. Our test results along with a brief description and relevant information regarding testing procedures are included on the boring logs included in Appendix A or in Appendix B.

4. PERCOLATION TESTING

Percolation testing was performed at boring locations I-1 and I-2 to assess the infiltration characteristics of the site soils. The borings were excavated to approximately 5 feet below the existing grade. The boring diameter was approximately eight inches. Subsequent to pre-soaking, percolation testing was performed within the lower approximately 20 inches in the borings by a representative of our firm, in general conformance with the Boring Percolation Test Procedure (per Riverside County requirements). As required, the percolation rates were corrected to account for discharge of water from both the sides and bottom of the borings. This correction was performed using the Porchet Method, obtaining the infiltration rates tabulated below:

SUMMARY OF RESULTS		
Boring	Measured Field Percolation Rate (minutes per inch)	Calculated Infiltration Rate (inches per hour)
I-1	4.8	1.2
I-2	2.3	2.7

Copies of the field data sheets and infiltration conversion calculations (Porchet Method) are included in Appendix C. The reported infiltration rates are the measured rate without any factor of safety applied. Over the lifetime of the storm water facility, the infiltration rates may be affected by silt build up and biological activities, as well as local variations in near surface soil conditions. A suitable factor of safety should be applied to the field rates in design the infiltration system.

It should be noted that the infiltration rates provided above were performed in relatively undisturbed native soils. Infiltration rates will vary and are mostly dependent on the underlying consistency of the site soils and relative density. Infiltration rates will be impacted by weight of equipment travelling over the soils, placement of engineered fill and other various factors. GeoTek, Inc. assumes no responsibility or liability for the ultimate design or performance of the storm water facility.

5. GEOLOGIC AND SOILS CONDITIONS

5.1 REGIONAL SETTING

The subject property is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. Basically, it extends roughly 975 miles from the north and extends from the Transverse Ranges geomorphic province to the tip of Baja California, from north to south. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found in the near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province.

More specific to the subject property, the site is located in an area geologically mapped to be underlain by alluvium (Morton, D.M. and Miller, F.K., 2006).

5.2 EARTH MATERIALS

A brief description of the earth materials encountered during our subsurface exploration is presented in the following section. Based on the exploratory excavations and review of published geologic maps, the site is underlain by alluvium. Although not encountered, localized areas of undocumented fill may be present.

5.2.1 Alluvium

Alluvial soils were encountered within all borings and extended to the maximum depths explored ranging from 20 to 51-½ feet below grade. The alluvial soils encountered generally consisted of clayey sand, silt, clay and silty sand. The sandy soils were noted to possess a relative density ranging from dense to very dense and the silty/clayey soils generally possessed a stiff to hard consistency.

According to the results of the laboratory testing performed on two (2) samples of the near surface alluvial soils, the materials tested and observed have a "very low" ($0 \leq EI \leq 20$) and "low" ($21 \leq EI \leq 50$) expansion potential when tested and classified in accordance with ASTM D 4829. The test results are provided in Appendix B.

5.3 SURFACE WATER AND GROUNDWATER

5.3.1 Surface Water

If encountered during earthwork construction, surface water on this site is the result of precipitation or possibly some minor surface run-off from immediately surrounding properties. Overall site area drainage is generally in a southwesterly direction, as directed by site topography. Provisions for surface drainage will need to be accounted for by the project civil engineer.

5.3.2 Groundwater

Groundwater was not encountered within our exploratory borings performed for this evaluation. Based on the lack of water encountered in the borings and a review of the groundwater information contained on the State Department of Water Resources Water Data Library website, we estimate that the depth to high groundwater at the site is about 50 feet below grade. Based on this depth to water, groundwater-related problems are not expected during or after construction.

It is possible that seasonal variations (temperature, rainfall, etc.) will cause fluctuations in the groundwater level. Additionally, perched water may be encountered at shallow depths following extensive rain events. If shallow perched water is encountered, we anticipate that it can be managed with conventional sump pumps.

5.4 FAULTING AND SEISMICITY

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The sites are in a seismically active region. No active or potentially active fault is known to exist at these sites nor are the sites situated within a State of California designated *"Alquist-Priolo"* Earthquake Fault Zone. Additionally, the site is not situated within an Earthquake Fault Zone as noted on the Riverside County GIS "Map My County" website.

5.4.1 Seismic Design Parameters

This site is located at approximately 33.959950º Latitude and -117.570312º Longitude. Site spectral accelerations (S_a and S_1), for 0.2 and 1.0 second periods for a Class "D" site, was determined from the SEAOC/OSHPD web interface that utilizes the USGS web services and retrieves the seismic design data and presents that information in a report format. Using the ASCE 7-16 option on the SEAOC/OSHPD website results in the values for S_{M1} and S_{D1}

reported as "null-See Section 11.4.8" (of ASCE 7-16). As noted in ASCE 7-16, Section 11.4.8, a site-specific ground motion procedure is recommended for Site Class D when the value S_1 exceeds 0.2. The value S_1 for the subject site exceeds 0.2.

For a site Class D, an exception to performing a site-specific ground motion analysis is allowed in ASCE 7-16 where S_1 exceeds 0.2 provided the value of the seismic response coefficient, Cs, is conservatively calculated by Eq 12.8-2 of ASCE 7-16 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either Eq. 12.8-3 for $T_L \geq T > 1.5T_s$ or Eq. 12.8-4 for $T > T_L$.

The results, based on the 2015 NEHRP and the 2019 CBC, are presented in the following table and we have assumed that the exception as allowed in ASCE 7-16 is applicable. If the exception is deemed not appropriate, a site-specific ground motion analysis will be required.

SITE SEISMIC PARAMETERS	
Mapped 0.2 sec Period Spectral Acceleration, S_S	1.65g
Mapped 1.0 sec Period Spectral Acceleration, S_1	0.591g
Site Coefficient for Site Class "D," F_a	1.0
Site Coefficient for Site Class "D," F_v	1.709
Maximum Considered Earthquake Spectral Response Acceleration for 0.2 Second, S_{MS}	1.65g
Maximum Considered Earthquake Spectral Response Acceleration for 1.0 Second, S_{M1}	1.01g
5% Damped Design Spectral Response Acceleration Parameter at 0.2 Second, S_{DS}	1.1g
5% Damped Design Spectral Response Acceleration Parameter at 1 second, S_{D1}	0.673g
PGA_M	0.747g
Seismic Design Category	D

Final selection of the appropriate seismic design coefficients should be made by the project structural engineer based upon the local practices and ordinances, expected building response and desired level of conservatism.

5.4.2 Surface Fault Rupture

The site is in a seismically active region; however, no active or potentially active fault is known to exist at this site nor is the site situated within an *"Alquist-Priolo"* Earthquake Fault Zone. The nearest known active fault is the Elsinore fault zone situated about 8 miles to the southwest. Therefore, the potential for surface rupture at the site is considered to be nil.

5.4.3 Liquefaction & Dynamic Densification

Liquefaction describes a phenomenon in which cyclic stresses, produced by earthquake-induced ground motion, create excess pore pressures in relatively cohesionless and some low-plastic soils. These soils may thereby acquire a high degree of mobility, which can lead to lateral movement, sliding and settlement of loose sediments, sand boils and other damaging deformations. This phenomenon occurs only below the water table, but, after liquefaction has developed, the effects can propagate upward into overlying non-saturated soil as excess pore water dissipates.

The factors known to influence liquefaction potential include soil type and grain size, relative density, groundwater level, confining pressures, and both intensity and duration of ground shaking. In general, materials that are most susceptible to liquefaction are loose, saturated granular soils having low fines content under low confining pressures.

The Riverside County GIS "Map My County" website indicates that the site is located within a "high" liquefaction potential zone.

Based on the presence of alluvial soils, an estimated high groundwater depth of 50 feet and the "high" liquefaction potential for the site, an assessment of the liquefaction potential was performed. The computer software program LIQUEFYPRO was utilized for this assessment. For this analysis, we utilized the soil profile from Boring B-2, a ground acceleration (PGA_M) of 0.747g and a mean earthquake magnitude of 6.73. The ground acceleration and earthquake magnitude were obtained from the USGS websites. The results of this analysis indicates that the site soils are not susceptible to liquefaction upon application of the design earthquake.

The dry settlement potential of the site soil was also evaluated to assess the potential settlement of the unsaturated soils resulting from seismic activity. The results of this analysis indicates a seismic dry settlement of less than ½ inch is estimated. We recommend a seismic differential seismic settlement of ¼ inch over a 40-foot span be considered for design. Based on the estimated magnitude of seismic settlement, mitigation and/or special foundation design is not considered warranted. A copy of the liquefaction and seismic settlement analysis is presented in Appendix D.

5.4.4 Other Seismic Hazards

The potential for secondary seismic hazards such as seiche and tsunami is considered to be remote due to site elevation and distance from an open body of water. Due to the low liquefaction hazard, the potential for lateral spreading is considered to be nil.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 GENERAL

Development of the site appears feasible from a geotechnical viewpoint. Specific recommendations for site development provided in this report will need to be further evaluated when development plans are provided for our review. The following sections present general recommendations. More specific geotechnical recommendations for site development can be provided when more finalized site development plans are available for review.

6.2 EARTHWORK CONSIDERATIONS

6.2.1 General

Earthwork and grading should be performed in accordance with the applicable grading ordinances of the City of Eastvale, the 2019 California Building Code (CBC) and recommendations contained in this report. The General Grading Guidelines included in Appendix E outline general procedures and do not anticipate all site-specific situations. In the event of conflict, the recommendations presented in the text of this report should supersede those contained in Appendix E.

6.2.2 Site Clearing

Site preparation should start with removal of all deleterious materials and vegetation within the planned development areas of the site. All debris and deleterious materials should be properly disposed of off-site.

6.2.3 Remedial Grading

Due to the collapse potential of the near surface soils, we recommend that the existing soils beneath the planned buildings be over-excavated to a depth of at least 5 feet below existing or finished grade and at least 3 feet below the bottom of the planned foundations, whichever is deeper. If existing fill soils are encountered, the over-excavations should also be extended to removal of all undocumented fill. The lateral extent of this recommended over-excavation should extend at least 5 feet beyond the building perimeters and beneath all adjacent patio slabs. The soils exposed at the base of the soil over-excavations should be examined by a GeoTek representative to document that the exposed soils are suitable for support of the planned improvements and meet a minimum 85 percent relative compaction with little to no

visible porosity. If unsuitable soils are observed, the over-excavation should be extended in depth until suitable soils, as determined by GeoTek, are encountered.

Beneath concrete flatwork and street pavements, it our opinion that the over-excavations may be limited to 12 inches below existing or finished grade, whichever is deeper, and meet a minimum 85 percent relative compaction with little to no visible porosity, provided all existing undocumented fill is removed.

Following the recommended removals and observations by GeoTek, the exposed soils should be scarified to a depth of about 12 inches, be moisture conditioned to slightly above the soil's optimum moisture content and then be compacted to at least 90 percent of the soil's maximum dry density, per ASTM D 1557.

6.2.4 Engineered Fill

The on-site soils are generally considered suitable for reuse as engineered fill provided they are free from vegetation, debris and other deleterious material. Any over-sized material (greater than 3 inches in maximum dimension) should be removed from the soil prior to use as fill. The undercut areas should be brought to final subgrade elevations with fill materials that are placed and compacted in general accordance with minimum project standards. Engineered fill should be placed in six-inch to eight-inch loose lifts, moisture conditioned to about two percent above the optimum moisture content and compacted to a minimum relative compaction of 90 percent as determined by ASTM D 1557.

6.2.5 Excavation Characteristics

Excavations in the on-site alluvial materials should be readily accomplished with heavy-duty earthmoving or excavating equipment in good operating condition.

6.2.6 Trench Excavations and Backfill

Temporary trench excavations within the on-site materials should be stable at 1:1 inclination for short durations during construction and where cuts do not exceed 10 feet in height. We anticipate that temporary cuts to a maximum height of four feet can be excavated vertically.

Trench excavations should conform to Cal-OSHA regulations. The contractor should have a competent person, per OSHA requirements, on site during construction to observe conditions and to make the appropriate recommendations.

Utility trench backfill should be compacted to at least 90 percent relative compaction (as determined per ASTM D 1557). Under-slab trenches should also be compacted to project specifications. Where applicable, based on jurisdictional requirements, the top 12 inches of

backfill below subgrade for road pavements should be compacted to at least 95 percent relative compaction. On-site materials may not be suitable for use as bedding material but should be suitable as backfill provided particles larger than 6 inches are removed.

Compaction should be achieved with a mechanical compaction device. Ponding or jetting of trench backfill is not recommended. If backfill soils have dried out, they should be thoroughly moisture conditioned prior to placement in trenches.

6.2.7 Shrinkage and Subsidence

For planning purposes, a shrinkage factor of about 5 to 10 percent may be considered for materials that may need to be removed and replaced. A subsidence loss of about 0.1 foot should also be anticipated.

Site balance areas should be available in order to adjust project grades, depending on actual field conditions at the conclusion of earthwork construction.

6.3 DESIGN RECOMMENDATIONS

6.3.1 Foundation Design Criteria

We understand that a post-tension foundation system is planned for the site. Foundation design criteria for a post-tensioned foundation system in general conformance with the 2019 CBC, are presented herein. These are typical design criteria and are not intended to supersede the design by the structural engineer.

Expansion Index (EI) testing performed on representative samples collected from the site has indicated the site soils possess a "very low" to "low" expansion potential. The results of the EI testing are included in Appendix B. The foundation elements for the proposed structures should bear entirely in engineered fill soils and should be designed in accordance with the *2019 California Building Code (CBC).*

Presented below are post-tensioned foundation design parameters for the proposed residential structures at the site. These parameters are in general conformance with *Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundation on Expansive Soil* (PTI, 2012).

DESIGN PARAMETERS FOR POST-TENSIONED SLABS	
Foundation Design Parameter	**Design Value**
	Soil Characteristics: LL≤40; PI≤20; Passing #200 Sieve < 50%; Clay fines ≈ 40%; EI=22
Edge Moisture Variation Distance, e_m - Edge Lift (swelling) - Center Lift (shrinkage)	 4.9 ft 9.0 ft
Soil Differential Movement, y_m - Edge Lift (swelling) - Center Lift (shrinkage)	 ≈0.3 in ≈0.2 in
Ext. Perimeter Beam Embedment	One- or Two-Story – 12 inches* Three-Story – 18 inches*
Presaturation of Subgrade Soil (Percent of Optimum)	Minimum 100% to a depth of 12 inches

* Required depth of perimeter beam/stiffening rib per structural calculations may govern.

The following assumptions were used to generate e_m and y_m values: Thornthwaite Moisture Index = -20; constant suction value = 3.6pF; post-equilibrium case assumed with wet (swelling) cycle going from 3.9pF to 3.0pF and drying (shrinking) cycle going from 3.6pF to 4.5pF.

Post-tensioned slabs should be designed in accordance with the *2019 CBC* and PTI design methodology. The bottom of the perimeter edge beam/deepened footing should be designed to resist tension forces using either cable or conventional reinforcement, per the structural engineer. The table above provides design criteria for foundations resting on "low" expansive soils. Foundations on soils with "very low" expansion potential could be safely designed for "low" soil expansion.

The following criteria for design of foundations are preliminary and should be re-evaluated based on the results additional laboratory testing of samples obtained at/near finish pad grade.

An allowable bearing capacity of 2,000 pounds per square foot (psf) may be used for design of building and retaining wall footings. This allowable soil bearing capacity is based on a minimum foundation depth and width of 12 inches. The allowable bearing capacity may be increased by one-third when considering short-term wind and seismic loads.

The bottom of the perimeter edge beam/deepened footing for post tension systems should be deepened a minimum of 12 inches and designed to resist tension forces using either cable or conventional reinforcement, per the structural engineer.

It should be noted that the criteria provided are based on soil support characteristics only. The structural engineer should design the slab and beam reinforcement based on actual loading conditions. We estimate static settlement of foundations designed as recommended in this report to be less than 1-inch total and ½ inch differential over a 40-foot span.

The passive earth pressure may be computed as an equivalent fluid having a density of 250 psf per foot of depth, to a maximum earth pressure of 2,000 psf for footings founded on engineered fill. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.

A moisture and vapor retarding system should be placed below slabs-on-grade where moisture migration through the slab is undesirable. Guidelines for these are provided in the 2019 California Green Building Standards Code (CALGreen) Section 4.505.2, the 2019 CBC Section 1907.1 and ACI 360R-10. The vapor retarder design and construction should also meet the requirements of ASTM E 1643. A portion of the vapor retarder design should be the implementation of a moisture vapor retardant membrane.

It should be realized that the effectiveness of the vapor retarding membrane can be adversely impacted as a result of construction related punctures (e.g., stake penetrations, tears, punctures from walking on the vapor retarder placed atop the underlying aggregate layer, etc.). These occurrences should be limited as much as possible during construction. Thicker membranes are generally more resistant to accidental puncture than thinner ones. Products specifically designed for use as moisture/vapor retarders may also be more puncture resistant. Although the CBC specifies a 6-mil vapor retarder membrane, it is GeoTek's opinion that a minimum 10 mil thick membrane with joints properly overlapped and sealed should be considered, unless otherwise specified by the slab design professional. The membrane should consist of Stego wrap or the equivalent.

Moisture and vapor retarding systems are intended to provide a certain level of resistance to vapor and moisture transmission through the concrete, but do not eliminate it. The acceptable level of moisture transmission through the slab is to a large extent based on the type of flooring used and environmental conditions. Ultimately, the vapor retarding system should be comprised of suitable elements to limited migration of water and reduce transmission of water vapor through the slab to acceptable levels. The selected elements should have suitable properties (i.e. thickness, composition, strength, and permeability) to achieve the desired performance level.

Moisture retarders can reduce, but not eliminate, moisture vapor rise from the underlying soils up through the slab. Moisture retarder systems should be designed and constructed in accordance with applicable American Concrete Institute, Portland Cement Association, Post-Tensioning Concrete Institute, ASTM and California Building Code requirements and guidelines.

GeoTek recommends that a qualified person, such as the flooring contractor, structural engineer, architect, and/or other experts specializing in moisture control within the building be consulted to evaluate the general and specific moisture and vapor transmission paths and associated potential impact on the proposed construction. That person (or persons) should provide recommendations relative to the slab moisture and vapor retarder systems and for migration of potential adverse impact of moisture vapor transmission on various components of the structures, as deemed appropriate.

In addition, the recommendations in this report and our services in general are not intended to address mold prevention; since we, along with geotechnical consultants in general, do not practice in the area of mold prevention. If specific recommendations addressing potential mold issues are desired, then a professional mold prevention consultant should be contacted.

We recommend that control joints be placed in two directions spaced approximately 24 to 36 times the thickness of the slab in inches. These joints are a widely accepted means to control cracks and should be reviewed by the project structural engineer.

6.3.2 Miscellaneous Foundation Recommendations

6.3.2.1 To minimize moisture penetration beneath the slab-on-grade areas, utility trenches should be backfilled with engineered fill, lean concrete or concrete slurry where they intercept the perimeter footing or thickened slab edge.

6.3.2.2 Soils from the footing excavations should not be placed in the slab-on-grade areas unless properly compacted and tested. The excavations should be free of loose/sloughed materials and be neatly trimmed at the time of concrete placement.

6.3.3 Foundation Setbacks

Where applicable, the following setbacks should apply to all foundations. Any improvements not conforming to these setbacks may be subject to lateral movements and/or differential settlements:

- The outside bottom edge of all footings should be set back a minimum of H/3 (where H is the slope height) from the face of any descending slope. The setback should be at least 7 feet and need not exceed 40 feet.
- The bottom of all footings for structures near retaining walls should be deepened so as to extend below a 1:1 projection upward from the bottom inside edge of the wall stem. This applies to the existing retaining walls along the perimeter, if they are to remain.

- The bottom of any proposed foundations for structures should be deepened so as to extend below a 1:1 projection upward from the bottom of the nearest excavation.

6.4 RETAINING WALL DESIGN AND CONSTRUCTION

6.4.1 General Design Criteria

Recommendations presented herein may apply to typical masonry or concrete vertical retaining walls to a maximum height of six feet. Additional review and recommendations should be requested for higher walls.

Retaining wall foundations embedded a minimum of 12 inches into engineered fill should be designed using an allowable bearing capacity of 2,000 psf. An increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind loads).

The passive earth pressure may be computed as an equivalent fluid having a density of 250 psf per foot of depth, to a maximum earth pressure of 2,500 psf. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.

An equivalent fluid pressure approach may be used to compute the horizontal active pressure against the wall. The appropriate fluid unit weights are given in the table below for specific slope gradients of retained materials.

Surface Slope of Retained Materials (H:V)	Equivalent Fluid Pressure (PCF) Select Backfill*
Level	40
2:1	60

*Backfill should consist of soil with an expansion index less than or equal to 50.

The above equivalent fluid weights do not include superimposed loading conditions such as expansive soils, vehicular traffic, structures, seismic conditions or adverse geologic conditions.

As required by code, additional lateral forces induced on retaining walls during an earthquake must be considered for wall design for sites with a Site Class D designation. For level backfill,

an incremental seismic equivalent fluid pressure of 23.1 pcf is recommended, where required. This pressure can be assumed to be a conventional triangular distribution.

6.4.2 Wall Backfill and Drainage

Wall backfill should consist of low expansive (EI<50) soil that should include a minimum one-foot wide section of ¾- to 1-inch clean crushed rock (or approved equivalent). The rock should be placed immediately adjacent to the back of the wall and extend up from the backdrain to within approximately 12 inches of finish grade. The upper 12 inches should consist of compacted on-site materials. The presence of other materials might necessitate revision to the parameters provided and modification of wall designs.

The backfill materials should be placed in lifts no greater than eight inches in thickness and compacted to a minimum of 90 percent relative compaction in accordance with ASTM Test Method D 1557. Proper surface drainage needs to be provided and maintained. Water should not be allowed to pond behind retaining walls. Waterproofing of site walls should be performed where moisture migration through the walls is undesirable.

Retaining walls should be provided with an adequate pipe and gravel back drain system to reduce the potential for hydrostatic pressures to develop. A 4-inch diameter perforated collector pipe (Schedule 40 PVC, or approved equivalent) in a minimum of one cubic foot per linear foot of ¾-inch or one-inch clean crushed rock or equivalent, wrapped in filter fabric should be placed near the bottom of the backfill and be directed (via a solid outlet pipe) to an appropriate disposal area.

Walls from two to four feet in height may be drained using localized gravel packs behind weep holes at 8 feet maximum spacing (e.g. approximately 1.5 cubic feet of gravel in a woven plastic bag). Weep holes should be provided or the head joints omitted in the first course of block extended above the ground surface. However, nuisance water may still collect in front of the wall.

Drain outlets should be maintained over the life of the project and should not be obstructed or plugged by adjacent improvements.

6.4.3 Restrained Retaining Walls

Any retaining wall that will be restrained prior to placing backfill or walls that have male or reentrant corners should be designed for at-rest soil conditions using an equivalent fluid pressure of 65 pcf (very low expansive backfill), plus any applicable surcharge loading. For areas having male or reentrant corners, the restrained wall design should extend a minimum distance

equal to twice the height of the wall laterally from the corner, or as otherwise determined by the structural engineer.

6.4.3.1 Other Design Considerations

- Retaining and garden wall foundation elements should be designed in accordance with building code setback requirements. A minimum horizontal setback distance of five feet as measured from the bottom outside edge of the footing to a sloped face is recommended.
- Wall design should consider the additional surcharge loads from superjacent slopes and/or footings, where appropriate.
- No backfill should be placed against concrete until minimum design strengths are evident by compression tests of cylinders.
- The retaining wall footing excavations, backcuts and backfill materials should be approved by the project geotechnical engineer or their authorized representative.
- Positive separations should be provided in garden walls at horizontal distances not exceeding 20 feet.

6.4.4 Soil Corrosivity

The soil resistivity at this site was tested in the laboratory on two (2) samples collected by our firm. The results of the testing indicate that the soil samples were considered *"mildly corrosive"* to "*moderately corrosive*" (6,097 to 13,400 ohm-cm) to buried ferrous metals in accordance with current standards commonly used by corrosion engineers. We recommend that a corrosion engineer be consulted to determine what corrosion protection may be warranted for the site. The laboratory test results are provided in Appendix B.

6.4.5 Soil Sulfate Content

The sulfate content was determined in the laboratory for two representative soil samples collected by our firm. The results indicate that the water-soluble sulfate for the tested sample was less than 0.1 percent by weight, which is considered "not applicable" (i.e. negligible) as per Table 4.2.1 of ACI 318. Based upon the test result, no special concrete mix design is required for sulfate attack resistance. The laboratory test result is provided in Appendix B.

6.4.6 Import Soils

Import soils should have expansion characteristics similar to the on-site soils. GeoTek also recommends that the proposed import soils be tested for expansion and sulfate potential.

GeoTek should be notified a minimum of 72 hours prior to importing so that appropriate sampling and laboratory testing can be performed.

6.5 PRELIMINARY PAVEMENT DESIGN

A preliminary pavement section has been developed based on assumed traffic loading and our estimate of the pavement subgrade soils following completion of site grading. Given the preliminary nature of the pavement sections presented below, final pavement design should be based on R-value testing of the as-graded soils and the known or assigned Traffic Indexes for the site roadways. Based on the near-surface soil types encountered in our test borings, we estimate that an as-graded R-value of 40 is appropriate for this preliminary design. For this preliminary design, we have assumed a Traffic Index of 5.5. Based on the above discussion, the following preliminary pavement design is presented.

Street	Assumed Traffic Index	Asphaltic Concrete/Aggregate Base (inches)
Interior Streets	5.5	3/6

The final pavement sections are subject to the review and approval by the local jurisdictional agency. Performance of the pavement sections will ultimately be based largely on construction methods, traffic loading and subgrade performance. All aggregate base and the upper 12 inches of subgrade should be compacted to at least 95 percent of the material's maximum dry density, per ASTM D-1557.

All pavement installation, including preparation and compaction of subgrade and base material and placement and rolling of asphaltic concrete, should be done in accordance with the City of Eastvale specifications, and under the observation and testing of GeoTek and a City or County inspector where required.

The aggregate base should consist of crushed rock with an R-Value and gradation in accordance with Crushed Aggregate Base (Section 200-2 of the "Greenbook"). Minimum compaction requirements should be 95 percent for both subgrade and aggregate base (ASTM D 1557). Jurisdictional minimum compaction requirements in excess of the aforementioned minimums may govern.

6.6 CONCRETE CONSTRUCTION

6.6.1 General

Concrete construction should follow the 2019 CBC and ACI guidelines regarding design, mix placement and curing of the concrete. If desired, we could provide quality control testing of the concrete during construction.

6.6.2 Concrete Flatwork

Exterior concrete slabs, sidewalks and driveways should be designed using a four-inch minimum thickness. No specific reinforcement is required from a geotechnical perspective. However, some shrinkage and cracking of the concrete should be anticipated as a result of typical mix designs and curing practices commonly utilized in industrial construction.

Sidewalks and driveways may be under the jurisdiction of the governing agency. If so, jurisdictional design and construction criteria would apply, if more restrictive than the recommendations presented in this report.

Subgrade soils should be pre-moistened prior to placing concrete. The subgrade soils below exterior slabs, sidewalks, driveways, etc. should be pre-saturated to a minimum of 100% of the optimum moisture content to a depth of 12 inches.

All concrete installation, including preparation and compaction of subgrade, should be done in accordance with the City of Eastvale specifications, and under the observation and testing of GeoTek and a City inspector, if necessary.

6.6.3 Concrete Performance

Concrete cracks should be expected. These cracks can vary from sizes that are essentially unnoticeable to more than 1/8 inch in width. Most cracks in concrete while unsightly do not significantly impact long-term performance. While it is possible to take measures (proper concrete mix, placement, curing, control joints, etc.) to reduce the extent and size of cracks that occur, some cracking will occur despite the best efforts to minimize it. Concrete undergoes chemical processes that are dependent on a wide range of variables, which are difficult, at best, to control. Concrete, while seemingly a stable material, is subject to internal expansion and contraction due to external changes over time.

One of the simplest means to control cracking is to provide weakened control joints for cracking to occur along. These do not prevent cracks from developing; they simply provide a relief point for the stresses that develop. These joints are a widely accepted means to control

cracks but are not always effective. Control joints are more effective the more closely spaced they are. GeoTek suggests that control joints be placed in two directions and located a distance apart approximately equal to 24 to 36 times the slab thickness.

Exterior concrete flatwork (patios, walkways, driveways, etc.) is often some of the most visible aspects of site development. They are typically given the least level of quality control, being considered "non-structural" components. We suggest that the same standards of care be applied to these features as to the structures themselves.

6.7 POST CONSTRUCTION CONSIDERATIONS

6.7.1 Landscape Maintenance and Planting

Water has been shown to weaken the inherent strength of soil, and slope stability is significantly reduced by overly wet conditions. Positive surface drainage away from graded slopes should be maintained and only the amount of irrigation necessary to sustain plant life should be provided for planted slopes. Controlling surface drainage and runoff and maintaining a suitable vegetation cover can minimize erosion. Plants selected for landscaping should be lightweight, deep-rooted types that require little water and are capable of surviving the prevailing climate.

Overwatering should be avoided. Care should be taken when adding soil amendments to avoid excessive watering. Leaching as a method of soil preparation prior to planting is not recommended. An abatement program to control ground-burrowing rodents should be implemented and maintained. This is critical as burrowing rodents can decreased the long-term performance of slopes.

It is common for planting to be placed adjacent to structures in planter or lawn areas. This will result in the introduction of water into the ground adjacent to the foundations. This type of landscaping should be avoided. Planters within 10 feet of the buildings should be above ground and underlain by a concrete slab. Waterproofing of the foundation and/or subdrains may be warranted and advisable. We could discuss these issues, if desired, when plans are made available.

6.7.2 Drainage

The need to maintain proper surface drainage and subsurface systems cannot be overly emphasized. Positive site drainage should be maintained at all times. Drainage should not flow uncontrolled down any descending slope. Water should be directed away from foundations

and not allowed to pond or seep into the ground adjacent to the footings and floor-slabs. Pad drainage should be directed toward approved areas and not be blocked by other improvements.

Roof gutters should be installed that will direct the collected water at least 20 feet from the buildings.

It is the owner's responsibility to maintain and clean drainage devices on or contiguous to their lot. In order to be effective, maintenance should be conducted on a regular and routine schedule and necessary corrections made prior to each rainy season.

6.8 PLAN REVIEW AND CONSTRUCTION OBSERVATIONS

We recommend that site grading, specifications, retaining wall/shoring plans and foundation plans be reviewed by this office prior to construction to check for conformance with the recommendations of this report. Additional recommendations may be necessary based on these reviews. We also recommend that GeoTek representatives be present during site grading and foundation construction to check for proper implementation of the geotechnical recommendations. The owner/developer should have GeoTek's representative perform at least the following duties:

- Observe site clearing and grubbing operations for proper removal of unsuitable materials.
- Observe and test bottom of removals prior to fill placement.
- Evaluate the suitability of on-site and import materials for fill placement and collect soil samples for laboratory testing when necessary.
- Observe the fill for uniformity during placement including utility trenches.
- Test the fill for field density and relative compaction.
- Test the near-surface soils to verify proper moisture content.
- Observe and probe foundation excavations to confirm suitability of bearing materials.

If requested, a construction observation and compaction report can be provided by GeoTek, which can comply with the requirements of the governmental agencies having jurisdiction over the project. We recommend that these agencies be notified prior to commencement of construction so that necessary grading permits can be obtained.

7. LIMITATIONS

This evaluation does not and should in no way be construed to encompass any areas beyond the specific area of proposed construction as indicated to us by the client. Further, no evaluation of any existing site improvements is included. The scope is based on our understanding of the project and the client's needs, our proposal (Proposal No. 0804120-CR) dated August 13, 2020 and geotechnical engineering standards normally used on similar projects in this region.

The materials observed on the project site appear to be representative of the area; however, soil and bedrock materials vary in character between excavations and natural outcrops or conditions exposed during site construction. Site conditions may vary due to seasonal changes or other factors. GeoTek, Inc. assumes no responsibility or liability for work, testing or recommendations performed or provided by others.

Since our recommendations are based on the site conditions observed and encountered, and laboratory testing, our conclusions and recommendations are professional opinions that are limited to the extent of the available data. Observations during construction are important to allow for any change in recommendations found to be warranted. These opinions have been derived in accordance with current standards of practice and no warranty is expressed or implied. Standards of practice are subject to change with time.

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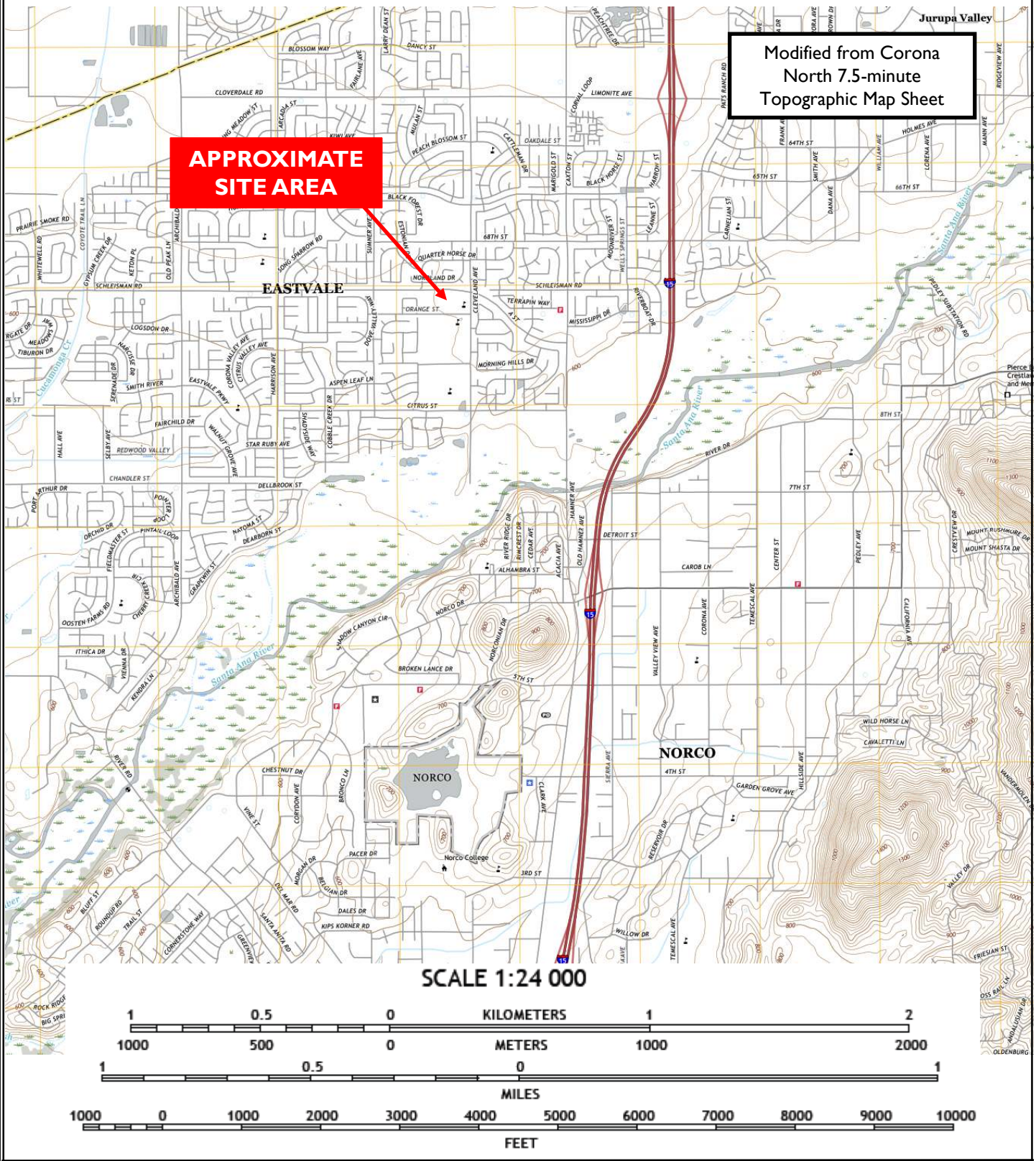
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MLC Holdings, Inc.
APN 152-040-003
Eastvale, Riverside County, California

GeoTek Project No. 2603-CR

NORTH

Figure 1
Site
Location and
General Topography
Map

GEOTEK



MLC Holdings, Inc.
APNs 152-040-003
Eastvale, Riverside County, California

Project No. 2603-CR

NORTH

Figure 2

Boring Location Map

GEOTEK

APPENDIX A

LOGS OF EXPLORATORY BORINGS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

A - FIELD TESTING AND SAMPLING PROCEDURES

The Modified Split-Barrel Sampler (Ring)

The ring sampler is driven into the ground in accordance with ASTM Test Method D 3550. The sampler, with an external diameter of 3.0 inches, is lined with 1-inch long, thin brass rings with inside diameters of approximately 2.4 inches. The sampler is typically driven into the ground 12 or 18 inches with a 140-pound hammer free falling from a height of 30 inches. Blow counts are recorded for every 6 inches of penetration as indicated on the log of boring. The samples are removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

Bulk Samples (Large)

These samples are normally large bags of earth materials over 20 pounds in weight collected from the field by means of hand digging or exploratory cuttings.

Bulk Samples (Small)

These are plastic bag samples which are normally airtight and contain less than 5 pounds in weight of earth materials collected from the field by means of hand digging or exploratory cuttings. These samples are primarily used for determining natural moisture content and classification indices.

B - BORING LOG LEGEND

The following abbreviations and symbols often appear in the classification and description of soil and rock on the log of borings:

SOILS

USCS	Unified Soil Classification System
f-c	Fine to coarse
f-m	Fine to medium

GEOLOGIC

B: Attitudes	Bedding: strike/dip
J: Attitudes	Joint: strike/dip
C: Contact line	
……..	Dashed line denotes USCS material change
———	Solid Line denotes unit / formational change
———	Thick solid line denotes end of the boring

(Additional denotations and symbols are provided on the log of boring)

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		15 39 50/5"		SC	Clayey f-c SAND, brown, moist, dense, trace fine to coarse grained sand	10.7	119.9	EI, MD, SR, SH EI=22
5		20 37 50			Clayey f-c SAND, brown, moist, hard	10.5	130.6	Collapse
		20 41 43		CL/ML	Silty CLAY to clayey SILT, light brown, slightly moist to moist, hard, some caliche	20.8	77.0	
10		9 11 11		ML	Clayey SILT, light brown, moist, stiff, some caliche			
15		8 17 28		CL	Silty CLAY to CLAY, brown to reddish brown, moist, very stiff			
20		10 18 29		ML	Clayey SILT, light brown, mosit, hard, trace fine to coarse grained sand, trace fine gravel			
					BORING TERMINATED AT 21.5 FEET No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-2

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		7 11 17		SM	Silty f-c SAND, light brown, slightly moist, medium dense, trace fine gravel	2.6	120.1	
5		4 7 10			Silty f-c SAND, light brown, slightl moist, medium dense, few gravel	2.3	114.2	Collapse
		4 7 7		SM/SP	Silty f-c SAND to f-c SAND, light brown, slightly moist, loose	3.9	111.6	
10		7 12 27			Same as above, medium dense			
15		6 50/3"		SM	Silty f-c SAND, light brown, slightly moist to moist, very dense, some gravel			
20		17 33 35		SM/SP	Silty f-c SAND to f-c SAND, light brown, dense, trace gravel			
25		12 16 27		SM/CL	Silty f-c SAND to silty CLAY, brown, moist, dense/hard			
30		6 15 26		SM	Silty f-c SAND, brown, moist, dense	15.5		SA, AL % Passing #200 = 12.1 LL=29; Non-Plastic

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-2 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					continued:			
35		10 19 27		SM	Silty f-m SAND, grayish brown, slightly moist to moist, dense			
40		8 9 28		SM/SC	Silty to clayey f-m SAND, grayish brown, moist, dense	25.5		SA, AL % Passing #200 = 18.3 LL=42; PL=25; PI=16
45		14 15 22		ML	Clayey SILT, brown, moist, hard			
50		22 31 49		SM	Silty f-c SAND, light grayish brown, moist, very dense, trace gravel			
					BORING TERMINATED AT 51.5 FEET No groundwater encountered Boring backfilled with soil cuttings			

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-3

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		6 18 18		SM/ML	Silty f-c SAND to f-c sandy SILT, light brown, slightly moist, medium dense/stiff, some gravel	2.5	117.8	
5		9 12 14		SM/SP	Silty gravelly f-c SAND, light gray, dry, medium dense	0.8	118.8	
		6 11 15			Same as above	1.5	114.6	
10								
		10 21 21		SP	Gravelly f-c SAND, light brownish gray, slightly moist, medium dense			
15								
		9 12 21		SM	Silty f-c SAND, light brown, moist, medium dense			
20					**BORING TERMINATED AT 20.0 FEET** No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring; ---SPT; ---Small Bulk; ---Large Bulk; ---No Recovery; ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-4

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		13 17 20		SM/ML	Silty f-c SAND to f-c sandy SILT, light brown, slightly moist, medium dense/stiff, some gravel			EI, MD, SR EI=0
5		14 25 31			Same as above, dense	1.2	123.8	
		14 25 37		CL	Silty CLAY, brown, moist, hard, some caliche	13.8	122.3	Collapse
10		14 36 50/5"			Silty CLAY to CLAY, brown to grayish brown, moist, hard			
15		14 26 26		ML	Clayey SILT to f sandy SILT, brown, moist, hard			
20		26 46 50/5"		SM	Silty f-m SAND, grayish brown, moist, very dense			
25					**BORING TERMINATED AT 21.5 FEET** No groundwater encountered Boring backfilled with soil cuttings			
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-5 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		5 10 14		ML	Clayey f sandy SILT, light brown, slightly moist, stiff, trace coarse grained sand	3.0	112.0	
5		9 16				3.2	116.6	
		29		SP	Gravelly silty f-c SAND, light grayish brown, slightly moist, dense			
		21						
		50/5"		SM/SC	Silty clayey f-c SAND, brown, moist, very dense	5.8	113.0	
10		13 24 19			Same as above, medium dense			
15		11 14 22		ML	F sandy SILT, brown, moist, very stiff, trace coarse grained sand, trace fine gravel			
20		28 50/6"		SM/SP	Silty gravelly f-c SAND, grayish brown, slightly moist, very dense			
					BORING TERMINATED AT 21.0 FEET No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	BORING NO.: B-6 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		21 43 50/4"		SM/SC	Silty clayey f-m SAND, brown, moist, very dense	8.6	126.0	
5		26 50/5"			Same as above	6.2	115.7	
		19 37 40		CL/ML	Silty CLAY to clayey SILT, brown, moist, hard	9.9	128.4	
10								
		18 50/6"		ML	Clayey SILT, orangish brown to brown, moist, hard			
15								
		18 43 46		CL	F-c sandy CLAY, brown to orangish brown, moist, hard			
20					**BORING TERMINATED AT 20.0 FEET** No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

APPENDIX B

LABORATORY TEST RESULTS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

SUMMARY OF LABORATORY TESTING

Classification

Soils were classified visually in general accordance with the Unified Soil Classification System (ASTM Test Method D 2487). The soil classifications are shown on the logs of exploratory borings in Appendix A.

Collapse

Collapse testing was performed on selected samples of the site soils according to ASTM Test Method D 4546. The results of this testing are presented in Appendix B.

Direct Shear

Shear testing was performed in a direct shear machine of the strain-control type in general accordance with ASTM Test Method D 3080. The rate of deformation is approximately 0.035 inch per minute. The samples were sheared under varying confining loads in order to determine the coulomb shear strength parameters, angle of internal friction and cohesion. The results of the testing are presented in Appendix B.

Expansion Index

Expansion Index testing was performed on two representative soil samples. Testing was performed in general accordance with ASTM Test Method D 4829. The results of the testing are provided below.

Boring No.	Depth (ft.)	Soil Type	Expansion Index	Classification
B-1	1-5	Clayey Sand	22	Low
B-4	1-5	Silty Sand	1	Very Low

Moisture-Density Relationship

Laboratory testing was performed on representative site samples collected during the recent subsurface exploration. The laboratory maximum dry density and optimum moisture content for the sample tested was determined in general accordance with test method ASTM Test Procedure D 1557. The results are included in Appendix B.

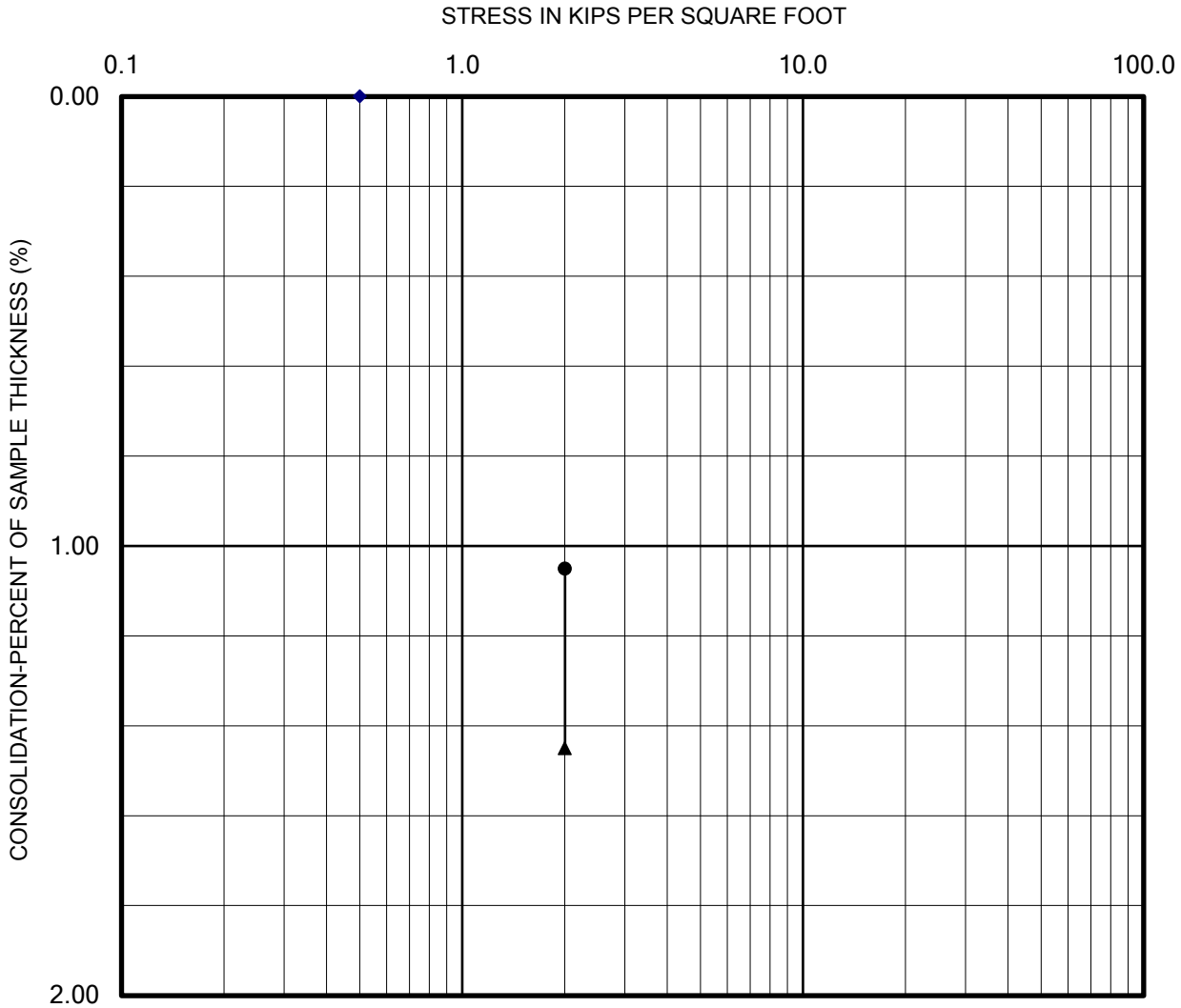
Percent of Soil Finer than No. 200 Sieve

Tests to determine the percent of soil finer than No. 200 sieve were performed on selected samples obtained from the properties. The tests were conducted in general accordance with ASTM D1140. The test results are shown on the logs of borings in Appendix A.

Sulfate Content, Resistivity and Chloride Content

Testing to determine the water-soluble sulfate content, resistivity testing and the chloride content was performed by others. The results of the testing are provided below and in Appendix B.

Boring No.	Depth (ft.)	pH ASTM G51	Chloride ASTM D4327 (ppm)	Sulfate ASTM D4327 (% by weight)	Resistivity ASTM G187 (ohm-cm)
B-1	1-5	8.6	9.4	0.0009	6,097
B-4	1-5	7.4	7.6	0.0015	13,400



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

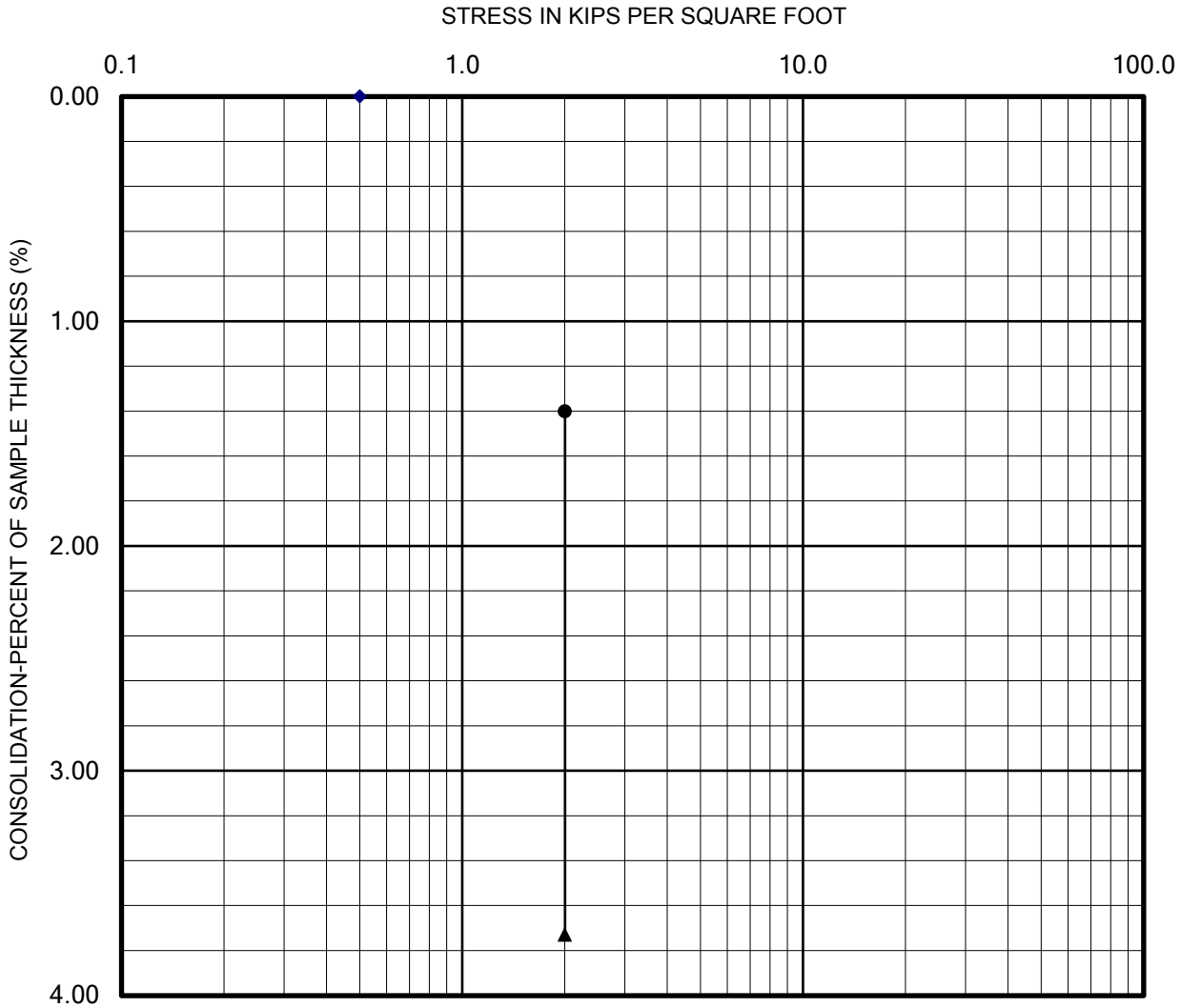
CHECKED BY: DA	Lab: Corona
PROJECT NO.: 2603CR	Date:1-18-20

COLLAPSE REPORT

Sample: B-1 @ 5 feet

Eastvale, California

Plate B-1



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

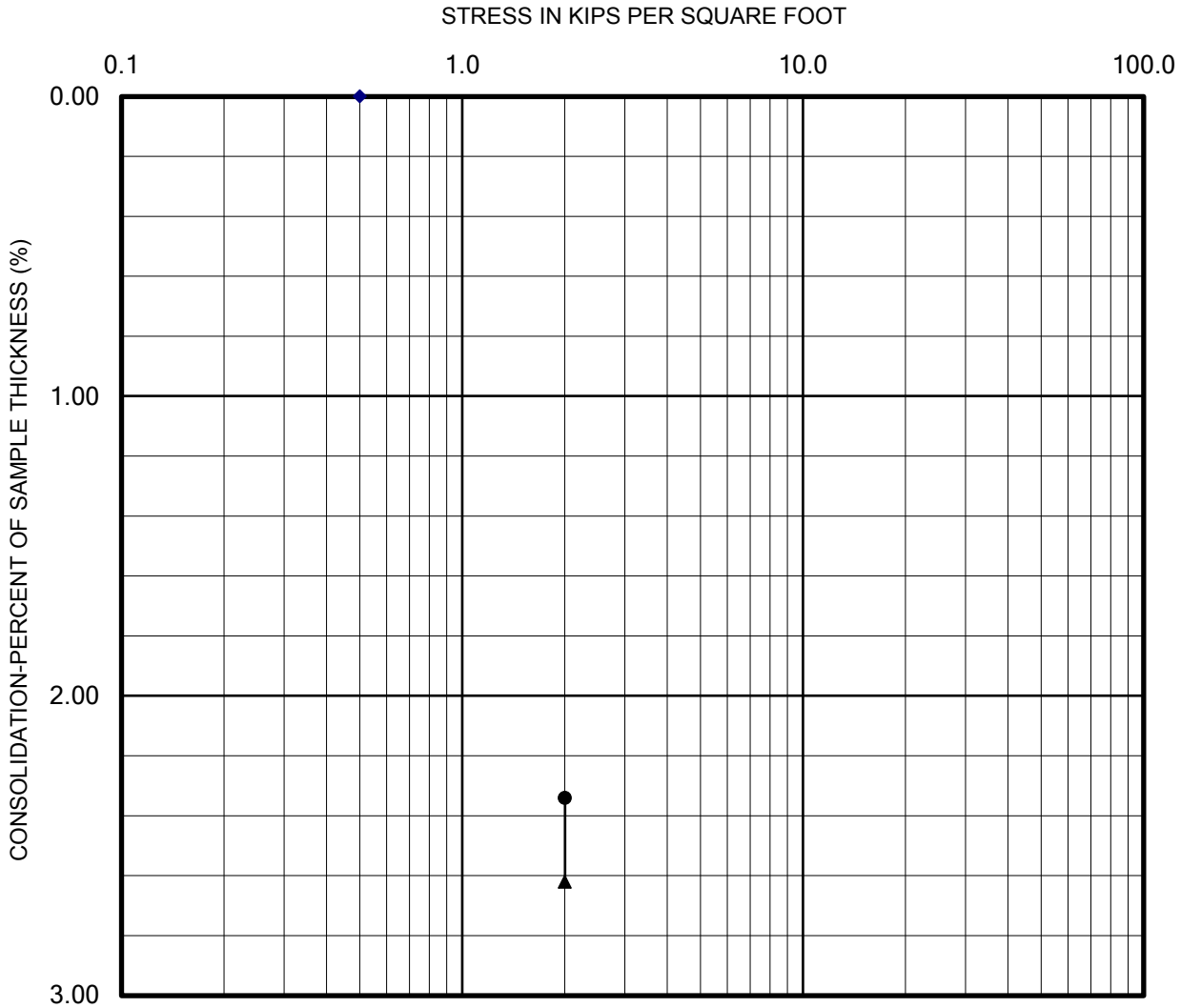
CHECKED BY: DA	Lab: Corona
PROJECT NO.: 2603CR	Date: 1-18-21

COLLAPSE REPORT

Sample: B-2 @ 4 feet

Eastvale, California

Plate B-2



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

CHECKED BY: DA	Lab: Corona
PROJECT NO.: 2603CR	Date: 1-18-21

COLLAPSE REPORT

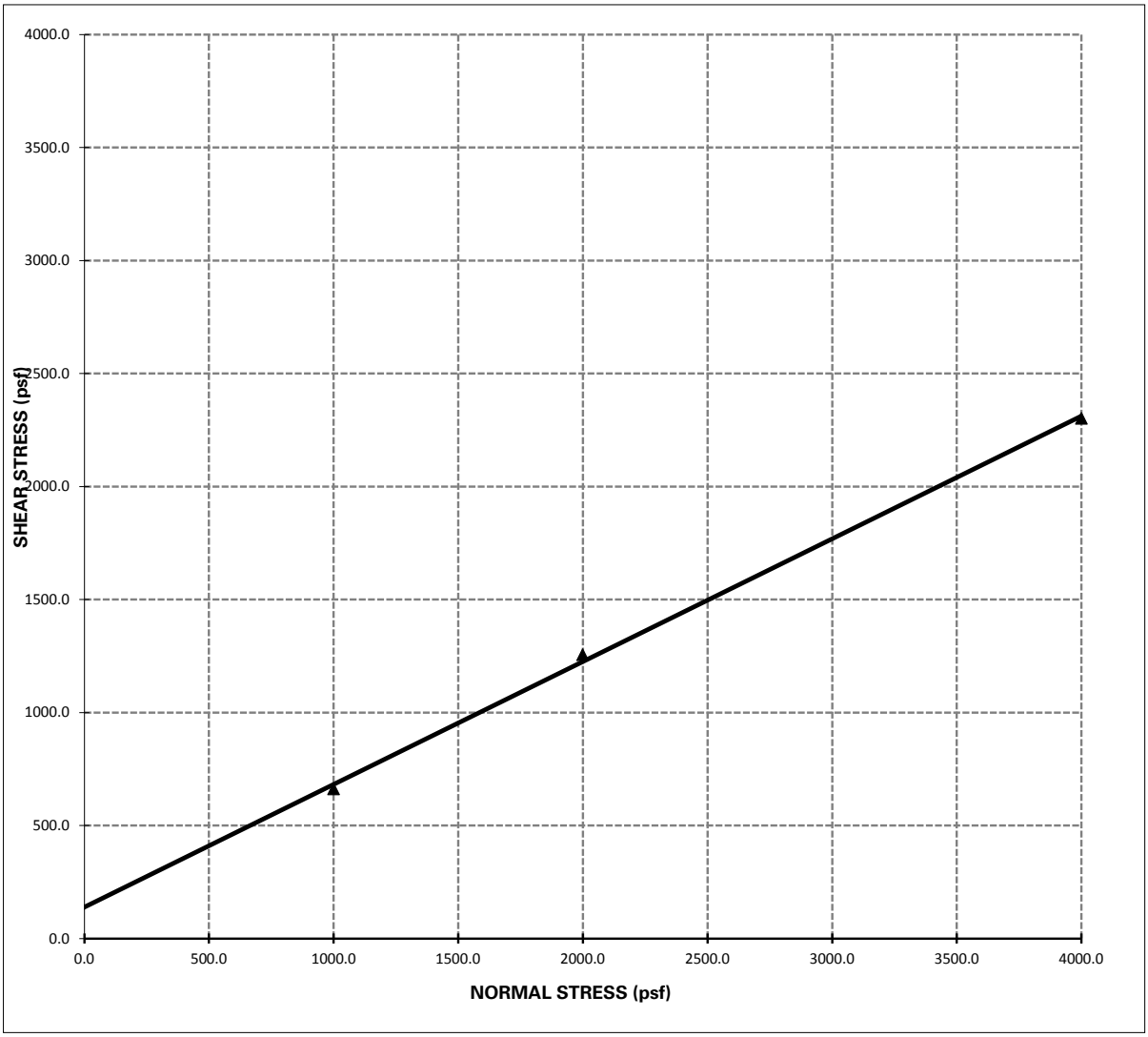
Sample: B-4 @ 7 feet

Eastvale, California

Plate B-3

DIRECT SHEAR TEST

Project Name:	MLC Holdings	***Sample Location:***	B1 @ 0-5 feet
Project Number:	2603-CR	***Date Tested:***	1/25/2021



Shear Strength: **Φ = 29 °, C = 139 psf**

Notes: 1 - The soil specimen used in the shear box was a ring sample remolded to approximately 90% relative compaction from a bulk sample collected during the field investigation.

2 - The above reflect direct shear strength at saturated conditions.

3 - The tests were run at a shear rate of 0.035 in/min.

GEOTEK

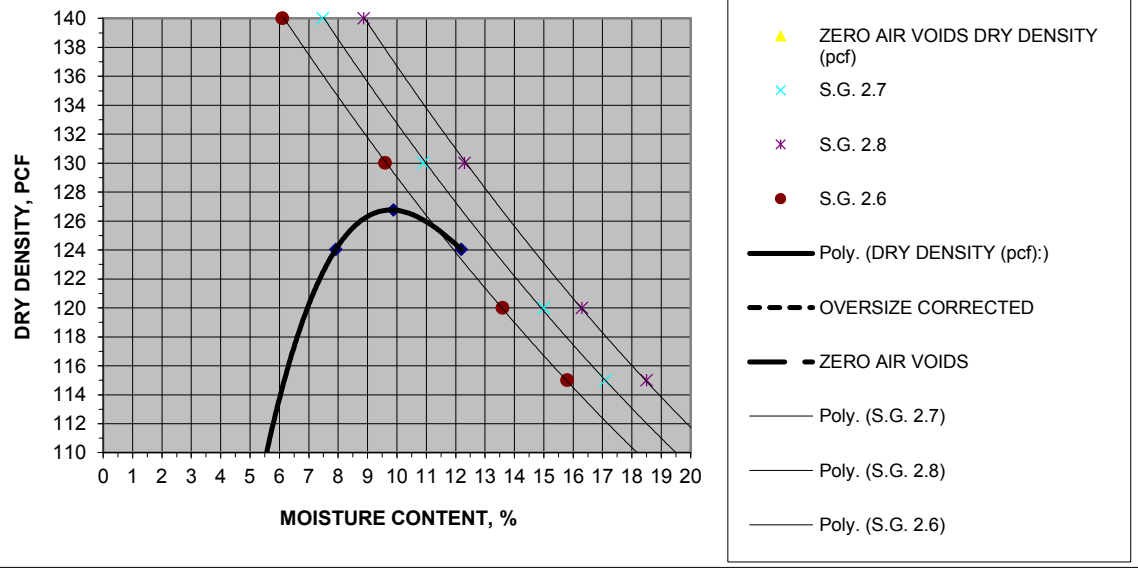
MOISTURE/DENSITY RELATIONSHIP

Client:	MLC Holdings	**Job No.:**	2603-CR
Project:	APN 152-040-003 Eastvale	**Lab No.:**	Corona
Location:	-		
Material Type:	Brown clayey fine to coarse Sand		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B1 @ 1-5'		
	-		
Sampled By:	MB	**Date Sampled:**	1/6/2021
Received By:	DA	**Date Received:**	1/6/2021
Tested By:	FS	**Date Tested:**	1/14/2021
Reviewed By:	RJ	**Date Reviewed:**	1/15/2021

Test Procedure: ASTM D1557 **Method:** A

Oversized Material (%): 0.0 **Correction Required:** [ ] yes [x] no

MOISTURE/DENSITY RELATIONSHIP CURVE



MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	127.0	**@ Optimum Moisture, %**	10.0
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

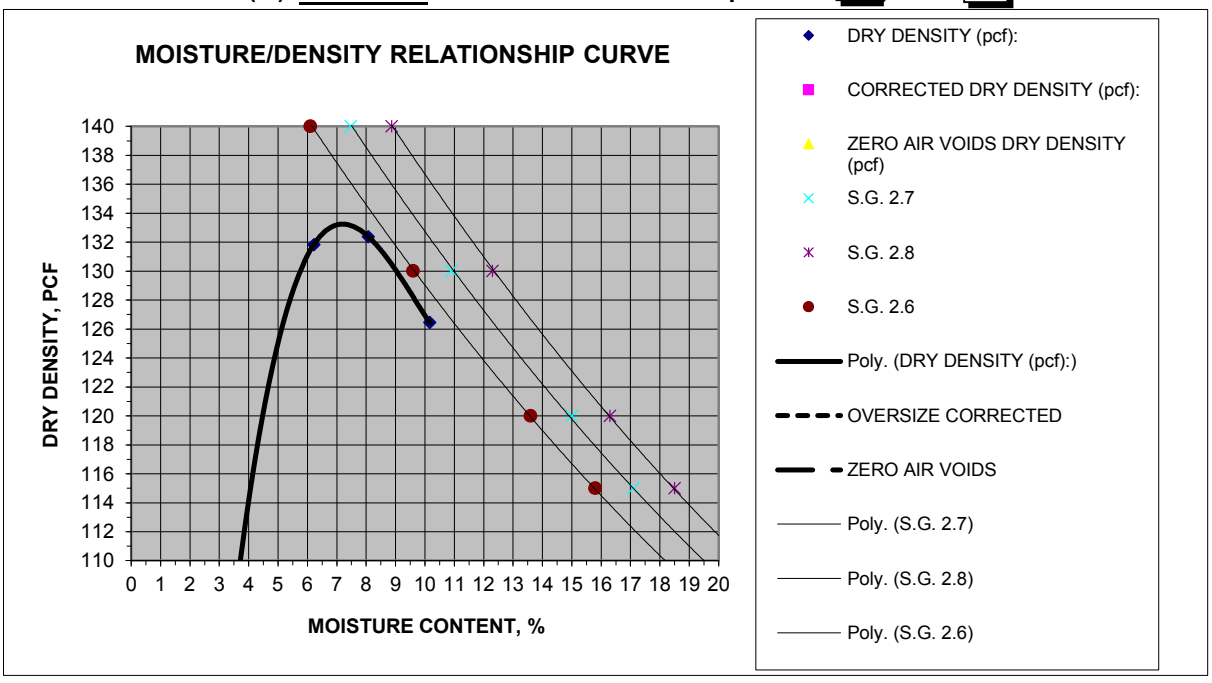
GEOTEK

MOISTURE/DENSITY RELATIONSHIP

Client:	MLC Holdings	**Job No.:**	2603-CR
Project:	APN 152-040-003 Eastvale	**Lab No.:**	Corona
Location:	-		
Material Type:	Silty f-c SAND		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B4 @ 1-5'		
	-		
Sampled By:	DW	**Date Sampled:**	1/6/2021
Received By:	DA	**Date Received:**	1/6/2021
Tested By:	FS	**Date Tested:**	1/15/2021
Reviewed By:	RJ	**Date Reviewed:**	1/18/2021

Test Procedure: ASTM D1557 **Method:** A

Oversized Material (%): 0.0 **Correction Required:** [ ] yes [x] no



MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	133.0	**@ Optimum Moisture, %**	7.5
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

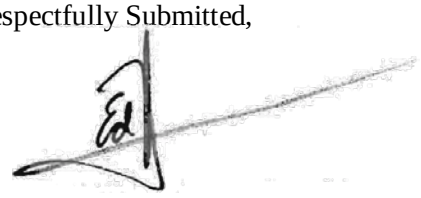
Results Only Soil Testing for APN152-040-0003

January 21, 2021

Prepared for:
Anna Scott
GeoTek, Inc.
1548 North Maple Street
Corona, CA 92280
ascott@geotekusa.com

Project X Job#: S210119C
Client Job or PO#: 2603-CR

Respectfully Submitted,



Eduardo Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com



Soil Analysis Lab Results

Client: GeoTek, Inc.
Job Name: APN152-040-0003
Client Job Number: 2603-CR
Project X Job Number: S210119C
January 19, 2021

	Method	ASTM D4327		ASTM D4327		ASTM G187		ASTM D4972	ASTM G200	SM 4500-S2-D	ASTM D4327	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D4327	ASTM D4327
Bore# / Description	**Depth**	**Sulfates** SO_4^{2-}		**Chlorides** Cl^-		**Resistivity** As Rec'd | Minimum		**pH**	**Redox**	**Sulfide** S^{2-}	**Nitrate** NO_3^-	**Ammonium** NH_4^+	**Lithium** Li^+	**Sodium** Na^+	**Potassium** K^+	**Magnesium** Mg^{2+}	**Calcium** Ca^{2+}	**Fluoride** F_2^{--}	**Phosphate** PO_4^{3-}
	(ft)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(Ohm-cm)	(Ohm-cm)		(mV)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
B1	1-5	15.7	0.0016	9.4	0.0009	93,800	6,097	8.6	130	<0.01	4.1	16.9	0.02	41.2	1.2	17.7	81.8	2.6	3.8
B4	1-5	14.8	0.0015	7.6	0.0008	221,100	13,400	7.4	129	<0.01	11.8	12.3	0.05	18.3	2.4	12.4	60.9	0.9	7.1

Cations and Anions, except Sulfide and Bicarbonate, tested with Ion Chromatography
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
ND = 0 = Not Detected | NT = Not Tested | Unk = Unknown
Chemical Analysis performed on 1:3 Soil-To-Water extract

APPENDIX C

INFILTRATION TEST RESULTS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

PERCOLATION DATA SHEET

Project: EASTVALE, **Job No.:** 2603CL.

Test Hole No.: I-1 **Tested By:** DRW, **Date:** 1/8/21.

Depth of Hole As Drilled: 60" **Before Test:** 60 **After Test:** 60.

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
1	10:43 / 11:08	25	60	20	10	10"		
2	11:08 / 11:33	25	60	20	12.1	7.9		
3	11:34 / 11:44	10	60	20	17.0	3.0		
4	11:44 / 11:54	10	60	20	17.2	2.8		
5	11:54 / 12:04	10	60	20	17.5	2.5		
6	12:04 / 12:14	10	60	20	17.8	2.2		
7	12:14 / 12:24	10	60	20	17.9	2.1		
8	12:24 / 12:34	10	60	20	17.9	2.1		
	/							
	/							

PERCOLATION DATA SHEET

Project: EASTVALE, **Job No.:** 2603-CR.

Test Hole No.: I-2 **Tested By:** DRW, **Date:** 1/8/21.

Depth of Hole As Drilled: 60" **Before Test:** 60" **After Test:** 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	10:45 / 11:10	25	60	20	3.7	16.3		
	11:10 / 11:35	25	60	20	7.0	13.0		
	11:35 / 11:45	10	60	20	14.5	5.5		
	11:45 / 11:55	10	60	20	15.0	5.0		
	11:55 / 12:05	10	60	20	15.3	4.7		
	12:05 / 12:15	10	60	20	15.4	4.6		
	12:15 / 12:25	10	60	20	15.6	4.4		
	12:25 / 12:35	10	60	20	15.6	4.4		
	/							
	/							

Client:	**MLC Holdings Inc.**
Project:	**APNs 152-040-003**
Project No:	**2603-CR**
Date:	**1/8/2021**

Boring No. **I-1**

Percolation Rate (Porchet Method)

Time Interval, Δt =	10
Final Depth to Water, D_F =	42.1
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	17.9
$\Delta H = \Delta D = H_O - H_F$ =	2.1
$H_{avg} = (H_O+H_F)/2$ =	18.95

I_t = 1.20 **Inches per Hour**

GEOTEK

Client:	**MLC Holdings Inc.**
Project:	**APNs 152-040-003**
Project No:	**2603-CR**
Date:	**1/8/2021**

Boring No. **I-2**

Percolation Rate (Porchet Method)

Time Interval, Δt =	10
Final Depth to Water, D_F =	44.4
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	15.6
$\Delta H = \Delta D = H_O - H_F$ =	4.4
$H_{avg} = (H_O+H_F)/2$ =	17.8

I_t = 2.67 **Inches per Hour**

GEOTEK

APPENDIX D

LIQUEFACTION & SEISMIC SETTLEMENT ANALYSIS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

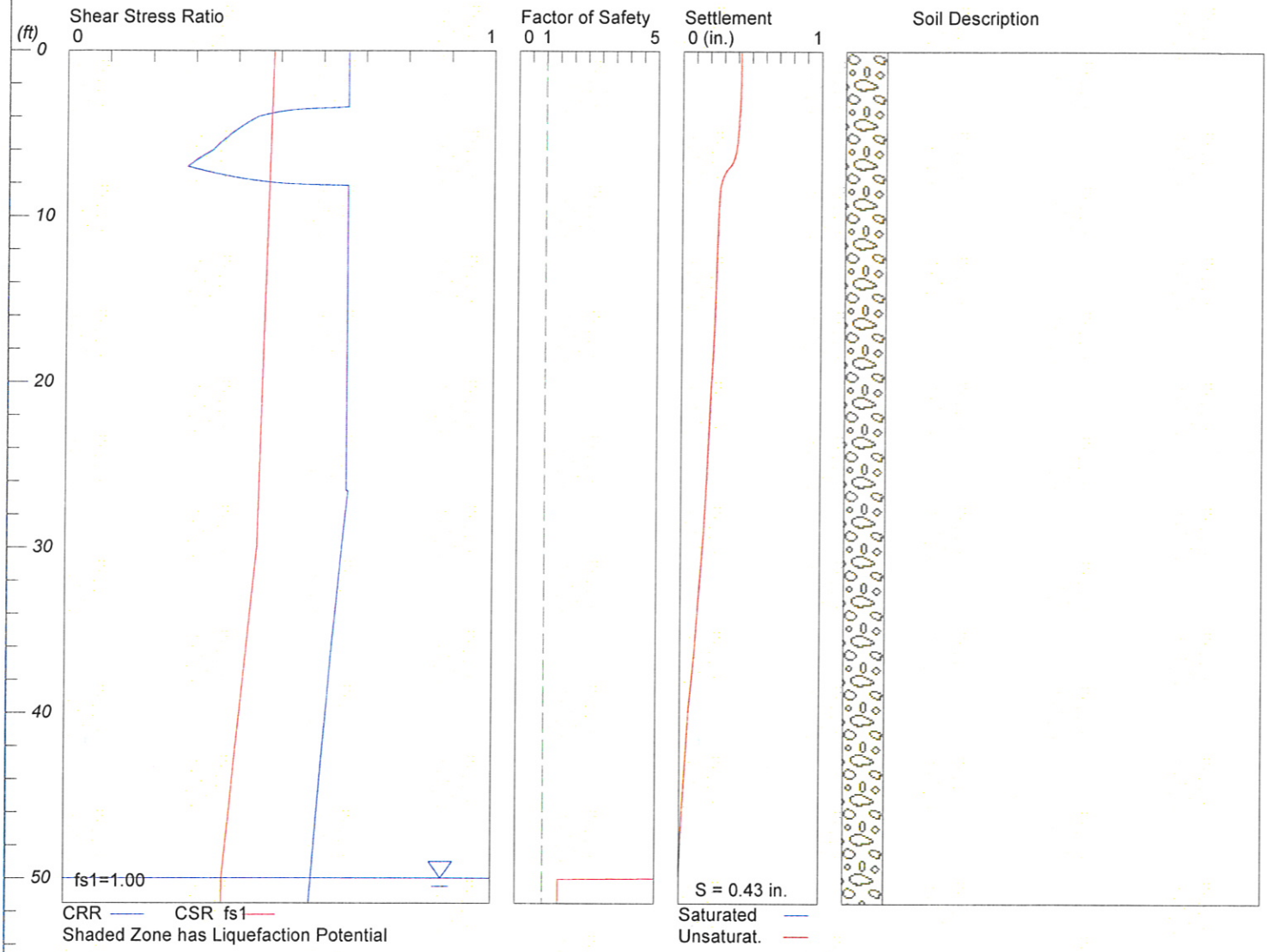
GEOTEK

LIQUEFACTION ANALYSIS

2603-CR

Hole No.=B-1 Water Depth=50 ft

Magnitude=6.73
Acceleration=0.747g



LiquefyPro CivilTech Software USA www.civiltech.com

****

LIQUEFACTION ANALYSIS SUMMARY

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Font: Courier New, Regular, Size 8 is recommended for this report.
Licensed to , 1/27/2021 8:42:35 AM

Input File Name: UNTITLED
Title: 2603-CR
Subtitle: Eastvale

Surface Elev.=
Hole No.=B-1
Depth of Hole= 51.50 ft
Water Table during Earthquake= 50.00 ft
Water Table during In-Situ Testing= 70.00 ft
Max. Acceleration= 0.75 g
Earthquake Magnitude= 6.73

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=51.50 ft
Water Table during Earthquake= 50.00 ft
Water Table during In-Situ Testing= 70.00 ft
Max. Acceleration=0.75 g
Earthquake Magnitude=6.73
No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	18.00	125.00	15.00
4.00	11.00	120.00	15.00
7.00	9.00	115.00	10.00
10.00	25.00	120.00	10.00
15.00	65.00	125.00	15.00
20.00	44.00	125.00	10.00
25.00	43.00	125.00	40.00
30.00	41.00	125.00	12.00
35.00	46.00	125.00	15.00
40.00	37.00	125.00	18.00
45.00	37.00	125.00	55.00
50.00	80.00	130.00	15.00

Output Results:

Settlement of Saturated Sands=0.00 in.
Settlement of Unsaturated Sands=0.43 in.
Total Settlement of Saturated and Unsaturated Sands=0.43 in.
Differential Settlement=0.214 to 0.282 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.66	0.49	5.00	0.00	0.43	0.43
1.00	0.66	0.48	5.00	0.00	0.43	0.43
2.00	0.66	0.48	5.00	0.00	0.42	0.42
3.00	0.66	0.48	5.00	0.00	0.42	0.42
4.00	0.45	0.48	5.00	0.00	0.41	0.41
5.00	0.39	0.48	5.00	0.00	0.41	0.41
6.00	0.34	0.48	5.00	0.00	0.39	0.39
7.00	0.28	0.48	5.00	0.00	0.34	0.34
8.00	0.50	0.48	5.00	0.00	0.29	0.29
9.00	0.66	0.48	5.00	0.00	0.27	0.27
10.00	0.66	0.47	5.00	0.00	0.27	0.27
11.00	0.66	0.47	5.00	0.00	0.26	0.26
12.00	0.66	0.47	5.00	0.00	0.26	0.26
13.00	0.66	0.47	5.00	0.00	0.25	0.25
14.00	0.66	0.47	5.00	0.00	0.25	0.25
15.00	0.66	0.47	5.00	0.00	0.25	0.25
16.00	0.66	0.47	5.00	0.00	0.24	0.24
17.00	0.66	0.47	5.00	0.00	0.24	0.24
18.00	0.66	0.47	5.00	0.00	0.24	0.24
19.00	0.66	0.46	5.00	0.00	0.23	0.23
20.00	0.66	0.46	5.00	0.00	0.22	0.22

21.00	0.66	0.46	5.00	0.00	0.22	0.22
22.00	0.66	0.46	5.00	0.00	0.21	0.21
23.00	0.66	0.46	5.00	0.00	0.21	0.21
24.00	0.66	0.46	5.00	0.00	0.20	0.20
25.00	0.66	0.46	5.00	0.00	0.20	0.20
26.00	0.66	0.46	5.00	0.00	0.19	0.19
27.00	0.66	0.45	5.00	0.00	0.18	0.18
28.00	0.66	0.45	5.00	0.00	0.18	0.18
29.00	0.65	0.45	5.00	0.00	0.17	0.17
30.00	0.65	0.45	5.00	0.00	0.16	0.16
31.00	0.65	0.45	5.00	0.00	0.15	0.15
32.00	0.64	0.44	5.00	0.00	0.14	0.14
33.00	0.64	0.44	5.00	0.00	0.13	0.13
34.00	0.64	0.44	5.00	0.00	0.13	0.13
35.00	0.63	0.43	5.00	0.00	0.12	0.12
36.00	0.63	0.43	5.00	0.00	0.11	0.11
37.00	0.62	0.42	5.00	0.00	0.10	0.10
38.00	0.62	0.42	5.00	0.00	0.09	0.09
39.00	0.62	0.42	5.00	0.00	0.08	0.08
40.00	0.61	0.41	5.00	0.00	0.06	0.06
41.00	0.61	0.41	5.00	0.00	0.06	0.06
42.00	0.61	0.40	5.00	0.00	0.05	0.05
43.00	0.60	0.40	5.00	0.00	0.04	0.04
44.00	0.60	0.40	5.00	0.00	0.04	0.04
45.00	0.60	0.39	5.00	0.00	0.03	0.03
46.00	0.59	0.39	5.00	0.00	0.02	0.02
47.00	0.59	0.38	5.00	0.00	0.02	0.02
48.00	0.59	0.38	5.00	0.00	0.01	0.01
49.00	0.59	0.38	5.00	0.00	0.01	0.01
50.00	0.58	0.37	5.00	0.00	0.00	0.00
51.00	0.58	0.37	1.56	0.00	0.00	0.00

---

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

APPENDIX E

GENERAL GRADING GUIDELINES

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

GENERAL GRADING GUIDELINES

Guidelines presented herein are intended to address general construction procedures for earthwork construction. Specific situations and conditions often arise which cannot reasonably be discussed in general guidelines, when anticipated these are discussed in the text of the report. Often unanticipated conditions are encountered which may necessitate modification or changes to these guidelines. It is our hope that these will assist the contractor to more efficiently complete the project by providing a reasonable understanding of the procedures that would be expected during earthwork and the testing and observation used to evaluate those procedures.

General

Grading should be performed to at least the minimum requirements of governing agencies, Chapters 18 and 33 of the Uniform Building Code, CBC (2019) and the guidelines presented below.

Preconstruction Meeting

A preconstruction meeting should be held prior to site earthwork. Any questions the contractor has regarding our recommendations, general site conditions, apparent discrepancies between reported and actual conditions and/or differences in procedures the contractor intends to use should be brought up at that meeting. The contractor (including the main onsite representative) should review our report and these guidelines in advance of the meeting. Any comments the contractor may have regarding these guidelines should be brought up at that meeting.

Grading Observation and Testing

1. Observation of the fill placement should be provided by our representative during grading. Verbal communication during the course of each day will be used to inform the contractor of test results. The contractor should receive a copy of the "Daily Field Report" indicating results of field density tests that day. If our representative does not provide the contractor with these reports, our office should be notified.
2. Testing and observation procedures are, by their nature, specific to the work or area observed and location of the tests taken, variability may occur in other locations. The contractor is responsible for the uniformity of the grading operations; our observations and test results are intended to evaluate the contractor's overall level of efforts during grading. The contractor's personnel are the only individuals participating in all aspect of site work. Compaction testing and observation should not be considered as relieving the contractor's responsibility to properly compact the fill.
3. Cleanouts, processed ground to receive fill, key excavations, and subdrains should be observed by our representative prior to placing any fill. It will be the contractor's responsibility to notify our representative or office when such areas are ready for observation.

4. Density tests may be made on the surface material to receive fill, as considered warranted by this firm.
5. In general, density tests would be made at maximum intervals of two feet of fill height or every 1,000 cubic yards of fill placed. Criteria will vary depending on soil conditions and size of the fill. More frequent testing may be performed. In any case, an adequate number of field density tests should be made to evaluate the required compaction and moisture content is generally being obtained.
6. Laboratory testing to support field test procedures will be performed, as considered warranted, based on conditions encountered (e.g. change of material sources, types, etc.) Every effort will be made to process samples in the laboratory as quickly as possible and in progress construction projects are our first priority. However, laboratory workloads may cause in delays and some soils may require a **minimum of 48 to 72 hours to complete test procedures**. Whenever possible, our representative(s) should be informed in advance of operational changes that might result in different source areas for materials.
7. Procedures for testing of fill slopes are as follows:
   a) Density tests should be taken periodically during grading on the flat surface of the fill, three to five feet horizontally from the face of the slope.
   b) If a method other than over building and cutting back to the compacted core is to be employed, slope compaction testing during construction should include testing the outer six inches to three feet in the slope face to determine if the required compaction is being achieved.
8. Finish grade testing of slopes and pad surfaces should be performed after construction is complete.

Site Clearing

1. All vegetation, and other deleterious materials, should be removed from the site. If material is not immediately removed from the site it should be stockpiled in a designated area(s) well outside of all current work areas and delineated with flagging or other means. Site clearing should be performed in advance of any grading in a specific area.
2. Efforts should be made by the contractor to remove all organic or other deleterious material from the fill, as even the most diligent efforts may result in the incorporation of some materials. This is especially important when grading is occurring near the natural grade. All equipment operators should be aware of these efforts. Laborers may be required as root pickers.
3. Nonorganic debris or concrete may be placed in deeper fill areas provided the procedures used are observed and found acceptable by our representative.

Treatment of Existing Ground

1. Following site clearing, all surficial deposits of alluvium and colluvium as well as weathered or creep effected bedrock, should be removed unless otherwise specifically indicated in the text of this report.
2. In some cases, removal may be recommended to a specified depth (e.g. flat sites where partial alluvial removals may be sufficient). The contractor should not exceed these depths unless directed otherwise by our representative.
3. Groundwater existing in alluvial areas may make excavation difficult. Deeper removals than indicated in the text of the report may be necessary due to saturation during winter months.
4. Subsequent to removals, the natural ground should be processed to a depth of six inches, moistened to near optimum moisture conditions and compacted to fill standards.
5. Exploratory back hoe or dozer trenches still remaining after site removal should be excavated and filled with compacted fill if they can be located.

Fill Placement

1. Unless otherwise indicated, all site soil and bedrock may be reused for compacted fill; however, some special processing or handling may be required (see text of report).
2. Material used in the compacting process should be evenly spread, moisture conditioned, processed, and compacted in thin lifts six (6) to eight (8) inches in compacted thickness to obtain a uniformly dense layer. The fill should be placed and compacted on a nearly horizontal plane, unless otherwise found acceptable by our representative.
3. If the moisture content or relative density varies from that recommended by this firm, the contractor should rework the fill until it is in accordance with the following:
    a) Moisture content of the fill should be at or above optimum moisture. Moisture should be evenly distributed without wet and dry pockets. Pre-watering of cut or removal areas should be considered in addition to watering during fill placement, particularly in clay or dry surficial soils. The ability of the contractor to obtain the proper moisture content will control production rates.
    b) Each six-inch layer should be compacted to at least 90 percent of the maximum dry density in compliance with the testing method specified by the controlling governmental agency. In most cases, the testing method is ASTM Test Designation D 1557.
4. Rock fragments less than eight inches in diameter may be utilized in the fill, provided:
    a) They are not placed in concentrated pockets;
    b) There is a sufficient percentage of fine-grained material to surround the rocks;
    c) The distribution of the rocks is observed by, and acceptable to, our representative.

5. Rocks exceeding eight (8) inches in diameter should be taken off site, broken into smaller fragments, or placed in accordance with recommendations of this firm in areas designated suitable for rock disposal. On projects where significant large quantities of oversized materials are anticipated, alternate guidelines for placement may be included. If significant oversize materials are encountered during construction, these guidelines should be requested.
6. In clay soil, dry or large chunks or blocks are common. If in excess of eight (8) inches minimum dimension, then they are considered as oversized. Sheepsfoot compactors or other suitable methods should be used to break up blocks. When dry, they should be moisture conditioned to provide a uniform condition with the surrounding fill.

Slope Construction

1. The contractor should obtain a minimum relative compaction of 90 percent out to the finished slope face of fill slopes. This may be achieved by either overbuilding the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment.
2. Slopes trimmed to the compacted core should be overbuilt by at least three (3) feet with compaction efforts out to the edge of the false slope. Failure to properly compact the outer edge results in trimming not exposing the compacted core and additional compaction after trimming may be necessary.
3. If fill slopes are built "at grade" using direct compaction methods, then the slope construction should be performed so that a constant gradient is maintained throughout construction. Soil should not be "spilled" over the slope face nor should slopes be "pushed out" to obtain grades. Compaction equipment should compact each lift along the immediate top of slope. Slopes should be back rolled or otherwise compacted at approximately every 4 feet vertically as the slope is built.
4. Corners and bends in slopes should have special attention during construction as these are the most difficult areas to obtain proper compaction.
5. Cut slopes should be cut to the finished surface. Excessive undercutting and smoothing of the face with fill may necessitate stabilization.

UTILITY TRENCH CONSTRUCTION AND BACKFILL

Utility trench excavation and backfill is the contractors responsibility. The geotechnical consultant typically provides periodic observation and testing of these operations. While efforts are made to make sufficient observations and tests to verify that the contractors' methods and procedures are adequate to achieve proper compaction, it is typically impractical to observe all backfill procedures. As such, it is critical that the contractor use consistent backfill procedures.

Compaction methods vary for trench compaction and experience indicates many methods can be successful. However, procedures that "worked" on previous projects may or may not prove effective on a given site. The contractor(s) should outline the procedures proposed, so that we may discuss them **prior** to construction. We will offer comments based on our knowledge of site conditions and experience.

1. Utility trench backfill in slopes, structural areas, in streets and beneath flat work or hardscape should be brought to at least optimum moisture and compacted to at least 90 percent of the laboratory standard. Soil should be moisture conditioned prior to placing in the trench.
2. Flooding and jetting are not typically recommended or acceptable for native soils. Flooding or jetting may be used with select sand having a Sand Equivalent (SE) of 30 or higher. This is typically limited to the following uses:
   a) shallow (12 + inches) under slab interior trenches and,
   b) as bedding in pipe zone.

   The water should be allowed to dissipate prior to pouring slabs or completing trench compaction.
3. Care should be taken not to place soils at high moisture content within the upper three feet of the trench backfill in street areas, as overly wet soils may impact subgrade preparation. Moisture may be reduced to 2% below optimum moisture in areas to be paved within the upper three feet below sub grade.
4. Sand backfill should not be allowed in exterior trenches adjacent to and within an area extending below a 1:1 projection from the outside bottom edge of a footing, unless it is similar to the surrounding soil.
5. Trench compaction testing is generally at the discretion of the geotechnical consultant. Testing frequency will be based on trench depth and the contractors procedures. A probing rod would be used to assess the consistency of compaction between tested areas and untested areas. If zones are found that are considered less compact than other areas, this would be brought to the contractors attention.

JOB SAFETY

General

Personnel safety is a primary concern on all job sites. The following summaries are safety considerations for use by all our employees on multi-employer construction sites. On ground personnel are at highest risk of injury and possible fatality on grading construction projects. The company recognizes that construction activities will vary on each site and that job site safety is the contractor's responsibility. However, it is, imperative that all personnel be safety conscious to avoid accidents and potential injury.

In an effort to minimize risks associated with geotechnical testing and observation, the following precautions are to be implemented for the safety of our field personnel on grading and construction projects.

1. Safety Meetings: Our field personnel are directed to attend the contractor's regularly scheduled safety meetings.
2. Safety Vests: Safety vests are provided for and are to be worn by our personnel while on the job site.
3. Safety Flags: Safety flags are provided to our field technicians; one is to be affixed to the vehicle when on site, the other is to be placed atop the spoil pile on all test pits.

In the event that the contractor's representative observes any of our personnel not following the above, we request that it be brought to the attention of our office.

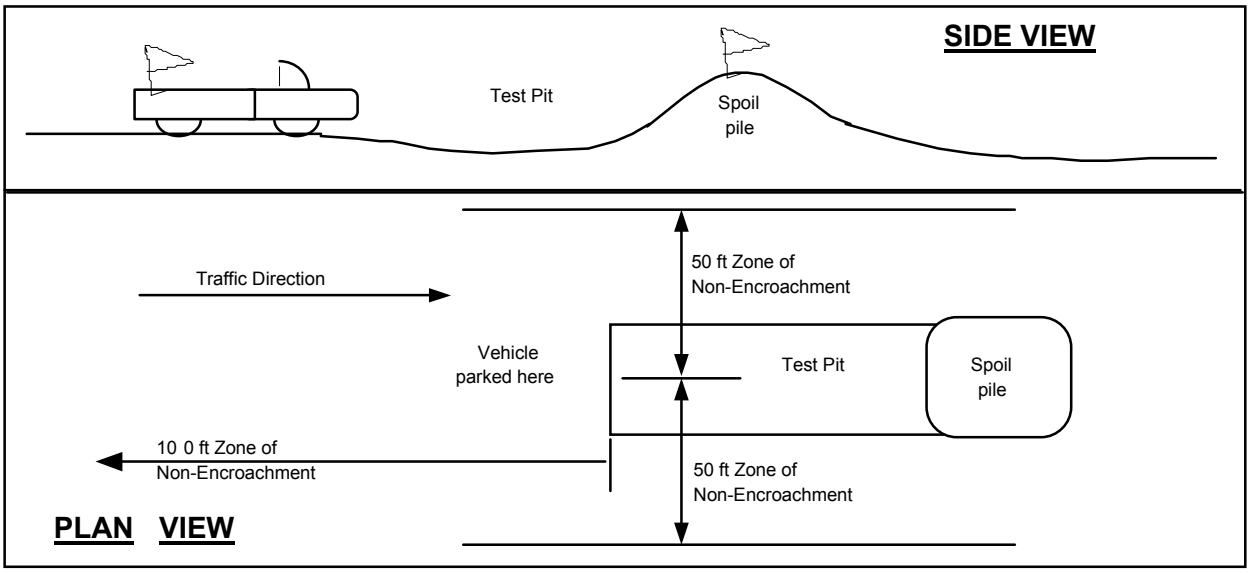
Test Pits Location, Orientation and Clearance

The technician is responsible for selecting test pit locations. The primary concern is the technician's safety. However, it is necessary to take sufficient tests at various locations to obtain a representative sampling of the fill. As such, efforts will be made to coordinate locations with the grading contractors authorized representatives (e.g. dump man, operator, supervisor, grade checker, etc.), and to select locations following or behind the established traffic pattern, preferably outside of current traffic. The contractors authorized representative should direct excavation of the pit and safety during the test period. Again, safety is the paramount concern.

Test pits should be excavated so that the spoil pile is placed away from oncoming traffic. The technician's vehicle is to be placed next to the test pit, opposite the spoil pile. This necessitates that the fill be maintained in a drivable condition. Alternatively, the contractor may opt to park a piece of equipment in front of test pits, particularly in small fill areas or those with limited access.

A zone of non-encroachment should be established for all test pits (see diagram below). No grading equipment should enter this zone during the test procedure. The zone should extend outward to the sides approximately 50 feet from the center of the test pit and 100 feet in the direction of traffic flow. This zone is established both for safety and to avoid excessive ground vibration, which typically decreases test results.

TEST PIT SAFETY PLAN



Slope Tests

When taking slope tests, the technician should park their vehicle directly above or below the test location on the slope. The contractor's representative should effectively keep all equipment at a safe operation distance (e.g. 50 feet) away from the slope during testing.

The technician is directed to withdraw from the active portion of the fill as soon as possible following testing. The technician's vehicle should be parked at the perimeter of the fill in a highly visible location.

Trench Safety

It is the contractor's responsibility to provide safe access into trenches where compaction testing is needed. Trenches for all utilities should be excavated in accordance with CAL-OSHA and any other applicable safety standards. Safe conditions will be required to enable compaction testing of the trench backfill.

All utility trench excavations in excess of 5 feet deep, which a person enters, are to be shored or laid back. Trench access should be provided in accordance with OSHA standards. Our personnel are directed not to enter any trench by being lowered or "riding down" on the equipment.

Our personnel are directed not to enter any excavation which;

1. is 5 feet or deeper unless shored or laid back,
2. exit points or ladders are not provided,
3. displays any evidence of instability, has any loose rock or other debris which could fall into the trench, or

4. displays any other evidence of any unsafe conditions regardless of depth.

If the contractor fails to provide safe access to trenches for compaction testing, our company policy requires that the soil technician withdraws and notifies their supervisor. The contractors representative will then be contacted in an effort to effect a solution. All backfill not tested due to safety concerns or other reasons is subject to reprocessing and/or removal.

Procedures

In the event that the technician's safety is jeopardized or compromised as a result of the contractor's failure to comply with any of the above, the technician is directed to inform both the developer's and contractor's representatives. If the condition is not rectified, the technician is required, by company policy, to immediately withdraw and notify their supervisor. The contractor's representative will then be contacted in an effort to effect a solution. No further testing will be performed until the situation is rectified. Any fill placed in the interim can be considered unacceptable and subject to reprocessing, recompaction or removal.

In the event that the soil technician does not comply with the above or other established safety guidelines, we request that the contractor bring this to technicians attention and notify our project manager or office. Effective communication and coordination between the contractors' representative and the field technician(s) is strongly encouraged in order to implement the above safety program and safety in general.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

Appendix 8

Phase I Environmental Site Assessment

Magnolia Ranch Residential Project

Initial Study

HILLMANN
CONSULTING

PHASE I ENVIRONMENTAL SITE ASSESSMENT



13175 Orange Street
Eastvale, California 92880

Prepared For:

MLC Holdings, Inc.
5 Peters Canyon Road, Suite 310
Irvine, California 92606

January 27, 2021

Hillmann Project Number C3-8285

Your Property. Our Priority.
Making a better future for all the communities we touch.
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CONSULTING

January 27, 2021

Mr. Bret Ilich
MLC Holdings, Inc.
5 Peters Canyon Road, Suite 310
Irvine, California 92606

RE: Phase I Environmental Site Assessment
13175 Orange Street
Eastvale, California 92880
Hillmann Project No: C3-8285

Dear Mr. Ilich:

Hillmann Consulting LLC is pleased to provide the results of our Phase I Environmental Site Assessment of the above referenced property. This assessment was performed in general accordance with the scope and limitations of ASTM Practice E1527-13, which is the latest version of the E1527 standard published by the ASTM.

We appreciate the opportunity to provide environmental due diligence services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact our office at 908-688-7800.

Sincerely,

Hillmann Consulting, LLC

Davis Tang
Environmental Scientist

Ryan Terwilliger
West Coast Operations Manager

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List of Abbreviations/Acronyms

Hillmann may use the following abbreviations and acronyms for common terminology described in our report. Not all abbreviations or acronyms may be applicable to this report:

ACM	– Asbestos Containing Material
AOC	– Area of Concern
AST	– Aboveground Storage Tank
ASTM	– American Society for Testing Materials
BER	– Business Environmental Risk
CEA	– Classification Exception Area
CERCLA	– Comprehensive Environmental Response Compensation and Liability Act
CERCLIS	– Comprehensive Environmental Response Compensation and Liability Information System
CESQG	– Conditionally Exempt Small Quantity Generator
COC	– Chemicals of Concern
CORRACTS	– Corrective Action Sites
CREC	– Controlled Recognized Environmental Condition
DNPL	– Delisted National Priority List
DTSC	– Department of Toxic Substances Control
ENG	– Engineering
ERNS	– Emergency Response Notification System
FDEP	– Florida Department of Environmental Protection
FDNY	– Fire Department, City of New York
FDOT	– Florida Department of Transportation
FOI/FOIA/FOIL	– Freedom of Information / Freedom of Information Act / Freedom of Information Letter
HVAC	– Heating Ventilation & Air Conditioning
HREC	– Historic Recognized Environmental Condition
IAQ	– Indoor Air Quality
ISRA	– Industrial Site Recovery Act
LBP	– Lead-Based Paint
LQG	– Large Quantity Generator
LTANK	– Leaking Storage Tank
LUST	– Leaking Underground Storage Tank
MassDEP	– Massachusetts Department of Environmental Protection
SDS/MSDS	– Safety Data Sheet / Material Safety Data Sheet
NA	– Not Applicable
NCDOH	– Nassau County Department of Health
NFA	– No Further Action
NFRAP	– No Further Remedial Actions Planned
NJDEP	– New Jersey Department of Environmental Protection
NPDES	– National Pollutant Discharge Elimination System
NPL	– National Priority List
NYCDEP	– New York City Department of Environmental Protection
NYCDOB	– New York City Department of Buildings
NYCOER	– New York City Office of Environmental Remediation
NYSDEC	– New York State Department of Environmental Conservation
OPRA	– Open Public Records Act
PADEP	– Pennsylvania Department of Environmental Protection
PAH	– Polycyclic Aromatic Hydrocarbon
PCE	– Perchloroethylene
RAO	– Response Action Outcome
RCRA	– Resource Conservation and Recovery Act
RCRIS	– Resource Conservation and Recovery Information System
REC	– Recognized Environmental Condition
RWQCB	– Regional Water Quality Control Board
SCAQMD	– South Coast Air Quality Management District
SCDHS	– Suffolk County Department of Health Services
SDG	– Significant Data Gap
SEMS	– Superfund Enterprise Management System
SRP	– Site Remediation Program
SQG	– Small Quantity Generator
SVOC	– Semi-Volatile Organic Compound
TCE	– Trichloroethylene
TSDF	– Treatment Storage and/or Disposal Facility
USEPA	– United States Environmental Protection Agency
UST	– Underground Storage Tank
VEC	– Vapor Encroachment Condition
VOC	– Volatile Organic Compound

1.0 FINDINGS, OPINIONS, AND CONCLUSIONS

Hillmann Consulting, LLC (Hillmann) performed a Phase I Environmental Site Assessment (ESA) of 13175 Orange Street, Eastvale, California (the Property). The assessment has been conducted in accordance with our contracted scope of work and the ASTM Standard Practice E 1527-13 for Phase I Environmental Site Assessments and All Appropriate Inquiries (AAI) Final Rule 40 CFR Part 312. This section contains a summary of findings, opinions and conclusions made by this assessment. However, this section, alone, does not constitute the complete assessment. The report must be read in its entirety.

1.1 Summary of Project Details

Primary Street Address:		13175 Orange Street			
City:	Eastvale	**County:**	Riverside	**State:**	California
Tax ID/Parcel Number:		152-040-003			
Property Owner:		Kraig A. Kirschner			
Zoning Designation:		Residential			
Approx. Property Area:		9.65 acres			
Buildings/# of Floors		One / Single-story			
Approx. Building Area:		5,300 SF			
Approx. Year Built:		Circa 1990			
Commercial Occupants:		None			
Current Use:		Vacant single-family residence			
Prior Uses:		Agricultural			
Inspected By:		Mr. Davis Tang			
Site Contact/Company:		Mr. Matt Maehara / Meritage Homes			
Site Escort/Company:		Mr. Peter Haringsma / Vander Dussen & Haringsma			
Inspection Date:		January 14, 2021			
Weather Conditions:		Sunny, 72 ^{o}F			

1.2 Findings Summary Table

Assessment Subject	No REC	REC	CREC	HREC	Rpt. Ref.
Property Regulatory Records Review:	X				4.3
Property Historical Records Review:	X				4.2
Bulk Petroleum Storage:	X				5.3
On-Site Operations:	X				5.3
On-Site Haz-Mat Storage/Use/Spills:	X				5.3
Transformers/Hydraulic Systems:	X				5.3
Waste Discharges:	X				5.3
Interviews:	X				6.0
Adjoining & Nearby Properties:	X				4.3 5.2
Prior Env. Reports/User Provided Info:	X				3.0
Data Gaps:	X				2.3

1.3 Findings, Opinions and Conclusions

1.3.1 Recognized Environmental Conditions

Hillmann has performed a Phase I Environmental Site Assessment in accordance with the scope and limitations of ASTM Practice E1527-13 of the Property as described in Section 2 of this report. Any additions to, exceptions to, or deletions from this practice are also described in Section 2 of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the Property, except for the following:

RECOGNIZED ENVIRONMENTAL CONDITIONS	
	No RECs were identified.
HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS	
	No HRECs were identified.
CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS	
	No CRECs were identified.
SIGNIFICANT DATA GAPS	
	No SDGs were identified.

1.3.2 REC Response Action Recommendations

The following table presents recommended response actions to the identified RECs for further investigation and/or corrective action:

REC RESPONSE ACTION SUMMARY TABLE	
REC	**Response Action**
	No further investigations are warranted at this time.

1.3.3 Notable Environmental Conditions / De Minimis Conditions

The following environmental conditions were identified, but are not considered to be a REC in connection with the Property:

NOTABLE ENVIRONMENTAL CONDITIONS / DE MINIMIS CONDITIONS	
1.	The review of historical records indicated evidence of the following potential RECs in connection with the Property: The Property appears to have been utilized as agricultural land from circa 1931 to 1989. There is the potential for soil contamination due to historic applications of pesticides. Due to this, Hillmann cored twenty (20) soil borings and composited five (5) soil samples in order to determine the presence of any subsurface contamination from pesticides or Title 22 Metals. The borings were collected between 0.5 and 2.0 feet bgs. The samples all appeared visually clean with no discernable odor. Soil samples collected were preserved for analysis in laboratory jars, sealed with Teflon tape and plastic end caps, wrapped in aluminum foil and stored on ice. Samples were submitted to A&R Laboratories in Ontario, California for laboratory analysis of organo-chlorine pesticides (OCP) by EPA Method 8081A, analysis of Title 22 Metals by EPA Method 6010B as recommended by DTSC guidance. The results identified Heptachlor Epoxide pesticide from composite sample P17-20 at 0.027 mg/kg concentration, well below the 0.07 mg/kg screening limit for residential soils. No other OCPs were detected, as well as no elevated levels of heavy metals. The complete lab report can be found in Appendix F. Due to this, the historic usage of the Property as orchards/agricultural land is not considered to be a REC in connection with the Property.
2.	According to Mr. Haringsma, a septic system is present and utilized for on-site disposal of sanitary sewage. Mr. Haringsma is unaware of the location of the septic system and Hillmann was not able to visually identify the location, but is most likely located adjoining to the north of the residential structure. Given the lack of identified prior industrial or other high-risk site uses, septic systems formerly used at the Property would not be considered to be a REC in connection with the Property. Hillmann recommends that prior to redevelopment; the septic system should be removed and disposed of under applicable local rules and regulations.
3.	A pump system for a water well was observed at the southeastern portion of the Property. Hillmann recommends that prior to redevelopment; the water well should be properly abandoned under applicable local rules and regulations.

1.3.4 Environmental Professional Statement

I declare that, to the best of my professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history and setting of the subject *property*. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Ryan Terwilliger
Environmental Professional

1.4 Business Environmental Risks / Non-ASTM Scope

Hillmann has performed a limited review of the following potential Business Environmental Risks (BER), also known as "Non-ASTM Scope concerns", in accordance with the contracted scope of work scope for this assessment. The following is a summary of findings for applicable BERs. For a more detailed discussion of the findings and contracted scope of work, please see the referenced report section.

BUSINESS ENVIRONMENTAL RISKS / NON-ASTM SCOPE			
Subject	**Findings**	**Not Appl.**	**Rpt. Ref.**
Asbestos	No buildings built prior to 1990 were present at the Property.	X	7.1
Lead Paint	Painted surfaces observed within the accessed areas of the residential building were noted to be in good condition.	X	7.2
Radon	Property is located in the USEPA radon designation Zone 2 or 'moderate risk' area for radon.		7.3
Mold / Microbial Damage	Hillmann did not observe evidence of significant problems with moisture intrusion or mold/microbial growth at the Property.		7.4
NWI Wetlands	No mapped wetland areas were depicted at the Property.		7.5
Lead in Drinking Water	Potable water service at the Property is provided by a private well located at the southeastern portion of the Property. No water quality testing data for the on-site potable well was provided by the Property contact.	X	7.6

2.0 INTRODUCTION

2.1 Purpose and Scope

This assessment was conducted utilizing generally accepted Phase I ESA industry standards in accordance with the ASTM Standard Practice E1527-13. The ASTM describes these methodologies as representing good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products. As such, this practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner or bona fide prospective purchaser limitations on CERCLA liability (hereinafter, the "landowner liability protections," or "LLPs"): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses the property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35) (B). The primary goal of the processes established by ASTM E1527-13 is to identify *recognized environmental conditions* in connection with the Property.

The term *recognized environmental condition (REC)* is defined by the ASTM as the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

The ASTM has also defined the terms *historical recognized environmental conditions* and *controlled recognized environmental conditions* as two additional types of RECs. The term *historical recognized environmental condition (HREC)* is defined as a past release of any hazardous substances or petroleum products that has occurred in connection with the Property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the Property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls or engineering controls).

The term *controlled recognized environmental condition (CREC)* is defined as a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

Conditions determined to be *"de minimis conditions"* are not considered to be RECs, HRECs or CRECs. *De minimis condition* is defined by the ASTM, "…as a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

The chief components of this assessment are generally described as follows:

- A non-invasive visual reconnaissance of the Property and adjoining properties in accordance with ASTM guidelines for evidence of RECs.

- Interviews of past and present owners and occupants and state and local government officials, seeking information related to the potential presence of RECs at the Property.

- A review of standard physical record sources for available topographic, geologic and groundwater data.

- A review of standard historic record sources, such as fire insurance maps, city directories, aerial photographs, prior reports and interviews, etc., to determine prior uses of the Property from the present, back to the Property's first developed use, or back to 1940, whichever is earlier.

- A review of standard environmental record sources including federal and state environmental databases, and additional environmental record sources, to identify potential regulatory concerns with the Property, adjoining properties and properties located within the surrounding area.

An evaluation of environmental or other regulatory compliance matters is excluded from the scope of this assessment.

These methodologies are described as representing good commercial and customary practice for conducting an Environmental Site Assessment of a property for the purpose of identifying recognized environmental conditions.

2.1.1 Business Environmental Risks/Non-ASTM Scope Considerations

In accordance with our contract agreement, Hillmann may have addressed the following potential environmental subject matters that are outside of the requirements of the ASTM E1527-13 standard:

Asbestos-Containing Materials (ACM): A cursory non-intrusive visual screening for the presence of suspect ACM within the accessed areas of buildings built prior to 1990 on the Property. It is emphasized that this cursory non-intrusive visual screening does not constitute an asbestos survey/inspection of the premises. An asbestos survey/inspection should be sought by the report User(s) if more certainty is desired regarding ACM and potential asbestos hazards at the Property. Furthermore, a review of regulatory compliance matters pertaining to asbestos is excluded from the scope of work.

Lead-Based Paint (LBP): A cursory non-intrusive visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1980 on the Property. It is emphasized that this cursory non-intrusive visual screening does not constitute a comprehensive survey for LBP or potential lead hazards. A comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding LBP at the Property. Furthermore, a review of regulatory compliance matters pertaining to lead-based paint is excluded from the scope of work.

USEPA Designated Radon Potential: Review of general non-site specific data published by the USEPA regarding the Radon Zone classification for the area of the Property.

Mold/Microbial Damage: A cursory non-intrusive visual screening within the accessed areas of buildings on the Property for evidence of systemic microbial problems, including visible mold growth, water damaged building materials or musty odors. It is emphasized that this cursory non-intrusive visual screening does not constitute a comprehensive survey for moisture/mold/microbial damage. A more comprehensive inspection should be sought by the report User(s) if more certainty is desired regarding the potential for moisture/mold/microbial damages at the Property.

NWI Wetlands: Review of US Fish and Wildlife Service National Wetland Inventory digitized data of mapped wetlands as presented in the attached EDR Radius Map plus Geocheck Report.

It is emphasized that, regardless of the wetlands data obtained via the EDR Geocheck-Physical Setting Source Addendum, a delineation of regulated wetlands by a qualified professional would be warranted to determine the presence or absence of regulated wetlands at the Property.

Lead in Drinking Water: Review of the potential for elevated levels of lead in the drinking water by determining the source of the drinking water supply and a review of available testing or compliance data reports.

2.2 Property Location/Legal Description

Property location and legal description details are described as follows:

Primary Street Address:	13175 Orange Street				
City:	Eastvale	**County:**	Riverside	**State:**	California
Tax ID/Parcel Number:	152-040-003				
Approx. Land Area:	9.65 acres				
Apprx. Latitude/Longitude:	North 33.959958 degrees/West 117.570294 degrees				
Additional Details (if appl.):	NA				
Property Owner:	Kraig A. Kirschner				
Zoning Designation:	Residential				

2.3 Data Gaps

A *data gap* is defined by the ASTM as a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. A data gap is only significant if other information and/or professional experience raises reasonable concerns involving the data gap and the ability to determine the presence or absence of recognized environmental conditions. The following table summarizes data gaps encountered during the assessment as well as a discussion of their significance.

Data Gap:	Significant (Yes/No)?	Discussion
Historical records data failure	No	Record gaps exceeding five years were encountered; however, no significant site use changes are suspected during these intervals.
Response to agency records requests not received as of date of report.	No	Any additional information indicative of a REC will be forwarded upon receipt.

2.4 User Reliance

This report is for the exclusive use of the User(s) named on the front cover. No other party(ies) shall have any right to rely on the content of this report without first obtaining the consent of the original report User; and without obtaining written consent from Hillmann in the form of a letter of reliance or report recertification.

2.5 Significant Assumptions

The following significant assumptions are made:

- The site operations at the time of the site visit are assumed to reflect typical site conditions relative to potential environmental conditions and that no concealment of environmental conditions or releases by site owners or occupants has occurred. Likewise, it is assumed that no areas of the Property with potential environmental concerns or RECs were concealed or otherwise not reported, intentionally or unknowingly, by the Property owners/occupants and/or site escort at the time of the site visit.

- For the purpose of estimating the approximate direction of groundwater flow in the absence of site specific groundwater data, unless indicated otherwise, an assumption has been made that the gradient of groundwater flow follows the surface topography of the Property and immediate surrounding area.

2.6 General Limitations and Exceptions

2.6.1 Limitations

The report turnaround time specified by the contract agreement for this assessment may present a limitation to the availability of pertinent regulatory agency records. Such limitations, if encountered, are further specified in Section 4.4.

Significant limitations related to the condition or accessibility of the Property at the time of the site reconnaissance, if encountered, are reported in Section 5.1.

2.6.2 Other Exceptions or Deletions

No other exceptions or deletions from the ASTM Standard E1527-13 are reported.

2.6.3 Special Terms and Conditions

This Phase I Environmental Site Assessment has been prepared using reasonable efforts in each phase of its work to identify recognized environmental conditions associated with hazardous substances, wastes and petroleum products at the Property. Findings within this report are based on information collected from observations made on the day of the site reconnaissance and from reasonably ascertainable information obtained from governing public agencies and private sources.

This report is not definitive and should not be assumed to be a complete or specific definition of the conditions above or below grade. Information in this report is not intended to be used as a construction document and should not be used for demolition, renovation, site development, redevelopment, or other construction purposes. No representation or warranty is made that the past or current operations at the Property are, or have been, in compliance with all applicable federal, state and local laws, regulations and codes.

Findings, conclusions and recommendations presented in this report are based on visual observations of the Property, interviews conducted, the records reviewed, information provided by the Client, and/or a review of readily available and supplied drawings and documents. Information obtained during the assessment, whether written, graphic or verbal, provided by the Property contact(s) or as shown on any documents reviewed or received from the Property contact, owner or agent, or government agency source; is assumed to be accurate except as specifically stated otherwise in this report. Independent verification of the accuracy or completeness of all information reviewed or received during the course of this assessment is not made and excluded from the scope of work for this assessment. No warranty or guarantee is made of the accuracy or completeness of information that was obtained from ostensibly knowledgeable individuals, regulatory agency representatives or other secondary sources.

Regardless of the findings stated in this report, Hillmann is not responsible for consequences or conditions arising from facts that were concealed, withheld or not fully disclosed at the time the assessment was conducted.

This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated.

The regulatory database report provided is based on an evaluation of the data collected and compiled by a contracted data research company. The regulatory research is designed to meet the requirements of ASTM Standard E1527-13. Hillmann can neither warrant nor guarantee the accuracy or completeness of the information obtained from the regulatory database report provider during the course of this assessment.

Subsurface conditions may differ from the conditions implied by the surface observations and can only be reliably evaluated through intrusive techniques.

Reasonable efforts have been made during this assessment to identify aboveground and underground storage tanks and ancillary equipment. Reasonable efforts are limited to information gained from visual observation of largely unobstructed areas, recorded database information held

in public record and available information gathered from interviews. Such methods may not identify surficial and subsurface features that may have been hidden from view due to parked automobiles and other vehicles, snow cover, vegetative growth, pavement, construction or debris pile storage or incorrect information from sources.

No guarantee, explicit or implied, is made that the records pertaining to historical ownership or occupancy which were reviewed represent a comprehensive or precise delineation of past Property ownership or tenancy for legal purposes.

The ASTM E1527-13 standard states that recommendations are not required to be included in a Phase I ESA report; however, further that recommendations are an additional service that may be useful in the User's analysis of landowner liability protections or business environmental risks; and that the User should consider whether recommendations for additional inquiries or other services are desired.

The recommended response actions to the identified RECs presented in Section 1.3, if any, are not intended to represent the only course(s) of action to take; nor does it imply any opinion as to the timing of the action. Furthermore, it is emphasized that additional response actions may become warranted depending on the outcome of the initial action(s) taken. Hillmann advises that consultation with legal counsel familiar with environmental and real estate law may be beneficial to the decision making process for the type and timing of a response action to identified RECs, if any.

Due to the limited nature of our review of potential Business Environmental Risks, the User of the report should consider whether to take additional action(s) to further define, properly manage and/or mitigate potential BERs.

In the event of any conflict between the terms and conditions of this report and the terms and conditions of the consulting services agreement for this project, the consulting services agreement shall control.

3.0 USER PROVIDED INFORMATION

The term "User" is defined by ASTM as the party seeking to use Practice E1527 to complete an environmental site assessment of the Property; specifically, the entities named on the front cover to which the report has been addressed.

3.1 Prior Environmental Reports/Documentation

No prior environmental reports/documentation were provided.

3.2 User Questionnaire

Section 6 of the ASTM E1527-13 standard describes certain tasks required to be performed by the report User in order to qualify for landowner liability protections to CERCLA liability. To assist the report User to meet these requirements, the ASTM E1527-13 standard recommends a questionnaire of inquiries (User Questionnaire) specified in 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31 be provided to the original report User. The following is a summary of the User's response:

Question:	Yes/No:	Detail:
Environmental liens that are filed or recorded against the property: Did a search of recorded land title records identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?	No	
Activity and use limitations that are in place on the property or that have been filed or recorded against the property: Did a search of recorded land title records (or judicial records where appropriate, identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?	No	
Specialized knowledge or experience of the person seeking to qualify for the LLP: Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	No	
Relationship of the purchase price to the fair market value of the property if it were not contaminated: Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	Yes	
Commonly Known or Reasonably Ascertainable Information: Are you aware of commonly known or reasonably ascertainable information about the property that would help the		

Question:	Yes/No:	Detail:
environmental professional to identify conditions indicative of releases or threatened releases? For example,		
-Do you know the past uses of the property?	No	
-Do you know of specific chemicals that are present or were once present at the property?	No	
-Do you know of spills or other chemical releases that have taken place at the property?	No	
-Do you know of any environmental cleanups that have taken place at the property?	No	
The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation: Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?	No	
Litigation/Administrative Proceedings/Government Notices As the User of this ESA, do you have knowledge of (1) any pending, threatened, or past litigation relevant to hazardous substances or petroleum products in, on, or from the property; (2) any pending, threatened, or past administrative proceedings relevant to hazardous substances or petroleum products in, on or from the property; and (3) any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to hazardous substances or petroleum products.	No	

NR-no response

3.3 Reason for Performing Phase I ESA

The User indicated that the purpose of the assessment is to identify any environmental issues during feasibility period.

4.0 RECORDS REVIEW

4.1 Physical Setting Sources

The following physical setting sources were reviewed:

Source	Discussion
USGS 7.5 minute Topographic Map Data: (EDR Geocheck-Physical Setting Source Addendum)	The Property lies at an elevation of approximately 620 feet above mean sea level. An interpretation of topographic contour lines as well as a review of the EDR Geocheck-General Topographic Gradient suggested terrain sloping downward towards the west-southwest. There are no nearby downgradient water bodies from the Property.
USDA SCS Soil Data: (EDR Geocheck-Physical Setting Source Addendum)	The dominant soil type at the Property is classified as "Ramona". This soil type is described as a soil with sandy loam surface textures and moderate infiltration rates. They have deep and moderately deep, moderately well and well drained soils with moderately coarse textures.
Geologic Data: (EDR Geocheck-Physical Setting Source Addendum)	The geologic formation in the vicinity of the Property is described as stratified sequence of the Cenozoic Era, Quaternary System, and Quaternary Series.
Prior Env. Reports: (Section 3.1)	No prior environmental reports were obtained.
Additional Sources/ Data:	No additional physical setting sources or data was obtained.
Groundwater Flow Discussion:	Based on a review of the above information as well as observation of the site, the direction of shallow groundwater flow at the site is inferred to be towards the west-southwest.
NWI Wetlands Data: (EDR Geocheck-Physical Setting Source Addendum)	No NWI mapped wetlands areas were depicted at the Property.

4.2 Historical Use – Property and Adjoining Properties

Research has been conducted in an attempt to develop a history of the previous uses of the property and surrounding area, in order to help identify the likelihood of past uses having led to RECs in connection with the property. Standard historical sources have been sought in an attempt to document the past uses of the Property as far back as it can be shown that the Property contained structures; or from the time the Property was first used for residential, agricultural, commercial, industrial or governmental purposes.

4.2.1 Fire Insurance Maps

A Certified Sanborn Map Report was obtained from EDR for a review of published historic fire insurance maps for the Property and surrounding area. The following is a summary of site uses and notable details depicted by the available maps:

Year(s)	Prop/Adj	Depicted Use(s)	Notable Details
None identified	**Property:**		
	Adjoining:		

A copy of the Certified Sanborn Map Report is attached in Appendix D.

4.2.2 City Directories

An EDR City Directory Abstract report was reviewed for data of former occupants of the Property's street address. The following is a generalized summary of the findings of city directory research for past occupants of the Property.

Property	
Use(s) / Occupant(s):	**Years**
Private individuals	1999-2017

The EDR City Directory Abstract report was also reviewed for listings of historic occupants of the adjoining properties. The following is a general summary of listings of historic adjoining property occupants:

Adjoining Properties	
Use and/or Occupant(s)	**Years**
School	1981-2017
Residential	2005-2017

A copy of the EDR City Directory report is attached in Appendix D.

4.2.3 Historical Topographic Maps

Historical topographic maps of the Property and vicinity obtained from an EDR Historical Topographic Map report (as attached in Appendix D) have been reviewed. The following interpretation of land usage was made by review of the maps:

Year(s)	Summary	
1902, 1942, 1947, 1954	**Property:**	No improvements or other notable depictions are shown
	Adjoining:	Structures are depicted adjoining to the east and west. No other improvements or notable depictions are shown.
1967, 1973, 1981	**Property:**	No improvements or other notable depictions are shown
	Adjoining:	The Eastvale School is depicted to the east and a structure is depicted to the west. No other improvements or notable depictions are shown.
2012	**Property:**	No improvements or other notable depictions are shown
	Adjoining:	No improvements or other notable depictions are shown

4.2.4 Historical Aerial Photographs

Historical aerial photographs of the Property and vicinity obtained from an EDR Aerial Photo Decade Package report, as attached in Appendix D, were reviewed. The following interpretation of land usage was made by review of the aerial photographs:

Year(s)	Summary of Interpretation	
1931, 1938, 1948, 1953	**Property:**	Agricultural land
	Adjoining:	Residences and agricultural land

1959, 1967, 1975, 1985, 1989	**Property:**	Agricultural land
	Adjoining:	A school, residences and agricultural land
1990, 1994, 2002	**Property:**	Residential
	Adjoining:	A school and residential and agricultural land
2006, 2009, 2012, 2016	**Property:**	Residential
	Adjoining:	Schools and residential

4.2.5 EDR High-Risk Historical Records

The EDR Radius Map™ report, which is discussed in greater detail in Section 4.3, provided a search of proprietary databases of potential historical high-risk uses at or in the vicinity of the Property. These databases include EDR Historic Cleaners – a database of property addresses with records of historical occupancy by suspected cleaners businesses; EDR Historic Auto – a database of property addresses with records of historical occupancy by potential automotive gas/filling stations and repair facilities; and EDR MGP- a database of sites historically occupied by manufactured gas plants and related facilities.

EDR Database	On-site Listings:	Adjoining/Off-Site Listings
Historic Cleaners: (on-site/adjoining only)	None	None
Historic Auto: (on-site/adjoining only)	None	None
MGP: (1-mile distance)	None	None

4.2.6 Petroleum/Natural Gas Well Review

The historical record sources and the California Geologic Energy Management Division (CalGEM) online mapping application were reviewed for records of historic petroleum and/or natural gas wells at the Property. No record of any historical petroleum/natural gas wells at or adjoining the Property was identified.

4.2.7 Additional Historical Data

Where applicable, the following additional pertinent historical data was obtained:

Interviews/Anecdotal:	No additional pertinent historical data was obtained.
Local Gov't Records:	No additional pertinent historical data was obtained.
Prior Env. Reports: (Section 3.1)	Not applicable; no prior reports were provided.
Site Observations:	As further detailed in Section 5.2.1, indications of the following historic uses of the Property and/or adjoining properties were observed during the site reconnaissance:
Other Sources:	No additional pertinent historical data was obtained.

4.2.8 Summary of Identified Historic Uses

The following table presents a summary of the types and approximate date ranges of identified prior uses of the Property:

Property	
Date Range	**Use**
1931-1989	Agricultural land
1990-Present	Residential

The following table presents a summary of the types of identified prior uses of the adjoining properties:

Adjoining Properties	
Date Range	**Use**
1931-1953	Residential and agricultural land
1959-2002	Residential and agricultural land and schools
2006-Present	Residential and schools

4.2.9 Historical Records Data Failure

The ASTM E1527-13 standard defines data failure as a failure to achieve the ASTM specified historical research objectives after reviewing the standard historical sources that are reasonably ascertainable and likely to be useful. The objective is to identify all obvious uses of the property from the present, back to the property's first developed use, or back to 1940, whichever is earlier. Furthermore, records of historic use/conditions should be sought in intervals no less than approximately five years, unless the property conditions appear unchanged over a longer interval.

Objective	Met?	Detail	Significant?
First developed use/date determined?	Yes	The first developed use of the Property was agricultural circa 1931	NA
Record sources at 5-year intervals back to 1940 or first developed use?	No	Historical record gaps exceeding five years were encountered. However, significant site-use changes or undiscovered site uses appear unlikely to have occurred during the record gaps.	No
All obvious prior uses identified?	Yes	See Section 4.2.8.	NA

Please refer to Section 2.3 for additional discussion of data gaps and their significance to the findings of the assessment.

4.2.10 Historic Uses REC Discussion

The review of historical records indicated evidence of the following potential RECs in connection with the Property: The Property appears to have been utilized as agricultural land from circa 1931 to 1989. There is the potential for soil contamination due to historic applications of pesticides.

Due to this, Hillmann cored twenty (20) soil borings and composited five (5) soil samples in order to determine the presence of any subsurface contamination from pesticides or Title 22 Metals. The borings were collected between 0.5 and 2.0 feet bgs. The samples all appeared visually clean with no discernable odor. Soil samples collected were preserved for analysis in laboratory jars, sealed with Teflon tape and plastic end caps, wrapped in aluminum foil and stored on ice. Samples were submitted to A&R Laboratories in Ontario, California for laboratory analysis of

organo-chlorine pesticides (OCP) by EPA Method 8081A, analysis of Title 22 Metals by EPA Method 6010B as recommended by DTSC guidance. The results identified Heptachlor Epoxide pesticide from composite sample P17-20 at 0.027 mg/kg concentration, well below the 0.07 mg/kg screening limit for residential soils. No other OCPs were detected, as well as no elevated levels of heavy metals. The complete lab report can be found in **Appendix F**. Due to this, the historic usage of the Property as orchards/agricultural land is not considered to be a REC in connection with the Property.

4.3 Standard Environmental Record Sources

A regulatory database report, titled EDR Radius Map™ Report, prepared by Environmental Data Resources of Shelton, CT was obtained and reviewed. The report provided a search of standard environmental record sources for listings of the Property, adjoining properties and sites within the surrounding area; and has been reviewed for the purpose of identifying listings suggesting a potential impact to the Property due to presence or migration of hazardous substances and/or petroleum products. Additional descriptions of the meaning and significance of the regulatory databases can be found in the regulatory database report in Appendix E. The EDR Radius Map™ Report provided a search of the following database categories in accordance with the requirements of the ASTM Standard E1527-13:

Regulatory Database	Search Distance
Fed. National Priorities List (NPL/a.k.a. "Superfund" sites) & Proposed NPL	1-mile
Fed. Delisted NPL	½-mile
Fed. Superfund Enterprise Management System (SEMS; formerly CERCLIS)	½-mile
Fed. SEMS-ARCHIVE (formerly known as CERCLIS NFRAP)	½-mile
Fed. RCRA Corrective Action Sites (CORRACTS)	1-mile
Fed. RCRA Transport/Storage/Disposal (TSD) sites	½-mile
Fed. RCRA Generators (LQG, SGQ & CESQG)	Site & Adjoining
Fed. Institutional Control/Engineering Control (IC/EC) Registries	Site only
Fed. Emergency Response Notification System (ERNS)	Site only
State/Tribal Hazardous Waste Sites (SHWS)	1-mile
State/Tribal Landfill and/or Solid Waste Disposal (LF/SWF)	½-mile
State/Tribal Leaking Storage Tanks	½-mile
State/Tribal Registered Storage Tanks	Site & Adjoining
State/Tribal IC/EC Registries	Site
State/Tribal Voluntary Cleanup Sites	½-mile
State/Tribal Brownfields	½-mile
Additional Federal, State, Tribal and Local Environmental Databases	Variable

Reported distances for adjoining listings discussed in Section 4.3.4, if applicable, are approximate and indicative of the presence of a public roadway or right-of-way between the adjoining site and Property.

The reported gradients indicated where applicable in Sections 4.3.4 and 4.3.5 have been estimated based on a number of factors including but not necessarily limited to field observation, review of topographic maps, database listing details and/or site specific geo-technical data.

4.3.1 Supplemental Database Listings

The regulatory database report was also reviewed for listings on supplemental databases, in addition to the Standard Environmental Record Sources. Any property or adjoining property listings on such databases of significant concern, if identified, is discussed in Sections 4.3.3 and 4.3.4. Otherwise, none of the other supplemental database listings identified by the regulatory database report are considered to be a REC in connection with the Property.

4.3.2 Limited Tier I Vapor Encroachment Screening

Limited analysis of the details of on-site, adjoining and vicinity database sites was conducted to identify potential sources of sub-surface vapor encroachment. This review was based on elements of the ASTM "Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions" (ASTM E2600-15); and also on elements of "Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources" (Buonicore, 2011-S-103-AWMA). Vicinity database sites pertaining to non-petroleum product releases within 1,760 feet of the Property in the up-gradient direction, 365 feet of the Property in the cross gradient direction and 100 feet of the Property in the down gradient direction; and vicinity database sites pertaining to petroleum product releases within 528 feet of the Property in the up-gradient direction, 165 feet of the Property in the cross gradient direction and 100 feet of the Property in the down gradient direction were reviewed to identify active contamination sites with the potential to affect subsurface vapor conditions at the subject property. The potential for vapor encroachment was considered in assessing whether or not a REC exists in connection with the Property when reviewing applicable sites within those distances.

Regulatory database sites with active petroleum or non-petroleum releases that are considered to constitute a vapor encroachment condition (VEC) to the Property, if any, are identified and discussed in Sections 4.3.3, 4.3.4 and 4.3.5.

4.3.3 Property Listings

The following listings of the Property were identified:

Name/Address:	None identified
Database(s):	
Data Discussion:	
REC Discussion:	
VEC Discussion:	

4.3.4 Adjoining Property Listings

The following adjoining property listings were identified. Reported distances, where applicable, are approximate and indicative of the presence of a public roadway or right-of-way between the adjoining site and Property. The reported gradient has been estimated based on a number of factors including but not necessarily limited to field observation, review of topographic maps, database listing details and/or site specific geo-technical data.

Name/Address:	Eastvale Elementary; 13031 Orange Street				
Database(s):	ENVIROSTOR, SCH, CERS				
Distance in feet:	Adjoining	**Direction:**	E	**Gradient:**	Up
Data Discussion:	The ENVIROSTOR, SCH, and CERS databases all indicate this site was part of a school investigation due to nitrate impacts from historical agricultural operations on-site. This site received "No Further Action" on September 12, 2001. No other pertinent data was provided. Based on the no further action status and the current operation as a school, these listings are not considered to be RECs in connection with the Property.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

Name/Address:	River Heights Intermediate School; 7227 Scholar way				
Database(s):	RCRA-NonGen/NLR, ENVIROSTOR, SCH				
Distance in feet:	Adjoining	**Direction:**	SE	**Gradient:**	Cross
Data Discussion:	The ENVIROSTOR and SCH databases indicate this site was part of a school cleanup as part of the Voluntary Cleanup Program due to potential impacts from historical agricultural operations on-site. This site received a "Certified" status on September 12, 2012 and no further action was required. This site is listed on the RCRA-NonGen / NLR database as a non-generator that did not generate hazardous waste in 2012. No violations were listed. Based on the absence of reported violations and the no further action required, these listings are not considered to be RECs in connection with the Property.				
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Property.				
VEC Discussion:	Based on the available data, a VEC is not suspected.				

4.3.5 ASTM Search Distance Findings

The following is a discussion of non-adjoining sites identified as located within the ASTM specified search distance surrounding the Property. In order to keep this discussion informative and concise, discussion(s) is/are provided of the listed site(s) for each database category that appears most likely to impact the Property based on distance, area topography and/or regulatory status. Listings of sites within the applicable search distances not specifically discussed below were reviewed and concluded not to be RECs in connection with the Property or VECs based on various factors including distance, area topography, known or inferred groundwater flow direction and/or regulatory status. Listings for the following databases, if identified, have been discussed above in Sections 4.3.3 and 4.3.4: Registered Storage Tanks, Federal RCRA Generators, Federal and State EC/IC, ERNS. A copy of the full regulatory database report, including available details of all listed sites, is included in Appendix E.

Federal NPL				**# of sites:**	0	**Search Distance:**	1-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal Delisted NPL				**# of sites:**	0	**Search Distance:**	1-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal SEMS				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal SEMS-ARCHIVE				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal CORRACTS				**# of sites:**	0	**Search Distance:**	1-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

Federal RCRA-TSD				**# of sites:**	0	**Search Distance:**	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

State HAZARDOUS WASTE SITE				**# of sites:**	2	**Search Distance:**	1-mile
Notable Listing:	Dick Vander Meer Sons Dairy; 6851 Harrison Avenue						
Distance in feet:	3,910	**Direction:**	W	**Gradient:**	Cross		
Data Discussion:	This site is listed as a school cleanup site due to potential methane off-gassing from historical agricultural operations. This site received no further action on July 6, 2015. Based on the distance and no further action required, this site is not considered to be a REC in connection with the Property.						
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Property.						
VEC Discussion:	Based on the available data, a VEC is not suspected.						

State SOLID WASTE FACILITY/LANDFILL				# of sites:	0	Search Distance:	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

State LEAKING STORAGE TANKS				# of sites:	1	Search Distance:	½-mile
Notable Listing:	Pablo Echeverria Dairy; 7481 Cleveland						
Distance in feet:	2,199	**Direction:**	SSE	**Gradient:**	Cross		
Data Discussion:	This site appears on the LUST database due to impacts to groundwater from gasoline. The LUST case received regulatory closure on September 1, 2004. Based on the regulatory closure granted and distance, this site is not considered to be a REC in connection with the Property.						
REC Discussion:	Based on the details provided above, a REC is not suspected in connection with the Property.						
VEC Discussion:	Based on the available data, a VEC is not suspected.						

State VOLUNTARY CLEANUP SITES				# of sites:	0	Search Distance:	½-mile
Notable Listing:	None						
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

State BROWNFIELD SITES				# of sites:	0	Search Distance:	½-mile
Notable Listing:							
Distance in feet:		**Direction:**		**Gradient:**			
Data Discussion:							
REC Discussion:							
VEC Discussion:							

UNMAPPED/ORPHAN LIST SITES	
Notable Listings:	Hillmann has also reviewed a list of unmapped sites (a.k.a. "Orphan List" sites) indicated by the database report. Unmapped sites that were identified as falling within an applicable specific search distance or warranting discussion have either been discussed in the preceding tables or are detailed below: None

4.4 Additional Environmental Record Sources

Requests have been submitted to local, municipal and state agencies for pertinent records pertaining to the Property, particularly with regard to potential environmental concerns such as petroleum storage tanks, storage and usage of hazardous substances and petroleum products, and/or known or suspected environmental contamination. Where applicable, internet research of government environmental regulatory databases was also conducted, as well as a general cursory

internet search of the Property address, for information indicative of a REC. The following table summarizes the findings of the research:

Source	Type of Request	Outcome
EPA MyProperty	Online search	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.
EPA Envirofacts	Online search	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.
Riverside County Department of Environmental Health Hazardous Materials Management Branch	FOI request	No response was received prior to report issuance.
Riverside County Department of Environmental Health Land Use & Water Resources	FOI request	A response was recieved stating that no records were found.
Riverside County Agricultural Commission	FOI request	No response was received prior to report issuance.
California Department of Toxic Substances Control (DTSC)	FOI request	No response was received prior to report issuance.
CA DTSC (Envirostor)	Online search	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.
Regional Water Quality Control Board (RWQCB)	FOI request	No response was received prior to report issuance.
CA SWRCB (GeoTracker)	Online search	Hillmann searched online for records pertaining to the Property. No records pertaining to the property were found.
South Coast Air Quality Management District (SCAQMD)	FOI request	No response was received prior to report issuance.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

The site reconnaissance consisted of visual and/or physical observations of the Property and improvements, adjoining properties as viewed from the Property boundaries and the surrounding area based on visual observations from adjoining public thoroughfares. Building exteriors were observed at ground level, unless otherwise indicated. Where applicable, representative areas of building interiors were accessed and observed to the extent they were made safely accessible with the cooperation of the site escort.

Site Inspection Personnel:	Mr. Davis Tang
Property Escort/Company:	Mr. Peter Haringsma / Vander Dussen & Haringsma
Inspection Date:	January 14, 2021
Weather Conditions:	Sunny, 72 ºF

5.1.1 Significant Inaccessible Areas

No significant areas of the Property inaccessible at the time of the inspection were noted.

5.1.2 Significant Limiting Site Conditions

No significant limiting site conditions were noted at the time of the site reconnaissance.

5.2 General Site Setting

5.2.1 Site and Vicinity Characteristics

Abutting Roadways:	Schleisman Road to the north; Orange Street to the south
Current Property Use:	Residential
Evidence of Past Property Uses:	A canopy and fencing were present on the Property. According to Mr. Haringsma, the Property owner previously kept a horse onsite.
Evidence of Past Adjoining Property Uses:	None observed
Surrounding Area Uses:	Residential and schools

5.2.2 Current Adjoining Property Uses

Dir	Street Address	Description
N	Schleisman Road	Residential
E	13031 Orange Street	Eastvale Elementary School
S	7227 Scholar Way	River Heights Intermediate School
W	Calina Street	Residential

No visual observations indicative of a potential environmental concern were noted on the adjoining properties.

5.2.3 Topographic Characteristics

Terrain:	Relatively flat
Direction of Downward Slope:	Gently towards the west-southwest
On-site Water Bodies:	None observed
Other Significant Features:	None observed

5.2.4 General Description of Structures

Buildings/# of Floors	One / Single-story
Approx. Building Area:	5,300 SF
Approx. Year Built:	Circa 1990
Ancillary Structures:	A canopy is present to the north of the residential structure.
Sources of Heating & Cooling:	Natural gas and electric powered systems
Potable Water/Sewage Disposal:	Potable well and septic system. See Sections 5.3.15 and 5.3.16 for additional details.

5.3 Interior & Exterior Observations

5.3.1 Storage/Usage of Hazardous Substances and Petroleum Products

The following hazardous substances and petroleum products were observed to be stored and used by property occupants:

Occupant	Substance	Qty/Container Type	Storage Conditions
NA	No significant storage or use noted		

5.3.2 Drums

No hazardous substance or petroleum product drums were noted on the Property.

5.3.3 Unidentified Substance Containers

No unidentified substance containers suspected of containing hazardous substance or petroleum product were noted on the Property.

5.3.4 Other Hazardous Substances/Petroleum Products

No other containers of hazardous substances or petroleum products were noted on the Property.

5.3.5 Bulk Petroleum/Hazardous Material Storage Tanks

The following storage tanks for bulk petroleum or hazardous material storage were identified or reported to be present; or are suspected to be present based on visual observations:

AST/ UST	Product	Capacity	Construction	Year Installed	Status	Location/Notes
(none)						

5.3.6 PCBs in Oil Filled Electrical/Hydraulic Equipment

No oil-filled electrical or hydraulic equipment was identified at the Property.

5.3.7 Odors

No strong, pungent or noxious odors were noted at the Property.

5.3.8 Pools of Liquid

No standing water or pools of liquid likely to contain hazardous substances or petroleum products were noted at the Property.

5.3.9 Interior Stains or Corrosion

No interior stains or corrosion due to hazardous substance/petroleum products spills/releases were noted at the Property.

5.3.10 Interior Drains/Sumps

No floor drains or sump pits were noted at the Property other than for storm water or sewage management.

5.3.11 Exterior Pits/Ponds/Lagoons

No exterior pits, ponds or lagoons was identified on the Property in connection with waste treatment or disposal.

5.3.12 Stained Soil, Pavement/Stressed Vegetation

No stained soil, pavement or stressed vegetation was observed at the Property.

5.3.13 On-Site Solid Waste Disposal/Fill Material

No evidence of any on-site solid waste dumping was noted at the Property. No evidence of recently deposited fill materials was observed at the Property.

5.3.14 Waste Water

Sanitary sewage generated at the Property is discharged via an on-site septic system. See Section 5.3.15 for additional details regarding the septic system.

Storm water runoff at the Property is discharged off-site to local streams/drainage systems via overland flow.

No additional waste water discharges were identified at the Property.

5.3.15 Septic Systems

According to Mr. Haringsma, a septic system is present and utilized for on-site disposal of sanitary sewage. Mr. Haringsma is unaware of the location of the septic system and Hillmann was not able to visually identify the location, but is most likely located adjoining to the north of the residential structure. Given the lack of identified prior industrial or other high risk site uses, septic systems formerly used at the Property would not be considered to be a REC in connection with the Property. Hillmann recommends that prior to redevelopment, the septic system should be removed and disposed of under applicable local rules and regulations.

5.3.16 Wells

The following groundwater wells were identified at the Property:

A pump system for a water well was observed at the southeastern portion of the Property. Hillmann recommends that prior to redevelopment, the water well should be properly abandoned under applicable local rules and regulations.

5.3.17 Railroad Spurs

No railroad spurs were identified on the Property.

6.0 INTERVIEWS

6.1 Interviews with Past and Present Owners and Occupants

Subject	Name/Affiliation	Summary
Property Owner / Representative	Mr. Peter Haringsma / Vander Dussen & Haringsma	Mr. Haringsma was interviewed via email about the historical uses at the site. Pertinent information where applicable are discussed in the relevant sections of the report.
Property Occupants	Not applicable	Property was unoccupied.
Past Owners, Occupants, Operators	Not applicable	Past owners/occupants of the Property were not available for interview at the time of the assessment.
Owners/Occupants of Adjoining or Nearby Properties	Not applicable	The Property was not an abandoned property with evidence of unauthorized uses or uncontrolled access; therefore, interviews with adjoining or nearby property owners or occupants were not conducted.

6.2 Interviews with State and/or Local Government Officials

Written and on-line requests for environmental records of the Property from State and Local governmental agencies are detailed in Section 4.4.

7.0 BUSINESS ENVIRONMENTAL RISKS

In accordance with the contract agreement for this assessment, Hillmann has performed cursory reviews of several potential Business Environmental Risks (also known as "Non-Scope Considerations"). The ASTM E1527-13 standard defines the term business environmental risk (BER) as, *"a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice."*

7.1 Asbestos-Containing Material (ACM)

The contracted scope of work included a cursory visual screening of the accessed portions of buildings at the Property built prior to 1990 for suspect asbestos containing materials (ACM). The information provided in this section, where applicable, is limited to identification of potential suspect materials in the readily accessible and observed areas of the building, and their general condition. This is not intended to be a comprehensive survey for the presence of ACM, and no testing has been conducted.

No buildings built prior to 1990 were present at the Property.

7.2 Lead-Based Paint

The contracted scope of work included a cursory visual screening of the condition of painted surfaces in the accessed areas of residential buildings/units built prior to 1980. This is not intended to constitute a comprehensive survey for LBP or potential lead hazards, and no testing has been conducted.

Painted surfaces observed within the accessed areas of the residential building were noted to be in good condition.

7.3 Radon

Data compiled by the USEPA, as summarized by the regulatory database report, indicated that the Property is located in an area classified as Zone 2 or 'moderate risk' area for radon. Radon testing was not included in the scope of this assessment.

7.4 Mold/Microbial Damage

As per the contracted scope of work, Hillmann conducted a cursory visual screening of the accessed areas of the building for evidence of significant damage to building materials and finishes as result of moisture intrusion and/or mold/microbial growth. Hillmann did not observe evidence of significant problems with moisture intrusion or mold/microbial growth at the Property.

7.5 NWI Mapped Wetlands

As indicated in the Physical Setting Source table of Section 4.1, no NWI mapped wetlands areas were depicted at the Property by the EDR Geocheck-Physical Setting Source Addendum (attached in Appendic E).

The scope of work for this assessment excludes a visual determination of regulated wetlands at the Property. It is emphasized that, regardless of the wetlands data obtained via the EDR Geocheck-Physical Setting Source Addendum, a delineation of regulated wetlands by a qualified professional would be warranted to determine the presence or absence of regulated wetlands at the Property.

7.6 Lead in Drinking Water

The scope of work for this assessment included a review of the potential for elevated levels of lead in drinking water by determining the source of the drinking water supply and a review of available compliance or testing data.

Potable water service at the Property is provided by a private well located at the southeastern portion of the Property. No water quality testing data for the on-site potable well was provided by the Property contact.

8.0 REFERENCES

ASTM E1527-13-Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process; ASTM International, 2013

ASTM E12600-15-Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transaction, ASTM International, 2015

EDR Radius Map Report with GeoCheck™, Environmental Data Resources, 2021

EDR City Directory Abstract Report, Environmental Data Resources, 2021

EDR Sanborn Map Report, Environmental Data Resources, 2021

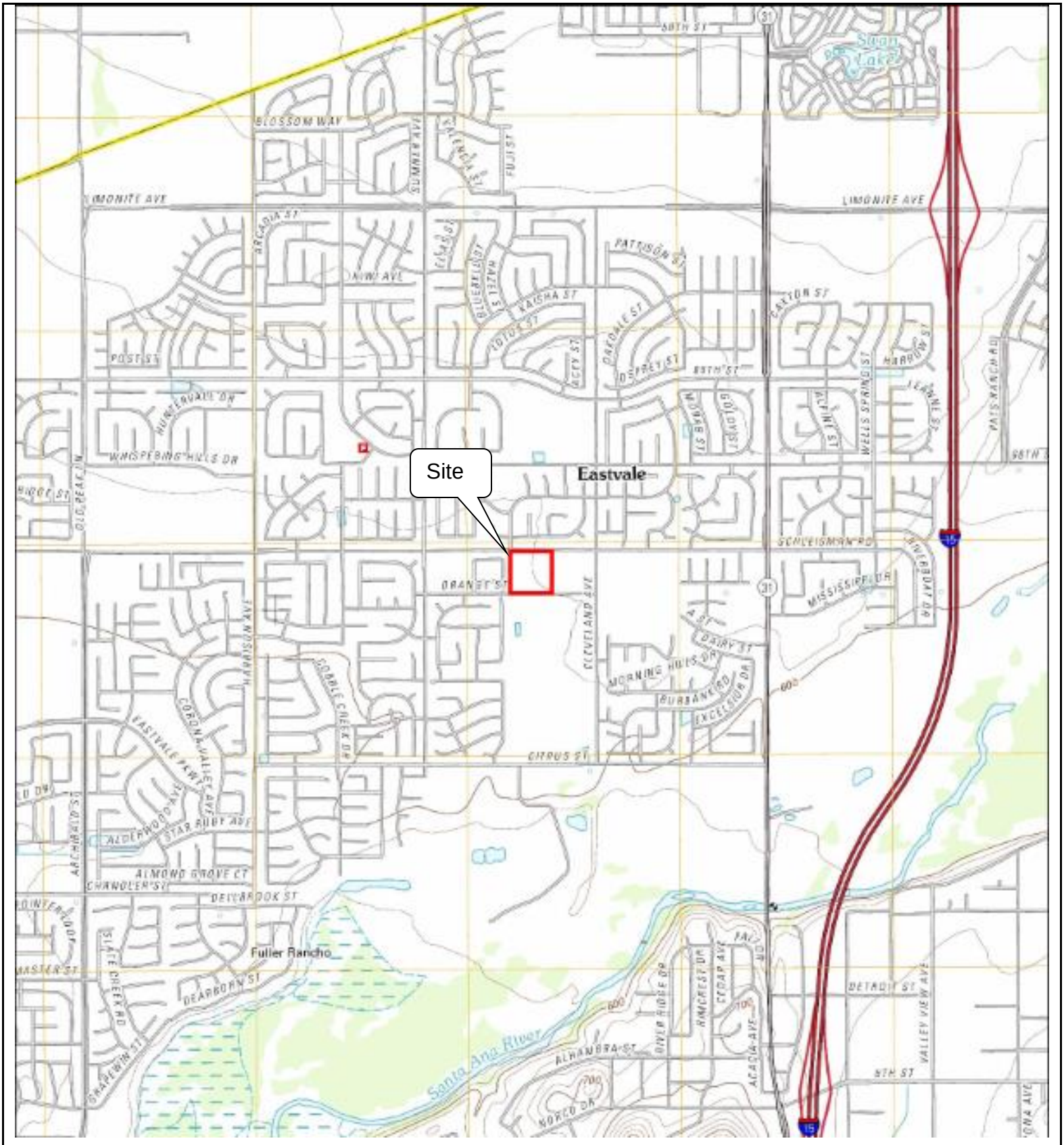
Methodology for Identifying the Area of Concern Around a Property Potentially Impacted by Vapor Migration from Nearby Contaminated Sources; A. Buonicore, 2011

9.0 APPENDICES

Appendix A	Site Diagram / Vicinity Map
Appendix B	Site Photographs
Appendix C	Questionnaires / User Provided Information
Appendix D	Historical Records Documentation
Appendix E	Regulatory Records Documentation
Appendix F	Other Documents / Lab Results
Appendix G	Project Personnel Qualifications

APPENDIX A

MAPS / DIAGRAMS



HILLMANN CONSULTING

Figure 1: Site Vicinity Map

13175 Orange Street
Eastvale, California

N

SCALE: (NOT TO SCALE)

PROJECT No.: C3-8285



HILLMANN CONSULTING

Figure 2: Site Diagram

13175 Orange Street
Eastvale, California

N

SCALE: (NOT TO SCALE)

PROJECT No.: C3-8285

APPENDIX B

SITE PHOTOGRAPHS

SITE PHOTOGRAPHS



View of the residential structure, facing northwest



View of the residential structure, facing southwest



View of the residential structure, facing southeast



View of the garage



View of the living room



View of the bedroom

PHASE I ESA - SITE PHOTOGRAPHS

13175 Orange Street,
Eastvale, California

Project No.:	C3-8285

HILLMANN
CONSULTING

SITE PHOTOGRAPHS



View of the canopy



View of the Property, facing east



View of the field, facing north



View of the well pump system



Close up view of the well pump system



View of foundation for a former water tank

PHASE I ESA - SITE PHOTOGRAPHS

13175 Orange Street,
Eastvale, California

Project No.:	C3-8285

HILLMANN
CONSULTING

APPENDIX C

QUESTIONNAIRES/USER PROVIDED DOCUMENTATION

HILLMANN
CONSULTING

Phase I ESA - User Questionnaire

Instructions: This form should be completed by a representative of the USER of the Phase I ESA report and returned to Hillmann via email, or in person during the site inspection. Typically, the report USER is the entity on whose behalf the report is being prepared.

In order to qualify for one of the Landowner Liability Protections (LLPs)187 offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"),188 the user must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. These inquiries must also be conducted by EPA Brownfield Assessment and Characterization grantees. The user should provide the following information to the environmental professional. Failure to conduct these inquiries could result in a determination that "all appropriate inquiries" is not complete. Please complete the following questionnaire and provide any of the referenced information (if available) to Hillmann.

Respondent Name:	Matt Maehara
Company/Affiliation:	Meritage Homes
Address:	5 Peters Canyon Road, Suite 310, Irvine, CA 92606
Response Date:	1/25/21

1. Environmental liens that are filed or recorded against the property (40 CFR 312.25).

Did a search of recorded land title records identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

Yes ☐ *No* ☑

2. Activity and use limitations that are in place on the property or that have been filed or recorded against the property (40 CFR 312.26(a)(1)(v) and vi)).

Did a search of recorded land title records (or judicial records where appropriate, identify any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state or local law?

Yes ☐ *No* ☑

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?

Yes ☐ *No* ☑

4. Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?

Yes ☑ *No* ☐

5. Commonly Known or Reasonably Ascertainable Information

Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example,

5a. Do you know the past uses of the property?

Yes ☐ *No* ☑

5b. Do you know of specific chemicals that are present or were once were present at the property?

Yes ☐ *No* ☑

5c. Do you know of spills or other chemical releases that have taken place at the property?

Yes ☐ *No* ☑

5d. Do you know of any environmental cleanups that have taken place at the property?

Yes ☐ *No* ☑

6. The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation:

Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of releases at the property?

Yes ☐ *No* ☑

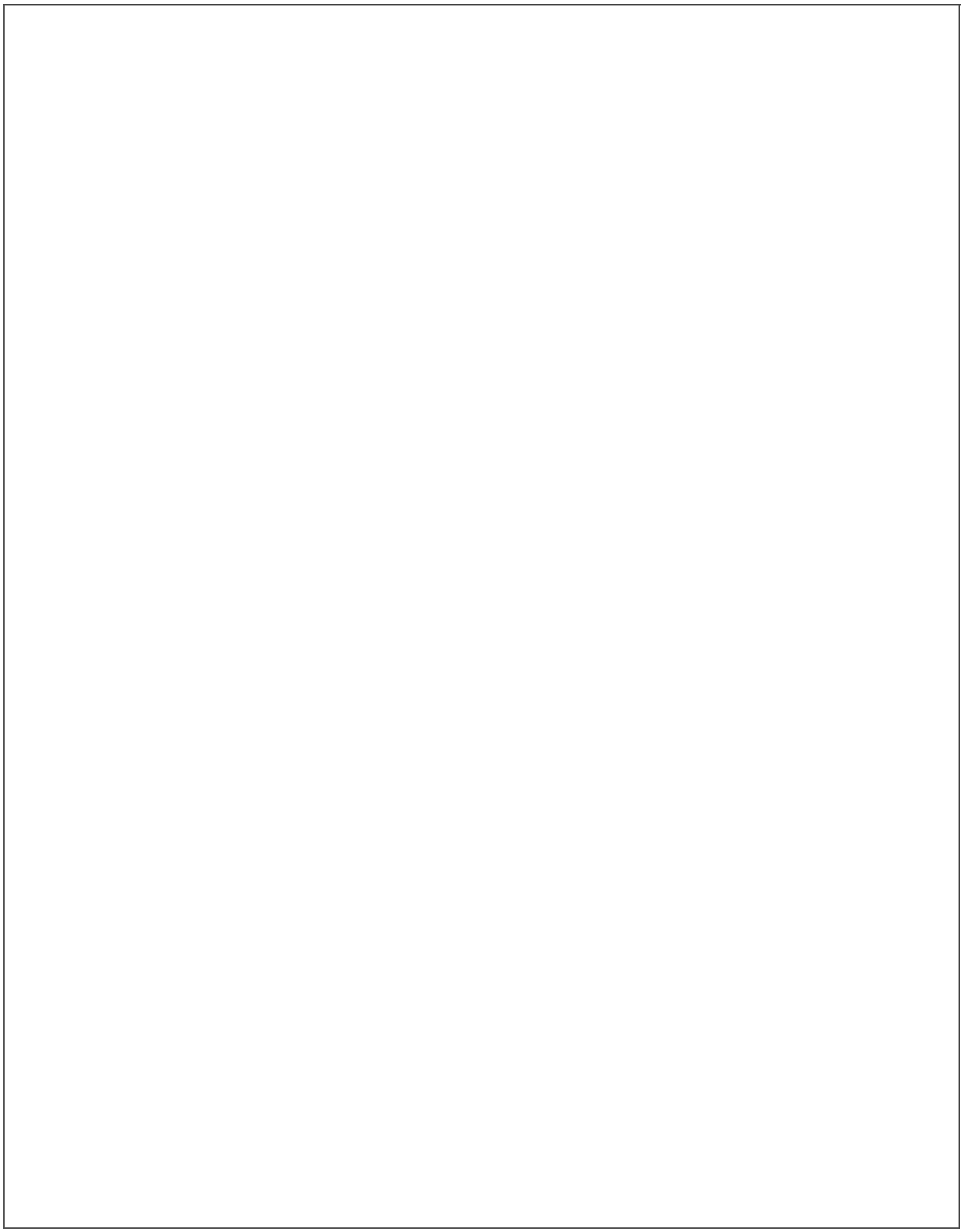
7. Litigation/Administrative Proceedings/Government Notices

As the User of this ESA, do have knowledge of *(1)* any pending, threatened, or past litigation relevant to *hazardous substances* or *petroleum products* in, on, or from the *property*; *(2)* any pending, threatened, or past administrative proceedings relevant to *hazardous substances* or *petroleum products* in, on or from the *property*; and *(3)* any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to *hazardous substances* or *petroleum products*.

Yes ☐ *No* ☑

Where applicable, provide additional details regarding any questions that were answered "Yes".

8. Reason for Performing Phase I ESA: Meritage Homes is requesting for a Phase I ESA investigation because the Home Builder is looking to purchase the property and is looking to review any environmentally related issues with the site during feasibility.



APPENDIX D

HISTORICAL RECORDS DOCUMENTATION

13175 Orange Street

13175 Orange Street

Corona, CA 92880

Inquiry Number: 6324689.8

January 08, 2021

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

01/08/21

Site Name:

13175 Orange Street
13175 Orange Street
Corona, CA 92880
EDR Inquiry # 6324689.8

Client Name:

Hillmann Environmental Co.
1745 W Orangewood Avenue
Orange, CA 92868-0000
Contact: Davis Tang

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
2002	1"=500'	Acquisition Date: January 01, 2002	USGS/DOQQ
1994	1"=500'	Acquisition Date: June 01, 1994	USGS/DOQQ
1990	1"=500'	Flight Date: August 29, 1990	USDA
1989	1"=500'	Flight Date: August 03, 1989	USDA
1985	1"=500'	Flight Date: September 13, 1985	USDA
1975	1"=500'	Flight Date: August 01, 1975	USGS
1967	1"=500'	Flight Date: May 15, 1967	USDA
1959	1"=500'	Flight Date: October 16, 1959	USDA
1953	1"=500'	Flight Date: February 02, 1953	USDA
1948	1"=500'	Flight Date: July 10, 1948	USGS
1938	1"=500'	Flight Date: May 30, 1938	USDA
1931	1"=500'	Flight Date: September 18, 1931	FAIR

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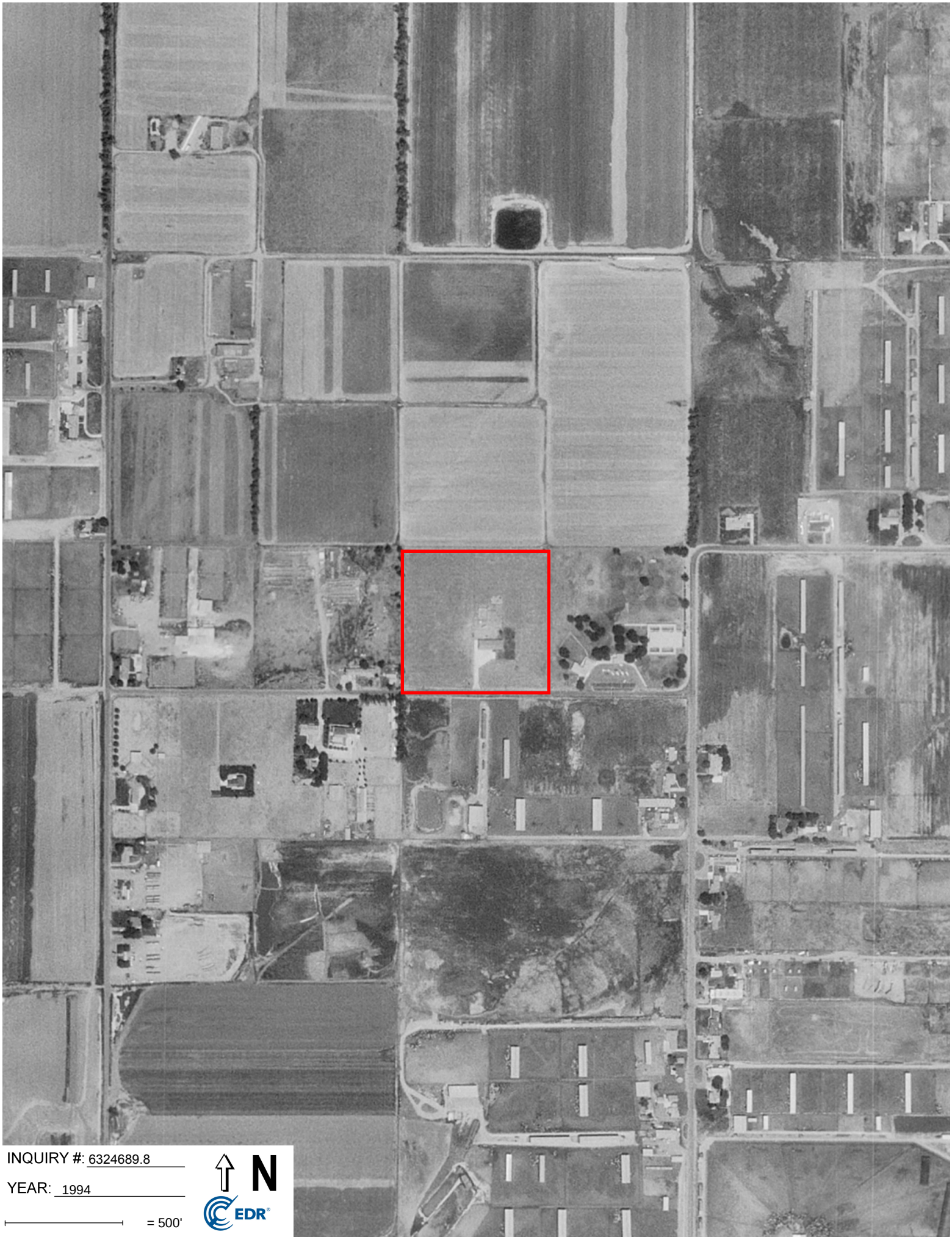

INQUIRY #: 6324689.8
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 6324689.8
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 6324689.8
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 6324689.8
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 6324689.8
YEAR: 2002
= 500'
N
EDR



INQUIRY #: 6324689.8

YEAR: 1994

= 500'

N

EDR



INQUIRY #: 6324689.8

YEAR: 1990

= 500'

N

EDR



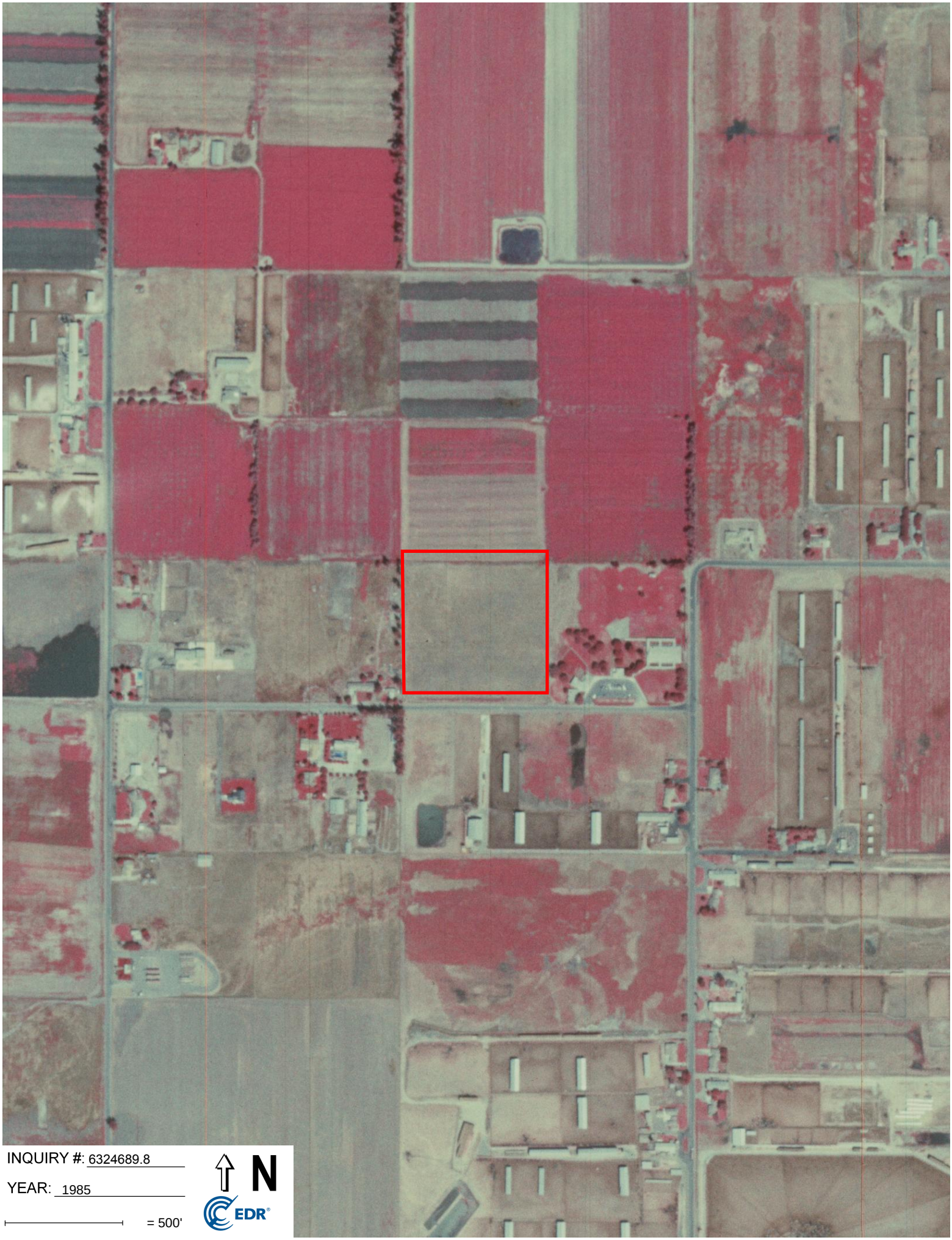
INQUIRY #: 6324689.8

YEAR: 1989

= 500'

N

EDR



INQUIRY #: 6324689.8

YEAR: 1985

= 500'

N

EDR


INQUIRY #: 6324689.8
YEAR: 1975
= 500'
N
EDR



INQUIRY #: 6324689.8

YEAR: 1967

= 500'

N

EDR



INQUIRY #: 6324689.8

YEAR: 1959

= 500'

N

EDR



INQUIRY #: 6324689.8

YEAR: 1953

= 500'

N

EDR



INQUIRY #: 6324689.8

YEAR: 1948

= 500'

N

EDR



INQUIRY #: 6324689.8

YEAR: 1938

= 500'

N

EDR



INQUIRY #: 6324689.8

YEAR: 1931

= 500'

N

EDR

13175 Orange Street

13175 Orange Street

Corona, CA 92880

Inquiry Number: 6324689.4

January 08, 2021

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

01/08/21

Site Name:

13175 Orange Street
13175 Orange Street
Corona, CA 92880
EDR Inquiry # 6324689.4

Client Name:

Hillmann Environmental Co.
1745 W Orangewood Avenue
Orange, CA 92868-0000
Contact: Davis Tang

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Hillmann Environmental Co. were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# NA
Project: C3-8285

Coordinates:

Latitude:	33.959958 33° 57' 36" North
Longitude:	-117.570294 -117° 34' 13" West
UTM Zone:	Zone 11 North
UTM X Meters:	447309.56
UTM Y Meters:	3757862.70
Elevation:	620.00' above sea level

Maps Provided:

2012
1981
1973
1967
1954
1947
1942
1902

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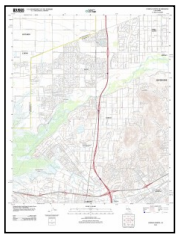
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Topo Sheet Key

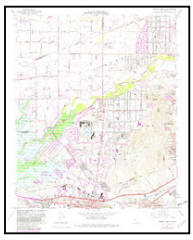
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Corona North
2012
7.5-minute, 24000

1981 Source Sheets



Corona North
1981
7.5-minute, 24000
Aerial Photo Revised 1978

1973 Source Sheets



Corona North
1973
7.5-minute, 24000
Aerial Photo Revised 1973

1967 Source Sheets



Corona North
1967
7.5-minute, 24000
Aerial Photo Revised 1966

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1954 Source Sheets



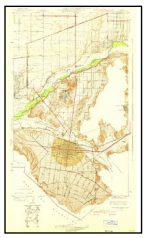
Corona North
1954
7.5-minute, 24000
Aerial Photo Revised 1952

1947 Source Sheets



CORONA
1947
15-minute, 50000

1942 Source Sheets



Corona and Vicinity
1942
7.5-minute, 31680

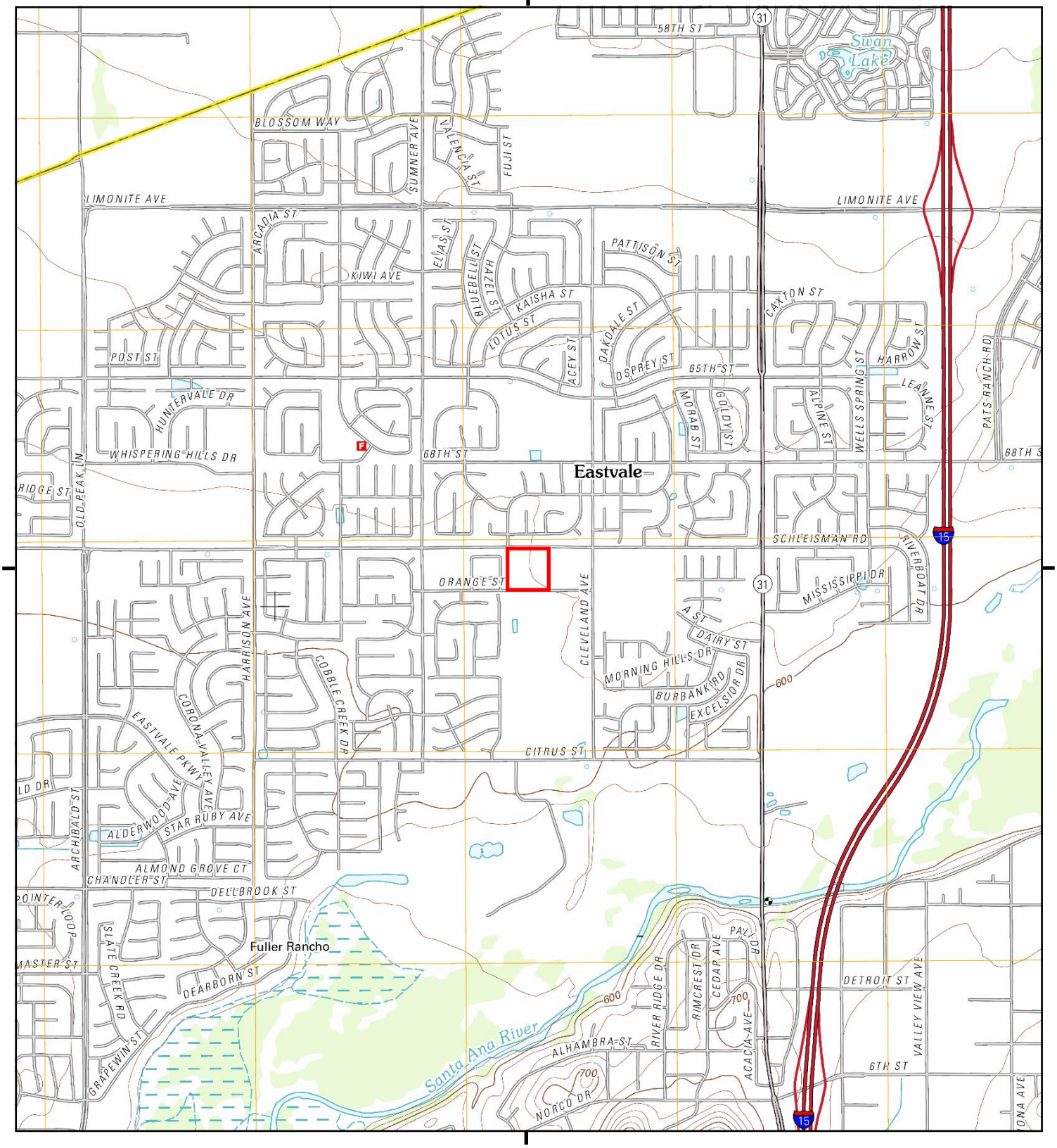
1902 Source Sheets



Corona
1902
30-minute, 125000

Historical Topo Map

2012



This report includes information from the following map sheet(s).

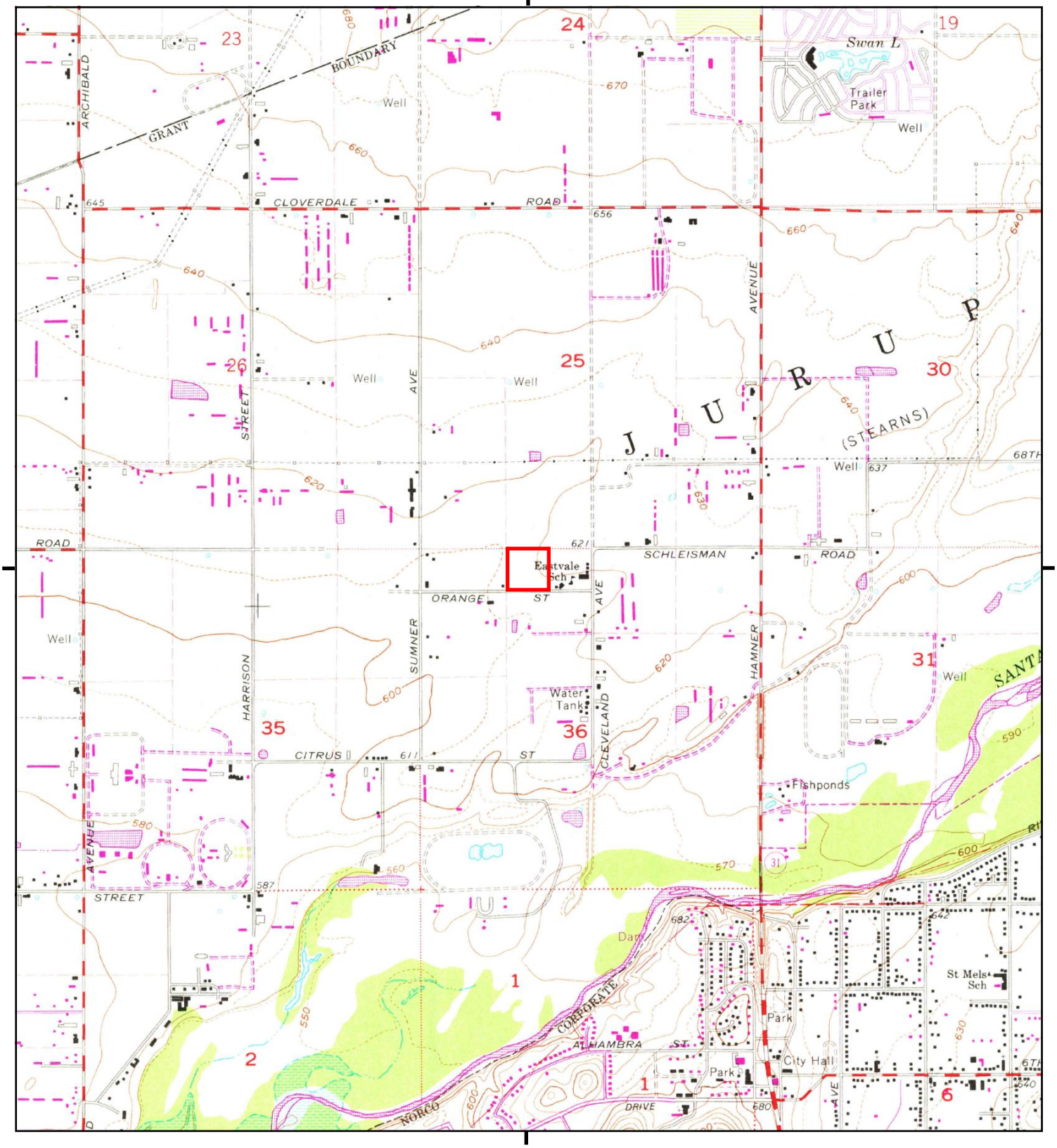
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona North, 2012, 7.5-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N



This report includes information from the following map sheet(s).

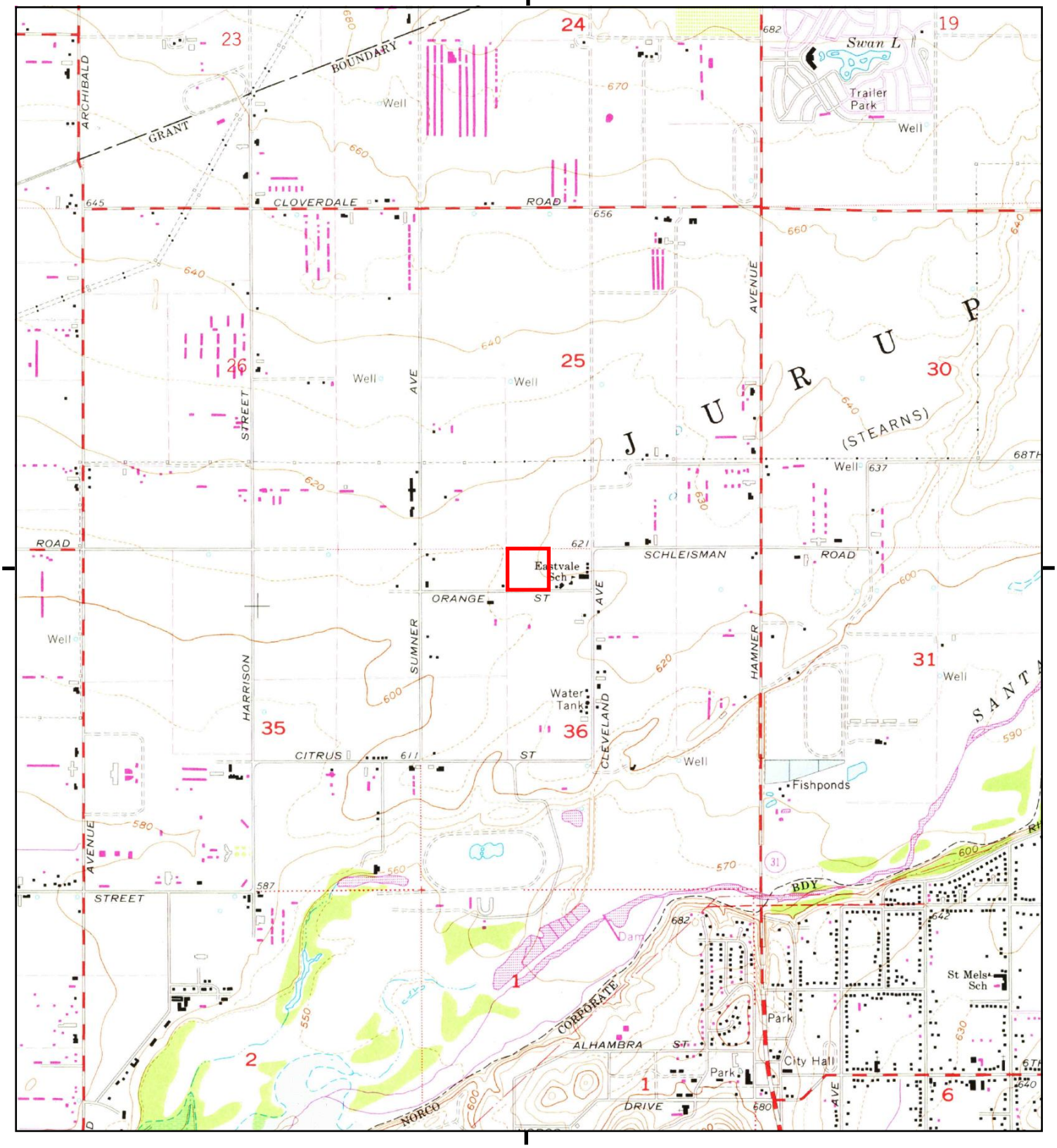
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona North, 1981, 7.5-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

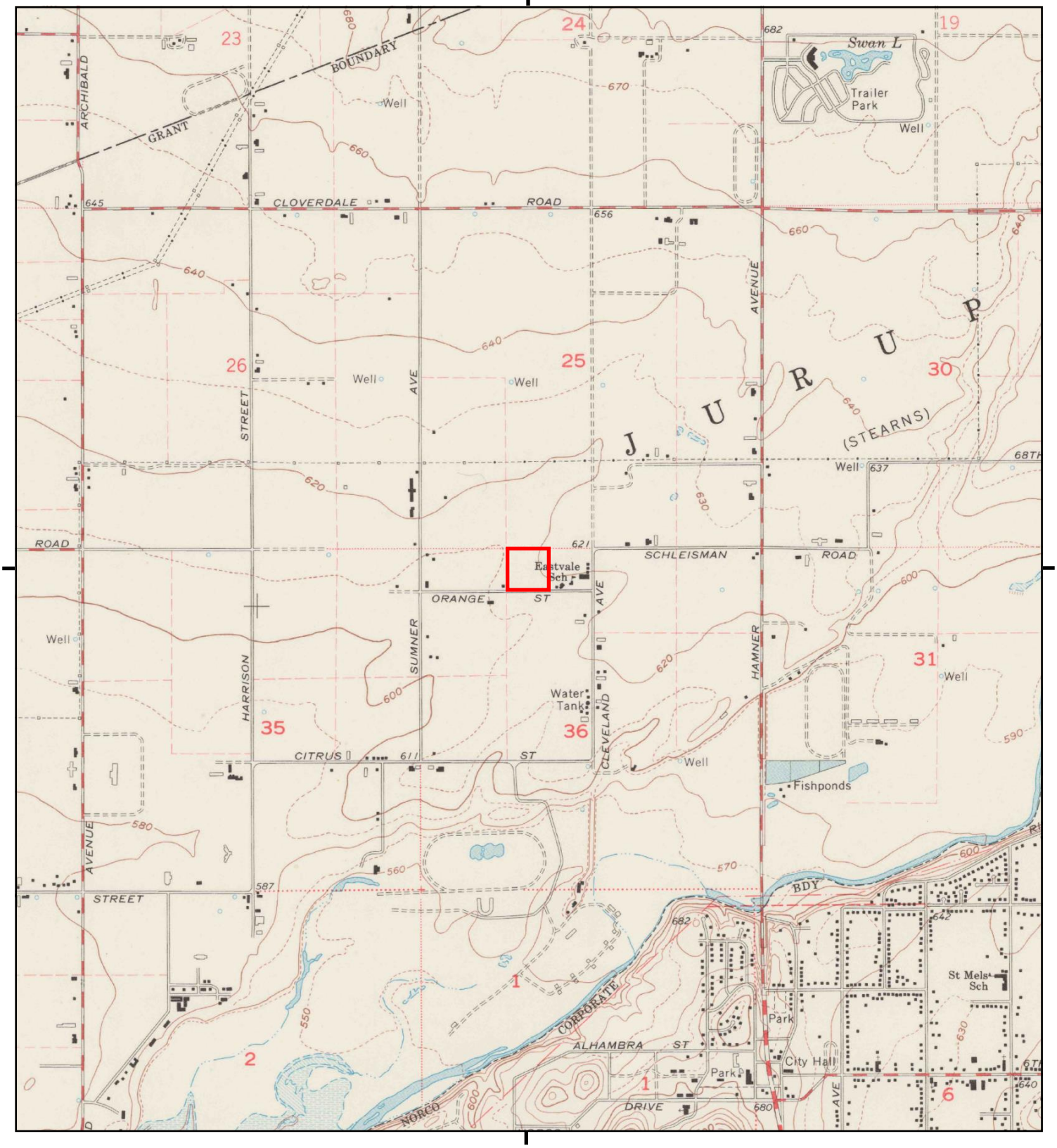
TP, Corona North, 1973, 7.5-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Historical Topo Map

1967



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

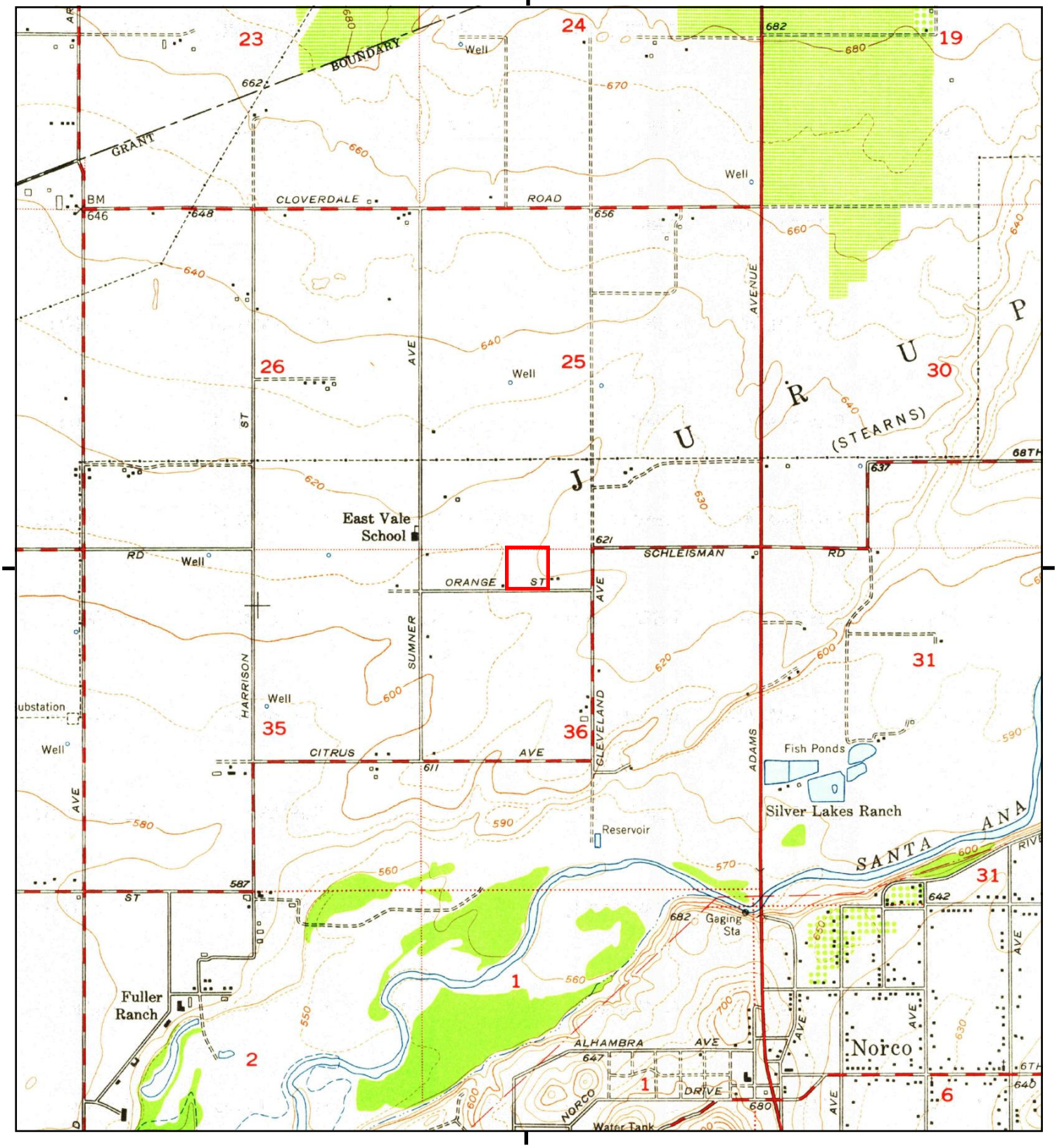
TP, Corona North, 1967, 7.5-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Historical Topo Map

1954



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

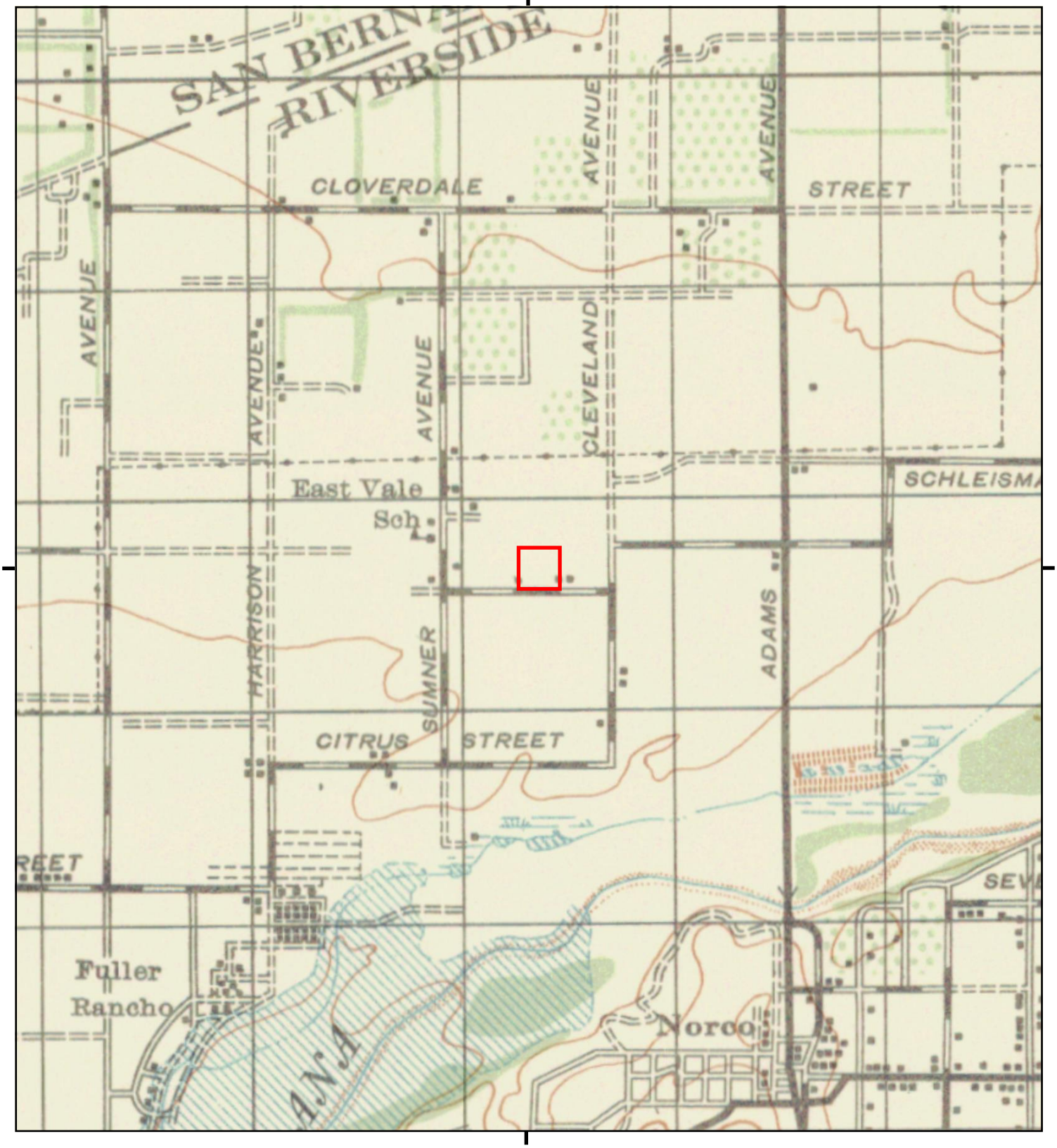
TP, Corona North, 1954, 7.5-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Historical Topo Map

1947



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

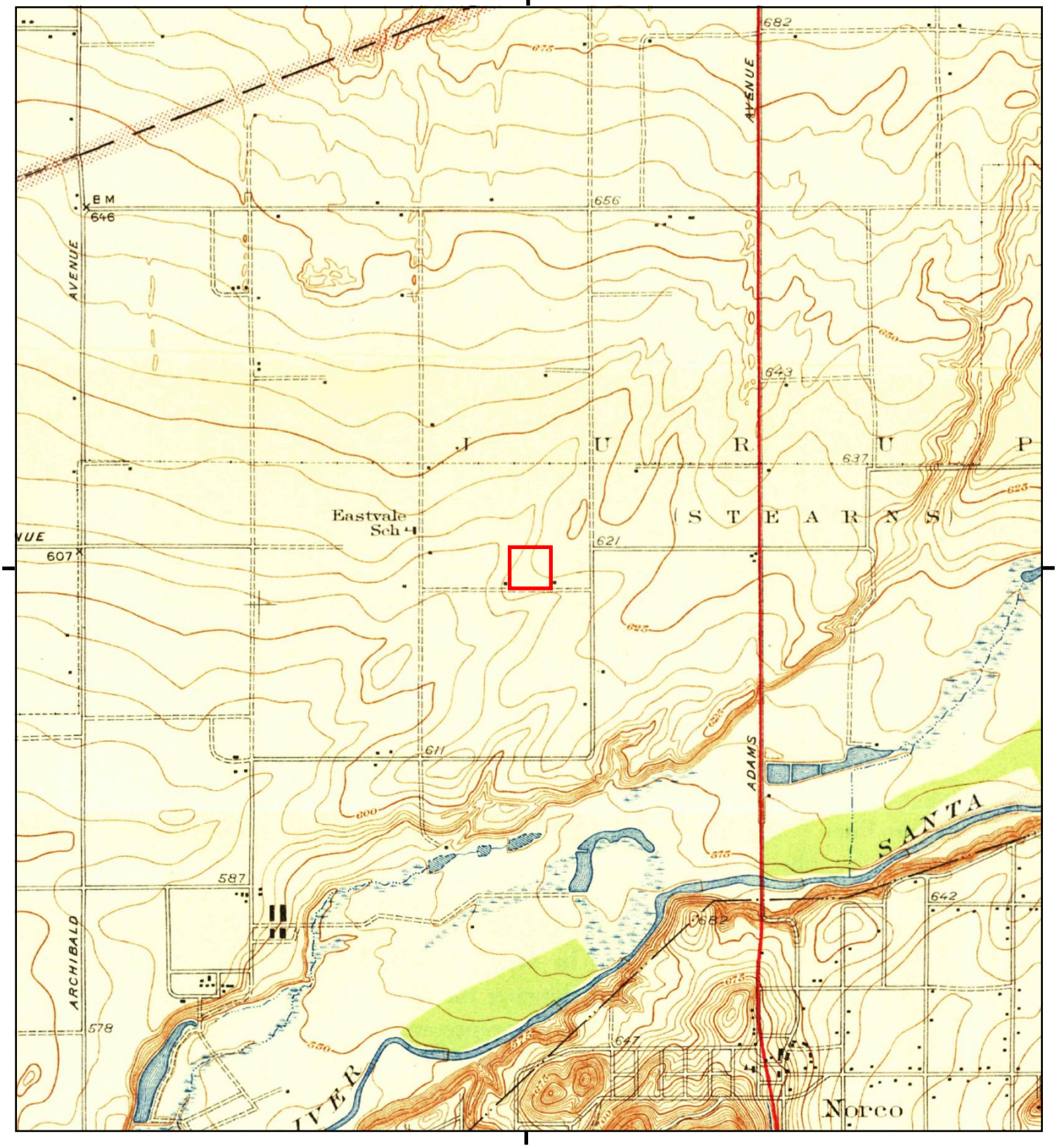
TP, CORONA, 1947, 15-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

Historical Topo Map

1942



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona and Vicinity, 1942, 7.5-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N



This report includes information from the following map sheet(s).

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Corona, 1902, 30-minute

SITE NAME: 13175 Orange Street
ADDRESS: 13175 Orange Street
Corona, CA 92880
CLIENT: Hillmann Environmental Co.

N

13175 Orange Street

13175 Orange Street

Corona, CA 92880

Inquiry Number: 6324689.3

January 08, 2021

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

01/08/21

Site Name:

13175 Orange Street
13175 Orange Street
Corona, CA 92880
EDR Inquiry # 6324689.3

Client Name:

Hillmann Environmental Co.
1745 W Orangewood Avenue
Orange, CA 92868-0000
Contact: Davis Tang

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The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # F1F2-4768-B153

PO # NA

Project C3-8285

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: F1F2-4768-B153

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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13175 Orange Street
13175 Orange Street
Corona, CA 92880

Inquiry Number: 6324689.5
January 08, 2021

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

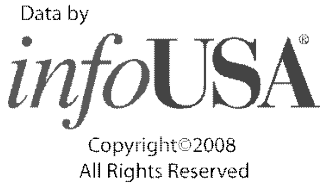
Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1921 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2017	Cole Information Services	X	X	X	-
2014	Cole Information Services	X	X	X	-
2009	Cole Information Services	X	X	X	-
2004	Cole Information Services	X	X	X	-
2002	SBC PACIFIC BELL	-	X	X	-
2001	Haines & Company, Inc.	-	X	X	-
1999	Cole Information Services	X	X	X	-
1996	Pacific Bell	-	X	X	-
1994	Cole Information Services	-	X	X	-
1993	Pacific Bell	-	X	X	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell Yellow Pages	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1981	Pacific Telephone	-	X	X	-
1977	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	-	X	X	-
1967	Luskey Brothers & Co.	-	-	-	-
1966	Luskey Brothers & Company Inc.	-	-	-	-
1961	Luskey Brothers & Co.	-	-	-	-
1960	Luskeys Brothers & Co., Publishers	-	-	-	-
1956	Luskey Brothers & Co.	-	X	X	-
1955	Luskeys Brothers Co., Publishers	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1946	Southern California Telephone Company	-	-	-	-
1945	Los Angeles Directory Co.	-	-	-	-
1941	Pacific Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1931	Southern California Telephone Co.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Kaasen Directory Co.	-	-	-	-
1921	Riverside Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

Address	*Type*	*Findings*
13031 Orange St	Client Entered	X
7227 Scholar Way	Client Entered	

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

13175 Orange Street
Corona, CA 92880

FINDINGS DETAIL

Target Property research detail.

ORANGE ST

13175 ORANGE ST

Year	*Uses*	*Source*
2017	DEBORAH KIRSCHNER	Cole Information Services
2014	DEBORAH KIRSCHNER	Cole Information Services
2009	KRAIG KIRSCHNER	Cole Information Services
2004	KRAIG KIRSCHNER	Cole Information Services
1999	KRAIG KIRSCHNER	Cole Information Services

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BRASS RING LN

13252 BRASS RING LN

Year	*Uses*	*Source*
2017	HERMAN KATER	Cole Information Services
2014	ANITA MCKINNON	Cole Information Services
2009	HERMAN KATER	Cole Information Services
1999	HERMAN KATER	Cole Information Services

13255 BRASS RING LN

Year	*Uses*	*Source*
2017	YUANGUI WANG	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	MARK PULVER	Cole Information Services
1999	MARK PULVER	Cole Information Services

13262 BRASS RING LN

Year	*Uses*	*Source*
2017	ANTHONY EASTER	Cole Information Services
2014	ANTHONY EASTER	Cole Information Services
2009	ANTHONY EASTER	Cole Information Services
1999	ANTHONY EASTER	Cole Information Services

13265 BRASS RING LN

Year	*Uses*	*Source*
2017	JUAN ALVAREZ	Cole Information Services
2014	JUAN ALVAREZ	Cole Information Services
2009	JUAN ALVAREZ	Cole Information Services
1999	JUAN ALVAREZ	Cole Information Services

MIDNIGHT ROSE CIR

7114 MIDNIGHT ROSE CIR

Year	*Uses*	*Source*
2017	SAMNANG TAN	Cole Information Services
2014	RANDY BAYONA	Cole Information Services

FINDINGS

Year	Uses	Source
2009	JACLYN LOI	Cole Information Services
1999	JACLYN LOI	Cole Information Services

7117 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	JUAN ANGULO	Cole Information Services
2014	JUAN ANGULO	Cole Information Services
2009	JUAN ANGULO	Cole Information Services
1999	JUAN ANGULO	Cole Information Services

7124 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	ANGEL GARCIA	Cole Information Services
2014	EDWARD GARCIA	Cole Information Services
2009	MONOPOLY BROKERS INC	Cole Information Services
	EDDY GARCIA	Cole Information Services
1999	EDDY GARCIA	Cole Information Services

7127 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	TONY CRUTCHFIELD	Cole Information Services
2014	PEY CHEN	Cole Information Services
2009	ALEX PEREZ	Cole Information Services
1999	ALEX PEREZ	Cole Information Services

7134 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	SHEIKH AHMED	Cole Information Services
2014	SHEIKH AHMED	Cole Information Services
2009	GLENN HENRY	Cole Information Services
1999	GLENN HENRY	Cole Information Services

7137 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	NAJMA KHAN	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

7144 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	PORSCHA LUMATI	Cole Information Services
2014	PORSCHA LUMANTI	Cole Information Services
2009	ALBERT HUTCHISON	Cole Information Services
1999	ALBERT HUTCHISON	Cole Information Services

7147 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	JIMMY MURO	Cole Information Services
2014	JIMMY MURO	Cole Information Services
2009	JIMMY MURO	Cole Information Services
1999	JIMMY MURO	Cole Information Services

7154 MIDNIGHT ROSE CIR

Year	Uses	Source
2014	DAVID TICE	Cole Information Services
2009	A & M MARKETING	Cole Information Services
	ROBERT FLORES	Cole Information Services
1999	ROBERT FLORES	Cole Information Services

7157 MIDNIGHT ROSE CIR

Year	Uses	Source
2014	SUNIL JOSEPH	Cole Information Services
2009	SUNIL JOSEPH	Cole Information Services
1999	SUNIL JOSEPH	Cole Information Services

7164 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	ARVIN PINEDA	Cole Information Services
2014	ARVIN PINEDA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

7167 MIDNIGHT ROSE CIR

Year	Uses	Source
2014	RAMON GUTIERREZ	Cole Information Services
2009	RAMON GUTIERREZ	Cole Information Services
1999	RAMON GUTIERREZ	Cole Information Services

FINDINGS

7174 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	RYAN MARQUIS	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

7184 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	TIM YIN	Cole Information Services
2014	TIM YIN	Cole Information Services
2009	NICHOLAS FREE	Cole Information Services
1999	NICHOLAS FREE	Cole Information Services

7187 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	CHRIS CRAN	Cole Information Services
2014	CHRIS CRAN	Cole Information Services
2009	CHRIS CRAN	Cole Information Services
1999	CHRIS CRAN	Cole Information Services

7194 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	MARIA TICE	Cole Information Services
2014	ARIADNE TICE	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services

7197 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	AMY HOUSE	Cole Information Services
2014	JIAN HUANG	Cole Information Services
2009	SERGIO MARIN	Cole Information Services

7204 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	JIAN ZHANG	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	JIAN ZHANG	Cole Information Services
1999	JIAN ZHANG	Cole Information Services

FINDINGS

7207 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	NING WANG	Cole Information Services
2014	MARIA WARASKY	Cole Information Services

7214 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	GEORGE GUO	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	SYLVIA MEJIA	Cole Information Services
1999	SYLVIA MEJIA	Cole Information Services

7217 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	AUSPICIO YAN	Cole Information Services
2014	LEE KRUSA	Cole Information Services
2009	AUSPICIO YAN	Cole Information Services
1999	AUSPICIO YAN	Cole Information Services

7224 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	WENDY YOLAS	Cole Information Services
2014	JASMINE NETTERS	Cole Information Services

7227 MIDNIGHT ROSE CIR

Year	Uses	Source
2017	ANTHONY NGUYEN	Cole Information Services
2014	TRIEU BUI	Cole Information Services
2009	TRIEU BUI	Cole Information Services
1999	TRIEU BUI	Cole Information Services

ORANGE

13215 ORANGE

Year	Uses	Source
2002	Martinez J	SBC PACIFIC BELL

13225 ORANGE

Year	Uses	Source
2002	APARTMENTS	SBC PACIFIC BELL
	Ramirez David	SBC PACIFIC BELL

Year	Uses	Source
2002	B Guzman Ubaldo	SBC PACIFIC BELL

13230 ORANGE

Year	Uses	Source
2002	REAR Murillo Joaquin	SBC PACIFIC BELL

13555 ORANGE

Year	Uses	Source
1990	Gomez Richard L	Pacific Bell

ORANGE ST

13031 ORANGE ST

Year	Uses	Source
2017	CORONANORCO UNIFIED SCHOOL DISTRICT	Cole Information Services
	EASTVALE ELEMENTARY SCHOOL	Cole Information Services
2014	CORONANORCO UNIFIED SCHOOL DISTRICT	Cole Information Services
	EASTVALE ELEMENTARY SCHOOL	Cole Information Services
2009	CORONA NORCO UNIFIED	Cole Information Services
2004	HORIZON HIGH SCHOOL	Cole Information Services

Orange St

13031 Orange St

Year	Uses	Source
2001	CORONASC HORIZON	Haines & Company, Inc.
	HIGH HORIZON HIGH	Haines & Company, Inc.
	SCHOOL	Haines & Company, Inc.

ORANGE ST

13031 ORANGE ST

Year	Uses	Source
1999	HORIZON HIGH SCHOOL	Cole Information Services
	CORONA-NORCO UNIFIED SCHOOL DISTRICT HIGH SCHOOLS GRDE	Cole Information Services

FINDINGS

Orange St

13031 Orange St

Year	Uses	Source
1993	Horizon High School	Pacific Bell
	Horizon High School	Pacific Bell
	Horizon House Crisis Line	Pacific Bell
1981	Eastvale Elementary	Pacific Telephone

ORANGE ST

13099 ORANGE ST

Year	Uses	Source
1956	Arrateig F P	Luskey Brothers & Co.

13215 ORANGE ST

Year	Uses	Source
2009	NAM OH	Cole Information Services
	NAM OH	Cole Information Services
2001	MARTINEZJ	Haines & Company, Inc.
	GOMEZ Richard	Haines & Company, Inc.
1999	J MARTINEZ	Cole Information Services
	NAM OH	Cole Information Services
	J MARTINEZ	Cole Information Services
	NAM OH	Cole Information Services
1996	Martinez J	Pacific Bell
1994	MARTINEZ, J	Cole Information Services
	MARTINEZ, J	Cole Information Services
1993	Martinez Joana A	Pacific Bell
	Martinez J	Pacific Bell
1981	Rocha Roger	Pacific Telephone
1977	Eaton Franklin J	Pacific Telephone
1970	Eaton Franklin J	Pacific Telephone
1956	Mc Vay G O	Luskey Brothers & Co.

13225 ORANGE ST

Year	Uses	Source
2009	ISMAEL GUZMAN	Cole Information Services
	ISMAEL GUZMAN	Cole Information Services
2004	RICHARD GOMEZ	Cole Information Services

FINDINGS

Year	Uses	Source
2004	RICHARD GOMEZ	Cole Information Services
2001	GUZMANUbaldo	Haines & Company, Inc.
	GOMEZ Richard L	Haines & Company, Inc.
1999	ISMAEL GUZMAN	Cole Information Services
	ISMAEL GUZMAN	Cole Information Services
1996	Rodriguez Perla Guadalupe	Pacific Bell
1994	GOMEZ, RICHARD L	Cole Information Services
	GOMEZ, RICHARD L	Cole Information Services
1993	Gomez Richard L	Pacific Bell

13230 ORANGE ST

Year	Uses	Source
2009	RAYMOND SOUDEN	Cole Information Services
	RAYMOND SOUDEN	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
1999	RAYMOND SOUDEN	Cole Information Services
	RAYMOND SOUDEN	Cole Information Services
1994	SOUDEN, WILLIAM	Cole Information Services
	SOUDEN, WILLIAM	Cole Information Services
1981	Souden Wm	Pacific Telephone
1977	Woll D Raymond	Pacific Telephone
1970	Woll D Raymond	Pacific Telephone

SCHOLAR WAY

7227 SCHOLAR WAY

Year	Uses	Source
2017	RIVER HEIGHTS INTERMEDIATE	Cole Information Services
2014	RIVER HEIGHTS INTERMEDIATE	Cole Information Services
	CORONANORCO UNIFIED SCHOOL DISTRICT	Cole Information Services

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
13031 ORANGE ST	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13031 Orange St	2017, 2014, 2009, 2004, 2002, 1999, 1996, 1994, 1990, 1986, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13099 ORANGE ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13215 ORANGE	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13215 ORANGE ST	2017, 2014, 2009, 2004, 2002, 1999, 1994, 1990, 1986, 1967, 1966, 1961, 1960, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13215 ORANGE ST	2017, 2014, 2004, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13225 ORANGE	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13225 ORANGE ST	2017, 2014, 2009, 2004, 2002, 1999, 1994, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13225 ORANGE ST	2017, 2014, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13230 ORANGE	2017, 2014, 2009, 2004, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13230 ORANGE ST	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13230 ORANGE ST	2017, 2014, 2002, 2001, 1996, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13252 BRASS RING LN	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13255 BRASS RING LN	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13262 BRASS RING LN	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
13265 BRASS RING LN	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
13555 ORANGE	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7114 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7117 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7124 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7127 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7134 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7137 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7144 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7147 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7154 MIDNIGHT ROSE CIR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7157 MIDNIGHT ROSE CIR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7164 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7167 MIDNIGHT ROSE CIR	2017, 2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7174 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7184 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7187 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

FINDINGS

Address Researched	Address Not Identified in Research Source
7194 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7197 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7204 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7207 MIDNIGHT ROSE CIR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7214 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7217 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7224 MIDNIGHT ROSE CIR	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7227 MIDNIGHT ROSE CIR	2004, 2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7227 SCHOLAR WAY	2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921
7227 Scholar Way	2017, 2014, 2009, 2004, 2002, 2001, 1999, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
13175 Orange Street	2002, 2001, 1996, 1994, 1993, 1990, 1986, 1981, 1977, 1970, 1967, 1966, 1961, 1960, 1956, 1955, 1951, 1946, 1945, 1941, 1939, 1936, 1931, 1930, 1927, 1925, 1924, 1921

APPENDIX E

REGULATORY RECORDS DOCUMENTATION

13175 Orange Street
13175 Orange Street
Corona, CA 92880

Inquiry Number: 06324689.2r
January 08, 2021

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Orphan Summary	67
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GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-13
Physical Setting Source Map Findings	A-15
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

13175 ORANGE STREET
CORONA, CA 92880

COORDINATES

Latitude (North):	33.9599580 - 33° 57' 35.84''
Longitude (West):	117.5702940 - 117° 34' 13.05''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	447308.4
UTM Y (Meters):	3757668.5
Elevation:	620 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5640930 CORONA NORTH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140603
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
13175 ORANGE STREET
CORONA, CA 92880

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	EASTVALE ELEMENTARY	13031 ORANGE STREET	ENVIROSTOR, SCH, CERS	Higher	452, 0.086, ESE
B2	RIVER HEIGHTS INTERM	7227 SCHOLAR WAY	RCRA NonGen / NLR	Higher	694, 0.131, SE
A3	RIVER HEIGHTS INTER/	CLEVELAND AVENUE/ORA	ENVIROSTOR, SCH	Higher	697, 0.132, ESE
B4	BOERSMA BROS	7080 CLEVELAND	HIST UST	Higher	805, 0.152, ESE
5	JOHN HOOGENDAM DAIRY	12871 SCHLEISMAN ROA	HIST UST	Higher	975, 0.185, ENE
6	PABLO ECHEVERRIA DAI	7481 CLEVELAND	LUST, Cortese, ENF, WDS, CIWQS, CERS	Lower	2199, 0.416, SSE
7	DICK VANDER MEER SON	6851 HARRISON AVE	ENVIROSTOR, LUST, SCH, Cortese, WDS, CIWQS, CERS	Lower	3960, 0.750, West
8	C. VANDER STELT & SO	6701 HARRISON	ENVIROSTOR, SCH, WDS, CIWQS	Higher	4189, 0.793, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators
RCRA-VSQG ---------- RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System

US ENG CONTROLS Engineering Controls Sites List
US INST CONTROLS Institutional Controls Sites List

Federal ERNS list

ERNS Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST Leaking Underground Storage Tanks on Indian Land
CPS-SLIC Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST Underground Storage Tank Listing
UST Active UST Facilities
AST Aboveground Petroleum Storage Tank Facilities
INDIAN UST Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP Voluntary Cleanup Priority Listing
VCP Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT Waste Management Unit Database
SWRCY Recycler Database
HAULERS Registered Waste Tire Haulers Listing
INDIAN ODI Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 Torres Martinez Reservation Illegal Dump Site Locations
ODI Open Dump Inventory
IHS OPEN DUMPS Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL Delisted National Clandestine Laboratory Register

HIST Cal-Sites	Historical Calsites Database
CDL	Clandestine Drug Labs
Toxic Pits	Toxic Pits Cleanup Act Sites
CERS HAZ WASTE	CERS HAZ WASTE
US CDL	National Clandestine Laboratory Register
PFAS	PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

SWEEPS UST	SWEEPS UST Listing
CERS TANKS	California Environmental Reporting System (CERS) Tanks
CA FID UST	Facility Inventory Database

Local Land Records

LIENS	Environmental Liens Listing
LIENS 2	CERCLA Lien Information
DEED	Deed Restriction Listing

Records of Emergency Release Reports

HMIRS	Hazardous Materials Information Reporting System
CHMIRS	California Hazardous Material Incident Report System
LDS	Land Disposal Sites Listing
MCS	Military Cleanup Sites Listing
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS	Formerly Used Defense Sites
DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations

FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites
LEAD SMELTERS ---- Lead Smelter Sites
US AIRS ---- Aerometric Information Retrieval System Facility Subsystem
US MINES ---- Mines Master Index File
ABANDONED MINES ---- Abandoned Mines
FINDS ---- Facility Index System/Facility Registry System
UXO ---- Unexploded Ordnance Sites
DOCKET HWC ---- Hazardous Waste Compliance Docket Listing
ECHO ---- Enforcement & Compliance History Information
FUELS PROGRAM ---- EPA Fuels Program Registered Listing
CA BOND EXP. PLAN ---- Bond Expenditure Plan
CUPA Listings ---- CUPA Resources List
DRYCLEANERS ---- Cleaner Facilities
EMI ---- Emissions Inventory Data
ENF ---- Enforcement Action Listing
Financial Assurance ---- Financial Assurance Information Listing
HAZNET ---- Facility and Manifest Data
ICE ---- ICE
HIST CORTESE ---- Hazardous Waste & Substance Site List
HWP ---- EnviroStor Permitted Facilities Listing
HWT ---- Registered Hazardous Waste Transporter Database
MINES ---- Mines Site Location Listing
MWMP ---- Medical Waste Management Program Listing
NPDES ---- NPDES Permits Listing
PEST LIC ---- Pesticide Regulation Licenses Listing
PROC ---- Certified Processors Database
Notify 65 ---- Proposition 65 Records
UIC ---- UIC Listing
UIC GEO ---- UIC GEO (GEOTRACKER)
WASTEWATER PITS ---- Oil Wastewater Pits Listing
WDS ---- Waste Discharge System
WIP ---- Well Investigation Program Case List
MILITARY PRIV SITES ---- MILITARY PRIV SITES (GEOTRACKER)
PROJECT ---- PROJECT (GEOTRACKER)
WDR ---- Waste Discharge Requirements Listing
CIWQS ---- California Integrated Water Quality System
CERS ---- CERS
NON-CASE INFO ---- NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS ---- OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS ---- PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT ---- SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ ---- Well Stimulation Project (GEOTRACKER)
MINES MRDS ---- Mineral Resources Data System
HWTS ---- Hazardous Waste Tracking System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---- EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF ---- Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 07/27/2020 has revealed that there are 4 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EASTVALE ELEMENTARY Facility Id: 33010022 Status: No Further Action	***13031 ORANGE STREET***	***ESE 0 - 1/8 (0.086 mi.)***	***A1***	***9***
RIVER HEIGHTS INTER/ Facility Id: 33020005 Status: Certified	***CLEVELAND AVENUE/ORA***	***ESE 1/8 - 1/4 (0.132 mi.)***	***A3***	***15***
C. VANDER STELT & SO Facility Id: 30020005 Status: Certified	***6701 HARRISON***	***WNW 1/2 - 1 (0.793 mi.)***	***8***	***56***

Lower Elevation	Address	Direction / Distance	Map ID	Page
DICK VANDER MEER SON Facility Id: 33020006 Status: No Further Action	***6851 HARRISON AVE***	***W 1/2 - 1 (0.750 mi.)***	***7***	***36***

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
PABLO ECHEVERRIA DAI	***7481 CLEVELAND***	***SSE 1/4 - 1/2 (0.416 mi.)***	***6***	***30***
Database: LUST, Date of Government Version: 09/08/2020 Status: Completed - Case Closed Global Id: T0606523936				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category. depending on the level of threat to public health and safety or the. environment they pose.

A review of the SCH list, as provided by EDR, and dated 07/27/2020 has revealed that there are 2 SCH sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
EASTVALE ELEMENTARY Facility Id: 33010022 Status: No Further Action	***13031 ORANGE STREET***	***ESE 0 - 1/8 (0.086 mi.)***	***A1***	***9***
RIVER HEIGHTS INTER/ Facility Id: 33020005 Status: Certified	***CLEVELAND AVENUE/ORA***	***ESE 1/8 - 1/4 (0.132 mi.)***	***A3***	***15***

Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BOERSMA BROS Facility Id: 00000052692	7080 CLEVELAND	ESE 1/8 - 1/4 (0.152 mi.)	B4	29
JOHN HOOGENDAM DAIRY Facility Id: 00000036724	12871 SCHLEISMAN ROA	ENE 1/8 - 1/4 (0.185 mi.)	5	30

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/14/2020 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
RIVER HEIGHTS INTERM EPA ID:: CAL000373545	7227 SCHOLAR WAY	SE 1/8 - 1/4 (0.131 mi.)	B2	12

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 06/22/2020 has revealed that there is 1 Cortese site within approximately 0.5 miles of the target property.

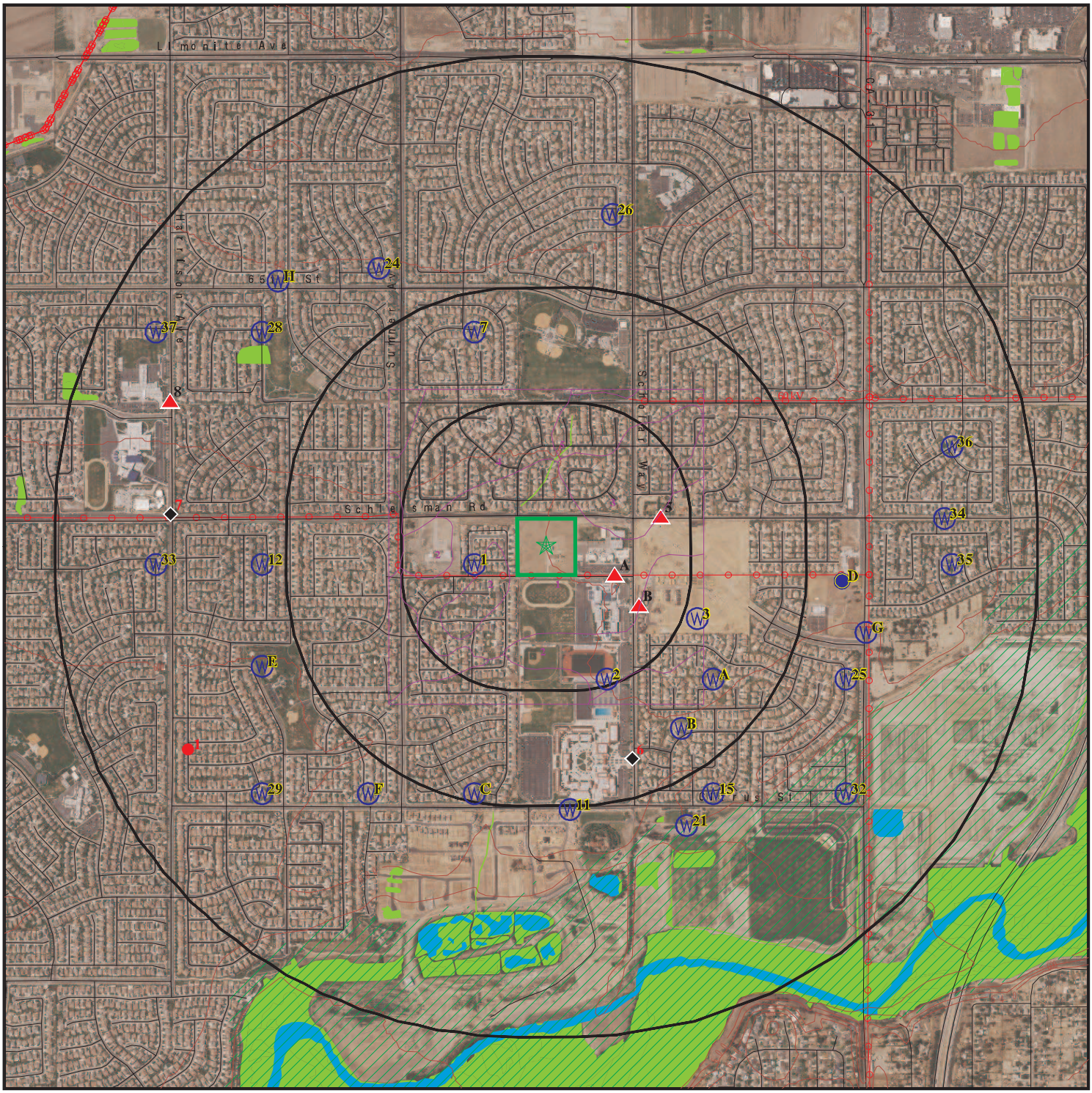
Lower Elevation	Address	Direction / Distance	Map ID	Page
PABLO ECHEVERRIA DAI Cleanup Status: COMPLETED - CASE CLOSED	***7481 CLEVELAND***	***SSE 1/4 - 1/2 (0.416 mi.)***	***6***	***30***

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 2 records.

Site Name	Database(s)
WILD ROSE DEVELOPMENT	LUST
LYON/COPLEY CORONA ASSO. L.P.	CPS-SLIC

OVERVIEW MAP - 06324689.2R



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 13175 Orange Street ADDRESS: 13175 Orange Street Corona CA 92880 LAT/LONG: 33.959958 / 117.570294	CLIENT: Hillmann Environmental Co. CONTACT: Davis Tang INQUIRY #: 06324689.2r DATE: January 08, 2021 2:20 pm

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DETAIL MAP - 06324689.2R



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 13175 Orange Street ADDRESS: 13175 Orange Street Corona CA 92880 LAT/LONG: 33.959958 / 117.570294	CLIENT: Hillmann Environmental Co. CONTACT: Davis Tang INQUIRY #: 06324689.2r DATE: January 08, 2021 2:22 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		1	1	0	2	NR	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		1	1	NR	NR	NR	2
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	0	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	0	NR	NR	NR	0
HIST UST	0.250		0	2	NR	NR	NR	2
CERS TANKS	0.250		0	0	NR	NR	NR	0
CA FID UST	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	1	NR	NR	1
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	0	NR	NR	0
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	2	5	2	2	0	11

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **EASTVALE ELEMENTARY** **ENVIROSTOR** **S107736259**
ESE **13031 ORANGE STREET** **SCH** **N/A**
< 1/8 **CORONA, CA 92880** **CERS**
0.086 mi.
452 ft. **Site 1 of 2 in cluster A**

Relative: Higher

Actual: 621 ft.

ENVIROSTOR:

Name:	EASTVALE ELEMENTARY
Address:	13031 ORANGE STREET
City,State,Zip:	CORONA, CA 92880
Facility ID:	33010022
Status:	No Further Action
Status Date:	09/12/2001
Site Code:	404150
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	10
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Kamili Siglowide
Supervisor:	Charles Ridenour
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	60
Senate:	31
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.95913
Longitude:	-117.5674
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA
Potential COC:	Nitrate Nitrite
Confirmed COC:	Nitrate Nitrite
Potential Description:	SOIL
Alias Name:	CORONA-NORCA USD
Alias Type:	Alternate Name
Alias Name:	CORONA/NORCO USD-EASTVALE ELEM SCHOOL
Alias Type:	Alternate Name
Alias Name:	EASTVALE ELEMENTARY SCHOOL SITE
Alias Type:	Alternate Name
Alias Name:	HORIZON CONTINUATION HIGH SCHOOL
Alias Type:	Alternate Name
Alias Name:	404150
Alias Type:	Project Code (Site Code)
Alias Name:	33010022
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	11/09/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	11/21/2000

EASTVALE ELEMENTARY (Continued) **S107736259**

Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 10/04/2000
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 11/21/2001
Comments: DTSC sent a CRU to the accounting to summarize costs associated with the VCA.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 09/18/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: EASTVALE ELEMENTARY
Address: 13031 ORANGE STREET
City,State,Zip: CORONA, CA 92880
Facility ID: 33010022
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Kamili Siglowide
Supervisor: Charles Ridenour
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404150
Assembly: 60
Senate: 31
Special Program Status: Not reported
Status: No Further Action
Status Date: 09/12/2001
Restricted Use: NO
Funding: School District
Latitude: 33.95913

EASTVALE ELEMENTARY (Continued) **S107736259**

Longitude:	-117.5674
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS, RESIDENTIAL AREA
Potential COC:	Nitrate, Nitrite
Confirmed COC:	Nitrate, Nitrite
Potential Description:	SOIL
Alias Name:	CORONA-NORCA USD
Alias Type:	Alternate Name
Alias Name:	CORONA/NORCO USD-EASTVALE ELEM SCHOOL
Alias Type:	Alternate Name
Alias Name:	EASTVALE ELEMENTARY SCHOOL SITE
Alias Type:	Alternate Name
Alias Name:	HORIZON CONTINUATION HIGH SCHOOL
Alias Type:	Alternate Name
Alias Name:	404150
Alias Type:	Project Code (Site Code)
Alias Name:	33010022
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	11/09/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	11/21/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	10/04/2000
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	11/21/2001
Comments:	DTSC sent a CRU to the accounting to summarize costs associated with the VCA.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	09/18/2000
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported

EASTVALE ELEMENTARY (Continued) **S107736259**

Schedule Due Date: Not reported
Schedule Revised Date: Not reported

CERS:
Name: EASTVALE ELEMENTARY
Address: 13031 ORANGE STREET
City,State,Zip: CORONA, CA 92880
Site ID: 336962
CERS ID: 33010022
CERS Description: School Investigation

Affiliation:
Affiliation Type Desc: Lead Project Manager
Entity Name: KAMILI SIGLOWIDE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: SACRAMENTO
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Supervisor
Entity Name: Charles Ridenour
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

B2 **RIVER HEIGHTS INTERMEDIATE SCHOOL** **RCRA NonGen / NLR** **1024833853**
SE **7227 SCHOLAR WAY** **CAL000373545**
1/8-1/4 **EASTVALE, CA 92880**
0.131 mi.
694 ft. **Site 1 of 2 in cluster B**

Relative: **Higher**

Actual: **622 ft.**

RCRA NonGen / NLR:
Date Form Received by Agency: 2012-04-11 00:00:00.0
Handler Name: RIVER HEIGHTS INTERMEDIATE SCHOOL
Handler Address: 7227 SCHOLAR WAY
Handler City,State,Zip: EASTVALE, CA 92880
EPA ID: CAL000373545
Contact Name: TERRY LONG
Contact Address: 2820 CLARK AVE
Contact City,State,Zip: NORCO, CA 92860
Contact Telephone: 951-736-3316
Contact Fax: 951-736-7199
Contact Email: TMLONG@CNUSD.K12.CA.US
Contact Title: Not reported
EPA Region: 09
Land Type: Not reported
Federal Waste Generator Description: Not a generator, verified
Non-Notifier: Not reported
Biennial Report Cycle: Not reported
Accessibility: Not reported

RIVER HEIGHTS INTERMEDIATE SCHOOL (Continued) **1024833853**

Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	2820 CLARK AVE
Mailing City,State,Zip:	NORCO, CA 92860-1903
Owner Name:	CORONA NORCO UNIFIED SCH DIST
Owner Type:	Other
Operator Name:	TERRY LONG
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-06 17:00:39.0

RIVER HEIGHTS INTERMEDIATE SCHOOL (Continued) **1024833853**

Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	TERRY LONG
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2820 CLARK AVE
Owner/Operator City,State,Zip:	NORCO, CA 92860
Owner/Operator Telephone:	951-736-3316
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	CORONA NORCO UNIFIED SCH DIST
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	2820 CLARK AVE
Owner/Operator City,State,Zip:	NORCO, CA 92860-1903
Owner/Operator Telephone:	951-736-3316
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2012-04-11 00:00:00.0
Handler Name:	RIVER HEIGHTS INTERMEDIATE SCHOOL
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

List of NAICS Codes and Descriptions:

NAICS Code:	61111
NAICS Description:	ELEMENTARY AND SECONDARY SCHOOLS

Facility Has Received Notices of Violations:

Violations:	No Violations Found

RIVER HEIGHTS INTERMEDIATE SCHOOL (Continued) **1024833853**

Evaluation Action Summary:
Evaluations: No Evaluations Found

A3
ESE
1/8-1/4
0.132 mi.
697 ft.

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS **ENVIROSTOR** **S105628778**
CLEVELAND AVENUE/ORANGE STREET **SCH** **N/A**
CORONA, CA 92880

Site 2 of 2 in cluster A

Relative:
Higher

Actual:
621 ft.

ENVIROSTOR:

Name:	RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS
Address:	CLEVELAND AVENUE/ORANGE STREET
City,State,Zip:	CORONA, CA 92880
Facility ID:	33020005
Status:	Certified
Status Date:	09/12/2012
Site Code:	404395
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	80
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Amit Pathak
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	60
Senate:	31
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.95904
Longitude:	-117.5669
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - LIVESTOCK
Potential COC:	Xylenes TPH-diesel Toluene Benzene Methane Naphthalene
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL
Alias Name:	CORONA-NORCO UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	CORONA-NORCO USD-PRPOSED ECHEVERRIA SITE
Alias Type:	Alternate Name
Alias Name:	ECHEVERRIA PROPERTY
Alias Type:	Alternate Name
Alias Name:	ELEANOR ROOSEVELT HIGH SCHOOL
Alias Type:	Alternate Name
Alias Name:	RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS
Alias Type:	Alternate Name
Alias Name:	RIVER HEIGHTS INTERMEDIATE SCHOOL
Alias Type:	Alternate Name
Alias Name:	110033606890
Alias Type:	EPA (FRS #)
Alias Name:	T0606523936
Alias Type:	GeoTracker Global ID
Alias Name:	404395

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Alias Type: Project Code (Site Code)
Alias Name: 33020005
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/12/2012
Comments: Project is complet with No Further Action

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/06/2003
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/20/2005
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/20/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/19/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/21/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 09/14/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 12/16/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 09/08/2004
Comments: Not reported

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	04/21/2004
Comments:	Not reported

Completed Area Name:	Roosevelt High School
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	06/26/2006
Comments:	DTSC concurred with the information presented in the Operation and Maitenance Report

Completed Area Name:	Riverheights Intermediate School
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	10/12/2006
Comments:	DTSC approved the Removal Action Completion report. The report documents implementation of activities included in the DTSC approved Removal Action Workplan.

Completed Area Name:	Roosevelt High School
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	09/22/2006
Comments:	Approved With Comments. Also note that the portion of the school is alreay opened on 9/5/06 after confirmation sampling as per the e-mail by District representatve.

Completed Area Name:	Roosevelt High School
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	04/07/2008
Comments:	DTSC approved the Removal Action Completion Report provided DTSC comments are incorporated in future operation and maintenance field work/reports.

Completed Area Name:	Riverheights Intermediate School
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	11/28/2006
Comments:	DTSC concurred with the information presented in the report

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	4.15 Request
Completed Date:	04/29/2005
Comments:	Approved.

Completed Area Name:	Riverheights Intermediate School
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	07/05/2007
Comments:	DTSC concurred with the information presented in the Operation and Maintenance report

Completed Area Name:	Riverheights Intermediate School

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/08/2008
Comments: DTSC approved the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/27/2008
Comments: DTSC approved the operation and maintenance report

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/08/2008
Comments: DTSC approved the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/10/2008
Comments: DTSC approved the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 05/27/2008
Comments: DTSC approved the operation and maintenance report

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/29/2008
Comments: DTSC accepted the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/25/2009
Comments: DTSC accepted the Report with a comment to be considered in future.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/06/2008
Comments: Report Accepted

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 04/08/2009
Comments: Sent out E-mail Concurrance on the letter.

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/06/2009
Comments: DTSC concurred with the information in the report

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/06/2009
Comments: DTSC concurred with the information in the report

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/03/2009
Comments: DTSC concurred with the Report.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/27/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/27/2010
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/28/2010
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/28/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/28/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/06/2010
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Date: 12/06/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/24/2011
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/27/2011
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/14/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/18/2011
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/27/2011
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/23/2012
Comments: The Report is approved.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 03/23/2012
Comments: Based on the data review DTSC concurs with No Further Action. With that No future monitoring is required.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/02/2009
Comments: Reviewed and concurred.

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/10/2009
Comments: Concurred.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 07/27/2006
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 10/06/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/05/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/16/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/30/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/03/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 07/31/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 10/28/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Date:	04/13/2009
Comments:	DTSC certified that response action according to the DTSC-approved RAW is complete. Operation and maintenance is required
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

SCH:

Name:	RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS
Address:	CLEVELAND AVENUE/ORANGE STREET
City,State,Zip:	CORONA, CA 92880
Facility ID:	33020005
Site Type:	School Cleanup
Site Type Detail:	School
Site Mgmt. Req.:	NONE SPECIFIED
Acres:	80
National Priorities List:	NO
Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Amit Pathak
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404395
Assembly:	60
Senate:	31
Special Program Status:	Voluntary Cleanup Program
Status:	Certified
Status Date:	09/12/2012
Restricted Use:	NO
Funding:	School District
Latitude:	33.95904
Longitude:	-117.5669
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - LIVESTOCK
Potential COC:	Xylenes, Xylenes, TPH-diesel, Toluene, Benzene, Methane, Naphthalene
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL
Alias Name:	CORONA-NORCO UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	CORONA-NORCO USD-PRPOSED ECHEVERRIA SITE
Alias Type:	Alternate Name
Alias Name:	ECHEVERRIA PROPERTY
Alias Type:	Alternate Name
Alias Name:	ELEANOR ROOSEVELT HIGH SCHOOL
Alias Type:	Alternate Name
Alias Name:	RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS
Alias Type:	Alternate Name
Alias Name:	RIVER HEIGHTS INTERMEDIATE SCHOOL

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Alias Type: Alternate Name
Alias Name: 110033606890
Alias Type: EPA (FRS #)
Alias Name: T0606523936
Alias Type: GeoTracker Global ID
Alias Name: 404395
Alias Type: Project Code (Site Code)
Alias Name: 33020005
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/12/2012
Comments: Project is complet with No Further Action

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 02/06/2003
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/20/2005
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 04/20/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 03/19/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 04/21/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 09/14/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 12/16/2004
Comments: Not reported

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Technical Report
Completed Date: 09/08/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 04/21/2004
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/26/2006
Comments: DTSC concurred with the information presented in the Operation and Maitenance Report

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 10/12/2006
Comments: DTSC approved the Removal Action Completion report. The report documents implementation of activities included in the DTSC approved Removal Action Workplan.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/22/2006
Comments: Approved With Comments. Also note that the portion of the school is alreay opened on 9/5/06 after confirmation sampling as per the e-mail by District representatve.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 04/07/2008
Comments: DTSC approved the Removal Action Completion Report provided DTSC comments are incorporated in future operation and maintenance field work/reports.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/28/2006
Comments: DTSC concurred with the information presented in the report

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 04/29/2005
Comments: Approved.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Document Type: Operations and Maintenance Report
Completed Date: 07/05/2007
Comments: DTSC concurred with the information presented in the Operation and Maintenance report

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/08/2008
Comments: DTSC approved the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/27/2008
Comments: DTSC approved the operation and maintenance report

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 05/08/2008
Comments: DTSC approved the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 06/10/2008
Comments: DTSC approved the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 05/27/2008
Comments: DTSC approved the operation and maintenance report

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/29/2008
Comments: DTSC accepted the Operation and Maintenance report provided DTSC comments are incorporated in future field work/reports.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/25/2009
Comments: DTSC accepted the Report with a comment to be considered in future.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/06/2008
Comments: Report Accepted

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 04/08/2009
Comments: Sent out E-mail Concurrance on the letter.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/06/2009
Comments: DTSC concurred with the information in the report

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/06/2009
Comments: DTSC concurred with the information in the report

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/03/2009
Comments: DTSC concurred with the Report.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/27/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 07/27/2010
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/28/2010
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/28/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 10/28/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Date: 12/06/2010
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 12/06/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 05/24/2011
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/27/2011
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 12/14/2010
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/18/2011
Comments: Not reported

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/27/2011
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/23/2012
Comments: The Report is approved.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/21/2011
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 5 Year Review Reports
Completed Date: 03/23/2012
Comments: Based on the data review DTSC concurs with No Further Action. With that No future monitoring is required.

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/02/2009
Comments: Reviewed and concurred.

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 12/10/2009
Comments: Concurred.

Completed Area Name: Riverheights Intermediate School
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 07/27/2006
Comments: Not reported

Completed Area Name: Roosevelt High School
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 10/06/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/05/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/16/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/30/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 06/03/2005
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 07/31/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement

RIVER HEIGHTS INTER/ROOSEVELT HI SCHOOLS (Continued) **S105628778**

Completed Date:	10/28/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	04/13/2009
Comments:	DTSC certified that response action according to the DTSC-approved RAW is complete. Operation and maintenance is required
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

B4 **BOERSMA BROS** **HIST UST** **U001569074**
ESE **7080 CLEVELAND** **N/A**
1/8-1/4 **CORONA, CA 91720**
0.152 mi.
805 ft. **Site 2 of 2 in cluster B**

Relative: **Higher**
Actual: **622 ft.**

HIST UST:

Name:	BOERSMA BROS
Address:	7080 CLEVELAND
City,State,Zip:	CORONA, CA 91720
File Number:	0001F447
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F447.pdf
Region:	STATE
Facility ID:	00000052692
Facility Type:	Other
Other Type:	FARM
Contact Name:	Not reported
Telephone:	7143712265
Owner Name:	BOERSMA BROS.
Owner Address:	7080 CLEVELAND
Owner City,St,Zip:	CORONA, CA 91720
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1970
Tank Capacity:	00000500
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None

Click here for Geo Tracker PDF:

5
ENE
1/8-1/4
0.185 mi.
975 ft.

JOHN HOOGENDAM DAIRY
12871 SCHLEISMAN ROAD
CORONA, CA 91720

HIST UST **U001569137**
N/A

Relative:
Higher

Actual:
624 ft.

HIST UST:

Name:	JOHN HOOGENDAM DAIRY
Address:	12871 SCHLEISMAN ROAD
City,State,Zip:	CORONA, CA 91720
File Number:	0001F75D
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F75D.pdf
Region:	STATE
Facility ID:	00000036724
Facility Type:	Other
Other Type:	DAIRY
Contact Name:	Not reported
Telephone:	7147371852
Owner Name:	JOHN HOOGENDAM
Owner Address:	12871 SCHLEISMAN ROAD
Owner City,St,Zip:	CORONA, CA 91720
Total Tanks:	0001
Tank Num:	001
Container Num:	32
Year Installed:	1966
Tank Capacity:	00000300
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	None

Click here for Geo Tracker PDF:

6
SSE
1/4-1/2
0.416 mi.
2199 ft.

PABLO ECHEVERRIA DAIRY
7481 CLEVELAND
CORONA, CA 91720

LUST **S105774955**
Cortese **N/A**
ENF
WDS
CIWQS
CERS

Relative:
Lower

Actual:
617 ft.

LUST:

Name:	ECHEVERRIA DAIRY
Address:	7481 CLEVELAND AVE
City,State,Zip:	CORONA, CA 92880
Lead Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606523936
Global Id:	T0606523936
Latitude:	33.9539884
Longitude:	-117.5670504
Status:	Completed - Case Closed
Status Date:	09/01/2004
Case Worker:	SB
RB Case Number:	083304007T
Local Agency:	DEPARTMENT OF TOXIC SUBSTANCES CONTROL
File Location:	DTSC
Local Case Number:	33020005
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline

PABLO ECHEVERRIA DAIRY (Continued) **S105774955**

Site History: Not reported

LUST:
Global Id: T0606523936
Contact Type: Regional Board Caseworker
Contact Name: ROSE SCOTT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: rose.scott@waterboards.ca.gov
Phone Number: 9513206375

Global Id: T0606523936
Contact Type: Local Agency Caseworker
Contact Name: S. BLANCO
Organization Name: DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Address: 1515 TOLLHOUSE ROAD
City: CLOVIS
Email: Not reported
Phone Number: Not reported

LUST:
Global Id: T0606523936
Action Type: Other
Date: 01/27/2004
Action: Leak Reported

Global Id: T0606523936
Action Type: ENFORCEMENT
Date: 06/19/2007
Action: Referral to Other State Agency

Global Id: T0606523936
Action Type: Other
Date: 04/01/2002
Action: Leak Discovery

Global Id: T0606523936
Action Type: REMEDIATION
Date: 09/17/2004
Action: Not reported

LUST:
Global Id: T0606523936
Status: Open - Case Begin Date
Status Date: 04/01/2002

Global Id: T0606523936
Status: Open - Remediation
Status Date: 08/19/2004

Global Id: T0606523936
Status: Completed - Case Closed
Status Date: 09/01/2004

PABLO ECHEVERRIA DAIRY (Continued) **S105774955**

CORTESE:

Name:	ECHEVERRIA DAIRY
Address:	7481 CLEVELAND AVE
City,State,Zip:	CORONA, CA 92880
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0606523936
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

ENF:

Name:	PABLO ECHEVERRIA DAIRY
Address:	7481 CLEVELAND
City,State,Zip:	CORONA, CA 91720
Region:	8
Facility Id:	247058
Agency Name:	Echeverria, Pablo
Place Type:	Growing
Place Subtype:	Animal Feeding
Facility Type:	Agricultural
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	241
SIC Desc 1:	Dairy Farms
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	0.0001
Threat To Water Quality:	2

PABLO ECHEVERRIA DAIRY (Continued) **S105774955**

Complexity:	C
Pretreatment:	X - Facility is not a POTW
Facility Waste Type:	Solid wastes, NEC
Facility Waste Type 2:	Stormwater runoff
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	ANIWSTCOWS
Program Category1:	ANIMALWASTE
Program Category2:	NPDESWW
# Of Programs:	1
WDID:	8 335225001
Reg Measure Id:	209369
Reg Measure Type:	Enrollee
Region:	8
Order #:	99-011
Npdes# CA#:	CAG018001
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	N - No
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	03/18/2014
Effective Date:	09/09/1999
Expiration/Review Date:	Not reported
Termination Date:	01/29/2002
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	Y
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	224906
Region:	8
Order / Resolution Number:	85-019
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	01/11/1985
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	03/16/2012
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	CAO 85-19 for Pablo Echeverria
Description:	IMPROVE CONTAINMENT CONTROLS.
Program:	NPDNONMUNIPRCS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0

PABLO ECHEVERRIA DAIRY (Continued) **S105774955**

Liability $ Paid: 0
Project $ Completed: 0
Total $ Paid/Completed Amount: 0

WDS:

Name:	MAYA DAIRY
Address:	7481 CLEVELAND
City:	CORONA
Facility ID:	Santa Ana River 335662001
Facility Type:	Agricultural - Facility that treats and/or disposes of the wastes associated with confined and concentrated animal feeding, confined animal feeding, confined animal holding, confined and concentrated aquatic animal production facilities, and aquaculture. the treatment and/or disposal of agricultural return water is included in this category.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAG018001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	9095973243
Facility Contact:	JUAN ECHEVERRIA
Agency Name:	ECHEVERRIA JUAN
Agency Address:	8762 KIMBALL AVENUE
Agency City,St,Zip:	CHINO 91710
Agency Contact:	JUAN ECHEVERRIA
Agency Telephone:	9095973243
Agency Type:	Private
SIC Code:	241
SIC Code 2:	Not reported
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Primary Waste:	STORMS
Waste Type2:	D
Waste2:	Stormwater Runoff
Primary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Secondary Waste:	Solid Wastes
Secondary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best

PABLO ECHEVERRIA DAIRY (Continued) **S105774955**

management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Name:	PABLO ECHEVERRIA DAIRY
Address:	7481 CLEVELAND
City,State,Zip:	CORONA, CA 91720
Agency:	Echeverria, Pablo
Agency Address:	4403 Bear Mountain Boulevard, Bakersfield, CA 93313
Place/Project Type:	Animal Feeding Facility
SIC/NAICS:	241
Region:	8
Program:	ANIWSTCOWS
Regulatory Measure Status:	Historical
Regulatory Measure Type:	Enrollee
Order Number:	99-011
WDID:	8 335225001
NPDES Number:	CAG018001
Adoption Date:	Not reported
Effective Date:	09/09/1999
Termination Date:	01/29/2002
Expiration/Review Date:	Not reported
Design Flow:	0.0001
Major/Minor:	Not reported
Complexity:	C
TTWQ:	2
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

CERS:

Name:	ECHEVERRIA DAIRY
Address:	7481 CLEVELAND AVE
City,State,Zip:	CORONA, CA 92880
Site ID:	199897
CERS ID:	T0606523936
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	S. BLANCO - DEPARTMENT OF TOXIC SUBSTANCES CONTROL
Entity Title:	Not reported
Affiliation Address:	1515 TOLLHOUSE ROAD
Affiliation City:	CLOVIS
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	ROSE SCOTT - SANTA ANA RWQCB (REGION 8)
Entity Title:	Not reported
Affiliation Address:	3737 MAIN STREET, SUITE 500
Affiliation City:	RIVERSIDE

PABLO ECHEVERRIA DAIRY (Continued) **S105774955**

Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 9513206375

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7 **DICK VANDER MEER SONS DAIRY** **ENVIROSTOR** **S102005836**
West **6851 HARRISON AVE** **LUST** **N/A**
1/2-1 **CORONA, CA 91720** **SCH**
0.750 mi. **Cortese**
3960 ft. **WDS**
CIWQS
Relative: **CERS**
Lower

Actual: **616 ft.**

ENVIROSTOR:
Name: AUGUSTINE RAMIREZ INTERMEDIATE SCHOOL
Address: 6851 HARRISON AVENUE
City,State,Zip: CORONA, CA 92880
Facility ID: 33020006
Status: No Further Action
Status Date: 07/06/2015
Site Code: 404458
Site Type: School Cleanup
Site Type Detailed: School
Acres: 25.35
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Christine Chiu
Supervisor: Yolanda Garza
Division Branch: Southern California Schools & Brownfields Outreach
Assembly: 60
Senate: 31
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: School District
Latitude: 33.96244
Longitude: -117.5855
APN: 134-050-006, 144-030-032, 144-030-033
Past Use: AGRICULTURAL - LIVESTOCK
Potential COC: Methane
Confirmed COC: Methane
Potential Description: IA, SV
Alias Name: Augie Ramirez Intermediate School
Alias Type: Alternate Name
Alias Name: CORONA-NORCO UNIFIED SCHOOL DISTRICT
Alias Type: Alternate Name
Alias Name: CORONA-NORCO USD-PRPSD SMNR ES/E.VALE MS
Alias Type: Alternate Name
Alias Name: Ramirez Intermediate
Alias Type: Alternate Name
Alias Name: Ramirez Intermediate School
Alias Type: Alternate Name
Alias Name: Rosa Parks Elementary School
Alias Type: Alternate Name
Alias Name: SUMNER ELEMENTARY/EASTVALE MIDDLE SCHOOL
Alias Type: Alternate Name

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Alias Name: 134-050-006
Alias Type: APN
Alias Name: 144-030-032
Alias Type: APN
Alias Name: 144-030-033
Alias Type: APN
Alias Name: 110033616987
Alias Type: EPA (FRS #)
Alias Name: 404458
Alias Type: Project Code (Site Code)
Alias Name: 33020006
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Annual Oversight Cost Estimate
Completed Date: 08/20/2014
Comments: On August 20, 2014, DTSC provided a cost estimate of DTSC oversight activities for June 1, 2014 through July 30, 2015.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 07/06/2015
Comments: On July 6, 2015, DTSC concurred with the Methane Monitoring Report recommendation for No Further Action in Area B of the Site; accordingly, No Further Action is necessary for the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 12/21/2009
Comments: On December 21, 2009, DTSC received a letter from the District requesting the School Cleanup Agreement be amended to indicate the site boundary change per an attached Exhibit A and B. The site acreage changes from 28.90 acres to 25.35 acres, which occurred as part of construction of the adjacent northern site and installation of Whispering Hills Drive. On December 24, 2009, DTSC notified CDE of the project area change and provided a PDF file of the District's letter via email.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 03/24/2016
Comments: On March 24, 2016, DTSC certified that the site poses no significant threat to public health, welfare, or the environment and implementation of removal/remedial measures is not necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/14/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/17/2004
Comments: PEA approved, further action for methane.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 02/04/2005
Comments: SSI TM approved. Fieldwork scheduled for April 2005.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/23/2005
Comments: DTSC approved Report and indicated methane mitigation should be addressed through the RAW process. DTSC requested RAW be submitted by December 23, 2005.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/30/2006
Comments: On October 30, 2006, DTSC approved the RAW for Implementation; however, the RAW was not implemented. After no activity at the Site for several years, a methane soil gas survey was conducted in 2009 to assess current Site conditions and evaluate whether a methane mitigation system is still warranted. On February 11, 2010, DTSC concurred with the SSI Addendum report recommending rescission of the RAW, including no further action in Area A (~21.82 acres) and further methane monitoring in Area B (~3.53 acres).

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 08/11/2006
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: *Correspondence - Received
Completed Date: 10/14/2009
Comments: On October 14, 2009, DTSC received a letter from the District , dated October 6, 2009, requesting that the Environmental Oversight Agreement be re-opened to provide for resampling of soil gas for methane under a SSI Addendum. The letter indicated a technical memorandum for the SSI addendum will be provided to DTSC the week of October 12, 2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 11/17/2009
Comments: On November 17, 2009, DTSC approved the Technical Memorandum provided DTSC comments be incorporated during field work and in the SSI Addendum report.

Completed Area Name: PROJECT WIDE

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 02/11/2010
Comments: On February 11, 2010, DTSC concurred with the SSI Addendum report conclusions and recommendations provided DTSC comments be incorporated in future Site activities. The report included the following recommendations: rescission of the Removal Action Workplan; no further action in Area A (~21.82 acres); further methane monitoring in Area B (~3.53 acres); and restrictions on Site features that could result in methane accumulations would apply to Area B until no further action is obtained from DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 08/01/2006
Comments: A Fact Sheet regarding the Draft RAW, dated August 2006, was produced in English and Spanish languages.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 12/23/2009
Comments: Via email on 01/04/2010, DTSC received summary tables of the first two rounds of soil gas sampling results which indicated the second round of soil gas sampling was completed on 12/23/2009.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 04/01/2006
Comments: In April 2006, DTSC approved the (joint) Community Profile for the Rosa Parks Elementary School and the Augustine Ramirez Intermediate School.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Public Notice
Completed Date: 08/01/2006
Comments: Public Notice for Draft RAW (in English and Spanish languages): Public Comment period is August 1 - 31, 2006.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 02/11/2010
Comments: On February 11, 2010, DTSC determined that no further action is required for Area A of the Site, school construction may proceed in Area A, and a new SFPD 4.15 form is not necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fact Sheets
Completed Date: 03/03/2010
Comments: Via email on March 3, 2010, DTSC provided the Fact Sheet to the District with instructions regarding distribution prior to the first quarterly methane monitoring event scheduled for March 23, 2010.

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/29/2010
Comments: DTSC reviewed the First Quarter 2010 Methane Monitoring Report and requested a couple comments to be addressed, accordingly.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/30/2010
Comments: DTSC reviewed the Second Quarter 2010 Methane Monitoring Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/26/2010
Comments: DTSC reviewed the Third Quarter 2010 Methane Monitoring Report.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 02/08/2011
Comments: DTSC reviewed the Fourth Quarter 2010 Methane Monitoring Report and concurred with the recommendation to change to a semi-annual monitoring schedule beginning second quarter (June) 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/04/2011
Comments: DTSC reviewed the first semi-annual Methane Monitoring Report and concurred with the recommendations.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/25/2012
Comments: DTSC reviewed the second semi-annual Methane Monitoring Report and concurred with the recommendations.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/09/2012
Comments: DTSC reviewed the Semi-Annual Methane Monitoring Report and did not concur with the recommendation for a No Further Action (NFA) determination on Area B and requested that comments be addressed in future reports. DTSC recommended a minimum of two additional quarterly or semi-annual monitoring events be conducted prior to DTSC's potential NFA determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/22/2012
Comments: DTSC reviewed the quarterly Methane Monitoring Report and concurred

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

with the recommendation for continued monitoring.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/04/2013
Comments: DTSC reviewed the quarterly Methane Monitoring Report and requested that monitoring continue on a quarterly basis to assess methane concentration and trends in Area B.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2013
Comments: DTSC reviewed the quarterly Methane Monitoring Report and requested that monitoring continue on a quarterly basis to assess methane concentration and trends in Area B.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/18/2013
Comments: On September 18, 2013, DTSC provided comments on the Report; also, DTSC recommended that methane monitoring continue on a quarterly basis and that the District propose and discuss additional actions regarding Area B with DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 11/18/2013
Comments: On November 14, 2013, DTSC approved a Technical Memorandum to install methane ventilation wells in Area B.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/11/2014
Comments: On April 11, 2014, DTSC provided comments on the Report and requested such comments be addressed in future methane monitoring activities and reports. The next methane monitoring event is to be conducted during the second half of 2014.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2014
Comments: On September 8, 2014, DTSC provided comments on the Report, requested such comments be addressed in future methane monitoring activities and reports, and requested a conference call to discuss previously unaddressed comments. Two semi-annual monitoring events are anticipated to be conducted in 2015.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/18/2015

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Comments: On March 18, 2015, DTSC provided comments on the Report and requested such comments be addressed in future methane monitoring reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/06/2015
Comments: On July 6, 2015, DTSC concurred with the Report recommendation for No Further Action in Area B of the Site, discontinuation of the methane monitoring program, and maintaining the passive vent wells to promote passive venting of the subsurface methane.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 01/05/2006
Comments: DTSC signed Agreement and sent (FedEx) to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 10/30/2006
Comments: DTSC signed the CEQA Notice of Exemption on October 27, 2006; the NOE was filed with the State Clearing House on November 3, 2006.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 07/09/2003
Comments: DTSC entered into an Environmental Oversight Agreement (Docket Number HSA-A 02/03-187) with the Corona-Norco Unified School District to provide oversight for a Preliminary Endangerment Assessment for the proposed Sumner Elementary and Eastvale Middle School.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 10/10/2007
Comments: CRU memo.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LUST REG 8:
Name: DICK VANDER MEER SONS DAIRY
Address: 6851 HARRISON AVE
City: CORONA
Region: 8
County: Riverside
Regional Board: Santa Ana Region

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Facility Status:	Case Closed
Case Number:	083303608T
Local Case Num:	Not reported
Case Type:	Aquifer affected
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	CLOS
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	Tank
Global ID:	T0606599026
How Stopped Date:	3/3/2000
Enter Date:	5/1/2000
Date Confirmation of Leak Began:	3/3/2000
Date Preliminary Assessment Began:	Not reported
Discover Date:	3/3/2000
Enforcement Date:	Not reported
Close Date:	1/23/2003
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	12/14/2001
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	7/31/2002
Enter Date:	5/1/2000
GW Qualifies:	=
Soil Qualifies:	=
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.965601
Longitude:	-117.584429
MTBE Date:	1/21/2001
Max MTBE GW:	2900
MTBE Concentration:	3
Max MTBE Soil:	2.88
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	Not reported
Staff:	RS
Staff Initials:	Not reported
Lead Agency:	Regional Board
Local Agency:	33000L
Hydr Basin #:	UPPER SANTA ANA VALL
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	No

Summary: Not reported

LUST:

Name:	DICK VANDER MEER SONS DAIRY
Address:	6851 HARRISON AVE

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

City,State,Zip:	CORONA, CA 91720
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606599026
Global Id:	T0606599026
Latitude:	33.9634772
Longitude:	-117.5844007
Status:	Completed - Case Closed
Status Date:	01/23/2003
Case Worker:	RS
RB Case Number:	083303608T
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Not reported
Local Case Number:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0606599026
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rose.scott@waterboards.ca.gov
Phone Number:	9513206375

Global Id:	T0606599026
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

LUST:

Global Id:	T0606599026
Action Type:	Other
Date:	03/03/2000
Action:	Leak Reported

Global Id:	T0606599026
Action Type:	ENFORCEMENT
Date:	12/24/2002
Action:	* Verbal Communication

Global Id:	T0606599026
Action Type:	ENFORCEMENT
Date:	12/05/2001
Action:	Staff Letter

Global Id:	T0606599026
Action Type:	ENFORCEMENT
Date:	12/13/2001
Action:	Staff Letter

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Global Id: T0606599026
Action Type: ENFORCEMENT
Date: 07/31/2002
Action: Staff Letter

Global Id: T0606599026
Action Type: ENFORCEMENT
Date: 06/20/2000
Action: Staff Letter

Global Id: T0606599026
Action Type: ENFORCEMENT
Date: 05/01/2000
Action: Notice of Responsibility

Global Id: T0606599026
Action Type: ENFORCEMENT
Date: 10/01/2001
Action: Meeting

Global Id: T0606599026
Action Type: Other
Date: 03/03/2000
Action: Leak Began

Global Id: T0606599026
Action Type: RESPONSE
Date: 05/31/2000
Action: Soil and Water Investigation Workplan

Global Id: T0606599026
Action Type: RESPONSE
Date: 09/15/2000
Action: Soil and Water Investigation Report

Global Id: T0606599026
Action Type: RESPONSE
Date: 01/04/2002
Action: Soil and Water Investigation Workplan

Global Id: T0606599026
Action Type: RESPONSE
Date: 02/11/2002
Action: Soil and Water Investigation Report

Global Id: T0606599026
Action Type: RESPONSE
Date: 09/30/2002
Action: Monitoring Report - Quarterly

Global Id: T0606599026
Action Type: RESPONSE
Date: 01/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0606599026
Action Type: Other

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Date: 03/03/2000
Action: Leak Discovery

Global Id: T0606599026
Action Type: REMEDIATION
Date: 10/24/2002
Action: Monitored Natural Attenuation

Global Id: T0606599026
Action Type: ENFORCEMENT
Date: 10/23/2002
Action: File review

Global Id: T0606599026
Action Type: ENFORCEMENT
Date: 01/23/2003
Action: Closure/No Further Action Letter

Global Id: T0606599026
Action Type: Other
Date: 03/03/2000
Action: Leak Stopped

LUST:
Global Id: T0606599026
Status: Open - Case Begin Date
Status Date: 03/03/2000

Global Id: T0606599026
Status: Open - Site Assessment
Status Date: 03/03/2000

Global Id: T0606599026
Status: Open - Site Assessment
Status Date: 12/14/2001

Global Id: T0606599026
Status: Open - Verification Monitoring
Status Date: 07/31/2002

Global Id: T0606599026
Status: Completed - Case Closed
Status Date: 01/23/2003

SCH:

Name: AUGUSTINE RAMIREZ INTERMEDIATE SCHOOL
Address: 6851 HARRISON AVENUE
City,State,Zip: CORONA, CA 92880
Facility ID: 33020006
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 25.35
National Priorities List: NO

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Cleanup Oversight Agencies:	SMBRP
Lead Agency:	SMBRP
Lead Agency Description:	DTSC - Site Cleanup Program
Project Manager:	Christine Chiu
Supervisor:	Yolanda Garza
Division Branch:	Southern California Schools & Brownfields Outreach
Site Code:	404458
Assembly:	60
Senate:	31
Special Program Status:	Not reported
Status:	No Further Action
Status Date:	07/06/2015
Restricted Use:	NO
Funding:	School District
Latitude:	33.96244
Longitude:	-117.5855
APN:	134-050-006, 144-030-032, 144-030-033
Past Use:	AGRICULTURAL - LIVESTOCK
Potential COC:	Methane
Confirmed COC:	Methane
Potential Description:	IA, SV
Alias Name:	Augie Ramirez Intermediate School
Alias Type:	Alternate Name
Alias Name:	CORONA-NORCO UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	CORONA-NORCO USD-PRPSD SMNR ES/E.VALE MS
Alias Type:	Alternate Name
Alias Name:	Ramirez Intermediate
Alias Type:	Alternate Name
Alias Name:	Ramirez Intermediate School
Alias Type:	Alternate Name
Alias Name:	Rosa Parks Elementary School
Alias Type:	Alternate Name
Alias Name:	SUMNER ELEMENTARY/EASTVALE MIDDLE SCHOOL
Alias Type:	Alternate Name
Alias Name:	134-050-006
Alias Type:	APN
Alias Name:	144-030-032
Alias Type:	APN
Alias Name:	144-030-033
Alias Type:	APN
Alias Name:	110033616987
Alias Type:	EPA (FRS #)
Alias Name:	404458
Alias Type:	Project Code (Site Code)
Alias Name:	33020006
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Annual Oversight Cost Estimate
Completed Date:	08/20/2014
Comments:	On August 20, 2014, DTSC provided a cost estimate of DTSC oversight activities for June 1, 2014 through July 30, 2015.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Document Type: No Further Action Letter
Completed Date: 07/06/2015
Comments: On July 6, 2015, DTSC concurred with the Methane Monitoring Report recommendation for No Further Action in Area B of the Site; accordingly, No Further Action is necessary for the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Amendment - Order/Agreement
Completed Date: 12/21/2009
Comments: On December 21, 2009, DTSC received a letter from the District requesting the School Cleanup Agreement be amended to indicate the site boundary change per an attached Exhibit A and B. The site acreage changes from 28.90 acres to 25.35 acres, which occurred as part of construction of the adjacent northern site and installation of Whispering Hills Drive. On December 24, 2009, DTSC notified CDE of the project area change and provided a PDF file of the District's letter via email.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 03/24/2016
Comments: On March 24, 2016, DTSC certified that the site poses no significant threat to public health, welfare, or the environment and implementation of removal/remedial measures is not necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/14/2016
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/17/2004
Comments: PEA approved, further action for methane.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Workplan
Completed Date: 02/04/2005
Comments: SSI TM approved. Fieldwork scheduled for April 2005.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 11/23/2005
Comments: DTSC approved Report and indicated methane mitigation should be addressed through the RAW process. DTSC requested RAW be submitted by December 23, 2005.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/30/2006

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Comments:	On October 30, 2006, DTSC approved the RAW for Implementation; however, the RAW was not implemented. After no activity at the Site for several years, a methane soil gas survey was conducted in 2009 to assess current Site conditions and evaluate whether a methane mitigation system is still warranted. On February 11, 2010, DTSC concurred with the SSI Addendum report recommending rescission of the RAW, including no further action in Area A (~21.82 acres) and further methane monitoring in Area B (~3.53 acres).
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	4.15 Request
Completed Date:	08/11/2006
Comments:	Approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	*Correspondence - Received
Completed Date:	10/14/2009
Comments:	On October 14, 2009, DTSC received a letter from the District , dated October 6, 2009, requesting that the Environmental Oversight Agreement be re-opened to provide for resampling of soil gas for methane under a SSI Addendum. The letter indicated a technical memorandum for the SSI addendum will be provided to DTSC the week of October 12, 2009.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Tech Memo
Completed Date:	11/17/2009
Comments:	On November 17, 2009, DTSC approved the Technical Memorandum provided DTSC comments be incorporated during field work and in the SSI Addendum report.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	02/11/2010
Comments:	On February 11, 2010, DTSC concurred with the SSI Addendum report conclusions and recommendations provided DTSC comments be incorporated in future Site activities. The report included the following recommendations: rescission of the Removal Action Workplan; no further action in Area A (~21.82 acres); further methane monitoring in Area B (~3.53 acres); and restrictions on Site features that could result in methane accumulations would apply to Area B until no further action is obtained from DTSC.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fact Sheets
Completed Date:	08/01/2006
Comments:	A Fact Sheet regarding the Draft RAW, dated August 2006, was produced in English and Spanish languages.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Date:	12/23/2009
Comments:	Via email on 01/04/2010, DTSC received summary tables of the first two rounds of soil gas sampling results which indicated the second round of soil gas sampling was completed on 12/23/2009.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Community Profile
Completed Date:	04/01/2006
Comments:	In April 2006, DTSC approved the (joint) Community Profile for the Rosa Parks Elementary School and the Augustine Ramirez Intermediate School.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Public Notice
Completed Date:	08/01/2006
Comments:	Public Notice for Draft RAW (in English and Spanish languages): Public Comment period is August 1 - 31, 2006.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	4.15 Request
Completed Date:	02/11/2010
Comments:	On February 11, 2010, DTSC determined that no further action is required for Area A of the Site, school construction may proceed in Area A, and a new SFPD 4.15 form is not necessary.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fact Sheets
Completed Date:	03/03/2010
Comments:	Via email on March 3, 2010, DTSC provided the Fact Sheet to the District with instructions regarding distribution prior to the first quarterly methane monitoring event scheduled for March 23, 2010.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	04/29/2010
Comments:	DTSC reviewed the First Quarter 2010 Methane Monitoring Report and requested a couple comments to be addressed, accordingly.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	07/30/2010
Comments:	DTSC reviewed the Second Quarter 2010 Methane Monitoring Report.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Monitoring Report
Completed Date:	10/26/2010
Comments:	DTSC reviewed the Third Quarter 2010 Methane Monitoring Report.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Document Type: Monitoring Report
Completed Date: 02/08/2011
Comments: DTSC reviewed the Fourth Quarter 2010 Methane Monitoring Report and concurred with the recommendation to change to a semi-annual monitoring schedule beginning second quarter (June) 2011.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/04/2011
Comments: DTSC reviewed the first semi-annual Methane Monitoring Report and concurred with the recommendations.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 01/25/2012
Comments: DTSC reviewed the second semi-annual Methane Monitoring Report and concurred with the recommendations.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 08/09/2012
Comments: DTSC reviewed the Semi-Annual Methane Monitoring Report and did not concur with the recommendation for a No Further Action (NFA) determination on Area B and requested that comments be addressed in future reports. DTSC recommended a minimum of two additional quarterly or semi-annual monitoring events be conducted prior to DTSC's potential NFA determination.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 10/22/2012
Comments: DTSC reviewed the quarterly Methane Monitoring Report and concurred with the recommendation for continued monitoring.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/04/2013
Comments: DTSC reviewed the quarterly Methane Monitoring Report and requested that monitoring continue on a quarterly basis to assess methane concentration and trends in Area B.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 06/03/2013
Comments: DTSC reviewed the quarterly Methane Monitoring Report and requested that monitoring continue on a quarterly basis to assess methane concentration and trends in Area B.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Date: 09/18/2013
Comments: On September 18, 2013, DTSC provided comments on the Report; also, DTSC recommended that methane monitoring continue on a quarterly basis and that the District propose and discuss additional actions regarding Area B with DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Tech Memo
Completed Date: 11/18/2013
Comments: On November 14, 2013, DTSC approved a Technical Memorandum to install methane ventilation wells in Area B.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 04/11/2014
Comments: On April 11, 2014, DTSC provided comments on the Report and requested such comments be addressed in future methane monitoring activities and reports. The next methane monitoring event is to be conducted during the second half of 2014.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 09/08/2014
Comments: On September 8, 2014, DTSC provided comments on the Report, requested such comments be addressed in future methane monitoring activities and reports, and requested a conference call to discuss previously unaddressed comments. Two semi-annual monitoring events are anticipated to be conducted in 2015.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 03/18/2015
Comments: On March 18, 2015, DTSC provided comments on the Report and requested such comments be addressed in future methane monitoring reports.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Monitoring Report
Completed Date: 07/06/2015
Comments: On July 6, 2015, DTSC concurred with the Report recommendation for No Further Action in Area B of the Site, discontinuation of the methane monitoring program, and maintaining the passive vent wells to promote passive venting of the subsurface methane.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 01/05/2006
Comments: DTSC signed Agreement and sent (FedEx) to District.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Completed Date:	10/30/2006
Comments:	DTSC signed the CEQA Notice of Exemption on October 27, 2006; the NOE was filed with the State Clearing House on November 3, 2006.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	07/09/2003
Comments:	DTSC entered into an Environmental Oversight Agreement (Docket Number HSA-A 02/03-187) with the Corona-Norco Unified School District to provide oversight for a Preliminary Endangerment Assessment for the proposed Sumner Elementary and Eastvale Middle School.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	10/10/2007
Comments:	CRU memo.
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

CORTESE:

Name:	DICK VANDER MEER SONS DAIRY
Address:	6851 HARRISON AVE
City,State,Zip:	CORONA, CA 91720
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0606599026
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

WDS:

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Name:	DICK VANDER MEER & SON DAIRY
Address:	6851 HARRISON
City:	CORONA
Facility ID:	Santa Ana River 335160001
Facility Type:	Agricultural - Facility that treats and/or disposes of the wastes associated with confined and concentrated animal feeding, confined animal feeding, confined animal holding, confined and concentrated aquatic animal production facilities, and aquaculture. the treatment and/or disposal of agricultural return water is included in this category.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAG018001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	VANDER MEER DICK
Agency Address:	6851 HARRISON
Agency City,St,Zip:	CORONA 91720
Agency Contact:	Not reported
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	241
SIC Code 2:	Not reported
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Primary Waste:	STORMS
Waste Type2:	N
Waste2:	Stormwater Runoff
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Solid Wastes
Secondary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Name:	DICK VANDER MEER & SON DAIRY
Address:	6851 HARRISON
City,State,Zip:	CORONA, CA 91720
Agency:	Vander Meer, Dick
Agency Address:	6851 Harrison Street, Corona, CA 91720
Place/Project Type:	Animal Feeding Facility
SIC/NAICS:	241
Region:	8
Program:	ANIWSTCOWS
Regulatory Measure Status:	Historical
Regulatory Measure Type:	NPDES Permit
Order Number:	81-093
WDID:	8 335160001
NPDES Number:	CAG018001
Adoption Date:	04/10/1981
Effective Date:	04/10/1981
Termination Date:	Not reported
Expiration/Review Date:	04/06/1996
Design Flow:	0.0001
Major/Minor:	Minor
Complexity:	C
TTWQ:	2
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

CERS:

Name:	DICK VANDER MEER SONS DAIRY
Address:	6851 HARRISON AVE
City,State,Zip:	CORONA, CA 91720
Site ID:	245286
CERS ID:	T0606599026
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	Riverside County LOP - RIVERSIDE COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	3880 LEMON ST SUITE 200
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9519558980

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	ROSE SCOTT - SANTA ANA RWQCB (REGION 8)
Entity Title:	Not reported
Affiliation Address:	3737 MAIN STREET, SUITE 500
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported

DICK VANDER MEER SONS DAIRY (Continued) **S102005836**

Affiliation Zip: Not reported
Affiliation Phone: 9513206375

8
WNW
1/2-1
0.793 mi.
4189 ft.

C. VANDER STELT & SONS DAIRY
6701 HARRISON
CORONA, CA 91720

ENVIROSTOR
SCH
WDS
CIWQS

S102005838
N/A

Relative:
Higher

Actual:
623 ft.

ENVIROSTOR:

Name:	ROSA PARKS ELEMENTARY SCHOOL
Address:	6701 HARRISON AVENUE
City,State,Zip:	CORONA, CA 92880
Facility ID:	30020005
Status:	Certified
Status Date:	09/21/2011
Site Code:	404582
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	10
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Christine Chiu
Supervisor:	Shahir Haddad
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	60
Senate:	31
Special Program:	Voluntary Cleanup Program
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.96596
Longitude:	-117.5854
APN:	144-030-031, 144030031
Past Use:	AGRICULTURAL - LIVESTOCK
Potential COC:	Methane
Confirmed COC:	Methane
Potential Description:	IA, SV
Alias Name:	CORONA NORCO USD-PRPSD SUMNER ES ADDITIO
Alias Type:	Alternate Name
Alias Name:	CORONA-NORCO UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	Parks Elementary
Alias Type:	Alternate Name
Alias Name:	Parks Elementary School
Alias Type:	Alternate Name
Alias Name:	Sumner ES Addition
Alias Type:	Alternate Name
Alias Name:	144-030-031
Alias Type:	APN
Alias Name:	144030031
Alias Type:	APN
Alias Name:	110033607041
Alias Type:	EPA (FRS #)
Alias Name:	404582
Alias Type:	Project Code (Site Code)

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

Alias Name: 30020005
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Report
Completed Date: 05/19/2005
Comments: SSI required due to Methane Levels

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Endangerment Assessment Workplan
Completed Date: 05/23/2005
Comments: approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Other Report
Completed Date: 09/19/2005
Comments: Approved

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Fieldwork
Completed Date: 06/01/2005
Comments: fieldwork

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Supplemental Site Investigation Report
Completed Date: 01/17/2006
Comments: DTSC approved the SSI report with a Further Action determination

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 06/08/2006
Comments: Public Comment Expected on 4/3/06

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Completion Report
Completed Date: 02/02/2009
Comments: DTSC approved the Removal Action Completion Report. Operation and maintenance of the methane mitigation system is to continue.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: 4.15 Request
Completed Date: 04/20/2006
Comments: Approved.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/30/2008
Comments: DTSC reviewed the Operation and Maintenance report and had no

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

comments.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/29/2008
Comments: DTSC reviewed the Operation and Maintenance reports and noted that certain activities be incorporated in future O&M activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 03/12/2009
Comments: DTSC reviewed the Operation and Maintenance report and noted that certain activities be incorporated in future O&M activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Plan
Completed Date: 06/08/2006
Comments: The O&M Plan for the methane mitigation system is Appendix F of the Revised Removal Action Work Plan, dated March 20, 2006; the RAW was approved on June 8, 2006.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 11/03/2009
Comments: DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 02/22/2010
Comments: DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 04/01/2006
Comments: In April 2006, DTSC approved the (joint) Community Profile for the Rosa Parks Elementary School and the Augustine Ramirez Intermediate School.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/10/2010
Comments: DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/25/2011

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

Comments:	DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	09/07/2011
Comments:	DTSC reviewed and noted discrepancies in the Operation and Maintenance report and concurred with the Report recommendation to terminate monitoring. DTSC determined that O&M activities are no longer required and may be terminated and that Five-Year Reviews are no longer warranted. DTSC determined that all response actions have been completed and no further removal/remedial action is necessary at the Site.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	School Cleanup Agreement
Completed Date:	01/05/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	CEQA - Notice of Exemption
Completed Date:	06/08/2006
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operation & Maintenance Order/Agreement
Completed Date:	09/25/2007
Comments:	District and DTSC signed final O&M agreement.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	02/09/2005
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	11/28/2004
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	02/02/2009
Comments:	DTSC certified that response action according to the DTSC-approved RAW is complete. Operation and maintenance is required.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Certification
Completed Date:	09/20/2011
Comments:	DTSC certified that all response actions have been completed and that

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

no further removal/remedial action is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/21/2011
Comments: DTSC prepared project close out Cost Recovery Unit Memorandum.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 09/07/2011
Comments: DTSC determined that O&M activities are no longer required and may be terminated and that Five-Year Reviews are no longer warranted. DTSC determined that all response actions have been completed and no further removal/remedial action is necessary at the Site.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Name: ROSA PARKS ELEMENTARY SCHOOL
Address: 6701 HARRISON AVENUE
City,State,Zip: CORONA, CA 92880
Facility ID: 30020005
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 10
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Christine Chiu
Supervisor: Shahir Haddad
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404582
Assembly: 60
Senate: 31
Special Program Status: Voluntary Cleanup Program
Status: Certified
Status Date: 09/21/2011
Restricted Use: NO
Funding: School District
Latitude: 33.96596
Longitude: -117.5854
APN: 144-030-031, 144030031
Past Use: AGRICULTURAL - LIVESTOCK
Potential COC: Methane

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

Confirmed COC:	Methane
Potential Description:	IA, SV
Alias Name:	CORONA NORCO USD-PRPSD SUMNER ES ADDITIO
Alias Type:	Alternate Name
Alias Name:	CORONA-NORCO UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	Parks Elementary
Alias Type:	Alternate Name
Alias Name:	Parks Elementary School
Alias Type:	Alternate Name
Alias Name:	Sumner ES Addition
Alias Type:	Alternate Name
Alias Name:	144-030-031
Alias Type:	APN
Alias Name:	144030031
Alias Type:	APN
Alias Name:	110033607041
Alias Type:	EPA (FRS #)
Alias Name:	404582
Alias Type:	Project Code (Site Code)
Alias Name:	30020005
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/19/2005
Comments:	SSI required due to Methane Levels
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	05/23/2005
Comments:	approved
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	09/19/2005
Comments:	Approved
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Fieldwork
Completed Date:	06/01/2005
Comments:	fieldwork
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Supplemental Site Investigation Report
Completed Date:	01/17/2006
Comments:	DTSC approved the SSI report with a Further Action determination
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Workplan
Completed Date:	06/08/2006

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

Comments:	Public Comment Expected on 4/3/06
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	02/02/2009
Comments:	DTSC approved the Removal Action Completion Report. Operation and maintenance of the methane mitigation system is to continue.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	4.15 Request
Completed Date:	04/20/2006
Comments:	Approved.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	01/30/2008
Comments:	DTSC reviewed the Operation and Maintenance report and had no comments.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	09/29/2008
Comments:	DTSC reviewed the Operation and Maintenance reports and noted that certain activities be incorporated in future O&M activities.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	03/12/2009
Comments:	DTSC reviewed the Operation and Maintenance report and noted that certain activities be incorporated in future O&M activities.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Plan
Completed Date:	06/08/2006
Comments:	The O&M Plan for the methane mitigation system is Appendix F of the Revised Removal Action Work Plan, dated March 20, 2006; the RAW was approved on June 8, 2006.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	11/03/2009
Comments:	DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Operations and Maintenance Report
Completed Date:	02/22/2010
Comments:	DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Community Profile
Completed Date: 04/01/2006
Comments: In April 2006, DTSC approved the (joint) Community Profile for the Rosa Parks Elementary School and the Augustine Ramirez Intermediate School.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 08/10/2010
Comments: DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 01/25/2011
Comments: DTSC reviewed the Operation and Maintenance report and provided comments to be incorporated in future O&M reports/activities.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operations and Maintenance Report
Completed Date: 09/07/2011
Comments: DTSC reviewed and noted discrepancies in the Operation and Maintenance report and concurred with the Report recommendation to terminate monitoring. DTSC determined that O&M activities are no longer required and may be terminated and that Five-Year Reviews are no longer warranted. DTSC determined that all response actions have been completed and no further removal/remedial action is necessary at the Site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: School Cleanup Agreement
Completed Date: 01/05/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: CEQA - Notice of Exemption
Completed Date: 06/08/2006
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Operation & Maintenance Order/Agreement
Completed Date: 09/25/2007
Comments: District and DTSC signed final O&M agreement.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Inspections/Visit (Non LUR)
Completed Date: 02/09/2005
Comments: Not reported

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 11/28/2004
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 02/02/2009
Comments: DTSC certified that response action according to the DTSC-approved RAW is complete. Operation and maintenance is required.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 09/20/2011
Comments: DTSC certified that all response actions have been completed and that no further removal/remedial action is necessary.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 09/21/2011
Comments: DTSC prepared project close out Cost Recovery Unit Memorandum.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: No Further Action Letter
Completed Date: 09/07/2011
Comments: DTSC determined that O&M activities are no longer required and may be terminated and that Five-Year Reviews are no longer warranted. DTSC determined that all response actions have been completed and no further removal/remedial action is necessary at the Site.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

WDS:
Name: C. VANDER STELT & SONS DAIRY
Address: 6701 HARRISON
City: CORONA
Facility ID: Santa Ana River 335276001
Facility Type: Agricultural - Facility that treats and/or disposes of the wastes associated with confined and concentrated animal feeding, confined animal feeding, confined animal holding, confined and concentrated aquatic animal production facilities, and aquaculture. the treatment and/or disposal of agricultural return water is included in this category.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

	under Waste Discharge Requirements.
NPDES Number:	CAG018001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	KATHERINE VANDER STELT
Agency Name:	VANDER STELTKATHERINE & STEVE
Agency Address:	6701 HARRISON AVE.
Agency City,St,Zip:	CORONA 91720
Agency Contact:	KATHERINE VANDER STELT
Agency Telephone:	Not reported
Agency Type:	Private
SIC Code:	241
SIC Code 2:	Not reported
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Primary Waste:	SLDWST
Waste Type2:	D
Waste2:	Solid Wastes
Primary Waste Type:	Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Secondary Waste:	Stormwater Runoff
Secondary Waste Type:	Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.
Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Name:	C. VANDER STELT & SONS DAIRY
Address:	6701 HARRISON
City,State,Zip:	CORONA, CA 91720
Agency:	Vander Stelt, Steve & Katherine
Agency Address:	6701 Harrison Avenue, Corona, CA 91720
Place/Project Type:	Animal Feeding Facility
SIC/NAICS:	241
Region:	8

C. VANDER STELT & SONS DAIRY (Continued) **S102005838**

Program:	ANIWSTCOWS
Regulatory Measure Status:	Historical
Regulatory Measure Type:	Enrollee
Order Number:	99-011
WDID:	8 335276001
NPDES Number:	CAG018001
Adoption Date:	Not reported
Effective Date:	09/09/1999
Termination Date:	06/07/2005
Expiration/Review Date:	Not reported
Design Flow:	0.0001
Major/Minor:	Not reported
Complexity:	C
TTWQ:	2
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

Name:	ROSA PARKS ELEMENTARY SCHOOL
Address:	6701 HARRISON AVENUE
City,State,Zip:	CORONA, CA 91720
Agency:	Corona Norco USD
Agency Address:	2820 Clark Ave, Corona, CA 92860
Place/Project Type:	Construction - Other
SIC/NAICS:	Not reported
Region:	8
Program:	CONSTW
Regulatory Measure Status:	Terminated
Regulatory Measure Type:	Storm water construction
Order Number:	99-08DW
WDID:	8 33C335498
NPDES Number:	CAS000002
Adoption Date:	Not reported
Effective Date:	07/19/2005
Termination Date:	07/24/2007
Expiration/Review Date:	Not reported
Design Flow:	Not reported
Major/Minor:	Not reported
Complexity:	Not reported
TTWQ:	Not reported
Enforcement Actions within 5 years:	0
Violations within 5 years:	0
Latitude:	Not reported
Longitude:	Not reported

Count: 2 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CORONA	S106117708	WILD ROSE DEVELOPMENT	HIGHWAY 15 NEAR CLAY CANYON		LUST
CORONA	S108543029	LYON/COPLEY CORONA ASSO. L.P.	N/A MAIN STREET-LOT 102		CPS-SLIC

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: EPA
Telephone: N/A
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 12/23/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/06/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/11/2020
Number of Days to Update: 82

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/05/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/18/2020
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/05/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/18/2020
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/05/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/15/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 7

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/10/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/15/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 07/21/2020
Date Data Arrived at EDR: 09/03/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 83

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 09/03/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 12/03/2020
Number of Days to Update: 86
Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69
Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 12/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 09/21/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/11/2020
Number of Days to Update: 80

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/14/2020
Date Data Arrived at EDR: 09/15/2020
Date Made Active in Reports: 12/10/2020
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/11/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 10/20/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/05/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 10/20/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 10/30/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 07/27/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 73

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 10/26/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2019
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Quarterly

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 12/01/2020
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 05/20/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/06/2020
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 08/03/2020
Date Data Arrived at EDR: 08/05/2020
Date Made Active in Reports: 10/22/2020
Number of Days to Update: 78

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 08/26/2020
Date Data Arrived at EDR: 08/28/2020
Date Made Active in Reports: 11/17/2020
Number of Days to Update: 81

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/23/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 08/31/2020
Date Data Arrived at EDR: 08/31/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 81
Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 09/20/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/14/2020
Number of Days to Update: 83
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80
Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/14/2020
Date Data Arrived at EDR: 12/17/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 5

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 08/05/2020
Date Data Arrived at EDR: 08/13/2020
Date Made Active in Reports: 10/21/2020
Number of Days to Update: 69

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 11/17/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/07/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/09/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/21/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/14/2020
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/02/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/06/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/18/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 08/14/2020
Date Made Active in Reports: 11/04/2020
Number of Days to Update: 82

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/17/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 07/24/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 10/21/2020
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/14/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/30/2020
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/05/2020
Date Data Arrived at EDR: 08/10/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 59

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/12/2020
Next Scheduled EDR Contact: 01/31/2021
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 11/30/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 11/06/2021
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/24/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 10/27/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2020
Date Data Arrived at EDR: 10/08/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 88

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 151

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 12/23/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/06/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/06/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/20/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 10/28/2020
Date Data Arrived at EDR: 11/05/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 20

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 12/02/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 09/10/2020
Date Data Arrived at EDR: 09/15/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 66

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 11/24/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/04/2020
Date Data Arrived at EDR: 08/25/2020
Date Made Active in Reports: 11/18/2020
Number of Days to Update: 85

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 11/23/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/25/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 11/25/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/16/2020
Date Data Arrived at EDR: 09/17/2020
Date Made Active in Reports: 12/10/2020
Number of Days to Update: 84

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 12/10/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 09/04/2020
Date Data Arrived at EDR: 09/15/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 66

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 10/03/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 90

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 10/06/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/08/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 11/17/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/17/2020
Date Data Arrived at EDR: 08/17/2020
Date Made Active in Reports: 10/21/2020
Number of Days to Update: 65
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 11/13/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 74
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/17/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64
Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 11/13/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 08/25/2020
Date Data Arrived at EDR: 08/26/2020
Date Made Active in Reports: 11/13/2020
Number of Days to Update: 79

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 11/23/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Varies

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing
A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 08/19/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 14

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities
A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/06/2020
Date Data Arrived at EDR: 08/28/2020
Date Made Active in Reports: 11/17/2020
Number of Days to Update: 81

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 11/23/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Annually

EMI: Emissions Inventory Data
Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/18/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Varies

ENF: Enforcement Action Listing
A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 10/16/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing
Financial Assurance information

Date of Government Version: 10/13/2020
Date Data Arrived at EDR: 10/14/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing
A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 08/05/2020
Date Data Arrived at EDR: 08/05/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 79

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/04/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/05/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 08/17/2020
Date Data Arrived at EDR: 08/17/2020
Date Made Active in Reports: 11/05/2020
Number of Days to Update: 80

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 11/13/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/17/2020
Date Data Arrived at EDR: 08/17/2020
Date Made Active in Reports: 11/05/2020
Number of Days to Update: 80

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/13/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 10/05/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 78

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/05/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 08/31/2020
Date Data Arrived at EDR: 08/31/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 81
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/10/2020
Date Made Active in Reports: 10/29/2020
Number of Days to Update: 80
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/09/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 08/31/2020
Date Data Arrived at EDR: 08/31/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 81
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 12/01/2020
Number of Days to Update: 84
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 12/07/2020
Date Data Arrived at EDR: 12/09/2020
Date Made Active in Reports: 12/10/2020
Number of Days to Update: 1
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/07/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 12/01/2020
Number of Days to Update: 84
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 10/09/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/13/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 12/01/2020
Number of Days to Update: 84

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 08/31/2020
Date Data Arrived at EDR: 08/31/2020
Date Made Active in Reports: 11/20/2020
Number of Days to Update: 81

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 10/19/2020
Date Data Arrived at EDR: 10/19/2020
Date Made Active in Reports: 01/07/2021
Number of Days to Update: 80

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 09/08/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 11/30/2020
Number of Days to Update: 83
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/04/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Varies

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55
Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120
Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29
Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 12/30/2020
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 11/25/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: Varies

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 10/13/2020
Date Data Arrived at EDR: 10/14/2020
Date Made Active in Reports: 11/03/2020
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 78

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/01/2020
Number of Days to Update: 13

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 12/30/2020
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/24/2020
Number of Days to Update: 8

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 07/16/2020
Date Data Arrived at EDR: 07/22/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 78

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 10/20/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 08/13/2020
Date Made Active in Reports: 10/22/2020
Number of Days to Update: 70

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 10/20/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/13/2020
Date Data Arrived at EDR: 08/13/2020
Date Made Active in Reports: 10/22/2020
Number of Days to Update: 70

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 10/20/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/02/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 77

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 12/22/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 08/13/2020
Date Data Arrived at EDR: 08/17/2020
Date Made Active in Reports: 11/05/2020
Number of Days to Update: 80

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 10/14/2020
Date Data Arrived at EDR: 10/15/2020
Date Made Active in Reports: 01/05/2021
Number of Days to Update: 82

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 07/28/2020
Date Data Arrived at EDR: 07/30/2020
Date Made Active in Reports: 10/13/2020
Number of Days to Update: 75

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 07/28/2020
Date Data Arrived at EDR: 07/30/2020
Date Made Active in Reports: 10/14/2020
Number of Days to Update: 76

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 08/13/2020
Date Data Arrived at EDR: 08/13/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 71

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 07/31/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 80

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/06/2020
Date Data Arrived at EDR: 07/10/2020
Date Made Active in Reports: 09/28/2020
Number of Days to Update: 80

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/04/2021
Next Scheduled EDR Contact: 04/19/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/09/2020
Date Data Arrived at EDR: 10/09/2020
Date Made Active in Reports: 12/29/2020
Number of Days to Update: 81

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 10/09/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 08/17/2020
Date Made Active in Reports: 11/05/2020
Number of Days to Update: 80

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/18/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42

Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 10/12/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/18/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58

Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 12/18/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 07/20/2020
Date Data Arrived at EDR: 10/09/2020
Date Made Active in Reports: 12/29/2020
Number of Days to Update: 81

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/09/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 09/11/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 77

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 10/05/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 12/21/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/28/2020
Date Data Arrived at EDR: 07/30/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 1

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 08/20/2020
Date Data Arrived at EDR: 08/24/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 77

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/15/2020
Next Scheduled EDR Contact: 03/08/3021
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 16

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 12/21/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 07/30/2020
Date Made Active in Reports: 10/13/2020
Number of Days to Update: 75

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 10/20/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 06/10/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 10/19/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/02/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 07/02/2020
Date Data Arrived at EDR: 08/05/2020
Date Made Active in Reports: 10/23/2020
Number of Days to Update: 79

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/02/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 07/01/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 10/19/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/03/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 11/24/2020
Date Data Arrived at EDR: 11/24/2020
Date Made Active in Reports: 11/25/2020
Number of Days to Update: 1

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 11/23/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/06/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 11/03/2020
Number of Days to Update: 27

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/06/2020
Date Data Arrived at EDR: 10/07/2020
Date Made Active in Reports: 11/03/2020
Number of Days to Update: 27
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/30/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 12/30/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 08/04/2020
Date Data Arrived at EDR: 08/05/2020
Date Made Active in Reports: 10/22/2020
Number of Days to Update: 78
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 08/04/2020
Date Data Arrived at EDR: 08/05/2020
Date Made Active in Reports: 10/26/2020
Number of Days to Update: 82
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 08/31/2020
Date Data Arrived at EDR: 08/31/2020
Date Made Active in Reports: 11/23/2020
Number of Days to Update: 84

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 11/23/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

CUPA SAN FRANCISCO CO: CUPA Facility Listing

Cupa facilities

Date of Government Version: 08/03/2020
Date Data Arrived at EDR: 08/05/2020
Date Made Active in Reports: 10/22/2020
Number of Days to Update: 78

Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information
Underground storage tank sites located in San Francisco county.

Date of Government Version: 08/03/2020
Date Data Arrived at EDR: 08/05/2020
Date Made Active in Reports: 10/26/2020
Number of Days to Update: 82

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/09/2020
Next Scheduled EDR Contact: 03/29/2021
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 07/27/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/26/2020
Number of Days to Update: 75

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/11/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/01/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 08/20/2020
Date Data Arrived at EDR: 08/20/2020
Date Made Active in Reports: 11/09/2020
Number of Days to Update: 81

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/16/2020
Next Scheduled EDR Contact: 03/08/2021
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 07/30/2020
Date Data Arrived at EDR: 07/31/2020
Date Made Active in Reports: 10/16/2020
Number of Days to Update: 77

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/03/2019
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 08/25/2020
Date Data Arrived at EDR: 08/26/2020
Date Made Active in Reports: 09/16/2020
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/03/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 12/15/2020
Date Data Arrived at EDR: 12/16/2020
Date Made Active in Reports: 12/23/2020
Number of Days to Update: 7

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 09/18/2020
Date Data Arrived at EDR: 09/22/2020
Date Made Active in Reports: 12/14/2020
Number of Days to Update: 83

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/15/2020
Next Scheduled EDR Contact: 04/05/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 10/01/2020
Date Data Arrived at EDR: 10/06/2020
Date Made Active in Reports: 12/22/2020
Number of Days to Update: 77

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 10/02/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 08/25/2020
Date Data Arrived at EDR: 08/26/2020
Date Made Active in Reports: 11/17/2020
Number of Days to Update: 83

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 11/23/2020
Next Scheduled EDR Contact: 03/15/2021
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 08/11/2020
Date Data Arrived at EDR: 08/12/2020
Date Made Active in Reports: 10/26/2020
Number of Days to Update: 75

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 10/14/2020
Date Data Arrived at EDR: 10/15/2020
Date Made Active in Reports: 01/05/2021
Number of Days to Update: 82

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 08/06/2020
Date Data Arrived at EDR: 08/06/2020
Date Made Active in Reports: 10/26/2020
Number of Days to Update: 81

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 10/28/2020
Next Scheduled EDR Contact: 02/15/2021
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/13/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/10/2020
Date Data Arrived at EDR: 07/22/2020
Date Made Active in Reports: 10/08/2020
Number of Days to Update: 78
Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/21/2020
Next Scheduled EDR Contact: 04/12/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/05/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 07/10/2020
Date Data Arrived at EDR: 07/22/2020
Date Made Active in Reports: 10/07/2020
Number of Days to Update: 77
Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/19/2020
Next Scheduled EDR Contact: 02/01/2021
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/26/2020
Date Data Arrived at EDR: 09/08/2020
Date Made Active in Reports: 12/01/2020
Number of Days to Update: 84
Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/08/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 12/21/2020
Date Data Arrived at EDR: 12/23/2020
Date Made Active in Reports: 01/04/2021
Number of Days to Update: 12
Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 12/20/2020
Next Scheduled EDR Contact: 04/11/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 08/06/2020
Date Data Arrived at EDR: 08/07/2020
Date Made Active in Reports: 10/26/2020
Number of Days to Update: 80

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 11/03/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 08/10/2020
Date Data Arrived at EDR: 10/20/2020
Date Made Active in Reports: 11/02/2020
Number of Days to Update: 13

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/09/2020
Next Scheduled EDR Contact: 02/22/2021
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 10/09/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/30/2020
Next Scheduled EDR Contact: 02/08/2021
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 10/07/2020
Next Scheduled EDR Contact: 01/25/2021
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/11/2020
Next Scheduled EDR Contact: 03/01/2021
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/03/2020
Next Scheduled EDR Contact: 03/22/2021
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

13175 ORANGE STREET
13175 ORANGE STREET
CORONA, CA 92880

TARGET PROPERTY COORDINATES

Latitude (North):	33.959958 - 33° 57' 35.85''
Longitude (West):	117.570294 - 117° 34' 13.06''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	447308.4
UTM Y (Meters):	3757668.5
Elevation:	620 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5640930 CORONA NORTH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

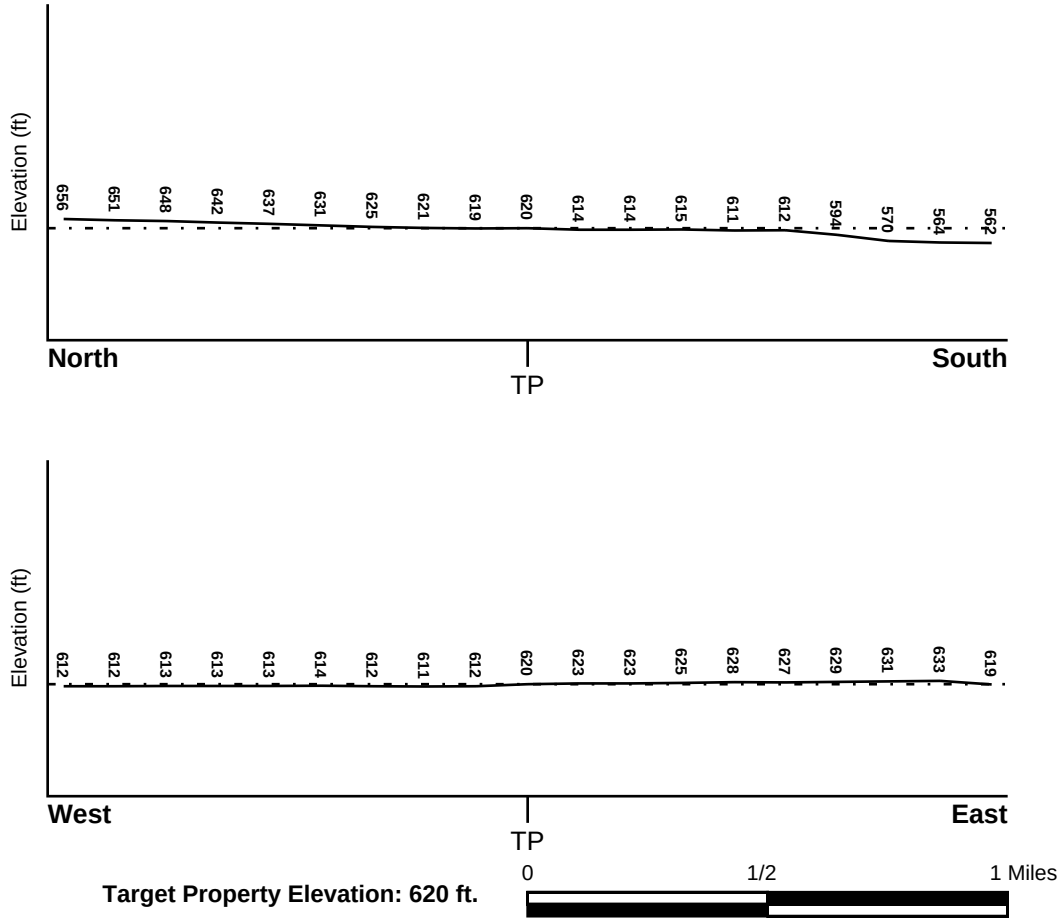
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
06071C9375H	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
06065C0681G	FEMA FIRM Flood data
06065C0683G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
CORONA NORTH	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

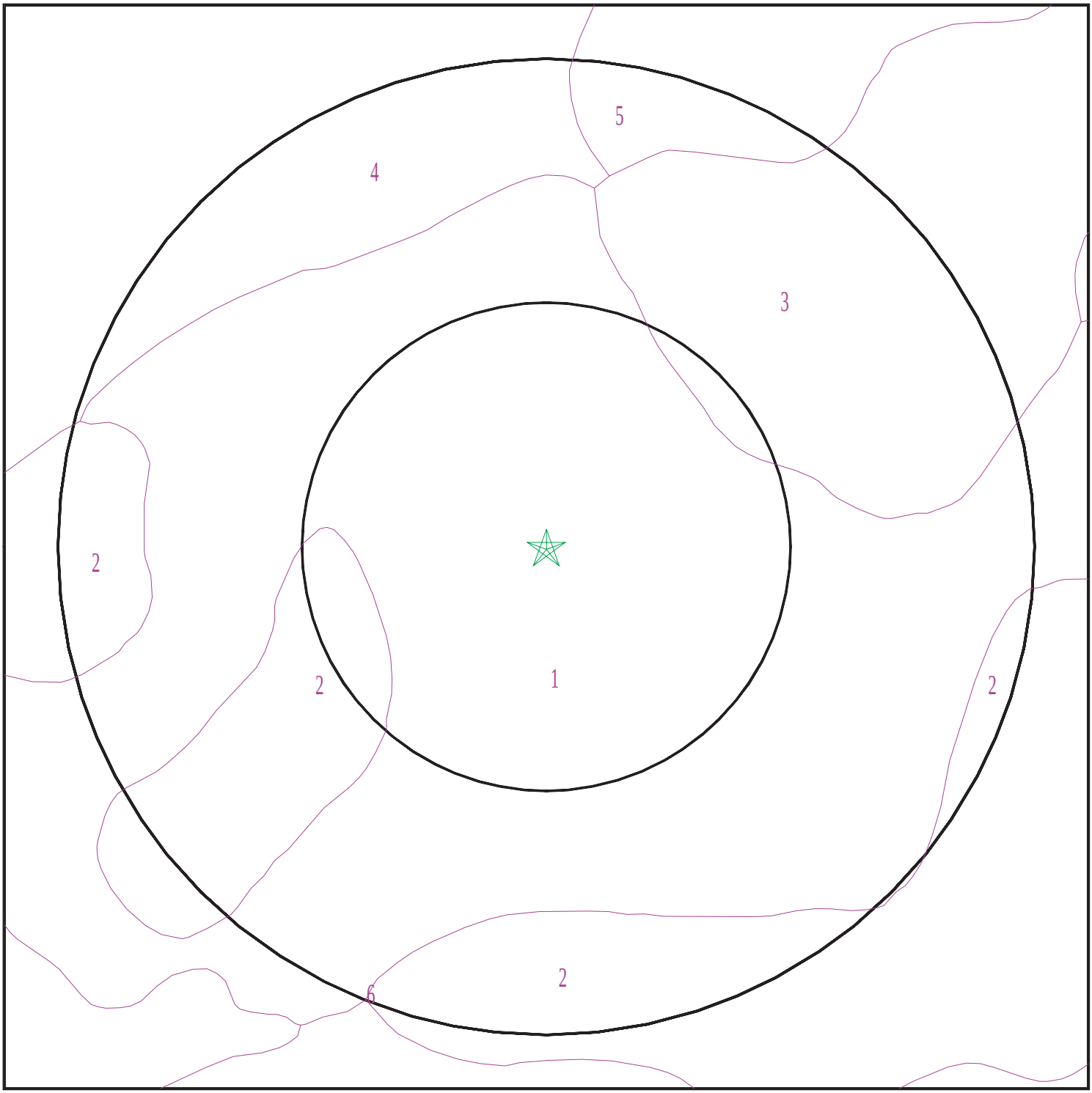
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 06324689.2r



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	13175 Orange Street	CLIENT:	Hillmann Environmental Co.
ADDRESS:	13175 Orange Street Corona CA 92880	CONTACT:	Davis Tang
		INQUIRY #:	06324689.2r
LAT/LONG:	33.959958 / 117.570294	DATE:	January 08, 2021 2:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
2	14 inches	22 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
3	22 inches	68 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 2

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	14 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	14 inches	22 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
3	22 inches	68 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

Soil Map ID: 3

Soil Component Name: HANFORD

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Map ID: 4

Soil Component Name: HILMAR

Soil Surface Texture: loamy fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6
2	16 inches	72 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 6.6

Soil Map ID: 5

Soil Component Name: HANFORD

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6
3	40 inches	59 inches	stratified loamy sand to coarse sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 5.6

Soil Map ID: 6

Soil Component Name: RAMONA

Soil Surface Texture: sandy loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	7 inches	16 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
3	16 inches	68 inches	sandy clay loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6
4	68 inches	74 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 4 Min: 1.4	Max: 8.4 Min: 6.6

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
D13	USGS40000139276	1/2 - 1 Mile East
D14	USGS40000139277	1/2 - 1 Mile East

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

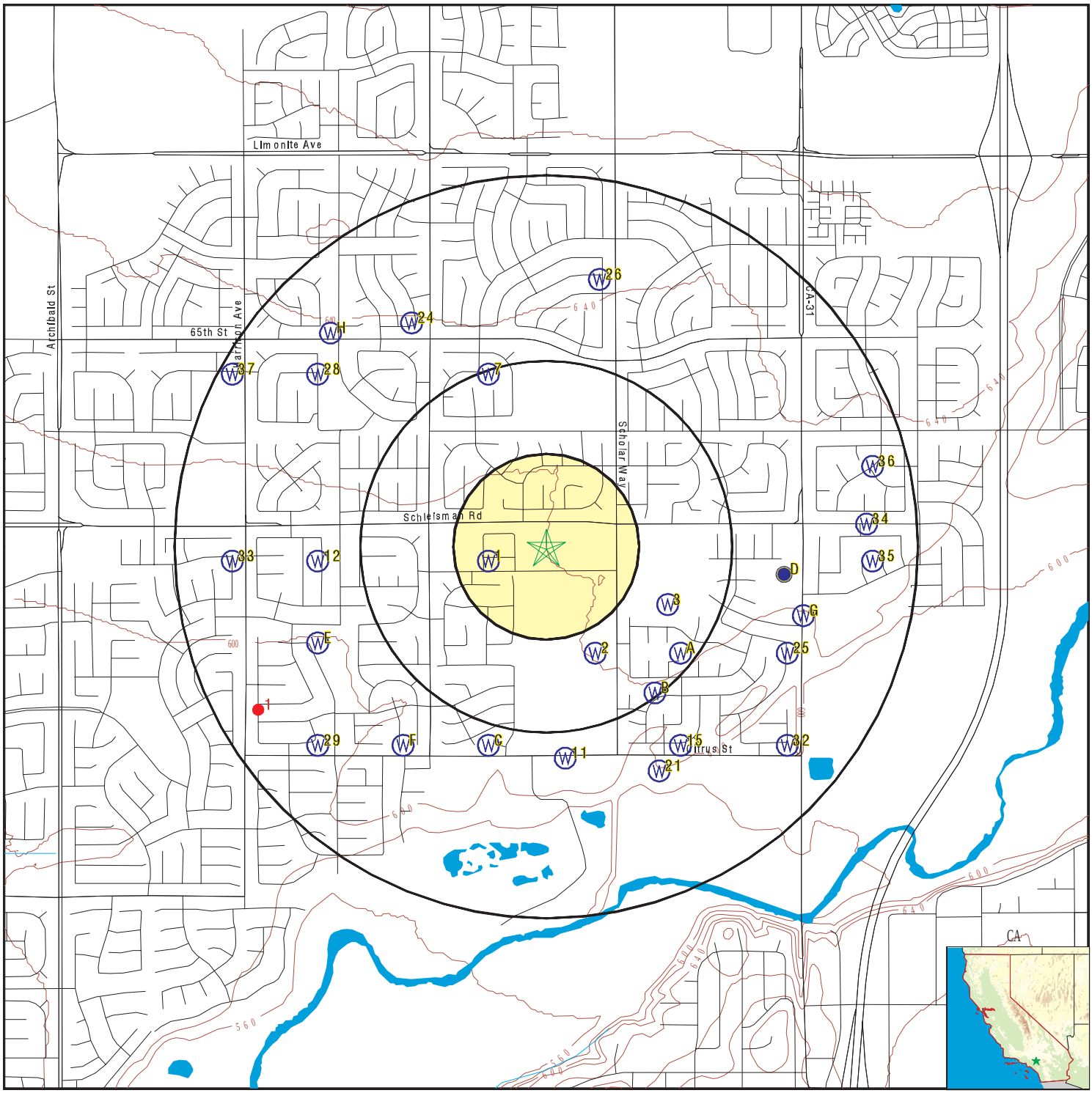
MAP ID	WELL ID	LOCATION FROM TP
1	CADWR0000033169	1/8 - 1/4 Mile WSW
2	CADWR0000028059	1/4 - 1/2 Mile SSE
3	CADPR0000004447	1/4 - 1/2 Mile ESE
A4	CADWR0000012729	1/4 - 1/2 Mile SE
A5	CADWR0000036693	1/4 - 1/2 Mile SE
B6	CADPR0000002435	1/4 - 1/2 Mile SE
7	CADWR0000027770	1/4 - 1/2 Mile NNW
B8	CADPR0000004073	1/4 - 1/2 Mile SE
C9	CADWR0000018922	1/2 - 1 Mile SSW
C10	CADWR0000002590	1/2 - 1 Mile SSW
11	CADPR0000002661	1/2 - 1 Mile South
12	CADWR0000000296	1/2 - 1 Mile West
15	CADWR0000037291	1/2 - 1 Mile SE
D16	CADWR0000002614	1/2 - 1 Mile East
E17	CADWR8000006218	1/2 - 1 Mile WSW
F18	CADWR0000021081	1/2 - 1 Mile SW
F19	CADWR0000010186	1/2 - 1 Mile SW
F20	CADWR0000016280	1/2 - 1 Mile SW
21	CADPR0000001621	1/2 - 1 Mile SSE
E22	CADWR0000030158	1/2 - 1 Mile WSW
G23	2615	1/2 - 1 Mile ESE
24	CADPR0000000502	1/2 - 1 Mile NNW
25	CADWR0000021815	1/2 - 1 Mile ESE
26	CADPR0000005448	1/2 - 1 Mile NNE
G27	CADDW0000020152	1/2 - 1 Mile ESE
28	CADWR0000009901	1/2 - 1 Mile NW
29	CADWR0000022259	1/2 - 1 Mile SW
H30	CAPFAS000001489	1/2 - 1 Mile NW
H31	CADDW0000012731	1/2 - 1 Mile NW
32	CADWR0000012249	1/2 - 1 Mile SE
33	CADWR0000021750	1/2 - 1 Mile West
34	2613	1/2 - 1 Mile East
35	CADWR0000018274	1/2 - 1 Mile East
36	CADWR0000005392	1/2 - 1 Mile ENE
37	CADWR0000022479	1/2 - 1 Mile WNW

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG13000006416	1/2 - 1 Mile WSW

PHYSICAL SETTING SOURCE MAP - 06324689.2r



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	13175 Orange Street	CLIENT:	Hillmann Environmental Co.
ADDRESS:	13175 Orange Street Corona CA 92880	CONTACT:	Davis Tang
		INQUIRY #:	06324689.2r
LAT/LONG:	33.959958 / 117.570294	DATE:	January 08, 2021 2:23 pm

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
WSW | **CA WELLS** | **CADWR0000033169**
1/8 - 1/4 Mile
Lower

Well ID:	02S07W36D002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36D002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36D002S&store_num=		
GeoTracker Data:	Not Reported		

2
SSE | **CA WELLS** | **CADWR0000028059**
1/4 - 1/2 Mile
Higher

Well ID:	02S07W36F001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36F001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36F001S&store_num=		
GeoTracker Data:	Not Reported		

3
ESE | **CA WELLS** | **CADPR0000004447**
1/4 - 1/2 Mile
Higher

Well ID:	80477	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	80477	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=80477&store_num=		
GeoTracker Data:	Not Reported		

A4
SE | **CA WELLS** | **CADWR0000012729**
1/4 - 1/2 Mile
Higher

Well ID:	02S07W36G002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36G002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36G002S&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A5
SE **CA WELLS** **CADWR0000036693**
1/4 - 1/2 Mile
Higher

Well ID:	02S07W36G001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36G001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36G001S&store_num=		
GeoTracker Data:	Not Reported		

B6
SE **CA WELLS** **CADPR0000002435**
1/4 - 1/2 Mile
Lower

Well ID:	80476	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	80476	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=80476&store_num=		
GeoTracker Data:	Not Reported		

7
NNW **CA WELLS** **CADWR0000027770**
1/4 - 1/2 Mile
Higher

Well ID:	02S07W25M001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W25M001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W25M001S&store_num=		
GeoTracker Data:	Not Reported		

B8
SE **CA WELLS** **CADPR0000004073**
1/4 - 1/2 Mile
Lower

Well ID:	80473	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	80473	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=80473&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C9
SSW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000018922**

Well ID:	02S07W36M002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36M002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36M002S&store_num=		
GeoTracker Data:	Not Reported		

C10
SSW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000002590**

Well ID:	02S07W36M001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36M001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36M001S&store_num=		
GeoTracker Data:	Not Reported		

11
South
1/2 - 1 Mile
Lower

CA WELLS **CADPR0000002661**

Well ID:	80474	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	80474	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=80474&store_num=		
GeoTracker Data:	Not Reported		

12
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000000296**

Well ID:	02S07W34A001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W34A001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W34A001S&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D13
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000139276**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007W36A007S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	200
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

D14
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000139277**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	002S007W36H002S	Type:	Well
Description:	Not Reported	HUC:	18070203
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	California Coastal Basin aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	186
Well Depth Units:	ft	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

15
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000037291**

Well ID:	02S07W36K001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36K001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36K001S&store_num=		
GeoTracker Data:	Not Reported		

D16
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000002614**

Well ID:	02S07W36A007S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W36A007S	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36A007S&store_num=
GeoTracker Data: Not Reported

E17
WSW **CA WELLS** **CADWR8000006218**
1/2 - 1 Mile
Lower

State Well #:	Not Reported	Station ID:	48081
Well Name:	CHINO-1207984	Well Use:	Observation
Well Type:	Part of a nested/multi-completion well		
Well Depth:	115	Basin Name:	Chino
Well Completion Rpt #:	e025646		

F18
SW **CA WELLS** **CADWR0000021081**
1/2 - 1 Mile
Lower

Well ID:	02S07W35J002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W35J002S	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W35J002S&store_num=
GeoTracker Data: Not Reported

F19
SW **CA WELLS** **CADWR0000010186**
1/2 - 1 Mile
Lower

Well ID:	02S07W35J004S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W35J004S	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W35J004S&store_num=
GeoTracker Data: Not Reported

F20
SW **CA WELLS** **CADWR0000016280**
1/2 - 1 Mile
Lower

Well ID:	02S07W35J001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W35J001S	GAMA PFAS Testing:	Not Reported

Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W35J001S&store_num=
GeoTracker Data: Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

21
SSE
1/2 - 1 Mile
Lower

CA WELLS **CADPR0000001621**

Well ID:	80475	Well Type:	UNK
Source:	Department of Pesticide Regulation		
Other Name:	80475	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=80475&store_num=		
GeoTracker Data:	Not Reported		

E22
WSW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000030158**

Well ID:	02S07W35G001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W35G001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W35G001S&store_num=		
GeoTracker Data:	Not Reported		

G23
ESE
1/2 - 1 Mile
Lower

CA WELLS **2615**

Seq:	2615	Prim sta c:	02S/07W-36H02 S
Frds no:	3310025006	County:	33
District:	14	User id:	WAT
System no:	3310025	Water type:	G
Source nam:	WELL 06 - INACTIVE	Station ty:	WELL/AMBNT/MUN/INTAKE/SUPPLY
Latitude:	335726.3	Longitude:	1173328.2
Precision:	1	Status:	IR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3310025	System nam:	Norco, City Of
Hqname:	Not Reported	Address:	P.O. BOX 428
City:	NORCO	State:	CA
Zip:	91760	Zip ext:	Not Reported
Pop serv:	24704	Connection:	6153
Area serve:	NORCO CITY		

24
NNW
1/2 - 1 Mile
Higher

CA WELLS **CADPR0000000502**

Well ID:	80471	Well Type:	UNK
Source:	Department of Pesticide Regulation		

Other Name: 80471 GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=80471&store_num=
GeoTracker Data: Not Reported

25
ESE **CA WELLS** **CADWR0000021815**
1/2 - 1 Mile
Lower

Well ID: 02S07W36H002S Well Type: UNK
Source: Department of Water Resources
Other Name: 02S07W36H002S GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36H002S&store_num=
GeoTracker Data: Not Reported

26
NNE **CA WELLS** **CADPR0000005448**
1/2 - 1 Mile
Higher

Well ID: 80470 Well Type: UNK
Source: Department of Pesticide Regulation
Other Name: 80470 GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DPR&samp_date=&global_id=&assigned_name=80470&store_num=
GeoTracker Data: Not Reported

G27
ESE **CA WELLS** **CADDW0000020152**
1/2 - 1 Mile
Higher

Well ID: 3310025-006 Well Type: MUNICIPAL
Source: Department of Health Services
Other Name: WELL 06 - INACTIVE GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3310025-006&store_num=
GeoTracker Data: Not Reported

28
NW **CA WELLS** **CADWR0000009901**
1/2 - 1 Mile
Higher

Well ID: 02S07W27J001S Well Type: UNK
Source: Department of Water Resources
Other Name: 02S07W27J001S GAMA PFAS Testing: Not Reported
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W27J001S&store_num=
GeoTracker Data: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

29
SW
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000022259**

Well ID: 02S07W35K001S
Source: Department of Water Resources
Other Name: 02S07W35K001S
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W35K001S&store_num=
GeoTracker Data: Not Reported
Well Type: UNK
GAMA PFAS Testing: Not Reported

H30
NW
1/2 - 1 Mile
Higher

CA WELLS **CAPFAS000001489**

Well ID: 3610075-015
Source: Department of Health Services
Other Name: WELL 15
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610075-015&store_num=
GeoTracker Data: Not Reported
Well Type: MUNICIPAL
GAMA PFAS Testing: Yes

H31
NW
1/2 - 1 Mile
Higher

CA WELLS **CADDW0000012731**

Well ID: 3610075-015
Source: Department of Health Services
Other Name: WELL 15
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DHS&samp_date=&global_id=&assigned_name=3610075-015&store_num=
GeoTracker Data: Not Reported
Well Type: MUNICIPAL
GAMA PFAS Testing: Not Reported

32
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000012249**

Well ID: 02S07W36J001S
Source: Department of Water Resources
Other Name: 02S07W36J001S
Groundwater Quality Data: https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W36J001S&store_num=
GeoTracker Data: Not Reported
Well Type: UNK
GAMA PFAS Testing: Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

33
West
1/2 - 1 Mile
Lower

CA WELLS **CADWR0000021750**

Well ID:	02S07W34B001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W34B001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W34B001S&store_num=		
GeoTracker Data:	Not Reported		

34
East
1/2 - 1 Mile
Higher

CA WELLS **2613**

Seq:	2613	Prim sta c:	02S/07W-36A06 S
Frds no:	3301325001	County:	33
District:	63	User id:	33C
System no:	3301325	Water type:	G
Source nam:	WELL 01 DOMESTIC	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	335739.0	Longitude:	1173316.0
Precision:	2	Status:	AR
Comment 1:	7010 HAMNER MIRA LOMA CA	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3301325	System nam:	The Slammer
Hqname:	Not Reported	Address:	5488 MORGAN
City:	RIVERSIDE	State:	CA
Zip:	92509	Zip ext:	Not Reported
Pop serv:	40	Connection:	2
Area serve:	Not Reported		

35
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000018274**

Well ID:	02S06W31D002S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S06W31D002S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S06W31D002S&store_num=		
GeoTracker Data:	Not Reported		

36
ENE
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000005392**

Well ID:	02S06W30N001S	Well Type:	UNK
Source:	Department of Water Resources		

Other Name:	02S06W30N001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S06W30N001S&store_num=		
GeoTracker Data:	Not Reported		

37
WNW
1/2 - 1 Mile
Higher

CA WELLS **CADWR0000022479**

Well ID:	02S07W27K001S	Well Type:	UNK
Source:	Department of Water Resources		
Other Name:	02S07W27K001S	GAMA PFAS Testing:	Not Reported
Groundwater Quality Data:	https://gamagroundwater.waterboards.ca.gov/gama/gamamap/public/GamaDataDisplay.asp?dataset=DWR&samp_date=&global_id=&assigned_name=02S07W27K001S&store_num=		
GeoTracker Data:	Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1
WSW
1/2 - 1 Mile

OIL_GAS **CAOG13000006416**

API #:	0406500142	Well #:	1
Well Status:	Idle	Well Type:	OG
Operator Name:	L. B. Tannehill	Lease Name:	Lease by L. B. Tannehill
Field Name:	Any Field	Area Name:	Any Area
GIS Source:	hud	Confidential Well:	N
Directionally Drilled:	N	SPUD Date:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92880	15	1

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

OTHER STATE DATABASE INFORMATION

Groundwater Ambient Monitoring & Assessment Program
State Water Resources Control Board
Telephone: 916-341-5577
The GAMA Program is Californias comprehensive groundwater quality monitoring program. GAMA collects data by testing the untreated, raw water in different types of wells for naturally-occurring and man-made chemicals. The GAMA data includes Domestic, Monitoring and Municipal well types from the following sources, Department of Water Resources, Department of Heath Services, EDF, Agricultural Lands, Lawrence Livermore National Laboratory, Department of Pesticide Regulation, United States Geological Survey, Groundwater Ambient Monitoring and Assessment Program and Local Groundwater Projects.

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

PHYSICAL SETTING SOURCE RECORDS SEARCHED

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX F

OTHER DOCUMENTS

A & R Laboratories, Inc.

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CASE NARRATIVE

Authorized Signature Name / Title (print)	Ken Zheng, President
Signature / Date	Ken Zheng, President 01/20/2021 11:31:54
Laboratory Job No. (Certificate of Analysis No.)	2101-00090
Project Name / No.	MLC 13175 ORANGE ST., EASTVALE, CA 92880 C3-8285
Dates Sampled (from/to)	01/14/21 To 01/14/21
Dates Received (from/to)	01/14/21 To 01/14/21
Dates Reported (from/to)	01/19/21 To 1/20/2021
Chains of Custody Received	Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Inorganic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Result	Qual	Units	RL
P17-20	Heptachlor Epoxide	**0.027**		mg/Kg	0.0020				

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CERTIFICATE OF ANALYSIS

2101-00090

HILLMANN GROUP
DAVIS TANG
1745 W. ORANGEWOOD AVE.
SUITE 201
ORANGE, CA 92868

Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 **P1-4**					Date & Time Sampled:		01/14/21 @	9:10
Sample Matrix: **Soil**								
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		01/14/21	SR
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	01/14/21	SR
[Surrogates]								
Tetrachloro-m-xylene	116		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Decachlorobiphenyl	116		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Sample: 002 **P5-8**					Date & Time Sampled:		01/14/21 @	9:25
Sample Matrix: **Soil**								
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		01/14/21	SR
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR

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CERTIFICATE OF ANALYSIS

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Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 **P5-8**					Date & Time Sampled:		01/14/21 @	9:25
Sample Matrix: **Soil**								
.....continued								
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	01/14/21	SR
[Surrogates]								
Tetrachloro-m-xylene	108		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Decachlorobiphenyl	116		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Sample: 003 **P9-12**					Date & Time Sampled:		01/14/21 @	9:50
Sample Matrix: **Soil**								
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		01/14/21	SR
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR

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Invoice No.	90695
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Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 **P9-12**					Date & Time Sampled:		01/14/21 @	9:50
Sample Matrix: **Soil**								
.....continued								
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	01/14/21	SR
[Surrogates]								
Tetrachloro-m-xylene	117		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Decachlorobiphenyl	113		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Sample: 004 **P13-16**					Date & Time Sampled:		01/14/21 @	10:20
Sample Matrix: **Soil**								
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		01/14/21	SR
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR

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2101-00090

HILLMANN GROUP
DAVIS TANG
1745 W. ORANGEWOOD AVE.
SUITE 201
ORANGE, CA 92868

Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 **P13-16**					Date & Time Sampled:		01/14/21 @	10:20
Sample Matrix: **Soil**								
.....continued								
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor Epoxide	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	01/14/21	SR
[Surrogates]								
Tetrachloro-m-xylene	107		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Decachlorobiphenyl	107		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Sample: 005 **P17-20**					Date & Time Sampled:		01/14/21 @	10:50
Sample Matrix: **Soil**								
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		01/14/21	SR
Aldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
alpha-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
beta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
delta-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
gamma-BHC	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan I	<0.00020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR

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HILLMANN GROUP
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Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 **P17-20**					Date & Time Sampled:		01/14/21 @	10:50
Sample Matrix: **Soil**								
.....continued								
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Endrin ketone	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Heptachlor Epoxide	**0.027**		mg/Kg	EPA 8081A	1.0	0.0020	01/14/21	SR
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	01/14/21	SR
Toxaphene	<0.050		mg/Kg	EPA 8081A	1.0	0.050	01/14/21	SR
[Surrogates]								
Tetrachloro-m-xylene	112		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Decachlorobiphenyl	113		%REC	EPA 8081A/8082		50-150	01/14/21	SR
Sample: 006 **M1**					Date & Time Sampled:		01/14/21 @	9:10
Sample Matrix: **Soil**								
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		01/15/21	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Arsenic	**1.87**		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Barium	**60.4**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Chromium	**14.0**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cobalt	**4.24**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Copper	**7.66**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Lead	**4.44**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Nickel	**8.97**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB

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ORANGE, CA 92868

Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 **M1**					Date & Time Sampled:		01/14/21 @	9:10
Sample Matrix: **Soil**								
.....continued								
Vanadium	**30.9**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Zinc	**20.9**		mg/Kg	EPA 6010B	1.0	5.00	01/15/21	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		01/19/21	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	01/19/21	KZ
Sample: 007 **M2**					Date & Time Sampled:		01/14/21 @	9:25
Sample Matrix: **Soil**								
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		01/15/21	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Arsenic	**1.64**		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Barium	**48.2**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Chromium	**12.2**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cobalt	**4.01**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Copper	**6.77**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Lead	**3.78**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Nickel	**6.77**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Vanadium	**28.6**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Zinc	**19.7**		mg/Kg	EPA 6010B	1.0	5.00	01/15/21	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		01/19/21	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	01/19/21	KZ
Sample: 008 **M3**					Date & Time Sampled:		01/14/21 @	9:50
Sample Matrix: **Soil**								

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Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 **M3**					Date & Time Sampled:		01/14/21 @	9:50
Sample Matrix: **Soil**								
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		01/15/21	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Arsenic	**1.76**		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Barium	**57.0**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Chromium	**14.0**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cobalt	**4.39**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Copper	**8.26**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Lead	**7.14**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Nickel	**7.84**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Vanadium	**33.3**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Zinc	**28.6**		mg/Kg	EPA 6010B	1.0	5.00	01/15/21	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		01/19/21	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	01/19/21	KZ
Sample: 009 **M4**					Date & Time Sampled:		01/14/21 @	10:20
Sample Matrix: **Soil**								
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		01/15/21	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Arsenic	**3.35**		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Barium	**66.2**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Chromium	**16.1**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB

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Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 **M4**					Date & Time Sampled:		01/14/21 @	10:20
Sample Matrix: **Soil**								
.....continued								
Cobalt	**5.18**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Copper	**10.9**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Lead	**4.54**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Nickel	**9.58**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Vanadium	**37.1**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Zinc	**23.9**		mg/Kg	EPA 6010B	1.0	5.00	01/15/21	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		01/19/21	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	01/19/21	KZ
Sample: 010 **M5**					Date & Time Sampled:		01/14/21 @	10:50
Sample Matrix: **Soil**								
[Metals Title 22 no Hg]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		01/15/21	TLB
Antimony	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Arsenic	**2.85**		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Barium	**57.7**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Beryllium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cadmium	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Chromium	**15.4**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Cobalt	**4.83**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Copper	**9.25**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Lead	**4.82**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Molybdenum	<0.500		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Nickel	**8.80**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Selenium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Silver	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, wholly or in part, for advertising or other purposes without approval from the laboratory.
USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research

A & R Laboratories, Inc.

1650 S. GROVE AVE., SUITE C
ONTARIO, CA 91761
951-779-0310 FAX 951-779-0344
www.arlaboratories.com office@arlaboratories.com

FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

CHEMISTRY · MICROBIOLOGY · FOOD SAFETY · MOBILE LABORATORIES
FOOD · COSMETICS · WATER · SOIL · SOIL VAPOR · WASTES

CERTIFICATE OF ANALYSIS

2101-00090

HILLMANN GROUP
DAVIS TANG
1745 W. ORANGEWOOD AVE.
SUITE 201
ORANGE, CA 92868

Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	01/19/21
Date Received	01/14/21
Invoice No.	90695
Cust #	H080
Permit Number	
Customer P.O.	C3-8285

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 **M5**					Date & Time Sampled:		01/14/21 @	10:50
Sample Matrix: **Soil**								
.....continued								
Thallium	<1.00		mg/Kg	EPA 6010B	1.0	1.00	01/15/21	TLB
Vanadium	**36.6**		mg/Kg	EPA 6010B	1.0	0.500	01/15/21	TLB
Zinc	**24.8**		mg/Kg	EPA 6010B	1.0	5.00	01/15/21	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		01/19/21	KZ
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	01/19/21	KZ

Respectfully Submitted: Ken Zheng

Ken Zheng - Lab Director

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

The data and information on this, and other accompanying documents, represent only the sample(s) analyzed and is rendered upon condition that it is not to be reproduced, wholly or in part, for advertising or other purposes without approval from the laboratory.
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QUALITY CONTROL DATA REPORT

2101-00090

HILLMANN GROUP
DAVIS TANG
1745 W. ORANGEWOOD AVE.
SUITE 201
ORANGE, CA 92868

Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Date Reported	**01/19/2021**
Date Received	**01/14/2021**
Date Sampled	**01/14/2021**
Invoice No.	**90695**
Customer #	**H080**
Customer P.O.	**C3-8285**

Method # EPA 6010B
QC Reference # 93825 **Date Analyzed:** 1/15/2021 **Technician:** TLB
Samples 006 007 008 009 010

Results

	LCS %REC	LCS %DUP	LCS %RPD	SPIKE %REC	SPIKE %DUP	SPIKE %RPD
Antimony	101	100	0.9	93	94	1.0
Arsenic	100	100	0.4	92	94	1.5
Barium	101	101	0.5	97	99	0.5
Beryllium	102	101	1.1	102	102	0.4
Cadmium	99	99	0.3	83	84	0.7
Chromium	104	102	1.4	92	92	0.0
Cobalt	99	99	0.0	84	85	0.8
Copper	100	101	0.8	91	93	1.2
Lead	99	99	0.2	78	80	1.0
Molybdenum	100	100	0.2	93	94	1.0
Nickel	100	100	0.2	83	83	0.6
Selenium	100	99	0.7	77	78	0.9
Silver	99	99	0.4	87	87	0.0
Thallium	98	101	3.2	86	90	2.8
Vanadium	100	101	0.5	94	96	0.7
Zinc	99	99	0.4	82	83	0.9

Control Ranges

LCS %REC	LCS %RPD	SPIKE %RPD
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20
75 - 125	0 - 20	0 - 20

Method # EPA 7471A
QC Reference # 93884 **Date Analyzed:** 1/19/2021 **Technician:** KZ
Samples 006 007 008 009 010

Results

	LCS %REC	LCS %DUP	LCS %RPD	SPIKE %REC	SPIKE %DUP	SPIKE %RPD
Mercury	88	97	9	76	82	6

Control Ranges

LCS %REC	LCS %RPD	SPIKE %RPD
75 - 125	0 - 25	0 - 25

Method # EPA 8081A
QC Reference # 93814 **Date Analyzed:** 1/14/2021 **Technician:** SR
Samples 001 002 003 004 005

Results

	LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD
4,4'-DDT	102	100	98	2
Aldrin	101	103	100	3
Dieldrin	98	99	96	3
Endrin	71	72	70	2
gamma-BHC	96	111	96	15
Heptachlor	97	101	94	7

Control Ranges

LCS %REC	SPIKE %RPD
50 - 130	0 - 30
50 - 140	0 - 30
70 - 130	0 - 30
70 - 150	0 - 30
50 - 150	0 - 30
50 - 150	0 - 30

Method # EPA 8081A/8082
QC Reference # 93814 **Date Analyzed:** 1/14/2021 **Technician:** SR
Samples 001 002 003 004 005

No QC recoveries reported.

No method blank results were above reporting limit

A & R Laboratories, Inc.

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QUALITY CONTROL DATA REPORT

2101-00090

HILLMANN GROUP
DAVIS TANG

Date Reported	**01/19/2021**
Date Received	**01/14/2021**
Date Sampled	**01/14/2021**

Project: MLC 13175 ORANGE ST., EASTVALE, CA 92880

Respectfully Submitted: Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

AR LABORATORIES, Inc.

Chain of Custody Record

AR Lab Job # 2101-90

1650 S. Grove Ave Suite C
Ontario, CA 91761
Voice: 951.779.0310 ● 800.798.9336
Fax: 951.779.0344

www.arlaboratories.com info@arlaboratories.com

Page 1 of 1

Project No:	Project Name:
C3-8285	MLC 13175 Orange St, Eastvale, CA 92880
Project Manager:	**Phone:** **Fax:**
Davis Tang dtang@hillmanngroup.com	714-634-9500
Client Name: (Report and Billing)	**Address:** (Report and Billing)
Hillmann Consulting	1745 W. Orangewood Ave. Suite 201, Orange, CA 92868

Please Circle Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	8015M: Diesel, Fuel Screen, Carbon Chain	8015M: Gas only	8021B: BTEX/MtBE Only	418.1 (TRPH), 413.2, 1664	8260B: VOCs	GC or GCMS Volatiles by 5035*	GCMS: 8260B, 8021B, 624, 524.2	GCMS: MtBE Conf. Only, BTEX/Oxygenates Only	GCMS: 8270C, 625	8080: Pesticides, PCBs, Pest/PCB	8270C: SVOCs	Metals: Title 22 (CAM), RCRA, PP	pH, TDS, TSS, Conductivity	Flashpoint, Hex Cr		Remarks/Special Instructions
1	P1-4	1/14/21	0910	Soil	P1-4: 0.5-2 FT BGS	G										X						
2	P5-8		0925		P5-8											X						
3	P9-12		0950		P9-12											X						
4	P13-16		1020		P13-16											X						
5	P17-20		1050		P17-20											X						
6	M1		0910		M1													X				
7	M2		0925		M2													X				
8	M3		0950		M3													X				
9	M4		1020		M4													X				
10	M5		1050		M5													X				

Turn-Around Time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☑ Normal TAT

*Requires PRIOR approval, additional charges apply

Requested due date: _____

1) Relinquished by: (Sampler's Signature)	Date: 1/14/21	Time: 1155	3) Relinquished by:	Date:	Time:
2) Received by:	Date:	Time:	4) Received by:	Date:	Time:
			5) Relinquished by:	Date:	Time:
The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.			6) Received for Laboratory by:	Date: 1/14/21	Time: 1155

To be completed by Laboratory personnel:

Samples chilled? ☒ Yes ☐ No ☐ From Field

Custody seals? ☐ Yes ☒ No

All sample containers intact? ☒ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☒ Lab disposal

Laboratory Notes:
Please CC Kristine Savona (ksavona@hillmanngroup.com) on all reports and invoices.
Please CC Davis Tang (dtang@hillmanngroup.com) on report.

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Centrum duplicate Gold Copy - Client Copy

v6.0 1/11 coc-temp-both.xls

Sample Acceptance Checklist

CLIENT: Hillmann Consult. WORK ORDER NUMBER: 2101·00090

Temperature:(Criteria:0.0°C-6.0°C)

Sample Temp.(w/CF) °C(w/CF) 3.7°C

☐ Sample(s) outside temprature criteria: PM contacted by :

☐ Sample(s) outside temprature criteria, but received on ice/chilled on same day of sampling.

☐ Sample(s) received at ambient temprature; placed on ice for transport by courier.

Ambient Temprature ☐ Air ☐ Filter

CUSTODY SEAL:

Cooler	☐	Present and Intact	☐	Present and Not Intact	✓	Not Present
Sample(s)	☐	Present and Intact	☐	Present and Not Intact	✓	Not Present

Sample Condition:	Yes	No	N/A
Was a COC received	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relingquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were all samples sealed in plastic bags?		✓	
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of samples sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

Explanations/Comments:

Notification:

For discrepancies, how was the Project Manager notified? Verbal

Verbal: PM Initials: _____ Data/Time: _____

Email: Send to: _____ Data/Time: _____

Project Manager's response:

Completed By: _____ Date: 1·14·21

A R Laboratories
1650 S. Grove Ave., Suite C, Ontario, CA 91761
PH: 951-779-0310 Fax: 951-779-0344
Email: office@arlaboratories.com

HILLMANN
CONSULTING

January 25, 2021

State of California
Department of Toxic Substances Control
Region 4 – Cypress Regional Office
5796 Corporate Avenue
Cypress, CA 90630-4732
Phone (714) 484-5337
FAX (714) 484-5318
PubReqAct@dtsc.ca.gov

RE: Environmental Files:

13175 Orange Street
Eastvale, CA 92880

Dear Sir/Madam:

Hillmann Consulting, LLC is conducting an environmental investigation of the above referenced property. Under the Freedom of Information Act, we would like to request any information your office has regarding this property. If any records are located, we would like to obtain copies or schedule a file review. If no records are available, please contact me to confirm. Thank you for your assistance.

Sincerely,



Davis Tang
Environmental Scientist
Hillmann Consulting, LLC
dtang@hillmanngroup.com

U.S. Environmental Protection Agency

MyProperty

Environmental Databases Search

The search of EPA's Facility Registry System did not locate any records for the search criteria provided below:

Search Criteria:

Street Address:	13175 Orange Street
City, State:	Eastvale, CA
Query executed on:	01/25/2021 11:40 AM **EST**

Contact the appropriate state, tribal or local agencies if you seek additional information.

Disclaimer

The MyProperty reports are provided solely for informational purposes. They do not provide legal advice, have legally binding effect, or expressly or implicitly create, expand, or limit any legal rights, obligations, responsibilities, expectations, or benefits in regard to any person. EPA maintains the application to enhance public access to environmental information. This service has continual data updates, and we will correct errors brought to our attention, as appropriate.

SOUTH COAST AQMD

PUBLIC RECORDS REQUEST FORM

Request Information (For Office Use Only)

Date Stored

Time Stored

Public Record Request Nbr

Public Record Request Tracking Nbr
112209

Attention Requestor

Please fill out this form completely. You may include an attachment to the form, if necessary.

Requestor Information

Requestor Name
Davis Tang

Requestor Address
1745 W. Orangewood Ave, Suite 201

Requestor Company
Hillmann Consulting

Requestor City
Orange

Requestor Email*
DTANG@HILLMANNGROUP.COM

Requestor State
CA

Requestor Phone

Requestor Zip Code

Type of Requested Record(s).

REQUESTED RECORDS. **Please be as specific as possible in describing the records you are seeking.** The more specific you are, the easier it will be to determine if such records exist in District files. Please contact the Public Records Unit if you need assistance in identifying District records.

Note: Permits to Operate, Equipment Lists, Notices of Violation, Notices to Comply, and Emissions Summaries are available through SCAQMD's FIND page at http://www3.aqmd.gov/webappl/fim/prog/search.aspx (you need to copy and paste this link into your browser).

Please Enter a description of the records you are requesting here:*
Notices of violation, notices to comply, complaints, site inspection records, asbestos notification/records.

Time Period of Documents Requested

Start Date*
1/1/1900

End Date*
1/25/2021

Requested Facility or Site Information (if applicable)

Note: You may only include one Facility or Site per Form.

Facility ID (if known)

Address
13175 Orange Street

Facility Name (if known)

City
Eastvale

Zip Code
92880

Requested Application or Permit List. (if applicable)

Please click the Add Button to the right to enter a Application/Permit Number

Authorization Letter Attachment (0)

Authorization Letter

Note: Please use the above button for attaching an Authorization Letter from the facility to release confidential information for your public records request.

Supplemental Attachments (0)

Supplemental Documents

Note: Please use the above button for attaching additional documents that will help define your public records request.

INSTRUCTIONS FOR REQUESTING RECORDS

(California Public Records Act, Govt. Code Sections 6250-6276.48)

1. In order to expedite your request, please fill out the form completely. Requests may also be submitted by phone at (909) 396-3700, by facsimile to (909) 396-3330, or by email to PublicRecordsRequests@aqmd.gov.

2. Requests must be for records prepared, owned, used, or retained by the District (Gov. Code Sec. 6252(e)). Requests should be for clearly identifiable records. The District is not required to create a new record in response to a request. The District will assist the requestor in making a request that describes reasonably identifiable records (Gov. Code Sec. 6253.1). Documents will not be provided if disclosure would infringe upon a copyright, trade secret, or is otherwise exempt in accordance with state law.

3. A search for facility records can only be conducted by one or all of the following:

-- a) Facility Name, Address, or Identification Number

-- b) Facility Application Number, or Permit to Operate Number; or

-- c) Facility Notice of Violation/Notice to Comply Number.

4. You will be notified within ten (10) days whether your request seeks copies of disclosable public records prepared, owned, used, or retained by this agency. In some cases, the District may need an additional 14 days to respond. If so, you will be notified in writing. You will also be provided an estimated date of when the records will be made available.

5. Communications regarding your request, and any records, will be provided by email, unless specified otherwise.

6. If the search for records finds the records voluminous, you will be notified of the approximate number of pages and/or length of time it will take to process your request.

7. If the records you requested have been marked confidential by the source of the record, you will be notified and given the option of continuing with the District's Trade Secret process.

8. If your request is to review records, rather than receive copies, the District will notify you once the records are gathered, and arrangements will be made for your review.

9. The charge for the direct cost of duplication is as follows: Paper Copies, $0.15/page each over 10 pages (first 10 pages are free); Copied CD's or flash drives, no charge; and Copied Audio Tapes, $5.00 each. After a preliminary estimate, advance payment may be required.

10. If the request is for information in an electronic format, the requestor shall bear the cost of producing a copy of the record, including the cost to construct the record and the cost of programming and computer services necessary to produce a copy of the record, when either of the following applies: (1) the District would be required to produce a copy of an electronic record and the record is one that is produced only at otherwise regularly scheduled intervals, or (2) the request would require data compilation, extraction, or programming to produce the record. (Gov. Code Sec. 6253.9(b)). The transfer of gathered electronic records onto CD, DVD or flash drive typically costs $10.00 each. An invoice will accompany your records when completed.

Note: For further information, please refer to the District's Guidelines for Implementing the California Public Records Act. The Guidelines are available in the lobby of the District Headquarters or on the District's web site at www.aqmd.gov.

Note: If you have questions pertaining to the submittal of a Public Records Act request, you may contact the Public Records Unit, (909) 396-3700, Tuesday through Friday, 7:00 a.m. to 5:30 p.m. Our Fax number is (909) 396-3330. Our email address is PublicRecordsRequests@aqmd.gov.

HILLMANN
CONSULTING

January 25, 2021

State of California
Regional Water Quality Control Board
Santa Ana – Region 8
3737 Main Street, Suite #500
Riverside, CA 92501-3339
Phone (951) 782-4130
Fax (951) 781-6288
FileReview8@waterboards.ca.gov

RE: Environmental Files:

13175 Orange Street
Eastvale, CA 92880

Dear RWQCB:

Hillmann Consulting, LLC is conducting an environmental investigation of the above referenced property. Under the Freedom of Information Act, we are requesting any information your office has regarding this property. If any records are located, we would like to obtain copies or schedule a file review. If no records are available, please contact me to confirm. Thank you.

Sincerely,

Davis Tang
Environmental Scientist
Hillmann Consulting, LLC
dtang@hillmanngroup.com

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

www.rivcoeh.org

REQUEST FOR RECORDS

Land Use & Water Resources

PURSUANT TO CALIFORNIA GOVERNMENT CODE SECTION 6254 (F). RECORDS OF PENDING INVESTIGATION AND INFORMANTS NAMES, ADDRESSES AND TELEPHONE NUMBERS WILL NOT BE RELEASED.

REQUESTS WILL BE PROCESSED WITHIN TEN (10) BUSINESS DAYS PER CALIFORNIA GOVERNMENT CODE, SECTION 6256.

Send completed form to one of the addresses or faxes below:

Western Riverside County
3880 Lemon Street, Suite 200
Riverside, California, 92501
Phone: (951) 955-8980
Fax: (951) 955-8988
Email: landuse@rivco.org

Eastern Riverside County
47-950 Arabia St., Suite A
Indio, CA 92201
Phone: (760) 863-7570
Fax: (760) 863-7013
Email: landusedesert@rivco.org

YOUR NAME: Davis Tang		DATE: 6/3/20
MAILING ADDRESS: 1745 W. Orangewood Ave, Suite 201		PHONE: (714) 393-8186
CITY: Orange	STATE: CA	ZIP: 92868
EMAIL ADDRESS: dtang@hillmanngroup.com		
INFORMATION REQUESTED: Whether a septic system is present at this site.		
SITE ADDRESS: 13175 Orange Street		APN: - -
CITY: Eastvale		ZIP: 92880

THIS FORM IS FOR ACQUISITION OF ANY EXISTING RECORDS. ANY CONSULTATION IN REFERENCE TO THESE RECORDS MAY BE SUBJECT TO A CONSULTATION FEE (PURSUANT TO RIVERSIDE COUNTY ORDINANCE 640)

Signature

1/25/2021

Date

FOR OFFICE USE ONLY

REVIEWED BY	TITLE
RECORDS RECEIVED BY	DATE

County of Riverside

DEPARTMENT OF ENVIRONMENTAL HEALTH

www.rivcoeh.org

Environmental Protection & Oversight Division
Hazardous Materials Management Branch

REQUEST FOR RECORDS

Requests for review of records are processed on a first come, first serve basis and the processing time is approximately 2-4 weeks. As required by California Public Records Act Section 6250 et seq., a response will be given within ten (10) business days to confirm receipt of your request.

Pursuant to California Government Code, Section 6254 (f), records of pending investigations and informant's names, addresses, and telephone numbers, will not be released.

For access to electronic records available online, visit the Public Information section at www.rivcoeh.org for more details.

REQUESTOR INFORMATION		
NAME: Davis Tang	DATE OF REQUEST: 1/25/2021	
BUSINESS NAME (IF ANY): Hillmann Consulting		
RETURN LEGAL MAILING ADDRESS: 1745 W. Orangewood Ave., Suite 201		
CITY: Orange	STATE: CA	ZIP: 92868
PHONE: 714-634-9500		

The following information is required. **List each street address separately.**

	SITE STREET ADDRESS (NO APNs)	CITY
1.	13175 Orange Street,	Eastvale, 92880
2.		
3.		
4.		
5.		
6.		
7.		

Requests must be made in writing and submitted by mail, email, or in person to the following office:

4065 County Circle Drive, Room 104, Riverside, CA 92503
Phone: (951) 358-5055
Email: DEHRecordsMgmt@rivco.org
Mailing Address: P.O. Box 7909, Riverside, CA 92513-7909

For our office locations call us at (888) 722-4234 or visit our website at www.rivcoeh.org

From: Olney, Ryan
To: Davis Tang
Subject: Records request for 13175 Orange Street
Date: Monday, January 25, 2021 11:46:27 AM
Attachments: image001.png

Hi Davis,
I could not find any records for this property in our septic system files. Our records retention is 30 years, and appears this structure was built in 1990. It is possible that we did have records, but they were purged from our files.

Sorry I couldn't be more help.

Thanks,

Ryan Olney
Environmental Health Specialist IV
County of Riverside – Environmental Health
3880 Lemon St, Suite 200
Riverside, CA 92501
Office: 951-955-8980

Confidentiality Disclaimer

This email is confidential and intended solely for the use of the individual(s) to whom it is addressed. The information contained in this message may be privileged and confidential and protected from disclosure.
If you are not the author's intended recipient, be advised that you have received this email in error and that any use, dissemination, forwarding, printing, or copying of this email is strictly prohibited. If you have received this email in error please delete all copies, both electronic and printed, and contact the author immediately.

County of Riverside California

John Snyder
AGRICULTURAL COMMISSIONER/
SEALER OF WEIGHTS & MEASURES

Riverside County

Agricultural Commissioner's Office
4080 Lemon Street, Room 19, PO Box 1089,
Riverside, CA 92502-1089
Phone: (951) 955-3045 FAX (951) 955-3047
http://www.rivcoag.org

REQUEST FOR PUBLIC RECORDS

A. REQUESTOR:		DATE:
Davis Tang		1/25/2021
COMPANY:		PHONE NUMBER (DAYTIME):
Hillmann Consulting		714-634-9500
MAILING ADDRESS:	CITY/STATE:	ZIP CODE:
1745 W. Orangewood Ave. Suite 201	Orange	92868
E-MAIL ADDRESS:		
dtang@hillmanngroup.com		

B. I request the following records from the Riverside County Agricultural Commissioner's Office pertaining to:

- [x] WEIGHTS & MEASURES
- [x] PESTICIDE REGULATION
- [x] PEST EXCLUSION/NURSERY
- [ ] Other Program - Please Specify: _____

Please describe desired records in detail:

We would like to request any information your office has regarding restricted material permits within the RCAC database. If any records are located, we would like to obtain copies or schedule a file review. If no records are available or this property is not within your jurisdiction, please contact me to confirm. Thank you for your assistance.
Site: APNs: 152-040-003
13175 Orange Street, Eastvale, CA 92880

(Attach Additional Sheet If Required)

C. I request these records in the following format:

- [ ] Review records in person — No Fee
- [ ] Fax records (existing format) — No Fee
- [x] E-Mail records (existing format) — No Fee
- [ ] Copies — $.50 per page for first copy; $.50 per copy for subsequent copies of same page (8½" x 11" size paper)
- [ ] Data compilation, extraction, programming, reformatting — $____ per hour

Signature of Requestor: Davis Tang

Digitally signed by Davis Tang
DN: cn=Davis Tang, o, ou, email=dtang@hillmanngroup.com, c=US
Date: 2017.12.12 10:20:08 -08'00'

Please complete all boxes A - C Thank-you

(rev. 04/03/2013)

APPENDIX G

PROJECT PERSONNEL QUALIFICATIONS

HILLMANN
CONSULTING

Davis Tang

Industrial Hygienist

EDUCATION:

B.S. Environmental Science,
University of Riverside, California

CERTIFICATIONS:

OSHA 40-Hour HAZWOPER Training

EPA/ AHERA Accredited Asbestos Building Inspector

EPA/ AHERA Certified Site Surveillance Technician

Lead-Related Construction Sampling Technician

YEARS OF EXPERIENCE:

With Hillmann: 3 years

Total: 7 years

PROFESSIONAL EXPERIENCE:

As an environmental technician in our Orange, CA office, Mr. Tang provides technical consulting for asbestos investigation and sampling, environmental site assessments, and mold investigations. Mr. Tang also conducts hazard evaluations, compliance inspections, and prepares technical reports recommending management plans, hazard remediation, and abatement cost estimates for government, manufacturing, healthcare, educational, and public utility clients.

Mr. Tang performs various inspections including industrial hygiene, indoor air quality, and microbial delineation according to OSHA and government regulations.

Mr. Tang is well-versed in the requirements of the Occupational Safety and Health Administration (OSHA), the Environmental Protection Agency (EPA), the National Institute for Occupational Safety and Health (NIOSH), and numerous other federal, state, and local regulations and guidelines which affect environmental health and safety.

Representative experience includes:

Warmington Residential, Various locations: Hillmann has been providing Warmington Residential with Phase I environmental site assessments involving multiple residential redevelopment projects. Mr. Tang is an Environmental Scientist and has been involved with providing site assessments of various Warmington projects.

CapRock Partners, Various locations: Hillmann has provided Phase I site assessments, hazardous materials surveys, asbestos surveys, and lead surveys for a variety of projects. Mr. Tang is an Environmental Scientist on this contract performing surveys and environmental site assessments.

Westfield – Environmental Program, Various locations:
Since 2000, Hillmann has been providing an environmental program encompassing environmental health and safety, Phase I environmental site assessments, asbestos and lead surveys, air monitoring, bid administration and O&M programs, industrial hygiene and indoor air quality programs, and hazardous materials assessments on their mall properties throughout the county. Mr. Tang is an Environmental Scientist on this contract performing industrial hygiene services that include indoor air quality monitoring, Phase I environmental site assessments, asbestos and lead surveys.

Tishman Speyer Properties, Various locations: Hillmann has provided the complete environmental program for Tishman Speyer's properties since 1987. Our services include environmental health and safety, industrial hygiene, phase I environmental site assessments, asbestos surveys, air monitoring, bid administration, O&M programs and indoor air quality programs on various commercial, industrial and multi-family residential properties. Mr. Tang is an Environmental Scientist on this contract, conducting on-site environmental services including quarterly indoor air-quality testing and NPDES water quality testing.

CorePower Yoga, Various locations: CorePower Yoga has provided Hillmann with a variety of microbial investigative projects. Mr. Tang is an Environmental Scientist and has provided industrial hygiene services conducted microbial investigations at CorePower Yoga studios and prepared remediation plans.

HILLMANN
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J. Ryan Terwilliger

Operational Manager, West Coast

EDUCATION:

B.S. Environmental Science, University of Southern California, Los Angeles, CA

CERTIFICATION:

Cal-OSHA Certified Asbestos Consultant
CDPH Accredited Lead Inspector/Assessor/ Project Monitor

CA Certified Site Surveillance Technician

OSHA 40 - Hr HAZWOPER

YEARS OF EXPERIENCE:

With Hillmann: 4 years

Total: 8 years

PROFESSIONAL EXPERIENCE:

Mr. Terwilliger is responsible for business operations, fiscal management and field staff management for Hillmann's California Office. He also performs asbestos surveys and investigations to identify asbestos and lead materials associated with occupational hazards. He supervises work practices and controls in accordance with job specifications, current EPA, OSHA and State Regulations for Asbestos remediation projects in commercial, industrial and multi-family residential buildings. Mr. Terwilliger performs IAQ, mold and moisture investigations in commercial, industrial and residential facilities nationwide. He also performs awareness training for asbestos, lead and microbial agents. Mr. Terwilliger provides litigation support consultation.

Representative Experience Includes:

Tishman Speyer Properties, Various locations: Hillmann has provided the complete environmental program for Tishman Speyer's properties since 1987. Our services include environmental health and safety, industrial hygiene, phase I environmental site assessments, asbestos surveys, air monitoring, bid administration, O&M programs and indoor air quality programs on various commercial, industrial and multi-family residential properties. Mr. Terwilliger is an Environmental Scientist on this contract, conducting on-site environmental services including phase I site assessments and NPDES water quality testing.

Westfield – Environmental Program, Various locations: Since 2000, Hillmann has been providing an environmental program encompassing environmental health and safety, Phase I environmental site assessments, asbestos and lead surveys, air monitoring, bid administration and O&M programs, industrial hygiene and indoor air quality programs, and hazardous materials assessments on their mall properties throughout the county. Mr. Terwilliger is an Environmental Scientist on this contract performing industrial hygiene services that include indoor air quality monitoring, Phase I environmental site assessments, asbestos and lead surveys.

Brookfield Office Properties, Various sites, CA: Hillmann has been providing hazardous materials surveys, development abatement specifications, and managing the oversight activities during the abatement at various Brookfield owned sites throughout California. Mr. Terwilliger functions as a Project Manager for this contract.

California Department of Transportation, Central Valley and Northern CA: Hillmann has been performing asbestos and Lead-based Paint Surveys for the California Department of Transportation. Performed comprehensive asbestos containing materials and lead-based paint surveys of residential and commercial buildings that were slated for demolition and generated report of findings in order to aid the Department of Transportation (DOT) in facilitating the road improvement programs and building renovations throughout the

HILLMANN
CONSULTING

Central Valley area. Also during the abatement of asbestos from DOT owned buildings, provided contractor oversight and air monitoring services for regulatory compliance.

Verizon, Various Sites, CA. Hillmann conducted hazardous materials surveys, development abatement specifications, and project monitoring during abatement at various Verizon owned sites throughout California. Mr. Terwilliger functioned as the Project Manager.

Public Storage, Los Angeles, CA: Hillman preformed comprehensive asbestos, lead-based paint and universal waste materials survey of commercial and industrial buildings throughout Southern California. Hazardous materials surveys were conducted prior to renovation for the storage units. Mr. Terwilliger developed abatement specifications and managed the abatement activities during the renovations of the buildings. He functioned as the Project Manager on this contract.

Appendix 9A
Hydrology Study

Magnolia Ranch Residential Project

Initial Study

ALLARD ENGINEERING
civil engineering land surveying land planning

APN No. 152-040-003
Riverside County
13175 Orange Street
(Magnolia Ranch)

Preliminary Drainage Report

July 12, 2023

Prepared For:
Woodside 05S, LP
1250 Corona Pointe, Suite 500
Corona, CA 92879
(951) 710-1900

Prepared By:
Allard Engineering
16866 Seville Avenue
Fontana, CA 92335
(909) 356-1815

REGISTERED PROFESSIONAL ENGINEER
RAYMOND J. ALLARD
RA
No. 36052
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

Prepared under the supervision of:

Raymond J. Allard

Raymond J. Allard, P.E. RCE 36052 Exp. 06-30-24

DISCUSSION

Purpose:

The purpose of this report is to provide hydraulic and hydraulic calculations for the proposed APN# 152-040-003 and provide the design of the onsite storm drain systems for the proposed SFR development. The project site is located in the city of Eastvale, County of Riverside. The site is north of Orange Street, south of Schleisman Road, and existing residential/commercial development to the east/west.

Purpose

The purpose of this report is to demonstrate how the developed runoff for the proposed tract of SFR development retained and mitigated water quality volume, and sizing of onsite storm drain system for 100-yr storm event. The retention/infiltration basin overflow into the proposed onsite storm drain system and drains to the existing City storm drain (48" RCP) in Orange Road.

Criteria

The criteria utilized for hydrologic and Hydraulic analysis is the Riverside County Hydrology Manual and Rational Method Hydrology Analysis utilizing AES software to perform computations. 100-yr storm analysis was performed for the developed & un-developed condition.

Findings

Due the preliminary nature of this report, only the 100-yr storm event for the developed hydrology has been analyzed.

In pre-developed condition, the site consist of a single structure residential development and drain out to the south to the existing City Storm Drain System in Orange Street via proposed lateral.

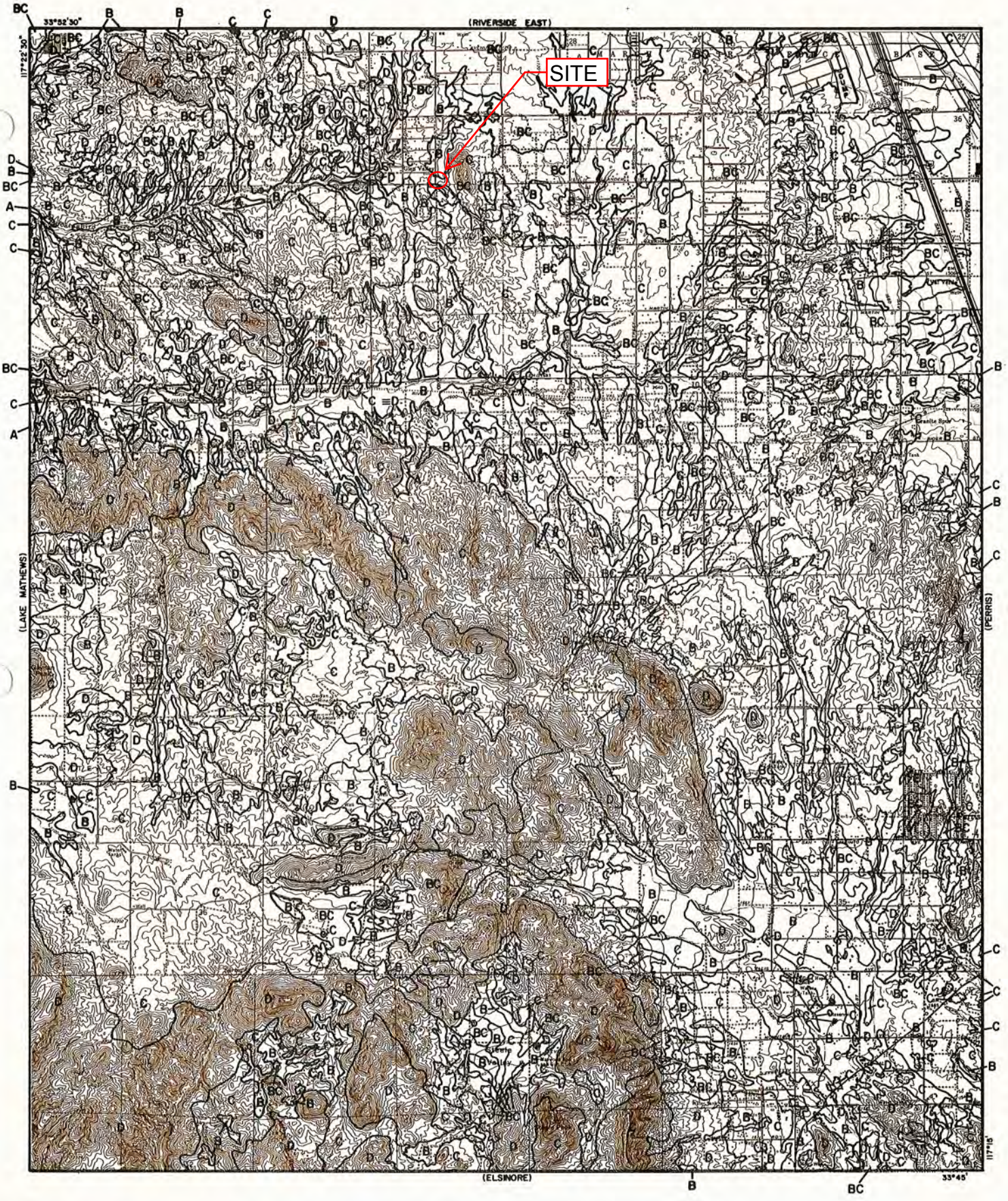
In the proposed developed (Tract of single family residential development) site will drain to the proposed two below surface retention/infiltration chamber system-1,2 for low flow infiltration. Once the retention/infiltration chamber system-1,2 reach its capacity, it will overflow into the onsite storm drain system and finally drains to the existing City Storm Drain System in Orange Street via the proposed 30" RCP lateral. It was calculated in proposed condition the site will generate a peak runoff flowrate of 22.8 from 100-yr storm event. All the proposed onsite storm drainage system are sized based the flow rate for100-yr storm event. The proposed onsite drainage system conveys runoff to the existing storm drain system south of the site which is also consistence with the existing drainage pattern.
In pre-developed condition the runoff rate calculated as 15.5 CFS and in developed condition the runoff rate calculated as 22.8 CFS. There will be an increase of 7.3 CFS in developed condition. By implementing the Retention/Infiltration Chamber System-1,2 onsite, and by attenuation of runoff in the Retention/Infiltration Chamber System-1,2, the outflow from the site in developed

condition will substantially reduce and will be at or below the pre-developed condition runoff rate.

There is an existing storm drain system in Orange Street across the sites frontage which begins as a 42” and transitions to a 48” part way through the site. This storm drain had a lateral A-2 which was bulk headed off at the front of our site for this development to tie into. Lateral A-2 was estimated to carry 24.7 CFS, which is greater than the 22.8 CFS the project generates. Therefore, this project is consistent with the anticipated flows of the existing City storm drain system, and will not affect the HGL found on the city reference drawings. These plans are included as reference.

Hydrology Reference Material


Bashkir St
Criolla Cir
Quarter Horse Dr
Nordland Dr
Cheju Cir
Schleisman Rd
SITE: 8.28 AC
Gale Ln
Paul St
Calina St
Orange St
Orange St
N33.9588°
Ex City Storm Drain System (48" RCP)``
Midnight Rose Cir
Brass Ring Ln
Scholar Way
Google Earth
© 2021 Google
700 ft
N



LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

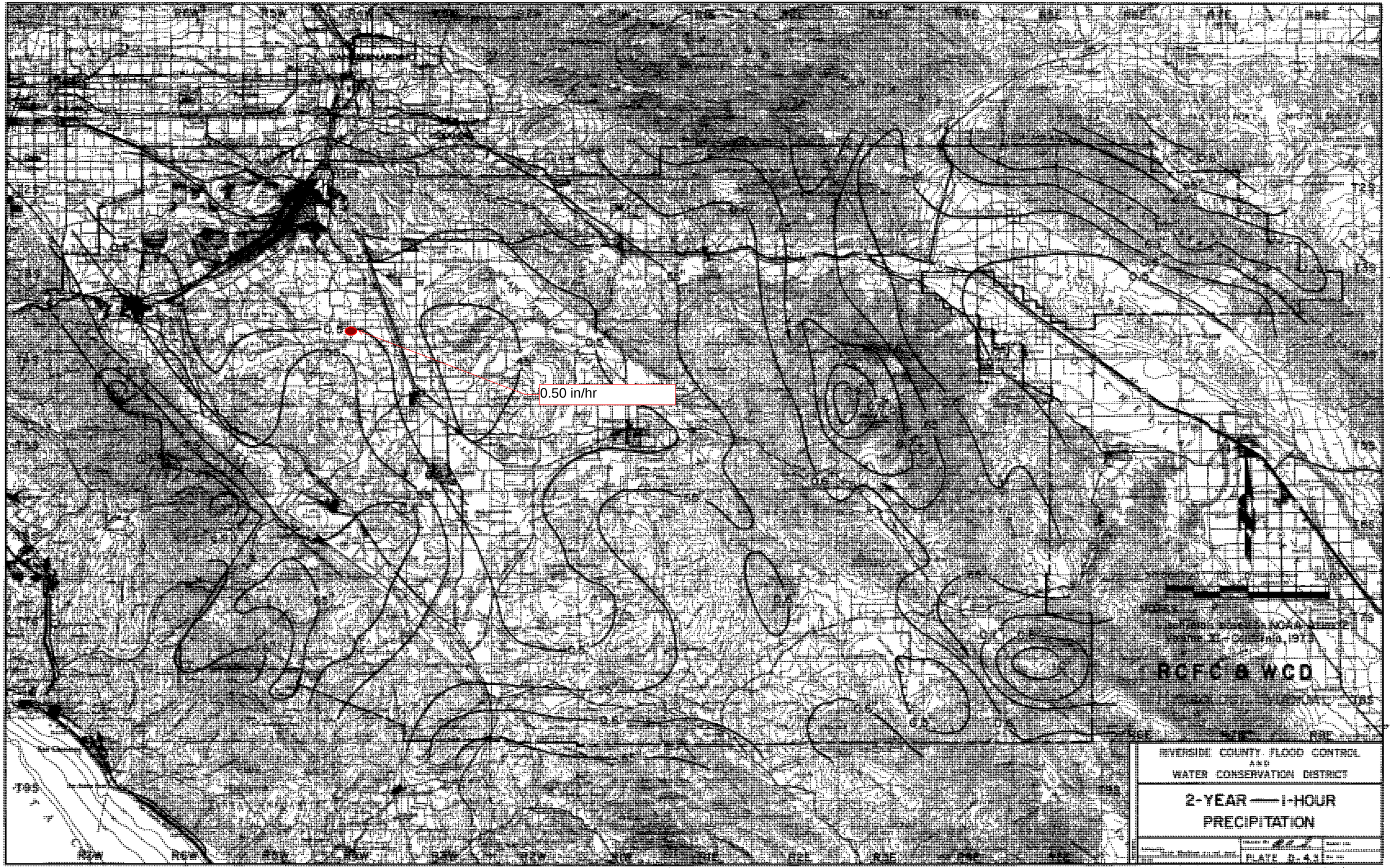
HYDROLOGY MANUAL

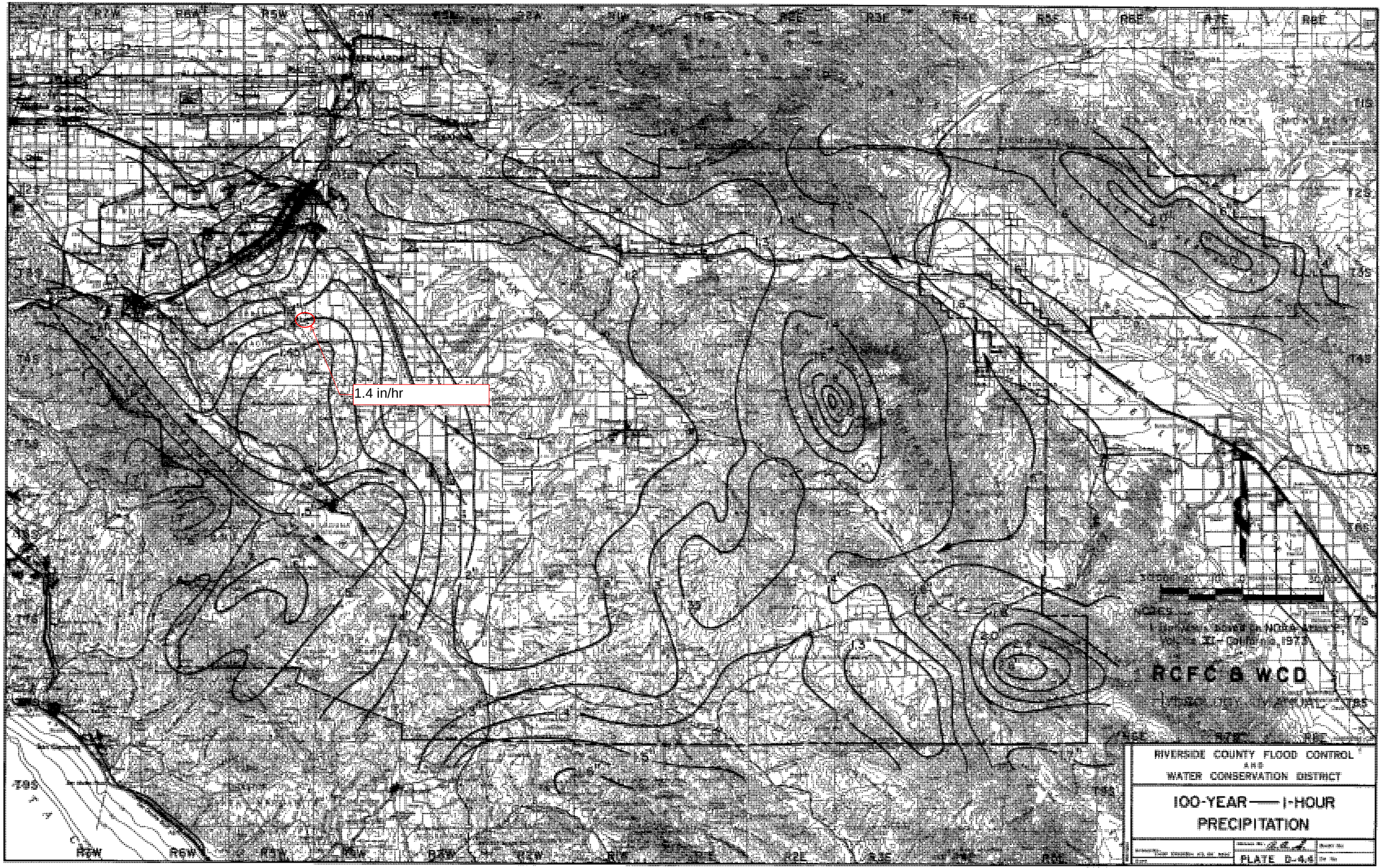
N

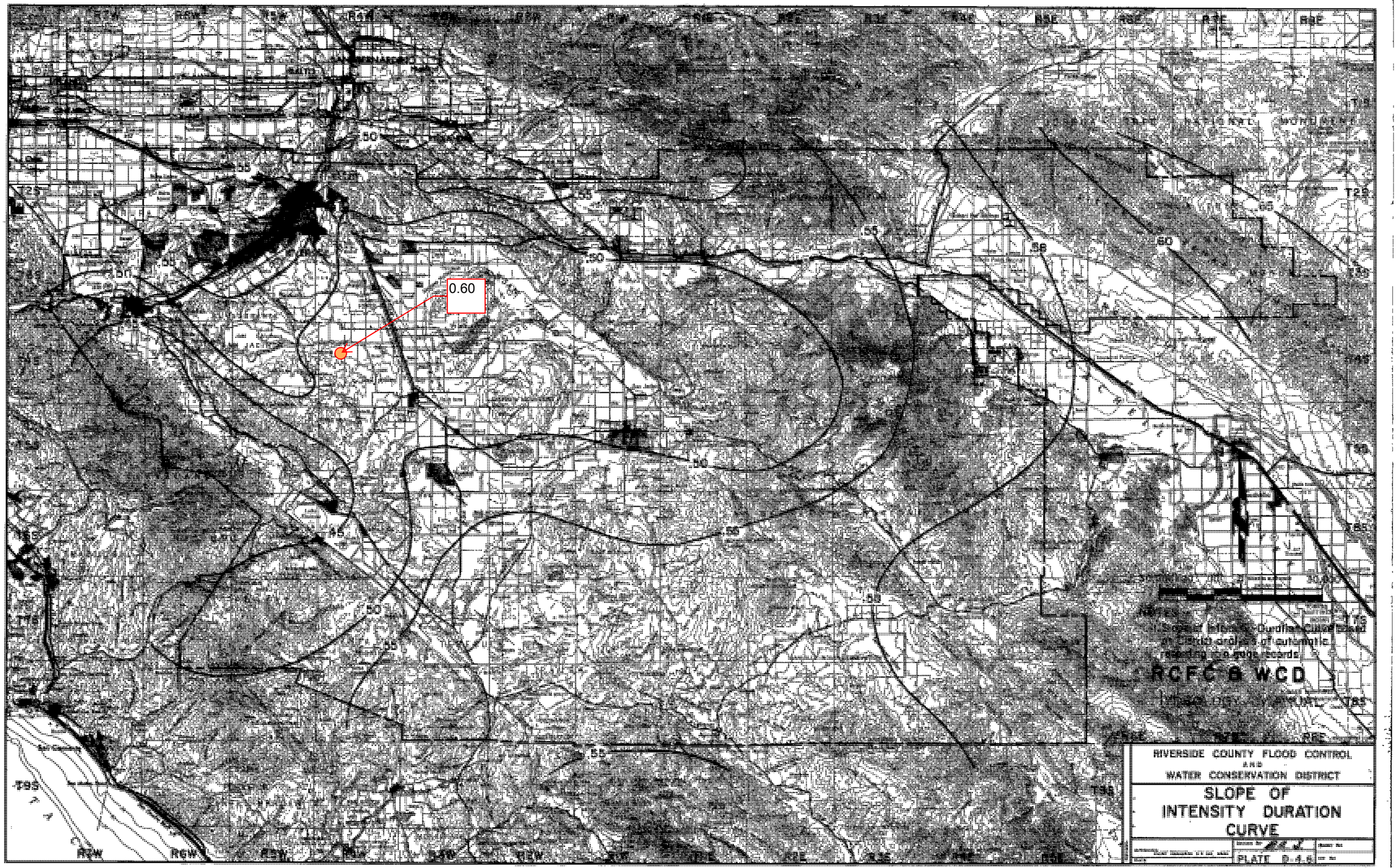
0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR STEELE PEAK

PLATE C-1.29


0.50 in/hr
RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
2-YEAR — 1-HOUR
PRECIPITATION
PLATE D-4.3
RCFC & WCD


1.4 in/hr
RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
100-YEAR — 1-HOUR
PRECIPITATION
PLATE D-4.4
RCFC & WCD


0.60
SLOPE OF INTENSITY DURATION CURVE
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RCFC & WCD
PLATE D-4.6

Rational Method Hydrology Analysis
100-yr Storm Event
(Developed Condition)

```
**************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
        RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
         (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                    (Rational Tabling Version 23.0)
                Release Date: 07/01/2016  License ID 1400

                        Analysis prepared by:
```

```
 ************************* DESCRIPTION OF STUDY *************************
* MLC EASTVALE, DEVELOPED CONDITION                                     *
* Peak Runoff CAlculation                                               *
* 100yr storm event                                                     *
 *************************************************************************

  FILE NAME: MLC.DAT
  TIME/DATE OF STUDY: 11:02 07/25/2022
-------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
-------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.60
  2-YEAR, 1-HOUR PRECIPITATION(INCH) =  0.550
  100-YEAR, 1-HOUR PRECIPITATION(INCH) =  1.400
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.400
  SLOPE OF INTENSITY DURATION CURVE = 0.5500
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

**************************************************************************
  FLOW PROCESS FROM NODE      0.00 TO NODE      1.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==========================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS SINGLE FAMILY (1/4 ACRE)
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   448.00
  UPSTREAM ELEVATION(FEET) =    618.90
  DOWNSTREAM ELEVATION(FEET) =    613.00
  ELEVATION DIFFERENCE(FEET) =      5.90
  TC = 0.393*[(  448.00**3)/(     5.90)]**.2 =   10.729
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.608
  USER-SPECIFIED RUNOFF COEFFICIENT = .7987
  SOIL CLASSIFICATION IS "B"
  SUBAREA RUNOFF(CFS) =     10.72
  TOTAL AREA(ACRES) =      3.72   TOTAL RUNOFF(CFS) =     10.72
```

```
****************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   604.80  DOWNSTREAM(FEET) =   602.50
  FLOW LENGTH(FEET) =   446.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  17.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.50
  ESTIMATED PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      10.72
  PIPE TRAVEL TIME(MIN.) =   1.65    Tc(MIN.) =   12.38
  LONGEST FLOWPATH FROM NODE      0.00 TO NODE      2.00 =     894.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      2.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.335
  USER-SPECIFIED RUNOFF COEFFICIENT = .7924
  SOIL CLASSIFICATION IS "B"
  SUBAREA AREA(ACRES) =    4.56   SUBAREA RUNOFF(CFS) =   12.05
  TOTAL AREA(ACRES) =        8.3   TOTAL RUNOFF(CFS) =      22.77
  TC(MIN.) =   12.38

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      3.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   602.50  DOWNSTREAM(FEET) =   601.90
  FLOW LENGTH(FEET) =   118.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  33.0 INCH PIPE IS  21.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.44
  ESTIMATED PIPE DIAMETER(INCH) =  33.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      22.77
  PIPE TRAVEL TIME(MIN.) =   0.36    Tc(MIN.) =   12.74
  LONGEST FLOWPATH FROM NODE      0.00 TO NODE      3.00 =    1012.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.3  TC(MIN.) =     12.74
  PEAK FLOW RATE(CFS)   =      22.77
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```



Rational Method Hydrology Analysis
100-yr Storm Event
(Existing Condition)

```
******************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
          RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                       (RCFC&WCD)  1978 HYDROLOGY MANUAL
           (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                       (Rational Tabling Version 23.0)
                  Release Date: 07/01/2016  License ID 1400

                              Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* MLC ONTARION, EXISTING CONDITION                                      *
* Peak Runoff CAlculation                                               *
* 100yr storm event                                                     *
 ************************************************************************

  FILE NAME: MLC.DAT
  TIME/DATE OF STUDY: 11:58 07/25/2022
------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.60
  2-YEAR, 1-HOUR PRECIPITATION(INCH) =  0.550
  100-YEAR, 1-HOUR PRECIPITATION(INCH) =  1.400
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.400
  SLOPE OF INTENSITY DURATION CURVE = 0.5500
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

******************************************************************************
  FLOW PROCESS FROM NODE      0.00 TO NODE      1.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS SINGLE FAMILY(1-ACRE LOTS)
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   775.00
  UPSTREAM ELEVATION(FEET) =    618.90
  DOWNSTREAM ELEVATION(FEET) =    613.90
```

```
  ELEVATION DIFFERENCE(FEET) =      5.00
  TC = 0.469*[(  775.00**3)/(     5.00)]**.2 =   18.418
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.681
  USER-SPECIFIED RUNOFF COEFFICIENT = .6977
  SOIL CLASSIFICATION IS "B"
  SUBAREA RUNOFF(CFS) =     15.49
  TOTAL AREA(ACRES) =      8.28   TOTAL RUNOFF(CFS) =     15.49
================================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.3  TC(MIN.) =     18.42
  PEAK FLOW RATE(CFS)   =      15.49
================================================================================
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```



Hydraulic Calculations
Developed Condition

12" SD Capacity Calc

```
************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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                          Analysis prepared by:



------------------------------------------------------------------------
  TIME/DATE OF STUDY: 16:35 02/25/2021
========================================================================
 Problem Descriptions:
  12" sd caPACITY


************************************************************************
>>>>PIPEFLOW HYDRAULIC INPUT INFORMATION<<<<
------------------------------------------------------------------------
    PIPE DIAMETER(FEET) =   1.000
    FLOWDEPTH(FEET) =   0.950
    PIPE SLOPE(FEET/FEET) =  0.0050
    MANNINGS FRICTION FACTOR = 0.013000
    >>>>> NORMAL DEPTH FLOW(CFS) =      2.71
========================================================================
    NORMAL-DEPTH FLOW INFORMATION:
------------------------------------------------------------------------
    NORMAL DEPTH(FEET) =      0.95
    FLOW AREA(SQUARE FEET) =      0.77
    FLOW TOP-WIDTH(FEET) =     0.436
    FLOW PRESSURE + MOMENTUM(POUNDS) =           40.54
    FLOW VELOCITY(FEET/SEC.) =           3.512
    FLOW VELOCITY HEAD(FEET) =           0.192
    HYDRAULIC DEPTH(FEET) =      1.77
    FROUDE NUMBER =     0.465
    SPECIFIC ENERGY(FEET) =            1.14
========================================================================
```

24" SD Capacity Calc

```
******************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                          Analysis prepared by:



------------------------------------------------------------------------------
  TIME/DATE OF STUDY: 11:07 07/25/2022
==============================================================================
 Problem Descriptions:
  24" SD CAPACITY CALC
  S=0.005

******************************************************************************
>>>>PIPEFLOW HYDRAULIC INPUT INFORMATION<<<<
------------------------------------------------------------------------------
    PIPE DIAMETER(FEET) =   2.000
    FLOWDEPTH(FEET) =   1.900
    PIPE SLOPE(FEET/FEET) =  0.0050
    MANNINGS FRICTION FACTOR = 0.013000
    >>>>> NORMAL DEPTH FLOW(CFS) =     17.19
==============================================================================
    NORMAL-DEPTH FLOW INFORMATION:
------------------------------------------------------------------------------
    NORMAL DEPTH(FEET) =      1.90
    FLOW AREA(SQUARE FEET) =      3.08
    FLOW TOP-WIDTH(FEET) =     0.872
    FLOW PRESSURE + MOMENTUM(POUNDS) =          362.61
    FLOW VELOCITY(FEET/SEC.) =           5.575
    FLOW VELOCITY HEAD(FEET) =           0.483
    HYDRAULIC DEPTH(FEET) =      3.54
    FROUDE NUMBER =     0.522
    SPECIFIC ENERGY(FEET) =            2.38
==============================================================================
```

30" SD Capacity Calc

```
******************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                          Analysis prepared by:



------------------------------------------------------------------------------
  TIME/DATE OF STUDY: 10:57 07/25/2022
==============================================================================
 Problem Descriptions:
  30" SD CAPACITY CALC
  S=0.005

******************************************************************************
>>>>PIPEFLOW HYDRAULIC INPUT INFORMATION<<<<
------------------------------------------------------------------------------
    PIPE DIAMETER(FEET) =   2.500
    FLOWDEPTH(FEET) =   2.450
    PIPE SLOPE(FEET/FEET) =  0.0050
    MANNINGS FRICTION FACTOR = 0.013000
    >>>>> NORMAL DEPTH FLOW(CFS) =     30.65
==============================================================================
    NORMAL-DEPTH FLOW INFORMATION:
------------------------------------------------------------------------------
    NORMAL DEPTH(FEET) =      2.45
    FLOW AREA(SQUARE FEET) =      4.89
    FLOW TOP-WIDTH(FEET) =     0.700
    FLOW PRESSURE + MOMENTUM(POUNDS) =          740.44
    FLOW VELOCITY(FEET/SEC.) =           6.273
    FLOW VELOCITY HEAD(FEET) =           0.611
    HYDRAULIC DEPTH(FEET) =      6.98
    FROUDE NUMBER =     0.418
    SPECIFIC ENERGY(FEET) =            3.06
==============================================================================
```

*Q_{100}: 22.8 cfs<30.65 cfs
*Developed Condition
Peak Runoff Rate

> 22.1 CFS (Developed Condition Peak Runoff Rate)

Street Capacity Calc

```
************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                        Analysis prepared by:



------------------------------------------------------------------------
  TIME/DATE OF STUDY: 12:31 07/25/2022
========================================================================
 Problem Descriptions:
  STREET CAPACITY CALCULATION
  DEV. CONDITION
  MLC, EASTVALE
************************************************************************
>>>>STREETFLOW MODEL INPUT INFORMATION<<<<
------------------------------------------------------------------------
    CONSTANT STREET GRADE(FEET/FEET) = 0.005000
    CONSTANT STREET FLOW(CFS) =   11.00
    AVERAGE STREETFLOW FRICTION FACTOR(MANNING) = 0.015000
    CONSTANT SYMMETRICAL STREET HALF-WIDTH(FEET) =   18.00
    DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK(FEET) =    8.00
    INTERIOR STREET CROSSFALL(DECIMAL) = 0.020000
    OUTSIDE  STREET CROSSFALL(DECIMAL) = 0.020000
    CONSTANT SYMMETRICAL CURB HEIGHT(FEET) =   0.50
    CONSTANT SYMMETRICAL GUTTER-WIDTH(FEET) =   1.50
    CONSTANT SYMMETRICAL GUTTER-LIP(FEET) =  0.03125
    CONSTANT SYMMETRICAL GUTTER-HIKE(FEET) =  0.12500
    FLOW ASSUMED TO FILL STREET EVENLY ON BOTH SIDES
========================================================================
    STREET FLOW MODEL RESULTS:                  <0.5' OK
------------------------------------------------------------------------
    STREET FLOW DEPTH(FEET) =  0.44
    HALFSTREET FLOOD WIDTH(FEET) =   15.68
    AVERAGE FLOW VELOCITY(FEET/SEC.) =    2.13
    PRODUCT OF DEPTH&VELOCITY =    0.94
========================================================================
```

Catch Basin Sizing Calc

```
**************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                          Analysis prepared by:



--------------------------------------------------------------------------
  TIME/DATE OF STUDY: 17:57 03/24/2022
==========================================================================
 Problem Descriptions:
  CATCH BASIN SIZING CALC


**************************************************************************
>>>>FLOWBY CATCH BASIN INLET CAPACITY INPUT INFORMATION<<<<
--------------------------------------------------------------------------

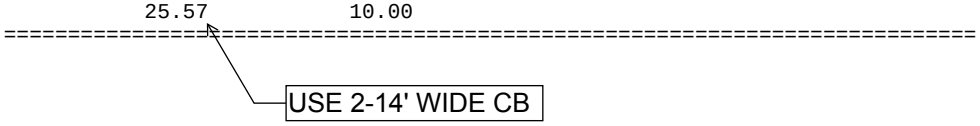
    Curb Inlet Capacities are approximated based on the Bureau of
    Public Roads nomograph plots for flowby basins and sump basins.


    STREETFLOW(CFS) =   10.00
    GUTTER FLOWDEPTH(FEET) =  0.50
    BASIN LOCAL DEPRESSION(FEET) =  0.18

--------------------------------------------------------------------------
         FLOWBY BASIN ANALYSIS RESULTS:

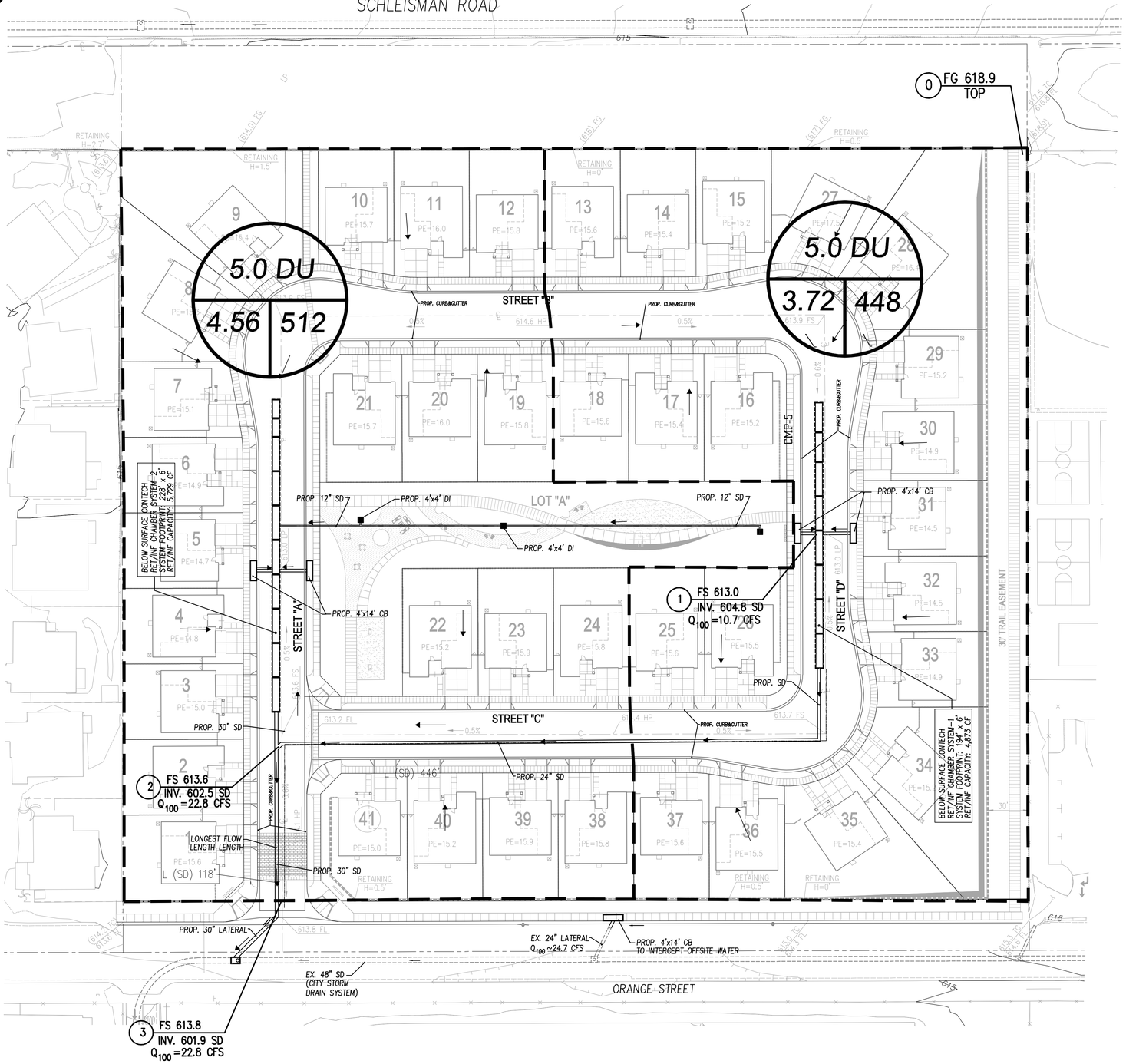
       BASIN WIDTH     FLOW INTERCEPTION
            2.56            1.82
            3.00            2.11
            3.50            2.43
            4.00            2.74
            4.50            3.05
            5.00            3.36
            5.50            3.66
            6.00            3.96
            6.50            4.26
            7.00            4.52
            7.50            4.78
            8.00            5.03
            8.50            5.27
            9.00            5.51
            9.50            5.75
           10.00            5.98
           10.50            6.21
           11.00            6.44
           11.50            6.67
           12.00            6.89
           12.50            7.10
           13.00            7.30
           13.50            7.49
           14.00            7.67
           14.50            7.84
           15.00            8.00
           15.50            8.16
           16.00            8.31
           16.50            8.45
           17.00            8.58
           17.50            8.70
           18.00            8.82
           18.50            8.94
           19.00            9.04
           19.50            9.15
           20.00            9.24
```

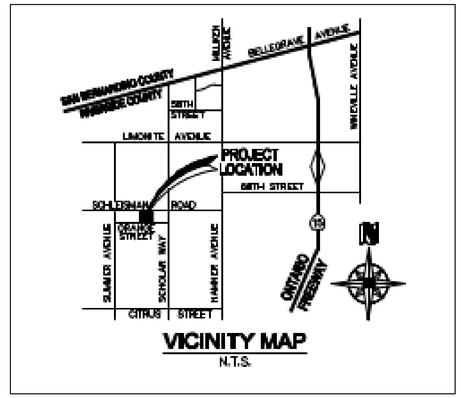
20.50	9.33
21.00	9.42
21.50	9.50
22.00	9.57
22.50	9.65
23.00	9.71
23.50	9.78
24.00	9.84
24.50	9.89
25.00	9.94
25.50	9.99
25.57	10.00



Drainage Exhibit

Developed Condition
Existing Condition

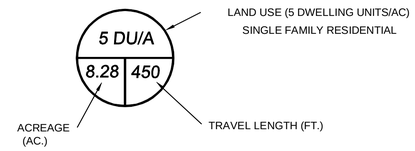




FEMA FLOOD ZONE: "X", MAP NO. 06065C0679G

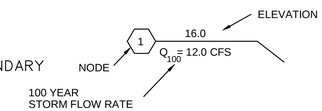
THE SITE IS NOT TRIBUTARY TO OFFSITE DRAINAGE AREA.
PROPO. CONSTRUCTION OF TWO CATCH BASIN'S AND LATERALS (NORTH & SOUTH) OF THE SITE) TO CONTAIN OFFSITE WATER AND CONVEYS TO THE EX. STORM DRAIN.

LEGEND:



DRAINAGE AREA BOUNDARY

FLOW DIRECTION



GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 INCH = 40 FT.

PLOT DATE: July 13, 2023 ashafiq

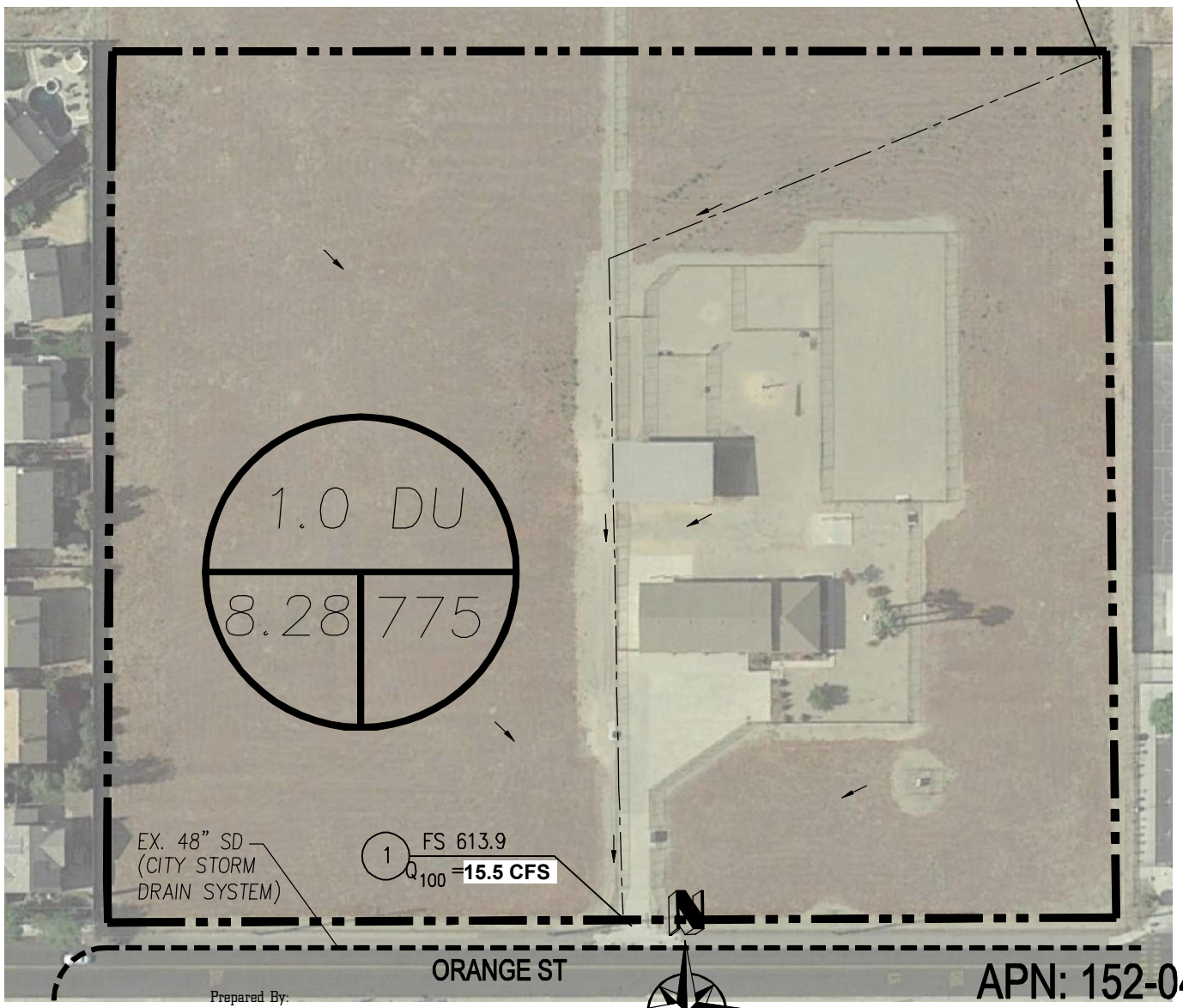
Prepared By:
ALLARD ENGINEERING
Civil Engineering - Land Surveying - Land Planning
16866 Seville Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

CITY OF EASTVALE, CALIFORNIA

DRAINAGE EXHIBIT DEVELOPED CONDITION APN: 152-040-003

Filename: I:\Woodside Homes\DWG's\ENTITLEMENT\EXHIBITS\Eastvale-Drainage Dev Exhibit.dwg



Know what's below. Call before you dig.

APN: 152-04-0003

RIVERSIDE COUNTY

DRAINAGE EXHIBIT: PRE-DEVELOPED

INDEX MAP

SCALE: 1"= 100'

Prepared By:
ALLARD ENGINEERING
Civil Engineering - Land Surveying - Land Planning
16866 Seville Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

PLOT DATE: April 05, 2021 ashafiq

Filename: I:\MLC Holdings\Eastvale\PROJECT ADMIN\REPORTS\Prel Drainage\Docs\Eastvale_Prel Drainage.dwg

Eastvale Master Drainage Plan
Lateral D-7 (As-built)

Appendix 9A
Hydrology Study

Magnolia Ranch Residential Project

Initial Study

ALLARD ENGINEERING
civil engineering land surveying land planning

APN No. 152-040-003
Riverside County
13175 Orange Street
(Magnolia Ranch)

Preliminary Drainage Report

July 12, 2023

Prepared For:
Woodside 05S, LP
1250 Corona Pointe, Suite 500
Corona, CA 92879
(951) 710-1900

Prepared By:
Allard Engineering
16866 Seville Avenue
Fontana, CA 92335
(909) 356-1815

REGISTERED PROFESSIONAL ENGINEER
RAYMOND J. ALLARD
RA
No. 36052
Exp. 6/30/24
CIVIL
STATE OF CALIFORNIA

Prepared under the supervision of:

Raymond J. Allard

Raymond J. Allard, P.E. RCE 36052 Exp. 06-30-24

DISCUSSION

Purpose:

The purpose of this report is to provide hydraulic and hydraulic calculations for the proposed APN# 152-040-003 and provide the design of the onsite storm drain systems for the proposed SFR development. The project site is located in the city of Eastvale, County of Riverside. The site is north of Orange Street, south of Schleisman Road, and existing residential/commercial development to the east/west.

Purpose

The purpose of this report is to demonstrate how the developed runoff for the proposed tract of SFR development retained and mitigated water quality volume, and sizing of onsite storm drain system for 100-yr storm event. The retention/infiltration basin overflow into the proposed onsite storm drain system and drains to the existing City storm drain (48" RCP) in Orange Road.

Criteria

The criteria utilized for hydrologic and Hydraulic analysis is the Riverside County Hydrology Manual and Rational Method Hydrology Analysis utilizing AES software to perform computations. 100-yr storm analysis was performed for the developed & un-developed condition.

Findings

Due the preliminary nature of this report, only the 100-yr storm event for the developed hydrology has been analyzed.

In pre-developed condition, the site consist of a single structure residential development and drain out to the south to the existing City Storm Drain System in Orange Street via proposed lateral.

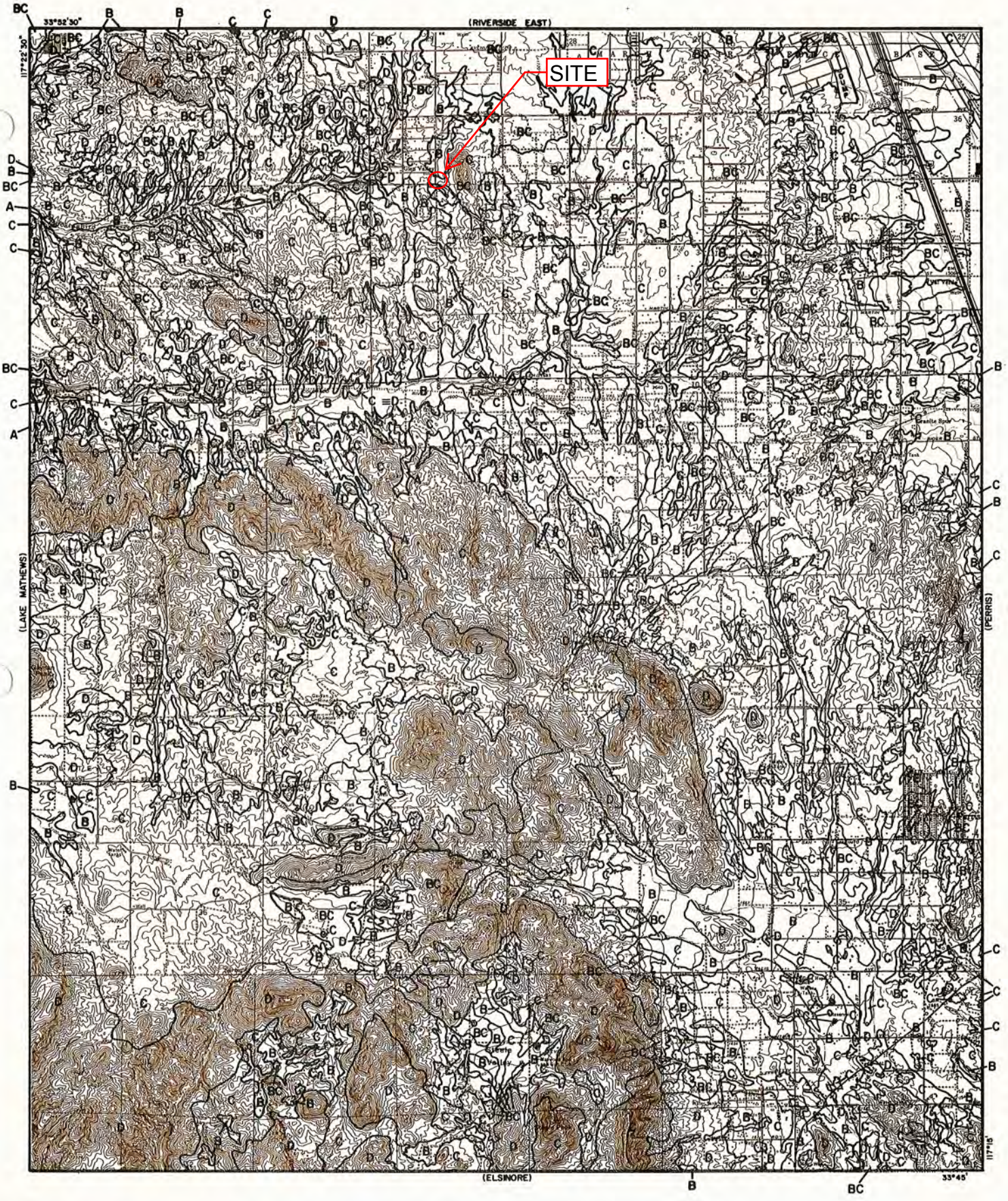
In the proposed developed (Tract of single family residential development) site will drain to the proposed two below surface retention/infiltration chamber system-1,2 for low flow infiltration. Once the retention/infiltration chamber system-1,2 reach its capacity, it will overflow into the onsite storm drain system and finally drains to the existing City Storm Drain System in Orange Street via the proposed 30" RCP lateral. It was calculated in proposed condition the site will generate a peak runoff flowrate of 22.8 from 100-yr storm event. All the proposed onsite storm drainage system are sized based the flow rate for100-yr storm event. The proposed onsite drainage system conveys runoff to the existing storm drain system south of the site which is also consistence with the existing drainage pattern.
In pre-developed condition the runoff rate calculated as 15.5 CFS and in developed condition the runoff rate calculated as 22.8 CFS. There will be an increase of 7.3 CFS in developed condition. By implementing the Retention/Infiltration Chamber System-1,2 onsite, and by attenuation of runoff in the Retention/Infiltration Chamber System-1,2, the outflow from the site in developed

condition will substantially reduce and will be at or below the pre-developed condition runoff rate.

There is an existing storm drain system in Orange Street across the sites frontage which begins as a 42” and transitions to a 48” part way through the site. This storm drain had a lateral A-2 which was bulk headed off at the front of our site for this development to tie into. Lateral A-2 was estimated to carry 24.7 CFS, which is greater than the 22.8 CFS the project generates. Therefore, this project is consistent with the anticipated flows of the existing City storm drain system, and will not affect the HGL found on the city reference drawings. These plans are included as reference.

Hydrology Reference Material


Bashkir St
Criolla Cir
Quarter Horse Dr
Nordland Dr
Cheju Cir
Schleisman Rd
SITE: 8.28 AC
Gale Ln
Paul St
Calina St
Orange St
Orange St
N33.9588°
Ex City Storm Drain System (48" RCP)``
Midnight Rose Cir
Brass Ring Ln
Scholar Way
Google Earth
© 2021 Google
700 ft
N



LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC&WCD

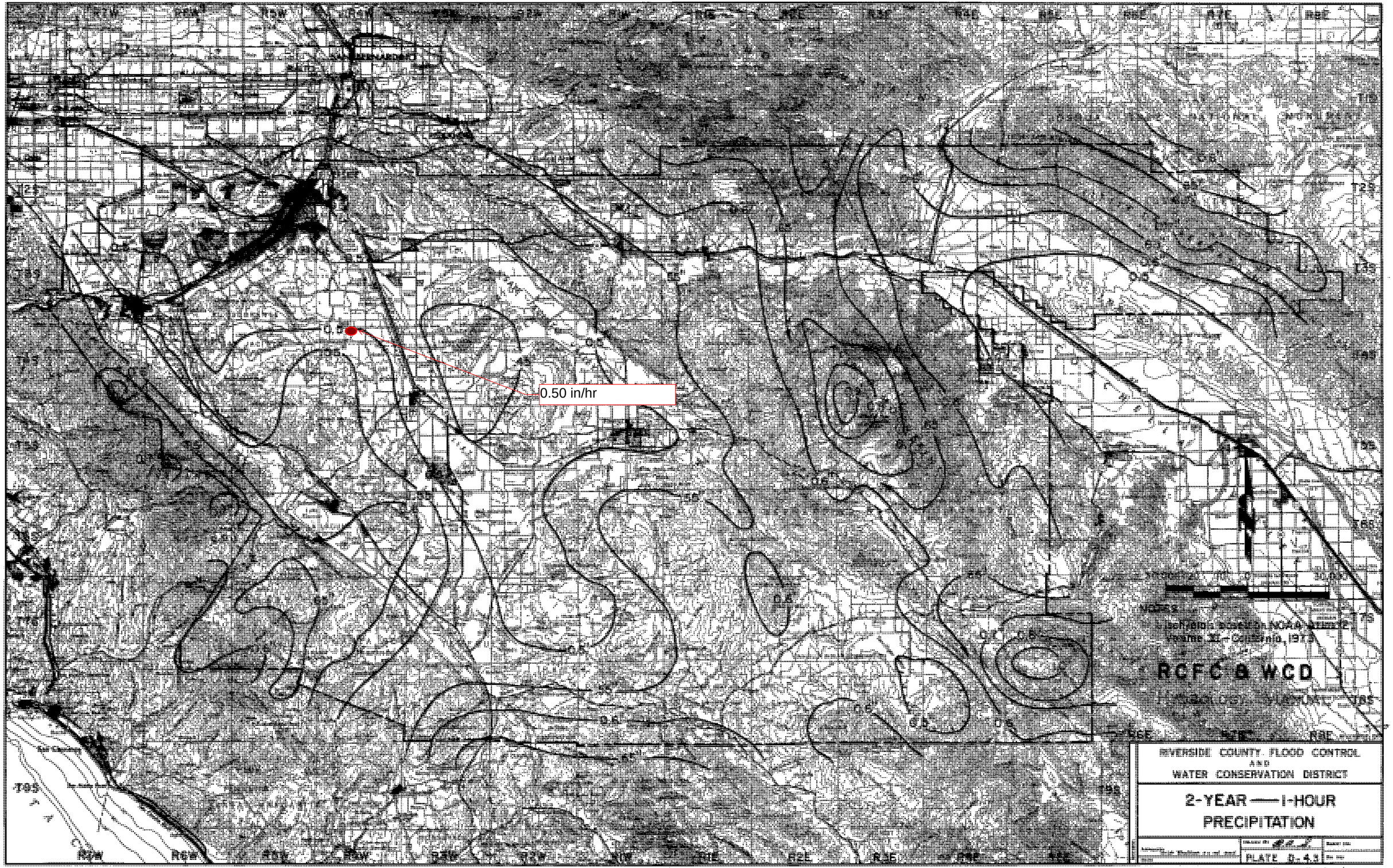
HYDROLOGY MANUAL

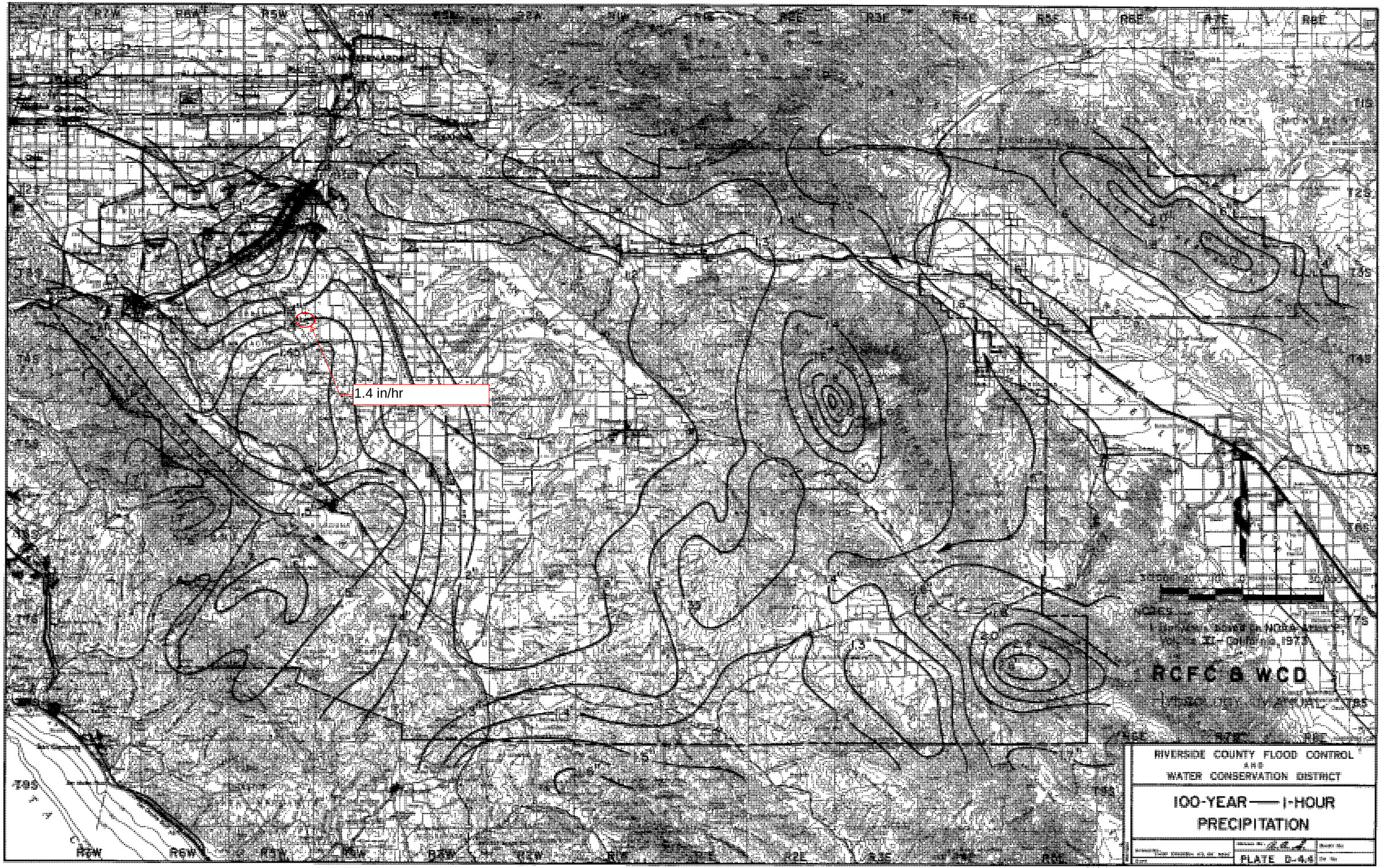
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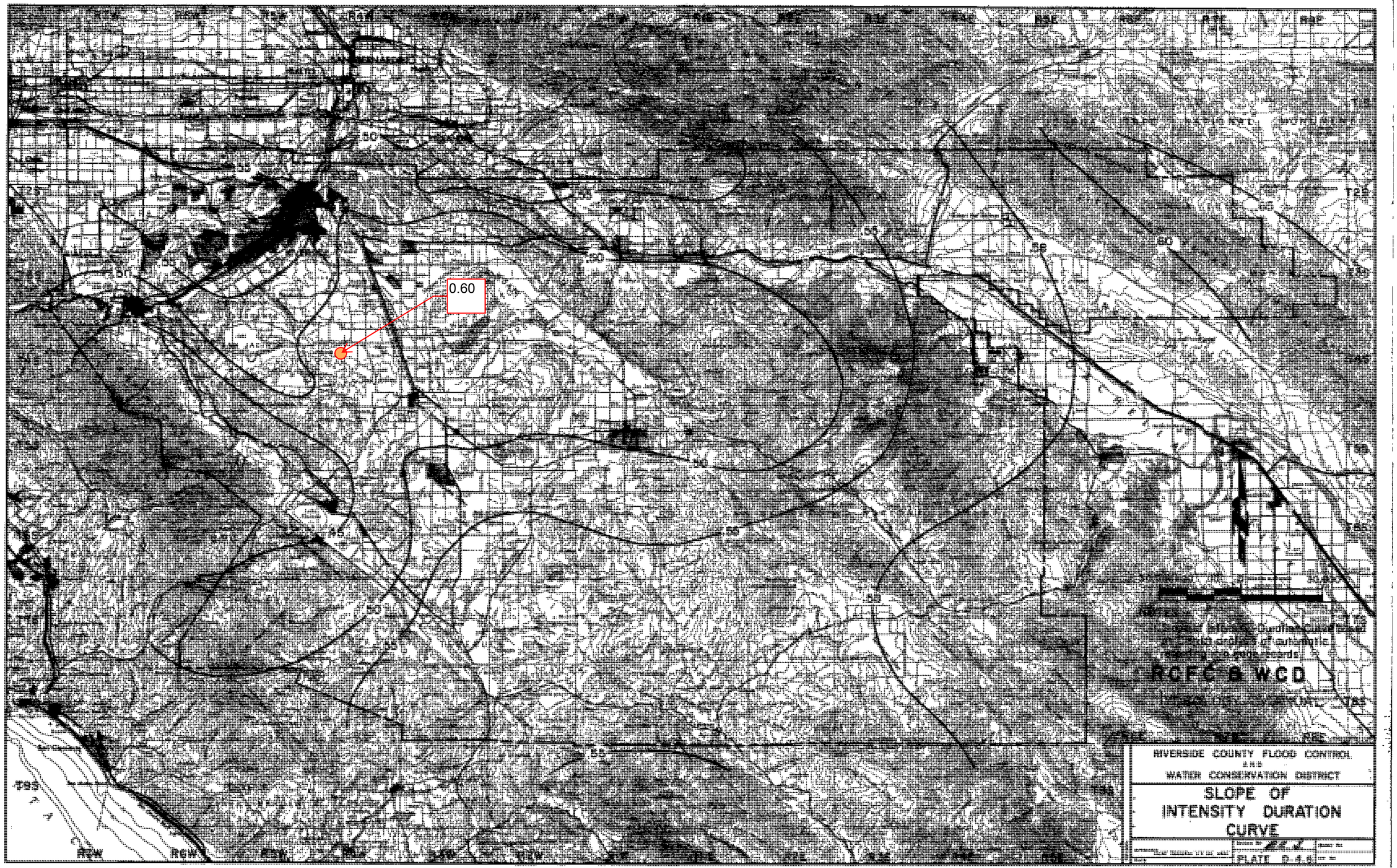
0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR STEELE PEAK

PLATE C-1.29


0.50 in/hr
RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
2-YEAR — 1-HOUR
PRECIPITATION
PLATE D-4.3
RCFC & WCD


1.4 in/hr
RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
100-YEAR — 1-HOUR
PRECIPITATION
PLATE D-4.4
RCFC & WCD


0.60
SLOPE OF INTENSITY DURATION CURVE
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RCFC & WCD
PLATE D-4.6

Rational Method Hydrology Analysis
100-yr Storm Event
(Developed Condition)

```
**************************************************************************
          RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
        RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                    (RCFC&WCD)  1978 HYDROLOGY MANUAL
         (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                    (Rational Tabling Version 23.0)
                Release Date: 07/01/2016  License ID 1400

                        Analysis prepared by:
```

```
 ************************* DESCRIPTION OF STUDY *************************
* MLC EASTVALE, DEVELOPED CONDITION                                     *
* Peak Runoff CAlculation                                               *
* 100yr storm event                                                     *
 *************************************************************************

  FILE NAME: MLC.DAT
  TIME/DATE OF STUDY: 11:02 07/25/2022
-------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
-------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.60
  2-YEAR, 1-HOUR PRECIPITATION(INCH) =  0.550
  100-YEAR, 1-HOUR PRECIPITATION(INCH) =  1.400
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.400
  SLOPE OF INTENSITY DURATION CURVE = 0.5500
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

**************************************************************************
  FLOW PROCESS FROM NODE      0.00 TO NODE      1.00 IS CODE =  21
--------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==========================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS SINGLE FAMILY (1/4 ACRE)
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   448.00
  UPSTREAM ELEVATION(FEET) =    618.90
  DOWNSTREAM ELEVATION(FEET) =    613.00
  ELEVATION DIFFERENCE(FEET) =      5.90
  TC = 0.393*[(  448.00**3)/(     5.90)]**.2 =   10.729
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.608
  USER-SPECIFIED RUNOFF COEFFICIENT = .7987
  SOIL CLASSIFICATION IS "B"
  SUBAREA RUNOFF(CFS) =     10.72
  TOTAL AREA(ACRES) =      3.72   TOTAL RUNOFF(CFS) =     10.72
```

```
****************************************************************************
  FLOW PROCESS FROM NODE      1.00 TO NODE      2.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   604.80  DOWNSTREAM(FEET) =   602.50
  FLOW LENGTH(FEET) =   446.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  17.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   4.50
  ESTIMATED PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      10.72
  PIPE TRAVEL TIME(MIN.) =   1.65    Tc(MIN.) =   12.38
  LONGEST FLOWPATH FROM NODE      0.00 TO NODE      2.00 =     894.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      2.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  3.335
  USER-SPECIFIED RUNOFF COEFFICIENT = .7924
  SOIL CLASSIFICATION IS "B"
  SUBAREA AREA(ACRES) =    4.56   SUBAREA RUNOFF(CFS) =   12.05
  TOTAL AREA(ACRES) =        8.3   TOTAL RUNOFF(CFS) =      22.77
  TC(MIN.) =   12.38

****************************************************************************
  FLOW PROCESS FROM NODE      2.00 TO NODE      3.00 IS CODE =  31
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING COMPUTER-ESTIMATED PIPESIZE (NON-PRESSURE FLOW)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   602.50  DOWNSTREAM(FEET) =   601.90
  FLOW LENGTH(FEET) =   118.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  33.0 INCH PIPE IS  21.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   5.44
  ESTIMATED PIPE DIAMETER(INCH) =  33.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      22.77
  PIPE TRAVEL TIME(MIN.) =   0.36    Tc(MIN.) =   12.74
  LONGEST FLOWPATH FROM NODE      0.00 TO NODE      3.00 =    1012.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.3  TC(MIN.) =     12.74
  PEAK FLOW RATE(CFS)   =      22.77
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```



Rational Method Hydrology Analysis
100-yr Storm Event
(Existing Condition)

```
******************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM BASED ON
          RIVERSIDE COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT
                       (RCFC&WCD)  1978 HYDROLOGY MANUAL
           (c) Copyright 1982-2016 Advanced Engineering Software (aes)
                       (Rational Tabling Version 23.0)
                  Release Date: 07/01/2016  License ID 1400

                              Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* MLC ONTARION, EXISTING CONDITION                                      *
* Peak Runoff CAlculation                                               *
* 100yr storm event                                                     *
 ************************************************************************

  FILE NAME: MLC.DAT
  TIME/DATE OF STUDY: 11:58 07/25/2022
------------------------------------------------------------------------
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
------------------------------------------------------------------------
  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  12.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.60
  2-YEAR, 1-HOUR PRECIPITATION(INCH) =  0.550
  100-YEAR, 1-HOUR PRECIPITATION(INCH) =  1.400
  COMPUTED RAINFALL INTENSITY DATA:
  STORM EVENT =  100.00   1-HOUR INTENSITY(INCH/HOUR) =   1.400
  SLOPE OF INTENSITY DURATION CURVE = 0.5500
  RCFC&WCD HYDROLOGY MANUAL "C"-VALUES USED FOR RATIONAL METHOD
  NOTE: COMPUTE CONFLUENCE VALUES ACCORDING TO RCFC&WCD HYDROLOGY MANUAL
        AND IGNORE OTHER CONFLUENCE COMBINATIONS FOR DOWNSTREAM ANALYSES
  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*

******************************************************************************
  FLOW PROCESS FROM NODE      0.00 TO NODE      1.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
==============================================================================
         ASSUMED INITIAL SUBAREA UNIFORM
         DEVELOPMENT IS SINGLE FAMILY(1-ACRE LOTS)
  TC = K*[(LENGTH**3)/(ELEVATION CHANGE)]**.2
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   775.00
  UPSTREAM ELEVATION(FEET) =    618.90
  DOWNSTREAM ELEVATION(FEET) =    613.90
```

```
  ELEVATION DIFFERENCE(FEET) =      5.00
  TC = 0.469*[(  775.00**3)/(     5.00)]**.2 =   18.418
   100 YEAR RAINFALL INTENSITY(INCH/HOUR) =  2.681
  USER-SPECIFIED RUNOFF COEFFICIENT = .6977
  SOIL CLASSIFICATION IS "B"
  SUBAREA RUNOFF(CFS) =     15.49
  TOTAL AREA(ACRES) =      8.28   TOTAL RUNOFF(CFS) =     15.49
================================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        8.3  TC(MIN.) =     18.42
  PEAK FLOW RATE(CFS)   =      15.49
================================================================================
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```



Hydraulic Calculations
Developed Condition

12" SD Capacity Calc

```
************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                          Analysis prepared by:



------------------------------------------------------------------------
  TIME/DATE OF STUDY: 16:35 02/25/2021
========================================================================
 Problem Descriptions:
  12" sd caPACITY


************************************************************************
>>>>PIPEFLOW HYDRAULIC INPUT INFORMATION<<<<
------------------------------------------------------------------------
    PIPE DIAMETER(FEET) =   1.000
    FLOWDEPTH(FEET) =   0.950
    PIPE SLOPE(FEET/FEET) =  0.0050
    MANNINGS FRICTION FACTOR = 0.013000
    >>>>> NORMAL DEPTH FLOW(CFS) =      2.71
========================================================================
    NORMAL-DEPTH FLOW INFORMATION:
------------------------------------------------------------------------
    NORMAL DEPTH(FEET) =      0.95
    FLOW AREA(SQUARE FEET) =      0.77
    FLOW TOP-WIDTH(FEET) =     0.436
    FLOW PRESSURE + MOMENTUM(POUNDS) =           40.54
    FLOW VELOCITY(FEET/SEC.) =           3.512
    FLOW VELOCITY HEAD(FEET) =           0.192
    HYDRAULIC DEPTH(FEET) =      1.77
    FROUDE NUMBER =     0.465
    SPECIFIC ENERGY(FEET) =            1.14
========================================================================
```

24" SD Capacity Calc

```
******************************************************************************
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                          Analysis prepared by:



------------------------------------------------------------------------------
  TIME/DATE OF STUDY: 11:07 07/25/2022
==============================================================================
 Problem Descriptions:
  24" SD CAPACITY CALC
  S=0.005

******************************************************************************
>>>>PIPEFLOW HYDRAULIC INPUT INFORMATION<<<<
------------------------------------------------------------------------------
    PIPE DIAMETER(FEET) =   2.000
    FLOWDEPTH(FEET) =   1.900
    PIPE SLOPE(FEET/FEET) =  0.0050
    MANNINGS FRICTION FACTOR = 0.013000
    >>>>> NORMAL DEPTH FLOW(CFS) =     17.19
==============================================================================
    NORMAL-DEPTH FLOW INFORMATION:
------------------------------------------------------------------------------
    NORMAL DEPTH(FEET) =      1.90
    FLOW AREA(SQUARE FEET) =      3.08
    FLOW TOP-WIDTH(FEET) =     0.872
    FLOW PRESSURE + MOMENTUM(POUNDS) =          362.61
    FLOW VELOCITY(FEET/SEC.) =           5.575
    FLOW VELOCITY HEAD(FEET) =           0.483
    HYDRAULIC DEPTH(FEET) =      3.54
    FROUDE NUMBER =     0.522
    SPECIFIC ENERGY(FEET) =            2.38
==============================================================================
```

30" SD Capacity Calc

```
******************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                          Analysis prepared by:



------------------------------------------------------------------------------
  TIME/DATE OF STUDY: 10:57 07/25/2022
==============================================================================
 Problem Descriptions:
  30" SD CAPACITY CALC
  S=0.005

******************************************************************************
>>>>PIPEFLOW HYDRAULIC INPUT INFORMATION<<<<
------------------------------------------------------------------------------
    PIPE DIAMETER(FEET) =   2.500
    FLOWDEPTH(FEET) =   2.450
    PIPE SLOPE(FEET/FEET) =  0.0050
    MANNINGS FRICTION FACTOR = 0.013000
    >>>>> NORMAL DEPTH FLOW(CFS) =     30.65
==============================================================================
    NORMAL-DEPTH FLOW INFORMATION:
------------------------------------------------------------------------------
    NORMAL DEPTH(FEET) =      2.45
    FLOW AREA(SQUARE FEET) =      4.89
    FLOW TOP-WIDTH(FEET) =     0.700
    FLOW PRESSURE + MOMENTUM(POUNDS) =          740.44
    FLOW VELOCITY(FEET/SEC.) =           6.273
    FLOW VELOCITY HEAD(FEET) =           0.611
    HYDRAULIC DEPTH(FEET) =      6.98
    FROUDE NUMBER =     0.418
    SPECIFIC ENERGY(FEET) =            3.06
==============================================================================
```

*Q_{100}: 22.8 cfs<30.65 cfs
*Developed Condition
Peak Runoff Rate

> 22.1 CFS (Developed Condition Peak Runoff Rate)

Street Capacity Calc

```
************************************************************************
                HYDRAULIC ELEMENTS - I  PROGRAM PACKAGE
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            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                        Analysis prepared by:



------------------------------------------------------------------------
  TIME/DATE OF STUDY: 12:31 07/25/2022
========================================================================
 Problem Descriptions:
  STREET CAPACITY CALCULATION
  DEV. CONDITION
  MLC, EASTVALE
************************************************************************
>>>>STREETFLOW MODEL INPUT INFORMATION<<<<
------------------------------------------------------------------------
    CONSTANT STREET GRADE(FEET/FEET) = 0.005000
    CONSTANT STREET FLOW(CFS) =   11.00
    AVERAGE STREETFLOW FRICTION FACTOR(MANNING) = 0.015000
    CONSTANT SYMMETRICAL STREET HALF-WIDTH(FEET) =   18.00
    DISTANCE FROM CROWN TO CROSSFALL GRADEBREAK(FEET) =    8.00
    INTERIOR STREET CROSSFALL(DECIMAL) = 0.020000
    OUTSIDE  STREET CROSSFALL(DECIMAL) = 0.020000
    CONSTANT SYMMETRICAL CURB HEIGHT(FEET) =   0.50
    CONSTANT SYMMETRICAL GUTTER-WIDTH(FEET) =   1.50
    CONSTANT SYMMETRICAL GUTTER-LIP(FEET) =  0.03125
    CONSTANT SYMMETRICAL GUTTER-HIKE(FEET) =  0.12500
    FLOW ASSUMED TO FILL STREET EVENLY ON BOTH SIDES
========================================================================
    STREET FLOW MODEL RESULTS:                  <0.5' OK
------------------------------------------------------------------------
    STREET FLOW DEPTH(FEET) =  0.44
    HALFSTREET FLOOD WIDTH(FEET) =   15.68
    AVERAGE FLOW VELOCITY(FEET/SEC.) =    2.13
    PRODUCT OF DEPTH&VELOCITY =    0.94
========================================================================
```

Catch Basin Sizing Calc

```
**************************************************************************
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        (C) Copyright 1982-2016 Advanced Engineering Software (aes)
            Ver. 23.0  Release Date: 07/01/2016  License ID 1400

                          Analysis prepared by:



--------------------------------------------------------------------------
  TIME/DATE OF STUDY: 17:57 03/24/2022
==========================================================================
 Problem Descriptions:
  CATCH BASIN SIZING CALC


**************************************************************************
>>>>FLOWBY CATCH BASIN INLET CAPACITY INPUT INFORMATION<<<<
--------------------------------------------------------------------------

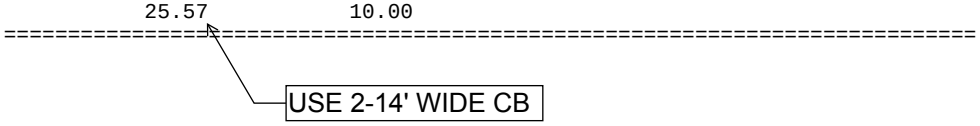
    Curb Inlet Capacities are approximated based on the Bureau of
    Public Roads nomograph plots for flowby basins and sump basins.


    STREETFLOW(CFS) =   10.00
    GUTTER FLOWDEPTH(FEET) =  0.50
    BASIN LOCAL DEPRESSION(FEET) =  0.18

--------------------------------------------------------------------------
         FLOWBY BASIN ANALYSIS RESULTS:

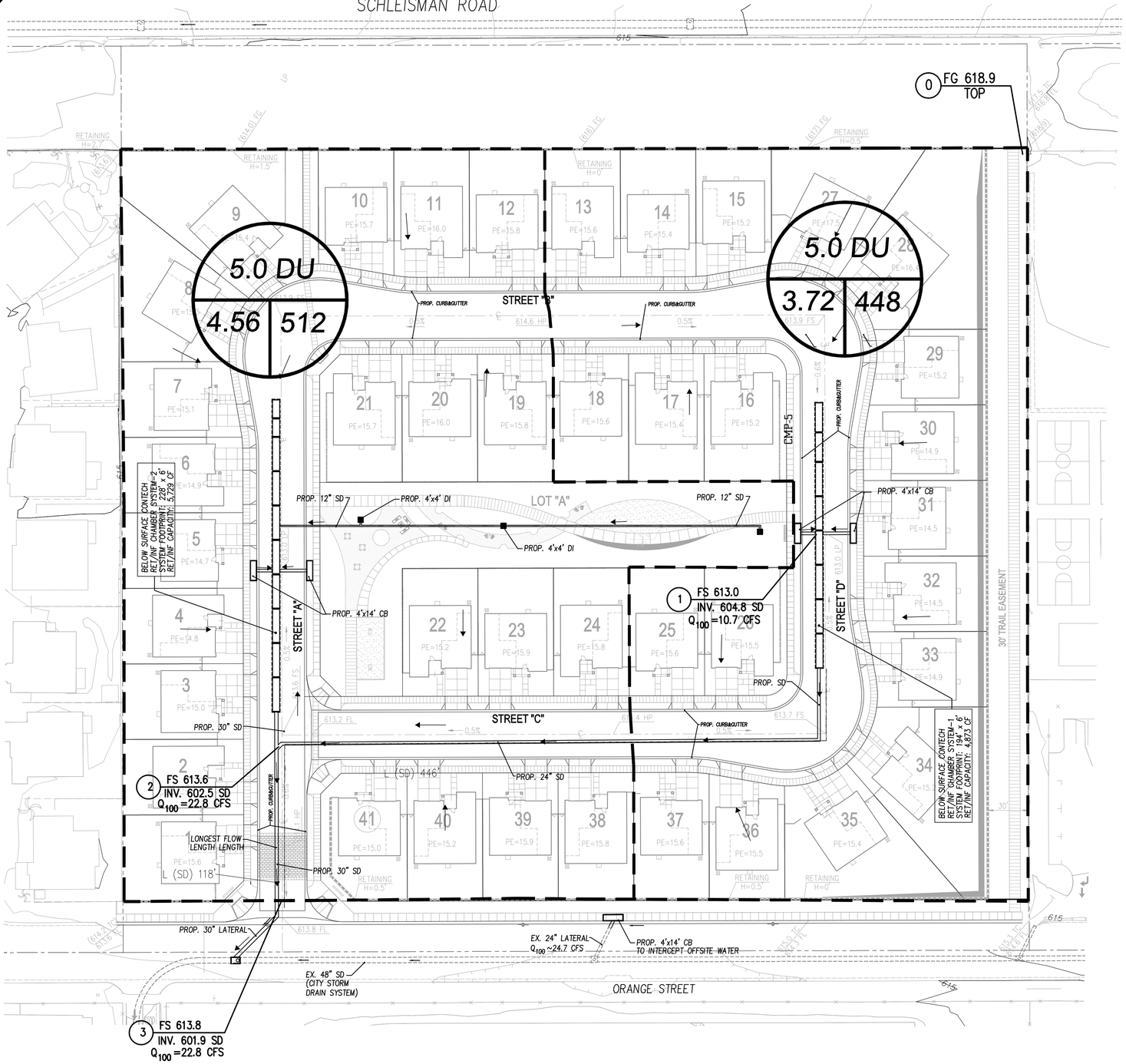
       BASIN WIDTH     FLOW INTERCEPTION
            2.56            1.82
            3.00            2.11
            3.50            2.43
            4.00            2.74
            4.50            3.05
            5.00            3.36
            5.50            3.66
            6.00            3.96
            6.50            4.26
            7.00            4.52
            7.50            4.78
            8.00            5.03
            8.50            5.27
            9.00            5.51
            9.50            5.75
           10.00            5.98
           10.50            6.21
           11.00            6.44
           11.50            6.67
           12.00            6.89
           12.50            7.10
           13.00            7.30
           13.50            7.49
           14.00            7.67
           14.50            7.84
           15.00            8.00
           15.50            8.16
           16.00            8.31
           16.50            8.45
           17.00            8.58
           17.50            8.70
           18.00            8.82
           18.50            8.94
           19.00            9.04
           19.50            9.15
           20.00            9.24
```

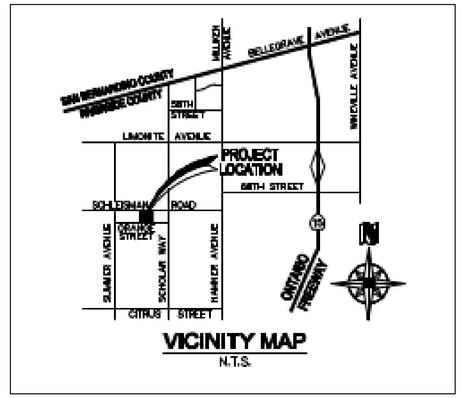
20.50	9.33
21.00	9.42
21.50	9.50
22.00	9.57
22.50	9.65
23.00	9.71
23.50	9.78
24.00	9.84
24.50	9.89
25.00	9.94
25.50	9.99
25.57	10.00



Drainage Exhibit

Developed Condition
Existing Condition

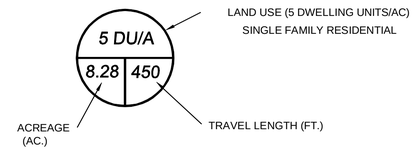




FEMA FLOOD ZONE: "X", MAP NO. 06065C0679G

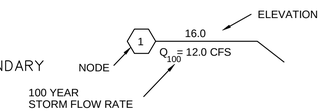
THE SITE IS NOT TRIBUTARY TO OFFSITE DRAINAGE AREA.
PROPO. CONSTRUCTION OF TWO CATCH BASIN'S AND LATERALS (NORTH & SOUTH) OF THE SITE) TO CONTAIN OFFSITE WATER AND CONVEYS TO THE EX. STORM DRAIN.

LEGEND:



DRAINAGE AREA BOUNDARY

FLOW DIRECTION



GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 INCH = 40 FT.

PLOT DATE: July 13, 2023 ashafiq

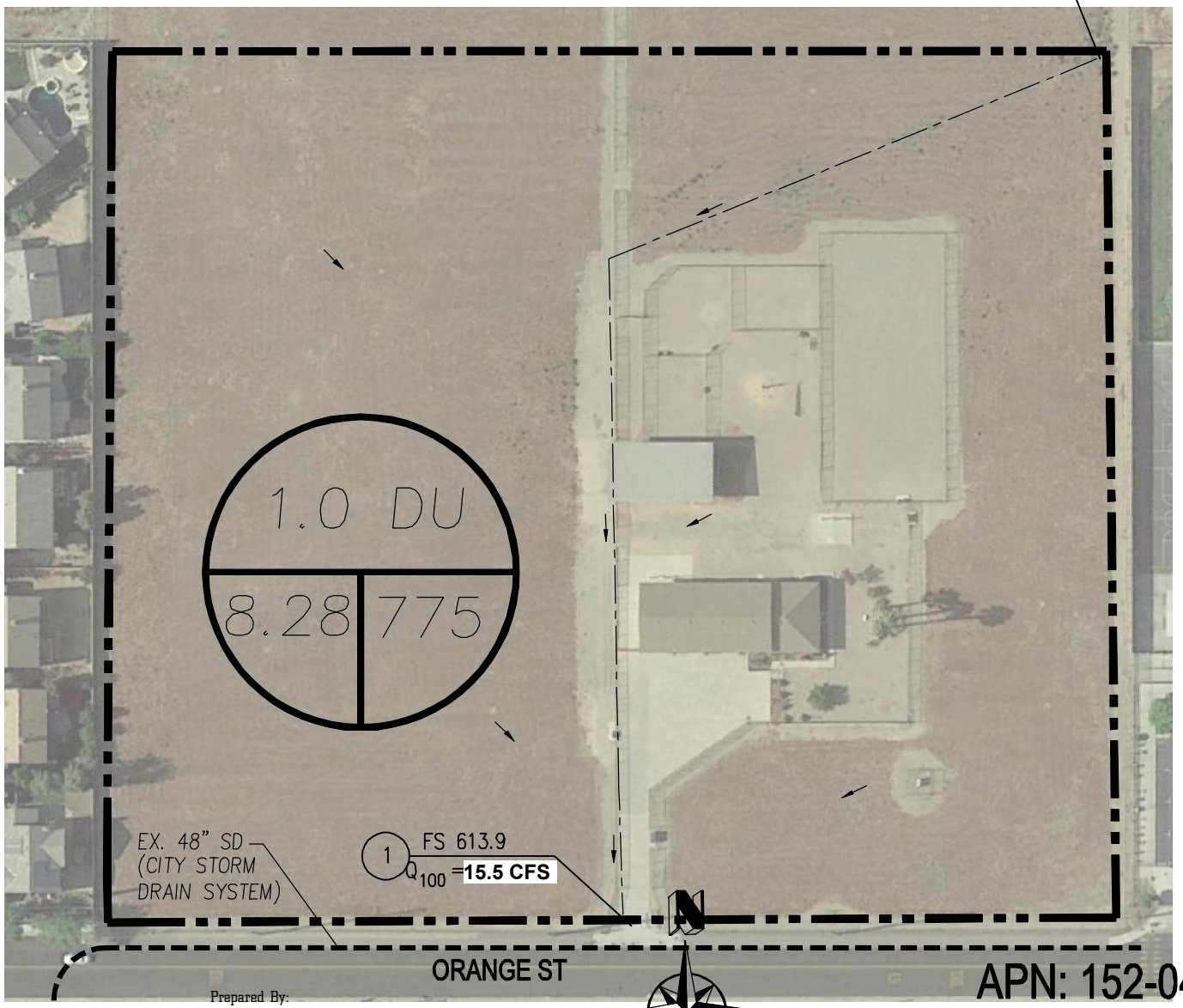
Prepared By:
ALLARD ENGINEERING
Civil Engineering - Land Surveying - Land Planning
16866 Seville Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

CITY OF EASTVALE, CALIFORNIA

DRAINAGE EXHIBIT DEVELOPED CONDITION APN: 152-040-003

Filename: I:\Woodside Homes\DWG's\ENTITLEMENT\EXHIBITS\Eastvale-Drainage Dev Exhibit.dwg



Know what's below. Call before you dig.

APN: 152-04-0003

RIVERSIDE COUNTY

DRAINAGE EXHIBIT: PRE-DEVELOPED

INDEX MAP

SCALE: 1"= 100'

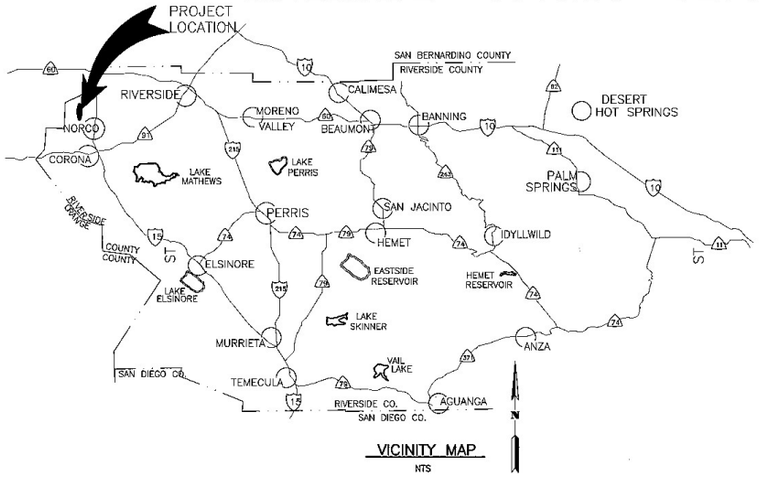
Prepared By:
ALLARD ENGINEERING
Civil Engineering - Land Surveying - Land Planning
16866 Seville Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

PLOT DATE: April 05, 2021 ashafiq

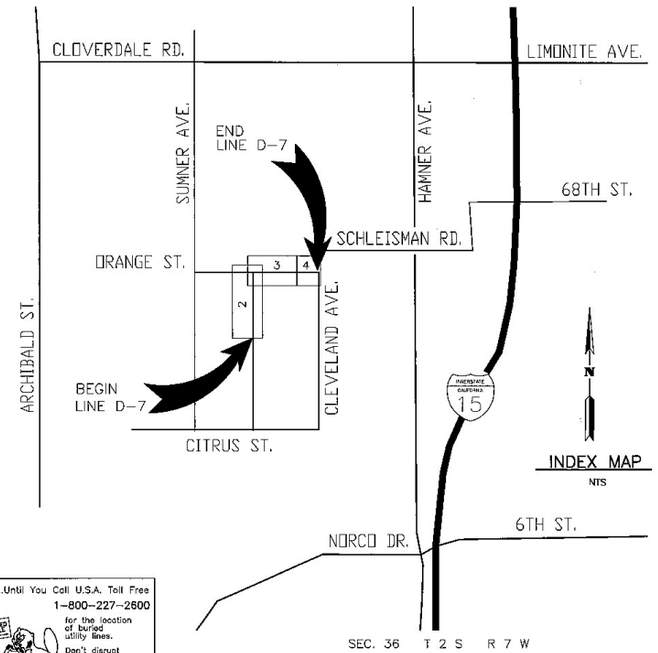
Filename: I:\MLC Holdings\Eastvale\PROJECT ADMIN\REPORTS\Prel Drainage\Docs\Eastvale_Prel Drainage.dwg

Eastvale Master Drainage Plan
Lateral D-7 (As-built)

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT



VICINITY MAP
NTS



INDEX MAP
NTS

INDEX

	SHEET NO.:
TITLE SHEET	1
PLAN & PROFILE	2-5

GENERAL NOTES

1. THE CONTRACTOR SHALL CONSTRUCT THE FLOOD CONTROL IMPROVEMENTS SHOWN ON THE DRAWINGS IN CONFORMANCE WITH THE REQUIREMENTS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT'S M.O.U., STANDARD SPECIFICATIONS DATED SEPTEMBER 1984, AND DESIGN MANUAL STANDARD DRAWINGS DATED MAY 1971.
2. AN ENCROACHMENT PERMIT IS REQUIRED FROM RIVERSIDE COUNTY FLOOD CONTROL. CONTACT ED LOTZ AT 909/955-1266. AFTER THE PERMIT IS ISSUED THE DISTRICT MUST BE NOTIFIED ONE WEEK PRIOR TO CONSTRUCTION.
3. CONSTRUCTION INSPECTION WILL BE PERFORMED BY RIVERSIDE COUNTY FLOOD CONTROL. CONTACT DALE ANDERSON AT 909/955-1288. THE DISTRICT MUST BE NOTIFIED TWENTY DAYS (20) PRIOR TO CONSTRUCTION.
4. ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE NOTED.
5. STATIONING FOR LATERALS AND CONNECTOR PIPE REFER TO THE CENTERLINE INTERSECTION STATIONS.
6. FORTY-EIGHT HOURS BEFORE EXCAVATION, CALL UNDERGROUND SERVICE ALERT 1-800-227-2600.
7. ALL ELEVATIONS SHOWN ARE IN FEET AND DECIMALS THEREOF BASED ON U.S.C. & G.S DATUM.
8. ALL CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM.
9. ELEVATIONS OF UTILITIES ARE APPROXIMATE UNLESS OTHERWISE NOTED.
10. OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES TO BE ABANDONED SHALL BE SEALED WITH 6" OF CLASS "B" CONCRETE.
11. PIPE CONNECTED TO THE MAINLINE PIPE SHALL CONFORM TO JUNCTION STRUCTURE NO. 4 (JS 229) UNLESS OTHERWISE NOTED.
12. PIPE BEDDING SHALL CONFORM TO RCFC&WCD STD. DWG. NO. M815 EXCEPT FOR COVER <2 FEET. FOR COVER <2 FEET, CONCRETE SLURRY (2000 PSI - 2 SACK) SHALL BE USED. THE ENTIRE TRENCH SHALL BE SLURRY EXTENDING 4 INCHES MINIMUM AND 12 INCHES MAXIMUM ABOVE THE TOP OF PIPE.
13. BH-1 INDICATES SOIL BORING LOCATIONS BASED ON THE SOILS REPORT DATED MARCH 13, 2001. LOCATIONS SHOWN ARE APPROXIMATE.
14. "V" IS THE DEPTH OF CATCH BASINS MEASURED FROM THE TOP OF CURB TO INVERT OF CONNECTOR PIPE.
15. CATCH BASINS SHALL BE LOCATED SO THAT LOCAL DEPRESSION SHALL BEGIN AT EXISTING CURB RETURN JOINT, UNLESS SPECIFIED.
16. ALL CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS TO BE RECONSTRUCTED IN KIND AND AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS UNLESS OTHERWISE NOTED.
17. STANDARD DRAWINGS CALLED FOR ON THE PLAN AND PROFILE SHALL CONFORM TO DISTRICT STANDARD DRAWINGS UNLESS NOTED OTHERWISE.
18. THE CONTRACTOR IS REQUIRED TO CALL ALL UTILITY AGENCIES REGARDING TEMPORARY SHORING AND SUPPORT REQUIREMENTS FOR THE VARIOUS UTILITY LINES SHOWN ON THESE PLANS.
19. DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, TEMPORARY DRAINAGE CONTROL SHOULD BE PROVIDED TO PREVENT PONDING WATER AND DAMAGE TO ADJACENT PROPERTIES.
20. APPROVAL OF THESE PLANS BY THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DOES NOT RELIEVE THE DEVELOPER'S ENGINEER OF RESPONSIBILITY FOR THE ENGINEERING DESIGN. IF FIELD CHANGES ARE REQUIRED, IT WILL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO MAKE THE NECESSARY CORRECTIONS.
21. THE CONTRACTOR OR DEVELOPER SHALL SECURE ALL REQUIRED ENCROACHMENT AND/OR STATE AND FEDERAL REGULATORY PERMITS PRIOR TO THE COMMENCEMENT OF ANY WORK.

R.C.F.C. & W.C.D. STANDARD DRAWINGS

CB 110	CONCRETE DROP INLET
MH 252	MANHOLE NO. 2
MH 254	MANHOLE NO. 4
M 804	BULKHEAD

COUNTY OF RIVERSIDE STANDARD DRAWINGS

300	CURB INLET BASIN
311	LOCAL DEPRESSION

CONSTRUCTION NOTES

1. INSTALL 48" R.C.P. (1000-D MIN.)
2. INSTALL 42" R.C.P. (1000-D) MIN.
3. INSTALL 24" R.C.P. CLASS IV.
4. INSTALL 18" R.C.P. CLASS IV.
5. CONSTRUCT MANHOLE NO. 2 PER R.C.F.D. & W.C.D. STD. DWG. NO. M.H. 252.
6. CONSTRUCT MANHOLE NO. 4 PER R.C.F.D. & W.C.D. STD. DWG. NO. M.H. 254.
7. CONSTRUCT CURB INLET CATCH BASIN PER RIVERSIDE COUNTY STD. DWG. NO. 300.
8. CONSTRUCT LOCAL DEPRESSION (CASE C) PER RIVERSIDE COUNTY STD. DWG. NO. 311.
9. CONSTRUCT INLET PER R.C.F.C.D. & W.C.D. STD. DWG. NO. CB110.
10. CONSTRUCT TIMBER BULKHEAD PER R.C.F.C. & W.C.D. STD. DWG. NO. M804.

AS BUILT
APPROVED BY
DATE 2-3-06

REGISTERED PROFESSIONAL ENGINEER
KHALED A. OTHMAN
33950
6-30-05
CIVIL
STATE OF CALIFORNIA

IP NO. 030086

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
RIVERSIDE COUNTY B.M. M.L. 34-1-64 A BRASS DISK SET IN THE TOP OF A CONCRETE POST LOCATED AT THE N.E. COR. OF THE "T" INT. OF ORANGE ST. AND SUMNER AVE., 35.0 FT. E. OF SUMNER AVE., 21.0 FT. N. OR ORANGE ST., 2.5 FT. W. OF P.P.#375282, 1.0 FT. E. OF A MARKER POST. EL.=606.913

REF.	REVISIONS	ENGINEER APPR.	ENGINEER DATE	RCFC/ APPR.	RCFC/ DATE

DESIGNED BY: RW
DRAWN BY: JM
DATE DRAWN: DECEMBER 2002

APPROVED BY:
RHA Engineering, Inc.
6974 BROCKTON AVENUE ● SUITE 100
RIVERSIDE, CA 92506
(909) 683-8088 FAX (909) 683-6915
STEVEN L. RAY, RCE 35334 EXP. 9/30/05
3-12-04
DATE:

REGISTERED PROFESSIONAL ENGINEER
STEVEN L. RAY
35334
9-30-05
CIVIL
STATE OF CALIFORNIA

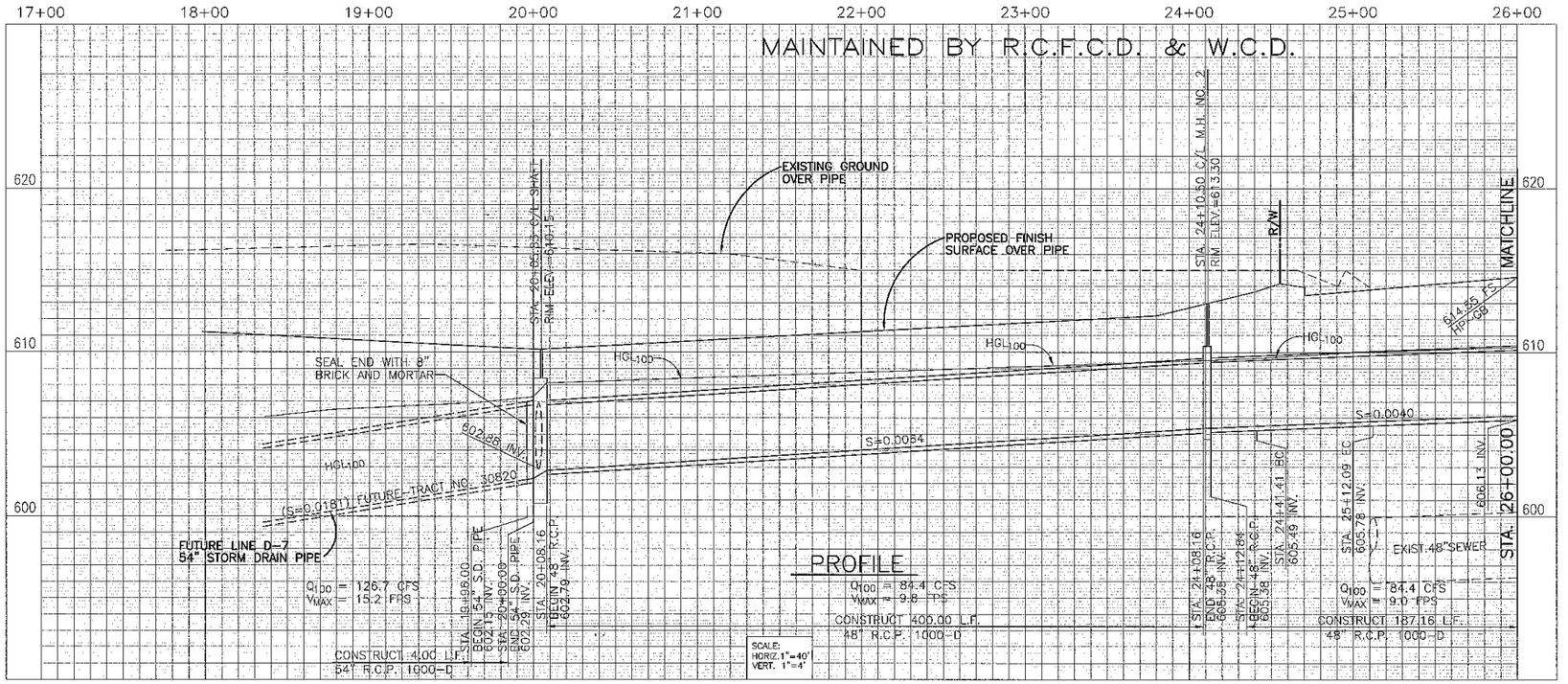
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: Stuart E. McKibbin
PLANNING ENGINEER
DATE: 8-25-2004
APPROVED BY:
CHIEF ENGINEER
DATE: 8/26/04

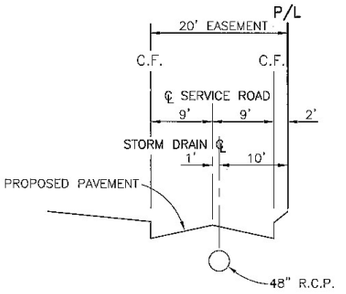
COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
KHALED A. OTHMAN
DATE: 3/31/04
RECOMMENDED FOR APPROVAL BY:
DATE: 3/29/04

MS 3916
EASTVALE MASTER DRAINAGE PLAN
LATERAL D-7
TITLE SHEET

PROJECT NO. 2-0-0326
DRAWING NO. 2-346
SHEET NO. 1 OF 5

File name: A:\SD2003\Corona\Eastvale\MS3916-D7\ASD_TITLE.DGN CS.dwg <RH>
Plot date: 01/23/04 at 13:10



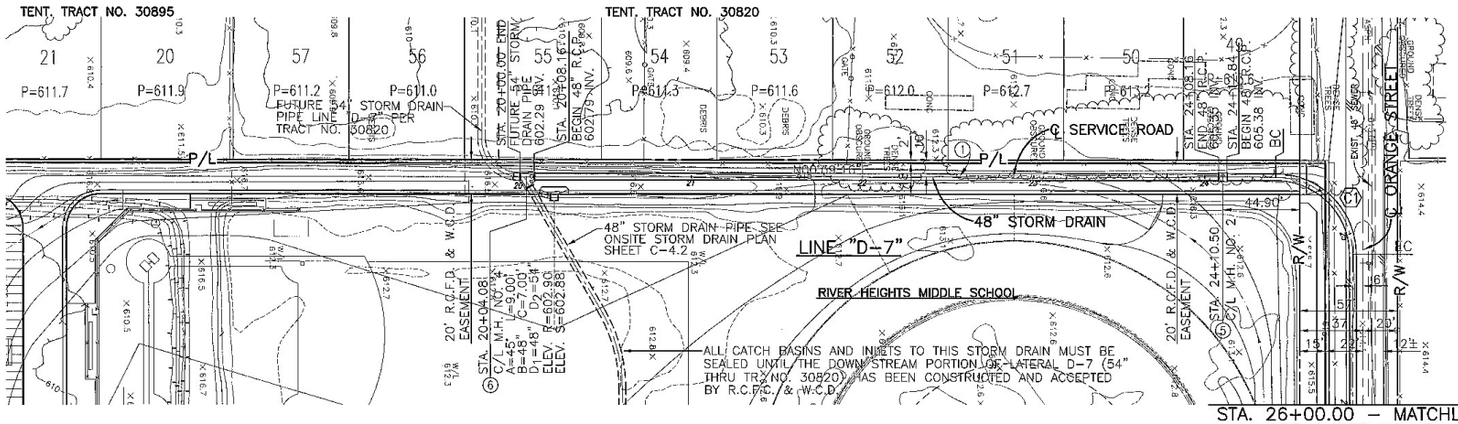


SECTION AT STA. 22+50
TYPICAL FROM STA. 20+00 TO STA. 24+41.41

10' 0 10'

CONSTRUCTION NOTES

1. INSTALL 48" R.C.P. (1000-D MIN.)
5. CONSTRUCT MANHOLE NO. 2 PER R.C.F.C. & W.C.D. STD. DWG. NO. M.H. 252
6. CONSTRUCT MANHOLE NO. 4 PER R.C.F.C. & W.C.D. STD. DWG. NO. M.H. 254



STA. 26+00.00 – MATCHLINE
SEE SHEET NO. 3

AS BUILT
APPROVED BY:
DATE 2-3-06

PLAN
40' 0 40'

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPABILITY OF THE DESIGN HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER COUNTY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE COUNTY.

REGISTERED PROFESSIONAL ENGINEER KHALED A. OTAMAN 33950 6-30-06 CIVIL STATE OF CALIFORNIA

IP NO. 030086

BENCH MARK
RIVERSIDE COUNTY B.M. M.L. 34-1-64 A BRASS DISK SET IN THE TOP OF A CONCRETE POST LOCATED AT THE N.E. COR. OF THE "T" INT. OF ORANGE ST. AND SUMNER AVE., 35.0 FT. E. OF SUMNER AVE., 21.0 FT. N. OR ORANGE ST., 2.5 FT. W. OF P.P.#375282, 1.0 FT. E. OF A MARKER POST. EL.=606.913

REF.	REVISIONS	APPR.	DATE	APPR.	DATE

ENGINEER / RCFC/

DESIGNED BY: RW
DRAWN BY: JM
DATE DRAWN: DECEMBER 2002

APPROVED BY:
RHA Engineering, Inc.
6974 BROCKTON AVENUE ● SUITE 100
RIVERSIDE, CA 92506
(909) 683-8088 FAX (909) 683-6915
STEVEN L. RAY, RCE 35334 EXP. 9/30/05 DATE: 3-12-04

REGISTERED PROFESSIONAL ENGINEER STEVEN L. RAY 35334 9-30-05 CIVIL STATE OF CALIFORNIA

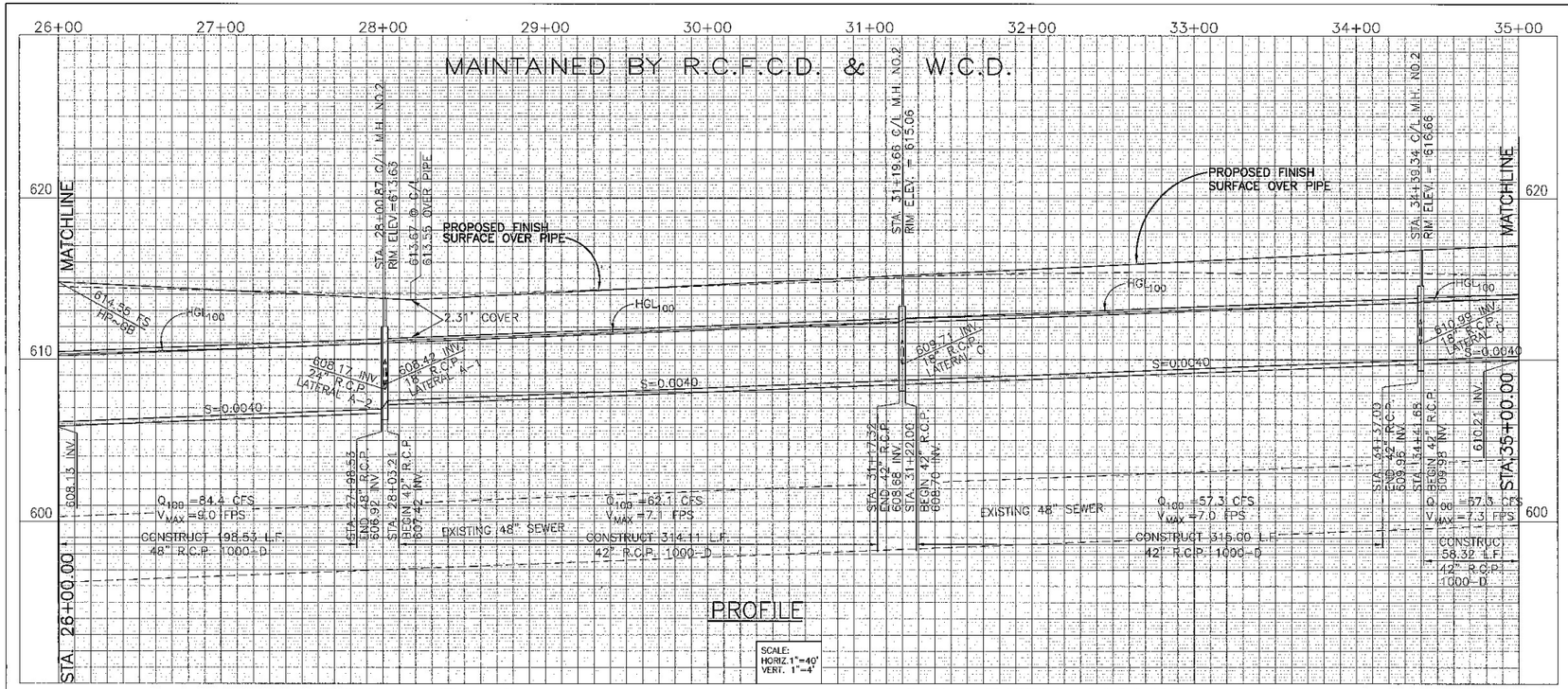
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE: 8/24/04
APPROVED BY: DATE: 8-25-2004

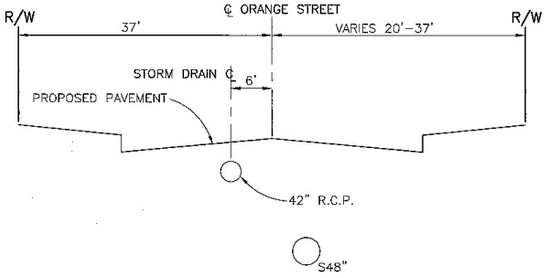
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: KHALED A. OTAMAN DATE: 3/31/04
RECOMMENDED WILLDAN DATE: 3/30/04

MS 3916
EASTVALE MASTER DRAINAGE PLAN
LATERAL D-7
STA. 20+00.00 TO STA 26+00.00

PROJECT NO. 2-0-0326
DRAWING NO. 2-346
SHEET NO. 2 OF 5

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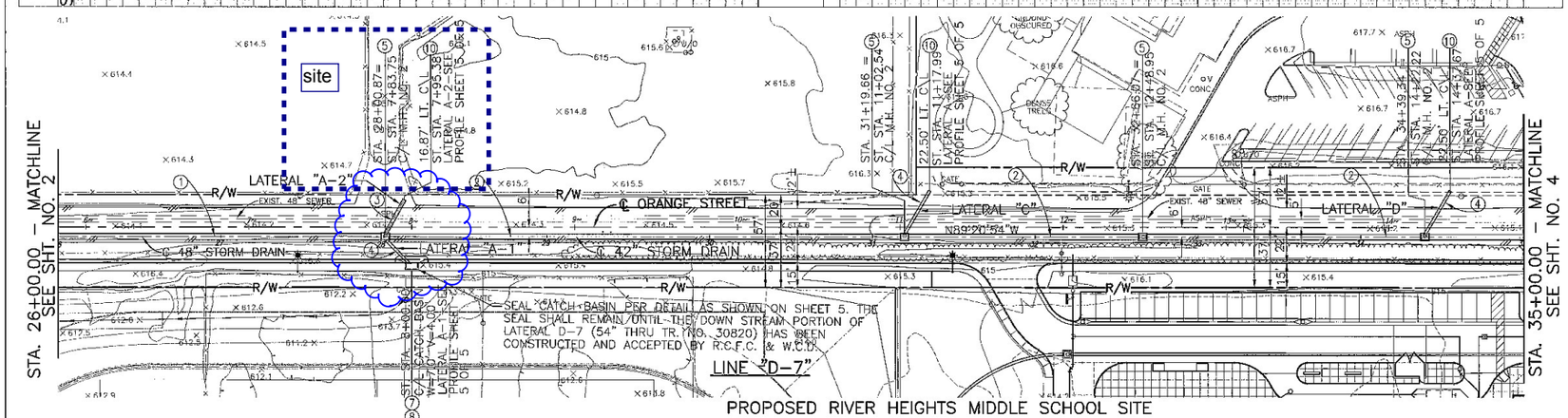


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TYPICAL FROM STA. 28+00 TO STA. 35+00

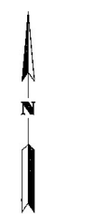
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CONSTRUCTION NOTES

1. INSTALL 48" R.C.P. (1000-D MIN.)
2. INSTALL 42" R.C.P. (1000-D MIN.)
3. INSTALL 24" R.C.P. CLASS IV
4. INSTALL 18" R.C.P. CLASS IV
5. CONSTRUCT MANHOLE NO. 2 PER R.C.F.C. & W.C.D. STD. DWG. NO. M.H. 252
7. CONSTRUCT CURB INLET CATCH BASIN PER RIVERSIDE COUNTY STD. NO. 300
8. CONSTRUCT LOCAL DEPRESSION (CASE C) PER RIVERSIDE COUNTY STD. NO. 311
10. CONSTRUCT TIMBER BULKHEAD PER R.C.F.C. & W.C.D. STD. DWG. NO. M804



AS BUILT
APPROVED BY:
DATE 2-3-06



PLAN

40' 0 40'

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REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN 33659 6-30-05 CIVIL STATE OF CALIFORNIA

IP NO. 030086

BENCH MARK
RIVERSIDE COUNTY B.M. M.L. 34-1-64 A BRASS DISK SET IN THE TOP OF A CONCRETE POST LOCATED AT THE N.E. COR. OF THE "T" INT. OF ORANGE ST. AND SUMNER AVE., 35.0 FT. E. OF SUMNER AVE., 21.0 FT. N. OR ORANGE ST., 2.5 FT. W. OF P.P.#375282. 1.0 FT. E. OF A MARKER POST. EL.=606.913

REF.	REVISIONS	ENGINEER APPR.	ENGINEER DATE	RCFC/ APPR.	RCFC/ DATE

DESIGNED BY: RW
DRAWN BY: JM
DATE DRAWN: DECEMBER 2002

APPROVED BY:
RHA Engineering, Inc.
6974 BROCKTON AVENUE • SUITE 100
RIVERSIDE, CA 92506
(909) 683-8088 FAX (909) 683-6915
STEVEN L. RAY, RCE 35334 EXP. 9/30/05 DATE: 3-12-04

REGISTERED PROFESSIONAL ENGINEER STEVEN L. RAY 35334 9-30-05 CIVIL STATE OF CALIFORNIA

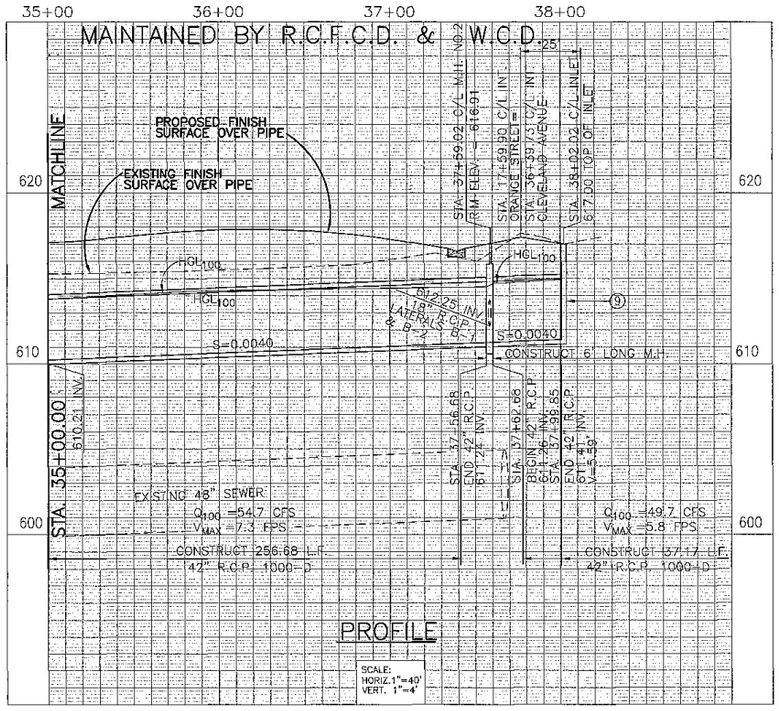
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RECOMMENDED FOR APPROVAL BY: DATE: 8/24/04
APPROVED BY: DATE: 8-25-2004

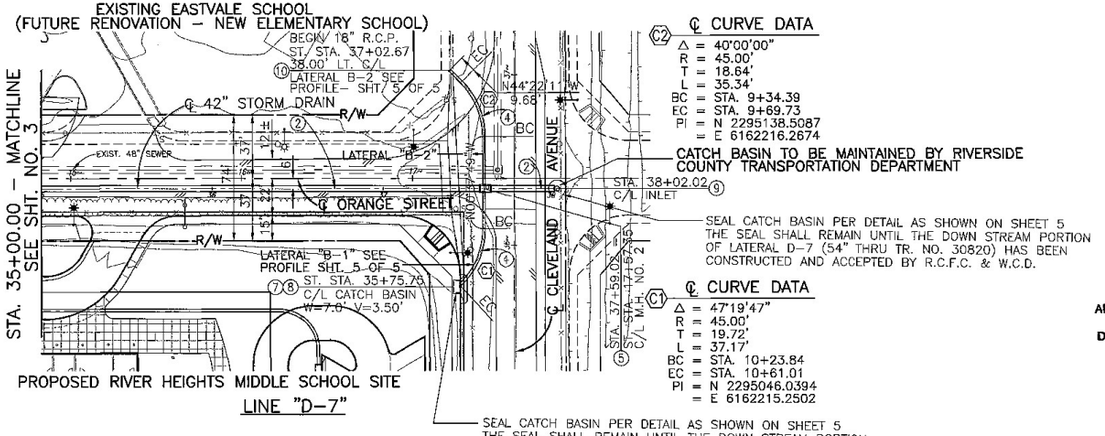
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: KHALED A. OTHMAN DATE: 3/31/04
RECOMMENDED W.LIDAN DATE: 2/19/04

MS 3916
EASTVALE MASTER DRAINAGE PLAN
LATERAL D-7
STA. 26+00.00 TO STA. 35+00.00

PROJECT NO. 2-0-0326
DRAWING NO. 2-346
SHEET NO. 3 OF 5

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Plot date: 02/11/04 at 13:59





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T = 18.64'
L = 35.34'
BC = STA. 9+34.39
EC = STA. 9+69.73
PI = N 2295138.5087
= E 6162216.2674

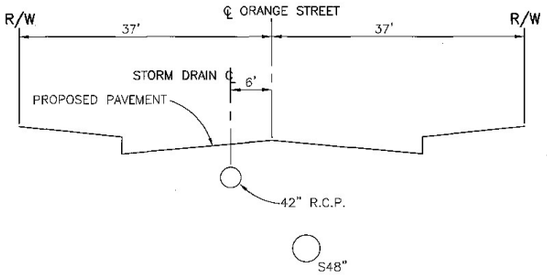
CATCH BASIN TO BE MAINTAINED BY RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT

SEAL CATCH BASIN PER DETAIL AS SHOWN ON SHEET 5 THE SEAL SHALL REMAIN UNTIL THE DOWN STREAM PORTION OF LATERAL D-7 (54" THRU TR. NO. 30820) HAS BEEN CONSTRUCTED AND ACCEPTED BY R.C.F.C. & W.C.D.

℄ CURVE DATA (C1)

Δ = 47°19'47"
R = 45.00'
T = 19.72'
L = 37.17'
BC = STA. 10+23.84
EC = STA. 10+61.01
PI = N 2295046.0394
= E 6162215.2502

SEAL CATCH BASIN PER DETAIL AS SHOWN ON SHEET 5 THE SEAL SHALL REMAIN UNTIL THE DOWN STREAM PORTION OF LATERAL D-7 (54" THRU TR. NO. 30820) HAS BEEN CONSTRUCTED AND ACCEPTED BY R.C.F.C. & W.C.D.



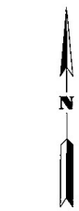
SECTION AT STA. 36+00
TYPICAL FROM STA. 35+00 TO STA. 37+10

10' 0 10' HORIZ.

CONSTRUCTION NOTES

(2) INSTALL 42" R.C.P. (1000-D MIN.)
(4) INSTALL 18" R.C.P. CLASS IV
(5) CONSTRUCT MANHOLE NO. 2 PER R.C.F.C. & W.C.D. STD. DWG. NO. M.H. 252
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(8) CONSTRUCT LOCAL DEPRESSION (CASE C) PER RIVERSIDE COUNTY STD. NO. 311
(9) CONSTRUCT INLET PER R.C.F.C. & W.C.D. STD. DWG. NO. CB110
(10) CONSTRUCT TIMBER BULKHEAD PER R.C.F.C. & W.C.D. STD. DWG. NO. M804

AS BUILT
APPROVED BY:
DATE 2-3-06



PLAN
40' 0 40'

IP NO. 030086

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DESIGNED BY: RW
DRAWN BY: JM
DATE DRAWN: DECEMBER 2002

APPROVED BY:
RHA Engineering, Inc.
6974 BROCKTON AVENUE ● SUITE 100
RIVERSIDE, CA 92506
(909) 683-8088 FAX (909) 683-6915
STEVEN L. RAY REG. 35334 EXP. 9/30/05
3-12-04 DATE:

REGISTERED PROFESSIONAL ENGINEER STEVEN L. RAY 35334 9-30-05 CIVIL STATE OF CALIFORNIA

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY:
DATE: 8/24/04
APPROVED BY:
DATE: 8-25-2004

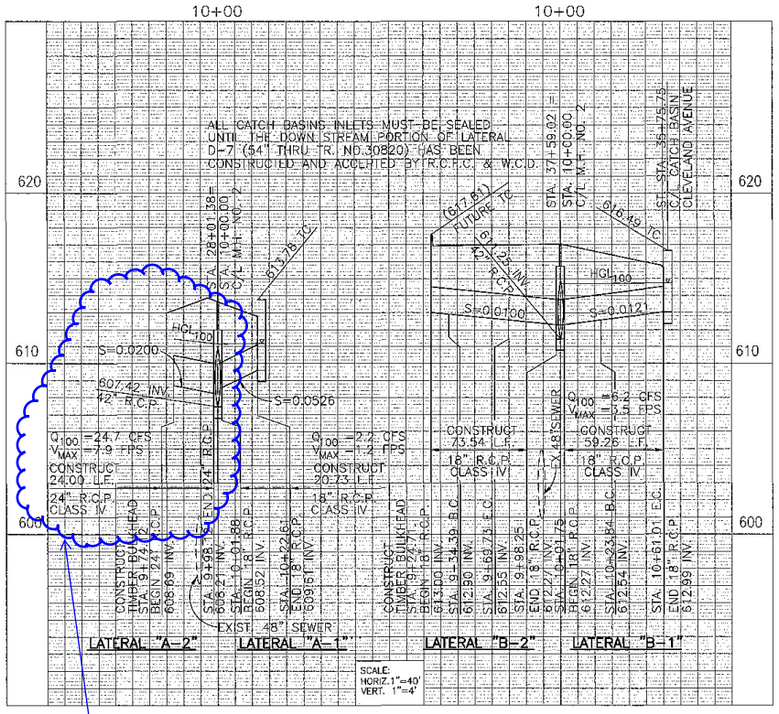
COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY:
KHALED A. OTHMAN
DATE: 3/31/04
RECOMMENDED WILLDAN
DATE: 3/29/04

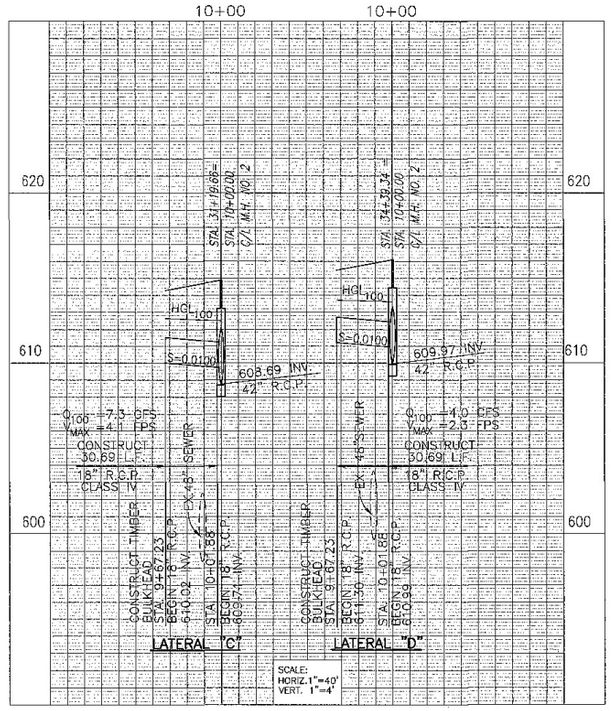
REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN 33950 6-30-06 CIVIL STATE OF CALIFORNIA

MS 3916
EASTVALE MASTER DRAINAGE PLAN
LATERAL D-7
STA 35+00.00 TO STA. 38+02.02

PROJECT NO. 2-0-0326
DRAWING NO. 2-346
SHEET NO. 4 OF 5

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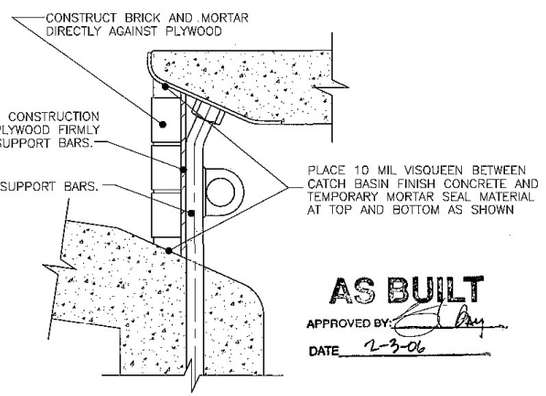




Q100: 22.8 CFS from the site in proposed condition < 24.7 CFS design capacity of Lat A-2.

PROFILE

LATERALS "A-1", "A-2", "B-1", B-2", "C" & "D" ARE MAINTAINED BY RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT



AS BUILT
APPROVED BY:
DATE 2-3-06

CATCH BASIN SEAL DETAIL

N.T.S.

REGISTERED PROFESSIONAL ENGINEER KHALED A. OTHMAN 33950 6-30-06 CIVIL STATE OF CALIFORNIA

IP NO. 030086

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DESIGNED BY: RW
DRAWN BY: JM
DATE DRAWN: DECEMBER 2002

APPROVED BY:
RHA Engineering, Inc.
6974 BROCKTON AVENUE ● SUITE 100
RIVERSIDE, CA 92506
(909) 683-8088 FAX (909) 683-6915
STEVEN L. RAY, RCE 35334 EXP. 9/30/05 DATE: 3-12-04

REGISTERED PROFESSIONAL ENGINEER STEVEN L. RAY 35334 9-30-05 CIVIL STATE OF CALIFORNIA

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: DATE: 8/24/04
APPROVED BY: DATE: 8-25-2004

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT
APPROVED BY: DATE: 3/31/04
KHALED A. OTHMAN
RECOMMENDED WILDAN DATE: 3/29/04

MS 3915
EASTVALE MASTER DRAINAGE PLAN
LATERAL D-7
COLLECTOR PIPES

PROJECT NO. 2-0-0326
DRAWING NO. 2-346
SHEET NO. 5 OF 5

File name: A1-0326D1.dgn Level: [Rivertb1]R6S-R6W-T2S-4.dwg <R14>
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Appendix 9B

Preliminary Water Quality Management Plan

Magnolia Ranch Residential Project

Initial Study

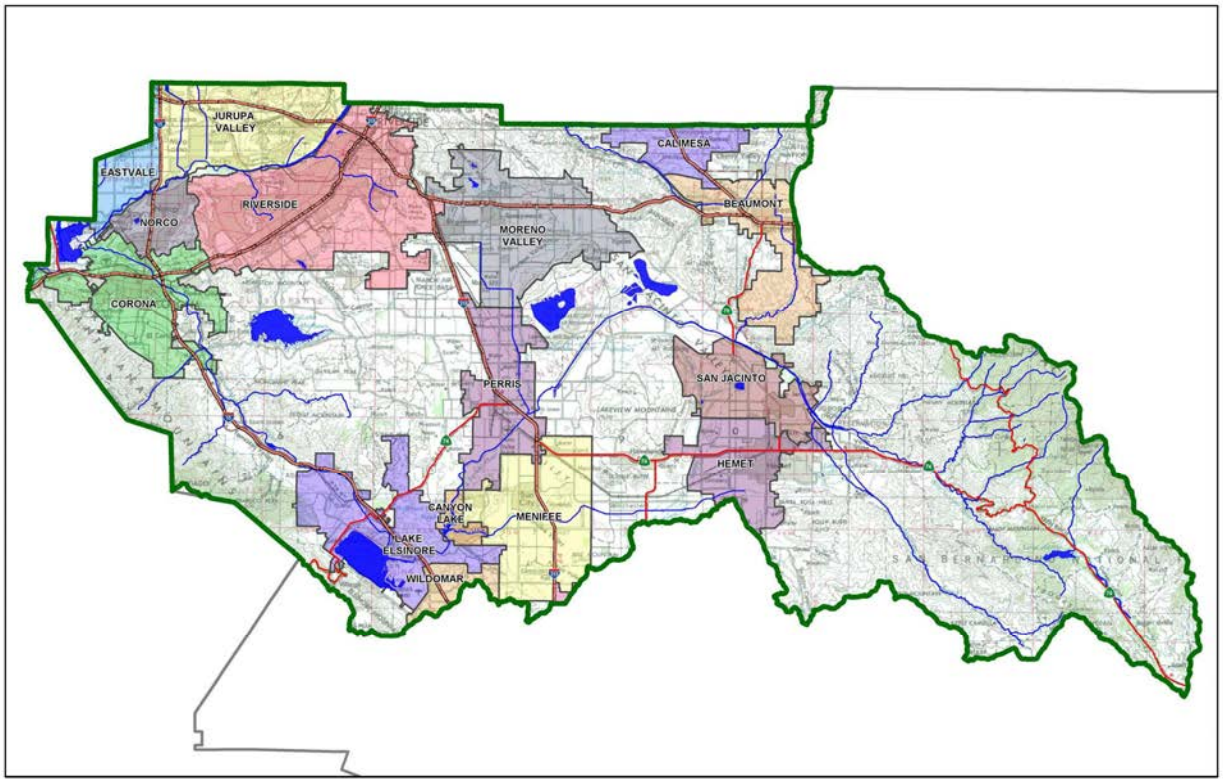
Project Specific Water Quality Management Plan

A Template for Projects located within the Santa Ana Watershed Region of Riverside County

Project Title: APN: 152-040 (Magnolia Ranch-Single Family Residential Development)

Development No: Insert text here

Design Review/Case No:



☒ Preliminary
☐ Final

Original Date Prepared: 7/12/2023

Revision Date(s):

Prepared for Compliance with
Regional Board Order No. R8-2010-0033
Template revised June 30, 2016

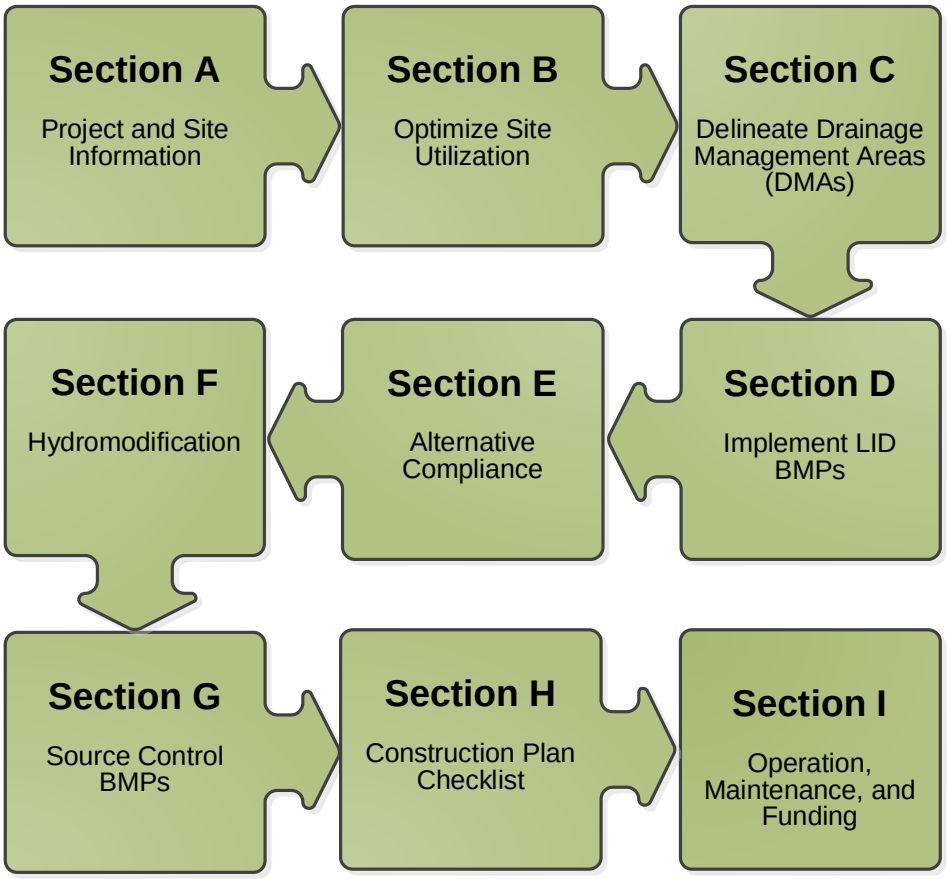
Contact Information:

Prepared for: Woodside 05S, LP
1250 Corona Pointe, Suite 500
Corona, CA 92879
Tel. (951) 710-1900

Prepared by: Allard Engineering
16866 Seville Avenue
Fontana, CA 92335
Tel. (909) 356-1815

A Brief Introduction

This Project-Specific WQMP Template for the Santa Ana Region has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for Woodside 05S, LP by Allard Engineering for the APN: 152-040-003 (Orange Street SFR) project.

This WQMP is intended to comply with the requirements of The County of Riverside for R8-2010-0033 which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under County of Riverside Water Quality Ordinance (Municipal Code Section2010 SAR-MS4).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

Owner's Signature

7/18/23
Date

Kory Liston
Owner's Printed Name

Project Manager
Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."

Raymond J. Allard
Preparer's Signature

7/12/2023
Date

Raymond J. Allard, P.E.
Preparer's Printed Name

Project Manager
Preparer's Title/Position

Preparer's Licensure: RCE 36052, Exp. 6/30/24



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Section A: Project and Site Information

PROJECT INFORMATION	
Type of Project:	Single Family Residential Homes
Planning Area:	
Community Name:	
Development Name:	Magnolia Ranch
PROJECT LOCATION	
Latitude & Longitude (DMS): 33.95987 N -117.57044 W	
Project Watershed and Sub-Watershed: Santa Ana Region.	
Gross Acres: 8.28	
APN(s): 152-04-0003	
Map Book and Page No.: BK 152, PG. 04	
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Single Family Residential Home
Proposed or Potential SIC Code(s)	1521
Area of Impervious Project Footprint (SF)	144,271
Total Area of proposed Impervious Surfaces within the Project Footprint (SF)/or Replacement	144,271
Does the project consist of offsite road improvements?	☒ Y ☐ N
Does the project propose to construct unpaved roads?	☐ Y ☒ N
Is the project part of a larger common plan of development (phased project)?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Total area of existing Impervious Surfaces within the Project limits Footprint (SF)	78,200
Is the project located within any MSHCP Criteria Cell?	☐ Y ☒ N
If so, identify the Cell number:	Insert text here.
Are there any natural hydrologic features on the project site?	☐ Y ☒ N
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	Type B
What is the Water Quality Design Storm Depth for the project?	0.85 inch/day

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a minimum, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling
- BMP Locations (Lat/Long)

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Cucamonga Creek Reach-1	Cadmium, Copper, Lead, Zinc	NONE	None, No RARE Beneficial use
Santa Ana River Reach - 3	Copper, Indicator Bacteria. Lead	RE1,2, BIOL, WILD, MAR, EST, RARE	RARE, 0.85 MILE
Prado Dam Reservour	PH, Indicator Bacteria	AGR, GWR, REC1,2, WARM, WILD, SPWN, RARE	RARE, 5.5 MILES
Santa Ana River Reach - 2	Indicator Bacteria	AGR, GWR, REC1,2, WARM, WILD, SPWN	RARE, 7.0 MILES
Santa Ana River Reach - 1	Indicator Bacteria	REC1,2, WARM, WILD	None, No RARE Beneficial use

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☐ Y	☒ N
Statewide Industrial General Permit Coverage	☐ Y	☒ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)*	☐ Y	☒ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, constraints might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. Opportunities might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Consideration of "highest and best use" of the discharge should also be considered. For example, Lake Elsinore is evaporating faster than runoff from natural precipitation can recharge it. Requiring infiltration of 85% of runoff events for projects tributary to Lake Elsinore would only exacerbate current water quality problems associated with Pollutant concentration due to lake water evaporation. In cases where rainfall events have low potential to recharge Lake Elsinore (i.e. no hydraulic connection between groundwater to Lake Elsinore, or other factors), requiring infiltration of Urban Runoff from projects is counterproductive to the overall watershed goals. Project proponents, in these cases, would be allowed to discharge Urban Runoff, provided they used equally effective filtration-based BMPs.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

The proposed site will drain to the proposed Contech Retention/Infiltration Chamber System-1,2 which will overflow when it reach capacity and the flow will conveys to the south via proposed storm drain and drain to the existing City Storm Drain System in Orange Street. We will retain/infiltrate the water volume generated in WQ Storm event (2-yr storm event). Only when the onsite Retention/infiltration Basin reach its capacity, water will drain to the proposed storm drain line and drain out to the existing storm drain system which conform to the existing drainage condition. Therefore, will preserve the existing drainage pattern.

Did you identify and protect existing vegetation? If so, how? If not, why?

This site is mostly barren and has moderate area of vegetation in its existing condition. The proposed site will remove existing vegetation and replace with the proposed planters and landscape areas which will be planted with climate adaptive plants/native vegetation/trees.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Yes, the site will have below surface infiltration/retention chamber system-1,2 where stormwater from water quality storm event will retain & infiltrate into the native sub-soil within the drawdown time.

Did you identify and minimize impervious area? If so, how? If not, why?

No. The existing site condition is mostly barren with a single existing structure and natural dirt cover. The proposed site will have planters, landscape area which will be approximately at least 15% of the site area.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

Yes. Portion of paved area and the interior streets will drain to landscape area before conveyed to the drainage system.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1][2]	Area (Sq. Ft.)	DMA Type
DMA-1	Landscape/Planters	97,226	A-1
DMA-1	Roof	29,168	D-1
DMA-1	Street/Paved Area	35,649	D-2
DMA-2	Landscape/Planters	119,180	A-1
DMA-2	Roof	30,754	D-1
DMA-2	Street/Paved Area	43,700	D-2

[1]Reference Table 2-1 in the WQMP Guidance Document to populate this column
[2]If multi-surface provide back-up

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
DMA-1	97,226	Mulching, Soding	Onsite Sprinkler with Rain Sensor
DMA-2	119,180	Mulching, Soding	Onsite Sprinkler with Rain Sensor

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				Type 'C' DMAs that are draining to the Self-Retaining Area		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet) [A]	Post-project surface type	Impervious fraction [B]	Product [C] = [A] x [B]	DMA name /ID	Area (square feet) [D]	Ratio [C]/[D]

DMA Name or ID	BMP Name or ID
DMA-1 (D1, D2)	Below-surface Retention/Infiltration Chamber System-1. To be Installed in DMA-1.
DMA-2 (D1, D2)	Below-surface Retention/Infiltration Chamber System-2, To be Installed in DMA-2.

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site; proceed to section D.3

If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Co-permittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☐ Y ☒ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?		X
If Yes, list affected DMAs:		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

*The Infiltration BMPs (*Below-surface Retention/Infiltration Chamber System-1,2) To be Installed in DMA-1 and DMA-2 *are to be used for mitigation of water quality volume from both DMA-1, DMA-2. We will take*

the storm water generates in DMA-1, DMA-2 to the proposed BMPs (Inf. Chamber System-1,2) located in DMA-1 & DMA-2.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

X☐The Design Capture Volume will be addressed using Retention/Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: Insert Area (Acres)

Type of Landscaping (Conservation Design or Active Turf): List Landscaping Type

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: EIATIA Factor

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: Insert Area (Acres)

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	Available Irrigated Landscape (Step 1)
Insert Area (Acres)	Insert Area (Acres)

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: Number of daily Toilet Users

Project Type: Enter 'Residential', 'Commercial', 'Industrial' or 'Schools'

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: TUTIA Factor

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: Required number of toilet users

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	Projected number of toilet users (Step 1)
Insert Area (Acres)	Insert Area (Acres)

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

Insert narrative description here.

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: Enter Value

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	Projected average daily use (Step 1)
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☐ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
DMA-1	☒	☐	☐	☐	☐
DMA-2	☒	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

Insert narrative description here.

Project is proposing to treat the required design capture volume generated from the entire project site (DMA-1 and DMA-2) and the offsite street improvement areas (Included in DMA-1,2) from the WQMP storm event (85th Percentile storm event) using two below-surface Infiltration/Retention Chamber System-1,2 BMPs. Infiltration/Retention Chamber System-1,2 BMPs are located in DMA-1 and DMA-2. In situ infiltration test in DMA-1,2 resulted in infiltration rate 2.67"/hr at Infiltration Test Pit I-1 which is more than the minimum requirement for the infiltration BMPs. Therefore, we are proposing to the Infiltration/Retention Chamber System-1,2 in DMA-1/DMA-2 where the tested infiltration rates exceed the minimum requirements.

Once the Infiltration/Retention Chamber System-1,2 reach their capacity, the overflow will drain out using storm drain pipe from the Chamber System-1,2 and will be conveys to the frontal street (Orange Street) via the proposed 30" storm drain lateral onsite and finally conveys to the existing City storm drain system (48" RCP) in Orange Street via 30" lateral.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First, calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second, design the LID BMP to meet the required V_{BMP} using a method approved by the Co-permittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Co-permittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

For BMP Design Volume (Vbmp) calculation refer to Appendix 6.

Below Surface Ret/Inf Chamber System-1 Sizing:

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	**DMA Runoff Factor**	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here* *INF./RET CHAMBER SYSTEM-1*		
	[A]		[B]	[C]	[A] x [C]			
DMA-1 D1	*29,168*	*Roof*	*1.00*	*0.89*	*25,959.5*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA-1 D2	*35,649*	*Street/Paved Area*	*1.00*	*0.89*	*31,727.6*			
DMA-1 A1	*97,226*	*Landscape*	*0.10*	*0.11*	*10,694.8*			
DMA-1	$A_T = \Sigma[A]$ 162,043				$\Sigma = [D]$ 68382	[E] 0.85	$[F] = \frac{[D]x[E]}{12}$ 4,844	[G] *4,873*

Below Surface Ret/Inf Chamber System-2 Sizing:

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	**DMA Runoff Factor**	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here* *INF./RET CHAMBER SYSTEM-2*		
	[A]		[B]	[C]	[A] x [C]			
DMA-2 D1	*30,754*	*Roof*	*1.00*	*0.89*	*27,371.1*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA-2 D2	*43,700*	*Street/Paved Area*	*1.00*	*0.89*	*38,893*			
DMA-2 A1	*119,180*	*Landscape*	*0.10*	*0.11*	*13,109.8*			
DMA-2	$A_T = \Sigma[A]$ 198,634				$\Sigma = [D]$ 79,374	[E] 0.85	$[F] = \frac{[D]x[E]}{12}$ 5,623	[G] *5,729*

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Total Design Capture Volume (Vbmp): 10,467 cu-ft (4,844 cf + 5,623 cf)

R 07 W | R 06 W | R 05 W | R 04 W | R 03 W | R 02 W | R 01 W | R 01 E | R 02 E | R 03 E | R 04 E | R 05 E

T 01 S
T 02 S
T 03 S
T 04 S
T 05 S
T 06 S
T 07 S
T 08 S

0.85"/day

0.85 MiraLoma
0.61 RiversideNorth
0.54 RiversideSouth
0.68 PigeonPass
0.66 MorenoEast
0.85 Beaumont
0.88 PradoDam
0.51 Woodcrest
0.50 LakeMathews
0.68 PerrisReservoir
0.87 VistaGrandeGS
0.70 SanJacintoNWS
1.18 Idyllwild
0.58 SunCity
0.68 Winchester
0.70 ElsinoreNWS
1.11 ElCarisoStation
0.90 HurkeyCreek
0.77 WildomarLaCresta
0.52 SkinnerLake
0.65 Anza
0.77 SantaRosaPlateau
1.00 TemeculaNWS
0.64 AguangaValley

Santa Ana River Watershed
Santa Margarita Watershed

JURUPA VALLEY | EASTVALE | NORCO | CORONA | RIVERSIDE | MORENO VALLEY | CALIMESA | BEAUMONT | SAN JACINTO | PERRIS | CANYON LAKE | LAKE ELSINORE | WILDOMAR | MENIFEE | HEMET | MURRIETA | TEMECULA

06	05	04	03	02	01
07	08	09	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

N

Rain Gage Locations

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

Isohyetal Map for the 85th Percentile 24 hour Storm Event

July 2011

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Co-permittee). Check one of the following Boxes:

✓ ☐ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- Or -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☒ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☐ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☐	☐	☐	☐	☐	☐	☐	☐

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
Total Credit Percentage[1]	

[1]Cannot Exceed 50%

[2]Obtain corresponding data from Table 3-8 in the WQMP Guidance Document

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Area x Runoff Factor		*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]				
						Design Storm Depth (in)	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = Σ[A]				Σ= [D]	[E]	[F] = $\frac{[D]x[E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document

[E] is for Flow-Based Treatment Control BMPs [E] = .2, for Volume-Based Control Treatment BMPs, [E] obtained from Exhibit A in the WQMP Guidance Document

[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12

[H] is from the Total Credit Percentage as Calculated from Table E.2 above

[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- High: equal to or greater than 80% removal efficiency
- Medium: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.
[2] Cross Reference Table E.1 above to populate this column.
[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Co-permittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☒ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	Post-condition	% Difference
Time of Concentration			
Volume (Cubic Feet)			

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

Entered time of concentration and volumes are from Phase I & II combined.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps.

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

The site will drain to the existing City Strom Drain System in Orange Street (48" RCP) after mitigation of the water quality volume by infiltration BMPs (Inf/Ret. Basin-1). Ultimately the City Storm Drain System conveys water to Santa Ana River

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

HCOC Mitigation not required-HCOC Exemption satisfied.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. *Identify Pollutant Sources*: Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. *Note Locations on Project-Specific WQMP Exhibit*: Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. *Prepare a Table and Narrative*: Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. Add additional narrative in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. *Identify Operational Source Control BMPs:* To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	BMP Location (Lat/Long)
BMP-1	Infiltration/Retention Chamber System-1	WQMP Exhibit	Lat. 33.9596° Long. -117.5712°
BMP-2	Infiltration/Retention Chamber System-2	WQMP Exhibit	Lat. 33.9596° Long. -117.5700°

Note that the updated table — or Construction Plan WQMP Checklist — is only a reference tool to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Co-permittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Co-permittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: Insert text here.

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☒ Y ☐ N

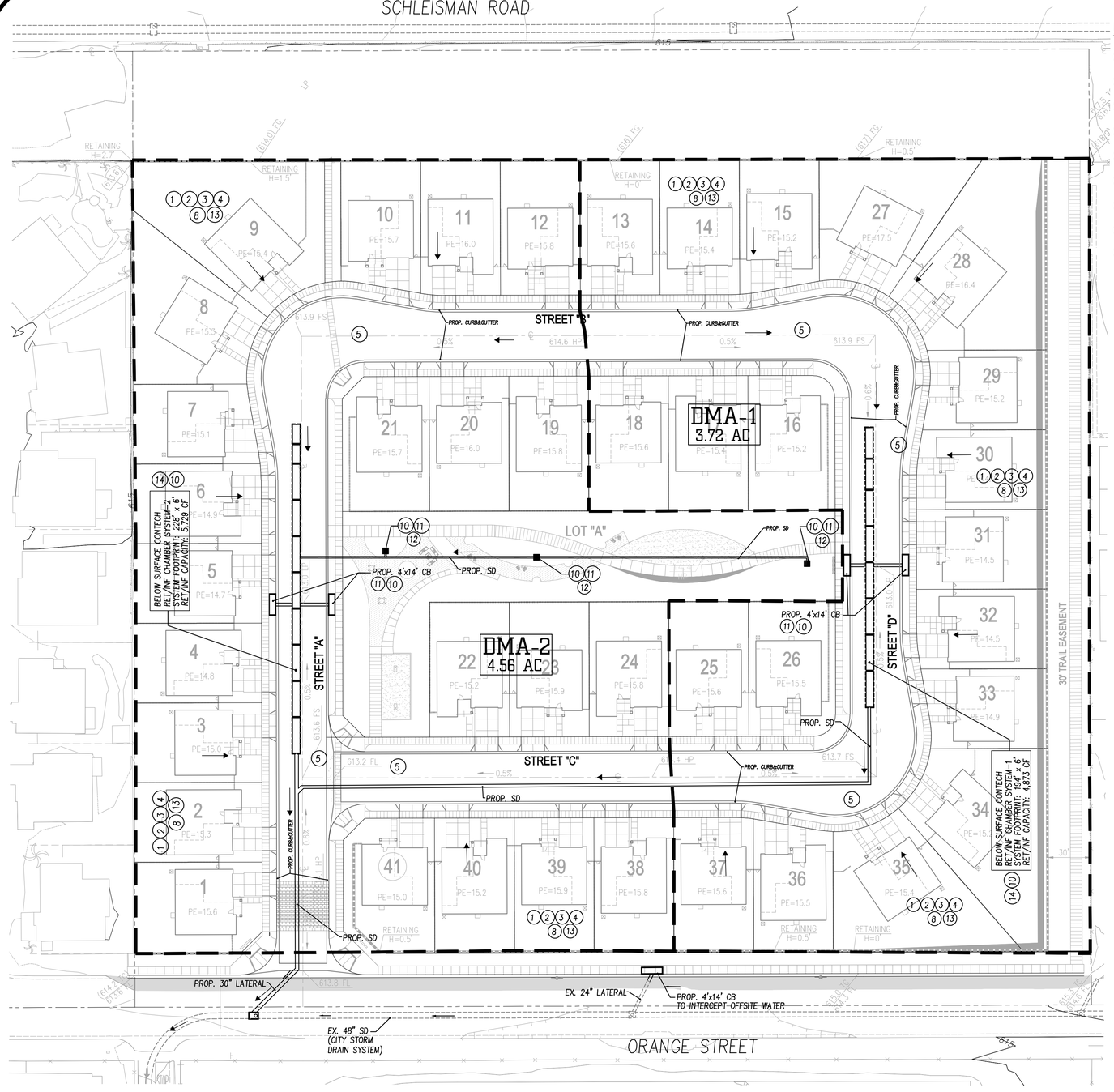
Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

Appendix 1: Maps and Site Plans

Location Map, WQMP Site Plan and Receiving Waters Map


Bashkir St
Criolla Cir
Quarter Horse Dr
Nordland Dr
Cheju Cir
Schleisman Rd
SITE: 8.28 AC
Gale Ln
Paul St
Calina St
Orange St
Orange St
N33.9588°
Ex City Storm Drain System (48" RCP)``
Midnight Rose Cir
Brass Ring Ln
Scholar Way
Google Earth
© 2021 Google
700 ft
N

WQMP EXIBIT



BMP LIST:

1. EDUCATION OF PROPERTY OWNERS
2. ACTIVITY RESTRICTIONS
3. SPILL CONTINGENCY
4. TRAINING/EDUCATION PROGRAM
5. PARKING LOT VACUUM SWEEPING
6. COMMON AREA CATCH BASIN INSPECTION
7. LANDSCAPE PLANNING (SD-10)
8. ROOF RUNOFF CONTROLS (SD-11)
9. EFFICIENT IRRIGAION (SD-12)
10. STORM DRAIN SIGNAGE (SD-13)
11. INLET TRASH RACK
12. 4'x4' GRATED INLET
13. TRASH STORAGE AREAS (SD-32)
14. BELOW SURFACE CONTECH INF./RET. CHAMBER SYSTEM-1,2 (N4) RET/INF CAPACITY PER TABLE-1 BELOW
15. CATCH BASIN FILTER INSERT-ADS FLEXSTORM CATCH IT OR APPROVED EQUAL
16. TRAFFIC GRATE FILTER INSERT-OLDCASTLE FLOGARD INSERT FILTER OR APPROVED EQUAL

TABLE-1

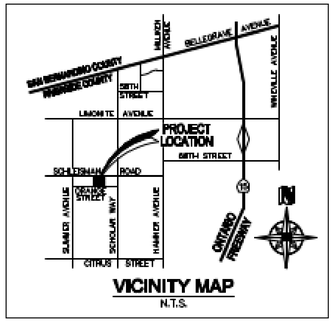
DMAs (AC)	TREATMENT SYSTEM	DCV GENERATED (CF)	TREATMENT VOLUME PROVIDED
DMA-1: 3.72	CONTECH CHAMBER-1	4,844	4,873
DMA-1: 4.56	CONTECH CHAMBER-2	5,623	5,729

TOTAL: 8.28 TOTAL DCV: 10,467 CF TOTAL MITIGATED VOL.: 10,602 CF

TABLE-2

DMAs (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)
DMA-1: 162,043 (3.72 AC)	64,817	97,226
DMA-1: 198,634 (4.56 AC)	79,454	119,180

SITE AREA: 360,677 SF (8.28 AC) SITE IMPERVIOUS AREA: 144,271 (~40%) SITE PERVIOUS AREA: 216,406 (~60%)



LEGEND:

DMA-1 DRAINAGE MANAGEMENT AREA NUMBER

DMA DELINEATION

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 INCH = 40 FT.

THE SITE IS NOT TRIBUTARY TO OFFSITE DRAINAGE AREA.
PROPO. CONSTRUCTION OF TWO CATCH BASIN'S AND LATERALS (NORTH & SOUTH) OF THE SITE) TO CONTAIN OFFSITE WATER AND CONVEYS TO THE EX. STORM DRAIN.

FEMA FLOOD ZONE: "X", MAP NO. 06065C0679G

SITE LATITUDE & LONGITUDE
33.95987 N, 117.57044 W

Prepared By:
ALLARD ENGINEERING
Civil Engineering - Land Surveying - Land Planning
16866 Seville Avenue
Fontana, California 92335
(909) 356-1815 Fax (909) 356-1795

Prepared For:
WOODSIDE 05S, LP
1250 CORONA POINTE, SUITE 500
CORONA, CA 92879
PH: (951) 710-1900

CITY OF EASTVALE, CALIFORNIA

PRELEM. WQMP EXHIBIT
APN: 152-040-003

PLOT DATE: July 13, 2023 ashafiq

Filename: I:\Woodside Homes\DWG's\ENTITLEMENT\EXHIBITS\Eastvale_WQMP Exhibit.dwg

BMP-1, BMP-2 SIZING CALCULATION (INFILTRATION/RETENTION CHAMBER SYSTEM-1, 2)

FOR BMP DESIGN DETAIL REFER TO APPENDIX-6

BMP-1: CONTECH CHAMBER SYSTEM-1

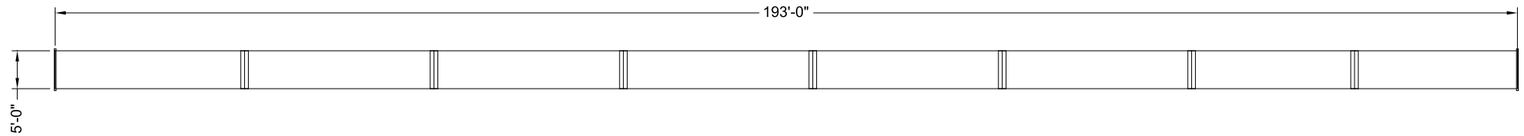
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 193 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 4,950 CF
- PIPE STORAGE VOLUME = 3,790 CF
- BACKFILL STORAGE VOLUME = 1,084 CF
- TOTAL STORAGE PROVIDED = 4,873 CF

PIPE DETAILS
- DIAMETER = 60"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = GALV
- WALL TYPE = PERFORATED
- BARREL SPACING = 30"

BACKFILL DETAILS
- WIDTH AT ENDS = 6"
- ABOVE PIPE = 3"
- WIDTH AT SIDES = 6"
- BELOW PIPE = 4"



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

ASSEMBLY
SCALE: 1" = 20'

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DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO10109 MLC-EASTVALE
CMP-1
EASTVALE, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6296	10109	7/22/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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Contech Chamber System-1: Infiltration Drawdown Time Calculation

Infiltration Surface Area Provided:	1,164	SF	
Infiltration Rate per Soil Report	3	in/hr	(Infiltration Rate Per Infiltration Evaluation Report 12-16-2021) (at Inf Test Pit B-3)
	0.25	ft/hr	
Facor of Safety	2		
Design Infiltration Rate	0.125	ft/hr	
Volume needed to be Infiltrated	4,873	cu.ft	
Infiltration Volume per hour	145.50	cu.ft/hr	(1,164 sft * 0.125 ft/hr)
Infiltration Draw Down Time	33.49	Hours	(4,873 cu.ft / 145.50 cu.ft/hr)
	34 hr		< 48 hr draw down time. OK

BMP-2: CONTECH CHAMBER SYSTEM-2

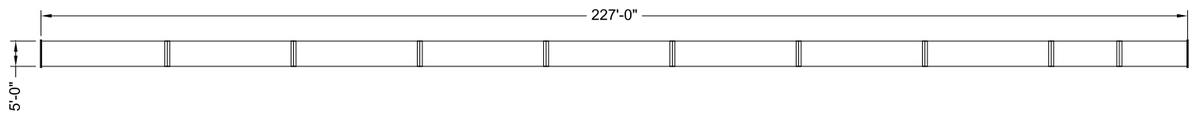
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 227 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 5,800 CF
- PIPE STORAGE VOLUME = 4,457 CF
- BACKFILL STORAGE VOLUME = 1,272 CF
- TOTAL STORAGE PROVIDED = 5,729 CF

PIPE DETAILS
- DIAMETER = 60"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = GALV
- WALL TYPE = PERFORATED
- BARREL SPACING = 30"

BACKFILL DETAILS
- WIDTH AT ENDS = 6"
- ABOVE PIPE = 3"
- WIDTH AT SIDES = 6"
- BELOW PIPE = 4"



NOTES

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- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
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ASSEMBLY
SCALE: 1" = 30'

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800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO10109 MLC-EASTVALE
CMP-1
EASTVALE, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6296	10109	7/24/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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Contech Chamber System-2: Infiltration Drawdown Time Calculation

Infiltration Surface Area Provided:	1,368	SF	
Infiltration Rate per Soil Report	2.67	in/hr	(Infiltration Rate Per Infiltration Evaluation Report 12-16-2021) (at Inf Test Pit B-1)
	0.22	ft/hr	
Facor of Safety	2		
Design Infiltration Rate	0.111	ft/hr	
Volume needed to be Infiltrated	5,729	cu.ft	
Infiltration Volume per hour	152.19	cu.ft/hr	(1,368 sft * 0.111 ft/hr)
Infiltration Draw Down Time	37.64	Hours	(5,729 cu.ft / 152.19 cu.ft/hr)
	38 hr		< 48 hr draw down time. OK

Appendix 2: Construction Plans

Grading and Drainage Plans

For Concept grading and drainage plan, please refer to the SHEET CG-1

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

Included the geotechnical engineering report for the project site.

GeoTek, Inc.
1548 North Maple Street, Corona, California 92878
(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

December 16, 2021
Project No. 2603-CR

Meritage Homes
5 Peters Canyon Road, Suite 310
Irvine, California 92606

Attention: Ms. Johanna Crooker

Subject: **Additional Infiltration Evaluation**
Proposed Single and Multi-Family Residential Development
Assessor's Parcel Number 152-040-003
13175 Orange Street
Eastvale, Riverside County, California

References: See Page 5

Dear Ms. Crooker:

As requested and authorized, GeoTek, Inc. (GeoTek) has performed an Additional Infiltration Evaluation associated with the proposed single- and multi-family residential development to be located in the City of Eastvale, Riverside County, California. The intent of this study is to evaluate the infiltration properties of the underlying soils within the proposed project storm water disposal areas. This report presents the results of the evaluation performed by GeoTek.

Site Description

The subject site is currently identified as Assessor's Parcel Number 152-040-003 and is located at 13175 Orange Street, in the City of Eastvale, Riverside County, California. The site is square-shaped and consists of approximately 10-acres of land. Topographically, the site slopes downward to the south with total relief of approximately four (4) feet.

Based on information provided by the project civil engineer, Allard Engineering, storm water is proposed to be disposed of via chambers at four (4) locations throughout the site.

Infiltration Testing

Four (4) percolation test borings were excavated with a truck-mounted hollow stem auger drill rig within the proposed infiltration areas to depths ranging from approximately nine (9) to 10 feet below the existing ground surface (bgs). The approximate locations of the percolation test borings are indicated on the attached Boring Location Map, Figure 1.

The borings were approximately 8-inches in diameter. Four-inch diameter slotted PVC pipes encapsulated in filter sock were inserted into the test holes. The annular space between the test hole sidewalls and PVC pipe was filled with gravel.

The soils encountered in all of the borings were alluvium, consisting of interbedded layers of silty sand, clayey sand, silt and clay (SM, SC, ML and CL soil types based upon the Unified Soil Classification System). The logs of the borings are presented in Appendix A.

Groundwater was not encountered nor observed in any of the borings for this evaluation or in GeoTek's previous evaluation (GeoTek, 2021) to a maximum depth of 50 feet. Based on a review of groundwater depths noted on the State Department of Water Resources Water Data Library website, it is estimated a historic high groundwater depth of about 50 feet below existing grade exists at the site.

Subsequent to pre-soaking the test holes in general conformance with the referenced document (County of Riverside, 2011), percolation testing was performed in the lower 20 inches in each of the percolation borings. The percolation testing was conducted in general conformance with the referenced document from the County of Riverside. The percolation rates were converted to an infiltration rate via the Porchet Method.

The infiltration rate for each of the borings is presented in the follow table after the water level had stabilized.

Inf test pit at the proposed Chamber-2

Boring No.	Infiltration Rate (inches per hour)	Depth of Boring (feet)
Boring B-1	2.67	9
Boring B-2	0.38	10
Boring B-3	3.0	9 ½
Boring B-4	0.38	10

Copies of the percolation data sheets and infiltration conversion sheets (Porchet Method) are included in Appendix B.

Inf test pit at the proposed Chamber-1

The reported infiltration rate is the measured rate without any factor of safety applied. Over the lifetime of the water quality facility, the infiltration rates may be affected by silt build up and biological activities, as well as local variations in near surface soil conditions. A suitable factor of safety should be applied to the field rates in design the infiltration systems.

It should be noted that the infiltration rates provided above were performed in relatively undisturbed native soils. Infiltration rates will vary and are mostly dependent on the underlying consistency of the site soils and relative density. Infiltration rates will be impacted by weight of equipment travelling over the soils, placement of engineered fill and other various factors. GeoTek, Inc. assumes no responsibility or liability for the ultimate design or performance of the storm water facilities.

LIMITATIONS

The materials observed on the project site appear to be representative of the tested areas; however, soil materials vary in character between excavations and natural outcrops or conditions exposed during site construction. Site conditions may vary due to seasonal changes or other factors. GeoTek, Inc. assumes no responsibility or liability for work, testing or recommendations performed or provided by others.

GeoTek's conclusions and recommendations are professional opinions that are limited to the extent of the available data. Observations during construction are important to allow for any change in recommendations found to be warranted. These opinions have been derived in accordance with current standards of practice and no warranty is expressed or implied. Standards of practice are subject to change with time.

The opportunity to be of continued service on this project is sincerely appreciated. If you should have any questions, please do not hesitate to contact GeoTek.

Respectfully submitted,
GeoTek, Inc.

REGISTERED GEOLOGIST
EDWARD H. LaMONT
No. 1892
Exp._____
Certified Engineering Geologist
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
BRUCE A. HICK
No. GE2284
Exp. 12/31/22
GEOTECHNICAL
STATE OF CALIFORNIA

Edward H. LaMont
CEG 1892, Exp. 07/31/22
Principal Geologist

Bruce A. Hick
GE 2284, Exp. 12/31/22
Geotechnical Engineer

Anna M. Scott
Project Geologist

Enclosures: Figure 1 – Boring Location Map
Appendix A – Logs of Exploratory Borings
Appendix B – Percolation Data Sheets and Conversion Sheets (Porchet Method)

Distribution: (1) Addressee via email (PDF file)

G:\Projects\2601 to 2650\2603CR MLC Holdings, Inc. APNs 152-040-003 Eastvale\Additional Infiltration Evaluation\2603CR Additional Infiltration Evaluation Eastvale.doc

REFERENCES

County of Riverside, 2011, "Technical Guidance Document Appendices. Appendix A – Infiltration Testing," dated September.

GeoTek, Inc., 2021, "Geotechnical and Infiltration Evaluation, Proposed Single- and Multi-Family Residential Development, Assessor's Parcel Number 152-040-003, Eastvale, Riverside County, California," Project No. 2603-CR, dated January 28.



Meritage Homes
Assessor's Parcel Number 152-040-003
Eastvale, Riverside County, California

Project No. 2603-CR

GEOTEK

Figure 1

Boring Location Map

APPENDIX A

LOGS OF EXPLORATORY BORINGS

APN 152-040-003
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings, Inc	**DRILLER:**	2R Drilling	**LOGGED BY:**	C. Diaz
PROJECT NAME:	APN 152-040-003	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Jeff/Reese
PROJECT NO.:	2603-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	Eastvale, CA			**DATE:**	12/13/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	Boring No.: I-1 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
0					**Alluvium:**			
				SM	Silty f-m SAND, yellow brown, dry to slightly moist			
					Same as above			
5					Silty f-m SAND, brown, dry to slightly moist			
10					**BORING TERMINATED AT 9 FEET**			
					No groundwater encountered			
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings, Inc	**DRILLER:**	2R Drilling	**LOGGED BY:**	C. Diaz
PROJECT NAME:	APN 152-040-003	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Jeff/Reese
PROJECT NO.:	2603-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	Eastvale, CA			**DATE:**	12/13/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	**Boring No.: I-2** / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
0					**Alluvium:**			
				SM/SC	Silty clayey f-m SAND, yellow-brown, dry to slightly moist			
					Same as above			
5								
				SC/SM	Clayey/silty f-m SAND, yellow-brown, dry to slightly moist			
10					**BORING TERMINATED AT 10 FEET**			
					No groundwater encountered			
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings, Inc	**DRILLER:**	2R Drilling	**LOGGED BY:**	C. Diaz
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PROJECT NO.:	2603-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	Eastvale, CA			**DATE:**	12/13/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	Boring No.: I-3 / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
0					**Alluvium:**			
				SM/ML	Silty f-m SAND to f-m sandy SILT, light brown, moist, trace gravel			
5					Same as above			
				SM/SC	Silty/clayey f-m SAND, brown, moist			
10					**BORING TERMINATED AT 9.5 FEET**			
					No groundwater encountered			
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings, Inc	**DRILLER:**	2R Drilling	**LOGGED BY:**	C. Diaz
PROJECT NAME:	APN 152-040-003	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Jeff/Reese
PROJECT NO.:	2603-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	Eastvale, CA			**DATE:**	12/13/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	**Boring No.: I-4** / MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
0					**Alluvium:**			
				SM/SC	Silty clayey f-m SAND, brown, moist			
5					Same as above			
				CL/ML	Silty CLAY to clayey SILT, brown, moist, little gravel			
10					**BORING TERMINATED AT 10 FEET**			
					No groundwater encountered			
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

APPENDIX B

PERCOLATION DATA AND CONVERSION SHEETS

APN 152-040-003
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET EASTVALE, Job No.: 2603-CR.

Test Hole No.: B-1 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 108" Before Test: 108" After Test: 108".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
								PRESOAK 5 GAL
	951 / 1016	25	108	20	9 1/2	10 1/2		1ST 25 MIN.
	1018 / 1043	25	108	20	9 3/4	10 1/4		2ND 25 MIN.
	1045 / 1115	30	108	20	8	12		1ST 30 MIN.
	1117 / 1147	30	108	20	8 1/4	11 3/4		2ND 30 MIN.
	1149 / 1219	30	108	20	8 1/4	11 3/4		3RD 30 MIN.
	1221 / 1251	30	108	20	8 1/2	11 1/2		4TH 30 MIN.
	1253 / 123	30	108	20	8 1/2	11 1/2		5TH 30 MIN.
	125 / 155	30	108	20	8 1/2	11 1/2		6TH 30 MIN.
	157 / 227	30	108	20	8 1/2	11 1/2		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET EASTVALE, Job No.: 2603-CR.

Test Hole No.: B-1 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 108" Before Test: 108" After Test: 108".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	229 259	30	108	20	8 3/4	11 1/4		8TH 30 MIN.
	301 331	30	108	20	8 3/4	11 1/4		9TH 30 MIN.
	333 403	30	108	20	9	11		10TH 30 MIN.
	405 435	30	108	20	9	11		11TH 30 MIN.
	437 507	30	108	20	9	11		12TH 30 MIN.

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET EASTVALE, Job No.: 2603-CR.

Test Hole No.: B-2 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 120" Before Test: 120" After Test: 120".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	——							PRESOAK 5 GAL
	944		120	20				
	1009	25			17 3/4	2 1/4		1ST 25 MIN.
	1011		120	20				
	1036	25			17 3/4	2 1/4		2ND 25 MIN.
	1038		120	20				
	1108	30			17 1/2	2 1/2		1ST 30 MIN.
	1110		120	20				
	1140	30			17 1/2	2 1/2		2ND 30 MIN.
	1142		120	20				
	1212	30			17 1/2	2 1/2		3RD 30 MIN.
	1214		120	20				
	1244	30			17 3/4	2 1/4		4TH 30 MIN.
	1246		120	20				
	116	30			17 3/4	2 1/4		5TH 30 MIN.
	118		120	20				
	148	30			17 3/4	2 1/4		6TH 30 MIN.
	150		120	20				
	220	30			17 3/4	2 1/4		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET EASTVALE, Job No.: 2603-CR.

Test Hole No.: B-2 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 120" Before Test: 120" After Test: 120".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	222		120	20				
	252	30			18	2		8TH 30 MIN.
	254		120	20				
	324	30			18	2		9TH 30 MIN.
	326		120	20				
	356	30			18	2		10TH 30 MIN.
	358		120	20				
	428	30			18	2		11TH 30 MIN.
	430		120	20				
	500	30			18	2		12TH 30 MIN.

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET, Job No.: 2603-CR.

Test Hole No.: B-3 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 114" Before Test: 114" After Test: 114".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
								PRESOAK 5 GAL
	930 / 955	25	114	20	8	12		1ST 25 MIN.
	957 / 1022	25	114	20	8 1/4	11 3/4		2ND 25 MIN.
	1024 / 1054	30	114	20	6	14		1ST 30 MIN.
	1056 / 1126	30	114	20	6 1/2	13 1/2		2ND 30 MIN.
	1128 / 1158	30	114	20	7	13		3RD 30 MIN.
	1200 / 1230	30	114	20	7	13		4TH 30 MIN.
	1232 / 102	30	114	20	7	13		5TH 30 MIN.
	104 / 134	30	114	20	7 1/4	12 3/4		6 TH 30 MIN.
	136 / 206	30	114	20	7 1/4	12 3/4		7 TH 30 MIN.

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET EASTVALE, Job No.: 2603-CR.

Test Hole No.: B-3 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 114" Before Test: 114" After Test: 114".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	208 / 238	30	114	20	7 1/2	12 1/2		8TH 30 MIN.
	240 / 310	30	114	20	7 3/4	12 1/4		9TH 30 MIN.
	312 / 342	30	114	20	7 3/4	12 1/4		10TH 30 MIN.
	344 / 414	30	114	20	8	12		11TH 30 MIN.
	416 / 446	30	114	20	8	12		12TH 30 MIN.
	/							
	/							
	/							
	/							
	/							

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET EASTVALE, Job No.: 2603-CR.

Test Hole No.: B-4 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 120" Before Test: 120" After Test: 120".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	—— ——							PRESOAK 5 GAL
	937 1002	25	120	20	17 1/2	2 1/2		1ST 25 MIN.
	1004 1029	25	120	20	17 3/4	2 1/4		2ND 25 MIN.
	1031 1101	30	120	20	17 1/4	2 3/4		1ST 30 MIN.
	1103 1133	30	120	20	17 1/2	2 1/2		2ND 30 MIN.
	1135 1205	30	120	20	17 1/2	2 1/2		3RD 30 MIN.
	1207 1237	30	120	20	17 1/2	2 1/2		4TH 30 MIN.
	1239 109	30	120	20	17 3/4	2 1/4		5TH 30 MIN.
	111 141	30	120	20	17 3/4	2 1/4		6TH 30 MIN.
	143 213	30	120	20	17 3/4	2 1/4		7TH 30 MIN.

PERCOLATION DATA SHEET

Project: 13175 ORANGE STREET EASTVALE, Job No.: 2603-CR.

Test Hole No.: B-4 Tested By: DVG, Date: 12/15/2021.

Depth of Hole As Drilled: 120" Before Test: 120" After Test: 120".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	215		120	20				
	245	30			17 3/4	2 1/4		8TH 30 MIN.
	247		120	20				
	317	30			17 3/4	2 1/4		9TH 30 MIN.
	319		120	20				
	349	30			18	2		10TH 30 MIN.
	351		120	20				
	421	30			18	2		11TH 30 MIN.
	423		120	20				
	453	30			18	2		12TH 30 MIN.

Client:	**Meritage Homes**
Project:	**Eastvale**
Project No:	**2603-CR**
Date:	**12/15/2021**

Boring No. **B-1**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	99
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	88
Total Test Hole Depth, D_T =	108

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	9
$\Delta H = \Delta D = H_O - H_F$ =	11
$H_{avg} = (H_O+H_F)/2$ =	14.5

I_t = 2.67 **Inches per Hour**

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Client:	**Meritage Homes**
Project:	**Eastvale**
Project No:	**2603-CR**
Date:	**12/15/2021**

Boring No. **B-2**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	102
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	100
Total Test Hole Depth, D_T =	120

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	18
$\Delta H = \Delta D = H_O - H_F$ =	2
$H_{avg} = (H_O+H_F)/2$ =	19

I_t = 0.38 **Inches per Hour**

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Client:	**Meritage Homes**
Project:	**Eastvale**
Project No:	**2603-CR**
Date:	**12/15/2021**

Boring No. **B-3**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	106
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	94
Total Test Hole Depth, D_T =	114

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	8
$\Delta H = \Delta D = H_O - H_F$ =	12
$H_{avg} = (H_O+H_F)/2$ =	14

I_t = 3.00 **Inches per Hour**

GEOTEK

Client:	**Meritage Homes**
Project:	**Eastvale**
Project No:	**2603-CR**
Date:	**12/15/2021**

Boring No. **B-4**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	102
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	100
Total Test Hole Depth, D_T =	120

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	18
$\Delta H = \Delta D = H_O - H_F$ =	2
$H_{avg} = (H_O+H_F)/2$ =	19

I_t = 0.38 **Inches per Hour**

GEOTEK

GEOTECHNICAL & INFILTRATION EVALUATION

FOR

PROPOSED SINGLE- AND MULTI-FAMILY RESIDENTIAL DEVELOPMENT
ASSESSOR'S PARCEL NUMBER 152-040-003
EASTVALE, RIVERSIDE COUNTY, CALIFORNIA

PREPARED FOR

MLC HOLDINGS, INC.
5 PETERS CANYON ROAD, SUITE 310
IRVINE, CALIFORNIA 92606

PREPARED BY

GEOTEK, INC.
1548 NORTH MAPLE STREET
CORONA, CALIFORNIA 92880

PROJECT NO. 2603-CR **JANUARY 28, 2020**

GEOTEK

GeoTek, Inc.
1548 North Maple Street, Corona, California 92880
(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

January 28, 2021
Project No. 2603-CR

MLC Holdings, Inc.
5 Peters Canyon Road, Suite 310
Irvine, California 92606

Attention: Mr. Bret Ilich

Subject: Geotechnical and Infiltration Evaluation
Proposed Single- and Multi-Family Residential Development
Assessor's Parcel Number 152-040-003
Eastvale, Riverside County, California

Dear Mr. Ilich:

We are pleased to provide the results of our geotechnical and infiltration evaluation for the subject project located in Eastvale, Riverside County, California. This report presents the results of our evaluation and discussion of our findings.

Based on the results of our evaluation, development of the property appears feasible from a geotechnical viewpoint provided that the recommendations presented in this report and in future reports are incorporated into design and construction.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,
GeoTek, Inc.





Edward H. LaMont
CEG 1892, Exp. 07/31/22
Principal Geologist

Robert R. Russell
GE 2042, Exp. 12/31/22
Senior Project Engineer

Anna M. Scott
Project Geologist

Distribution: (1) Addressee via email

G:\Projects\2601 to 2650\2603CR MLC Holdings, Inc. APNs 152-040-003 Eastvale\Geotechnical Evaluation\2603CR Geotechnical and Infiltration Evaluation Eastvale.doc

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ENCLOSURES

Figure 1 – Site Location and General Topography Map
Figure 2 – Boring Location Map

Appendix A – Logs of Exploratory Borings
Appendix B – Laboratory Test Results
Appendix C – Infiltration Test Results
Appendix D – Liquefaction & Seismic Settlement Analysis
Appendix E – General Grading Guidelines

1. PURPOSE AND SCOPE OF SERVICES

The purpose of this study was to evaluate the geotechnical conditions for the proposed development. Services provided for this study included the following:

- Research and review of available geologic and geotechnical data, and general information pertinent to the site,
- Excavation of six (6) geotechnical borings extended to depths ranging from approximately 20 to 51-½ feet below grade;
- Excavation of two (2) borings to a depth of about 5 feet each for infiltration testing;
- Collection of bulk and undisturbed samples from the test borings;
- Performance of laboratory testing on select soil samples;
- Review and evaluation of site seismicity, and
- Compilation of this geotechnical and infiltration evaluation report which presents our findings and a general summary of pertinent geotechnical conditions relevant for site development.

The intent of this report is to aid in the evaluation of the site for future development from a geotechnical perspective. The professional opinions and geotechnical information contained in this report will likely need to be updated based on our review of final site development plans. These should be provided to GeoTek for review when available.

2. SITE DESCRIPTION AND PROPOSED DEVELOPMENT

2.1 SITE DESCRIPTION

The project is a nearly square shaped approximate 10-acre site located north of Orange Street and easterly of Calina Lane in Eastvale, California. The site currently occupied by a single-family residence, flatwork, landscaping and animal pens. The site topography can be considered as relatively flat terrain with elevations ranging from approximately 618 to 622 feet above mean sea level. The general site location is presented on the attached Figure 1.

2.2 PROPOSED DEVELOPMENT

It is our understanding that site developments will consist of a total of 138 homesites consisting of two-story single-family residential structures and three-story multi-family residential structures and associated parking/drive areas, recreational improvements and lot improvements. Stormwater facilities are also proposed as part of the planned development. We anticipate that the residential structures will be supported by a shallow post-tensioned foundation system. Although structural loading information was not available at the time of this report preparation, we anticipate maximum column and wall loads on the order of 50 kips and 3 kips per foot, respectively. Once actual structural loads are known that information should be provided to GeoTek to determine if modifications to the recommendations contained in this report are warranted.

Based on the relatively flat topography at each site, we anticipate that the maximum depth of cut or fill will be less than about five (5) feet, not including any remedial grading.

As site development planning progresses and plans become available, the plans should be provided to GeoTek for review and comment. Additional engineering analyses may be necessary in order to provide specific earthwork recommendations and geotechnical design parameters for actual site development.

3. FIELD EXPLORATION & LABORATORY TESTING

3.1 FIELD EXPLORATION

GeoTek performed a field exploration at this site on January 6, 2021 which consisted of excavating six (6) exploratory borings to depths ranging from about 20 to 51-½ feet. In addition, two (2) percolation test borings about 5 feet deep were advanced. The borings were drilled with a hollow-stem auger drill rig and logged by a GeoTek geologist.

The approximate locations of our site explorations are shown on the Boring Location Map, Figure 2. Logs of the borings are provided in Appendix A.

3.2 LABORATORY TESTING

Laboratory testing was performed on selected relatively undisturbed and bulk soil samples collected during the field exploration. The purpose of the laboratory testing was to confirm the field classification of the soil materials encountered and to evaluate the soils physical

properties for use in the engineering design and analysis. Our test results along with a brief description and relevant information regarding testing procedures are included on the boring logs included in Appendix A or in Appendix B.

4. PERCOLATION TESTING

Percolation testing was performed at boring locations I-1 and I-2 to assess the infiltration characteristics of the site soils. The borings were excavated to approximately 5 feet below the existing grade. The boring diameter was approximately eight inches. Subsequent to pre-soaking, percolation testing was performed within the lower approximately 20 inches in the borings by a representative of our firm, in general conformance with the Boring Percolation Test Procedure (per Riverside County requirements). As required, the percolation rates were corrected to account for discharge of water from both the sides and bottom of the borings. This correction was performed using the Porchet Method, obtaining the infiltration rates tabulated below:

SUMMARY OF RESULTS		
Boring	Measured Field Percolation Rate (minutes per inch)	Calculated Infiltration Rate (inches per hour)
I-1	4.8	1.2
I-2	2.3	2.7

Copies of the field data sheets and infiltration conversion calculations (Porchet Method) are included in Appendix C. The reported infiltration rates are the measured rate without any factor of safety applied. Over the lifetime of the storm water facility, the infiltration rates may be affected by silt build up and biological activities, as well as local variations in near surface soil conditions. A suitable factor of safety should be applied to the field rates in design the infiltration system.

It should be noted that the infiltration rates provided above were performed in relatively undisturbed native soils. Infiltration rates will vary and are mostly dependent on the underlying consistency of the site soils and relative density. Infiltration rates will be impacted by weight of equipment travelling over the soils, placement of engineered fill and other various factors. GeoTek, Inc. assumes no responsibility or liability for the ultimate design or performance of the storm water facility.

5. GEOLOGIC AND SOILS CONDITIONS

5.1 REGIONAL SETTING

The subject property is situated in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America. Basically, it extends roughly 975 miles from the north and extends from the Transverse Ranges geomorphic province to the tip of Baja California, from north to south. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province.

The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found in the near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province.

More specific to the subject property, the site is located in an area geologically mapped to be underlain by alluvium (Morton, D.M. and Miller, F.K., 2006).

5.2 EARTH MATERIALS

A brief description of the earth materials encountered during our subsurface exploration is presented in the following section. Based on the exploratory excavations and review of published geologic maps, the site is underlain by alluvium. Although not encountered, localized areas of undocumented fill may be present.

5.2.1 Alluvium

Alluvial soils were encountered within all borings and extended to the maximum depths explored ranging from 20 to 51-½ feet below grade. The alluvial soils encountered generally consisted of clayey sand, silt, clay and silty sand. The sandy soils were noted to possess a relative density ranging from dense to very dense and the silty/clayey soils generally possessed a stiff to hard consistency.

According to the results of the laboratory testing performed on two (2) samples of the near surface alluvial soils, the materials tested and observed have a "very low" ($0 \leq EI \leq 20$) and "low" ($21 \leq EI \leq 50$) expansion potential when tested and classified in accordance with ASTM D 4829. The test results are provided in Appendix B.

5.3 SURFACE WATER AND GROUNDWATER

5.3.1 Surface Water

If encountered during earthwork construction, surface water on this site is the result of precipitation or possibly some minor surface run-off from immediately surrounding properties. Overall site area drainage is generally in a southwesterly direction, as directed by site topography. Provisions for surface drainage will need to be accounted for by the project civil engineer.

5.3.2 Groundwater

Groundwater was not encountered within our exploratory borings performed for this evaluation. Based on the lack of water encountered in the borings and a review of the groundwater information contained on the State Department of Water Resources Water Data Library website, we estimate that the depth to high groundwater at the site is about 50 feet below grade. Based on this depth to water, groundwater-related problems are not expected during or after construction.

It is possible that seasonal variations (temperature, rainfall, etc.) will cause fluctuations in the groundwater level. Additionally, perched water may be encountered at shallow depths following extensive rain events. If shallow perched water is encountered, we anticipate that it can be managed with conventional sump pumps.

5.4 FAULTING AND SEISMICITY

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The sites are in a seismically active region. No active or potentially active fault is known to exist at these sites nor are the sites situated within a State of California designated *"Alquist-Priolo"* Earthquake Fault Zone. Additionally, the site is not situated within an Earthquake Fault Zone as noted on the Riverside County GIS "Map My County" website.

5.4.1 Seismic Design Parameters

This site is located at approximately 33.959950º Latitude and -117.570312º Longitude. Site spectral accelerations (S_a and S_1), for 0.2 and 1.0 second periods for a Class "D" site, was determined from the SEAOC/OSHPD web interface that utilizes the USGS web services and retrieves the seismic design data and presents that information in a report format. Using the ASCE 7-16 option on the SEAOC/OSHPD website results in the values for S_{M1} and S_{D1}

reported as "null-See Section 11.4.8" (of ASCE 7-16). As noted in ASCE 7-16, Section 11.4.8, a site-specific ground motion procedure is recommended for Site Class D when the value S_1 exceeds 0.2. The value S_1 for the subject site exceeds 0.2.

For a site Class D, an exception to performing a site-specific ground motion analysis is allowed in ASCE 7-16 where S_1 exceeds 0.2 provided the value of the seismic response coefficient, Cs, is conservatively calculated by Eq 12.8-2 of ASCE 7-16 for values of $T \leq 1.5T_s$ and taken as equal to 1.5 times the value computed in accordance with either Eq. 12.8-3 for $T_L \geq T > 1.5T_s$ or Eq. 12.8-4 for $T > T_L$.

The results, based on the 2015 NEHRP and the 2019 CBC, are presented in the following table and we have assumed that the exception as allowed in ASCE 7-16 is applicable. If the exception is deemed not appropriate, a site-specific ground motion analysis will be required.

SITE SEISMIC PARAMETERS	
Mapped 0.2 sec Period Spectral Acceleration, S_S	1.65g
Mapped 1.0 sec Period Spectral Acceleration, S_1	0.591g
Site Coefficient for Site Class "D," F_a	1.0
Site Coefficient for Site Class "D," F_v	1.709
Maximum Considered Earthquake Spectral Response Acceleration for 0.2 Second, S_{MS}	1.65g
Maximum Considered Earthquake Spectral Response Acceleration for 1.0 Second, S_{M1}	1.01g
5% Damped Design Spectral Response Acceleration Parameter at 0.2 Second, S_{DS}	1.1g
5% Damped Design Spectral Response Acceleration Parameter at 1 second, S_{D1}	0.673g
PGA_M	0.747g
Seismic Design Category	D

Final selection of the appropriate seismic design coefficients should be made by the project structural engineer based upon the local practices and ordinances, expected building response and desired level of conservatism.

5.4.2 Surface Fault Rupture

The site is in a seismically active region; however, no active or potentially active fault is known to exist at this site nor is the site situated within an *"Alquist-Priolo"* Earthquake Fault Zone. The nearest known active fault is the Elsinore fault zone situated about 8 miles to the southwest. Therefore, the potential for surface rupture at the site is considered to be nil.

5.4.3 Liquefaction & Dynamic Densification

Liquefaction describes a phenomenon in which cyclic stresses, produced by earthquake-induced ground motion, create excess pore pressures in relatively cohesionless and some low-plastic soils. These soils may thereby acquire a high degree of mobility, which can lead to lateral movement, sliding and settlement of loose sediments, sand boils and other damaging deformations. This phenomenon occurs only below the water table, but, after liquefaction has developed, the effects can propagate upward into overlying non-saturated soil as excess pore water dissipates.

The factors known to influence liquefaction potential include soil type and grain size, relative density, groundwater level, confining pressures, and both intensity and duration of ground shaking. In general, materials that are most susceptible to liquefaction are loose, saturated granular soils having low fines content under low confining pressures.

The Riverside County GIS "Map My County" website indicates that the site is located within a "high" liquefaction potential zone.

Based on the presence of alluvial soils, an estimated high groundwater depth of 50 feet and the "high" liquefaction potential for the site, an assessment of the liquefaction potential was performed. The computer software program LIQUEFYPRO was utilized for this assessment. For this analysis, we utilized the soil profile from Boring B-2, a ground acceleration (PGA_M) of 0.747g and a mean earthquake magnitude of 6.73. The ground acceleration and earthquake magnitude were obtained from the USGS websites. The results of this analysis indicates that the site soils are not susceptible to liquefaction upon application of the design earthquake.

The dry settlement potential of the site soil was also evaluated to assess the potential settlement of the unsaturated soils resulting from seismic activity. The results of this analysis indicates a seismic dry settlement of less than ½ inch is estimated. We recommend a seismic differential seismic settlement of ¼ inch over a 40-foot span be considered for design. Based on the estimated magnitude of seismic settlement, mitigation and/or special foundation design is not considered warranted. A copy of the liquefaction and seismic settlement analysis is presented in Appendix D.

5.4.4 Other Seismic Hazards

The potential for secondary seismic hazards such as seiche and tsunami is considered to be remote due to site elevation and distance from an open body of water. Due to the low liquefaction hazard, the potential for lateral spreading is considered to be nil.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 GENERAL

Development of the site appears feasible from a geotechnical viewpoint. Specific recommendations for site development provided in this report will need to be further evaluated when development plans are provided for our review. The following sections present general recommendations. More specific geotechnical recommendations for site development can be provided when more finalized site development plans are available for review.

6.2 EARTHWORK CONSIDERATIONS

6.2.1 General

Earthwork and grading should be performed in accordance with the applicable grading ordinances of the City of Eastvale, the 2019 California Building Code (CBC) and recommendations contained in this report. The General Grading Guidelines included in Appendix E outline general procedures and do not anticipate all site-specific situations. In the event of conflict, the recommendations presented in the text of this report should supersede those contained in Appendix E.

6.2.2 Site Clearing

Site preparation should start with removal of all deleterious materials and vegetation within the planned development areas of the site. All debris and deleterious materials should be properly disposed of off-site.

6.2.3 Remedial Grading

Due to the collapse potential of the near surface soils, we recommend that the existing soils beneath the planned buildings be over-excavated to a depth of at least 5 feet below existing or finished grade and at least 3 feet below the bottom of the planned foundations, whichever is deeper. If existing fill soils are encountered, the over-excavations should also be extended to removal of all undocumented fill. The lateral extent of this recommended over-excavation should extend at least 5 feet beyond the building perimeters and beneath all adjacent patio slabs. The soils exposed at the base of the soil over-excavations should be examined by a GeoTek representative to document that the exposed soils are suitable for support of the planned improvements and meet a minimum 85 percent relative compaction with little to no

visible porosity. If unsuitable soils are observed, the over-excavation should be extended in depth until suitable soils, as determined by GeoTek, are encountered.

Beneath concrete flatwork and street pavements, it our opinion that the over-excavations may be limited to 12 inches below existing or finished grade, whichever is deeper, and meet a minimum 85 percent relative compaction with little to no visible porosity, provided all existing undocumented fill is removed.

Following the recommended removals and observations by GeoTek, the exposed soils should be scarified to a depth of about 12 inches, be moisture conditioned to slightly above the soil's optimum moisture content and then be compacted to at least 90 percent of the soil's maximum dry density, per ASTM D 1557.

6.2.4 Engineered Fill

The on-site soils are generally considered suitable for reuse as engineered fill provided they are free from vegetation, debris and other deleterious material. Any over-sized material (greater than 3 inches in maximum dimension) should be removed from the soil prior to use as fill. The undercut areas should be brought to final subgrade elevations with fill materials that are placed and compacted in general accordance with minimum project standards. Engineered fill should be placed in six-inch to eight-inch loose lifts, moisture conditioned to about two percent above the optimum moisture content and compacted to a minimum relative compaction of 90 percent as determined by ASTM D 1557.

6.2.5 Excavation Characteristics

Excavations in the on-site alluvial materials should be readily accomplished with heavy-duty earthmoving or excavating equipment in good operating condition.

6.2.6 Trench Excavations and Backfill

Temporary trench excavations within the on-site materials should be stable at 1:1 inclination for short durations during construction and where cuts do not exceed 10 feet in height. We anticipate that temporary cuts to a maximum height of four feet can be excavated vertically.

Trench excavations should conform to Cal-OSHA regulations. The contractor should have a competent person, per OSHA requirements, on site during construction to observe conditions and to make the appropriate recommendations.

Utility trench backfill should be compacted to at least 90 percent relative compaction (as determined per ASTM D 1557). Under-slab trenches should also be compacted to project specifications. Where applicable, based on jurisdictional requirements, the top 12 inches of

backfill below subgrade for road pavements should be compacted to at least 95 percent relative compaction. On-site materials may not be suitable for use as bedding material but should be suitable as backfill provided particles larger than 6 inches are removed.

Compaction should be achieved with a mechanical compaction device. Ponding or jetting of trench backfill is not recommended. If backfill soils have dried out, they should be thoroughly moisture conditioned prior to placement in trenches.

6.2.7 Shrinkage and Subsidence

For planning purposes, a shrinkage factor of about 5 to 10 percent may be considered for materials that may need to be removed and replaced. A subsidence loss of about 0.1 foot should also be anticipated.

Site balance areas should be available in order to adjust project grades, depending on actual field conditions at the conclusion of earthwork construction.

6.3 DESIGN RECOMMENDATIONS

6.3.1 Foundation Design Criteria

We understand that a post-tension foundation system is planned for the site. Foundation design criteria for a post-tensioned foundation system in general conformance with the 2019 CBC, are presented herein. These are typical design criteria and are not intended to supersede the design by the structural engineer.

Expansion Index (EI) testing performed on representative samples collected from the site has indicated the site soils possess a "very low" to "low" expansion potential. The results of the EI testing are included in Appendix B. The foundation elements for the proposed structures should bear entirely in engineered fill soils and should be designed in accordance with the *2019 California Building Code (CBC).*

Presented below are post-tensioned foundation design parameters for the proposed residential structures at the site. These parameters are in general conformance with *Standard Requirements for Design and Analysis of Shallow Post-Tensioned Concrete Foundation on Expansive Soil* (PTI, 2012).

DESIGN PARAMETERS FOR POST-TENSIONED SLABS	
Foundation Design Parameter	**Design Value**
	Soil Characteristics: LL≤40; PI≤20; Passing #200 Sieve < 50%; Clay fines ≈ 40%; EI=22
Edge Moisture Variation Distance, e_m - Edge Lift (swelling) - Center Lift (shrinkage)	 4.9 ft 9.0 ft
Soil Differential Movement, y_m - Edge Lift (swelling) - Center Lift (shrinkage)	 ≈0.3 in ≈0.2 in
Ext. Perimeter Beam Embedment	One- or Two-Story – 12 inches* Three-Story – 18 inches*
Presaturation of Subgrade Soil (Percent of Optimum)	Minimum 100% to a depth of 12 inches

* Required depth of perimeter beam/stiffening rib per structural calculations may govern.

The following assumptions were used to generate e_m and y_m values: Thornthwaite Moisture Index = -20; constant suction value = 3.6pF; post-equilibrium case assumed with wet (swelling) cycle going from 3.9pF to 3.0pF and drying (shrinking) cycle going from 3.6pF to 4.5pF.

Post-tensioned slabs should be designed in accordance with the *2019 CBC* and PTI design methodology. The bottom of the perimeter edge beam/deepened footing should be designed to resist tension forces using either cable or conventional reinforcement, per the structural engineer. The table above provides design criteria for foundations resting on "low" expansive soils. Foundations on soils with "very low" expansion potential could be safely designed for "low" soil expansion.

The following criteria for design of foundations are preliminary and should be re-evaluated based on the results additional laboratory testing of samples obtained at/near finish pad grade.

An allowable bearing capacity of 2,000 pounds per square foot (psf) may be used for design of building and retaining wall footings. This allowable soil bearing capacity is based on a minimum foundation depth and width of 12 inches. The allowable bearing capacity may be increased by one-third when considering short-term wind and seismic loads.

The bottom of the perimeter edge beam/deepened footing for post tension systems should be deepened a minimum of 12 inches and designed to resist tension forces using either cable or conventional reinforcement, per the structural engineer.

It should be noted that the criteria provided are based on soil support characteristics only. The structural engineer should design the slab and beam reinforcement based on actual loading conditions. We estimate static settlement of foundations designed as recommended in this report to be less than 1-inch total and ½ inch differential over a 40-foot span.

The passive earth pressure may be computed as an equivalent fluid having a density of 250 psf per foot of depth, to a maximum earth pressure of 2,000 psf for footings founded on engineered fill. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.

A moisture and vapor retarding system should be placed below slabs-on-grade where moisture migration through the slab is undesirable. Guidelines for these are provided in the 2019 California Green Building Standards Code (CALGreen) Section 4.505.2, the 2019 CBC Section 1907.1 and ACI 360R-10. The vapor retarder design and construction should also meet the requirements of ASTM E 1643. A portion of the vapor retarder design should be the implementation of a moisture vapor retardant membrane.

It should be realized that the effectiveness of the vapor retarding membrane can be adversely impacted as a result of construction related punctures (e.g., stake penetrations, tears, punctures from walking on the vapor retarder placed atop the underlying aggregate layer, etc.). These occurrences should be limited as much as possible during construction. Thicker membranes are generally more resistant to accidental puncture than thinner ones. Products specifically designed for use as moisture/vapor retarders may also be more puncture resistant. Although the CBC specifies a 6-mil vapor retarder membrane, it is GeoTek's opinion that a minimum 10 mil thick membrane with joints properly overlapped and sealed should be considered, unless otherwise specified by the slab design professional. The membrane should consist of Stego wrap or the equivalent.

Moisture and vapor retarding systems are intended to provide a certain level of resistance to vapor and moisture transmission through the concrete, but do not eliminate it. The acceptable level of moisture transmission through the slab is to a large extent based on the type of flooring used and environmental conditions. Ultimately, the vapor retarding system should be comprised of suitable elements to limited migration of water and reduce transmission of water vapor through the slab to acceptable levels. The selected elements should have suitable properties (i.e. thickness, composition, strength, and permeability) to achieve the desired performance level.

Moisture retarders can reduce, but not eliminate, moisture vapor rise from the underlying soils up through the slab. Moisture retarder systems should be designed and constructed in accordance with applicable American Concrete Institute, Portland Cement Association, Post-Tensioning Concrete Institute, ASTM and California Building Code requirements and guidelines.

GeoTek recommends that a qualified person, such as the flooring contractor, structural engineer, architect, and/or other experts specializing in moisture control within the building be consulted to evaluate the general and specific moisture and vapor transmission paths and associated potential impact on the proposed construction. That person (or persons) should provide recommendations relative to the slab moisture and vapor retarder systems and for migration of potential adverse impact of moisture vapor transmission on various components of the structures, as deemed appropriate.

In addition, the recommendations in this report and our services in general are not intended to address mold prevention; since we, along with geotechnical consultants in general, do not practice in the area of mold prevention. If specific recommendations addressing potential mold issues are desired, then a professional mold prevention consultant should be contacted.

We recommend that control joints be placed in two directions spaced approximately 24 to 36 times the thickness of the slab in inches. These joints are a widely accepted means to control cracks and should be reviewed by the project structural engineer.

6.3.2 Miscellaneous Foundation Recommendations

6.3.2.1 To minimize moisture penetration beneath the slab-on-grade areas, utility trenches should be backfilled with engineered fill, lean concrete or concrete slurry where they intercept the perimeter footing or thickened slab edge.

6.3.2.2 Soils from the footing excavations should not be placed in the slab-on-grade areas unless properly compacted and tested. The excavations should be free of loose/sloughed materials and be neatly trimmed at the time of concrete placement.

6.3.3 Foundation Setbacks

Where applicable, the following setbacks should apply to all foundations. Any improvements not conforming to these setbacks may be subject to lateral movements and/or differential settlements:

- The outside bottom edge of all footings should be set back a minimum of H/3 (where H is the slope height) from the face of any descending slope. The setback should be at least 7 feet and need not exceed 40 feet.
- The bottom of all footings for structures near retaining walls should be deepened so as to extend below a 1:1 projection upward from the bottom inside edge of the wall stem. This applies to the existing retaining walls along the perimeter, if they are to remain.

- The bottom of any proposed foundations for structures should be deepened so as to extend below a 1:1 projection upward from the bottom of the nearest excavation.

6.4 RETAINING WALL DESIGN AND CONSTRUCTION

6.4.1 General Design Criteria

Recommendations presented herein may apply to typical masonry or concrete vertical retaining walls to a maximum height of six feet. Additional review and recommendations should be requested for higher walls.

Retaining wall foundations embedded a minimum of 12 inches into engineered fill should be designed using an allowable bearing capacity of 2,000 psf. An increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind loads).

The passive earth pressure may be computed as an equivalent fluid having a density of 250 psf per foot of depth, to a maximum earth pressure of 2,500 psf. A coefficient of friction between soil and concrete of 0.35 may be used with dead load forces. When combining passive pressure and frictional resistance, the passive pressure component should be reduced by one-third.

An equivalent fluid pressure approach may be used to compute the horizontal active pressure against the wall. The appropriate fluid unit weights are given in the table below for specific slope gradients of retained materials.

Surface Slope of Retained Materials (H:V)	Equivalent Fluid Pressure (PCF) Select Backfill*
Level	40
2:1	60

*Backfill should consist of soil with an expansion index less than or equal to 50.

The above equivalent fluid weights do not include superimposed loading conditions such as expansive soils, vehicular traffic, structures, seismic conditions or adverse geologic conditions.

As required by code, additional lateral forces induced on retaining walls during an earthquake must be considered for wall design for sites with a Site Class D designation. For level backfill,

an incremental seismic equivalent fluid pressure of 23.1 pcf is recommended, where required. This pressure can be assumed to be a conventional triangular distribution.

6.4.2 Wall Backfill and Drainage

Wall backfill should consist of low expansive (EI<50) soil that should include a minimum one-foot wide section of ¾- to 1-inch clean crushed rock (or approved equivalent). The rock should be placed immediately adjacent to the back of the wall and extend up from the backdrain to within approximately 12 inches of finish grade. The upper 12 inches should consist of compacted on-site materials. The presence of other materials might necessitate revision to the parameters provided and modification of wall designs.

The backfill materials should be placed in lifts no greater than eight inches in thickness and compacted to a minimum of 90 percent relative compaction in accordance with ASTM Test Method D 1557. Proper surface drainage needs to be provided and maintained. Water should not be allowed to pond behind retaining walls. Waterproofing of site walls should be performed where moisture migration through the walls is undesirable.

Retaining walls should be provided with an adequate pipe and gravel back drain system to reduce the potential for hydrostatic pressures to develop. A 4-inch diameter perforated collector pipe (Schedule 40 PVC, or approved equivalent) in a minimum of one cubic foot per linear foot of ¾-inch or one-inch clean crushed rock or equivalent, wrapped in filter fabric should be placed near the bottom of the backfill and be directed (via a solid outlet pipe) to an appropriate disposal area.

Walls from two to four feet in height may be drained using localized gravel packs behind weep holes at 8 feet maximum spacing (e.g. approximately 1.5 cubic feet of gravel in a woven plastic bag). Weep holes should be provided or the head joints omitted in the first course of block extended above the ground surface. However, nuisance water may still collect in front of the wall.

Drain outlets should be maintained over the life of the project and should not be obstructed or plugged by adjacent improvements.

6.4.3 Restrained Retaining Walls

Any retaining wall that will be restrained prior to placing backfill or walls that have male or reentrant corners should be designed for at-rest soil conditions using an equivalent fluid pressure of 65 pcf (very low expansive backfill), plus any applicable surcharge loading. For areas having male or reentrant corners, the restrained wall design should extend a minimum distance

equal to twice the height of the wall laterally from the corner, or as otherwise determined by the structural engineer.

6.4.3.1 Other Design Considerations

- Retaining and garden wall foundation elements should be designed in accordance with building code setback requirements. A minimum horizontal setback distance of five feet as measured from the bottom outside edge of the footing to a sloped face is recommended.
- Wall design should consider the additional surcharge loads from superjacent slopes and/or footings, where appropriate.
- No backfill should be placed against concrete until minimum design strengths are evident by compression tests of cylinders.
- The retaining wall footing excavations, backcuts and backfill materials should be approved by the project geotechnical engineer or their authorized representative.
- Positive separations should be provided in garden walls at horizontal distances not exceeding 20 feet.

6.4.4 Soil Corrosivity

The soil resistivity at this site was tested in the laboratory on two (2) samples collected by our firm. The results of the testing indicate that the soil samples were considered *"mildly corrosive"* to "*moderately corrosive*" (6,097 to 13,400 ohm-cm) to buried ferrous metals in accordance with current standards commonly used by corrosion engineers. We recommend that a corrosion engineer be consulted to determine what corrosion protection may be warranted for the site. The laboratory test results are provided in Appendix B.

6.4.5 Soil Sulfate Content

The sulfate content was determined in the laboratory for two representative soil samples collected by our firm. The results indicate that the water-soluble sulfate for the tested sample was less than 0.1 percent by weight, which is considered "not applicable" (i.e. negligible) as per Table 4.2.1 of ACI 318. Based upon the test result, no special concrete mix design is required for sulfate attack resistance. The laboratory test result is provided in Appendix B.

6.4.6 Import Soils

Import soils should have expansion characteristics similar to the on-site soils. GeoTek also recommends that the proposed import soils be tested for expansion and sulfate potential.

GeoTek should be notified a minimum of 72 hours prior to importing so that appropriate sampling and laboratory testing can be performed.

6.5 PRELIMINARY PAVEMENT DESIGN

A preliminary pavement section has been developed based on assumed traffic loading and our estimate of the pavement subgrade soils following completion of site grading. Given the preliminary nature of the pavement sections presented below, final pavement design should be based on R-value testing of the as-graded soils and the known or assigned Traffic Indexes for the site roadways. Based on the near-surface soil types encountered in our test borings, we estimate that an as-graded R-value of 40 is appropriate for this preliminary design. For this preliminary design, we have assumed a Traffic Index of 5.5. Based on the above discussion, the following preliminary pavement design is presented.

Street	Assumed Traffic Index	Asphaltic Concrete/Aggregate Base (inches)
Interior Streets	5.5	3/6

The final pavement sections are subject to the review and approval by the local jurisdictional agency. Performance of the pavement sections will ultimately be based largely on construction methods, traffic loading and subgrade performance. All aggregate base and the upper 12 inches of subgrade should be compacted to at least 95 percent of the material's maximum dry density, per ASTM D-1557.

All pavement installation, including preparation and compaction of subgrade and base material and placement and rolling of asphaltic concrete, should be done in accordance with the City of Eastvale specifications, and under the observation and testing of GeoTek and a City or County inspector where required.

The aggregate base should consist of crushed rock with an R-Value and gradation in accordance with Crushed Aggregate Base (Section 200-2 of the "Greenbook"). Minimum compaction requirements should be 95 percent for both subgrade and aggregate base (ASTM D 1557). Jurisdictional minimum compaction requirements in excess of the aforementioned minimums may govern.

6.6 CONCRETE CONSTRUCTION

6.6.1 General

Concrete construction should follow the 2019 CBC and ACI guidelines regarding design, mix placement and curing of the concrete. If desired, we could provide quality control testing of the concrete during construction.

6.6.2 Concrete Flatwork

Exterior concrete slabs, sidewalks and driveways should be designed using a four-inch minimum thickness. No specific reinforcement is required from a geotechnical perspective. However, some shrinkage and cracking of the concrete should be anticipated as a result of typical mix designs and curing practices commonly utilized in industrial construction.

Sidewalks and driveways may be under the jurisdiction of the governing agency. If so, jurisdictional design and construction criteria would apply, if more restrictive than the recommendations presented in this report.

Subgrade soils should be pre-moistened prior to placing concrete. The subgrade soils below exterior slabs, sidewalks, driveways, etc. should be pre-saturated to a minimum of 100% of the optimum moisture content to a depth of 12 inches.

All concrete installation, including preparation and compaction of subgrade, should be done in accordance with the City of Eastvale specifications, and under the observation and testing of GeoTek and a City inspector, if necessary.

6.6.3 Concrete Performance

Concrete cracks should be expected. These cracks can vary from sizes that are essentially unnoticeable to more than 1/8 inch in width. Most cracks in concrete while unsightly do not significantly impact long-term performance. While it is possible to take measures (proper concrete mix, placement, curing, control joints, etc.) to reduce the extent and size of cracks that occur, some cracking will occur despite the best efforts to minimize it. Concrete undergoes chemical processes that are dependent on a wide range of variables, which are difficult, at best, to control. Concrete, while seemingly a stable material, is subject to internal expansion and contraction due to external changes over time.

One of the simplest means to control cracking is to provide weakened control joints for cracking to occur along. These do not prevent cracks from developing; they simply provide a relief point for the stresses that develop. These joints are a widely accepted means to control

cracks but are not always effective. Control joints are more effective the more closely spaced they are. GeoTek suggests that control joints be placed in two directions and located a distance apart approximately equal to 24 to 36 times the slab thickness.

Exterior concrete flatwork (patios, walkways, driveways, etc.) is often some of the most visible aspects of site development. They are typically given the least level of quality control, being considered "non-structural" components. We suggest that the same standards of care be applied to these features as to the structures themselves.

6.7 POST CONSTRUCTION CONSIDERATIONS

6.7.1 Landscape Maintenance and Planting

Water has been shown to weaken the inherent strength of soil, and slope stability is significantly reduced by overly wet conditions. Positive surface drainage away from graded slopes should be maintained and only the amount of irrigation necessary to sustain plant life should be provided for planted slopes. Controlling surface drainage and runoff and maintaining a suitable vegetation cover can minimize erosion. Plants selected for landscaping should be lightweight, deep-rooted types that require little water and are capable of surviving the prevailing climate.

Overwatering should be avoided. Care should be taken when adding soil amendments to avoid excessive watering. Leaching as a method of soil preparation prior to planting is not recommended. An abatement program to control ground-burrowing rodents should be implemented and maintained. This is critical as burrowing rodents can decreased the long-term performance of slopes.

It is common for planting to be placed adjacent to structures in planter or lawn areas. This will result in the introduction of water into the ground adjacent to the foundations. This type of landscaping should be avoided. Planters within 10 feet of the buildings should be above ground and underlain by a concrete slab. Waterproofing of the foundation and/or subdrains may be warranted and advisable. We could discuss these issues, if desired, when plans are made available.

6.7.2 Drainage

The need to maintain proper surface drainage and subsurface systems cannot be overly emphasized. Positive site drainage should be maintained at all times. Drainage should not flow uncontrolled down any descending slope. Water should be directed away from foundations

and not allowed to pond or seep into the ground adjacent to the footings and floor-slabs. Pad drainage should be directed toward approved areas and not be blocked by other improvements.

Roof gutters should be installed that will direct the collected water at least 20 feet from the buildings.

It is the owner's responsibility to maintain and clean drainage devices on or contiguous to their lot. In order to be effective, maintenance should be conducted on a regular and routine schedule and necessary corrections made prior to each rainy season.

6.8 PLAN REVIEW AND CONSTRUCTION OBSERVATIONS

We recommend that site grading, specifications, retaining wall/shoring plans and foundation plans be reviewed by this office prior to construction to check for conformance with the recommendations of this report. Additional recommendations may be necessary based on these reviews. We also recommend that GeoTek representatives be present during site grading and foundation construction to check for proper implementation of the geotechnical recommendations. The owner/developer should have GeoTek's representative perform at least the following duties:

- Observe site clearing and grubbing operations for proper removal of unsuitable materials.
- Observe and test bottom of removals prior to fill placement.
- Evaluate the suitability of on-site and import materials for fill placement and collect soil samples for laboratory testing when necessary.
- Observe the fill for uniformity during placement including utility trenches.
- Test the fill for field density and relative compaction.
- Test the near-surface soils to verify proper moisture content.
- Observe and probe foundation excavations to confirm suitability of bearing materials.

If requested, a construction observation and compaction report can be provided by GeoTek, which can comply with the requirements of the governmental agencies having jurisdiction over the project. We recommend that these agencies be notified prior to commencement of construction so that necessary grading permits can be obtained.

7. LIMITATIONS

This evaluation does not and should in no way be construed to encompass any areas beyond the specific area of proposed construction as indicated to us by the client. Further, no evaluation of any existing site improvements is included. The scope is based on our understanding of the project and the client's needs, our proposal (Proposal No. 0804120-CR) dated August 13, 2020 and geotechnical engineering standards normally used on similar projects in this region.

The materials observed on the project site appear to be representative of the area; however, soil and bedrock materials vary in character between excavations and natural outcrops or conditions exposed during site construction. Site conditions may vary due to seasonal changes or other factors. GeoTek, Inc. assumes no responsibility or liability for work, testing or recommendations performed or provided by others.

Since our recommendations are based on the site conditions observed and encountered, and laboratory testing, our conclusions and recommendations are professional opinions that are limited to the extent of the available data. Observations during construction are important to allow for any change in recommendations found to be warranted. These opinions have been derived in accordance with current standards of practice and no warranty is expressed or implied. Standards of practice are subject to change with time.

8. SELECTED REFERENCES

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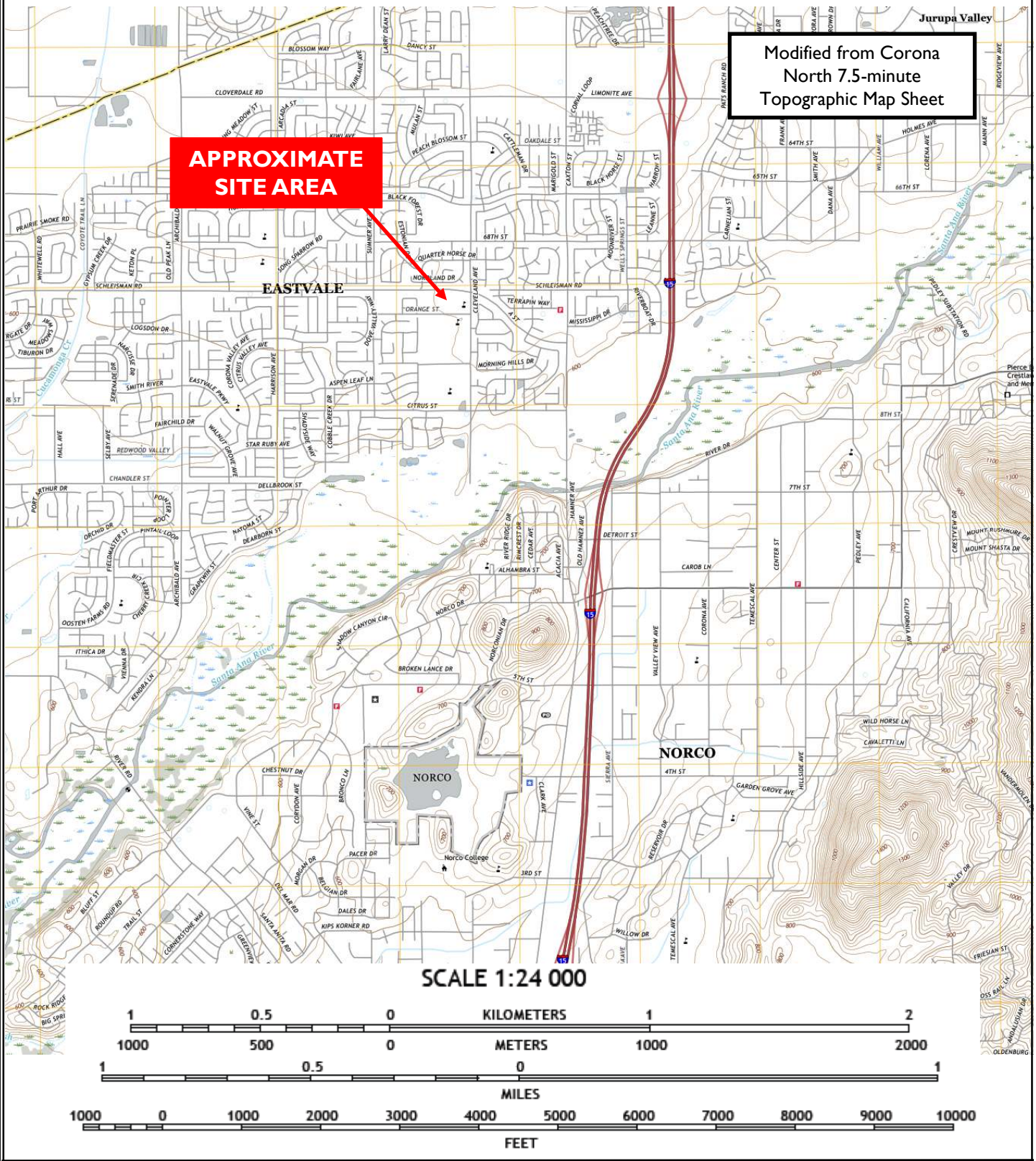
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MLC Holdings, Inc.
APN 152-040-003
Eastvale, Riverside County, California

GeoTek Project No. 2603-CR

NORTH

Figure 1
Site
Location and
General Topography
Map

GEOTEK



MLC Holdings, Inc.
APNs 152-040-003
Eastvale, Riverside County, California

Project No. 2603-CR

NORTH

Figure 2

Boring Location Map

GEOTEK

APPENDIX A

LOGS OF EXPLORATORY BORINGS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

A - FIELD TESTING AND SAMPLING PROCEDURES

The Modified Split-Barrel Sampler (Ring)

The ring sampler is driven into the ground in accordance with ASTM Test Method D 3550. The sampler, with an external diameter of 3.0 inches, is lined with 1-inch long, thin brass rings with inside diameters of approximately 2.4 inches. The sampler is typically driven into the ground 12 or 18 inches with a 140-pound hammer free falling from a height of 30 inches. Blow counts are recorded for every 6 inches of penetration as indicated on the log of boring. The samples are removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

Bulk Samples (Large)

These samples are normally large bags of earth materials over 20 pounds in weight collected from the field by means of hand digging or exploratory cuttings.

Bulk Samples (Small)

These are plastic bag samples which are normally airtight and contain less than 5 pounds in weight of earth materials collected from the field by means of hand digging or exploratory cuttings. These samples are primarily used for determining natural moisture content and classification indices.

B - BORING LOG LEGEND

The following abbreviations and symbols often appear in the classification and description of soil and rock on the log of borings:

SOILS

USCS	Unified Soil Classification System
f-c	Fine to coarse
f-m	Fine to medium

GEOLOGIC

B: Attitudes	Bedding: strike/dip
J: Attitudes	Joint: strike/dip
C: Contact line	
……..	Dashed line denotes USCS material change
———	Solid Line denotes unit / formational change
———	Thick solid line denotes end of the boring

(Additional denotations and symbols are provided on the log of boring)

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-1

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		15 39 50/5"		SC	Clayey f-c SAND, brown, moist, dense, trace fine to coarse grained sand	10.7	119.9	EI, MD, SR, SH EI=22
5		20 37 50			Clayey f-c SAND, brown, moist, hard	10.5	130.6	Collapse
		20 41 43		CL/ML	Silty CLAY to clayey SILT, light brown, slightly moist to moist, hard, some caliche	20.8	77.0	
10		9 11 11		ML	Clayey SILT, light brown, moist, stiff, some caliche			
15		8 17 28		CL	Silty CLAY to CLAY, brown to reddish brown, moist, very stiff			
20		10 18 29		ML	Clayey SILT, light brown, mosit, hard, trace fine to coarse grained sand, trace fine gravel			
					BORING TERMINATED AT 21.5 FEET			
					No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-2

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		7 11 17		SM	Silty f-c SAND, light brown, slightly moist, medium dense, trace fine gravel	2.6	120.1	
5		4 7 10			Silty f-c SAND, light brown, slightl moist, medium dense, few gravel	2.3	114.2	Collapse
		4 7 7		SM/SP	Silty f-c SAND to f-c SAND, light brown, slightly moist, loose	3.9	111.6	
10		7 12 27			Same as above, medium dense			
15		6 50/3"		SM	Silty f-c SAND, light brown, slightly moist to moist, very dense, some gravel			
20		17 33 35		SM/SP	Silty f-c SAND to f-c SAND, light brown, dense, trace gravel			
25		12 16 27		SM/CL	Silty f-c SAND to silty CLAY, brown, moist, dense/hard			
30		6 15 26		SM	Silty f-c SAND, brown, moist, dense	15.5		SA, AL % Passing #200 = 12.1 LL=29; Non-Plastic

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-2

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					continued:			
35		10 19 27		SM	Silty f-m SAND, grayish brown, slightly moist to moist, dense			
40		8 9 28		SM/SC	Silty to clayey f-m SAND, grayish brown, moist, dense	25.5		SA, AL % Passing #200 = 18.3 LL=42; PL=25; PI=16
45		14 15 22		ML	Clayey SILT, brown, moist, hard			
50		22 31 49		SM	Silty f-c SAND, light grayish brown, moist, very dense, trace gravel			
					BORING TERMINATED AT 51.5 FEET No groundwater encountered Boring backfilled with soil cuttings			

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-3

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		6 18 18		SM/ML	Silty f-c SAND to f-c sandy SILT, light brown, slightly moist, medium dense/stiff, some gravel	2.5	117.8	
5		9 12 14		SM/SP	Silty gravelly f-c SAND, light gray, dry, medium dense	0.8	118.8	
		6 11 15			Same as above	1.5	114.6	
10								
		10 21 21		SP	Gravelly f-c SAND, light brownish gray, slightly moist, medium dense			
15								
		9 12 21		SM	Silty f-c SAND, light brown, moist, medium dense			
20					**BORING TERMINATED AT 20.0 FEET** No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring; ---SPT; ---Small Bulk; ---Large Bulk; ---No Recovery; ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-4

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		13 17 20		SM/ML	Silty f-c SAND to f-c sandy SILT, light brown, slightly moist, medium dense/stiff, some gravel			EI, MD, SR EI=0
5		14 25 31			Same as above, dense	1.2	123.8	
		14 25 37		CL	Silty CLAY, brown, moist, hard, some caliche	13.8	122.3	Collapse
10		14 36 50/5"			Silty CLAY to CLAY, brown to grayish brown, moist, hard			
15		14 26 26		ML	Clayey SILT to f sandy SILT, brown, moist, hard			
20		26 46 50/5"		SM	Silty f-m SAND, grayish brown, moist, very dense			
					BORING TERMINATED AT 21.5 FEET			
					No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-5

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		5 10 14		ML	Clayey f sandy SILT, light brown, slightly moist, stiff, trace coarse grained sand	3.0	112.0	
5		9 16				3.2	116.6	
		29		SP	Gravelly silty f-c SAND, light grayish brown, slightly moist, dense			
		21						
		50/5"		SM/SC	Silty clayey f-c SAND, brown, moist, very dense	5.8	113.0	
10		13 24 19			Same as above, medium dense			
15		11 14 22		ML	F sandy SILT, brown, moist, very stiff, trace coarse grained sand, trace fine gravel			
20		28 50/6"		SM/SP	Silty gravelly f-c SAND, grayish brown, slightly moist, very dense			
					BORING TERMINATED AT 21.0 FEET			
					No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.

LOG OF EXPLORATORY BORING

CLIENT:	MLC Holdings	**DRILLER:**	Martini Drilling	**LOGGED BY:**	DRW
PROJECT NAME:	APNs 152-040-003	**DRILL METHOD:**	Hollw stem Auger	**OPERATOR:**	Derek
PROJECT NO.:	2603-CR	**HAMMER:**	140lbs/30in.	**RIG TYPE:**	CME 75
LOCATION:	See Boring Location Map			**DATE:**	1/6/2020

BORING NO.: B-6

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
		21 43 50/4"		SM/SC	Silty clayey f-m SAND, brown, moist, very dense	8.6	126.0	
5		26 50/5"			Same as above	6.2	115.7	
		19 37 40		CL/ML	Silty CLAY to clayey SILT, brown, moist, hard	9.9	128.4	
10								
		18 50/6"		ML	Clayey SILT, orangish brown to brown, moist, hard			
15								
		18 43 46		CL	F-c sandy CLAY, brown to orangish brown, moist, hard			
20								
					BORING TERMINATED AT 20.0 FEET			
					No groundwater encountered Boring backfilled with soil cuttings			
25								
30								

LEGEND

Sample type: ---Ring; ---SPT; ---Small Bulk; ---Large Bulk; ---No Recovery; ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

APPENDIX B

LABORATORY TEST RESULTS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

SUMMARY OF LABORATORY TESTING

Classification

Soils were classified visually in general accordance with the Unified Soil Classification System (ASTM Test Method D 2487). The soil classifications are shown on the logs of exploratory borings in Appendix A.

Collapse

Collapse testing was performed on selected samples of the site soils according to ASTM Test Method D 4546. The results of this testing are presented in Appendix B.

Direct Shear

Shear testing was performed in a direct shear machine of the strain-control type in general accordance with ASTM Test Method D 3080. The rate of deformation is approximately 0.035 inch per minute. The samples were sheared under varying confining loads in order to determine the coulomb shear strength parameters, angle of internal friction and cohesion. The results of the testing are presented in Appendix B.

Expansion Index

Expansion Index testing was performed on two representative soil samples. Testing was performed in general accordance with ASTM Test Method D 4829. The results of the testing are provided below.

Boring No.	Depth (ft.)	Soil Type	Expansion Index	Classification
B-1	1-5	Clayey Sand	22	Low
B-4	1-5	Silty Sand	1	Very Low

Moisture-Density Relationship

Laboratory testing was performed on representative site samples collected during the recent subsurface exploration. The laboratory maximum dry density and optimum moisture content for the sample tested was determined in general accordance with test method ASTM Test Procedure D 1557. The results are included in Appendix B.

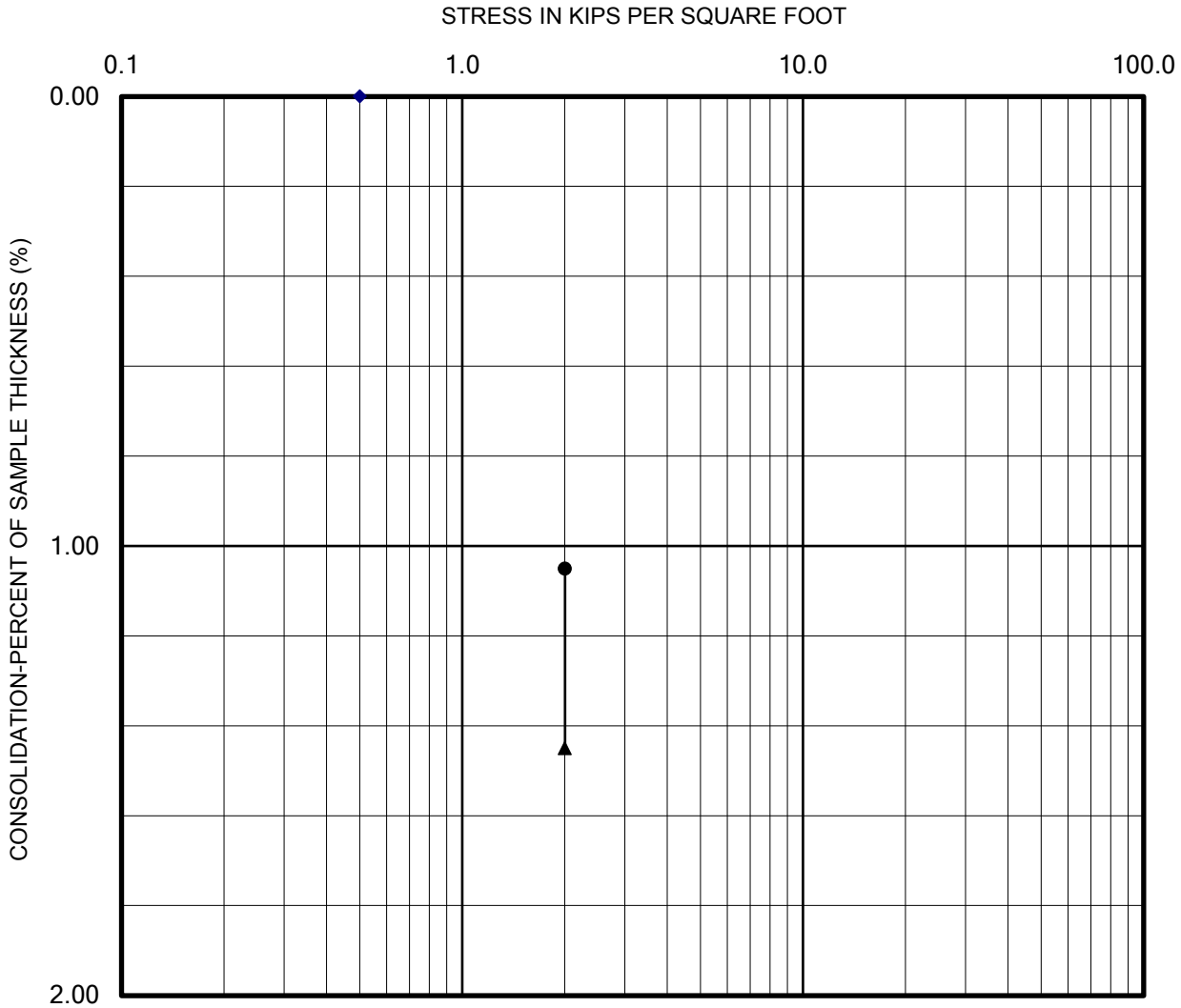
Percent of Soil Finer than No. 200 Sieve

Tests to determine the percent of soil finer than No. 200 sieve were performed on selected samples obtained from the properties. The tests were conducted in general accordance with ASTM D1140. The test results are shown on the logs of borings in Appendix A.

Sulfate Content, Resistivity and Chloride Content

Testing to determine the water-soluble sulfate content, resistivity testing and the chloride content was performed by others. The results of the testing are provided below and in Appendix B.

Boring No.	Depth (ft.)	pH ASTM G51	Chloride ASTM D4327 (ppm)	Sulfate ASTM D4327 (% by weight)	Resistivity ASTM G187 (ohm-cm)
B-1	1-5	8.6	9.4	0.0009	6,097
B-4	1-5	7.4	7.6	0.0015	13,400



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

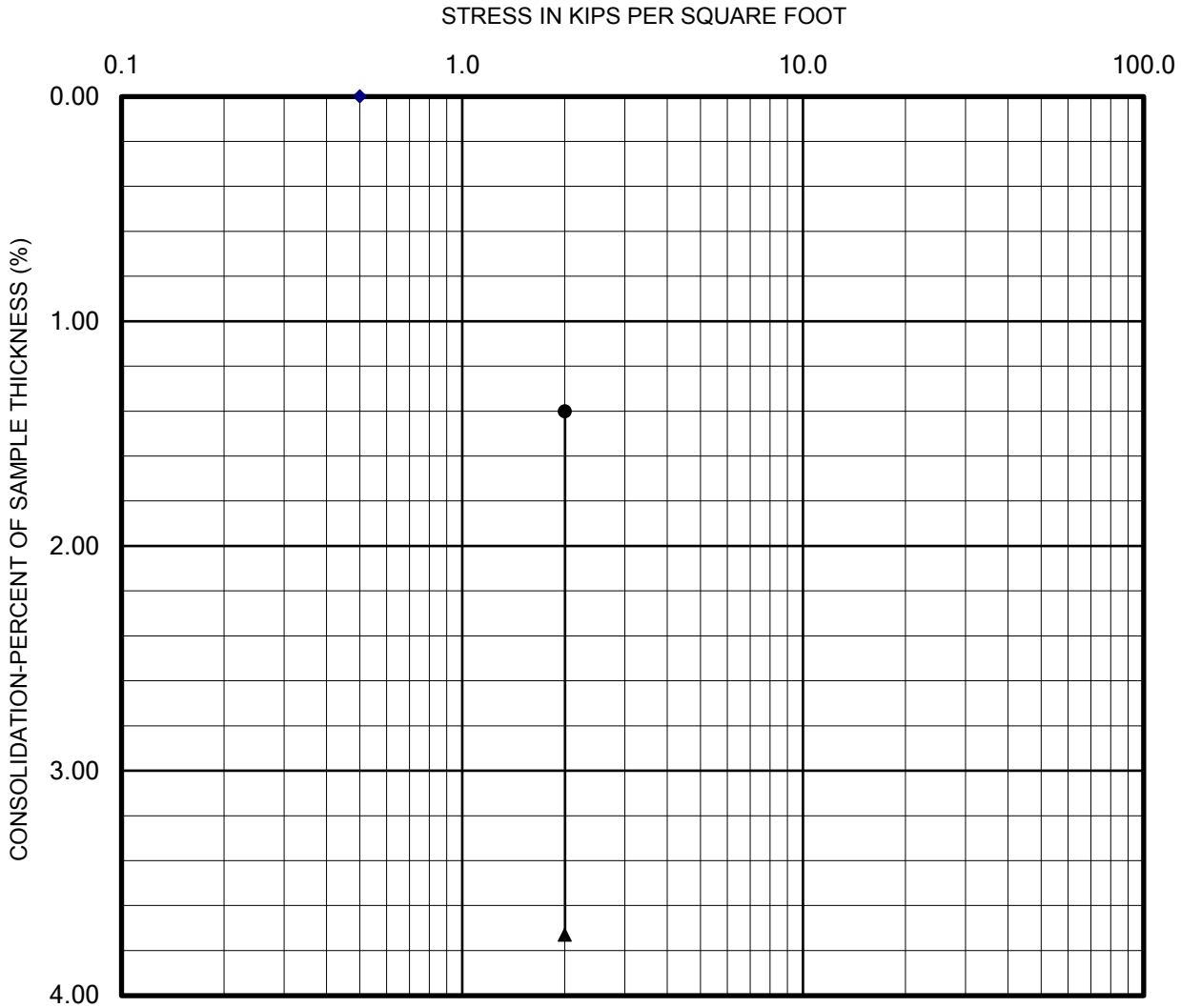
CHECKED BY: DA	Lab: Corona
PROJECT NO.: 2603CR	Date:1-18-20

COLLAPSE REPORT

Sample: B-1 @ 5 feet

Eastvale, California

Plate B-1



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

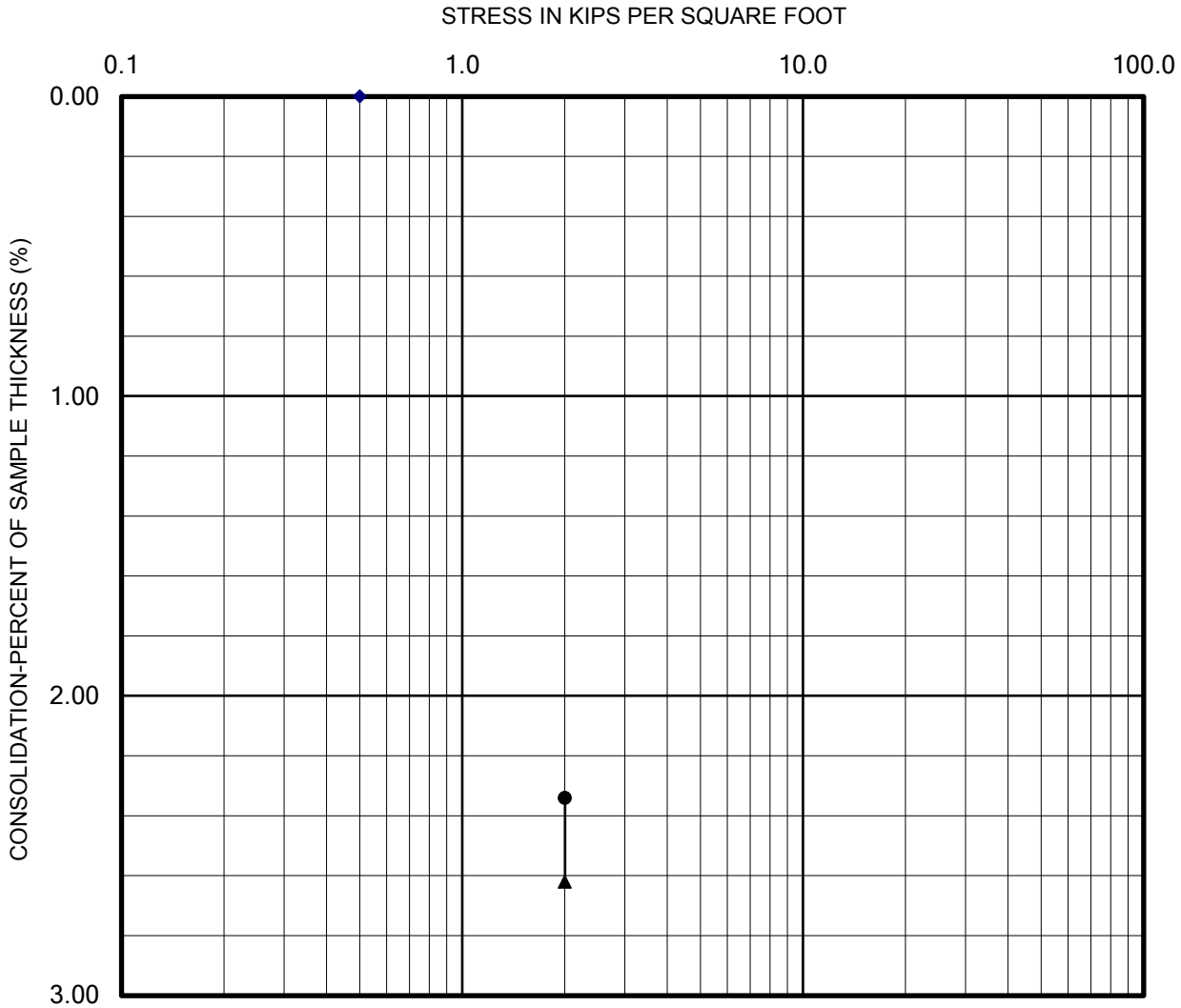
CHECKED BY: DA	Lab: Corona
PROJECT NO.: 2603CR	Date: 1-18-21

COLLAPSE REPORT

Sample: B-2 @ 4 feet

Eastvale, California

Plate B-2



Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4546

GEOTEK

CHECKED BY: DA	Lab: Corona
PROJECT NO.: 2603CR	Date: 1-18-21

COLLAPSE REPORT

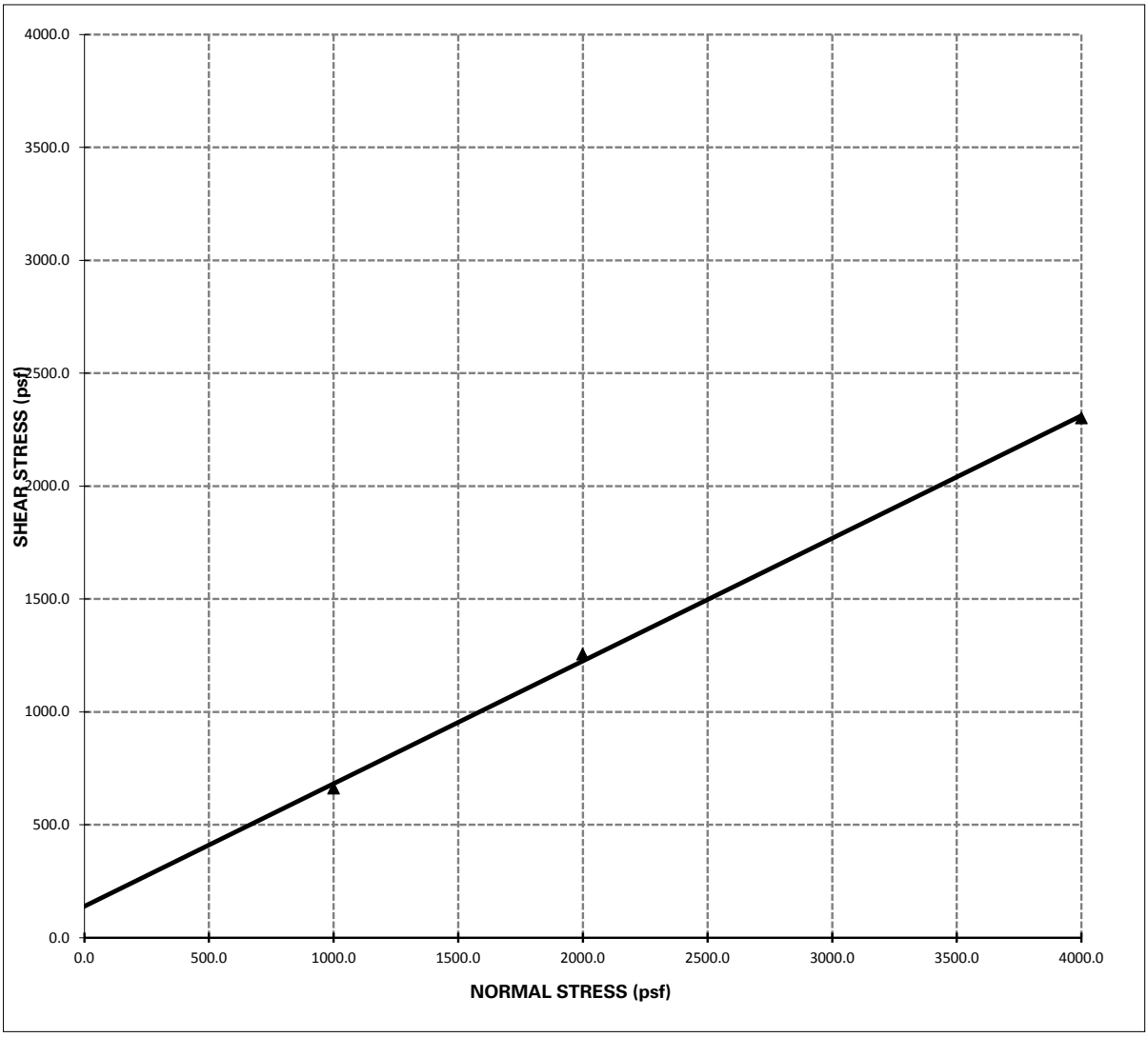
Sample: B-4 @ 7 feet

Eastvale, California

Plate B-3

DIRECT SHEAR TEST

Project Name:	MLC Holdings	***Sample Location:***	B1 @ 0-5 feet
Project Number:	2603-CR	***Date Tested:***	1/25/2021



Shear Strength: Φ = **29°** , **C = 139 psf**

Notes: 1 - The soil specimen used in the shear box was a ring sample remolded to approximately 90% relative compaction from a bulk sample collected during the field investigation.

2 - The above reflect direct shear strength at saturated conditions.

3 - The tests were run at a shear rate of 0.035 in/min.

GEOTEK

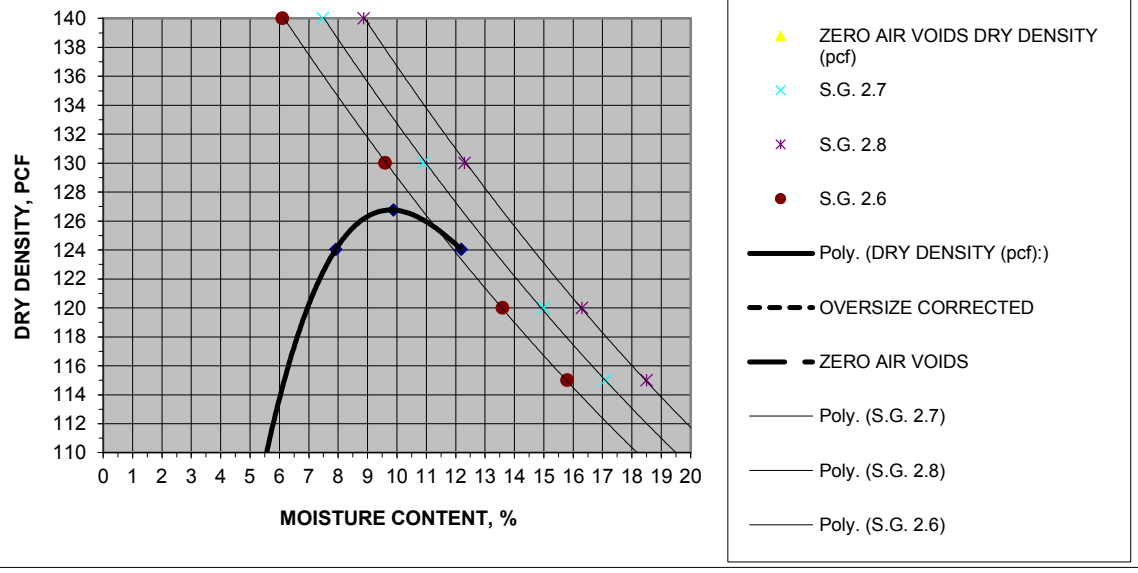
MOISTURE/DENSITY RELATIONSHIP

Client:	MLC Holdings	**Job No.:**	2603-CR
Project:	APN 152-040-003 Eastvale	**Lab No.:**	Corona
Location:	-		
Material Type:	Brown clayey fine to coarse Sand		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B1 @ 1-5'		
	-		
Sampled By:	MB	**Date Sampled:**	1/6/2021
Received By:	DA	**Date Received:**	1/6/2021
Tested By:	FS	**Date Tested:**	1/14/2021
Reviewed By:	RJ	**Date Reviewed:**	1/15/2021

Test Procedure: ASTM D1557 **Method:** A

Oversized Material (%): 0.0 **Correction Required:** [ ] yes [x] no

MOISTURE/DENSITY RELATIONSHIP CURVE



MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	127.0	**@ Optimum Moisture, %**	10.0
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

GEOTEK

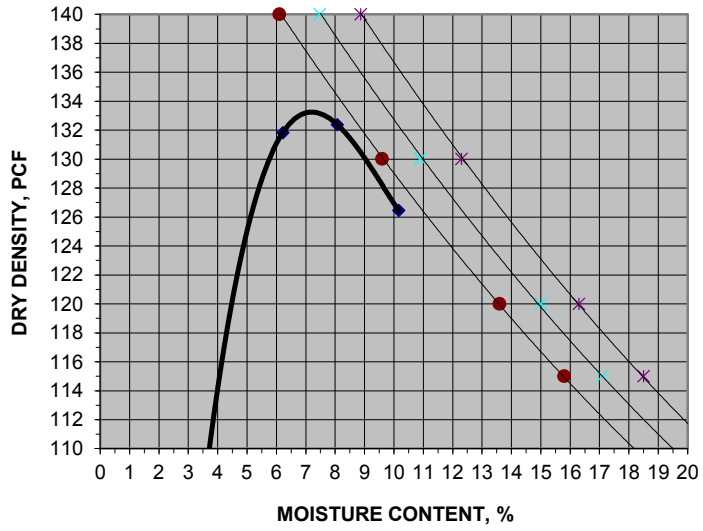
MOISTURE/DENSITY RELATIONSHIP

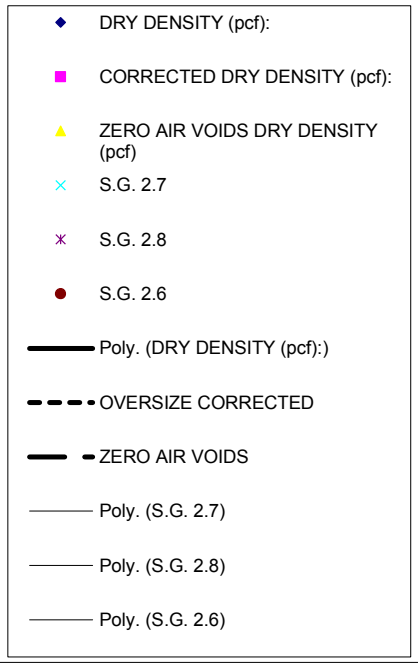
Client:	MLC Holdings	**Job No.:**	2603-CR
Project:	APN 152-040-003 Eastvale	**Lab No.:**	Corona
Location:	-		
Material Type:	Silty f-c SAND		
Material Supplier:	-		
Material Source:	-		
Sample Location:	B4 @ 1-5'		
	-		
Sampled By:	DW	**Date Sampled:**	1/6/2021
Received By:	DA	**Date Received:**	1/6/2021
Tested By:	FS	**Date Tested:**	1/15/2021
Reviewed By:	RJ	**Date Reviewed:**	1/18/2021

Test Procedure: ASTM D1557 **Method:** A

Oversized Material (%): 0.0 **Correction Required:** [ ] yes [x] no

MOISTURE/DENSITY RELATIONSHIP CURVE





MOISTURE DENSITY RELATIONSHIP VALUES

Maximum Dry Density, pcf	133.0	**@ Optimum Moisture, %**	7.5
Corrected Maximum Dry Density, pcf		**@ Optimum Moisture, %**	

MATERIAL DESCRIPTION

Grain Size Distribution:

	% Gravel (retained on No. 4)
	% Sand (Passing No. 4, Retained on No. 200)
	% Silt and Clay (Passing No. 200)

Atterberg Limits:

	Liquid Limit, %
	Plastic Limit, %
	Plasticity Index, %

Classification:

Unified Soils Classification:

AASHTO Soils Classification:

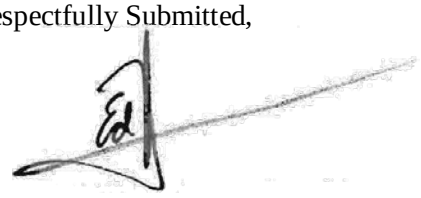
Results Only Soil Testing for APN152-040-0003

January 21, 2021

Prepared for:
Anna Scott
GeoTek, Inc.
1548 North Maple Street
Corona, CA 92280
ascott@geotekusa.com

Project X Job#: S210119C
Client Job or PO#: 2603-CR

Respectfully Submitted,



Eduardo Hernandez, M.Sc., P.E.
Sr. Corrosion Consultant
NACE Corrosion Technologist #16592
Professional Engineer
California No. M37102
ehernandez@projectxcorrosion.com



Soil Analysis Lab Results

Client: GeoTek, Inc.
Job Name: APN152-040-0003
Client Job Number: 2603-CR
Project X Job Number: S210119C
January 19, 2021

	Method	ASTM D4327		ASTM D4327		ASTM G187		ASTM D4972	ASTM G200	SM 4500-S2-D	ASTM D4327	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D6919	ASTM D4327	ASTM D4327
Bore# / Description	**Depth**	**Sulfates** SO_4^{2-}		**Chlorides** Cl^-		**Resistivity** As Rec'd | Minimum		**pH**	**Redox**	**Sulfide** S^{2-}	**Nitrate** NO_3^-	**Ammonium** NH_4^+	**Lithium** Li^+	**Sodium** Na^+	**Potassium** K^+	**Magnesium** Mg^{2+}	**Calcium** Ca^{2+}	**Fluoride** F_2^{--}	**Phosphate** PO_4^{3-}
	(ft)	(mg/kg)	(wt%)	(mg/kg)	(wt%)	(Ohm-cm)	(Ohm-cm)		(mV)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
B1	1-5	15.7	0.0016	9.4	0.0009	93,800	6,097	8.6	130	<0.01	4.1	16.9	0.02	41.2	1.2	17.7	81.8	2.6	3.8
B4	1-5	14.8	0.0015	7.6	0.0008	221,100	13,400	7.4	129	<0.01	11.8	12.3	0.05	18.3	2.4	12.4	60.9	0.9	7.1

Cations and Anions, except Sulfide and Bicarbonate, tested with Ion Chromatography
mg/kg = milligrams per kilogram (parts per million) of dry soil weight
ND = 0 = Not Detected | NT = Not Tested | Unk = Unknown
Chemical Analysis performed on 1:3 Soil-To-Water extract

APPENDIX C

INFILTRATION TEST RESULTS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

PERCOLATION DATA SHEET

Project: EASTVALE, **Job No.:** 2603CL.

Test Hole No.: I-1 **Tested By:** DRW, **Date:** 1/8/21.

Depth of Hole As Drilled: 60" **Before Test:** 60 **After Test:** 60.

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
1	10:43 / 11:08	25	60	20	10	10"		
2	11:08 / 11:33	25	60	20	12.1	7.9		
3	11:34 / 11:44	10	60	20	17.0	3.0		
4	11:44 / 11:54	10	60	20	17.2	2.8		
5	11:54 / 12:04	10	60	20	17.5	2.5		
6	12:04 / 12:14	10	60	20	17.8	2.2		
7	12:14 / 12:24	10	60	20	17.9	2.1		
8	12:24 / 12:34	10	60	20	17.9	2.1		
	/							
	/							

PERCOLATION DATA SHEET

Project: EASTVALE, **Job No.:** 2603-CR.

Test Hole No.: I-2 **Tested By:** DRW, **Date:** 1/8/21.

Depth of Hole As Drilled: 60" **Before Test:** 60" **After Test:** 60".

Reading No.	Time	Time Interval (Min)	Total Depth of Hole (Inches)	Initial Water Level (Inches)	Final Water Level (Inches)	Δ In Water Level (Inches)	Rate (minutes per inch)	Comments
	10:45 / 11:10	25	60	20	3.7	16.3		
	11:10 / 11:35	25	60	20	7.0	13.0		
	11:35 / 11:45	10	60	20	14.5	5.5		
	11:45 / 11:55	10	60	20	15.0	5.0		
	11:55 / 12:05	10	60	20	15.3	4.7		
	12:05 / 12:15	10	60	20	15.4	4.6		
	12:15 / 12:25	10	60	20	15.6	4.4		
	12:25 / 12:35	10	60	20	15.6	4.4		
	/							
	/							

Client:	**MLC Holdings Inc.**
Project:	**APNs 152-040-003**
Project No:	**2603-CR**
Date:	**1/8/2021**

Boring No. **I-1**

Percolation Rate (Porchet Method)

Time Interval, Δt =	10
Final Depth to Water, D_F =	42.1
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	17.9
$\Delta H = \Delta D = H_O - H_F$ =	2.1
$H_{avg} = (H_O+H_F)/2$ =	18.95

I_t = 1.20 **Inches per Hour**

GEOTEK

Client:	**MLC Holdings Inc.**
Project:	**APNs 152-040-003**
Project No:	**2603-CR**
Date:	**1/8/2021**

Boring No. **I-2**

Percolation Rate (Porchet Method)

Time Interval, Δt =	10
Final Depth to Water, D_F =	44.4
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	40
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	20
$H_F = D_T - D_F$ =	15.6
$\Delta H = \Delta D = H_O - H_F$ =	4.4
$H_{avg} = (H_O+H_F)/2$ =	17.8

I_t = 2.67 **Inches per Hour**

GEOTEK

APPENDIX D

LIQUEFACTION & SEISMIC SETTLEMENT ANALYSIS

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

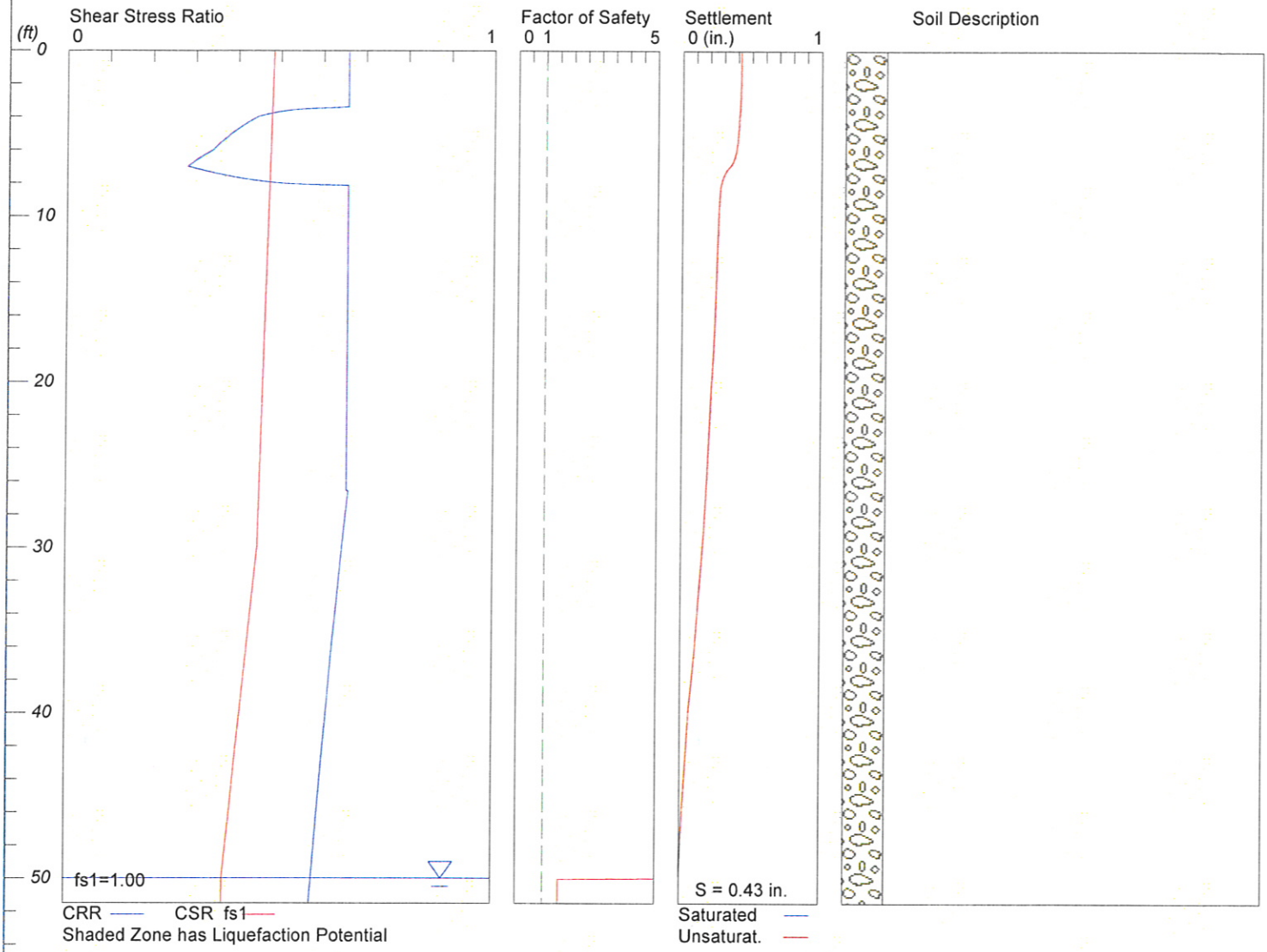
GEOTEK

LIQUEFACTION ANALYSIS

2603-CR

Hole No.=B-1 Water Depth=50 ft

Magnitude=6.73
Acceleration=0.747g



LiquefyPro CivilTech Software USA www.civiltech.com

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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: UNTITLED
Title: 2603-CR
Subtitle: Eastvale

Surface Elev.=
Hole No.=B-1
Depth of Hole= 51.50 ft
Water Table during Earthquake= 50.00 ft
Water Table during In-Situ Testing= 70.00 ft
Max. Acceleration= 0.75 g
Earthquake Magnitude= 6.73

Input Data:
Surface Elev.=
Hole No.=B-1
Depth of Hole=51.50 ft
Water Table during Earthquake= 50.00 ft
Water Table during In-Situ Testing= 70.00 ft
Max. Acceleration=0.75 g
Earthquake Magnitude=6.73
No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	18.00	125.00	15.00
4.00	11.00	120.00	15.00
7.00	9.00	115.00	10.00
10.00	25.00	120.00	10.00
15.00	65.00	125.00	15.00
20.00	44.00	125.00	10.00
25.00	43.00	125.00	40.00
30.00	41.00	125.00	12.00
35.00	46.00	125.00	15.00
40.00	37.00	125.00	18.00
45.00	37.00	125.00	55.00
50.00	80.00	130.00	15.00

Output Results:

Settlement of Saturated Sands=0.00 in.
Settlement of Unsaturated Sands=0.43 in.
Total Settlement of Saturated and Unsaturated Sands=0.43 in.
Differential Settlement=0.214 to 0.282 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.66	0.49	5.00	0.00	0.43	0.43
1.00	0.66	0.48	5.00	0.00	0.43	0.43
2.00	0.66	0.48	5.00	0.00	0.42	0.42
3.00	0.66	0.48	5.00	0.00	0.42	0.42
4.00	0.45	0.48	5.00	0.00	0.41	0.41
5.00	0.39	0.48	5.00	0.00	0.41	0.41
6.00	0.34	0.48	5.00	0.00	0.39	0.39
7.00	0.28	0.48	5.00	0.00	0.34	0.34
8.00	0.50	0.48	5.00	0.00	0.29	0.29
9.00	0.66	0.48	5.00	0.00	0.27	0.27
10.00	0.66	0.47	5.00	0.00	0.27	0.27
11.00	0.66	0.47	5.00	0.00	0.26	0.26
12.00	0.66	0.47	5.00	0.00	0.26	0.26
13.00	0.66	0.47	5.00	0.00	0.25	0.25
14.00	0.66	0.47	5.00	0.00	0.25	0.25
15.00	0.66	0.47	5.00	0.00	0.25	0.25
16.00	0.66	0.47	5.00	0.00	0.24	0.24
17.00	0.66	0.47	5.00	0.00	0.24	0.24
18.00	0.66	0.47	5.00	0.00	0.24	0.24
19.00	0.66	0.46	5.00	0.00	0.23	0.23
20.00	0.66	0.46	5.00	0.00	0.22	0.22

21.00	0.66	0.46	5.00	0.00	0.22	0.22
22.00	0.66	0.46	5.00	0.00	0.21	0.21
23.00	0.66	0.46	5.00	0.00	0.21	0.21
24.00	0.66	0.46	5.00	0.00	0.20	0.20
25.00	0.66	0.46	5.00	0.00	0.20	0.20
26.00	0.66	0.46	5.00	0.00	0.19	0.19
27.00	0.66	0.45	5.00	0.00	0.18	0.18
28.00	0.66	0.45	5.00	0.00	0.18	0.18
29.00	0.65	0.45	5.00	0.00	0.17	0.17
30.00	0.65	0.45	5.00	0.00	0.16	0.16
31.00	0.65	0.45	5.00	0.00	0.15	0.15
32.00	0.64	0.44	5.00	0.00	0.14	0.14
33.00	0.64	0.44	5.00	0.00	0.13	0.13
34.00	0.64	0.44	5.00	0.00	0.13	0.13
35.00	0.63	0.43	5.00	0.00	0.12	0.12
36.00	0.63	0.43	5.00	0.00	0.11	0.11
37.00	0.62	0.42	5.00	0.00	0.10	0.10
38.00	0.62	0.42	5.00	0.00	0.09	0.09
39.00	0.62	0.42	5.00	0.00	0.08	0.08
40.00	0.61	0.41	5.00	0.00	0.06	0.06
41.00	0.61	0.41	5.00	0.00	0.06	0.06
42.00	0.61	0.40	5.00	0.00	0.05	0.05
43.00	0.60	0.40	5.00	0.00	0.04	0.04
44.00	0.60	0.40	5.00	0.00	0.04	0.04
45.00	0.60	0.39	5.00	0.00	0.03	0.03
46.00	0.59	0.39	5.00	0.00	0.02	0.02
47.00	0.59	0.38	5.00	0.00	0.02	0.02
48.00	0.59	0.38	5.00	0.00	0.01	0.01
49.00	0.59	0.38	5.00	0.00	0.01	0.01
50.00	0.58	0.37	5.00	0.00	0.00	0.00
51.00	0.58	0.37	1.56	0.00	0.00	0.00

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* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)
CRRm Cyclic resistance ratio from soils
CSRsf Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat Settlement from saturated sands
S_dry Settlement from Unsaturated Sands
S_all Total Settlement from Saturated and Unsaturated Sands
NoLiq No-Liquefy Soils

APPENDIX E

GENERAL GRADING GUIDELINES

Single- and Multi-Family Residential Developments
Eastvale, Riverside County, California
Project No. 2603-CR

GEOTEK

GENERAL GRADING GUIDELINES

Guidelines presented herein are intended to address general construction procedures for earthwork construction. Specific situations and conditions often arise which cannot reasonably be discussed in general guidelines, when anticipated these are discussed in the text of the report. Often unanticipated conditions are encountered which may necessitate modification or changes to these guidelines. It is our hope that these will assist the contractor to more efficiently complete the project by providing a reasonable understanding of the procedures that would be expected during earthwork and the testing and observation used to evaluate those procedures.

General

Grading should be performed to at least the minimum requirements of governing agencies, Chapters 18 and 33 of the Uniform Building Code, CBC (2019) and the guidelines presented below.

Preconstruction Meeting

A preconstruction meeting should be held prior to site earthwork. Any questions the contractor has regarding our recommendations, general site conditions, apparent discrepancies between reported and actual conditions and/or differences in procedures the contractor intends to use should be brought up at that meeting. The contractor (including the main onsite representative) should review our report and these guidelines in advance of the meeting. Any comments the contractor may have regarding these guidelines should be brought up at that meeting.

Grading Observation and Testing

1. Observation of the fill placement should be provided by our representative during grading. Verbal communication during the course of each day will be used to inform the contractor of test results. The contractor should receive a copy of the "Daily Field Report" indicating results of field density tests that day. If our representative does not provide the contractor with these reports, our office should be notified.
2. Testing and observation procedures are, by their nature, specific to the work or area observed and location of the tests taken, variability may occur in other locations. The contractor is responsible for the uniformity of the grading operations; our observations and test results are intended to evaluate the contractor's overall level of efforts during grading. The contractor's personnel are the only individuals participating in all aspect of site work. Compaction testing and observation should not be considered as relieving the contractor's responsibility to properly compact the fill.
3. Cleanouts, processed ground to receive fill, key excavations, and subdrains should be observed by our representative prior to placing any fill. It will be the contractor's responsibility to notify our representative or office when such areas are ready for observation.

4. Density tests may be made on the surface material to receive fill, as considered warranted by this firm.
5. In general, density tests would be made at maximum intervals of two feet of fill height or every 1,000 cubic yards of fill placed. Criteria will vary depending on soil conditions and size of the fill. More frequent testing may be performed. In any case, an adequate number of field density tests should be made to evaluate the required compaction and moisture content is generally being obtained.
6. Laboratory testing to support field test procedures will be performed, as considered warranted, based on conditions encountered (e.g. change of material sources, types, etc.) Every effort will be made to process samples in the laboratory as quickly as possible and in progress construction projects are our first priority. However, laboratory workloads may cause in delays and some soils may require a **minimum of 48 to 72 hours to complete test procedures**. Whenever possible, our representative(s) should be informed in advance of operational changes that might result in different source areas for materials.
7. Procedures for testing of fill slopes are as follows:
    a) Density tests should be taken periodically during grading on the flat surface of the fill, three to five feet horizontally from the face of the slope.
    b) If a method other than over building and cutting back to the compacted core is to be employed, slope compaction testing during construction should include testing the outer six inches to three feet in the slope face to determine if the required compaction is being achieved.
8. Finish grade testing of slopes and pad surfaces should be performed after construction is complete.

Site Clearing

1. All vegetation, and other deleterious materials, should be removed from the site. If material is not immediately removed from the site it should be stockpiled in a designated area(s) well outside of all current work areas and delineated with flagging or other means. Site clearing should be performed in advance of any grading in a specific area.
2. Efforts should be made by the contractor to remove all organic or other deleterious material from the fill, as even the most diligent efforts may result in the incorporation of some materials. This is especially important when grading is occurring near the natural grade. All equipment operators should be aware of these efforts. Laborers may be required as root pickers.
3. Nonorganic debris or concrete may be placed in deeper fill areas provided the procedures used are observed and found acceptable by our representative.

Treatment of Existing Ground

1. Following site clearing, all surficial deposits of alluvium and colluvium as well as weathered or creep effected bedrock, should be removed unless otherwise specifically indicated in the text of this report.
2. In some cases, removal may be recommended to a specified depth (e.g. flat sites where partial alluvial removals may be sufficient). The contractor should not exceed these depths unless directed otherwise by our representative.
3. Groundwater existing in alluvial areas may make excavation difficult. Deeper removals than indicated in the text of the report may be necessary due to saturation during winter months.
4. Subsequent to removals, the natural ground should be processed to a depth of six inches, moistened to near optimum moisture conditions and compacted to fill standards.
5. Exploratory back hoe or dozer trenches still remaining after site removal should be excavated and filled with compacted fill if they can be located.

Fill Placement

1. Unless otherwise indicated, all site soil and bedrock may be reused for compacted fill; however, some special processing or handling may be required (see text of report).
2. Material used in the compacting process should be evenly spread, moisture conditioned, processed, and compacted in thin lifts six (6) to eight (8) inches in compacted thickness to obtain a uniformly dense layer. The fill should be placed and compacted on a nearly horizontal plane, unless otherwise found acceptable by our representative.
3. If the moisture content or relative density varies from that recommended by this firm, the contractor should rework the fill until it is in accordance with the following:
    a) Moisture content of the fill should be at or above optimum moisture. Moisture should be evenly distributed without wet and dry pockets. Pre-watering of cut or removal areas should be considered in addition to watering during fill placement, particularly in clay or dry surficial soils. The ability of the contractor to obtain the proper moisture content will control production rates.
    b) Each six-inch layer should be compacted to at least 90 percent of the maximum dry density in compliance with the testing method specified by the controlling governmental agency. In most cases, the testing method is ASTM Test Designation D 1557.
4. Rock fragments less than eight inches in diameter may be utilized in the fill, provided:
    a) They are not placed in concentrated pockets;
    b) There is a sufficient percentage of fine-grained material to surround the rocks;
    c) The distribution of the rocks is observed by, and acceptable to, our representative.

5. Rocks exceeding eight (8) inches in diameter should be taken off site, broken into smaller fragments, or placed in accordance with recommendations of this firm in areas designated suitable for rock disposal. On projects where significant large quantities of oversized materials are anticipated, alternate guidelines for placement may be included. If significant oversize materials are encountered during construction, these guidelines should be requested.
6. In clay soil, dry or large chunks or blocks are common. If in excess of eight (8) inches minimum dimension, then they are considered as oversized. Sheepsfoot compactors or other suitable methods should be used to break up blocks. When dry, they should be moisture conditioned to provide a uniform condition with the surrounding fill.

Slope Construction

1. The contractor should obtain a minimum relative compaction of 90 percent out to the finished slope face of fill slopes. This may be achieved by either overbuilding the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment.
2. Slopes trimmed to the compacted core should be overbuilt by at least three (3) feet with compaction efforts out to the edge of the false slope. Failure to properly compact the outer edge results in trimming not exposing the compacted core and additional compaction after trimming may be necessary.
3. If fill slopes are built "at grade" using direct compaction methods, then the slope construction should be performed so that a constant gradient is maintained throughout construction. Soil should not be "spilled" over the slope face nor should slopes be "pushed out" to obtain grades. Compaction equipment should compact each lift along the immediate top of slope. Slopes should be back rolled or otherwise compacted at approximately every 4 feet vertically as the slope is built.
4. Corners and bends in slopes should have special attention during construction as these are the most difficult areas to obtain proper compaction.
5. Cut slopes should be cut to the finished surface. Excessive undercutting and smoothing of the face with fill may necessitate stabilization.

UTILITY TRENCH CONSTRUCTION AND BACKFILL

Utility trench excavation and backfill is the contractors responsibility. The geotechnical consultant typically provides periodic observation and testing of these operations. While efforts are made to make sufficient observations and tests to verify that the contractors' methods and procedures are adequate to achieve proper compaction, it is typically impractical to observe all backfill procedures. As such, it is critical that the contractor use consistent backfill procedures.

Compaction methods vary for trench compaction and experience indicates many methods can be successful. However, procedures that "worked" on previous projects may or may not prove effective on a given site. The contractor(s) should outline the procedures proposed, so that we may discuss them **prior** to construction. We will offer comments based on our knowledge of site conditions and experience.

1. Utility trench backfill in slopes, structural areas, in streets and beneath flat work or hardscape should be brought to at least optimum moisture and compacted to at least 90 percent of the laboratory standard. Soil should be moisture conditioned prior to placing in the trench.
2. Flooding and jetting are not typically recommended or acceptable for native soils. Flooding or jetting may be used with select sand having a Sand Equivalent (SE) of 30 or higher. This is typically limited to the following uses:
   a) shallow (12 + inches) under slab interior trenches and,
   b) as bedding in pipe zone.

   The water should be allowed to dissipate prior to pouring slabs or completing trench compaction.
3. Care should be taken not to place soils at high moisture content within the upper three feet of the trench backfill in street areas, as overly wet soils may impact subgrade preparation. Moisture may be reduced to 2% below optimum moisture in areas to be paved within the upper three feet below sub grade.
4. Sand backfill should not be allowed in exterior trenches adjacent to and within an area extending below a 1:1 projection from the outside bottom edge of a footing, unless it is similar to the surrounding soil.
5. Trench compaction testing is generally at the discretion of the geotechnical consultant. Testing frequency will be based on trench depth and the contractors procedures. A probing rod would be used to assess the consistency of compaction between tested areas and untested areas. If zones are found that are considered less compact than other areas, this would be brought to the contractors attention.

JOB SAFETY

General

Personnel safety is a primary concern on all job sites. The following summaries are safety considerations for use by all our employees on multi-employer construction sites. On ground personnel are at highest risk of injury and possible fatality on grading construction projects. The company recognizes that construction activities will vary on each site and that job site safety is the contractor's responsibility. However, it is, imperative that all personnel be safety conscious to avoid accidents and potential injury.

In an effort to minimize risks associated with geotechnical testing and observation, the following precautions are to be implemented for the safety of our field personnel on grading and construction projects.

1. Safety Meetings: Our field personnel are directed to attend the contractor's regularly scheduled safety meetings.
2. Safety Vests: Safety vests are provided for and are to be worn by our personnel while on the job site.
3. Safety Flags: Safety flags are provided to our field technicians; one is to be affixed to the vehicle when on site, the other is to be placed atop the spoil pile on all test pits.

In the event that the contractor's representative observes any of our personnel not following the above, we request that it be brought to the attention of our office.

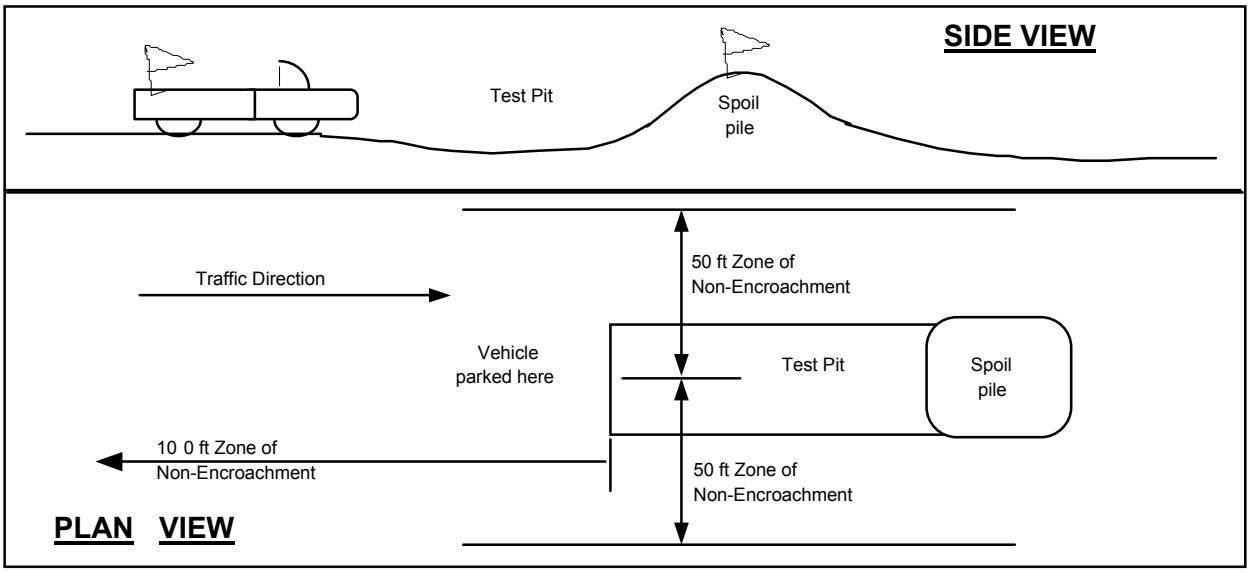
Test Pits Location, Orientation and Clearance

The technician is responsible for selecting test pit locations. The primary concern is the technician's safety. However, it is necessary to take sufficient tests at various locations to obtain a representative sampling of the fill. As such, efforts will be made to coordinate locations with the grading contractors authorized representatives (e.g. dump man, operator, supervisor, grade checker, etc.), and to select locations following or behind the established traffic pattern, preferably outside of current traffic. The contractors authorized representative should direct excavation of the pit and safety during the test period. Again, safety is the paramount concern.

Test pits should be excavated so that the spoil pile is placed away from oncoming traffic. The technician's vehicle is to be placed next to the test pit, opposite the spoil pile. This necessitates that the fill be maintained in a drivable condition. Alternatively, the contractor may opt to park a piece of equipment in front of test pits, particularly in small fill areas or those with limited access.

A zone of non-encroachment should be established for all test pits (see diagram below). No grading equipment should enter this zone during the test procedure. The zone should extend outward to the sides approximately 50 feet from the center of the test pit and 100 feet in the direction of traffic flow. This zone is established both for safety and to avoid excessive ground vibration, which typically decreases test results.

TEST PIT SAFETY PLAN



Slope Tests

When taking slope tests, the technician should park their vehicle directly above or below the test location on the slope. The contractor's representative should effectively keep all equipment at a safe operation distance (e.g. 50 feet) away from the slope during testing.

The technician is directed to withdraw from the active portion of the fill as soon as possible following testing. The technician's vehicle should be parked at the perimeter of the fill in a highly visible location.

Trench Safety

It is the contractor's responsibility to provide safe access into trenches where compaction testing is needed. Trenches for all utilities should be excavated in accordance with CAL-OSHA and any other applicable safety standards. Safe conditions will be required to enable compaction testing of the trench backfill.

All utility trench excavations in excess of 5 feet deep, which a person enters, are to be shored or laid back. Trench access should be provided in accordance with OSHA standards. Our personnel are directed not to enter any trench by being lowered or "riding down" on the equipment.

Our personnel are directed not to enter any excavation which;

1. is 5 feet or deeper unless shored or laid back,
2. exit points or ladders are not provided,
3. displays any evidence of instability, has any loose rock or other debris which could fall into the trench, or

4. displays any other evidence of any unsafe conditions regardless of depth.

If the contractor fails to provide safe access to trenches for compaction testing, our company policy requires that the soil technician withdraws and notifies their supervisor. The contractors representative will then be contacted in an effort to effect a solution. All backfill not tested due to safety concerns or other reasons is subject to reprocessing and/or removal.

Procedures

In the event that the technician's safety is jeopardized or compromised as a result of the contractor's failure to comply with any of the above, the technician is directed to inform both the developer's and contractor's representatives. If the condition is not rectified, the technician is required, by company policy, to immediately withdraw and notify their supervisor. The contractor's representative will then be contacted in an effort to effect a solution. No further testing will be performed until the situation is rectified. Any fill placed in the interim can be considered unacceptable and subject to reprocessing, recompaction or removal.

In the event that the soil technician does not comply with the above or other established safety guidelines, we request that the contractor bring this to technicians attention and notify our project manager or office. Effective communication and coordination between the contractors' representative and the field technician(s) is strongly encouraged in order to implement the above safety program and safety in general.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

The safety procedures outlined above should be discussed at the contractor's safety meetings. This will serve to inform and remind equipment operators of these safety procedures particularly the zone of non-encroachment.

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Not Applicable

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Not Applicable

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volume will be addressed by the selected BMPs. First, calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second, design the LID BMP to meet the required V_{BMP} using a method approved by the Co-permittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Co-permittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

For BMP Design Volume (Vbmp) calculation refer to Appendix 6.

Below Surface Ret/Inf Chamber System-1 Sizing:

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	**DMA Runoff Factor**	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here* *INF./RET CHAMBER SYSTEM-1*		
	[A]		[B]	[C]	[A] x [C]			
DMA-1 D1	*29,168*	*Roof*	*1.00*	*0.89*	*25,959.5*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA-1 D2	*35,649*	*Street/Paved Area*	*1.00*	*0.89*	*31,727.6*			
DMA-1 A1	*97,226*	*Landscape*	*0.10*	*0.11*	*10,694.8*			
DMA-1	$A_T = \Sigma[A]$ 162,043				$\Sigma = [D]$ 68382	[E] 0.85	$[F] = \frac{[D]x[E]}{12}$ 4,844	[G] *4,873*

Below Surface Ret/Inf Chamber System-2 Sizing:

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	**DMA Runoff Factor**	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here* *INF./RET CHAMBER SYSTEM-2*		
	[A]		[B]	[C]	[A] x [C]			
DMA-2 D1	*30,754*	*Roof*	*1.00*	*0.89*	*27,371.1*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
DMA-2 D2	*43,700*	*Street/Paved Area*	*1.00*	*0.89*	*38,893*			
DMA-2 A1	*119,180*	*Landscape*	*0.10*	*0.11*	*13,109.8*			
DMA-2	$A_T = \Sigma[A]$ 198,634				$\Sigma = [D]$ 79,374	[E] 0.85	[F] = $\frac{[D]x[E]}{12}$ 5,623	[G] *5,729*

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document
[E] is obtained from Exhibit A in the WQMP Guidance Document
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Total Design Capture Volume (Vbmp): 10,467 cu-ft (4,844 cf + 5,623 cf)

BMP-1: CONTECH CHAMBER SYSTEM-1

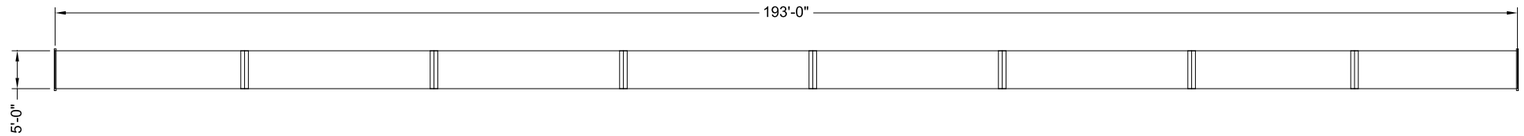
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 193 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 4,950 CF
- PIPE STORAGE VOLUME = 3,790 CF
- BACKFILL STORAGE VOLUME = 1,084 CF
- TOTAL STORAGE PROVIDED = 4,873 CF

PIPE DETAILS
- DIAMETER = 60"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = GALV
- WALL TYPE = PERFORATED
- BARREL SPACING = 30"

BACKFILL DETAILS
- WIDTH AT ENDS = 6"
- ABOVE PIPE = 3"
- WIDTH AT SIDES = 6"
- BELOW PIPE = 4"



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

ASSEMBLY
SCALE: 1" = 20'

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www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO10109 MLC-EASTVALE
CMP-1
EASTVALE, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6296	10109	7/22/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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Contech Chamber System-1: Infiltration Drawdown Time Calculation

Infiltration Surface Area Provided:	1,164	SF	
Infiltration Rate per Soil Report	3	in/hr	(Infiltration Rate Per Infiltration Evaluation Report 12-16-2021) (at Inf Test Pit B-3)
	0.25	ft/hr	
Facor of Safety	2		
Design Infiltration Rate	0.125	ft/hr	
Volume needed to be Infiltrated	4,873	cu.ft	
Infiltration Volume per hour	145.50	cu.ft/hr	(1,164 sft * 0.125 ft/hr)
Infiltration Draw Down Time	33.49	Hours	(4,873 cu.ft / 145.50 cu.ft/hr)
	34 hr		< 48 hr draw down time. OK

BMP-2: CONTECH CHAMBER SYSTEM-2

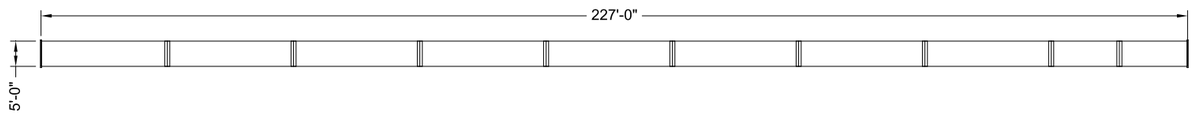
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 227 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 5,800 CF
- PIPE STORAGE VOLUME = 4,457 CF
- BACKFILL STORAGE VOLUME = 1,272 CF
- TOTAL STORAGE PROVIDED = 5,729 CF

PIPE DETAILS
- DIAMETER = 60"
- CORRUGATION = 5x1
- GAGE = 16
- COATING = GALV
- WALL TYPE = PERFORATED
- BARREL SPACING = 30"

BACKFILL DETAILS
- WIDTH AT ENDS = 6"
- ABOVE PIPE = 3"
- WIDTH AT SIDES = 6"
- BELOW PIPE = 4"



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
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ASSEMBLY
SCALE: 1" = 30'

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CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

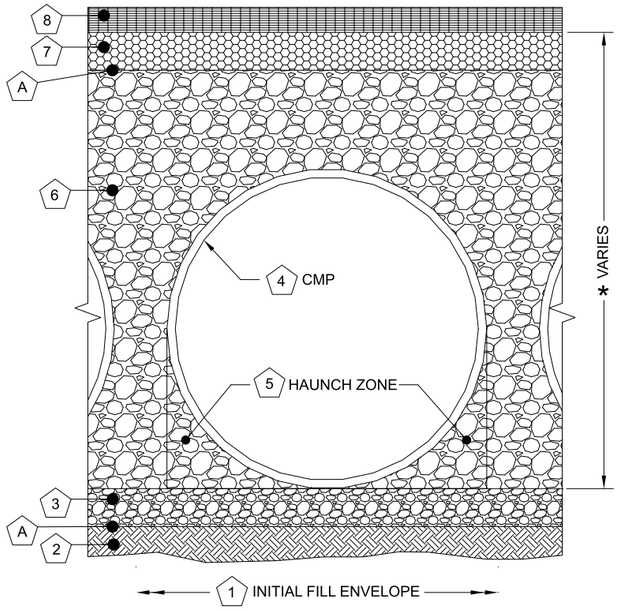
DYO10109 MLC-EASTVALE
CMP-1
EASTVALE, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6296	10109	7/24/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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Contech Chamber System-2: Infiltration Drawdown Time Calculation

Infiltration Surface Area Provided:	1,368	SF	
Infiltration Rate per Soil Report	2.67	in/hr	(Infiltration Rate Per Infiltration Evaluation Report 12-16-2021) (at Inf Test Pit B-1)
	0.22	ft/hr	
Facor of Safety	2		
Design Infiltration Rate	0.111	ft/hr	
Volume needed to be Infiltrated	5,729	cu.ft	
Infiltration Volume per hour	152.19	cu.ft/hr	(1,368 sft * 0.111 ft/hr)
Infiltration Draw Down Time	37.64	Hours	(5,729 cu.ft / 152.19 cu.ft/hr)
	38 hr		< 48 hr draw down time. OK



	Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
	Material Location	Description	Material Designation	Designation
8	Rigid or Flexible Pavement (if applicable)			
7	Road Base (if applicable			
A	Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6	Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of ½" – 2 ½" diameter is recommended.	AASHTO M 145-A-1 or AASHTO M 43 - 3, 4	Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
3	Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A	Geotextile Layer	None	None	Contech does not recommend geotextiles be placed under the invert of Infiltration systems due to the propensity for geotextiles to clog over time.
*	Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.			

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

FOUNDATION/BEDDING PREPARATION

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

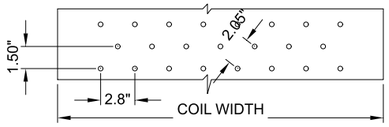
BACKFILL

MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

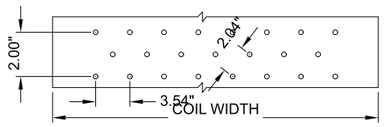
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

2 2/3" x 1/2" CORRUGATION - STEEL AND ALUMINUM CMP EDGE SPACING EQUAL ON BOTH SIDES



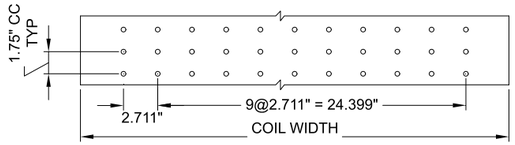
OPEN AREA = 3.76 SQ IN/SQ FT

3" x 1" CORRUGATION - STEEL AND ALUMINUM CMP (COIL PROVIDED FROM CONTECH LANTANA, FL PLANT)



OPEN AREA = 4.16 SQ IN/SQ FT

5" x 1" CORRUGATION - STEEL ONLY
EDGE SPACING EQUAL ON BOTH SIDES



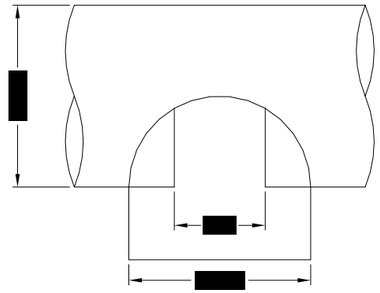
OPEN AREA = 3.33 SQ IN/SQ FT

NOTES:

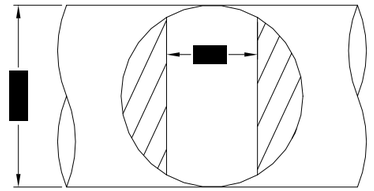
1. PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
2. PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
3. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. ALL HOLES ⌀3/8".

TYPICAL PERFORATION DETAIL

SCALE: N.T.S.



PLAN

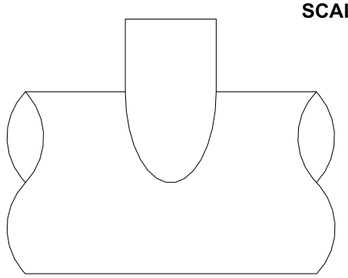


FRONT

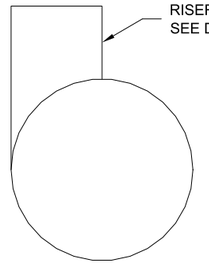
TYPICAL MANWAY DETAIL

SCALE: N.T.S.

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.



ELEVATION

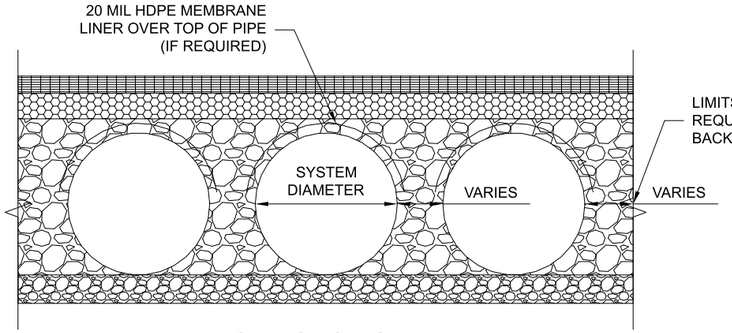


END

TYPICAL RISER DETAIL

SCALE: N.T.S.

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.



TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

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DATE	REVISION DESCRIPTION	BY

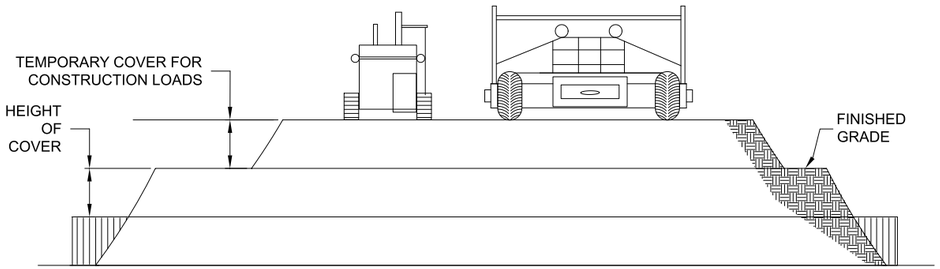
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CMP-1
EASTVALE, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
6296	10109	7/22/2022
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.: 1		

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CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

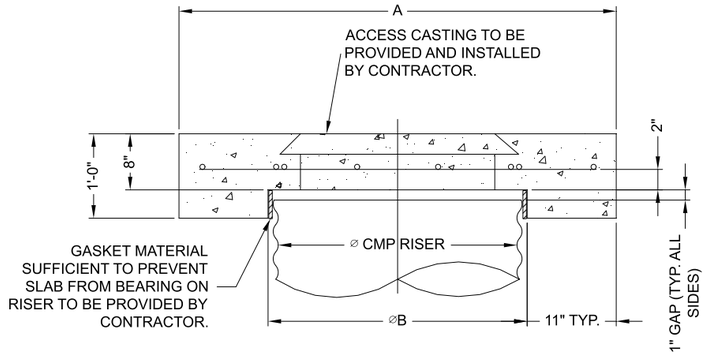
APPLICABLE POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

APPLICABLE
HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.
REQUIREMENTS
INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

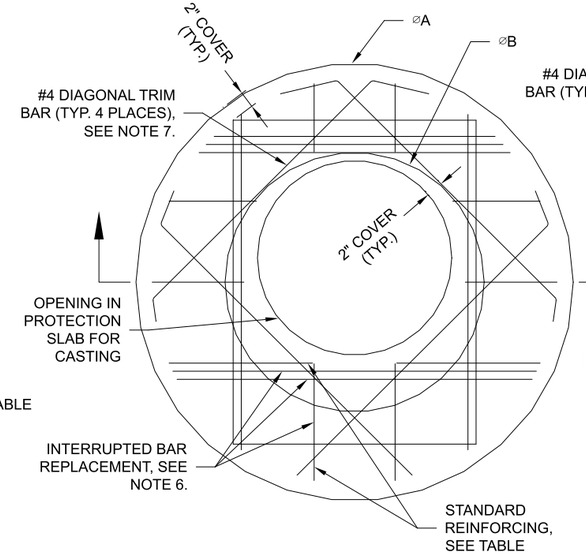
NOTE:
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



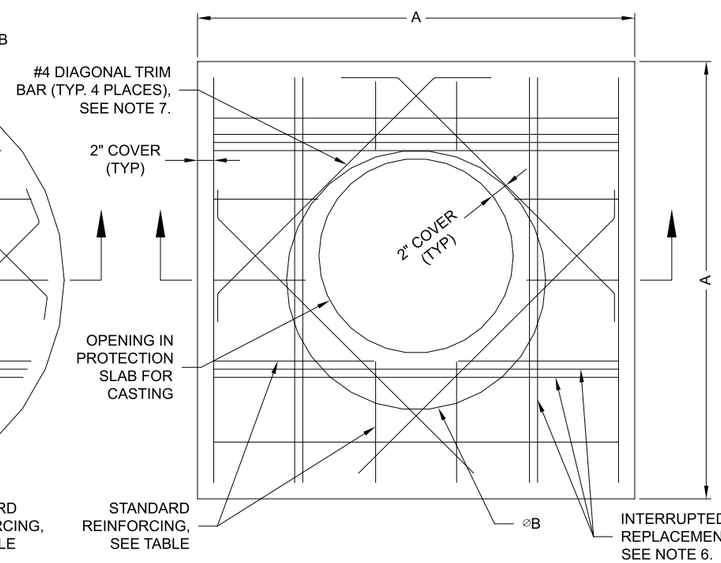
SECTION VIEW

REINFORCING TABLE				
⌀ CMP RISER	A	⌀ B	REINFORCING	**BEARING PRESSURE (PSF)
24"	⌀ 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	⌀ 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	⌀ 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	⌀ 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	⌀ 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

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CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO10109 MLC-EASTVALE
CMP-1
EASTVALE, CA
DETENTION SYSTEM

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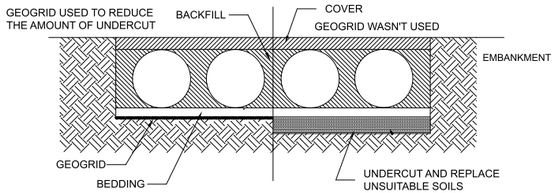
CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

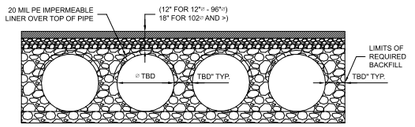


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

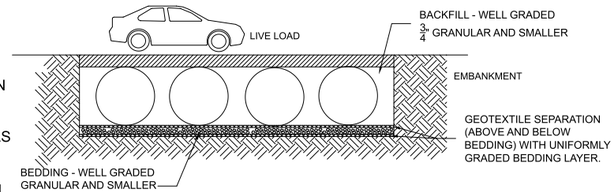
THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



IN-SITU TRENCH WALL

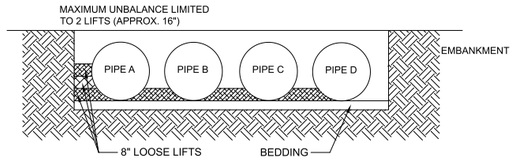
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.



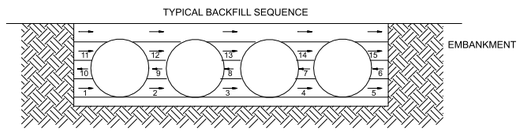
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

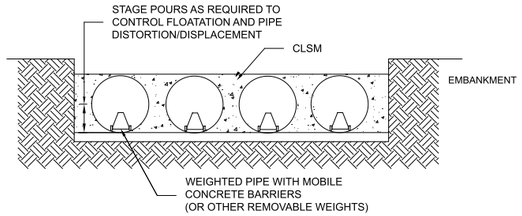


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.



WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

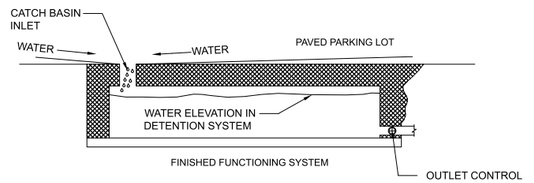


CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

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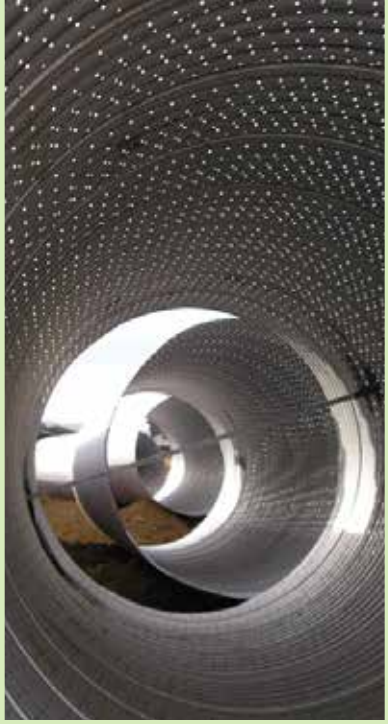
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CONTECH CMP DETENTION SYSTEMS

CONTECH **DYODS** DRAWING

DYO10109 MLC-EASTVALE
CMP-1
EASTVALE, CA
DETENTION SYSTEM

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CONTECH®
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Corrugated Metal Pipe Infiltration System

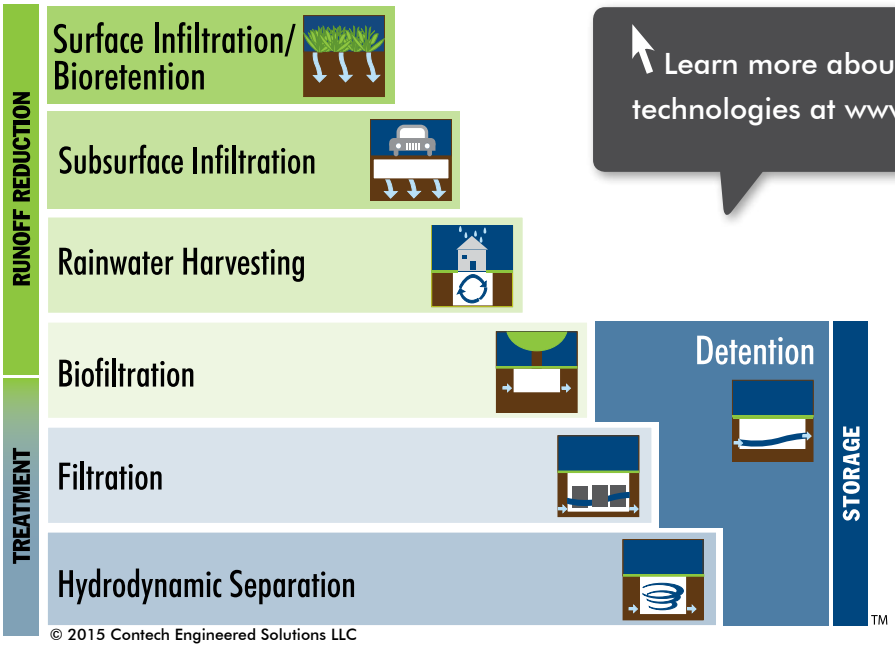
Solutions Guide



Stormwater Solutions from Contech

Selecting the Right Stormwater Solution Just Got Easier...

It's simple to choose the right stormwater solution to achieve your goals with the Contech Stormwater Solutions Staircase. First, select the runoff reduction practices that are most appropriate for your site, paying particular attention to pretreatment needs. If the entire design storm cannot be retained, select a treatment best management practice (BMP) for the balance. Finally, select a detention system to address any outstanding downstream erosion.



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Learn more about all of our stormwater technologies at www.ContechES.com/stormwater

DYODS

Design Your Own Detention or Infiltration System

The Contech Design Your Own Detention System (DYODS®) tool fully automates the layout process for stormwater detention and infiltration systems and produces CAD and PDF files that can be used for creating plans and specs, and for estimating total installed costs.



To use the *Design Your Own Detention or Infiltration System* tool, visit: www.ContechES.com/dyods

Subsurface Infiltration as a Stormwater Management Strategy

The only sure way to eliminate stormwater pollution is to eliminate stormwater runoff. In recognition of this fact, Green Infrastructure and Low Impact Development based stormwater management regulations prioritizing runoff reduction have proliferated throughout the United States.

Where site conditions allow, infiltration is typically the most cost effective and reliable runoff reduction approach. In urban environments where there are competing demands for land, subsurface infiltration can provide many of the benefits of landscape based systems but without requiring dedicated land area. Infiltration systems are commonly comprised of a pretreatment component designed to remove sediment, trash, and oil, followed by plastic, metal or concrete storage units surrounded by permeable stone creating a high voids storage gallery. Infiltration systems are typically designed to support vehicular loading and to withstand lateral pressures from surrounding soil that allows the overlying land to be used for virtually any non-building application.

Subsurface infiltration meets the objectives of LID by reducing runoff with the added benefit of saving land space in urban environments.



LID benefits include runoff volume reduction, peak flow control, ground water recharge, and water quality improvement.



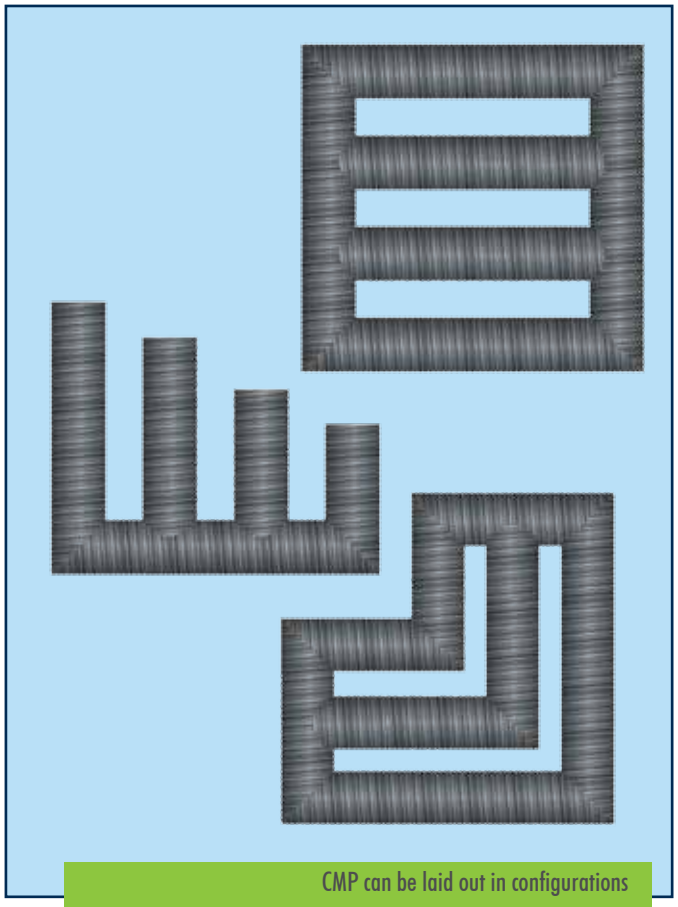
CMP infiltration is used at Pitzer College in Claremont, California.

CMP – the "Go To" Material for Subsurface Infiltration

The purpose of the storage vessel is to hold stormwater runoff underground while allowing it to infiltrate the surrounding soil. For the majority of applications, corrugated metal pipe (CMP) is the "go to" material for subsurface infiltration.

- 75+ year service life guidance for certain materials/coatings in recommended environments.* Please refer to the Corrugated Metal Pipe Detention Design Guide for additional information.
- Various pipe coatings and materials are available to accommodate site-specific needs: Aluminized Steel Type 2 (ALT2), Galvanized, CORLIX® Aluminum, and Polymer Coated.
- Wide range of gages, corrugations, and shapes, in diameters 12" – 144".
- Pipe can be fully or partially perforated for infiltration, retention, or groundwater recharge applications.
- Custom access risers and manifolds provide direct access for maintenance.
- Outlet control devices can be incorporated within the system, eliminating the need for a separate structure.
- Customizable - a variety of fittings allow CMP to match most layout configurations.
- May be designed for heavy loading and high maximum cover.
- Contributes to LEED points.
- Available locally; quick turnaround time.
- The most economical installed solution.

With its low cost, a wide variety of diameters, layout configurations, and materials, no other material can match CMP's flexibility and versatility.



CMP can be laid out in configurations not achievable with other materials.



A wide range of CMP diameters and coatings are available to meet site specific needs.

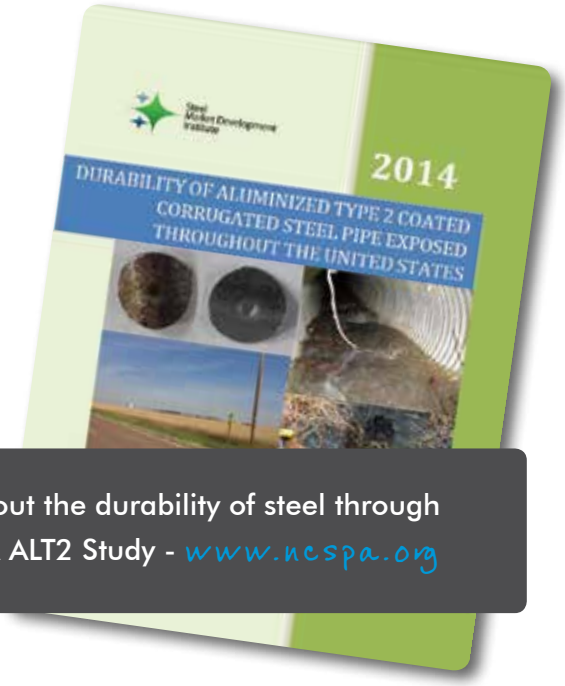
* Service life guidance provided by National Corrugated Steel Pipe Association (NCSPA) and/or AK Steel Corporation. See NCSPA.org website or consult your engineer of record for additional information on service life, recommended environments and field studies on various materials and coatings. Corrosive environments, such as seawater and road/de-icing salt infiltration, and other environments with pH and resistivity outside of the recommended range may cause premature corrosion and reduce actual service life. Because site conditions vary, Contech does not guaranty or warrant service life guidance for materials and coatings.

Addressing the Question of Longevity

Some engineers are hesitant to use corrugated metal pipe (CMP) for infiltration because they have heard about CMP drainage culverts that have corroded due to abrasion. Factors affecting longevity differ between culvert and infiltration applications. Culverts experience high velocity flows carrying abrasive sediment, which can wear off galvanized coatings used in older CMP culverts. Infiltration systems are designed for storage rather than conveyance, so velocity and abrasive forces are minimized. In addition, improved CMP coatings, such as Aluminized Type 2 (ALT2), are more abrasion resistant and have demonstrated superior in-ground performance against abrasion in long-term durability studies. Field studies also have indicated that ALT2 coating may extend service life in wider pH and resistivity ranges than galvanized coatings. Confirming and maintaining recommended environmental conditions helps ensure system longevity projected by the long term studies. Finally, properly designed infiltration systems include pretreatment, flow control and a stone backfill envelope that can reduce exposure to abrasion.



CMP has a proven service life



Learn more about the durability of steel through the recent NCSPA ALT2 Study - www.ncspa.org

- National Corrugated Steel Pipe Association (NCSPA) service life guidance of 75+ years for certain materials/coatings in recommended environments.
- CMP infiltration systems can be designed to meet HS-20 or greater load requirements with proper depths of cover.
- With low flows, CMP infiltration systems have little susceptibility to abrasion inside the pipe that holds stormwater runoff.
- Various pipe coatings and materials are available to accommodate site-specific needs: Aluminized Steel Type 2 (ALT2), Galvanized, CORLIX® Aluminum, and Polymer Coated.
- CMP infiltration systems are to be surrounded by clean crushed rock to provide increased storage capacity and reduce contact with native soils. The entire system may be wrapped with fabric or liner on the sides and top to help further reduce contact with native soils.
- CMP infiltration systems may be used in wide range of recommended environments. AK Steel Corporation's field studies and technical guidance indicate 75 year service life guidance for 16 gage ALT2 for pH of 5-9 and resistivity greater than 1,500 ohm-cm and 100 year service life guidance for 16 gage ALT2 for pH of 6-8 and resistivity greater than 5,000 ohm-cm.
- Corrosive environments, such as seawater and road/de-icing salt infiltration, acidic minewater, and sanitary sewage, and other environments with pH and resistivity outside of the recommended range may cause premature corrosion and reduce actual service life.
- Infiltration systems are to be inspected and maintained in accordance with Contech's guidelines. See Corrugated Metal Pipe Detention Design Guide for additional information on CMP infiltration systems.

Learn more at www.ContechES.com/cmp-detention

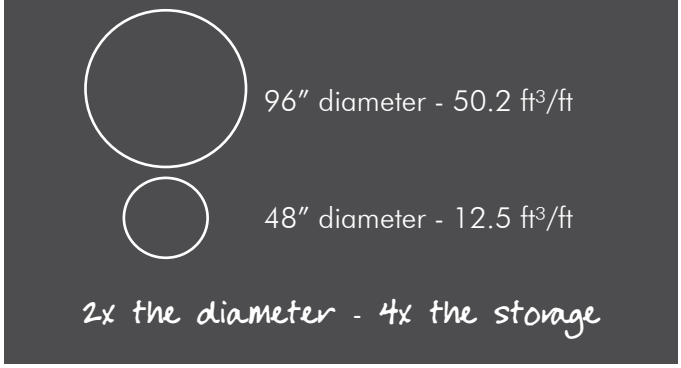
Maximizing Vertical Space: Every Inch Counts

One of the most overlooked advantages of CMP is its ability to maximize vertical storage space.

Increasing the depth of a CMP infiltration system allows for more water storage in the same footprint. For example, doubling the diameter of pipe yields four times as much storage volume in the pipe. This provides a significant cost savings per cubic foot of storage. In addition, more vertical storage space means a smaller footprint, less excavation, and lower project costs.

Contech's Corrugated Metal Pipe Detention systems maximize vertical storage space.





Sizing

Round Pipe – CMP → 6-in to 144-in

Diameter (inches)	Volume (ft³/ft)	Min. Cover Height	Diameter (inches)	Volume (ft³/ft)	Min. Cover Height
12	.78	12″	78	33.2	12″
15	1.22	12″	84	38.5	12″
18	1.76	12″	90	44.2	12″
21	2.40	12″	96	50.3	12″
24	3.14	12″	102	56.8	18″
30	4.9	12″	108	63.6	18″
36	7.1	12″	114	70.9	18″
42	9.6	12″	120	78.5	18″
48	12.6	12″	126	86.6	18″
54	15.9	12″	132	95.0	18″
60	19.6	12″	138	103.9	18″
66	23.8	12″	144	113.1	18″
72	28.3	12″			

The Need for Effective Pretreatment

Infiltration systems have multiple components, and one of the most important is pretreatment. The purpose of a pretreatment device is to prolong the life of the infiltration system by removing debris and sediment that can collect on the invert and within the stone backfill voids. Pretreatment will maintain the efficiency of an infiltration system as well as extend the life cycle, therefore preventing a premature replacement. Pretreatment also offers these additional benefits:

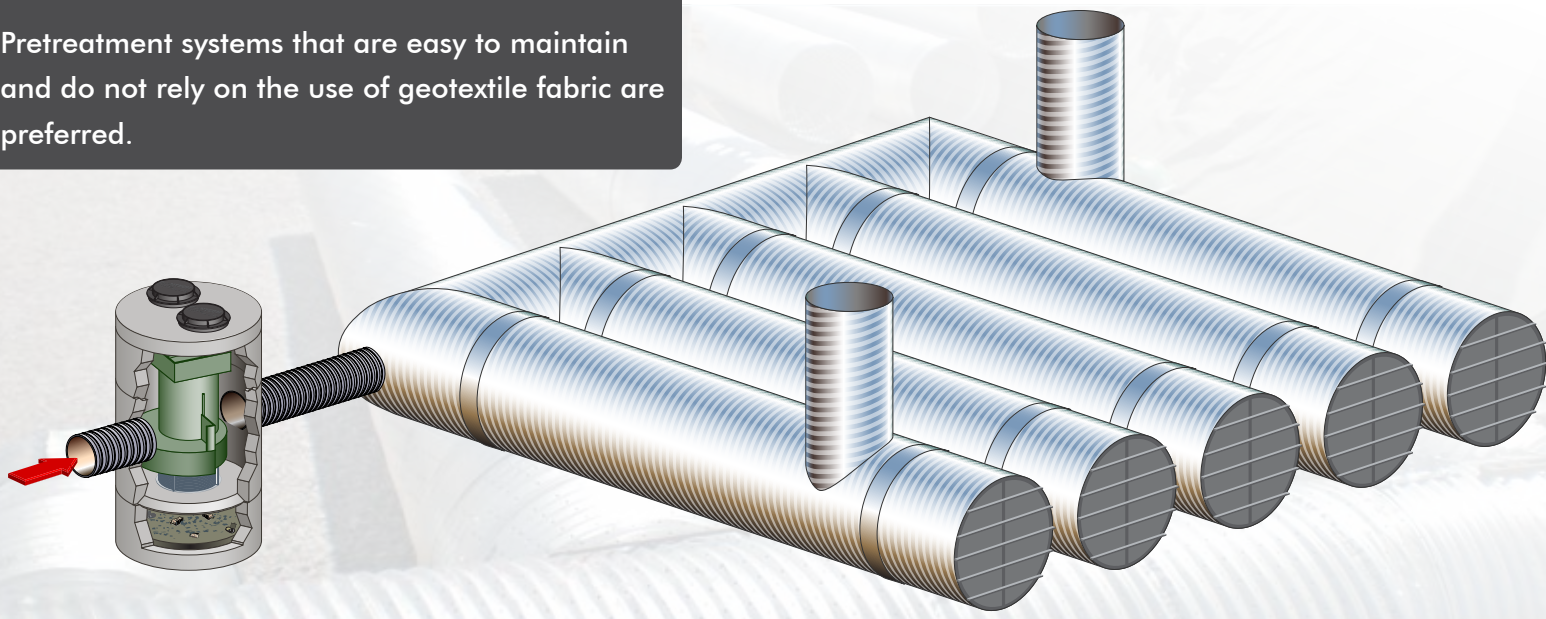
- Easier to clean and maintain compared to the infiltration system itself.
- Cost savings due to the extended service life of the system.
- Removing trash and debris protects downstream outlet control structures from clogging.

Pretreatment Design Considerations

When choosing a pretreatment system, it is important to consider the following:

- Downstream outlet control structures may require protection from a pretreatment device that screens trash and debris.
- Pretreatment system selection depends on pollutant targets. Trash, debris, and larger particles can be removed with hydrodynamic separators. Removing high percentages of fine particles and associated heavy metals and nutrients requires filtration.
- Reduced long term maintenance or replacement cost of the infiltration system can help justify pretreatment construction costs.
- Inlet and pipe layout will influence the number and type of pretreatment systems used. A combination of different systems may be appropriate for the various inlet locations and flows.

Pretreatment systems that are easy to maintain and do not rely on the use of geotextile fabric are preferred.



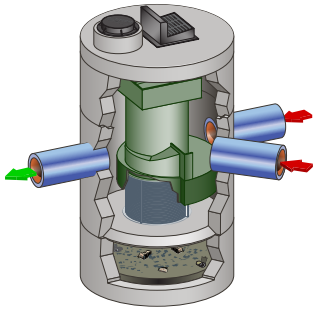
Learn more at www.ContechES.com/cmp-detention

7

Pretreatment Options

Contech offers a number of pretreatment options, all of which will extend the life of subsurface infiltration systems and improve water quality. The type of system chosen will depend on a number of factors including footprint, soil conditions, local regulations, and the desired level of pretreatment.

CDS provides direct access to cleaning, and the built-in high flow bypass weir eliminates the need for a separate bypass structure.



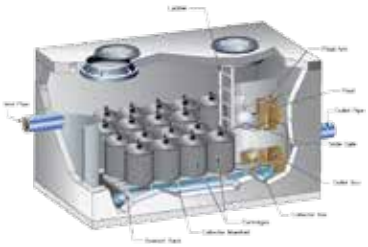
Hydrodynamic Separation

Hydrodynamic Separation (HDS) provides a basic level of pretreatment by capturing and retaining trash and debris, sediment, and oil from stormwater runoff.

CDS®

The CDS uses a combination of swirl concentration and indirect screening and is the only non-blocking screening technology available in an HDS system.







Filtration

Filtration provides a higher level of pretreatment and improved water quality by removing trash and debris, oil, fine solids, and dissolved pollutants such as metals, hydrocarbons, and nutrients.

Filterra® Bioretention System

Filterra is an engineered bioretention system that has been optimized for high volume/flow treatment and high pollutant removal.

The Stormwater Management StormFilter®

The StormFilter system is comprised of a structure that houses rechargeable, media-filled cartridges. The media can be customized to target site-specific pollutants.

Jellyfish® Filter

The Jellyfish filter uses membrane filtration in a compact footprint to remove a high level and a wide variety of stormwater pollutants such as fine particulates, oil, trash and debris, metals, and nutrients.

Alternative Materials for Subsurface Infiltration

There may be instances where alternative materials are needed for subsurface infiltration due to site specific needs.

Plastic Chambers

Plastic chambers are best suited to shallow depth applications; minimum cover is 18 inches, and maximum cover is 96 inches. Some benefits of chambers are:

- Chambers may be beneficial for sites with limited vertical storage.
- Lightweight and installed by hand.
- Heavy equipment is not required to set units into place.
- Centralized stocking locations for short lead times.

Concrete Structures/Vaults

Some concrete structures and vaults are best suited for high loading applications such as railroads or airports. Concrete units are also ideal in corrosive environments or areas with high salinity. Some benefits of concrete structures are:

- Wide range of spans and heights.
- Greater underground infiltration storage in a smaller footprint.
- Ample and easy maintenance access.
- Fast installation.



Project Profiles: CMP Infiltration Systems in Action

Edie and Lew Wasserman Building, UCLA

Westwood, California

- The new six-story, 100,000 square foot Edie and Lew Wasserman Building was built on a very dense site that needed to meet sustainability requirements.
- The design needed to maximize infiltration volume, match existing inverts, and work around existing utilities.
- The stormwater management systems included a CDS pretreatment system and a CMP infiltration system using 57′ of 72″ perforated CMP.
- Perforated CMP was selected to avoid utilities, minimize excavation, meet the City of LA LID requirements, contribute to the building's LEED certification, and to provide space for the buildings "outdoor room" and gardens.





Creative Office Space

El Segundo, California

- A stormwater infiltration solution was needed for a new group of office buildings.
- The owner wanted to maximize the use of the parking area in the urban setting.
- The site had a tight footprint and multiple utility constraints, requiring the design of five separate systems.
- A total of 860 LF of perforated CMP was installed providing of 25,265 CF of storage.
- Perforated CMP was selected for its design flexibility, cost effectiveness, and ease of installation.

City Center Regional Stormwater Facility

Mountlake Terrace, Washington

- The city of Mountlake Terrace, Washington needed a new stormwater retention facility to provide stormwater treatment and downstream flood control.
- There was limited footprint for 80,000 CF of runoff, and the system was required to be very deep, with about 15′ of cover.
- Engineers designed a system consisting of a CDS pretreatment system in front of 800 linear feet of 120″ diameter, perforated, aluminized type 2 CMP that allows the runoff to slowly infiltrate the surrounding soil.
- Perforated CMP was selected for its ability to accommodate the deep bury, the relatively small footprint, and cost effectiveness.



The Right Partner Can Make All the Difference

Regardless of your project's objectives and constraints, our team of stormwater design engineers, regulatory managers, and local stormwater consultants are here to provide you with expert advice and assistance. If your goal is to eliminate or detain runoff, you can rely on Contech for a wide range of subsurface infiltration, detention, and rainwater harvesting solutions. If treatment is needed, our landscape-based biofiltration or subsurface filtration designs can fit into virtually any site and can be tailored to address specific pollutants.

At every stage of your project, count on Contech to provide engineering services including:

- Regulatory guidance and permitting assistance
- Preliminary standard details and/or site specific final CAD drawings and specifications
- Low Impact Development design assistance
- Engineering calculations for hydraulics/hydrology, rainwater harvesting, and detention/retention
- Online "Design Your Own" tools
- Review of preliminary site design, feasibility screening, and layout assistance
- Value engineering – cost estimates and options analysis
- Pre-construction support, project scheduling, and contractor coordination
- Installation and construction support
- Maintenance support:
  - » Guidance manuals
  - » Demonstrations
  - » Qualified contractor identification

The result: an efficient design process, the right product, greater land space savings, and faster permitting. The entire Contech stormwater team welcomes the opportunity to work with you on your stormwater projects.

To get started, please visit www.conteches.com/localresources or call us at 800-338-1122.





Dig Deeper

Find all the information you need at www.ContechES.com, including field and laboratory test results, approvals, brochures, design guides, standard details, and specifications within the product section of our site.

Connect with Us

We're here to make your job easier – and that includes being able to get in touch with us when you need to. Go to www.ContechES.com/ConnectwithContech.

While you're there, be sure to check out our upcoming seminar schedule or request an in-house technical presentation.

Start a Project

If you are ready to begin a project, contact your local representative to get started. Or you can check out our design toolbox for all our online resources at www.ContechES.com/designtoolbox.

Links to Stormwater Tools:

To use the Land Value Calculator, visit:
www.ContechES.com/lvc
(Look under the Stormwater Management section to download the Land Value Calculator)

To use the Design Your Own Detention System tool, visit:
www.ContechES.com/dyods

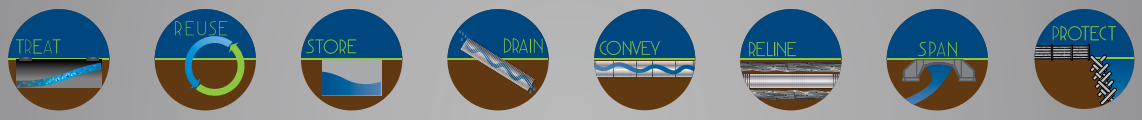
To use the Design Your Own Hydrodynamic Separator tool, visit: www.ContechES.com/dyohds

To use the Rainwater Harvesting Runoff Reduction Calculator tool, visit: www.ContechES.com/rwh-calculator

To use the LID Site Planner , visit:
www.ContechES.com/LIDsiteplanner

CONTECH® ENGINEERED SOLUTIONS

COMPLETE SITE SOLUTIONS



Stormwater Solutions
Helping to satisfy stormwater management requirements on land development projects
- Stormwater Treatment
- Detention/Infiltration
- Rainwater Harvesting
- Biofiltration/Bioretention

Pipe Solutions
Meeting project needs for durability, hydraulics, corrosion resistance, and stiffness
- Corrugated Metal Pipe (CMP)
- Steel Reinforced Polyethylene (SRPE)
- High Density Polyethylene (HDPE)
- Polyvinyl Chloride (PVC)

Structures Solutions
Providing innovative options and support for crossings, culverts, and bridges
- Plate, Precast & Truss bridges
- Hard Armor
- Retaining Walls
- Tunnel Liner Plate

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Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

Not Required, Site drains to the City Storm Drain System in Developed Condition

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Shown on WQMP Drawings**	3 **Permanent Controls—Listed in WQMP Table and Narrative**	4 **Operational BMPs—Included in WQMP Table and Narrative**
☑ **A.** On-site storm drain inlets	☑ Locations of inlets.	☑ Mark all inlets with the words "No Dumping! Flows to Bay" or similar.	☑ Maintain and periodically repaint or replace inlet markings. ☐ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☑ See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☑ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
☐ **B.** Interior floor drains and elevator shaft sump pumps		☐ State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☐ **C.** Interior parking garages		☐ State that parking garage floor drains will be plumbed to the sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☐ **D1.** Need for future indoor & structural pest control		☐ Note building design features that discourage entry of pests.	☐ Provide Integrated Pest Management information to owners, lessees, and operators.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
☑ **D2.** Landscape/ Outdoor Pesticide Use	☐ Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. ☐ Show self-retaining landscape areas, if any. ☑ Show stormwater treatment facilities.	State that final landscape plans will accomplish all of the following. ☐ Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. ☑ Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ☑ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ☑ Consider using pest-resistant plants, especially adjacent to hardscape. ☑ To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	☑ Maintain landscaping using minimum or no pesticides. ☑ See applicable operational BMPs in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☐ Provide IPM information to new owners, lessees and operators.
☐ **E.** Pools, spas, ponds, decorative fountains, and other water features.	☐ Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet.	☐ If the local municipality requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	☐ See applicable operational BMPs in Fact Sheet SC-72, "Fountain and Pool Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
☐ **F.** Food service	☐ For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. ☐ On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	☐ Describe the location and features of the designated cleaning area. ☐ Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	☐
☑ **G.** Refuse areas	☑ Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. ☑ If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. ☐ Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	☐ State how site refuse will be handled and provide supporting detail to what is shown on plans. ☐ State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	☑ State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
☐ **H.** Industrial processes.	☐ Show process area.	☐ If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."	☐ See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
❑ **I.** Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	❑ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ❑ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ❑ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	❑ Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of local Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank	❑ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
❑ **J.** Vehicle and Equipment Cleaning	❑ Show on drawings as appropriate: (1) Commercial/industrial facilities having vehicle /equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.	❑ If a car wash area is not provided, describe measures taken to discourage on-site car washing and explain how these will be enforced.	Describe operational measures to implement the following (if applicable): ❑ Wash water from vehicle and equipment washing operations shall not be discharged to the storm drain system. ❑ Car dealerships and similar may rinse cars with water only. ❑ See Fact Sheet SC-21, "Vehicle and Equipment Cleaning," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
❑ **K.** Vehicle/Equipment Repair and Maintenance	❑ Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. ❑ Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. ❑ Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.	❑ State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. ❑ State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. ❑ State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.	In the SUSMP report, note that all of the following restrictions apply to use the site: ❑ No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. ❑ No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. ❑ No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
❑ **L.** Fuel Dispensing Areas	❑ Fueling areas[1] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. ❑ Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.		❑ The property owner shall dry sweep the fueling area routinely. ❑ See the Business Guide Sheet, "Automotive Service—Service Stations" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

[1] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
❑ **M.** Loading Docks	❑ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas should be drained to the sanitary sewer where feasible. Direct connections to storm drains from depressed loading docks are prohibited. ❑ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ❑ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		❑ Move loaded and unloaded items indoors as soon as possible. ❑ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
❑ **N.** Fire Sprinkler Test Water		❑ Provide a means to drain fire sprinkler test water to the sanitary sewer.	❑ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

1 Potential Sources of Runoff Pollutants	2 Permanent Controls—Shown on WQMP Drawings	3 Permanent Controls—Listed in WQMP Table and Narrative	4 Operational BMPs—Included in WQMP Table and Narrative
O. Miscellaneous Drain or Wash Water ☐ Boiler drain lines ☐ Condensate drain lines ☐ Rooftop equipment ☐ Drainage sumps ☑ Roofing, gutters, and trim.		☐ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☐ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ☐ Rooftop mounted equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ☐ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☑ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.	
☑ **P.** Plazas, sidewalks, and parking lots.			☑ Plazas, sidewalks, and parking lots shall be swept regularly to prevent the accumulation of litter and debris. Debris from pressure washing shall be collected to prevent entry into the storm drain system. Wash water containing any cleaning agent or degreaser shall be collected and discharged to the sanitary sewer and not discharged to a storm drain.

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

Will provided upon Final Approval

Typical Requirements for Common Maintenance Mechanisms

Typical Requirements for Common Maintenance Mechanisms

1. **Public entity maintenance**: The Co-Permittee may approve a public or acceptable quasi-public entity (e.g., the Riverside County Flood Control District, or annex to an existing assessment district, an existing utility district, a state or federal resource agency, or a conservation conservancy) to assume responsibility for operation, maintenance, repair and replacement of the BMP. Unless otherwise acceptable to individual Co-Permittees, public entity maintenance agreements shall ensure estimated costs are front-funded or reliably guaranteed, (e.g., through a trust fund, assessment district fees, bond, letter of credit or similar means). In addition, the Co-Permittees may seek protection from liability by appropriate releases and indemnities.

   The Co-Permittee shall have the authority to approve Urban Runoff BMPs proposed for transfer to any other public entity within its jurisdiction before installation. The Co-Permittee shall be involved in the negotiation of maintenance requirements with any other public entities accepting maintenance responsibilities within their respective jurisdictions; and in negotiations with the resource agencies responsible for issuing permits for the construction and/or maintenance of the facilities. The Co-Permittee must be identified as a third party beneficiary empowered to enforce any such maintenance agreement within their respective jurisdictions.

2. **Project proponent agreement to maintain Urban Runoff BMPs:** The Co-Permittee may enter into a contract with the project proponent obliging the project proponent to maintain, repair and replace the Urban Runoff BMP as necessary into perpetuity. Security or a funding mechanism with a "no sunset" clause may be required.

3. **Assessment districts:** The Co-Permittee may approve an Assessment District or other funding mechanism created by the project proponent to provide funds for Urban Runoff BMP maintenance, repair and replacement on an ongoing basis. Any agreement with such a District shall be subject to the Public Entity Maintenance Provisions above.

4. **Lease provisions:** In those cases where the Co-Permittee holds title to the land in question, and the land is being leased to another party for private or public use, the Co-Permittee may assure Urban Runoff BMP maintenance, repair and replacement through conditions in the lease.

5. **Conditional use permits:** For discretionary projects only, the Co-Permittee may assure maintenance of Urban Runoff BMPs through the inclusion of maintenance conditions in the conditional use permit. Security may be required.

6. **Alternative mechanisms:** The Co-Permittee may accept alternative maintenance mechanisms if such mechanisms are as protective as those listed above.

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

TABLE OF CONTENTS

1. **INTRODUCTION**

2. **NON-STORMWATER DISCHARGE**

3 **SPILL PREVENTS CONTROL & CLEANUP**

4 OUTDOOR STORAGE OF RAW MATERIALS

5 **OUTDOOR EQUIPMENT OPERATION**

6 **OUTDOOR LOADING/UNLOADING**

7 **WASTE HANDLING *&* DISPOSAL**

8 **BUILDING & GROUNDS MAINTENANCE**

9 **PARKING/STORAGE AREA MAINTENANCE**

10 **METHOD TO PREVENT STORM WATER POLLUTION**

1) INTRODUCTION

This section include copies of the educational materials that will be used in implementing the project specific Water Quality Management Plan.

2. NON-STORM WATER DISCHARGES

2.1 Description

Non-storm water discharges are those flows that do not consist entirely of storm water. Some non-storm water discharges do not include pollutants and may be discharged to the storm drain. These include u neon laminated groundwater and natural springs. There are also some non-storm water discharges that typically do not contain pollutants and may be discharged to the storm drain with conditions. These include car washing, air conditioner condensate, etc. However there are certain non-storm water discharges that pose environmental concern. These discharges may originate from illegal dumping or from internal floor drains, appliances, industrial processes, sinks, and toilets that are connected to the nearby storm drainage system. These discharges can carry substances such as paint, oil, fuel and other automotive fluids, chemicals and other pollutants into storm drains. They can generally be detected through a combination of detection and elimination. The ultimate goal is to effectively eliminate non-storm water discharges to the storm water drainage system through implementation of measures to detect, correct, and enforce against illicit connections and illegal discharges of pollutants on streets and into the storm drain system and creeks.

2.2 Approach

Initially the industry must make an assessment of non-storm water discharges to determine which types must be eliminated or addressed through BMPs. The focus of the following approach is in the elimination of non-storm water discharges.
Ensure that used oil, used antifreeze, and hazardous chemical recycling programs are being implemented.
Encourage litter control.
Develop clear protocols and lines of communication for effectively prohibiting non storm water discharges, especially those that are not classified as hazardous. These axe often not responded to as effectively as they need to be stencil or demarcate storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as Dump No Waste Drains to Stream stenciled or demarcate next to them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.
Isolate problem areas and plug illicit discharges points.
Inventory and inspect each discharges point during dry weather.
During dry weather the storm water collection system is filled with smoke and then traced to sources. The appearance of smoke at the base of a toilet indicates that there may be a connection between the sanitary and the storm water system.

2.3 Inspection & Reporting

Regularly inspect and clean up hot spots and other storm drainage areas where illegal dumping and disposal occurs.
Never hose down or bury dry material spills. Sweep up the material and dispose of Properly.
For larger spills, a private spill cleanup company or Hazmat team may be necessary.
Lighting or barriers may also be-needed to discourage future dumping.
Conduct field investigations of the industrial storm drain system for potential sources of non-storm water discharges.
Report prohibited non-storm water discharges observed during the course of normal daily activities so they can be investigated, contained, and cleaned up or eliminated.
Maintain documentation of illicit connection and illegal dumping incidents, including significant conditionally exempt discharges that are not properly managed.

2.4 Training

Training of technical staff in identifying and documenting illegal dumping incidents is required.Train employees to identify non-storm water discharges and report discharges to the appropriate departments.
Educate employees about spill prevention and cleanup. Well trained employees can reduce human errors that lead to accidental releases or spills.
The employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur. Employees should be familiar with the Spill Prevention Control and Counter measure Plan.
Determine and implement appropriate outreach efforts to reduce non-permissible non-storm water discharges.
When a responsible party is identified, educate the party on the impacts of his or her actions.

Non-storm water discharges to the storm water collection system may include any water used directly in the manufacturing process, air conditioning condensate and coolant, non-contact cooling water, cooling equipment condensate, outdoor secondary containment water, vehicle and equipment wash water, sink and drinking fountain wastewater, sanitary wastes, or other wastewaters. One of the keys to success of reducing or eliminating illegal dumping is increasing the number of people at the facility who are aware of the. problem and who have the tools to at least identify the incident, if not correct it Therefore, train field staff to recognize and report the incidents.

3. SPILL PREVENTION, CONTROL & CLEANUP

3.1 Description

Many activities (that occur at an industrial or commercial site) have the potential to cause accidental *or* illegal spills. Preparation for accidental or illegal spills, with proper training and reporting systems implemented, can minimize the discharge of pollutants to the environment.

Spills and leaks are one of the largest contributors of storm water pollutants. Spill prevention and control plans are applicable to any site at which hazardous materials are stored or used. An effective plan should have spill prevention and response procedures that identify potential spill areas, specify material handling procedures, describe spill response procedures, and provide spill clean-up equipment. The plan should take steps to identify and characterize potential spills, eliminate and reduce spill potential, respond to spills when they occur in an effort to prevent pollutants from entering the storm water drainage system, and train personnel to prevent and control future spills.

3.2 Approach

Develop procedures to prevent/mitigate spills to storm drain systems. Develop and standardize reporting procedures, containment, storage, and disposal activities, documentation, and follow-up procedures.

Recycle, reclaim or reuse materials whenever possible. This will reduce the amount of process materials that are brought into the facility.

Store and contain liquid materials in such a manner that if the tank is ruptured, the contents will not discharge, flow, or be washed into the storm drainage system, surface waters, or groundwater.

Place drip pans or absorbent materials beneath al mounted taps, and at all potential drip and spill locations during filling and unloading of tanks. Any collected liquids or soiled absorbent materials must be reused/recycled or properly disposed.

Checks tanks daily for leaks and spills. Replace tanks that are leaking, corroded, or otherwise deteriorating with tanks in good condition. Collect all spilled liquids and properly dispose of them.

Label all containers according to their contents.

3.3 Spill Control and Cleanup Activities

Follow the Spill Prevention Control Countermeasure Plan.
Clean up leaks and spills immediately.
Place a stockpile of spill cleanup materials where it will be readily accessible.
Never hose down or bury dry material spills. Sweep up the material and dispose of Properly.
Chemical cleanups of material can be achieved with the use of adsorbents, gels, and forms.
Use adsorbent materials on small spills rather than hosing down the spill.
Remove the adsorbent materials promptly and dispose of properly.
For larger spills, a private spill cleanup company or Hazmat team may be necessary.

3.4 Reporting

Reporting spills that pose an immediate threat to human health or the environment to the Regional Water Quality Control Board.
Federal regulations require that any oil spill into a water body or onto an adjoining shoreline be reported to the National Response Center(NRC) at 800-424-8802 (24 hours)
Report spills to local agencies, such as the fire department; they can assist in cleanup.
Designated areas should be impervious and paved with Portland cement concrete, free of cracks and gaps, in order to contain leaks and spills.
Maintenance is critical to preventing leaks and spills. Conduct routing inspections.
Perform all vehicle fluid removal or changing inside or under cover to prevent the run-on of storm water and the runoff of spills.

3.5 Training

Educate employees about spill prevention and cleanup.
The employee should have the tools and knowledge to immediately begin cleaning up as pill should one occurs. Employees should be familiar with the spill Prevention Control and Countermeasure Plan.
Employees should be educated about aboveground storage tank requirements.
Employees responsible for aboveground storage tanks and liquid transfers should be thoroughly familiar with the Spill Prevention Control Countermeasure Plan and the plan should be readily available.
Train employees to recognize and report illegal dumping incidents.
For the purposes of developing a spill prevention and response program to meet the storm water regulations, facility managers should use information provided in this fact sheet and the spill prevention/response portions of the fact sheet in this handbook, for specific activities.

4. OUTDOOR EQUIPMENT OPERATIONS

4.1 Description

Outside process equipment operations and maintenance can contaminate storm water runoff. Activities, such as grinding, painting, coating, sanding, degreasing or parts cleaning, landfills and waste piles, solid waste treatment and disposal, are examples of process operation that can lead to contamination of storm water runoff. Source controls for outdoor process equipment operations and maintenance include reducing the amount of waste created, enclosing or covering all or some of the equipment, installing secondary containment, and training employees.

4.2 Approach

Perform the activity during dry periods.
Use non-toxic chemicals for maintenance and minimize or eliminate the use of solvents.
Consider enclosing the activity in a building and connecting the floor drains to the sanitary sewer.
Minimize contact of storm water with outside process equipment operations through berming and drainage routing. If possible, connect process equipment area to public sewer or facility wastewater treatment system. Some municipalities require that secondary containment areas be connected to the sanitary sewer, prohibiting any hard connections to the storm drain.
Keep your Spill Prevention Control and Countermeasure Plan up-to-date. Place a stockpile of spill cleanup materials where it will be readily accessible.
Prevent operator errors by using engineering safe guards and thus reducing accidental releases of pollutant.
Inspect storage areas regularly for leaks or spills. Also check for structural failure, spills and overfills due to operator error, and/or failure of piping system.

4.3 Training

Train employees to perform the activity during dry periods only or substituting benign materials for more toxic ones.
Train employee and contractors in proper techniques for spill containment and cleanup. Employees should have the tools and knowledge to immediately begin cleaning up a spill should one occur.

4.4 Prevention

Keep Spill Prevention Control and Counter measure Plan up-to-date.
Have employees trained in emergency spill cleanup procedures present when dangerous waste, liquid chemicals, or other wastes are delivered.
Place a stockpile of spill cleanup materials where it will be readily accessible.

5. OUTDOOR LOADING / UNLOADING

5.1 Description

The loading/unloading of materials usually lakes place outside on docks or terminals; therefore materials spilled, leaked, or lost during loading/unloading may collect in the soil or on other surfaces and have the potential to be carried away by storm water runoff or when the area is cleaned. Additionally, rainfall may wash pollutant from machinery used to unload or move materials. Implementation of the following protocols will prevent or reduce the discharge of pollutants to storm water from outdoor loading/unloading of materials.

5.2 Approach

Reduce potential for pollution discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Keep accurate maintenance logs to evaluate materials removed and improvements made.
Parks tank trucks or delivery vehicles in designated areas so that spills or leaks can be contained.
Limit exposure of material to rainfall whenever possible.
Prevent storm water run-on.
Check equipment regularly for leaks
Develop an operations plan that describes procedures for loading and/or unloading.
Conduct loading and unloading in dry weather if possible.
Cover designated loading/unloading areas to reduce exposure of materials to rain
Have employees load and unload all materials and equipment in covered areas such as building overhangs at loading docks if feasible.
Load/unload only at designated loading areas.
Pave loading areas with concrete instead of asphalt.
Avoid placing storm drains in the area.
Keep your Spill Prevention Control and Countermeasure Plan up-to-date
Store and maintain appropriate spill cleanup materials in a location. that is readily accessible and known to all and ensure that employees are familiar with the site spill control plan and proper spill cleanup procedures.
Have an emergency spill cleanup plan readily available
Use drip pans or comparable devices when transferring oils, solvents, and paints.

5.3 Inspection

Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
Look for dust or fumes during loading or unloading operations.

5.4 Training

Train employees and contractors on proper spill containment and cleanup.
Have employees trained in spill containment and cleanup present during loading/unloading.
Train employees in proper handling techniques during liquid transfers to avoid spills
Make sure forklift operators are properly trained on loading and unloading procedures.

5.5 Prevention

Keep Spill Prevention Control Countermeasure Plan up-to-date.
Contain leaks during transfer.
Store and maintain appropriate spill cleanup materials in a location that is readily accessible and known to all and ensure that employees are familiar with the site spill control plan and proper spill cleanup procedures.
Have an emergency spill cleanup plan readily available.
Use drip pans or comparable devices when transferring oil, solvents, and paints.

6. WASTE HANDLING & DISPOSAL

6.1 Description

Improper storage and handling of solid wastes can allow toxic compounds, oils and greases, heavy metals, nutrients, suspended solids, and other pollutants to enter storm water runoff. The discharge of pollutants to storm water from waste handling and disposal can be prevented and reduced by tracking waste generation, storage, and disposal reducing waste generation and disposal through source reduction, reuse, and recycling; and preventing run-on and runoff. Approach

Accomplish reduction in the amount of waste generated using the following source controls:

Production planning and sequencing Process or equipment modification -
Raw material substitution or elimination Loss prevention and housekeeping Waste segregation and separation Close loop recycling

Establish a material tracking system to increase awareness about material usage.
This may reduce spills and minimize contamination, thus reducing the amount of waste produced.
Recycle materials whenever possible, Sweep and clean the storage area regularly. If it is paved, do not hose down the area to a storm drain.
Dispose of rinse and wash water from cleaning waste containers into a sanitary sewer if allowed by the local sewer authority. Do not discharge wash water to the street or storm drain.
Transfer waste from damaged containers into safe containers.
Take special care when loading or unloading wastes to minimize losses. Loading systems can be used to minimize spills and fugitive emission losses such as dust or mist.
Vacuum transfer systems can minimize waste loss.

Controlling Litter and Waste Collection
Post No Littering signs and enforce antilitter laws.
Provide a sufficient number of litter receptacles for the facility.
Clean out and cover Utter receptacles frequently to prevent spillage.
Inspect solid waste containers for structural damage regularly. Repair or replace damaged containers as necessary.
Do not mix wastes; this can cause chemical reactions, make recycling impossible, and complicate disposal.
Ensure that only appropriate solid wastes are added to the solid waste container. Certain wastes such as hazardous wastes, appliances, fluorescent lamps, pesticides, etc., may not be disposed of in solid waste containers.

6.2 Inspection

Inspect and replace faulty pumps or hoses regularly to minimize the potential of releases and spills.
Check waste management areas for leaking containers or spills.
Repair leasing equipment including valves, lines, seals, or pumps promptly.

6.3 Training

Train staff in pollution prevention measures and proper disposal methods.
Train employees and contractors in proper spill containment and cleanup.
The employee should have the tools and knowledge to immediately begin cleaning up a spill should one occur.
Train employees and subcontractors in proper hazardous waste management

6.4 Prevention

Keep Spill Prevention Control and Countermeasure Plan up-to-date.
Have an emergency plan, equipment and trained personnel ready at all times to deal immediately with major spills.
Collect all spilled liquids and properly dispose of them.
Store and maintain appropriate spill cleanup materials in a location known to all near the designated wash area.

7. OUTDOOR STORAGE OF RAW MATERIALS

7.1 Description

Raw materials, by-products, finished products, containers, and material storage areas exposed to rain and/or runoff can pollute storm water. Storm water can become contaminated when materials wash off or dissolve into water or are added to runoff by spills and leaks. Improper storage of these materials can result in accidental spills and the release of materials. To prevent or reduce the discharge of pollutants to storm water from material delivery and storage, pollution prevention and source control measures must be implemented, such as minimizing the storage of hazardous materials on-site$_3$ enclosing or covering materials, storing materials in a designated area, installing secondary containment, conducting regular inspections, preventing storm water run-on and runoff, and training employees and subcontractors.

7.2 Approach

Emphasize employee education for successful BMP implementation.
Keep an accurate, up-to-date inventory of the materials delivered and stored on-site.
Keep chemicals in their original containers and keep them well labeled.
Keep outdoor storage containers in good condition.
Minimize storm water run-on by enclosing the area or building a berm around it.
Secure drums stored in an area where unauthorized persons may gain access to prevent accidental spillage, pilferage, or any unauthorized use. Curbing should be placed along the perimeter of the area to prevent the run-on of uncontaminated storm water from adjacent areas as well as runoff of storm water from the stockpile areas.

7.3 Inspection

Conduct regular inspections of storage areas so that leaks and spills are detected as soon as possible.
Check berms, curbing, containment for repair and patching.

7.2 Training

Train employees well in proper material storage.
Train employees and contractors in proper techniques for spill containment and cleanup.

7.3 Prevention

Keep Spill Prevention Control and Countermeasure Plan up-to-date. Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers near the storage area where it will be ready accessible.
Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.

8. BUILDING & GROUNDS MAINTENANCE

8.1 Description

Storm water runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to storm water from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the storm water collection system.

8.2 Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Switch to non-toxic chemicals for maintenance when possible.

Choose cleaning agents that can be recycled.
Encourage proper lawn management and landscaping, including use of native vegetation.
Encourage use of Integrated Pest Management techniques for pest control.
Encourage proper onsite recycling of yard trimmings.
Recycle residual paints, solvents, lumber, and other material as much as possible.
If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filer fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.
If pressured washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement

8.3 Landscaping Activities

Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage system. Use mulch or other erosion control measures on exposed soils.

8.4 Building Repair, Remodeling and Construction

Do not dump any toxic substance or liquid waste on *the* paveme.nl, the ground, or toward a storm drain.

Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.

Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit$_s$ wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days.

Store toxic material under cover during precipitation events and when not in use. A Cover would include tarps or other temporary cover material.

8.5 Inspection

Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

8.6 Training

Educate and train employees on pesticide use and in pesticide application techniques to
prevent pollution.

Train employees and contractors in proper techniques for spill containment and cleanup Be sure the frequency of training takes into account the complexity of the operations and
the nature of the staff.

8.7 Prevention

Keep Spill Prevention Control and Countermeasure Plan up-to-date.

Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers near the storage area where it wall be readily accessible.

Have employees trained in spill containment and cleanup present during the, loading/unloading of dangerous wastes, liquid chemicals, or other materials. Clean up spills immediately.

9. PARKING / STORAGE AREA MAINTENANCE

9.1 Description

Parking lots and storage areas can contribute a number of substances, such as trash, suspended solids, hydrocarbons, oil and grease, and heavy metals that can enter receiving waters through storm water runoff or non-storm water discharges. The protocols in this fact sheet are intended to prevent or reduce the discharge of pollutants from parking/storage areas and include using good housekeeping practices, following appropriate cleaning BMP s and training employees.

9.2 Approach

The goal of this program is to ensure storm water pollution prevention practices are considered when conducting activities on or around parking areas and storage areas to reduce potential for pollutant discharge to receiving waters. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.
Encourage alternative designs and maintenance strategies for impervious parking lots.
Keep accurate maintenance logs to evaluate BMP implementation.
Keep the parking and storage areas clean and orderly. Remove debris in a timely fashion.
Discharge soapy water remaining in mop or wash buckets to the sanitary sewer through a sink, toilet, clean-out, or wash area with drain.

9.3 Controlling Litter, Surf ace Cleaning, and Repair

Post No Littering signs and enforce anti-litter laws.
Provide an adequate number of litter receptacles.
Routinely sweep, shovel, and dispose of litter in the trash.
Use dry cleaning methods to prevent the discharge of pollutants into the storm water conveyance system if possible.
Sweep all parking lots at least once before the onset of the wet season.
Apply concrete, asphalt, and seal coat during dry weather to prevent contamination from contacting storm water runoff.
Use only as much water as necessary for dust control, to avoid runoff.
Catch drips from paving equipment that is not in use with pans or absorbent material place under the machines. Dispose of collected material and absorbents property.

9.4 Inspection

Have designated personnel conduct inspections of parking facilities and storm water conveyance systems associated with parking facilities on a regular basis.

9.5 Training

Provide regular training to field employees and/or contractors regarding cleaning of paved areas and proper operation of equipment.
Train employees and contractors in proper techniques for spill containment and cleanup.

9.6 Prevention

Keep Spill Prevention Control Countermeasure Plan up-to-date.
Place stockpile of spill cleanup materials where it will be readily accessible or at a central location.
Clean up fluid spills immediately with absorbent rags or material. *JBS* Dispose or spilled material and absorbents properly.

10. METHOD TO PREVENT STORM WATER POLLUTION

Who is responsible for Storm Water Pollution Prevention?

10.1 In one sentence

Each individual working in the company is a responsible party. Of course there is one employee in charge of the program, but without your co-operation his/her job will be very difficult. We should keep our eyes open watching for any possible source of pollutants and either eliminate it or at least if you can't report the situation immediately to the management.

What is our company's propose to prevent storm water pollution?

(a) Facility Design

The site storm water run off is mainly directed to under ground filtration chambers. This means mat the storm water run off is going to the under ground reservoirs. To Reduce the under ground water pollution the storm water run off is going first to a "Filtration System" with high efficiency to capture the majority of sediments, oil and grease, suspended solid and will treat some of the dissolved solids and nutrients. Any equipment in the world has a limit in capacity. If we over load the filtration system with pollutants, the result are some of the pollutants will escape the system and go to the Filtration Chambers. We have to do what we agreed on; otherwise the "Filtration System" will be overwhelmed. It is not only some pollutants will escape the Filter but also it will be clogged with debris.

In the Original design of the facility there are two major Best Management Measures used:

(1) Filtration System (Show the slide of the filter drawing/picture)
(2) Filtration Chambers. (Show the drawing/picture of the filtration chamber)

Offer brief explanation of how these two BMP's function.

In the Water Quality Management Plan you can find the maintenance procedures and schedule for these two measures.

(b) Operation and Maintenance

Through the implementation of the Water Quality Management the company is taking all possible precautions to prevent the storm water run off pollution. Actually the training we have today is part of this plan.

Periodical inspection and maintenance of at the BMP's are required.
Copy of the "WQMP" is available for you to review.

[At this time the trainer will pick up a copy of the plan and show it to the trainees. Also the trainer shall highlight the main sections of the plan]

Once the trainer completes that he/she will guide the trainees through the facility to show them where are the "Filtration System" inlet and the location of the "Filtration Chambers". Then the trainer shall guide the group to show the landscape areas around the parameter of the site and how the sprinkler system is designed and controlled.

Then back to the class room to complete the training.

GOVERNMENT ORGANIZATIONS INVOLVED IN THE WQMP AND REGULATIONS:

Storm water pollution prevention started with Federal Regulations "Clean Water Act". States and Counties established detailed regulations in implementing the federal program. The program in the State of California is managed by The State Water Quality Control Board. Riverside County and City of Perris are responsible for enforcing the program and monitoring the compliance of all Commercial and Industrial Facilities in their jurisdiction.

The regulations allow the local authorities to impose penalties on violators. These penalties range from warning to fines and imprisonment depending on the kind of violation. Repeated violations or ignoring the required corrective actions can escalate the level of penalty even if it is a minor violation.

It is for every employee benefit to avoid any kind of violation. Penalties can threaten the continuation of the business operation. The bottom line is, when prevent storm water pollution we are:

(1) Protect our health and our children health
(2) Protect our job in Western Way Recycling

Let's make Pollution Prevention Part of our Daily Life

Class Room Training

The class room training shall cover the following:

1. What is the definition of storm water?
2. Where the storm water goes?
3. Why we are concerned about preventing the storm water pollution?
    4. What are the substances that may pollute the storm water in general and what are the specific site potential pollutants?
5. How we can prevent those pollutants from reaching the storm water?
6. Who is responsible for storm water pollution prevention?
    7. What our company (Western Way Recycling, Inc.) did and doing to prevent the storm water pollution?
    8. The government organization responsible for the storm water pollution prevention program.

The Trainer: A qualified company employee or outside qualified consultant

Class room environment and tools:
Shall be comfortable setting using overhead projector. Preferred to have pictures of the existing on site BMPs (The retention area, filtration system and Infiltration Chambers Maximum number of trainees per class is 10 employees.

Method of approach:
Dynamic interaction based on addressing questions to the trainees. It is very important t& tie the training to the trainee's real life daily practice. At the end of the class the trainer should give sufficient time for the trainees to ask questions and generate suggestions from the trainees. Any suggestion regardless if it may look not valid shall be considered for discussion and positive criticism by the group.
The final list of employee's suggestions shall be presented to the company management for consideration. This is the best way to get the employees to participate in the implementation of the program.

Class room training shall be on annual base. The training material shall be revised to include:

- Employees suggestions from the previous training
- Update in permit conditions
- Any new regulations
- Any change in the operations

1. What is the Storm Water?

It is in common term the Rain Water. The natural cycle of water on earth start from the evaporated water mainly off the world large water bodies (Oceans, Seas, and Lakes). The water vapor forms the clouds which under certain weather conditions fall on the ground water drops or snow.

2. Where the Storm Water Goes?

The Storm Water (Rain) is the life blood for all human beings, animals and plants. Looking at the world map there are large areas just plain desert Good example is the desert areas in California. If God forbid- we suffer drought for extended period of time-say 7 to 8 years- our whole state will turn gradually to be desert. Considerable amount of rain water penetrate the surface soil and ends up in the under ground naturally created reservoirs which we call aquifers. These aquifers are the source of water feeding the water wells. The Inland empire and San Gabriel Valley area depending on the under ground water for the majority of these areas residential, commercial and industrial water supply needs. The rest of the rainwater which fall on the paved street, buildings, parking lots or any other impervious surfaces are collected by a huge piping net work and flood control channels and directed to the ocean. In addition there is always runoff quantity of rain water the soil can not absorb -especially in times of heavy rain- also goes to the storm water piping and flood control channels. If you look carefully under the streets curbs you can see large openings which are the inlet to the flood control system.

3. Why we are concerned about preventing the Storm Water Pollution?

Considering what we discussed before, the rain water will end up either in the ocean or in the under ground water reservoirs. The ocean is the world of magnificent marine life supplied us with all kinds of seafood Also it is where we go with our children to enjoy swimming and playing. Any pollutants may end up in the bodies of the seafood we eat. In case of high pollution the ocean beaches will be dangerous for the adults and children. The under ground water is what we are using in our homes for drinking, cooking, cleaning and other purposes.
In very short answer, WE PREVENT THE RAIN WATER POLLUTION BECAUSE WE ARE PROTECTING OUR SELF.

4. Pollutants

Pollutants are any substance which can represent threat to human life, marine life and plants. They range from mild pollutants to extremely dangerous and toxic pollutants. No doubt that the modern civilization created hundreds of chemicals that were not in nature before or were not exposed to use. Examples are: Oil and Grease, mercury compounds, solvents, pesticides, chemical fertilizers, specific metals and metal compounds etc. In the attached publication by Federal EPA # 833-B-03-002 you can see how different pollutants can affect the marine life. These pollutants include: Debris, Sediments, Excess Nutrients, Bacteria and Household Hazardous In our operation here we receive tons of empty cans, glass bottles and printed paper. The rain water can wash down the recyclable materials which potentially carry several pollutants. These pollutants can end up either to storm water drainage system then to the ocean or in the underground water.

5. How can we prevent the pollutants from mixing with the storm water?

a) Housekeeping; we can not stress enough the importance of housekeeping. Clean yard and well organized storage of material is the first pollution prevention measure.
b) Containment of any spilled liquids. In case some of the containers may have left over fluids, the operator should not allow the spill to spread all over the place. Use absorbents to contain the spill. DO NOT WASH ANY SPILL BY HOSING IT DOWN THE STORM WATER DRAIN.
c) No car wash or truck wash on site
d) No oil change or any car repair shall be performed on site.
e) Customers and employees shall use the available trash cans and not to litter the trash any where.
f) It is forbidden to intentionally dispose of any fluids to the storm water drain specially waste oil, cleaners, soap, alcohol beverage, pesticides, weed Wing chemicals, acids and alkaline .
g) Watch for any excess plant and lawn watering. The excessive watering and cause run-off to the storm water drain. Most probably the run off will carry with it sediments, soil fertilizers and pesticide (If it was in the soil)
h) Now the trainer can ask the attendees to suggest more measures

6. Who is Responsible for Storm Water Pollution Prevention?

In one sentence: Each individual working in the company is a responsible party.
Of course there is one employee in charge of the program, but without your co-operation his / her job will be very difficult. We should keep our eyes open watching for any possible source of pollutants and either eliminate it or at least if you can 7 report the situation immediately to the management.

7. What is our company is doing to prevent storm water pollution?

(a) Facility Design
The site storm water run off is mainly directed to under ground filtration chambers. This means that the storm water run off is going to the under ground water reservoirs. To reduce the under ground water pollution the storm water run off is going first to a
violation. Repeated violations or ignoring the required corrective actions can escalate the level of penalty even if it is a minor violation.

It is for every employee benefit to avoid any kind of violation. Penalties can threaten the continuation of the business operation. The bottom line is, when prevent storm water pollution we are:

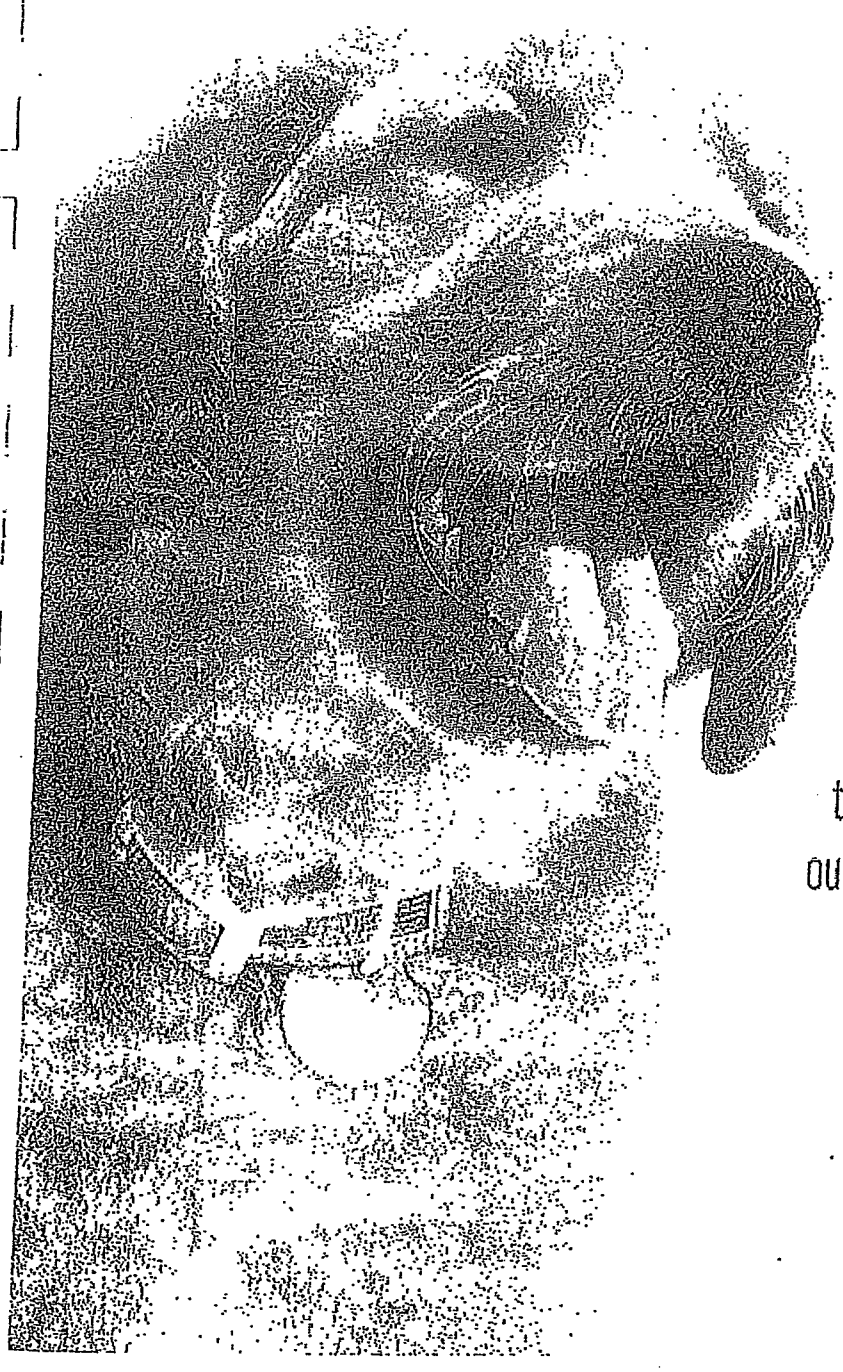
1) Protect our health and our children health
2) Protect our job in Retail Building

3) Protect our health and our children health
4) Protect our job in Retail Building

Let make Pollution Prevention Part of our Daily

Questions and Answer

Pick up after your pooch to curb pollution.



Maybe you weren't aware, but dog waste left on the ground gets into storm drains, polluting rivers, lakes and beaches.

The bacteria and risk of disease threatens the health of our kids and communities. Wherever you live in San Bernardino County, this pollution is a problem. The answer? Pick up after your dog, to help prevent pollution and protect our health. It's in your hands.

CITY OF FONTANA

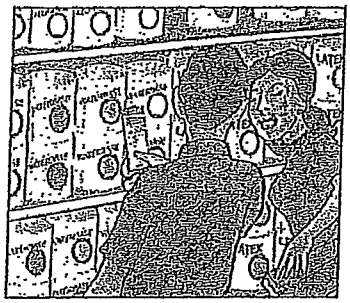
STORMWATER PROGRAM

♻ Printed on recycled paper

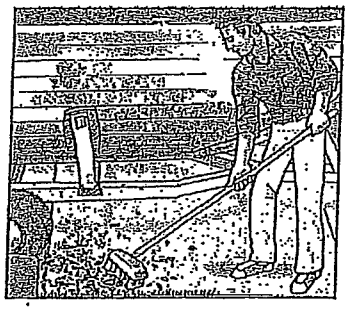
STORMWATER Pollution Prevention

PAINTING

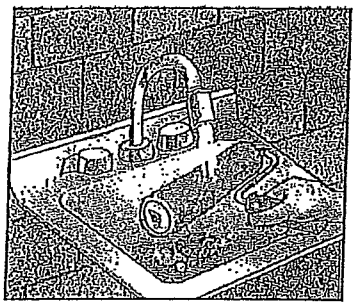
Paints, solvents, adhesives and other toxic chemicals used in painting often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these simple tips to prevent pollution and protect our health.



Water-Based Paints
Use water-based paints whenever possible. They are less toxic than oil-based paints and easier to clean up. Look for products labeled "latex" or "cleans with water."

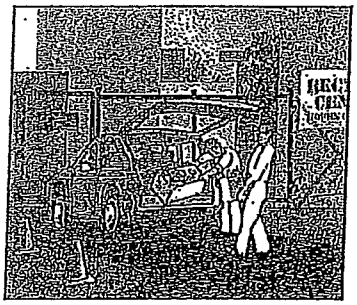


Paint Removal
Sweep up paint stripping residue, chips and dust instead of hosing into the street and dispose of them safely at a household hazardous waste collection facility. Call (800) CLEANUP for the facility in your area.



Painting Cleanup
Never clean brushes or rinse paint containers in the street, gutter or near a storm drain. Clean water-based paints in the sink. Clean oil-based paints with thinner, which can be reused by putting it in a jar to settle out the paint particles and then pouring off the clear liquid for future use. Wrap dried paint residue in newspaper and dispose of it in the trash.

Exterior Paint Removal
When stripping or cleaning building exteriors with high-pressure water, block nearby storm drains and divert washwater onto a designated dirt area. Ask your local wastewater treatment authority if you can collect building cleaning water and discharge it to the sewer.



Recycling Paint
Recycle leftover paint at a household hazardous waste collection facility, save it for touch ups or give it to someone who can use it, like a theatre group, school, city or community organization.

To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

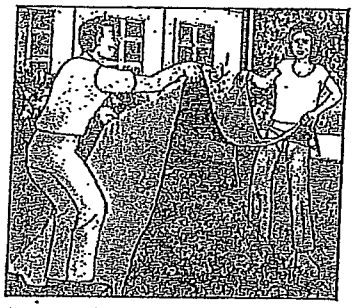
www.1800cleanup.org

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Stormwater Pollution Prevention

HOME REPAIR & REMODELING

Paints, solvents, adhesives and other toxic substances used in home repair and remodeling often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these simple tips to prevent pollution and protect your health.

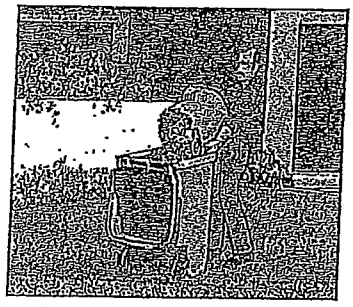


Construction Projects

Keep construction debris away from the street, gutter and storm drains. Schedule grading and excavation projects for dry weather. Cover excavated material and stockpiles of soil, sand or gravel, protected from rain, wind and runoff. Prevent erosion by planting fast-growing annual and perennial grass, which can shield and bind soil.

Recycle Household Hazardous Waste

Household cleaners, paint and other home improvement products like wallpaper and tile adhesives are too toxic to trash. Recycle them instead, at a convenient household hazardous waste collection facility. Call (800) CLEANUP for the facility in your area.

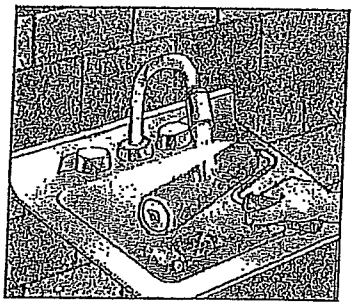


Landscaping & Gardening

Avoid applying fertilizers or pesticide near curbs and driveways, and store covered, protected from rain, wind and runoff. Try using organic or non-toxic alternatives. Reduce runoff and lower your water bill by using drip irrigation, soaker hoses or micro-spray systems. Recycle leaves instead of blowing, sweeping or raking them into the street, gutter or storm drain.

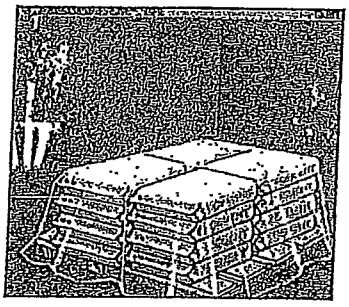
Paint Removal

Paint stripping residue, chips and dust from marine paints and paints containing lead or tributyl tin are hazardous wastes. Sweep them up instead of hosing into the street and dispose of them safely at a household hazardous waste collection facility.



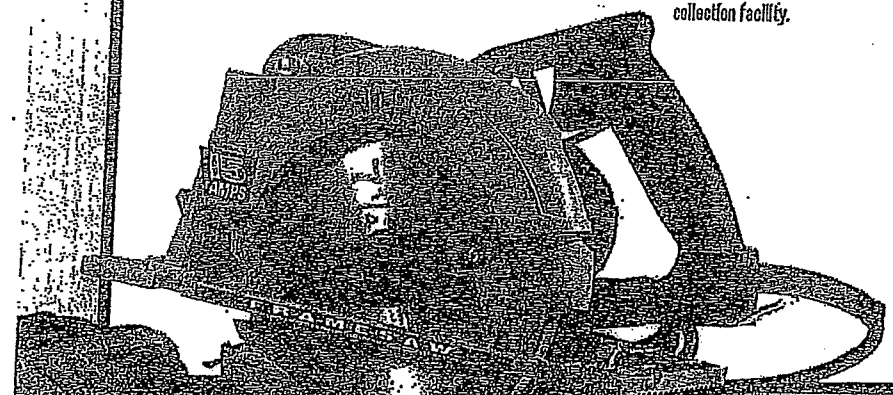
Painting Cleanup

Avoid cleaning brushes or rinsing paint containers in the street, gutter or near a storm drain. Clean water-based paints in the sink. Clean oil-based paints with thinner, which you can filter and reuse. Recycle leftover paint at a household hazardous waste collection facility, save it for touch ups or give it to someone who can use it, like a theatre group, school, city or community organization.



Concrete and Masonry

Store bags of cement and plaster away from gutters and storm drains, and cover them to protect against rain, wind and runoff. Sweep or scoop up cement washout or concrete dust instead of hosing into driveways, streets, gutters or storm drains.



To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

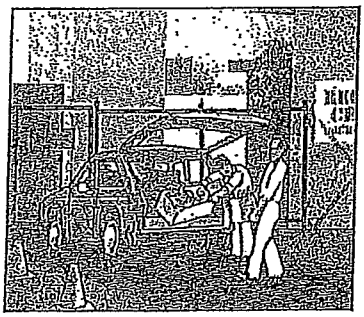
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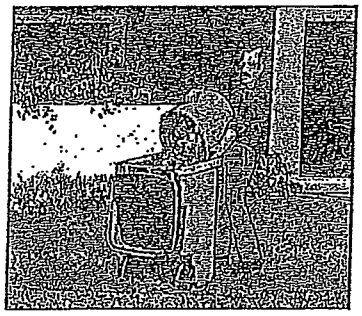
STORMWATER Pollution Prevention

HOME & GARDEN

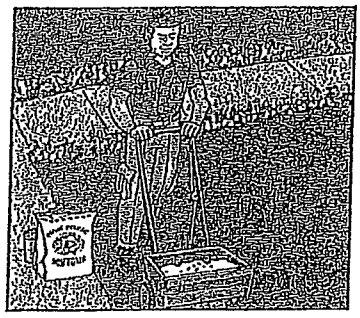
Yard waste and household toxics like paints and pesticides often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these simple tips to prevent pollution and protect your health.



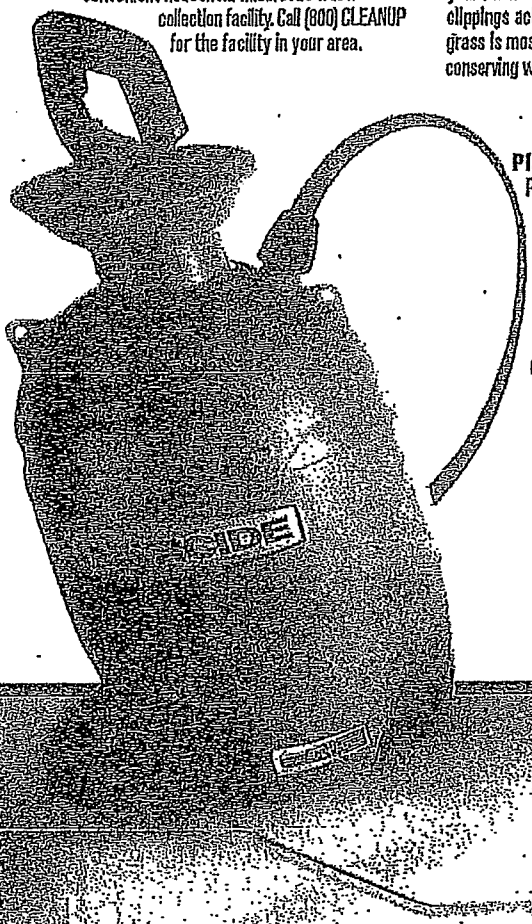
Recycle Household Hazardous Waste
Household products like paint, pesticides, solvents and cleaners are too dangerous to dump and too toxic to trash. Take them to be recycled at a convenient household hazardous waste collection facility. Call (800) CLEANUP for the facility in your area.



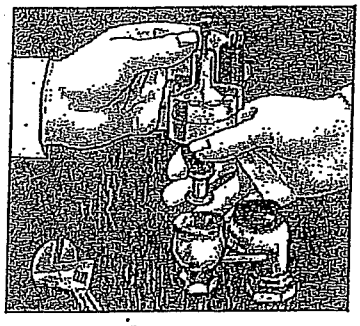
Disposing of Yard Waste
Recycle leaves, grass clippings and other yard waste. Instead of blowing, sweeping or hosing into the street. Try grasscycling, leaving grass clippings on your lawn instead of using a grass catcher. The clippings act as a natural fertilizer, and because grass is mostly water, it also irrigates your lawn, conserving water.



Use Fertilizers & Pesticides Safely
Fertilizers and pesticides are often carried into the storm drain system by sprinkler runoff. Try using organic or non-toxic alternatives. If you use chemical fertilizers or pesticides, avoid applying near curbs and driveways and never apply before a rain.



Planting in the Yard
Produce less yard waste and save water by planting low maintenance, drought-tolerant trees and shrubs. Using drip irrigation, soaker hoses or micro-spray systems for flower beds and vegetation can also help reduce your water bill and prevent runoff.



Use Water Wisely
Cut your water costs and prevent runoff by controlling the amount of water and direction of sprinklers. The average lawn needs about an inch of water a week, including rainfall, or 10 to 20 minutes of watering. A half-inch per week is enough for fall and spring. Sprinklers should be on long enough to allow water to soak into the ground but not so long as to cause runoff.

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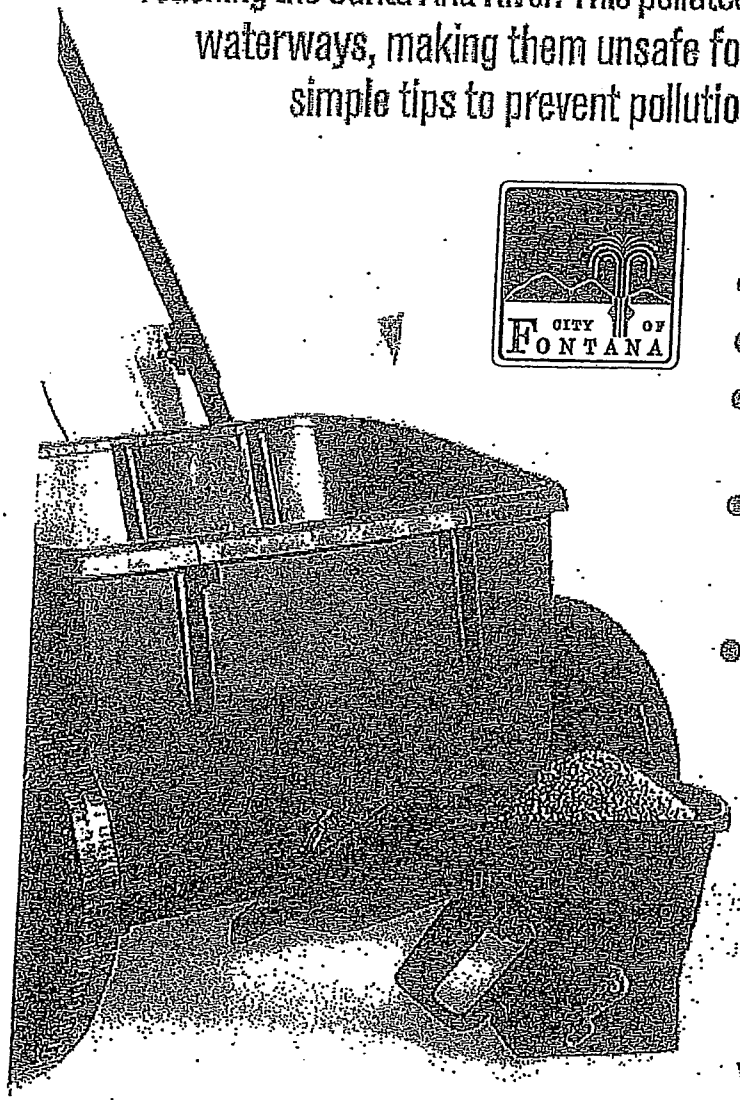
To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

www.1800cleanup.org

Fertilizer Tips to Prevent Pollution

Water that runs off your lawn and garden can carry excess fertilizer into the San Bernardino County storm drain system, and it does not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these simple tips to prevent pollution and protect your health:



- Read the product label and follow the directions carefully, using only as directed.
- Avoid applying near driveways or gutters.
- Never apply fertilizer before a rain.
- Store fertilizers and chemicals in a covered area and in sealed, waterproof containers.
- Take unwanted lawn or garden chemicals to a household hazardous waste collection facility. Call (800) 253-2687.
- Use non-toxic products for your garden and lawn whenever possible.

To report illegal dumping or for more information on Stormwater pollution prevention, call:

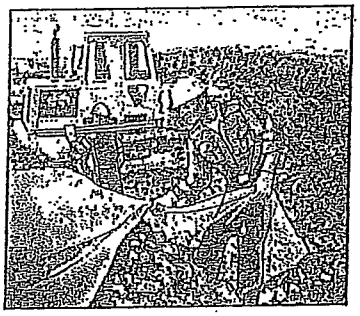
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Stormwater Pollution Prevention

FRESH CONCRETE & MORTAR APPLICATION

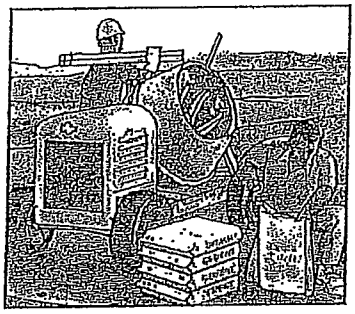
Cement wash, sediment, vehicle fluids, dust and hazardous debris from construction sites often make their way into the San Bernardino County storm drain system and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these best management practices to prevent pollution and protect public health.



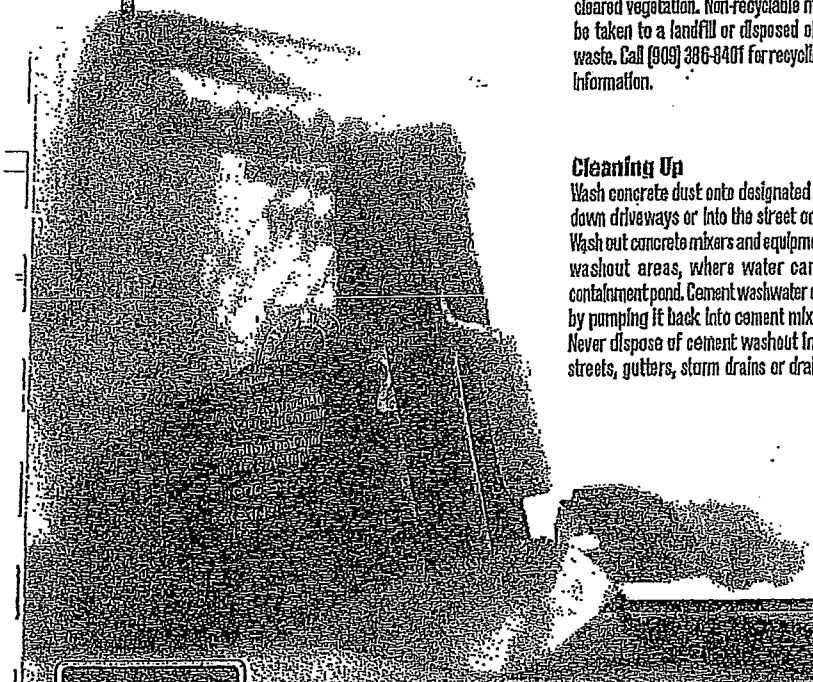
Storing Materials
Keep construction materials and debris away from the street, gutter and storm drains. Secure open bags of cement and cover exposed stockpiles of soil, sand or gravel and excavated material with plastic sheeting, protected from rain, wind and runoff.



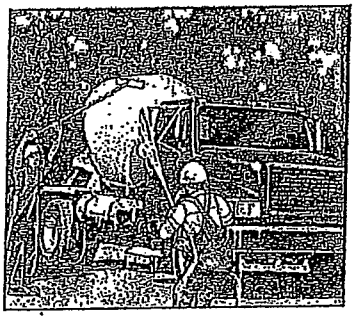
Ordering Materials & Recycling Waste
Reduce waste by ordering only the amounts of materials needed for the job. Use recycled or recyclable materials whenever possible. When breaking up paving, recycle the pieces at a crushing company. You can also recycle broken asphalt, concrete, wood, and cleared vegetation. Non-recyclable materials should be taken to a landfill or disposed of as hazardous waste. Call (909) 386-8401 for recycling and disposal information.



During Construction
Schedule excavation and grading during dry weather. Prevent mortar and cement from entering the street and storm drains by placing erosion controls. Setup small mixers on tarps or drop cloths, for easy cleanup of debris. Never bury waste material. Recycle or dispose of it as hazardous waste.



Cleaning Up
Wash concrete dust onto designated dirt areas, not down driveways or into the street or storm drains. Wash out concrete mixers and equipment in specified washout areas, where water can flow into a containment pond. Cement washwater can be recycled by pumping it back into cement mixers for reuse. Never dispose of cement washout into driveways, streets, gutters, storm drains or drainage ditches.



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To report illegal dumping or for more information on stormwater pollution prevention, call:

1 (800) CLEANUP

www.1800cleanup.org

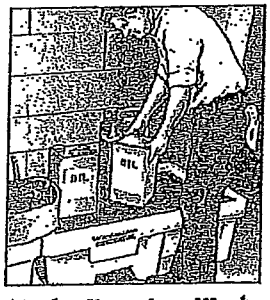
STORMWATER Pollution Prevention

AUTO MAINTENANCE

Oil, grease, anti-freeze and other toxic automotive fluids often make their way into the San Bernardino County storm drain system, and do not get treated before reaching the Santa Ana River. This pollutes our drinking water and contaminates waterways, making them unsafe for people and wildlife. Follow these best management practices to prevent pollution and protect public health.



Cleaning Auto Parts
Scrape parts with a wire brush or use a bake oven rather than liquid cleaners. Arrange drip pans, drying racks and drain boards so that fluids are directed back into the parts washer or the fluid holding tank. Do not wash parts or equipment in a shop sink, parking lot, driveway or street.



Storing Hazardous Waste
Keep your liquid waste segregated. Many fluids can be recycled via hazardous waste disposal companies if they are not mixed. Store all materials under cover with spill containment or inside to prevent contamination of rainwater runoff.



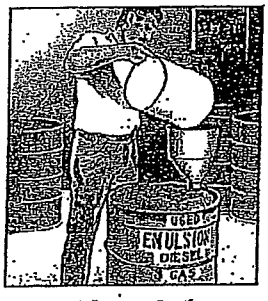
Metal Grinding and Polishing
Keep a bin under your lathe or grinder to capture metal fillings. Send uncontaminated fillings to a scrap metal recycler for reclamation. Store metal fillings in a covered container or indoors.



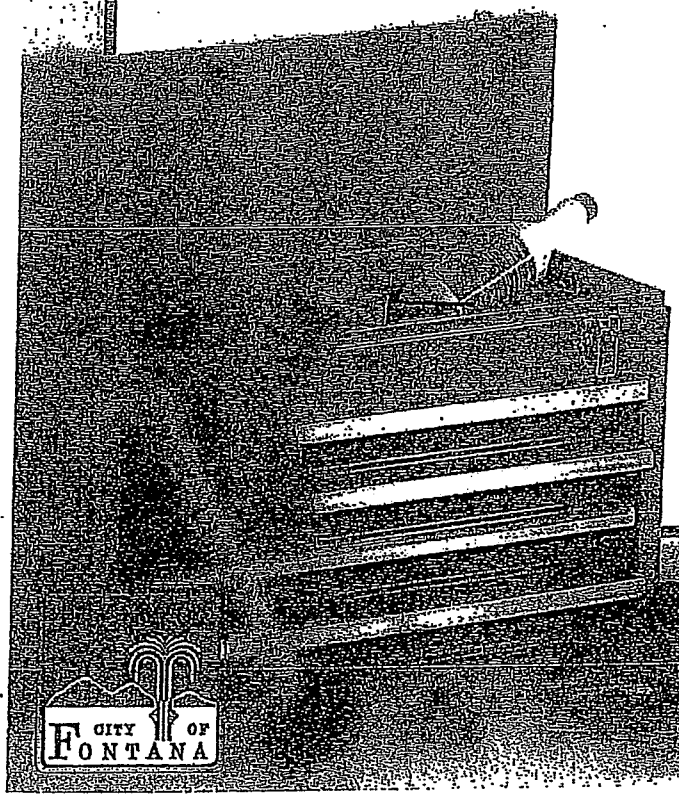
Preventing Leaks and Spills
Place drip pans underneath to capture fluids. Use absorbent cleaning agents instead of water to clean work areas.



Cleaning Spills
Use dry methods for spill cleanup (sweeping, absorbent materials). Follow your hazardous materials response plan, as filed with your local fire department or other hazardous materials authority. Be sure that all employees are aware of the plan and are capable of implementing each phase. To report serious toxic spills, call 911.



Proper Disposal of Hazardous Waste
Recycle used motor oil and oil filters, anti-freeze and other hazardous automotive fluids, batteries, tires and metal fillings collected from grinding or polishing auto parts. Contact a licensed hazardous waste hauler. For more recycling information, call (909) 386-8401.



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1 (800) CLEANUP

www.1800cleanup.org

CITY OF FONTANA

Site Design & Landscape Planning SD-10



Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- ☑ Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Each project site possesses unique topographic, hydrologic, and vegetative features, some of which are more suitable for development than others. Integrating and incorporating appropriate landscape planning methodologies into the project design is the most effective action that can be done to minimize surface and groundwater contamination from stormwater.

Approach

Landscape planning should couple consideration of land suitability for urban uses with consideration of community goals and projected growth. Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Design requirements for site design and landscapes planning should conform to applicable standards and specifications of agencies with jurisdiction and be consistent with applicable General Plan and Local Area Plan policies.

CASQA
CALIFORNIA STORMWATER QUALITY ASSOCIATION

Designing New Installations

Begin the development of a plan for the landscape unit with attention to the following general principles:

- Formulate the plan on the basis of clearly articulated community goals. Carefully identify conflicts and choices between retaining and protecting desired resources and community growth.
- Map and assess land suitability for urban uses. Include the following landscape features in the assessment: wooded land, open unwooded land, steep slopes, erosion-prone soils, foundation suitability, soil suitability for waste disposal, aquifers, aquifer recharge areas, wetlands, floodplains, surface waters, agricultural lands, and various categories of urban land use. When appropriate, the assessment can highlight outstanding local or regional resources that the community determines should be protected (e.g., a scenic area, recreational area, threatened species habitat, farmland, fish run). Mapping and assessment should recognize not only these resources but also additional areas needed for their sustenance.

Project plan designs should conserve natural areas to the extent possible, maximize natural water storage and infiltration opportunities, and protect slopes and channels.

Conserve Natural Areas during Landscape Planning

If applicable, the following items are required and must be implemented in the site layout during the subdivision design and approval process, consistent with applicable General Plan and Local Area Plan policies:

- Cluster development on least-sensitive portions of a site while leaving the remaining land in a natural undisturbed condition.
- Limit clearing and grading of native vegetation at a site to the minimum amount needed to build lots, allow access, and provide fire protection.
- Maximize trees and other vegetation at each site by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.
- Promote natural vegetation by using parking lot islands and other landscaped areas.
- Preserve riparian areas and wetlands.

Maximize Natural Water Storage and Infiltration Opportunities Within the Landscape Unit

- Promote the conservation of forest cover. Building on land that is already deforested affects basin hydrology to a lesser extent than converting forested land. Loss of forest cover reduces interception storage, detention in the organic forest floor layer, and water losses by evapotranspiration, resulting in large peak runoff increases and either their negative effects or the expense of countering them with structural solutions.
- Maintain natural storage reservoirs and drainage corridors, including depressions, areas of permeable soils, swales, and intermittent streams. Develop and implement policies and

regulations to discourage the clearing, filling, and channelization of these features. Utilize them in drainage networks in preference to pipes, culverts, and engineered ditches.

- Evaluating infiltration opportunities by referring to the stormwater management manual for the jurisdiction and pay particular attention to the selection criteria for avoiding groundwater contamination, poor soils, and hydrogeological conditions that cause these facilities to fail. If necessary, locate developments with large amounts of impervious surfaces or a potential to produce relatively contaminated runoff away from groundwater recharge areas.

Protection of Slopes and Channels during Landscape Design

- Convey runoff safely from the tops of slopes.
- Avoid disturbing steep or unstable slopes.
- Avoid disturbing natural channels.
- Stabilize disturbed slopes as quickly as possible.
- Vegetate slopes with native or drought tolerant vegetation.
- Control and treat flows in landscaping and/or other controls prior to reaching existing natural drainage systems.
- Stabilize temporary and permanent channel crossings as quickly as possible, and ensure that increases in run-off velocity and frequency caused by the project do not erode the channel.
- Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters.
- Line on-site conveyance channels where appropriate, to reduce erosion caused by increased flow velocity due to increases in tributary impervious area. The first choice for linings should be grass or some other vegetative surface, since these materials not only reduce runoff velocities, but also provide water quality benefits from filtration and infiltration. If velocities in the channel are high enough to erode grass or other vegetative linings, riprap, concrete, soil cement, or geo-grid stabilization are other alternatives.
- Consider other design principles that are comparable and equally effective.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Redevelopment may present significant opportunity to add features which had not previously been implemented. Examples include incorporation of depressions, areas of permeable soils, and swales in newly redeveloped areas. While some site constraints may exist due to the status of already existing infrastructure, opportunities should not be missed to maximize infiltration, slow runoff, reduce impervious areas, disconnect directly connected impervious areas.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Stormwater Management Manual for Western Washington, Washington State Department of Ecology, August 2001.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Roof Runoff Controls SD-11



Rain Garden

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Various roof runoff controls are available to address stormwater that drains off rooftops. The objective is to reduce the total volume and rate of runoff from individual lots, and retain the pollutants on site that may be picked up from roofing materials and atmospheric deposition. Roof runoff controls consist of directing the roof runoff away from paved areas and mitigating flow to the storm drain system through one of several general approaches: cisterns or rain barrels; dry wells or infiltration trenches; pop-up emitters, and foundation planting. The first three approaches require the roof runoff to be contained in a gutter and downspout system. Foundation planting provides a vegetated strip under the drip line of the roof.

Approach

Design of individual lots for single-family homes as well as lots for higher density residential and commercial structures should consider site design provisions for containing and infiltrating roof runoff or directing roof runoff to vegetative swales or buffer areas. Retained water can be reused for watering gardens, lawns, and trees. Benefits to the environment include reduced demand for potable water used for irrigation, improved stormwater quality, increased groundwater recharge, decreased runoff volume and peak flows, and decreased flooding potential.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Designing New Installations

Cisterns or Rain Barrels

One method of addressing roof runoff is to direct roof downspouts to cisterns or rain barrels. A cistern is an above ground storage vessel with either a manually operated valve or a permanently open outlet. Roof runoff is temporarily stored and then released for irrigation or infiltration between storms. The number of rain

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barrels needed is a function of the rooftop area. Some low impact developers recommend that every house have at least 2 rain barrels, with a minimum storage capacity of 1000 liters. Roof barrels serve several purposes including mitigating the first flush from the roof which has a high volume, amount of contaminants, and thermal load. Several types of rain barrels are commercially available. Consideration must be given to selecting rain barrels that are vector proof and childproof. In addition, some barrels are designed with a bypass valve that filters out grit and other contaminants and routes overflow to a soak-away pit or rain garden.

If the cistern has an operable valve, the valve can be closed to store stormwater for irrigation or infiltration between storms. This system requires continual monitoring by the resident or grounds crews, but provides greater flexibility in water storage and metering. If a cistern is provided with an operable valve and water is stored inside for long periods, the cistern must be covered to prevent mosquitoes from breeding.

A cistern system with a permanently open outlet can also provide for metering stormwater runoff. If the cistern outlet is significantly smaller than the size of the downspout inlet (say ¼ to ½ inch diameter), runoff will build up inside the cistern during storms, and will empty out slowly after peak intensities subside. This is a feasible way to mitigate the peak flow increases caused by rooftop impervious land coverage, especially for the frequent, small storms.

Dry wells and Infiltration Trenches

Roof downspouts can be directed to dry wells or infiltration trenches. A dry well is constructed by excavating a hole in the ground and filling it with an open graded aggregate, and allowing the water to fill the dry well and infiltrate after the storm event. An underground connection from the downspout conveys water into the dry well, allowing it to be stored in the voids. To minimize sedimentation from lateral soil movement, the sides and top of the stone storage matrix can be wrapped in a permeable filter fabric, though the bottom may remain open. A perforated observation pipe can be inserted vertically into the dry well to allow for inspection and maintenance.

In practice, dry wells receiving runoff from single roof downspouts have been successful over long periods because they contain very little sediment. They must be sized according to the amount of rooftop runoff received, but are typically 4 to 5 feet square, and 2 to 3 feet deep, with a minimum of 1-foot soil cover over the top (maximum depth of 10 feet).

To protect the foundation, dry wells must be set away from the building at least 10 feet. They must be installed in solids that accommodate infiltration. In poorly drained soils, dry wells have very limited feasibility.

Infiltration trenches function in a similar manner and would be particularly effective for larger roof areas. An infiltration trench is a long, narrow, rock-filled trench with no outlet that receives stormwater runoff. These are described under Treatment Controls.

Pop-up Drainage Emitter

Roof downspouts can be directed to an underground pipe that daylights some distance from the building foundation, releasing the roof runoff through a pop-up emitter. Similar to a pop-up irrigation head, the emitter only opens when there is flow from the roof. The emitter remains flush to the ground during dry periods, for ease of lawn or landscape maintenance.

Foundation Planting

Landscape planting can be provided around the base to allow increased opportunities for stormwater infiltration and protect the soil from erosion caused by concentrated sheet flow coming off the roof. Foundation plantings can reduce the physical impact of water on the soil and provide a subsurface matrix of roots that encourage infiltration. These plantings must be sturdy enough to tolerate the heavy runoff sheet flows, and periodic soil saturation.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Supplemental Information

Examples

- City of Ottawa's Water Links Surface –Water Quality Protection Program
- City of Toronto Downspout Disconnection Program
- City of Boston, MA, Rain Barrel Demonstration Program

Other Resources

Hager, Marty Catherine, Stormwater, "Low-Impact Development", January/February 2003. www.stormh2o.com

Low Impact Urban Design Tools, Low Impact Development Design Center, Beltsville, MD. www.lid-stormwater.net

Start at the Source, Bay Area Stormwater Management Agencies Association, 1999 Edition

Efficient Irrigation SD-12



Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Irrigation water provided to landscaped areas may result in excess irrigation water being conveyed into stormwater drainage systems.

Approach

Project plan designs for development and redevelopment should include application methods of irrigation water that minimize runoff of excess irrigation water into the stormwater conveyance system.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Designing New Installations

The following methods to reduce excessive irrigation runoff should be considered, and incorporated and implemented where determined applicable and feasible by the Permittee:

- Employ rain-triggered shutoff devices to prevent irrigation after precipitation.
- Design irrigation systems to each landscape area's specific water requirements.
- Include design featuring flow reducers or shutoff valves triggered by a pressure drop to control water loss in the event of broken sprinkler heads or lines.
- Implement landscape plans consistent with County or City water conservation resolutions, which may include provision of water sensors, programmable irrigation times (for short cycles), etc.

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- Design timing and application methods of irrigation water to minimize the runoff of excess irrigation water into the storm water drainage system.
- Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration. Choose plants with low irrigation requirements (for example, native or drought tolerant species). Consider design features such as:
  - Using mulches (such as wood chips or bar) in planter areas without ground cover to minimize sediment in runoff
  - Installing appropriate plant materials for the location, in accordance with amount of sunlight and climate, and use native plant materials where possible and/or as recommended by the landscape architect
  - Leaving a vegetative barrier along the property boundary and interior watercourses, to act as a pollutant filter, where appropriate and feasible
  - Choosing plants that minimize or eliminate the use of fertilizer or pesticides to sustain growth
- Employ other comparable, equally effective methods to reduce irrigation water runoff.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Storm Drain Signage SD-13



Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- ☑ Prohibit Dumping of Improper Materials
- Contain Pollutants
- Collect and Convey

Description

Waste materials dumped into storm drain inlets can have severe impacts on receiving and ground waters. Posting notices regarding discharge prohibitions at storm drain inlets can prevent waste dumping. Storm drain signs and stencils are highly visible source controls that are typically placed directly adjacent to storm drain inlets.

Approach

The stencil or affixed sign contains a brief statement that prohibits dumping of improper materials into the urban runoff conveyance system. Storm drain messages have become a popular method of alerting the public about the effects of and the prohibitions against waste disposal.

Suitable Applications

Stencils and signs alert the public to the destination of pollutants discharged to the storm drain. Signs are appropriate in residential, commercial, and industrial areas, as well as any other area where contributions or dumping to storm drains is likely.

Design Considerations

Storm drain message markers or placards are recommended at all storm drain inlets within the boundary of a development project. The marker should be placed in clear sight facing toward anyone approaching the inlet from either side. All storm drain inlet locations should be identified on the development site map.

Designing New Installations

The following methods should be considered for inclusion in the project design and show on project plans:

- Provide stenciling or labeling of all storm drain inlets and catch basins, constructed or modified, within the project area with prohibitive language. Examples include "NO DUMPING

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– DRAINS TO OCEAN" and/or other graphical icons to discourage illegal dumping.

- Post signs with prohibitive language and/or graphical icons, which prohibit illegal dumping at public access points along channels and creeks within the project area.

Note - Some local agencies have approved specific signage and/or storm drain message placards for use. Consult local agency stormwater staff to determine specific requirements for placard types and methods of application.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. If the project meets the definition of "redevelopment", then the requirements stated under " designing new installations" above should be included in all project design plans.

Additional Information

Maintenance Considerations

- Legibility of markers and signs should be maintained. If required by the agency with jurisdiction over the project, the owner/operator or homeowner's association should enter into a maintenance agreement with the agency or record a deed restriction upon the property title to maintain the legibility of placards or signs.

Placement

- Signage on top of curbs tends to weather and fade.

- Signage on face of curbs tends to be worn by contact with vehicle tires and sweeper brooms.

Supplemental Information

Examples

- Most MS4 programs have storm drain signage programs. Some MS4 programs will provide stencils, or arrange for volunteers to stencil storm drains as part of their outreach program.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Trash Storage Areas SD-32

Description

Trash storage areas are areas where a trash receptacle (s) are located for use as a repository for solid wastes. Stormwater runoff from areas where trash is stored or disposed of can be polluted. In addition, loose trash and debris can be easily transported by water or wind into nearby storm drain inlets, channels, and/or creeks. Waste handling operations that may be sources of stormwater pollution include dumpsters, litter control, and waste piles.

Approach

This fact sheet contains details on the specific measures required to prevent or reduce pollutants in stormwater runoff associated with trash storage and handling. Preventative measures including enclosures, containment structures, and impervious pavements to mitigate spills, should be used to reduce the likelihood of contamination.

Design Objectives

- Maximize Infiltration
- Provide Retention
- Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment. (Detached residential single-family homes are typically excluded from this requirement.)

Design Considerations

Design requirements for waste handling areas are governed by Building and Fire Codes, and by current local agency ordinances and zoning requirements. The design criteria described in this fact sheet are meant to enhance and be consistent with these code and ordinance requirements. Hazardous waste should be handled in accordance with legal requirements established in Title 22, California Code of Regulation.

Wastes from commercial and industrial sites are typically hauled by either public or commercial carriers that may have design or access requirements for waste storage areas. The design criteria in this fact sheet are recommendations and are not intended to be in conflict with requirements established by the waste hauler. The waste hauler should be contacted prior to the design of your site trash collection areas. Conflicts or issues should be discussed with the local agency.

Designing New Installations

Trash storage areas should be designed to consider the following structural or treatment control BMPs:

- Design trash container areas so that drainage from adjoining roofs and pavement is diverted around the area(s) to avoid run-on. This might include berming or grading the waste handling area to prevent run-on of stormwater.
- Make sure trash container areas are screened or walled to prevent off-site transport of trash.

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- Use lined bins or dumpsters to reduce leaking of liquid waste.
- Provide roofs, awnings, or attached lids on all trash containers to minimize direct precipitation and prevent rainfall from entering containers.
- Pave trash storage areas with an impervious surface to mitigate spills.
- Do not locate storm drains in immediate vicinity of the trash storage area.
- Post signs on all dumpsters informing users that hazardous materials are not to be disposed of therein.

Redeveloping Existing Installations

Various jurisdictional stormwater management and mitigation plans (SUSMP, WQMP, etc.) define "redevelopment" in terms of amounts of additional impervious area, increases in gross floor area and/or exterior construction, and land disturbing activities with structural or impervious surfaces. The definition of " redevelopment" must be consulted to determine whether or not the requirements for new development apply to areas intended for redevelopment. If the definition applies, the steps outlined under "designing new installations" above should be followed.

Additional Information

Maintenance Considerations

The integrity of structural elements that are subject to damage (i.e., screens, covers, and signs) must be maintained by the owner/operator. Maintenance agreements between the local agency and the owner/operator may be required. Some agencies will require maintenance deed restrictions to be recorded of the property title. If required by the local agency, maintenance agreements or deed restrictions must be executed by the owner/operator before improvement plans are approved.

Other Resources

A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP), Los Angeles County Department of Public Works, May 2002.

Model Standard Urban Storm Water Mitigation Plan (SUSMP) for San Diego County, Port of San Diego, and Cities in San Diego County, February 14, 2002.

Model Water Quality Management Plan (WQMP) for County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County, Draft February 2003.

Ventura Countywide Technical Guidance Manual for Stormwater Quality Control Measures, July 2002.

Building & Grounds Maintenance SC-41



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	✓
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	
Organics	

Description

Stormwater runoff from building and grounds maintenance activities can be contaminated with toxic hydrocarbons in solvents, fertilizers and pesticides, suspended solids, heavy metals, abnormal pH, and oils and greases. Utilizing the protocols in this fact sheet will prevent or reduce the discharge of pollutants to stormwater from building and grounds maintenance activities by washing and cleaning up with as little water as possible, following good landscape management practices, preventing and cleaning up spills immediately, keeping debris from entering the storm drains, and maintaining the stormwater collection system.

Approach

Reduce potential for pollutant discharge through source control pollution prevention and BMP implementation. Successful implementation depends on effective training of employees on applicable BMPs and general pollution prevention strategies and objectives.

Pollution Prevention

- Switch to non-toxic chemicals for maintenance when possible.
- Choose cleaning agents that can be recycled.
- Encourage proper lawn management and landscaping, including use of native vegetation.

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- Encourage use of Integrated Pest Management techniques for pest control.
- Encourage proper onsite recycling of yard trimmings.
- Recycle residual paints, solvents, lumber, and other material as much as possible.

Suggested Protocols

Pressure Washing of Buildings, Rooftops, and Other Large Objects

- In situations where soaps or detergents are used and the surrounding area is paved, pressure washers must use a water collection device that enables collection of wash water and associated solids. A sump pump, wet vacuum or similarly effective device must be used to collect the runoff and loose materials. The collected runoff and solids must be disposed of properly.
- If soaps or detergents are not used, and the surrounding area is paved, wash runoff does not have to be collected but must be screened. Pressure washers must use filter fabric or some other type of screen on the ground and/or in the catch basin to trap the particles in wash water runoff.
- If you are pressure washing on a grassed area (with or without soap), runoff must be dispersed as sheet flow as much as possible, rather than as a concentrated stream. The wash runoff must remain on the grass and not drain to pavement.

Landscaping Activities

- Dispose of grass clippings, leaves, sticks, or other collected vegetation as garbage, or by composting. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures on exposed soils.

Building Repair, Remodeling, and Construction

- Do not dump any toxic substance or liquid waste on the pavement, the ground, or toward a storm drain.
- Use ground or drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of collected material daily.
- Use a ground cloth or oversized tub for activities such as paint mixing and tool cleaning.
- Clean paintbrushes and tools covered with water-based paints in sinks connected to sanitary sewers or in portable containers that can be dumped into a sanitary sewer drain. Brushes and tools covered with non-water-based paints, finishes, or other materials must be cleaned in a manner that enables collection of used solvents (e.g., paint thinner, turpentine, etc.) for recycling or proper disposal.
- Use a storm drain cover, filter fabric, or similarly effective runoff control mechanism if dust, grit, wash water, or other pollutants may escape the work area and enter a catch basin. This is particularly necessary on rainy days. The containment device(s) must be in place at the beginning of the work day, and accumulated dirty runoff and solids must be collected and disposed of before removing the containment device(s) at the end of the work day.

- If you need to de-water an excavation site, you may need to filter the water before discharging to a catch basin or off-site. If directed off-site, you should direct the water through hay bales and filter fabric or use other sediment filters or traps.
- Store toxic material under cover during precipitation events and when not in use. A cover would include tarps or other temporary cover material.

Mowing, Trimming, and Planting

- Dispose of leaves, sticks, or other collected vegetation as garbage, by composting or at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- Use mulch or other erosion control measures when soils are exposed.
- Place temporarily stockpiled material away from watercourses and drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- Consider an alternative approach when bailing out muddy water: do not put it in the storm drain; pour over landscaped areas.
- Use hand weeding where practical.

Fertilizer and Pesticide Management

- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- Use less toxic pesticides that will do the job when applicable. Avoid use of copper-based pesticides if possible.
- Do not use pesticides if rain is expected.
- Do not mix or prepare pesticides for application near storm drains.
- Use the minimum amount needed for the job.
- Calibrate fertilizer distributors to avoid excessive application.
- Employ techniques to minimize off-target application (e.g., spray drift) of pesticides, including consideration of alternative application techniques.
- Apply pesticides only when wind speeds are low.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Irrigate slowly to prevent runoff and then only as much as is needed.
- Clean pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Dispose of empty pesticide containers according to the instructions on the container label.

- Use up the pesticides. Rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- Implement storage requirements for pesticide products with guidance from the local fire department and County Agricultural Commissioner. Provide secondary containment for pesticides.

Inspection

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering and repair leaks in the irrigation system as soon as they are observed.

Training

- Educate and train employees on pesticide use and in pesticide application techniques to prevent pollution.
- Train employees and contractors in proper techniques for spill containment and cleanup.
- Be sure the frequency of training takes into account the complexity of the operations and the nature of the staff.

Spill Response and Prevention

- Keep your Spill Prevention Control and Countermeasure (SPCC) Plan up-to-date.
- Place a stockpile of spill cleanup materials, such as brooms, dustpans, and vacuum sweepers (if desired) near the storage area where it will be readily accessible.
- Have employees trained in spill containment and cleanup present during the loading/unloading of dangerous wastes, liquid chemicals, or other materials.
- Familiarize employees with the Spill Prevention Control and Countermeasure Plan.
- Clean up spills immediately.

Other Considerations

Alternative pest/weed controls may not be available, suitable, or effective in many cases.

Requirements

Costs

- Cost will vary depending on the type and size of facility.
- Overall costs should be low in comparison to other BMPs.

Maintenance

Sweep paved areas regularly to collect loose particles. Wipe up spills with rags and other absorbent material immediately, do not hose down the area to a storm drain.

Supplemental Information

Further Detail of the BMP

Fire Sprinkler Line Flushing

Building fire sprinkler line flushing may be a source of non-stormwater runoff pollution. The water entering the system is usually potable water, though in some areas it may be non-potable reclaimed wastewater. There are subsequent factors that may drastically reduce the quality of the water in such systems. Black iron pipe is usually used since it is cheaper than potable piping, but it is subject to rusting and results in lower quality water. Initially, the black iron pipe has an oil coating to protect it from rusting between manufacture and installation; this will contaminate the water from the first flush but not from subsequent flushes. Nitrates, poly-phosphates and other corrosion inhibitors, as well as fire suppressants and antifreeze may be added to the sprinkler water system. Water generally remains in the sprinkler system a long time (typically a year) and between flushes may accumulate iron, manganese, lead, copper, nickel, and zinc. The water generally becomes anoxic and contains living and dead bacteria and breakdown products from chlorination. This may result in a significant BOD problem and the water often smells. Consequently dispose fire sprinkler line flush water into the sanitary sewer. Do not allow discharge to storm drain or infiltration due to potential high levels of pollutants in fire sprinkler line water.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

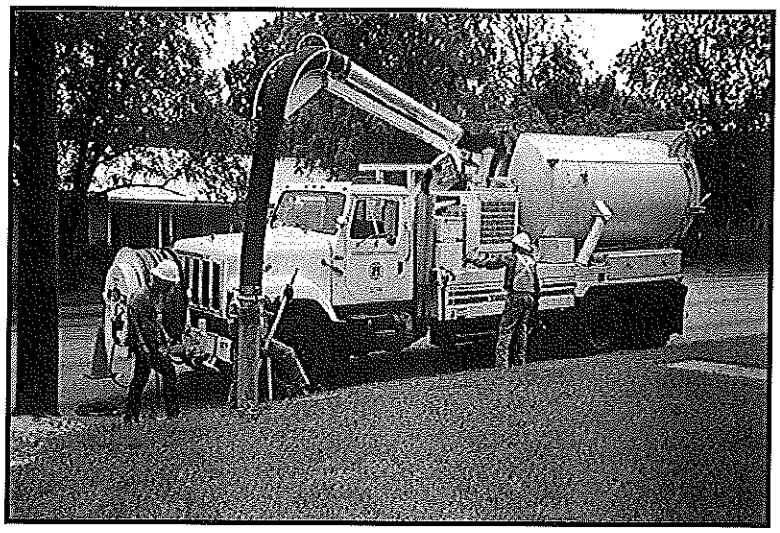
Mobile Cleaners Pilot Program: Final Report. 1997. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Pollution from Surface Cleaning Folder. 1996. Bay Area Stormwater Management Agencies Association (BASMAA). http://www.basmaa.org/

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net/

Drainage System Maintenance SC-44



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize

Description

As a consequence of its function, the stormwater conveyance system collects and transports urban runoff and stormwater that may contain certain pollutants. The protocols in this fact sheet are intended to reduce pollutants reaching receiving waters through proper conveyance system operation and maintenance.

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	✓
Oil and Grease	
Organics	

Approach

Pollution Prevention

Maintain catch basins, stormwater inlets, and other stormwater conveyance structures on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, restore catch basins' sediment trapping capacity, and ensure the system functions properly hydraulically to avoid flooding.

Suggested Protocols

Catch Basins/Inlet Structures

- Staff should regularly inspect facilities to ensure compliance with the following:
  - Immediate repair of any deterioration threatening structural integrity.
  - Cleaning before the sump is 40% full. Catch basins should be cleaned as frequently as needed to meet this standard.
  - Stenciling of catch basins and inlets (see SC34 Waste Handling and Disposal).

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- Clean catch basins, storm drain inlets, and other conveyance structures before the wet season to remove sediments and debris accumulated during the summer.
- Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed.
- Keep accurate logs of the number of catch basins cleaned.
- Store wastes collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain.
- Dewater the wastes if necessary with outflow into the sanitary sewer if permitted. Water should be treated with an appropriate filtering device prior to discharge to the sanitary sewer. If discharge to the sanitary sewer is not allowed, water should be pumped or vacuumed to a tank and properly disposed. Do not dewater near a storm drain or stream.

Storm Drain Conveyance System

- Locate reaches of storm drain with deposit problems and develop a flushing schedule that keeps the pipe clear of excessive buildup.
- Collect and pump flushed effluent to the sanitary sewer for treatment whenever possible.

Pump Stations

- Clean all storm drain pump stations prior to the wet season to remove silt and trash.
- Do not allow discharge to reach the storm drain system when cleaning a storm drain pump station or other facility.
- Conduct routine maintenance at each pump station.
- Inspect, clean, and repair as necessary all outlet structures prior to the wet season.

Open Channel

- Modify storm channel characteristics to improve channel hydraulics, increase pollutant removals, and enhance channel/creek aesthetic and habitat value.
- Conduct channel modification/improvement in accordance with existing laws. Any person, government agency, or public utility proposing an activity that will change the natural (emphasis added) state of any river, stream, or lake in California, must enter into a Steam or Lake Alteration Agreement with the Department of Fish and Game. The developer-applicant should also contact local governments (city, county, special districts), other state agencies (SWRCB, RWQCB, Department of Forestry, Department of Water Resources), and Federal Corps of Engineers and USFWS.

Illicit Connections and Discharges

- Look for evidence of illegal discharges or illicit connections during routine maintenance of conveyance system and drainage structures:
  - Is there evidence of spills such as paints, discoloring, etc?

- Are there any odors associated with the drainage system?
- Record locations of apparent illegal discharges/illicit connections?
- Track flows back to potential dischargers and conduct aboveground inspections. This can be done through visual inspection of upgradient manholes or alternate techniques including zinc chloride smoke testing, fluorometric dye testing, physical inspection testing, or television camera inspection.
- Eliminate the discharge once the origin of flow is established.

- Stencil or demarcate storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as "Dump No Waste Drains to Stream" stenciled next to them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.
- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Illegal Dumping

- Inspect and clean up hot spots and other storm drainage areas regularly where illegal dumping and disposal occurs.
- Establish a system for tracking incidents. The system should be designed to identify the following:
  - Illegal dumping hot spots
  - Types and quantities (in some cases) of wastes
  - Patterns in time of occurrence (time of day/night, month, or year)
  - Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)
  - Responsible parties
- Post "No Dumping" signs in problem areas with a phone number for reporting dumping and disposal. Signs should also indicate fines and penalties for illegal dumping.
- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Training

- Train crews in proper maintenance activities, including record keeping and disposal.
- Allow only properly trained individuals to handle hazardous materials/wastes.
- Have staff involved in detection and removal of illicit connections trained in the following:
  - OSHA-required Health and Safety Training (29 CFR 1910.120) plus annual refresher training (as needed).

- OSHA Confined Space Entry training (Cal-OSHA Confined Space, Title 8 and Federal OSHA 29 CFR 1910.146).
- Procedural training (field screening, sampling, smoke/dye testing, TV inspection).

Spill Response and Prevention

- Investigate all reports of spills, leaks, and/or illegal dumping promptly.
- Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags) or dig up, remove, and properly dispose of contaminated soil.
- Refer to fact sheet SC-11 Spill Prevention, Control, and Cleanup.

Other Considerations (Limitations and Regulations)

- Clean-up activities may create a slight disturbance for local aquatic species. Access to items and material on private property may be limited. Trade-offs may exist between channel hydraulics and water quality/riparian habitat. If storm channels or basins are recognized as wetlands, many activities, including maintenance, may be subject to regulation and permitting.
- Storm drain flushing is most effective in small diameter pipes (36-inch diameter pipe or less, depending on water supply and sediment collection capacity). Other considerations associated with storm drain flushing may include the availability of a water source, finding a downstream area to collect sediments, liquid/sediment disposal, and prohibition against disposal of flushed effluent to sanitary sewer in some areas.
- Regulations may include adoption of substantial penalties for illegal dumping and disposal.
- Local municipal codes may include sections prohibiting discharge of soil, debris, refuse, hazardous wastes, and other pollutants into the storm drain system.

Requirements

Costs

- An aggressive catch basin cleaning program could require a significant capital and O&M budget.
- The elimination of illegal dumping is dependent on the availability, convenience, and cost of alternative means of disposal. The primary cost is for staff time. Cost depends on how aggressively a program is implemented. Other cost considerations for an illegal dumping program include:
  - Purchase and installation of signs.
  - Rental of vehicle(s) to haul illegally-disposed items and material to landfills.
  - Rental of heavy equipment to remove larger items (e.g., car bodies) from channels.
  - Purchase of landfill space to dispose of illegally-dumped items and material.

- Methods used for illicit connection detection (smoke testing, dye testing, visual inspection, and flow monitoring) can be costly and time-consuming. Site-specific factors, such as the level of impervious area, the density and ages of buildings, and type of land use will determine the level of investigation necessary.

Maintenance

- Two-person teams may be required to clean catch basins with vactor trucks.
- Teams of at least two people plus administrative personnel are required to identify illicit discharges, depending on the complexity of the storm sewer system.
- Arrangements must be made for proper disposal of collected wastes.
- Technical staff are required to detect and investigate illegal dumping violations.

Supplemental Information

Further Detail of the BMP

Storm Drain Flushing

Flushing is a common maintenance activity used to improve pipe hydraulics and to remove pollutants in storm drainage systems. Flushing may be designed to hydraulically convey accumulated material to strategic locations, such as an open channel, another point where flushing will be initiated, or the sanitary sewer and the treatment facilities, thus preventing resuspension and overflow of a portion of the solids during storm events. Flushing prevents "plug flow" discharges of concentrated pollutant loadings and sediments. Deposits can hinder the designed conveyance capacity of the storm drain system and potentially cause backwater conditions in severe cases of clogging.

Storm drain flushing usually takes place along segments of pipe with grades that are too flat to maintain adequate velocity to keep particles in suspension. An upstream manhole is selected to place an inflatable device that temporarily plugs the pipe. Further upstream, water is pumped into the line to create a flushing wave. When the upstream reach of pipe is sufficiently full to cause a flushing wave, the inflated device is rapidly deflated with the assistance of a vacuum pump, thereby releasing the backed up water and resulting in the cleaning of the storm drain segment.

To further reduce impacts of stormwater pollution, a second inflatable device placed well downstream may be used to recollect the water after the force of the flushing wave has dissipated. A pump may then be used to transfer the water and accumulated material to the sanitary sewer for treatment. In some cases, an interceptor structure may be more practical or required to recollect the flushed waters.

It has been found that cleansing efficiency of periodic flush waves is dependent upon flush volume, flush discharge rate, sewer slope, sewer length, sewer flow rate, sewer diameter, and population density. As a rule of thumb, the length of line to be flushed should not exceed 700 feet. At this maximum recommended length, the percent removal efficiency ranges between 65-75% for organics and 55-65% for dry weather grit/inorganic material. The percent removal efficiency drops rapidly beyond that. Water is commonly supplied by a water truck, but fire hydrants can also supply water. To make the best use of water, it is recommended that reclaimed water be used or that fire hydrant line flushing coincide with storm sewer flushing.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

Ferguson, B.K. 1991. Urban Stream Reclamation, p. 324-322, Journal of Soil and Water Conservation.

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Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net

United States Environmental Protection Agency (USEPA). 2002. Pollution Prevention/Good Housekeeping for Municipal Operations Storm Drain System Cleaning. On line:
http://www.epa.gov/npdes/menuofbmps/poll_16.htm

Appendix 10

Noise Impact Analysis

Magnolia Ranch Residential Project

Initial Study

.

NOISE IMPACT ANALYSIS

MAGNOLIA RANCH RESIDENTIAL PROJECT

CITY OF EASTVALE

Lead Agency:

City of Eastvale
12363 Limonite Street
Eastvale, CA 91752

Prepared by:

Vista Environmental
1021 Didrickson Way
Laguna Beach, CA 92651
949 510 5355
Greg Tonkovich, INCE

Project No. 21003

July 26, 2022

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ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
City	City of Eastvale
cmu	concrete masonry unit
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted decibels
DOT	Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
EPA	Environmental Protection Agency
Hz	Hertz
Ldn	Day-night average noise level
Leq	Equivalent sound level
Lmax	Maximum noise level
OSHA	Occupational Safety and Health Administration
PPV	Peak particle velocity
RMS	Root mean square
SEL	Single Event Level or Sound Exposure Level
STC	Sound Transmission Class
VdB	Vibration velocity level in decibels

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared to determine the noise impacts associated with the proposed Magnolia Ranch Residential project (proposed project). The following is provided in this report:

- A description of the study area and the proposed project;
- Information regarding the fundamentals of noise;
- Information regarding the fundamentals of vibration;
- A description of the local noise guidelines and standards;
- An evaluation of the current noise environment;
- An analysis of the potential short-term construction-related noise impacts from the proposed project; and
- An analysis of long-term operations-related noise impacts from the proposed project.

1.2 Site Location and Study Area

The project site is located in the City of Eastvale (City). The approximately 10.0 gross acre project site is relatively flat and currently includes a ranch house with barn and associated fencing and facilities for livestock/horses. The project site is bounded by Schleisman Road to the north, Eastvale Elementary School to the east, Orange Street and River Heights Intermediate School to the south and single-family homes to the west. The project study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

1.3 Proposed Project Description

The proposed project would consist of a residential development on 8.28 net acres that would include 41 detached single-family homes with approximately 22,000 square feet of common open space. New sidewalks will be provided along the north side of Orange Street, a walkway will run in a north-south direction adjacent to the east property line, and a walkway will run in an east-west direction through the common open space area. The proposed project would also include development of an internal road system and road improvements to the portion of Orange Street that is adjacent to the project site. It should be noted that the project applicant is proposing to pay TUMF fees in lieu of road improvements to the portion of Schleisman Road that is adjacent to the project site, however in order to provide a conservative analysis, it has been assumed that this area will be graded as part of the proposed project. The proposed site plan is shown in Figure 2.

1.4 Executive Summary

Standard Noise Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the City and State of California (State).

City of Eastvale Noise Regulations

The following lists the noise and vibration regulations from the City of Eastvale Development Code that are applicable, but not limited to the proposed project.

- Section 120.05.130(b) - Noise control standards
- Section 120.05.130(b) – Vibration standards

State of California Noise Regulations

The following lists the State of California noise regulations that are applicable, but not limited to the proposed project.

- California Vehicle Code Section 27200-27207 – On Road Vehicle Noise Limits
- California Vehicle Code Section 38365-38350 – Off-Road Vehicle Noise Limits

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines noise checklist questions.

Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than significant impact.

Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact.

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant impact.

1.5 Project Design Features Incorporated into the Proposed Project

This analysis was based on implementation of the following project design features that are either already depicted on the proposed project site plan and architectural plans or are required from City and State Regulations.

Project Design Feature 1:
Prior to the issuance of the grading permit, the project applicant shall submit a construction-related noise mitigation plan to the City for review and approval. The plan shall depict the

locations of where construction equipment will operate on the project site and how the noise from the construction equipment will be mitigated during construction of the project, through use of such methods as:

1. Temporary noise attenuation fences;
2. Preferential location of equipment
3. Length of equipment use and idling time; and,
4. Use of current noise suppression technology and equipment.

1.6 Mitigation Measures for the Proposed Project

This analysis found that through adherence to the noise and vibration regulations detailed in Section 1.4, through implementation of Project Design Feature 1 detailed in Section 1.5 above, and through implementation of the following mitigation all noise and vibration impacts would be reduced to less than significant levels.

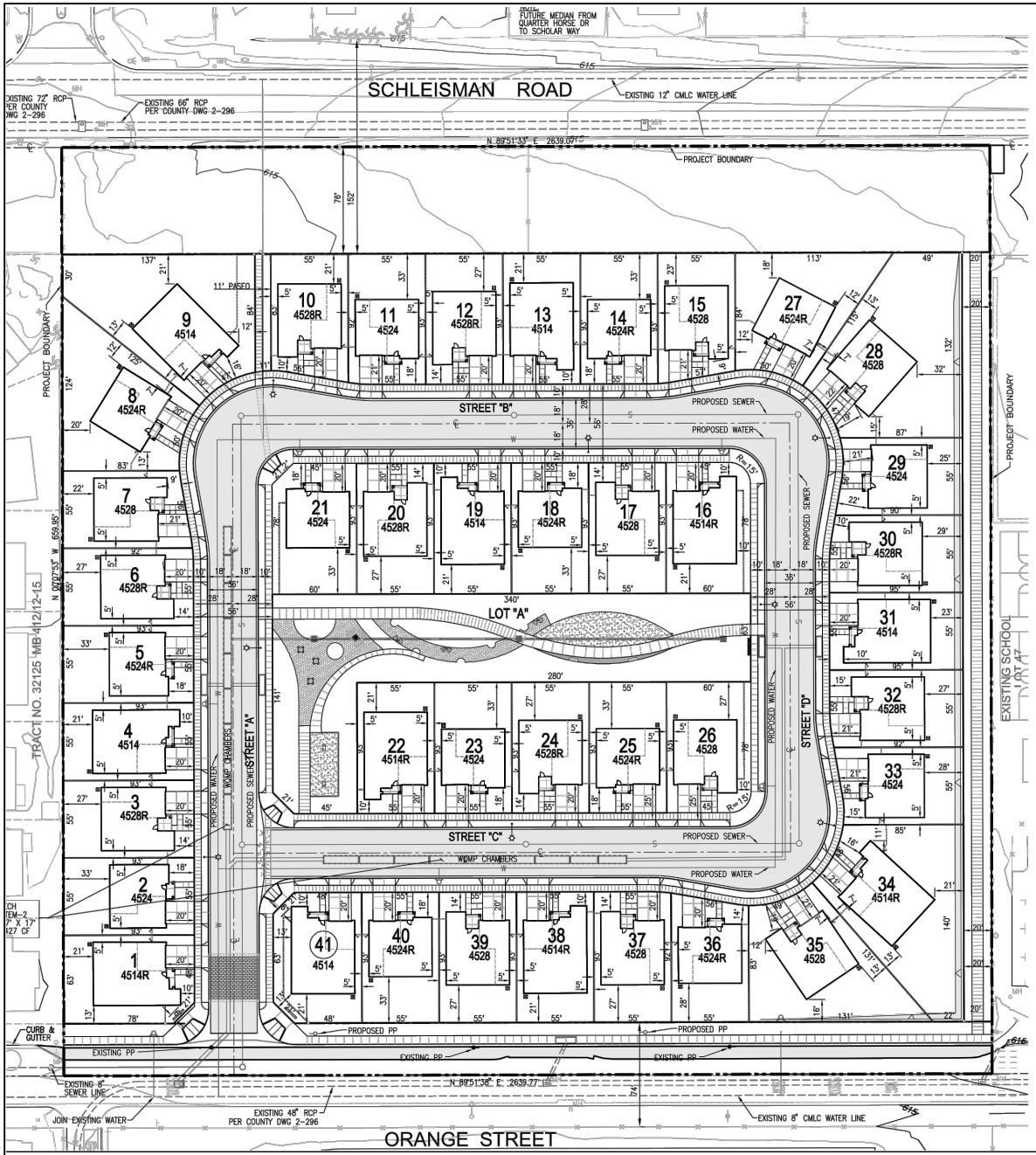
Mitigation Measure 1:

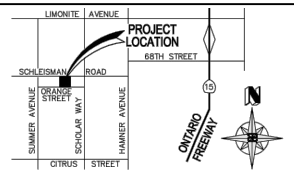
The project applicant shall construct a minimum 6.5-foot high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings.



VISTA ENVIRONMENTAL

Figure 1
Project Location Map





VICINITY MAP
N.T.S.

LEGAL DESCRIPTION

LOT 47 OF KINGSTON TRACT IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

ASSESSOR'S PARCEL NO.

152-040-003

SITE ADDRESS

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

MLC HOLDINGS, INC.
5 PETERS CANYON ROAD, SUITE 310
IRVINE, CA 92606
(949) 372-3310

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

ENGINEER

ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

BENCHMARK

RIVERSIDE COUNTY BENCHMARK "ML-34-1 RESET 2008" 3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTHERLY CURB, 10' FROM THE ECR AT THE INTERSECTION OF SUMNER AVENUE AND ORANGE STREET.

BASIS OF BEARINGS

BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15
BEING: N 89°51'33" E

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

LEGEND

10	UNIT NUMBER
1%	DRAINAGE FLOW DIRECTION
	SEWER LINE
	WATER LINE
	STORM DRAIN
	PROJECT BOUNDARY
	CENTERLINE
	ADA PATH OF TRAVEL
795	EXISTING CONTOUR
	AC/AB

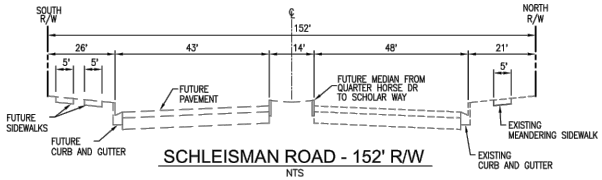
SITE STATISTICS

GROSS SITE AREA: 10.0 ACRES
DEVELOPABLE AREA: 8.28 ACRES

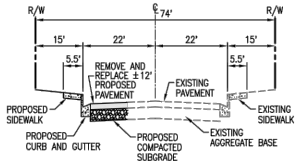
TOTAL LOTS: 41 HOMES

PLAN TYPE

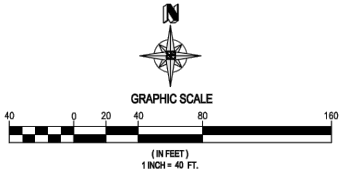
PLAN 4514 – 11 LOTS
PLAN 4524 – 15 LOTS
PLAN 4528 – 15 LOTS



SCHLEISMAN ROAD - 152' R/W
NTS



ORANGE STREET - 74' R/W
NTS



SOURCE: Allard Engineering.

VISTA ENVIRONMENTAL

Figure 2
Proposed Site Plan

2.0 NOISE FUNDAMENTALS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

2.1 Noise Descriptors

Noise Equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The worst-hour traffic Leq is the noise metric used by California Department of Transportation (Caltrans) for analyzing traffic noise impacts.

The Day-Night Average Level (Ldn or DNL) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the Ldn, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound appears louder in the evening and nighttime hours and is weighted accordingly. The City of Eastvale relies on the CNEL noise standard to assess transportation-related impacts on noise sensitive land uses.

2.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less

2.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in level of noise as the distance from the source increases. The manner in which the noise level reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features.

Sound from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD) between source and receiver. Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

3.0 GROUND-BORNE VIBRATION FUNDAMENTALS

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

3.1 Vibration Descriptors

There are several different methods that are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Due to the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is "VdB", which in this text, is when L_v is based on the reference quantity of 1 micro inch per second.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration.

3.3 Vibration Propagation

The propagation of ground-borne vibration is not as simple to model as airborne noise. This is due to the fact that noise in the air travels through a relatively uniform medium, while ground-borne vibrations travel through the earth which may contain significant geological differences. There are three main types of vibration propagation; surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 REGULATORY SETTING

The project site is located in the City of Eastvale. Noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA), which regulates transit noise, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the proposed project is not under the jurisdiction of the FTA, the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual), prepared by the FTA, September 2018, is the only guidance document from a government agency that has defined what constitutes a significant noise impact from implementing a project. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings are provided below in Table A.

Table A – FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA Leq or Ldn)	Allowable Noise Impact Exposure dBA Leq or Ldn		
	Project Only	Combined	Noise Exposure Increase
45	51	52	+7
50	53	55	+5
55	55	58	+3
60	57	62	+2
65	60	66	+1
70	64	71	+1
75	65	75	0

Source: Federal Transit Administration, 2018.

The FTA also provides guidance on construction noise and recommends developing construction noise criteria on a project-specific basis that utilizes local noise ordinances if possible. However, local noise ordinances usually relates to nuisance and hours of allowed activity and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the noise impacts of a construction project. Project construction noise criteria should take into account the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land uses. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings for a detailed construction noise assessment are provided below in Table B.

Table B – FTA Construction Noise Criteria

Land Use	Day (dBA $Leq_{(8\text{-hour})}$)	Night (dBA $Leq_{(8\text{-hour})}$)	30-day Average (dBA Ldn)
Residential	80	70	75
Commercial	85	85	80[(1)]
Industrial	90	90	85[(1)]

Notes:
[(1)] Use a 24-hour $Leq_{(24\ hour)}$ instead of $Ldn_{(30\ day)}$.
Source: Federal Transit Administration, 2018.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

4.2 State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle.

California Vehicle Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California. 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

Vibration Standards

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

The *Transportation- and Construction Vibration Guidance Manual*, prepared by Caltrans, April 2020, provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. However, this manual is also used as a reference point by many lead agencies and CEQA practitioners throughout California, as it provides numeric thresholds for vibration impacts. Thresholds are established for continuous (construction-related) and transient (transportation-related) sources of vibration, which found that the human response becomes distinctly perceptible at 0.25 inch per second PPV for transient sources and 0.04 inch per second PPV for continuous sources.

4.3 Local Regulations – City of Eastvale

The *City of Eastvale General Plan* (General Plan), approved June 13, 2012, and the Eastvale, CA Code of Ordinances (Municipal Code), January 7, 2022, establishes the following applicable policies related to noise and vibration.

General Plan

The following applicable goals and policies to the proposed project are from the Noise Element of the General Plan.

Goal N-1: Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Eastvale.

Goal N-3: Ensure that noise sensitive uses do not encroach into area needed by noise generating uses.

Goal N-4: Locate noise sources away from existing noise sensitive land uses unless appropriate noise control measures are provided.

Policy N-3: Consider the following uses to be sensitive to noise and vibration, and discourage these uses in areas where existing or projected future noise levels would be in excess of 65 CNEL and/or vibration would be more than 0.0787 Peak Particle Velocity (inches/second)

- Schools;
- Hospitals;
- Rest Homes;
- Long Term Care Facilities;
- Mental Care Facilities;
- Residential Uses;
- Libraries;
- Passive Recreation Uses; and
- Places of Worship

Policy N-4: Require noise sensitive land uses proposed in areas where existing or projected future noise levels would be in excess of 65 CNEL to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.

Policy N-5: Require that exterior noise forecasts use the appropriate Level of Service for the adjacent roadways, or a 20-year projection of traffic volumes (whichever is greater) for future noise forecasts.

Policy N-6: Mitigate exterior noise levels to the levels shown in Table N-3 (Table C) to the extent feasible.

Table C – City of Eastvale Noise Compatibility by Land Use Designation[1]

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60 – 70 dBA	70 – 75 dBA	Greater than 75 dBA
All Non-Residential (Commercial, Industrial & Institutional)	Less than 70 dBA	70 – 75 dBA	Greater than 75 dBA	--[(2)]
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65 – 70 dBA	70 – 75 dBA	Greater than 75 dBA

Notes:
[1] All noise levels shown in this Table are designated CNEL.
[2] To be determined as part of the project review process.
Source: City of Eastvale, 2012.

Policy N-7: Table N-4 (Table D) provides the City's standards for maximum exterior non-transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day. Where existing ambient noise levels

exceed these standards, the ambient noise level shall be the highest allowable noise level as measured in dBA Leq (30 minutes).

Note to Reader: Public schools are not regulated by the City; therefore, no noise standards for public schools are provided in this Chapter.

Table D – City of Eastvale Exterior Noise Level Standards for Non-Transportation Noise[1]

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

Notes:
[1] Measured as dBA Leq (30 minutes).

Policy N-9: The City may impose exterior noise standards which are less restrictive than those specified in Table N-4, provided that:

1) The noise impact on the residential or other noise-sensitive use is addressed in an environmental analysis and at least one outdoor area meets the standards; and
2) A finding is made by the approving body specifying why the exception would not be detrimental to the public health, safety and general welfare; and
3) The exception would not adversely affect the character of the surrounding development.
4) The exception would not be injurious to adjacent uses, property and improvements; and,
5) Alternatives have been considered but none are technologically feasible for the proposal and,
6) Interior noise levels resulting from and external source will be no more than 45 dBA CNEL from 7 a.m. to 10 p.m.; and,
7) Residents of noise sensitive uses are informed of the proposal during the review stage and prior to approval.

Policy N-10: Table N-5 (Table E): Maximum Acceptable Interior Noise Levels Created by Exterior Noise Sources provides the City's standards for acceptable indoor noise levels for various types of land uses. These standards should receive special attention when projects are considered in "Tentatively Compatible" or "Normally Incompatible" areas.

- Noise created inside a use listed below shall not count toward the acceptable noise levels to be maintained in accordance with this policy.

Table E – Maximum Acceptable Interior Noise Levels Created by Exterior Noise Sources

Land Use Type	Acceptable Noise Level (dBA CNEL)
Residential Living and Sleeping Areas	45 dBA
Residential Living and Sleeping Areas where the dwelling unit is subject to noise from railroad tracks, aircraft overflights, or similar sources which produce clearly identifiable, discrete noise events (such as the passing of a trains as opposed to relatively steady or constant noise sources such as roadways)	40 dBA
Private & Semi Private Classrooms[(1)]	55 dBA
All Places of Work Other than School Classrooms	Conform with applicable state and federal workplace safety standards

Notes:
[1] Standards for public schools are set and enforced by the State of California and are not regulated by the City of Eastvale.
Source: City of Eastvale, 2012.

Policy N-11: Developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise that exceeds the "completely compatible" guidelines in Table N-3 (see Table C) shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.

Policy N-22: Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

Policy N-23: Condition subdivision and other land development approval adjacent to developed/occupied noise-sensitive land uses to require the developer to submit a construction-related noise mitigation plan to the City for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and specify how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:

a) Temporary noise attenuation fences;

b) Preferential location of equipment

c) Length of equipment use and idling time; and,

d) Use of current noise suppression technology and equipment.

Policy N-24: Require that all construction equipment be kept properly tuned and use noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

City of Eastvale Municipal Code

The City of Eastvale Municipal Code establishes the following applicable standards for new residential development related to noise and vibration.

Section 8.52.020 - Exemptions

Sound emanating from the following sources is exempt from the provisions of this chapter:

(9) Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that construction does not occur between the hours of:

a. 6:00 p.m. and 6:00 a.m. during the months of June through September; and

b. 6:00 p.m. and 7:00 a.m. during the months of October through May;

(10) Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.;

(12) Heating and air conditioning equipment.

Section 8.52.040 – General sound level standards

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in the following table:

Table F – City of Eastvale Municipal Code Sound Level Standards

General Plan Foundation Component			Maximum Decibel Level	
Land Use Designation General Plan	Land Use Designation Name	Density (per acre)	7:00 a.m. – 10:00 p.m.	10:00 p.m. – 7:00 a.m.
MDR	Medium-Density Residential	2-5	55	45
MHDR	Medium High-Density Residential	5-8	55	45
HDR	High-Density Residential	8-14	55	45
PF	Public Facility		65	45
REC	Recreation		45	45

Source: City of Eastvale, 2015.

Section 120.05.130 – Noise, odor and vibration performance standards

a) *Applicability.* The standards of this section apply to all new and existing land uses within the city, unless otherwise exempted.

b) *Noise standards.* All uses shall comply with the noise standards set forth in the city's general plan and within the city's noise ordinance (see chapter 8.52).

d) *Vibration standards.* Uses shall be operated in compliance with the following provisions:

(1) Uses, activities and processes shall not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or which endanger the comfort, repose, health or peace of residents whose property abuts the property lines of the subject parcel.

(3) Vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks, trains and aircraft) are exempt from the provisions of this section.

5.0 EXISTING NOISE CONDITIONS

To determine the existing noise levels, noise measurements have been taken in the vicinity of the project site. The field survey noted that noise within the proposed project area is generally characterized by vehicle traffic on Schleisman Road that is adjacent to the north side of the project site and from Orange Street that is adjacent to the south side of the project site. There is also noise created from Eastvale Elementary School, adjacent to the east side of the project site. The following describes the measurement procedures, measurement locations, noise measurement results, and the modeling of the existing noise environment.

5.1 Noise Measurement Equipment

The noise measurements were taken using three Larson Davis Model LXT1 Class 1 sound level meters programmed in "slow" mode to record the sound pressure level at 1-second intervals for 24 hours in "A" weighted form. In addition, the L_{eq} averaged over the entire measuring time and L_{max} were recorded with the three sound level meters. The sound level meters and microphones were mounted on fences, were placed between four and six feet above the ground and were equipped with windscreens during all measurements. The noise meters were calibrated before and after the monitoring using a Larson Davis Cal200 calibrator. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (ANSI S1.4-2014 standard).

Noise Measurement Locations

The noise monitoring locations were selected in order to obtain noise levels on the project site and at the nearest residential uses located on the west side of the project site and at the school located on the east side of the project site. Descriptions of the noise monitoring sites are provided below in Table G and are shown in Figure 3. Appendix A includes a photo index of the study area and noise level measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 4:09 p.m. on Thursday, December 9, 2021 and 4:21 p.m. on Friday, December 10, 2021. When the noise measurements were started the sky was cloudy, the temperature was 56 degrees Fahrenheit, the humidity was 71 percent, barometric pressure was 29.20 inches of mercury, and the wind was blowing around three miles per hour. Overnight, the temperature dropped to 43 degrees Fahrenheit and the humidity peaked at 95 percent. At the conclusion of the noise measurements, the sky was partly cloudy, the temperature was 61 degrees Fahrenheit, the humidity was 47 percent, barometric pressure was 29.44 inches of mercury, and there was no wind.

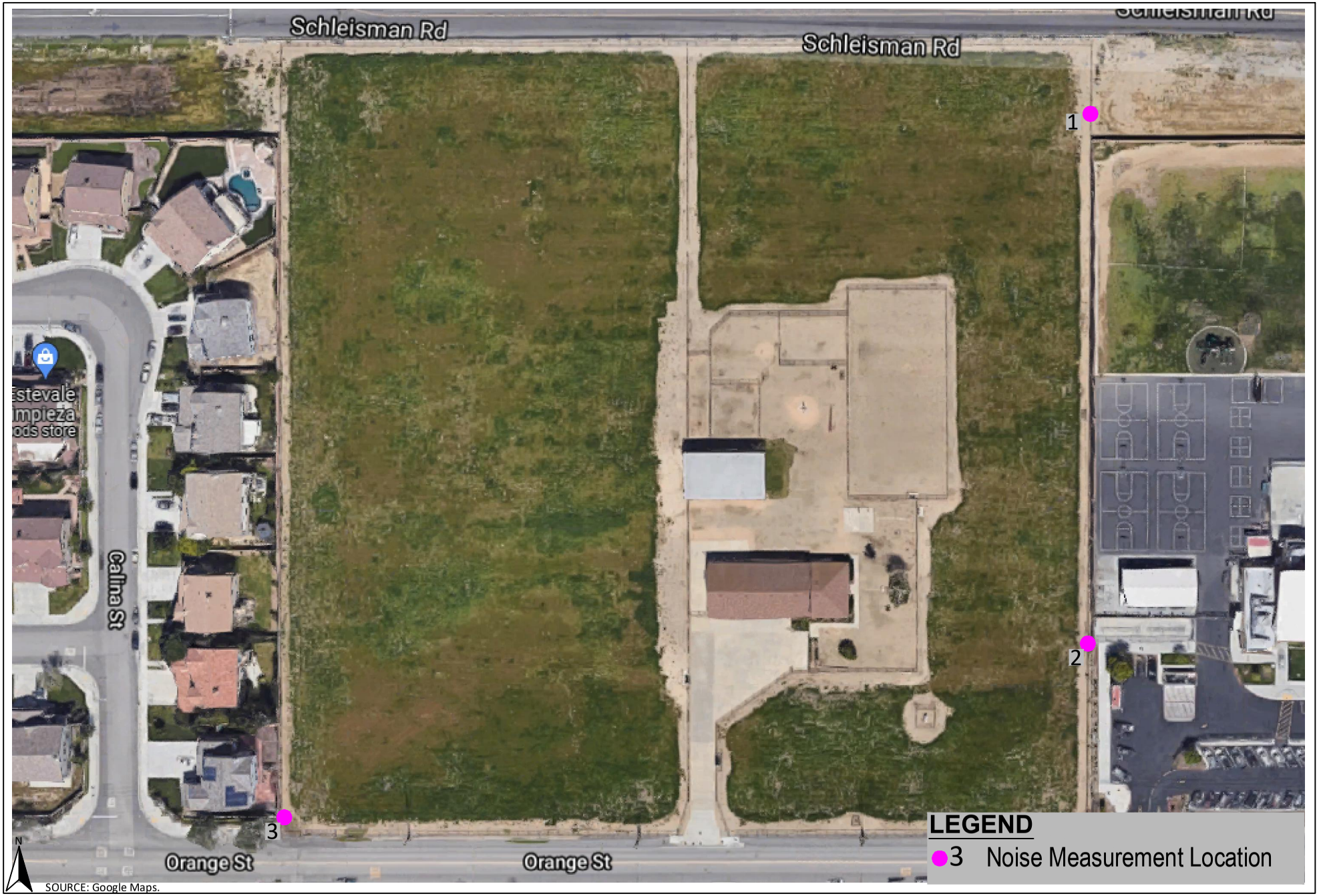
5.2 Noise Measurement Results

The results of the noise level measurements are presented in Table G. The measured sound pressure levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 1-hour intervals. Table G also shows the L_{eq}, L_{max}, and CNEL, based on the entire measurement time. The CNEL was calculated through use of the hourly Leq that was entered into Equation 2-23 from *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (TeNS), prepared by Caltrans, September 2013. The noise monitoring data printouts are included in Appendix B. Figure 4 shows a graph of the 24-hour noise measurements.

Table G – Existing (Ambient) Noise Level Measurements

Site No.	Site Description	Average (dBA L_{eq})		1-hr Average (dBA L_{eq}/Time)		24-hr dBA CNEL
		Daytime[1]	Nighttime[2]	Minimum	Maximum	
1	Located on a fence near the northeast corner of the project site, approximately 90 feet south of Schleisman Road centerline.	57.4	53.6	47.8 1:43 a.m.	60.4 6:59 a.m.	61.1
2	Located on a fence on the east side of the project site and adjacent to the bike parking area at Eastvale Elementary School and approximately 180 feet north of Orange Street centerline.	56.2	49.1	43.2 11:43 p.m.	63.4 11:39 a.m.	57.7
3	Located on a fence near the southwest corner of the project site and shared property line with the home at 7092 Calina Street, approximately 35 feet north of Orange Street centerline.	59.5	51.7	44.5 1:44 a.m.	64.2 7:33 a.m.	60.9

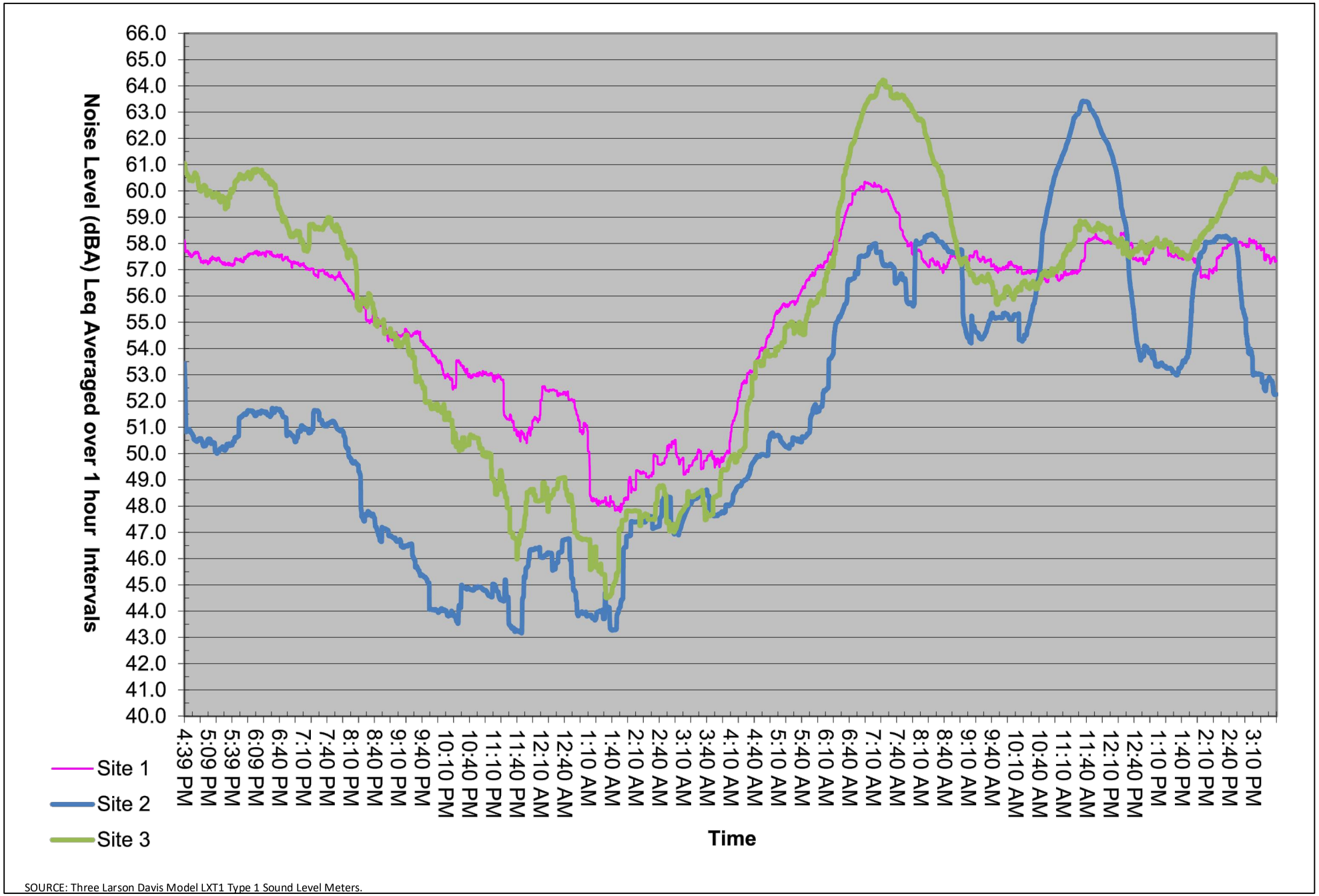
Notes:
[1] Daytime defined as 7:00 a.m. to 10:00 p.m. (Section 8.52.040 of the Municipal Code)
[2] Nighttime define as 10:00 p.m. to 7:00 a.m. (Section 8.52.040 of the Municipal Code)
Source: Noise measurements taken between Thursday, December 9, 2021 and Friday, December 10, 2021.



SOURCE: Google Maps.

VISTA ENVIRONMENTAL

Figure 3
Field Noise Monitoring Locations



SOURCE: Three Larson Davis Model LXT1 Type 1 Sound Level Meters.

VISTA ENVIRONMENTAL

Figure 4
Field Noise Measurements Graph

6.0 MODELING PARAMETERS AND ASSUMPTIONS

6.1 Construction Noise

The noise impacts from construction of the proposed project have been analyzed through use of the FHWA's Roadway Construction Noise Model (RCNM). The FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston. Table H below provides a list of the construction equipment anticipated to be used for each phase of construction that was obtained from the *Air Quality, Energy, and Greenhouse Gas Impact Analysis Magnolia Ranch Residential Project* (Air Quality Analysis), prepared by Vista Environmental, July 26, 2022.

Table H – Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Number of Equipment	Acoustical Use Factor[1] (percent)	Spec 721.560 Lmax at 50 feet[2] (dBA, slow[3])	Actual Measured Lmax at 50 feet[4] (dBA, slow[3])
Demolition				
Concrete/Industrial Saws	1	20	90	90
Excavators	3	40	85	81
Rubber Tired Dozers	2	40	85	82
Site Preparation				
Rubber Tired Dozers	3	40	85	82
Crawler Tractors	4	40	84	N/A
Grading				
Excavators	2	40	85	81
Grader	1	40	85	83
Rubber Tired Dozer	1	40	85	82
Scrapers	2	40	85	84
Crawler Tractors	2	40	84	N/A
Building Construction				
Crane	1	16	85	81
Forklift (Gradall)	3	40	85	83
Generator	1	50	82	81
Tractor	1	40	84	N/A
Front End Loader	1	40	80	79
Backhoe	1	40	80	78
Welder	1	40	73	74
Paving				
Paver	2	50	85	77
Paving Equipment	2	50	85	77
Roller	2	20	85	80
Architectural Coating				
Air Compressor	1	40	80	78

Notes:
[1] Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday.
[2] Spec 721.560 is the equipment noise level utilized by the RCNM program.
[3] The "slow" response averages sound levels over 1-second increments. A "fast" response averages sound levels over 0.125-second increments.

[4] Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.
Source: Federal Highway Administration, 2006 and CalEEMod default equipment mix.

Table H shows the associated measured noise emissions for each piece of equipment from the RCNM model and measured percentage of typical equipment use per day. Construction noise impacts to the nearby sensitive receptors have been calculated according to the equipment noise levels and usage factors listed Table H and through use of the RCNM. For each phase of construction, all construction equipment was analyzed based on being placed in the middle of the project site, which is based on the analysis methodology detailed in FTA Manual for a General Assessment. However, in order to provide a conservative analysis, all equipment was analyzed, instead of just the two nosiest pieces of equipment as detailed in the FTA Manual. The RCNM model printouts are provided in Appendix C.

6.2 Operations-Related Noise

FHWA Model Methodology

The proposed project would result in increases in traffic noise to the nearby roadways as well as introduce new sensitive receptors to the project site. The project impacts to the offsite roadways were analyzed through use of the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108 (FHWA Model). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the reference energy mean emission level to account for: the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT) and the percentage of ADT which flows during the day, evening and night, the travel speed, the vehicle mix on the roadway, which is a percentage of the volume of automobiles, medium trucks and heavy trucks, the roadway grade, the angle of view of the observer exposed to the roadway and site conditions ("hard" or "soft" relates to the absorption of the ground, pavement or landscaping). The following section provides a discussion of the software and modeling input parameters used in this analysis and a discussion of the resultant existing noise model.

FHWA Model Traffic Noise Prediction Model Inputs

The roadway parameters used for this study are presented in Table I. The roadway classifications are based on the City's General Plan Circulation Element. The roadway speeds are based on the posted speed limits. The distance to the nearest sensitive receptor was determined by measuring the distance from the roadway centerline to the nearest residence. Since the study area is located in a suburban environment and landscaping or natural vegetation exists along the sides of the nearby roads, soft site conditions were modeled.

Table I – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Distance to Nearest Receptor[1] (feet)
Sumner Avenue	North of Schleisman Road	Major	45	85
Sumner Avenue	South of Schleisman Road	Major	45	45
Sumner Avenue	South of Orange Street	Major	45	60
Scholar Way	North of Schleisman Road	Secondary	35	70
Scholar Way	South of Schleisman Road	Secondary	35	60

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Distance to Nearest Receptor[1] (feet)
Scholar Way	South of Orange Street	Secondary	35	60
Scholar Way	South of Baltimore Street	Secondary	35	75
Hamner Avenue	North of Schleisman Road	Urban Arterial	45	90
Hamner Avenue	South of Schleisman Road	Urban Arterial	45	100
Schleisman Road	West of Sumner Avenue	Major	45	70
Schleisman Road	East of Sumner Avenue	Urban Arterial	45	80
Schleisman Road	West of Scholar Way	Urban Arterial	45	80
Schleisman Road	East of Scholar Way	Urban Arterial	45	80
Orange Street	East of Sumner Avenue	Collector	30	40
Orange Street	West of Scholar Way	Collector	30	100

Notes:
[1] Distance measured from nearest offsite residential structure to centerline of roadway.
Source: City of Eastvale, 2012; Vista Environmental.

The average daily traffic (ADT) volumes were obtained from the *Project Scoping Agreement for Land Use Project – PLN22-20024* (Traffic Scoping Agreement), prepared by Urban Crossroads, June 27, 2022. The ADT volumes used in this analysis are shown in Table J.

Table J – Average Daily Traffic Volumes

		Average Daily Traffic Volumes					
Roadway	Segment	Existing	Existing + Project	2024 No Project	2024 + Project	2040 No Project	2040 + Project
Sumner Avenue	North of Schleisman Road	10,950	11,050	11,800	11,900	12,500	12,550
Sumner Avenue	South of Schleisman Road	9,600	9,750	10,600	10,750	11,750	11,900
Sumner Avenue	South of Orange Street	8,400	8,400	9,000	9,000	9,300	9,350
Scholar Way	North of Schleisman Road	7,450	7,550	8,050	8,150	8,150	8,300
Scholar Way	South of Schleisman Road	6,950	7,100	7,550	7,750	7,600	7,800
Scholar Way	South of Orange Street	7,200	7,200	7,800	7,850	8,200	8,250
Scholar Way	South of Baltimore Street	7,850	7,850	8,500	8,550	8,850	8,900
Hamner Avenue	North of Schleisman Road	24,600	24,650	28,800	28,800	29,800	29,850
Hamner Avenue	South of Schleisman Road	24,650	24,700	28,600	28,650	29,650	29,700
Schleisman Road	West of Sumner Avenue	18,400	18,500	20,100	20,150	30,900	31,000
Schleisman Road	East of Sumner Avenue	9,600	9,600	10,900	10,900	28,300	28,300
Schleisman Road	West of Scholar Way	9,400	9,400	10,750	10,750	33,000	33,000
Schleisman Road	East of Scholar Way	8,550	8,600	9,850	9,900	26,350	26,400
Orange Street	East of Sumner Avenue	1,100	1,250	1,350	1,500	1,650	1,850
Orange Street	West of Scholar Way	2,450	2,650	2,750	3,000	2,900	3,150

Source: City of Eastvale, 2012; Urban Crossroads, 2022.

The vehicle mixes used in the FHWA-RD-77-108 Model are shown in Table K and is based on the typical vehicle mixes observed in Riverside County. The vehicle mixes provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the FHWA model.

Table K – Roadway Vehicle Mixes

Vehicle Type	Traffic Flow Distributions			
	Day (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall
Secondary, Collector or Smaller				
Automobiles	73.60%	13.60%	10.22%	97.42%
Medium Trucks	0.90%	0.04%	0.9%	1.84%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%
Major, Arterial Highways, and Expressways				
Automobiles	69.50%	12.90%	9.60%	92.00%
Medium Trucks	1.44%	0.06%	1.50%	3.00%
Heavy Trucks	2.40%	0.10%	2.50%	5.00%

Source: County of Riverside, 2015.

FHWA Model Source Assumptions

To assess the roadway noise generation in a uniform manner, all vehicles are analyzed at the single lane equivalent acoustic center of the roadway being analyzed. In order to determine the height above the road grade where the noise is being emitted from, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

6.3 Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to damage at the highest levels. Table L gives approximate vibration levels for particular construction activities. The data in Table L provides a reasonable estimate for a wide range of soil conditions.

Table L – Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
Pile driver (impact)	Upper range	1.518	112
	typical	0.644	104
Pile driver (sonic)	Upper range	0.734	105
	typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drill		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Federal Transit Administration, 2018.

The construction-related vibration impacts have been calculated through the vibration levels shown above in Table L and through typical vibration propagation rates. The equipment assumptions were based on the equipment lists provided above in Table H.

7.0 IMPACT ANALYSIS

7.1 CEQA Thresholds of Significance

Consistent with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a significant impact related to noise would occur if a proposed project is determined to result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

7.2 Generation of Noise Levels in Excess of Standards

The proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The following section calculates the potential noise emissions associated with the temporary construction activities and long-term operations of the proposed project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings.

Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 8.52.020(9) of the City's Municipal Code exempts construction noise that occurs between 6:00 a.m. and 6:00 p.m. June thru September and between 7:00 a.m. and 6:00 p.m. October thru May. However, General Plan Policy N-23, requires that infill development projects to prepare a Construction Noise Mitigation Plan prior to obtaining a grading permit. The Plan will require the use temporary noise barriers, designated equipment staging areas, limits on idling and requirement of all equipment using mufflers. Project Design Feature 1 has been included in this analysis to ensure implementation of General Plan Policy N-23.

The City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction

noise levels may result in a significant substantial temporary noise increase to the nearby sensitive receptors. In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the FTA construction noise criteria thresholds detailed above in Section 4.1 have been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 80 dBA during the daytime at any of the nearby homes and school.

Construction noise impacts to the nearby sensitive receptors have been calculated through use of the RCNM and the parameters and assumptions detailed in Section 6.1 of this report including Table H that shows the anticipated construction equipment per phase. In order to account for the existing 6 to 7 foot high concrete masonry unit (cmu) wall on the west side of the project site, 5 dB of estimated shielding was added to the RCNM model for the homes to the west. The results are shown below in Table M and the RCNM printouts are provided in Appendix C.

Table M – Construction Noise Levels at the Nearest Sensitive Receptors

Construction Phase	Construction Noise Level (dBA Leq) at:	
	Nearest Homes to the West[1]	Nearest School to the East[2]
Demolition	65	70
Site Preparation	66	71
Grading	67	72
Building Construction	65	70
Paving	60	65
Painting	52	57
FTA Construction Noise Threshold[4]	**80**	**80**
Exceed Thresholds?	No	No

[1] The nearest homes to the west are located as near as 340 feet from the center of the project site. 5 dB of estimated shielding was included to account for the 6 to 7 foot high cmu wall on the west side of the project site.
[2] The nearest school structure to the east is located as near as 340 feet from the center of the project site.
[4] The FTA Construction noise thresholds are detailed above in Table B.
Source: RCNM, Federal Highway Administration, 2006

Table M shows that the greatest noise impacts would occur during the grading phase, with a noise level as high as 72 dBA Leq at the school to the east and 67 dBA Leq at the nearest homes to the west. Table M also shows that none of the construction phases would exceed the FTA noise standard of 80 dB at the nearby homes or school. Therefore, through adherence to the allowable construction times detailed in Section 8.52.020(9) of the Municipal Code and through implementation of Project Design Feature 1, that requires the preparation of a construction-related noise mitigation plan, prior to the issuance of the grading plan for the proposed project, the proposed project would not create a substantial temporary increase in ambient noise levels from construction of the proposed project. Impacts would be less than significant.

Operational-Related Noise

The proposed project would consist of a residential development with 41 single-family homes. Potential noise impacts associated with the operations of the proposed project would be from project-generated vehicular traffic on the nearby roadways. In addition, the proposed development would be adjacent to Schleisman Road and adjacent to Eastvale Elementary School, which may create exterior and interior noise levels in excess of City standards at the proposed homes. The noise impacts to the nearby existing homes and proposed homes have been analyzed separately below.

Roadway Vehicular Noise Impact to Nearby Homes

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not propose any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway so the proposed project's potential offsite noise impacts have been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.

Neither the General Plan nor the Municipal Code defines what constitutes a "substantial permanent increase to ambient noise levels". As such, this impact analysis has utilized guidance from the Federal Transit Administration for a moderate impact that has been detailed above in Table A that shows that the project contribution to the noise environment can range between 0 and 7 dB, which is dependent on the existing roadway noise levels.

The potential offsite traffic noise impacts created by the on-going operations of the proposed project have been analyzed through utilization of the FHWA model and parameters described above in Section 6.2 and the FHWA model traffic noise calculation spreadsheets are provided in Appendix D. The proposed project's potential offsite traffic noise impacts have been analyzed for the existing year, opening year 2024, and future year 2040 scenarios that are discussed separately below.

Existing Year Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the Existing scenario to the Existing With Project scenario. The results of this comparison are shown in Table N.

Table N – Existing Year Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Existing	Existing Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.0	63.1	0.1	+2 dBA
Sumner Avenue	South of Schleisman Road	67.4	67.5	0.1	+1 dBA
Sumner Avenue	South of Orange Street	64.4	64.4	0.0	+2 dBA
Scholar Way	North of Schleisman Road	59.3	59.4	0.1	+3 dBA
Scholar Way	South of Schleisman Road	60.1	60.2	0.1	+2 dBA
Scholar Way	South of Orange Street	60.3	60.3	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.1	59.1	0.0	+3 dBA
Hamner Avenue	North of Schleisman Road	66.6	66.6	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	65.8	65.8	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	66.7	66.7	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	63.5	63.5	0.0	+2 dBA
Schleisman Road	West of Scholar Way	63.4	63.4	0.0	+2 dBA
Schleisman Road	East of Scholar Way	63.0	63.0	0.0	+2 dBA
Orange Street	East of Sumner Avenue	52.7	53.3	0.6	+5 dBA
Orange Street	West of Scholar Way	50.1	50.4	0.3	+5 dBA

Notes:

[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table N shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the existing conditions. Impacts would be less than significant.

Opening Year 2024 Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the opening year 2024 scenario to the opening year 2024 with project scenario. The results of this comparison are shown in Table O.

Table O – Opening Year 2024 Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Year 2024	Year 2024 Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.3	63.4	0.1	+2 dBA
Sumner Avenue	South of Schleisman Road	67.8	67.9	0.1	+1 dBA
Sumner Avenue	South of Orange Street	64.7	64.7	0.0	+1 dBA
Scholar Way	North of Schleisman Road	59.7	59.7	0.0	+2 dBA
Scholar Way	South of Schleisman Road	60.5	60.6	0.1	+2 dBA
Scholar Way	South of Orange Street	60.6	60.6	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.4	59.5	0.1	+3 dBA
Hamner Avenue	North of Schleisman Road	67.3	67.3	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	66.4	66.4	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	67.1	67.1	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	64.0	64.0	0.0	+2 dBA
Schleisman Road	West of Scholar Way	64.0	64.0	0.0	+2 dBA
Schleisman Road	East of Scholar Way	63.6	63.6	0.0	+2 dBA
Orange Street	East of Sumner Avenue	53.6	54.1	0.5	+5 dBA
Orange Street	West of Scholar Way	50.6	51.0	0.4	+5 dBA

Notes:
[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table O shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the opening year 2024 conditions. Impacts would be less than significant.

Future Year 2040 Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the future year 2040 scenario to the future year 2040 with project scenario. The results of this comparison are shown in Table P.

Table P – Future Year 2040 Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Year 2040	Year 2040 Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.6	63.6	0.0	+2 dBA
Sumner Avenue	South of Schleisman Road	68.3	68.3	0.0	+1 dBA
Sumner Avenue	South of Orange Street	64.9	64.9	0.0	+1 dBA
Scholar Way	North of Schleisman Road	59.8	59.8	0.0	+2 dBA
Scholar Way	South of Schleisman Road	60.5	60.7	0.2	+2 dBA
Scholar Way	South of Orange Street	60.9	60.9	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.6	59.7	0.1	+2 dBA
Hamner Avenue	North of Schleisman Road	67.4	67.4	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	66.6	66.6	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	68.9	68.9	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	68.2	68.2	0.0	+1 dBA
Schleisman Road	West of Scholar Way	68.8	68.8	0.0	+1 dBA
Schleisman Road	East of Scholar Way	67.8	67.9	0.1	+1 dBA
Orange Street	East of Sumner Avenue	54.5	55.0	0.5	+5 dBA
Orange Street	West of Scholar Way	50.9	51.2	0.3	+5 dBA

Notes:
[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table P shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the future year 2040 conditions. Impacts would be less than significant.

Noise Impacts to the Proposed Homes

The proposed project would consist of a residential development with 41 single-family homes. The proposed development would be adjacent to Schleisman Road to the north and adjacent to Eastvale Elementary School to the east, which may create exterior and interior noise levels in excess of City standards at the proposed homes. The roadway noise impacts and non-transportation noise impacts have been analyzed separately below.

Non-Transportation Noise Impacts to Proposed Homes

The noise impacts from Eastvale Elementary School are controlled by General Plan Policy N-7 that provides the City's standards for maximum exterior non-transportation noise levels. For the proposed single-family homes, General Plan Policy N-7 provides a noise standard of 60 dBA between7 a.m. to 10 p.m. and 50 dBA between 10 p.m. to 7 a.m. at the exterior of the proposed single-family homes.

Noise Measurement 2 (see Table G above) is most representative of the noise created from the school, since it was located on the shared property line with the School, is in close proximity to the outdoor lunch area and playgrounds, and there are no roads in the immediate vicinity of Noise Measurement 2. Noise Measurement 2 recorded noise levels of 56.2 dBA Leq between 7 a.m. to 10 p.m. and 49.1 dBA Leq between 10 p.m. to 7 a.m.. As such, the noise created from the outdoor areas of the School are below the City's non-transportation exterior noise standards for single-family homes provided in General Plan Policy N-7. Therefore, the non-transportation noise impacts created from Eastvale Elementary School to the proposed homes would be within the City noise standards. Impacts would be less than significant.

Roadway Noise Impacts to Proposed Homes

The north side of the proposed development would be adjacent to Schleisman Road. General Plan Policy N-6 requires exterior noise levels for new residential uses to be mitigated to the levels shown above in Table C that shows the "Completely Compatible" noise standard of less than 60 dBA, "Tentatively Compatible" 60 to 70 dBA, "Normally Incompatible" 70 to 75 dBA, and "Completely Incompatible" greater than 75 dBA. General Plan Policy N-11 requires developers of new residential uses where the noise exceeds the "Completely Compatible" noise standard to ensure acceptable exterior and interior noise levels. General Plan Policy N-10 details that the maximum acceptable interior noise level from roadway noise sources is 45 dBA CNEL.

It is anticipated that the primary source of noise impacts to the project site will be traffic noise from Schleisman Road that is adjacent to the north side of the project site. The proposed homes will also experience some background traffic noise impacts from the proposed project's internal roadways and from Orange Street that is adjacent to the south side of the project site. As the traffic on these local streets would consist of low traffic volumes at slower speeds, the traffic noise from these roads would not make a significant contribution to the noise environment. As such, the noise levels from these roads were not analyzed. The FHWA traffic noise prediction model parameters used in this analysis are discussed above in detail in Section 6.2 and the FHWA model printouts are provided in Appendix G. The exterior and interior noise impacts to the proposed homes have been analyzed separately below.

Exterior Noise Impacts to Proposed Homes

The anticipated exterior noise levels have been calculated for the backyards of representative homes that are adjacent to Schleisman Road. For each backyard, the receptor was placed 10 feet behind the wall and 5 feet above the ground, which is based on the roadway noise analysis methodology provided in Appendix I-1 of the County of Riverside General Plan, December 8, 2015, since the City of Eastvale does not provide any roadway noise analysis standards to utilize. The calculated noise levels for backyards that are adjacent to Schleisman Road are shown below in Table R.

Table Q – Proposed Homes Exterior Noise Levels from Schleisman Road

Building Number	Exterior Noise Level Without Sound Walls (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?	Exterior Noise Level With 6.5 Foot High Sound Wall (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?
9	68.1	Yes	59.1	No
11	68.1	Yes	59.3	No
13	68.1	Yes	59.6	No
15	68.2	Yes	60.0	No
17	68.1	Yes	59.9	No

Notes:

City's residential 60 dBA CNEL residential exterior noise standard from General Plan Policy N-6.
Source: FHWA RD-77-108 Model.

Table R shows that without a sound wall, that the noise levels at all of the backyards adjacent to Schleisman Road would exceed the City's residential exterior noise standard of 60 dBA CNEL. This would be considered a significant impact.

Mitigation Measure 2 is provided that would require construction of a minimum 6.5 foot high cmu wall on the north side of all backyards that are adjacent to Schleisman Road. As shown in Table R, above, with implementation of Mitigation Measure 2, the proposed homes exterior noise levels would be within the City's 60 dBA CNEL residential exterior noise standard and would result in a less than significant impact.

Interior Noise Impacts to Proposed Homes

To assess the interior noise levels, the same proposed homes analyzed for the exterior private backyard analysis were also analyzed for their interior noise levels. The exterior noise level at the façade of the first and second floors were calculated through use of the same methodology detailed above for the outdoor noise calculations and the results are shown below in Table R. Table R also shows the interior noise levels calculated based on 25 dB of attenuation, which is the minimum exterior to interior noise reduction rate for new homes that are constructed to meet the required California Code of Regulations Title 24, Part 6 building energy-efficiency standards that require the installation of dual-paned windows as well as enhanced insulation requirements. The anticipated noise levels have been calculated at the facades of representative proposed homes to Schleisman Road and the results are shown below in Table R.

Table R – Proposed Homes Interior Noise Levels from Schleisman Road

Building Number	Floor	Road Noise Levels (dBA CNEL)		Exceed 45 dBA Interior Threshold?
		Exterior at Facade	Interior[1]	
9	First	58.9	33.9	No
	Second	66.9	40.4	No
11	First	58.2	33.2	No
	Second	65.4	40.4	No
13	First	58.8	33.8	No
	Second	65.7	40.7	No
15	First	60.0	35.0	No
	Second	66.9	41.9	No
17	First	58.3	33.3	No
	Second	64.3	39.3	No

Notes:
[1] Based on standard dual pane windows and doors with a 26 STC rating, which are required per Title 24 energy saving requirements.
Source: FHWA RD-77-108 Model.

Table R shows that the interior noise level of all homes adjacent to Schleisman Road would be within the City's 45 dBA CNEL interior noise standard. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1:

The project applicant shall construct a minimum 6.5-foot high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings.

Level of Significance After Mitigation

Less than significant impact.

7.3 Generation of Excessive Groundborne Vibration

The proposed project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operations of the proposed project.

Construction-Related Vibration Impacts

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings.

Vibration impacts from construction activities associated with the proposed project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 120.05.130(e) of the Municipal Code provides a vibration standard for new development of any vibration that causes discomfort or annoyance to reasonable persons of normal sensitivity. However Section 120.05.130(e) of the Municipal Code exempts construction activities from this standard. Since neither the Municipal nor the General Plan provide a quantifiable vibration threshold for temporary construction activities, guidance from the *Transportation and Construction-Induced Vibration Guidance Manual*, prepared by Caltrans, April 2020, has been utilized, which defines the threshold of perception from transient sources such as off-road construction equipment at 0.25 inch per second peak particle velocity (PPV).

The primary source of vibration during construction would be from the operation of a bulldozer. From Table L above a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. The vibration level at the nearest offsite homes (25 feet to west) and school structure (25 feet to east) would be below the 0.25 inch per second PPV threshold detailed above. Impacts would be less than significant.

Operations-Related Vibration Impacts

The proposed project would consist of the development of a residential community. The on-going operation of the proposed project would not include the operation of any known vibration sources other than typical onsite vehicle operations for a residential development. Therefore, a less than significant vibration impact is anticipated from operation of the proposed project.

Level of Significance

Less than significant impact.

7.4 Aircraft Noise

The proposed project may expose people residing in the project area to excessive noise levels from aircraft. The nearest airport is Chino Airport that is located as near as three miles west of the project site. The project site is located outside of the 60 dBA CNEL noise contours of this airport. Therefore, the proposed homes would not be exposed to excessive aircraft noise. Impacts would be less than significant.

Level of Significance

Less than significant impact.

8.0 REFERENCES

California Department of Transportation, *2016 Annual Average Daily Truck Traffic on the California State Highway System*, 2018.

California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analytics Protocol*, September 2013.

California Department of Transportation, *Transportation- and Construction Vibration Guidance Manual*, April 2020.

City of Eastvale, *Code of the City of Eastvale, California,* January 7, 2022.

City of Eastvale, *City of Eastvale General Plan,* adopted June 13, 2012.

County of Riverside, *County of Riverside General Plan,* December 2015.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment,* May 2006.

Urban Crossroads, *Project Scoping Agreement for Land Use Project – PLN22-20024*, June 27, 2022.

U.S. Department of Transportation, *FHWA Roadway Construction Noise Model User's Guide,* January, 2006.

U.S. Department of Transportation, *Highway Traffic Noise: Analysis and Abatement Guidance,* December, 2011.

Vista Environmental, *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project*, July 26, 2022.

APPENDIX A

Field Noise Measurements Photo Index



Noise Measurement Site 1 - looking north



Noise Measurement Site 1 - looking northeast



Noise Measurement Site 1 - looking east



Noise Measurement Site 1 - looking southeast



Noise Measurement Site 1 - looking south



Noise Measurement Site 1 - looking southwest



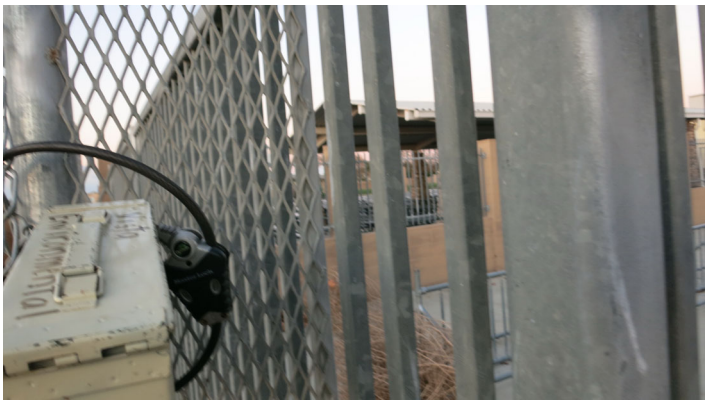
Noise Measurement Site 1 - looking west



Noise Measurement Site 1 - looking northwest



Noise Measurement Site 2 - looking north



Noise Measurement Site 2 - looking northeast



Noise Measurement Site 2 - looking east



Noise Measurement Site 2 - looking south



Noise Measurement Site 2 - looking southwest



Noise Measurement Site 2 - looking west



Noise Measurement Site 2 - looking northwest



Noise Measurement Site 2 - looking north northeast



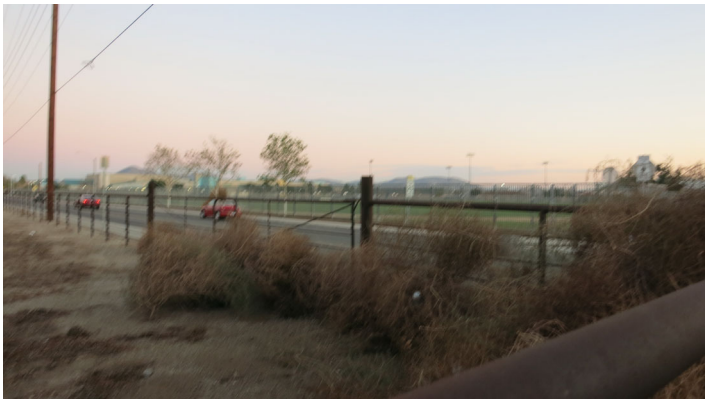
Noise Measurement Site 3 - looking north



Noise Measurement Site 3 - looking northeast



Noise Measurement Site 3 - looking east



Noise Measurement Site 3 - looking southeast



Noise Measurement Site 3 - looking south



Noise Measurement Site 3 - looking southwest



Noise Measurement Site 3 - looking west



Noise Measurement Site 3 - looking northwest

APPENDIX B

Field Noise Measurements Printouts

Site 1 - Near Northeast Corner of Project Site

December 9, 2021 4:09:56 PM Leq Daytime = 57.4
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 53.6
Record Num = 86402 CNEL(24hr)= 61.1
Leq = 56.3 Ldn(24hr)= 60.8
Min = 34.5 Min Leq hr at 1:43 AM 47.8
Max = 77.2 Max Leq hr at 6:59 AM 60.4

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.0	16:09:56		60.0	60.0
56.2	16:09:57		56.2	56.2
53.0	16:09:58		53.0	53.0
51.8	16:09:59		51.8	51.8
62.2	16:10:00		62.2	62.2
60.1	16:10:01		60.1	60.1
68.8	16:10:02		68.8	68.8
65.8	16:10:03		65.8	65.8
61.7	16:10:04		61.7	61.7
60.9	16:10:05		60.9	60.9
67.1	16:10:06		67.1	67.1
67.3	16:10:07		67.3	67.3
66.0	16:10:08		66.0	66.0
63.6	16:10:09		63.6	63.6
60.5	16:10:10		60.5	60.5
64.2	16:10:11		64.2	64.2
66.0	16:10:12		66.0	66.0
64.1	16:10:13		64.1	64.1
61.9	16:10:14		61.9	61.9
61.3	16:10:15		61.3	61.3
61.2	16:10:16		61.2	61.2
62.6	16:10:17		62.6	62.6
62.8	16:10:18		62.8	62.8
62.8	16:10:19		62.8	62.8
62.3	16:10:20		62.3	62.3
61.1	16:10:21		61.1	61.1
65.7	16:10:22		65.7	65.7
67.5	16:10:23		67.5	67.5
70.6	16:10:24		70.6	70.6
68.3	16:10:25		68.3	68.3
70.9	16:10:26		70.9	70.9
65.1	16:10:27		65.1	65.1
63.3	16:10:28		63.3	63.3
69.4	16:10:29		69.4	69.4
65.9	16:10:30		65.9	65.9
63.3	16:10:31		63.3	63.3
64.1	16:10:32		64.1	64.1
65.8	16:10:33		65.8	65.8
63.0	16:10:34		63.0	63.0
61.0	16:10:35		61.0	61.0
59.4	16:10:36		59.4	59.4
59.8	16:10:37		59.8	59.8
60.0	16:10:38		60.0	60.0
61.5	16:10:39		61.5	61.5
62.7	16:10:40		62.7	62.7
67.7	16:10:41		67.7	67.7
69.3	16:10:42		69.3	69.3
68.5	16:10:43		68.5	68.5
66.1	16:10:44		66.1	66.1
61.5	16:10:45		61.5	61.5
61.1	16:10:46		61.1	61.1
67.2	16:10:47		67.2	67.2
65.3	16:10:48		65.3	65.3
62.0	16:10:49		62.0	62.0
60.4	16:10:50		60.4	60.4
59.0	16:10:51		59.0	59.0
64.9	16:10:52		64.9	64.9
64.6	16:10:53		64.6	64.6
67.2	16:10:54		67.2	67.2
67.9	16:10:55		67.9	67.9
67.5	16:10:56		67.5	67.5
70.0	16:10:57		70.0	70.0
63.1	16:10:58		63.1	63.1
69.5	16:10:59		69.5	69.5
65.6	16:11:00		65.6	65.6
61.7	16:11:01		61.7	61.7
68.1	16:11:02		68.1	68.1
66.2	16:11:03		66.2	66.2
67.5	16:11:04		67.5	67.5
67.3	16:11:05		67.3	67.3
64.7	16:11:06		64.7	64.7
62.7	16:11:07		62.7	62.7
61.6	16:11:08		61.6	61.6
61.0	16:11:09		61.0	61.0
60.6	16:11:10		60.6	60.6
60.3	16:11:11		60.3	60.3
60.4	16:11:12		60.4	60.4
60.6	16:11:13		60.6	60.6
60.4	16:11:14		60.4	60.4
60.2	16:11:15		60.2	60.2
60.9	16:11:16		60.9	60.9
61.5	16:11:17		61.5	61.5
61.2	16:11:18		61.2	61.2
61.8	16:11:19		61.8	61.8
63.0	16:11:20		63.0	63.0
63.7	16:11:21		63.7	63.7
64.3	16:11:22		64.3	64.3
63.0	16:11:23		63.0	63.0
60.7	16:11:24		60.7	60.7
58.6	16:11:25		58.6	58.6
56.7	16:11:26		56.7	56.7
55.1	16:11:27		55.1	55.1
53.8	16:11:28		53.8	53.8
52.6	16:11:29		52.6	52.6
51.5	16:11:30		51.5	51.5
50.0	16:11:31		50.0	50.0
49.2	16:11:32		49.2	49.2
48.9	16:11:33		48.9	48.9
48.8	16:11:34		48.8	48.8
48.5	16:11:35		48.5	48.5
48.5	16:11:36		48.5	48.5
49.3	16:11:37		49.3	49.3
51.1	16:11:38		51.1	51.1
52.9	16:11:39		52.9	52.9
54.1	16:11:40		54.1	54.1
54.5	16:11:41		54.5	54.5
54.3	16:11:42		54.3	54.3
53.3	16:11:43		53.3	53.3
52.3	16:11:44		52.3	52.3
51.6	16:11:45		51.6	51.6
50.9	16:11:46		50.9	50.9
49.9	16:11:47		49.9	49.9
48.6	16:11:48		48.6	48.6
47.7	16:11:49		47.7	47.7
47.2	16:11:50		47.2	47.2
46.9	16:11:51		46.9	46.9
46.7	16:11:52		46.7	46.7
48.2	16:11:53		48.2	48.2
50.8	16:11:54		50.8	50.8
49.8	16:11:55		49.8	49.8
49.7	16:11:56		49.7	49.7
49.8	16:11:57		49.8	49.8
49.3	16:11:58		49.3	49.3
48.3	16:11:59		48.3	48.3
47.8	16:12:00		47.8	47.8
47.7	16:12:01		47.7	47.7
47.5	16:12:02		47.5	47.5
47.5	16:12:03		47.5	47.5
47.7	16:12:04		47.7	47.7
48.2	16:12:05		48.2	48.2
48.7	16:12:06		48.7	48.7
49.4	16:12:07		49.4	49.4
51.2	16:12:08		51.2	51.2
52.0	16:12:09		52.0	52.0
52.3	16:12:10		52.3	52.3
52.9	16:12:11		52.9	52.9
54.0	16:12:12		54.0	54.0
55.3	16:12:13		55.3	55.3
56.1	16:12:14		56.1	56.1
57.6	16:12:15		57.6	57.6
58.7	16:12:16		58.7	58.7
59.0	16:12:17		59.0	59.0
58.3	16:12:18		58.3	58.3
57.8	16:12:19		57.8	57.8
57.6	16:12:20		57.6	57.6
57.2	16:12:21		57.2	57.2
56.4	16:12:22		56.4	56.4
56.0	16:12:23		56.0	56.0
55.3	16:12:24		55.3	55.3
54.3	16:12:25		54.3	54.3
53.1	16:12:26		53.1	53.1
52.4	16:12:27		52.4	52.4
51.5	16:12:28		51.5	51.5
50.6	16:12:29		50.6	50.6
50.5	16:12:30		50.5	50.5
50.4	16:12:31		50.4	50.4
51.1	16:12:32		51.1	51.1
52.2	16:12:33		52.2	52.2
51.5	16:12:34		51.5	51.5
51.4	16:12:35		51.4	51.4
51.9	16:12:36		51.9	51.9
52.1	16:12:37		52.1	52.1
53.4	16:12:38		53.4	53.4
55.5	16:12:39		55.5	55.5
56.9	16:12:40		56.9	56.9
57.6	16:12:41		57.6	57.6
57.8	16:12:42		57.8	57.8
57.4	16:12:43		57.4	57.4
57.6	16:12:44		57.6	57.6
58.5	16:12:45		58.5	58.5

Site 2 - On East Side of Project Site

December 9, 2021 4:16:07 PM Leq Daytime = 56.2
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 49.1
Record Num = 86402 CNEL(24hr)= 57.7
Leq = 54.7 Ldn(24hr)= 57.6
Min = 35.1 Min Leq hr at 11:43 PM 43.2
Max = 81.3 Max Leq hr at 11:39 AM 63.4

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.9	16:16:08		60.9	60.9
57.0	16:16:09		57.0	57.0
53.6	16:16:10		53.6	53.6
51.5	16:16:11		51.5	51.5
51.0	16:16:12		51.0	51.0
51.6	16:16:13		51.6	51.6
58.1	16:16:14		58.1	58.1
62.9	16:16:15		62.9	62.9
68.0	16:16:16		68.0	68.0
62.2	16:16:17		62.2	62.2
69.8	16:16:18		69.8	69.8
67.5	16:16:19		67.5	67.5
63.8	16:16:20		63.8	63.8
65.3	16:16:21		65.3	65.3
65.5	16:16:22		65.5	65.5
61.4	16:16:23		61.4	61.4
57.8	16:16:24		57.8	57.8
54.5	16:16:25		54.5	54.5
55.3	16:16:26		55.3	55.3
59.5	16:16:27		59.5	59.5
59.0	16:16:28		59.0	59.0
67.3	16:16:29		67.3	67.3
64.2	16:16:30		64.2	64.2
66.3	16:16:31		66.3	66.3
67.0	16:16:32		67.0	67.0
63.0	16:16:33		63.0	63.0
64.8	16:16:34		64.8	64.8
70.6	16:16:35		70.6	70.6
66.6	16:16:36		66.6	66.6
63.2	16:16:37		63.2	63.2
61.3	16:16:38		61.3	61.3
61.8	16:16:39		61.8	61.8
58.6	16:16:40		58.6	58.6
58.9	16:16:41		58.9	58.9
66.4	16:16:42		66.4	66.4
67.7	16:16:43		67.7	67.7
63.7	16:16:44		63.7	63.7
61.7	16:16:45		61.7	61.7
60.1	16:16:46		60.1	60.1
62.5	16:16:47		62.5	62.5
68.9	16:16:48		68.9	68.9
66.8	16:16:49		66.8	66.8
63.2	16:16:50		63.2	63.2
62.0	16:16:51		62.0	62.0
58.6	16:16:52		58.6	58.6
56.0	16:16:53		56.0	56.0
54.0	16:16:54		54.0	54.0
53.7	16:16:55		53.7	53.7
54.1	16:16:56		54.1	54.1
53.2	16:16:57		53.2	53.2
54.1	16:16:58		54.1	54.1
53.8	16:16:59		53.8	53.8
55.1	16:17:00		55.1	55.1
56.9	16:17:01		56.9	56.9
56.4	16:17:02		56.4	56.4
66.3	16:17:03		66.3	66.3
65.4	16:17:04		65.4	65.4
69.6	16:17:05		69.6	69.6
68.8	16:17:06		68.8	68.8
67.7	16:17:07		67.7	67.7
66.1	16:17:08		66.1	66.1
66.5	16:17:09		66.5	66.5
68.3	16:17:10		68.3	68.3
65.3	16:17:11		65.3	65.3
64.1	16:17:12		64.1	64.1
65.9	16:17:13		65.9	65.9
63.3	16:17:14		63.3	63.3
64.0	16:17:15		64.0	64.0
63.2	16:17:16		63.2	63.2
62.7	16:17:17		62.7	62.7
62.7	16:17:18		62.7	62.7
63.4	16:17:19		63.4	63.4
63.6	16:17:20		63.6	63.6
64.4	16:17:21		64.4	64.4
64.6	16:17:22		64.6	64.6
65.4	16:17:23		65.4	65.4
67.5	16:17:24		67.5	67.5
73.0	16:17:25		73.0	73.0
68.8	16:17:26		68.8	68.8
64.7	16:17:27		64.7	64.7
61.0	16:17:28		61.0	61.0
57.8	16:17:29		57.8	57.8
55.4	16:17:30		55.4	55.4
52.8	16:17:31		52.8	52.8
50.9	16:17:32		50.9	50.9
50.1	16:17:33		50.1	50.1
49.1	16:17:34		49.1	49.1
48.0	16:17:35		48.0	48.0
47.4	16:17:36		47.4	47.4
47.7	16:17:37		47.7	47.7
47.8	16:17:38		47.8	47.8
48.4	16:17:39		48.4	48.4
64.8	16:17:40		64.8	64.8
63.8	16:17:41		63.8	63.8
62.6	16:17:42		62.6	62.6
66.2	16:17:43		66.2	66.2
73.0	16:17:44		73.0	73.0
72.4	16:17:45		72.4	72.4
68.8	16:17:46		68.8	68.8
64.9	16:17:47		64.9	64.9
61.2	16:17:48		61.2	61.2
59.3	16:17:49		59.3	59.3
58.1	16:17:50		58.1	58.1
67.5	16:17:51		67.5	67.5
65.5	16:17:52		65.5	65.5
61.9	16:17:53		61.9	61.9
59.8	16:17:54		59.8	59.8
59.4	16:17:55		59.4	59.4
65.8	16:17:56		65.8	65.8
69.4	16:17:57		69.4	69.4
67.3	16:17:58		67.3	67.3
68.0	16:17:59		68.0	68.0
65.3	16:18:00		65.3	65.3
62.3	16:18:01		62.3	62.3
59.8	16:18:02		59.8	59.8
60.1	16:18:03		60.1	60.1
61.6	16:18:04		61.6	61.6
61.7	16:18:05		61.7	61.7
60.4	16:18:06		60.4	60.4
60.5	16:18:07		60.5	60.5
60.0	16:18:08		60.0	60.0
64.2	16:18:09		64.2	64.2
66.3	16:18:10		66.3	66.3
63.2	16:18:11		63.2	63.2
59.6	16:18:12		59.6	59.6
58.6	16:18:13		58.6	58.6
56.8	16:18:14		56.8	56.8
56.0	16:18:15		56.0	56.0
56.9	16:18:16		56.9	56.9
56.0	16:18:17		56.0	56.0
54.0	16:18:18		54.0	54.0
57.8	16:18:19		57.8	57.8
58.2	16:18:20		58.2	58.2
57.4	16:18:21		57.4	57.4
53.8	16:18:22		53.8	53.8
51.1	16:18:23		51.1	51.1
49.8	16:18:24		49.8	49.8
49.4	16:18:25		49.4	49.4
49.7	16:18:26		49.7	49.7
48.6	16:18:27		48.6	48.6
47.6	16:18:28		47.6	47.6
47.3	16:18:29		47.3	47.3
46.9	16:18:30		46.9	46.9
46.5	16:18:31		46.5	46.5
46.3	16:18:32		46.3	46.3
46.5	16:18:33		46.5	46.5
46.4	16:18:34		46.4	46.4
46.2	16:18:35		46.2	46.2
46.1	16:18:36		46.1	46.1
46.2	16:18:37		46.2	46.2
46.9	16:18:38		46.9	46.9
48.1	16:18:39		48.1	48.1
48.4	16:18:40		48.4	48.4
48.5	16:18:41		48.5	48.5
47.7	16:18:42		47.7	47.7
47.2	16:18:43		47.2	47.2
46.9	16:18:44		46.9	46.9
47.0	16:18:45		47.0	47.0
47.7	16:18:46		47.7	47.7
48.6	16:18:47		48.6	48.6
47.9	16:18:48		47.9	47.9
46.7	16:18:49		46.7	46.7
46.1	16:18:50		46.1	46.1
45.7	16:18:51		45.7	45.7
45.2	16:18:52		45.2	45.2
45.0	16:18:53		45.0	45.0
45.0	16:18:54		45.0	45.0
45.3	16:18:55		45.3	45.3
47.3	16:18:56		47.3	47.3
50.3	16:18:57		50.3	50.3

Site 3 - Near Southwest Corner of Project Site

December 9, 2021 4:21:53 PM Leq Daytime = 59.5
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 51.7
Record Num = 86402 CNEL(24hr)= 60.9
Leq = 57.9 Ldn(24hr)= 60.5
Min = 33.0 Min Leq hr at 1:44 AM 44.5
Max = 81.2 Max Leq hr at 7:33 AM 64.2

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
59.3	16:21:53		59.3	59.3
55.3	16:21:54		55.3	55.3
54.5	16:21:55		54.5	54.5
52.8	16:21:56		52.8	52.8
50.7	16:21:57		50.7	50.7
55.8	16:21:58		55.8	55.8
58.8	16:21:59		58.8	58.8
56.4	16:22:00		56.4	56.4
63.6	16:22:01		63.6	63.6
66.5	16:22:02		66.5	66.5
63.2	16:22:03		63.2	63.2
61.5	16:22:04		61.5	61.5
60.1	16:22:05		60.1	60.1
65.9	16:22:06		65.9	65.9
61.8	16:22:07		61.8	61.8
57.8	16:22:08		57.8	57.8
53.8	16:22:09		53.8	53.8
53.1	16:22:10		53.1	53.1
67.3	16:22:11		67.3	67.3
63.5	16:22:12		63.5	63.5
63.5	16:22:13		63.5	63.5
66.8	16:22:14		66.8	66.8
65.5	16:22:15		65.5	65.5
65.8	16:22:16		65.8	65.8
64.4	16:22:17		64.4	64.4
65.6	16:22:18		65.6	65.6
66.1	16:22:19		66.1	66.1
65.6	16:22:20		65.6	65.6
66.7	16:22:21		66.7	66.7
66.1	16:22:22		66.1	66.1
69.1	16:22:23		69.1	69.1
69.0	16:22:24		69.0	69.0
64.8	16:22:25		64.8	64.8
60.8	16:22:26		60.8	60.8
60.9	16:22:27		60.9	60.9
59.7	16:22:28		59.7	59.7
59.4	16:22:29		59.4	59.4
62.1	16:22:30		62.1	62.1
60.7	16:22:31		60.7	60.7
61.5	16:22:32		61.5	61.5
66.1	16:22:33		66.1	66.1
70.5	16:22:34		70.5	70.5
70.6	16:22:35		70.6	70.6
68.9	16:22:36		68.9	68.9
66.8	16:22:37		66.8	66.8
64.2	16:22:38		64.2	64.2
61.6	16:22:39		61.6	61.6
65.1	16:22:40		65.1	65.1
65.5	16:22:41		65.5	65.5
67.7	16:22:42		67.7	67.7
68.3	16:22:43		68.3	68.3
68.5	16:22:44		68.5	68.5
69.2	16:22:45		69.2	69.2
71.2	16:22:46		71.2	71.2
67.6	16:22:47		67.6	67.6
63.8	16:22:48		63.8	63.8
60.8	16:22:49		60.8	60.8
57.9	16:22:50		57.9	57.9
55.6	16:22:51		55.6	55.6
56.1	16:22:52		56.1	56.1
56.3	16:22:53		56.3	56.3
57.7	16:22:54		57.7	57.7
61.1	16:22:55		61.1	61.1
60.3	16:22:56		60.3	60.3
61.9	16:22:57		61.9	61.9
62.6	16:22:58		62.6	62.6
60.0	16:22:59		60.0	60.0
65.4	16:23:00		65.4	65.4
65.7	16:23:01		65.7	65.7
67.9	16:23:02		67.9	67.9
64.0	16:23:03		64.0	64.0
69.9	16:23:04		69.9	69.9
65.8	16:23:05		65.8	65.8
64.9	16:23:06		64.9	64.9
62.8	16:23:07		62.8	62.8
60.9	16:23:08		60.9	60.9
68.4	16:23:09		68.4	68.4
68.6	16:23:10		68.6	68.6
64.5	16:23:11		64.5	64.5
62.9	16:23:12		62.9	62.9
72.3	16:23:13		72.3	72.3
69.2	16:23:14		69.2	69.2
66.0	16:23:15		66.0	66.0
62.4	16:23:16		62.4	62.4
60.6	16:23:17		60.6	60.6
60.2	16:23:18		60.2	60.2
59.3	16:23:19		59.3	59.3
59.6	16:23:20		59.6	59.6
60.8	16:23:21		60.8	60.8
72.5	16:23:22		72.5	72.5
73.0	16:23:23		73.0	73.0
69.7	16:23:24		69.7	69.7
65.7	16:23:25		65.7	65.7
61.8	16:23:26		61.8	61.8
58.3	16:23:27		58.3	58.3
56.2	16:23:28		56.2	56.2
56.5	16:23:29		56.5	56.5
59.9	16:23:30		59.9	59.9
62.4	16:23:31		62.4	62.4
66.8	16:23:32		66.8	66.8
68.1	16:23:33		68.1	68.1
67.3	16:23:34		67.3	67.3
66.8	16:23:35		66.8	66.8
65.8	16:23:36		65.8	65.8
64.9	16:23:37		64.9	64.9
65.3	16:23:38		65.3	65.3
67.1	16:23:39		67.1	67.1
66.7	16:23:40		66.7	66.7
64.8	16:23:41		64.8	64.8
62.4	16:23:42		62.4	62.4
59.9	16:23:43		59.9	59.9
57.9	16:23:44		57.9	57.9
56.6	16:23:45		56.6	56.6
55.7	16:23:46		55.7	55.7
54.6	16:23:47		54.6	54.6
53.4	16:23:48		53.4	53.4
51.8	16:23:49		51.8	51.8
50.5	16:23:50		50.5	50.5
50.3	16:23:51		50.3	50.3
49.5	16:23:52		49.5	49.5
49.4	16:23:53		49.4	49.4
48.5	16:23:54		48.5	48.5
47.8	16:23:55		47.8	47.8
47.9	16:23:56		47.9	47.9
48.8	16:23:57		48.8	48.8
49.8	16:23:58		49.8	49.8
52.2	16:23:59		52.2	52.2
55.1	16:24:00		55.1	55.1
58.2	16:24:01		58.2	58.2
60.7	16:24:02		60.7	60.7
64.8	16:24:03		64.8	64.8
65.1	16:24:04		65.1	65.1
63.7	16:24:05		63.7	63.7
62.2	16:24:06		62.2	62.2
61.2	16:24:07		61.2	61.2
61.7	16:24:08		61.7	61.7
62.0	16:24:09		62.0	62.0
60.8	16:24:10		60.8	60.8
58.7	16:24:11		58.7	58.7
56.5	16:24:12		56.5	56.5
54.3	16:24:13		54.3	54.3
52.3	16:24:14		52.3	52.3
50.8	16:24:15		50.8	50.8
49.4	16:24:16		49.4	49.4
48.7	16:24:17		48.7	48.7
48.1	16:24:18		48.1	48.1
47.2	16:24:19		47.2	47.2
46.4	16:24:20		46.4	46.4
46.4	16:24:21		46.4	46.4
46.7	16:24:22		46.7	46.7
46.8	16:24:23		46.8	46.8
46.5	16:24:24		46.5	46.5
46.5	16:24:25		46.5	46.5
47.1	16:24:26		47.1	47.1
48.0	16:24:27		48.0	48.0
49.7	16:24:28		49.7	49.7
49.9	16:24:29		49.9	49.9
51.3	16:24:30		51.3	51.3
52.1	16:24:31		52.1	52.1
53.5	16:24:32		53.5	53.5
55.6	16:24:33		55.6	55.6
58.4	16:24:34		58.4	58.4
62.7	16:24:35		62.7	62.7
63.4	16:24:36		63.4	63.4
62.5	16:24:37		62.5	62.5
60.9	16:24:38		60.9	60.9
58.3	16:24:39		58.3	58.3
55.7	16:24:40		55.7	55.7
53.9	16:24:41		53.9	53.9
52.9	16:24:42		52.9	52.9

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
59.6	16:12:46		59.6	59.6
60.4	16:12:47		60.4	60.4
61.1	16:12:48		61.1	61.1
61.6	16:12:49		61.6	61.6
61.8	16:12:50		61.8	61.8
61.4	16:12:51		61.4	61.4
60.8	16:12:52		60.8	60.8
60.6	16:12:53		60.6	60.6
60.3	16:12:54		60.3	60.3
61.0	16:12:55		61.0	61.0
60.6	16:12:56		60.6	60.6
59.2	16:12:57		59.2	59.2
57.0	16:12:58		57.0	57.0
55.3	16:12:59		55.3	55.3
53.1	16:13:00		53.1	53.1
51.2	16:13:01		51.2	51.2
50.4	16:13:02		50.4	50.4
50.6	16:13:03		50.6	50.6
51.7	16:13:04		51.7	51.7
53.0	16:13:05		53.0	53.0
52.4	16:13:06		52.4	52.4
52.1	16:13:07		52.1	52.1
51.8	16:13:08		51.8	51.8
51.0	16:13:09		51.0	51.0
51.7	16:13:10		51.7	51.7
52.6	16:13:11		52.6	52.6
52.5	16:13:12		52.5	52.5
52.1	16:13:13		52.1	52.1
52.8	16:13:14		52.8	52.8
54.1	16:13:15		54.1	54.1
54.6	16:13:16		54.6	54.6
54.8	16:13:17		54.8	54.8
53.7	16:13:18		53.7	53.7
52.4	16:13:19		52.4	52.4
51.2	16:13:20		51.2	51.2
49.5	16:13:21		49.5	49.5
48.6	16:13:22		48.6	48.6
47.7	16:13:23		47.7	47.7
47.1	16:13:24		47.1	47.1
46.7	16:13:25		46.7	46.7
46.3	16:13:26		46.3	46.3
46.1	16:13:27		46.1	46.1
46.7	16:13:28		46.7	46.7
47.4	16:13:29		47.4	47.4
46.2	16:13:30		46.2	46.2
46.1	16:13:31		46.1	46.1
45.5	16:13:32		45.5	45.5
45.0	16:13:33		45.0	45.0
47.3	16:13:34		47.3	47.3
50.5	16:13:35		50.5	50.5
54.1	16:13:36		54.1	54.1
56.6	16:13:37		56.6	56.6
57.6	16:13:38		57.6	57.6
57.3	16:13:39		57.3	57.3
56.9	16:13:40		56.9	56.9
56.1	16:13:41		56.1	56.1
56.6	16:13:42		56.6	56.6
54.5	16:13:43		54.5	54.5
52.5	16:13:44		52.5	52.5
51.2	16:13:45		51.2	51.2
50.1	16:13:46		50.1	50.1
48.2	16:13:47		48.2	48.2
47.5	16:13:48		47.5	47.5
47.3	16:13:49		47.3	47.3
46.5	16:13:50		46.5	46.5
47.1	16:13:51		47.1	47.1
47.3	16:13:52		47.3	47.3
47.1	16:13:53		47.1	47.1
47.6	16:13:54		47.6	47.6
47.9	16:13:55		47.9	47.9
48.3	16:13:56		48.3	48.3
49.6	16:13:57		49.6	49.6
51.7	16:13:58		51.7	51.7
52.9	16:13:59		52.9	52.9
55.0	16:14:00		55.0	55.0
56.9	16:14:01		56.9	56.9
58.3	16:14:02		58.3	58.3
59.6	16:14:03		59.6	59.6
60.2	16:14:04		60.2	60.2
60.4	16:14:05		60.4	60.4
60.2	16:14:06		60.2	60.2
59.8	16:14:07		59.8	59.8
60.2	16:14:08		60.2	60.2
61.6	16:14:09		61.6	61.6
62.0	16:14:10		62.0	62.0
62.3	16:14:11		62.3	62.3
61.5	16:14:12		61.5	61.5
60.6	16:14:13		60.6	60.6
59.3	16:14:14		59.3	59.3
57.3	16:14:15		57.3	57.3
55.4	16:14:16		55.4	55.4
53.9	16:14:17		53.9	53.9
53.2	16:14:18		53.2	53.2
52.9	16:14:19		52.9	52.9
53.2	16:14:20		53.2	53.2
53.3	16:14:21		53.3	53.3
53.6	16:14:22		53.6	53.6
53.8	16:14:23		53.8	53.8
54.1	16:14:24		54.1	54.1
54.2	16:14:25		54.2	54.2
54.0	16:14:26		54.0	54.0
54.7	16:14:27		54.7	54.7
54.7	16:14:28		54.7	54.7
54.1	16:14:29		54.1	54.1
52.8	16:14:30		52.8	52.8
51.4	16:14:31		51.4	51.4
50.2	16:14:32		50.2	50.2
49.3	16:14:33		49.3	49.3
49.0	16:14:34		49.0	49.0
49.1	16:14:35		49.1	49.1
49.4	16:14:36		49.4	49.4
49.8	16:14:37		49.8	49.8
50.1	16:14:38		50.1	50.1
50.8	16:14:39		50.8	50.8
52.1	16:14:40		52.1	52.1
54.1	16:14:41		54.1	54.1
54.2	16:14:42		54.2	54.2
53.3	16:14:43		53.3	53.3
53.4	16:14:44		53.4	53.4
54.3	16:14:45		54.3	54.3
54.2	16:14:46		54.2	54.2
54.8	16:14:47		54.8	54.8
55.5	16:14:48		55.5	55.5
56.6	16:14:49		56.6	56.6
58.9	16:14:50		58.9	58.9
60.8	16:14:51		60.8	60.8
62.1	16:14:52		62.1	62.1
62.6	16:14:53		62.6	62.6
61.8	16:14:54		61.8	61.8
60.3	16:14:55		60.3	60.3
58.9	16:14:56		58.9	58.9
58.1	16:14:57		58.1	58.1
58.6	16:14:58		58.6	58.6
60.1	16:14:59		60.1	60.1
61.7	16:15:00		61.7	61.7
63.1	16:15:01		63.1	63.1
65.3	16:15:02		65.3	65.3
64.5	16:15:03		64.5	64.5
62.9	16:15:04		62.9	62.9
62.1	16:15:05		62.1	62.1
61.3	16:15:06		61.3	61.3
60.9	16:15:07		60.9	60.9
61.9	16:15:08		61.9	61.9
63.5	16:15:09		63.5	63.5
64.4	16:15:10		64.4	64.4
65.3	16:15:11		65.3	65.3
66.1	16:15:12		66.1	66.1
64.9	16:15:13		64.9	64.9
62.6	16:15:14		62.6	62.6
60.2	16:15:15		60.2	60.2
57.8	16:15:16		57.8	57.8
56.1	16:15:17		56.1	56.1
55.2	16:15:18		55.2	55.2
55.9	16:15:19		55.9	55.9
57.9	16:15:20		57.9	57.9
58.6	16:15:21		58.6	58.6
57.9	16:15:22		57.9	57.9
56.5	16:15:23		56.5	56.5
55.2	16:15:24		55.2	55.2
54.1	16:15:25		54.1	54.1
53.9	16:15:26		53.9	53.9
55.0	16:15:27		55.0	55.0
56.3	16:15:28		56.3	56.3
56.8	16:15:29		56.8	56.8
57.5	16:15:30		57.5	57.5
58.4	16:15:31		58.4	58.4
59.3	16:15:32		59.3	59.3
59.6	16:15:33		59.6	59.6
60.0	16:15:34		60.0	60.0
60.7	16:15:35		60.7	60.7
60.8	16:15:36		60.8	60.8
61.4	16:15:37		61.4	61.4
61.8	16:15:38		61.8	61.8
62.1	16:15:39		62.1	62.1
61.9	16:15:40		61.9	61.9
61.8	16:15:41		61.8	61.8
61.7	16:15:42		61.7	61.7
61.1	16:15:43		61.1	61.1
60.9	16:15:44		60.9	60.9
60.8	16:15:45		60.8	60.8
59.8	16:15:46		59.8	59.8

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.1	16:18:58		48.1	48.1
46.9	16:18:59		46.9	46.9
46.3	16:19:00		46.3	46.3
45.6	16:19:01		45.6	45.6
45.7	16:19:02		45.7	45.7
45.7	16:19:03		45.7	45.7
46.5	16:19:04		46.5	46.5
47.1	16:19:05		47.1	47.1
48.2	16:19:06		48.2	48.2
47.6	16:19:07		47.6	47.6
46.7	16:19:08		46.7	46.7
46.1	16:19:09		46.1	46.1
45.7	16:19:10		45.7	45.7
46.4	16:19:11		46.4	46.4
46.9	16:19:12		46.9	46.9
47.3	16:19:13		47.3	47.3
46.7	16:19:14		46.7	46.7
46.4	16:19:15		46.4	46.4
46.5	16:19:16		46.5	46.5
46.7	16:19:17		46.7	46.7
47.1	16:19:18		47.1	47.1
47.3	16:19:19		47.3	47.3
47.0	16:19:20		47.0	47.0
46.4	16:19:21		46.4	46.4
46.5	16:19:22		46.5	46.5
46.1	16:19:23		46.1	46.1
46.5	16:19:24		46.5	46.5
47.2	16:19:25		47.2	47.2
47.7	16:19:26		47.7	47.7
48.2	16:19:27		48.2	48.2
49.8	16:19:28		49.8	49.8
48.9	16:19:29		48.9	48.9
47.9	16:19:30		47.9	47.9
47.6	16:19:31		47.6	47.6
47.3	16:19:32		47.3	47.3
52.5	16:19:33		52.5	52.5
52.5	16:19:34		52.5	52.5
50.1	16:19:35		50.1	50.1
48.6	16:19:36		48.6	48.6
48.2	16:19:37		48.2	48.2
48.9	16:19:38		48.9	48.9
48.9	16:19:39		48.9	48.9
48.9	16:19:40		48.9	48.9
48.6	16:19:41		48.6	48.6
48.8	16:19:42		48.8	48.8
49.2	16:19:43		49.2	49.2
49.2	16:19:44		49.2	49.2
48.4	16:19:45		48.4	48.4
47.9	16:19:46		47.9	47.9
47.7	16:19:47		47.7	47.7
47.2	16:19:48		47.2	47.2
47.4	16:19:49		47.4	47.4
47.9	16:19:50		47.9	47.9
47.1	16:19:51		47.1	47.1
47.6	16:19:52		47.6	47.6
48.4	16:19:53		48.4	48.4
47.5	16:19:54		47.5	47.5
47.6	16:19:55		47.6	47.6
48.2	16:19:56		48.2	48.2
48.3	16:19:57		48.3	48.3
47.8	16:19:58		47.8	47.8
48.3	16:19:59		48.3	48.3
47.4	16:20:00		47.4	47.4
47.1	16:20:01		47.1	47.1
46.8	16:20:02		46.8	46.8
48.2	16:20:03		48.2	48.2
47.9	16:20:04		47.9	47.9
46.9	16:20:05		46.9	46.9
46.9	16:20:06		46.9	46.9
47.2	16:20:07		47.2	47.2
47.2	16:20:08		47.2	47.2
46.9	16:20:09		46.9	46.9
46.8	16:20:10		46.8	46.8
46.6	16:20:11		46.6	46.6
46.9	16:20:12		46.9	46.9
47.0	16:20:13		47.0	47.0
47.0	16:20:14		47.0	47.0
47.8	16:20:15		47.8	47.8
48.1	16:20:16		48.1	48.1
48.9	16:20:17		48.9	48.9
48.9	16:20:18		48.9	48.9
50.4	16:20:19		50.4	50.4
54.2	16:20:20		54.2	54.2
53.8	16:20:21		53.8	53.8
51.8	16:20:22		51.8	51.8
50.3	16:20:23		50.3	50.3
49.4	16:20:24		49.4	49.4
48.9	16:20:25		48.9	48.9
49.5	16:20:26		49.5	49.5
49.6	16:20:27		49.6	49.6
49.4	16:20:28		49.4	49.4
49.2	16:20:29		49.2	49.2
48.7	16:20:30		48.7	48.7
48.6	16:20:31		48.6	48.6
48.5	16:20:32		48.5	48.5
47.6	16:20:33		47.6	47.6
46.8	16:20:34		46.8	46.8
46.1	16:20:35		46.1	46.1
45.8	16:20:36		45.8	45.8
45.5	16:20:37		45.5	45.5
45.2	16:20:38		45.2	45.2
44.9	16:20:39		44.9	44.9
45.3	16:20:40		45.3	45.3
45.3	16:20:41		45.3	45.3
45.4	16:20:42		45.4	45.4
46.2	16:20:43		46.2	46.2
47.0	16:20:44		47.0	47.0
48.1	16:20:45		48.1	48.1
48.4	16:20:46		48.4	48.4
48.3	16:20:47		48.3	48.3
48.7	16:20:48		48.7	48.7
48.7	16:20:49		48.7	48.7
48.7	16:20:50		48.7	48.7
48.4	16:20:51		48.4	48.4
47.7	16:20:52		47.7	47.7
48.0	16:20:53		48.0	48.0
47.8	16:20:54		47.8	47.8
47.4	16:20:55		47.4	47.4
47.4	16:20:56		47.4	47.4
47.6	16:20:57		47.6	47.6
48.1	16:20:58		48.1	48.1
48.3	16:20:59		48.3	48.3
48.1	16:21:00		48.1	48.1
48.5	16:21:01		48.5	48.5
48.7	16:21:02		48.7	48.7
48.2	16:21:03		48.2	48.2
47.4	16:21:04		47.4	47.4
47.1	16:21:05		47.1	47.1
47.3	16:21:06		47.3	47.3
47.3	16:21:07		47.3	47.3
47.5	16:21:08		47.5	47.5
47.3	16:21:09		47.3	47.3
46.9	16:21:10		46.9	46.9
46.6	16:21:11		46.6	46.6
46.7	16:21:12		46.7	46.7
47.3	16:21:13		47.3	47.3
47.7	16:21:14		47.7	47.7
47.3	16:21:15		47.3	47.3
47.1	16:21:16		47.1	47.1
47.1	16:21:17		47.1	47.1
47.1	16:21:18		47.1	47.1
47.4	16:21:19		47.4	47.4
47.8	16:21:20		47.8	47.8
47.9	16:21:21		47.9	47.9
48.2	16:21:22		48.2	48.2
47.1	16:21:23		47.1	47.1
47.0	16:21:24		47.0	47.0
47.6	16:21:25		47.6	47.6
48.2	16:21:26		48.2	48.2
48.0	16:21:27		48.0	48.0
48.2	16:21:28		48.2	48.2
48.7	16:21:29		48.7	48.7
48.8	16:21:30		48.8	48.8
48.7	16:21:31		48.7	48.7
48.5	16:21:32		48.5	48.5
48.4	16:21:33		48.4	48.4
47.8	16:21:34		47.8	47.8
47.8	16:21:35		47.8	47.8
48.3	16:21:36		48.3	48.3
48.9	16:21:37		48.9	48.9
49.0	16:21:38		49.0	49.0
48.6	16:21:39		48.6	48.6
48.8	16:21:40		48.8	48.8
49.2	16:21:41		49.2	49.2
49.4	16:21:42		49.4	49.4
50.2	16:21:43		50.2	50.2
48.9	16:21:44		48.9	48.9
48.8	16:21:45		48.8	48.8
48.6	16:21:46		48.6	48.6
48.1	16:21:47		48.1	48.1
48.2	16:21:48		48.2	48.2
48.3	16:21:49		48.3	48.3
47.6	16:21:50		47.6	47.6
47.0	16:21:51		47.0	47.0
46.3	16:21:52		46.3	46.3
45.8	16:21:53		45.8	45.8
45.4	16:21:54		45.4	45.4
45.4	16:21:55		45.4	45.4
46.0	16:21:56		46.0	46.0
46.4	16:21:57		46.4	46.4
46.5	16:21:58		46.5	46.5

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
52.4	16:24:43		52.4	52.4
53.5	16:24:44		53.5	53.5
55.6	16:24:45		55.6	55.6
59.8	16:24:46		59.8	59.8
63.4	16:24:47		63.4	63.4
63.8	16:24:48		63.8	63.8
62.8	16:24:49		62.8	62.8
61.1	16:24:50		61.1	61.1
59.0	16:24:51		59.0	59.0
57.2	16:24:52		57.2	57.2
55.7	16:24:53		55.7	55.7
53.8	16:24:54		53.8	53.8
51.8	16:24:55		51.8	51.8
49.6	16:24:56		49.6	49.6
47.7	16:24:57		47.7	47.7
46.7	16:24:58		46.7	46.7
46.2	16:24:59		46.2	46.2
46.3	16:25:00		46.3	46.3
47.2	16:25:01		47.2	47.2
48.8	16:25:02		48.8	48.8
49.6	16:25:03		49.6	49.6
49.3	16:25:04		49.3	49.3
50.0	16:25:05		50.0	50.0
51.6	16:25:06		51.6	51.6
53.9	16:25:07		53.9	53.9
56.1	16:25:08		56.1	56.1
60.1	16:25:09		60.1	60.1
64.3	16:25:10		64.3	64.3
69.5	16:25:11		69.5	69.5
68.0	16:25:12		68.0	68.0
64.8	16:25:13		64.8	64.8
61.8	16:25:14		61.8	61.8
58.9	16:25:15		58.9	58.9
56.7	16:25:16		56.7	56.7
54.2	16:25:17		54.2	54.2
51.9	16:25:18		51.9	51.9
50.7	16:25:19		50.7	50.7
50.3	16:25:20		50.3	50.3
49.9	16:25:21		49.9	49.9
49.2	16:25:22		49.2	49.2
48.5	16:25:23		48.5	48.5
48.2	16:25:24		48.2	48.2
49.1	16:25:25		49.1	49.1
48.5	16:25:26		48.5	48.5
48.3	16:25:27		48.3	48.3
47.4	16:25:28		47.4	47.4
45.9	16:25:29		45.9	45.9
45.3	16:25:30		45.3	45.3
45.3	16:25:31		45.3	45.3
46.0	16:25:32		46.0	46.0
47.2	16:25:33		47.2	47.2
47.5	16:25:34		47.5	47.5
47.4	16:25:35		47.4	47.4
48.3	16:25:36		48.3	48.3
49.7	16:25:37		49.7	49.7
51.1	16:25:38		51.1	51.1
52.9	16:25:39		52.9	52.9
57.3	16:25:40		57.3	57.3
61.7	16:25:41		61.7	61.7
66.6	16:25:42		66.6	66.6
70.7	16:25:43		70.7	70.7
71.6	16:25:44		71.6	71.6
69.1	16:25:45		69.1	69.1
65.8	16:25:46		65.8	65.8
62.2	16:25:47		62.2	62.2
58.9	16:25:48		58.9	58.9
56.3	16:25:49		56.3	56.3
54.9	16:25:50		54.9	54.9
54.9	16:25:51		54.9	54.9
56.5	16:25:52		56.5	56.5
59.9	16:25:53		59.9	59.9
62.4	16:25:54		62.4	62.4
65.5	16:25:55		65.5	65.5
68.6	16:25:56		68.6	68.6
66.9	16:25:57		66.9	66.9
64.1	16:25:58		64.1	64.1
61.7	16:25:59		61.7	61.7
60.8	16:26:00		60.8	60.8
61.6	16:26:01		61.6	61.6
65.0	16:26:02		65.0	65.0
64.5	16:26:03		64.5	64.5
62.4	16:26:04		62.4	62.4
59.7	16:26:05		59.7	59.7
56.8	16:26:06		56.8	56.8
54.3	16:26:07		54.3	54.3
53.2	16:26:08		53.2	53.2
52.1	16:26:09		52.1	52.1
51.1	16:26:10		51.1	51.1
50.2	16:26:11		50.2	50.2
48.9	16:26:12		48.9	48.9
48.3	16:26:13		48.3	48.3
48.3	16:26:14		48.3	48.3
47.1	16:26:15		47.1	47.1
47.4	16:26:16		47.4	47.4
47.4	16:26:17		47.4	47.4
47.2	16:26:18		47.2	47.2
47.3	16:26:19		47.3	47.3
48.3	16:26:20		48.3	48.3
49.4	16:26:21		49.4	49.4
48.7	16:26:22		48.7	48.7
48.3	16:26:23		48.3	48.3
48.7	16:26:24		48.7	48.7
48.3	16:26:25		48.3	48.3
48.1	16:26:26		48.1	48.1
49.0	16:26:27		49.0	49.0
52.0	16:26:28		52.0	52.0
55.3	16:26:29		55.3	55.3
58.4	16:26:30		58.4	58.4
60.7	16:26:31		60.7	60.7
64.3	16:26:32		64.3	64.3
64.9	16:26:33		64.9	64.9
63.0	16:26:34		63.0	63.0
60.5	16:26:35		60.5	60.5
58.3	16:26:36		58.3	58.3
55.6	16:26:37		55.6	55.6
53.2	16:26:38		53.2	53.2
51.0	16:26:39		51.0	51.0
49.1	16:26:40		49.1	49.1
47.5	16:26:41		47.5	47.5
47.2	16:26:42		47.2	47.2
47.7	16:26:43		47.7	47.7
48.2	16:26:44		48.2	48.2
49.5	16:26:45		49.5	49.5
51.4	16:26:46		51.4	51.4
55.4	16:26:47		55.4	55.4
59.9	16:26:48		59.9	59.9
65.5	16:26:49		65.5	65.5
69.6	16:26:50		69.6	69.6
69.4	16:26:51		69.4	69.4
66.4	16:26:52		66.4	66.4
62.9	16:26:53		62.9	62.9
59.2	16:26:54		59.2	59.2
55.9	16:26:55		55.9	55.9
53.2	16:26:56		53.2	53.2
51.4	16:26:57		51.4	51.4
50.2	16:26:58		50.2	50.2
48.9	16:26:59		48.9	48.9
48.1	16:27:00		48.1	48.1
47.5	16:27:01		47.5	47.5
46.2	16:27:02		46.2	46.2
45.4	16:27:03		45.4	45.4
44.7	16:27:04		44.7	44.7
44.2	16:27:05		44.2	44.2
44.2	16:27:06		44.2	44.2
44.1	16:27:07		44.1	44.1
44.6	16:27:08		44.6	44.6
45.0	16:27:09		45.0	45.0
46.8	16:27:10		46.8	46.8
47.3	16:27:11		47.3	47.3
47.6	16:27:12		47.6	47.6
47.6	16:27:13		47.6	47.6
47.8	16:27:14		47.8	47.8
48.6	16:27:15		48.6	48.6
49.2	16:27:16		49.2	49.2
50.4	16:27:17		50.4	50.4
52.3	16:27:18		52.3	52.3
55.9	16:27:19		55.9	55.9
59.2	16:27:20		59.2	59.2
61.4	16:27:21		61.4	61.4
64.6	16:27:22		64.6	64.6
67.0	16:27:23		67.0	67.0
67.0	16:27:24		67.0	67.0
66.6	16:27:25		66.6	66.6
67.1	16:27:26		67.1	67.1
65.9	16:27:27		65.9	65.9
63.2	16:27:28		63.2	63.2
60.2	16:27:29		60.2	60.2
57.3	16:27:30		57.3	57.3
55.1	16:27:31		55.1	55.1
53.5	16:27:32		53.5	53.5
52.0	16:27:33		52.0	52.0
50.1	16:27:34		50.1	50.1
48.7	16:27:35		48.7	48.7
48.4	16:27:36		48.4	48.4
48.0	16:27:37		48.0	48.0
47.3	16:27:38		47.3	47.3
47.0	16:27:39		47.0	47.0
47.6	16:27:40		47.6	47.6
49.7	16:27:41		49.7	49.7
53.9	16:27:42		53.9	53.9
58.6	16:27:43		58.6	58.6

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
58.9	16:15:47		58.9	58.9
57.7	16:15:48		57.7	57.7
57.2	16:15:49		57.2	57.2
56.7	16:15:50		56.7	56.7
57.0	16:15:51		57.0	57.0
57.7	16:15:52		57.7	57.7
58.1	16:15:53		58.1	58.1
57.0	16:15:54		57.0	57.0
55.6	16:15:55		55.6	55.6
54.4	16:15:56		54.4	54.4
54.5	16:15:57		54.5	54.5
53.9	16:15:58		53.9	53.9
54.2	16:15:59		54.2	54.2
54.6	16:16:00		54.6	54.6
54.0	16:16:01		54.0	54.0
54.0	16:16:02		54.0	54.0
54.7	16:16:03		54.7	54.7
55.4	16:16:04		55.4	55.4
55.7	16:16:05		55.7	55.7
56.8	16:16:06		56.8	56.8
58.3	16:16:07		58.3	58.3
59.0	16:16:08		59.0	59.0
59.3	16:16:09		59.3	59.3
58.1	16:16:10		58.1	58.1
56.4	16:16:11		56.4	56.4
54.9	16:16:12		54.9	54.9
54.2	16:16:13		54.2	54.2
54.0	16:16:14		54.0	54.0
53.6	16:16:15		53.6	53.6
53.8	16:16:16		53.8	53.8
55.1	16:16:17		55.1	55.1
57.0	16:16:18		57.0	57.0
59.6	16:16:19		59.6	59.6
62.6	16:16:20		62.6	62.6
62.0	16:16:21		62.0	62.0
59.6	16:16:22		59.6	59.6
57.2	16:16:23		57.2	57.2
55.4	16:16:24		55.4	55.4
54.8	16:16:25		54.8	54.8
53.9	16:16:26		53.9	53.9
53.6	16:16:27		53.6	53.6
53.3	16:16:28		53.3	53.3
52.8	16:16:29		52.8	52.8
52.3	16:16:30		52.3	52.3
51.7	16:16:31		51.7	51.7
51.9	16:16:32		51.9	51.9
51.4	16:16:33		51.4	51.4
51.1	16:16:34		51.1	51.1
51.3	16:16:35		51.3	51.3
51.2	16:16:36		51.2	51.2
52.2	16:16:37		52.2	52.2
52.8	16:16:38		52.8	52.8
52.8	16:16:39		52.8	52.8
53.1	16:16:40		53.1	53.1
54.4	16:16:41		54.4	54.4
55.9	16:16:42		55.9	55.9
56.3	16:16:43		56.3	56.3
55.8	16:16:44		55.8	55.8
55.0	16:16:45		55.0	55.0
53.7	16:16:46		53.7	53.7
52.3	16:16:47		52.3	52.3
51.0	16:16:48		51.0	51.0
50.1	16:16:49		50.1	50.1
49.6	16:16:50		49.6	49.6
49.0	16:16:51		49.0	49.0
48.4	16:16:52		48.4	48.4
48.3	16:16:53		48.3	48.3
48.5	16:16:54		48.5	48.5
49.1	16:16:55		49.1	49.1
49.2	16:16:56		49.2	49.2
49.1	16:16:57		49.1	49.1
48.8	16:16:58		48.8	48.8
48.2	16:16:59		48.2	48.2
48.6	16:17:00		48.6	48.6
48.7	16:17:01		48.7	48.7
48.8	16:17:02		48.8	48.8
49.5	16:17:03		49.5	49.5
51.2	16:17:04		51.2	51.2
52.4	16:17:05		52.4	52.4
52.6	16:17:06		52.6	52.6
52.3	16:17:07		52.3	52.3
51.1	16:17:08		51.1	51.1
50.7	16:17:09		50.7	50.7
52.3	16:17:10		52.3	52.3
52.5	16:17:11		52.5	52.5
54.6	16:17:12		54.6	54.6
55.1	16:17:13		55.1	55.1
54.8	16:17:14		54.8	54.8
55.9	16:17:15		55.9	55.9
58.4	16:17:16		58.4	58.4
61.7	16:17:17		61.7	61.7
63.3	16:17:18		63.3	63.3
63.2	16:17:19		63.2	63.2
63.0	16:17:20		63.0	63.0
63.8	16:17:21		63.8	63.8
64.7	16:17:22		64.7	64.7
64.4	16:17:23		64.4	64.4
64.0	16:17:24		64.0	64.0
63.9	16:17:25		63.9	63.9
63.9	16:17:26		63.9	63.9
63.9	16:17:27		63.9	63.9
63.8	16:17:28		63.8	63.8
63.5	16:17:29		63.5	63.5
63.3	16:17:30		63.3	63.3
63.1	16:17:31		63.1	63.1
62.8	16:17:32		62.8	62.8
62.2	16:17:33		62.2	62.2
62.0	16:17:34		62.0	62.0
62.3	16:17:35		62.3	62.3
63.2	16:17:36		63.2	63.2
64.7	16:17:37		64.7	64.7
66.1	16:17:38		66.1	66.1
66.4	16:17:39		66.4	66.4
66.2	16:17:40		66.2	66.2
65.3	16:17:41		65.3	65.3
63.5	16:17:42		63.5	63.5
62.0	16:17:43		62.0	62.0
60.9	16:17:44		60.9	60.9
60.1	16:17:45		60.1	60.1
59.1	16:17:46		59.1	59.1
59.3	16:17:47		59.3	59.3
59.2	16:17:48		59.2	59.2
58.5	16:17:49		58.5	58.5
58.1	16:17:50		58.1	58.1
58.3	16:17:51		58.3	58.3
59.2	16:17:52		59.2	59.2
60.5	16:17:53		60.5	60.5
60.6	16:17:54		60.6	60.6
60.2	16:17:55		60.2	60.2
59.8	16:17:56		59.8	59.8
59.7	16:17:57		59.7	59.7
59.9	16:17:58		59.9	59.9
58.5	16:17:59		58.5	58.5
56.4	16:18:00		56.4	56.4
53.4	16:18:01		53.4	53.4
53.2	16:18:02		53.2	53.2
51.9	16:18:03		51.9	51.9
51.2	16:18:04		51.2	51.2
50.5	16:18:05		50.5	50.5
50.0	16:18:06		50.0	50.0
50.2	16:18:07		50.2	50.2
50.9	16:18:08		50.9	50.9
51.4	16:18:09		51.4	51.4
51.7	16:18:10		51.7	51.7
51.9	16:18:11		51.9	51.9
52.8	16:18:12		52.8	52.8
54.3	16:18:13		54.3	54.3
55.7	16:18:14		55.7	55.7
56.7	16:18:15		56.7	56.7
57.8	16:18:16		57.8	57.8
58.7	16:18:17		58.7	58.7
59.6	16:18:18		59.6	59.6
59.7	16:18:19		59.7	59.7
59.6	16:18:20		59.6	59.6
58.5	16:18:21		58.5	58.5
56.9	16:18:22		56.9	56.9
56.1	16:18:23		56.1	56.1
57.1	16:18:24		57.1	57.1
59.0	16:18:25		59.0	59.0
60.1	16:18:26		60.1	60.1
61.0	16:18:27		61.0	61.0
60.8	16:18:28		60.8	60.8
59.3	16:18:29		59.3	59.3
57.8	16:18:30		57.8	57.8
56.5	16:18:31		56.5	56.5
55.5	16:18:32		55.5	55.5
55.6	16:18:33		55.6	55.6
55.5	16:18:34		55.5	55.5
55.6	16:18:35		55.6	55.6
56.8	16:18:36		56.8	56.8
57.9	16:18:37		57.9	57.9
59.3	16:18:38		59.3	59.3
59.4	16:18:39		59.4	59.4
59.0	16:18:40		59.0	59.0
57.9	16:18:41		57.9	57.9
56.2	16:18:42		56.2	56.2
54.5	16:18:43		54.5	54.5
53.5	16:18:44		53.5	53.5
52.8	16:18:45		52.8	52.8
52.4	16:18:46		52.4	52.4
52.2	16:18:47		52.2	52.2
51.8	16:18:48		51.8	51.8
50.9	16:18:49		50.9	50.9
50.5	16:18:50		50.5	50.5
50.1	16:18:51		50.1	50.1
49.8	16:18:52		49.8	49.8
49.4	16:18:53		49.4	49.4
49.6	16:18:54		49.6	49.6
50.7	16:18:55		50.7	50.7
51.1	16:18:56		51.1	51.1

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.9	16:21:59		46.9	46.9
46.6	16:22:00		46.6	46.6
46.3	16:22:01		46.3	46.3
46.4	16:22:02		46.4	46.4
46.3	16:22:03		46.3	46.3
45.9	16:22:04		45.9	45.9
45.8	16:22:05		45.8	45.8
45.9	16:22:06		45.9	45.9
47.2	16:22:07		47.2	47.2
48.8	16:22:08		48.8	48.8
48.5	16:22:09		48.5	48.5
47.8	16:22:10		47.8	47.8
49.9	16:22:11		49.9	49.9
50.6	16:22:12		50.6	50.6
50.2	16:22:13		50.2	50.2
51.1	16:22:14		51.1	51.1
51.6	16:22:15		51.6	51.6
52.7	16:22:16		52.7	52.7
53.0	16:22:17		53.0	53.0
53.0	16:22:18		53.0	53.0
53.0	16:22:19		53.0	53.0
57.1	16:22:20		57.1	57.1
57.7	16:22:21		57.7	57.7
55.3	16:22:22		55.3	55.3
54.3	16:22:23		54.3	54.3
53.8	16:22:24		53.8	53.8
53.2	16:22:25		53.2	53.2
53.7	16:22:26		53.7	53.7
56.6	16:22:27		56.6	56.6
55.9	16:22:28		55.9	55.9
54.1	16:22:29		54.1	54.1
52.8	16:22:30		52.8	52.8
51.8	16:22:31		51.8	51.8
51.3	16:22:32		51.3	51.3
50.9	16:22:33		50.9	50.9
50.7	16:22:34		50.7	50.7
50.7	16:22:35		50.7	50.7
51.4	16:22:36		51.4	51.4
52.7	16:22:37		52.7	52.7
52.2	16:22:38		52.2	52.2
50.6	16:22:39		50.6	50.6
49.1	16:22:40		49.1	49.1
48.0	16:22:41		48.0	48.0
47.0	16:22:42		47.0	47.0
46.4	16:22:43		46.4	46.4
46.5	16:22:44		46.5	46.5
46.7	16:22:45		46.7	46.7
46.4	16:22:46		46.4	46.4
46.0	16:22:47		46.0	46.0
46.2	16:22:48		46.2	46.2
46.3	16:22:49		46.3	46.3
46.3	16:22:50		46.3	46.3
46.8	16:22:51		46.8	46.8
46.8	16:22:52		46.8	46.8
46.4	16:22:53		46.4	46.4
46.1	16:22:54		46.1	46.1
46.1	16:22:55		46.1	46.1
46.3	16:22:56		46.3	46.3
46.6	16:22:57		46.6	46.6
47.0	16:22:58		47.0	47.0
47.7	16:22:59		47.7	47.7
47.6	16:23:00		47.6	47.6
47.1	16:23:01		47.1	47.1
46.9	16:23:02		46.9	46.9
46.8	16:23:03		46.8	46.8
47.0	16:23:04		47.0	47.0
47.2	16:23:05		47.2	47.2
47.9	16:23:06		47.9	47.9
47.6	16:23:07		47.6	47.6
47.7	16:23:08		47.7	47.7
47.7	16:23:09		47.7	47.7
47.6	16:23:10		47.6	47.6
48.0	16:23:11		48.0	48.0
47.9	16:23:12		47.9	47.9
48.0	16:23:13		48.0	48.0
48.4	16:23:14		48.4	48.4
49.0	16:23:15		49.0	49.0
49.8	16:23:16		49.8	49.8
50.1	16:23:17		50.1	50.1
50.2	16:23:18		50.2	50.2
49.8	16:23:19		49.8	49.8
50.1	16:23:20		50.1	50.1
50.6	16:23:21		50.6	50.6
51.2	16:23:22		51.2	51.2
50.6	16:23:23		50.6	50.6
50.0	16:23:24		50.0	50.0
50.2	16:23:25		50.2	50.2
49.8	16:23:26		49.8	49.8
49.4	16:23:27		49.4	49.4
49.7	16:23:28		49.7	49.7
49.9	16:23:29		49.9	49.9
50.2	16:23:30		50.2	50.2
52.3	16:23:31		52.3	52.3
53.9	16:23:32		53.9	53.9
53.2	16:23:33		53.2	53.2
54.4	16:23:34		54.4	54.4
55.0	16:23:35		55.0	55.0
54.6	16:23:36		54.6	54.6
54.6	16:23:37		54.6	54.6
54.3	16:23:38		54.3	54.3
53.9	16:23:39		53.9	53.9
53.9	16:23:40		53.9	53.9
54.5	16:23:41		54.5	54.5
55.8	16:23:42		55.8	55.8
55.3	16:23:43		55.3	55.3
54.8	16:23:44		54.8	54.8
54.4	16:23:45		54.4	54.4
53.6	16:23:46		53.6	53.6
52.6	16:23:47		52.6	52.6
51.9	16:23:48		51.9	51.9
53.3	16:23:49		53.3	53.3
53.7	16:23:50		53.7	53.7
52.8	16:23:51		52.8	52.8
52.1	16:23:52		52.1	52.1
51.1	16:23:53		51.1	51.1
50.1	16:23:54		50.1	50.1
51.1	16:23:55		51.1	51.1
52.7	16:23:56		52.7	52.7
50.7	16:23:57		50.7	50.7
49.1	16:23:58		49.1	49.1
49.1	16:23:59		49.1	49.1
48.8	16:24:00		48.8	48.8
48.4	16:24:01		48.4	48.4
49.7	16:24:02		49.7	49.7
51.1	16:24:03		51.1	51.1
50.4	16:24:04		50.4	50.4
49.7	16:24:05		49.7	49.7
49.2	16:24:06		49.2	49.2
49.7	16:24:07		49.7	49.7
49.8	16:24:08		49.8	49.8
50.0	16:24:09		50.0	50.0
50.4	16:24:10		50.4	50.4
50.6	16:24:11		50.6	50.6
49.8	16:24:12		49.8	49.8
49.4	16:24:13		49.4	49.4
50.3	16:24:14		50.3	50.3
52.6	16:24:15		52.6	52.6
52.9	16:24:16		52.9	52.9
51.5	16:24:17		51.5	51.5
50.0	16:24:18		50.0	50.0
49.8	16:24:19		49.8	49.8
49.7	16:24:20		49.7	49.7
49.5	16:24:21		49.5	49.5
51.9	16:24:22		51.9	51.9
56.5	16:24:23		56.5	56.5
56.2	16:24:24		56.2	56.2
56.3	16:24:25		56.3	56.3
54.2	16:24:26		54.2	54.2
51.7	16:24:27		51.7	51.7
49.7	16:24:28		49.7	49.7
47.9	16:24:29		47.9	47.9
47.0	16:24:30		47.0	47.0
46.5	16:24:31		46.5	46.5
46.7	16:24:32		46.7	46.7
47.2	16:24:33		47.2	47.2
48.7	16:24:34		48.7	48.7
49.3	16:24:35		49.3	49.3
49.2	16:24:36		49.2	49.2
48.9	16:24:37		48.9	48.9
46.5	16:24:38		46.5	46.5
48.9	16:24:39		48.9	48.9
49.2	16:24:40		49.2	49.2
48.7	16:24:41		48.7	48.7
48.8	16:24:42		48.8	48.8
48.5	16:24:43		48.5	48.5
48.2	16:24:44		48.2	48.2
47.9	16:24:45		47.9	47.9
48.1	16:24:46		48.1	48.1
48.2	16:24:47		48.2	48.2
49.1	16:24:48		49.1	49.1
51.0	16:24:49		51.0	51.0
51.9	16:24:50		51.9	51.9
52.9	16:24:51		52.9	52.9
53.3	16:24:52		53.3	53.3
52.3	16:24:53		52.3	52.3
51.3	16:24:54		51.3	51.3
50.6	16:24:55		50.6	50.6
50.6	16:24:56		50.6	50.6
50.9	16:24:57		50.9	50.9
51.3	16:24:58		51.3	51.3
54.1	16:24:59		54.1	54.1
55.4	16:25:00		55.4	55.4
54.0	16:25:01		54.0	54.0
51.8	16:25:02		51.8	51.8
50.1	16:25:03		50.1	50.1
49.3	16:25:04		49.3	49.3
51.2	16:25:05		51.2	51.2
50.1	16:25:06		50.1	50.1
51.3	16:25:07		51.3	51.3
50.7	16:25:08		50.7	50.7

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.8	16:27:44		60.8	60.8
58.9	16:27:45		58.9	58.9
57.7	16:27:46		57.7	57.7
56.9	16:27:47		56.9	56.9
57.2	16:27:48		57.2	57.2
58.4	16:27:49		58.4	58.4
60.3	16:27:50		60.3	60.3
64.1	16:27:51		64.1	64.1
65.2	16:27:52		65.2	65.2
64.1	16:27:53		64.1	64.1
62.0	16:27:54		62.0	62.0
59.8	16:27:55		59.8	59.8
58.7	16:27:56		58.7	58.7
60.2	16:27:57		60.2	60.2
65.5	16:27:58		65.5	65.5
70.3	16:27:59		70.3	70.3
70.8	16:28:00		70.8	70.8
67.9	16:28:01		67.9	67.9
65.3	16:28:02		65.3	65.3
66.1	16:28:03		66.1	66.1
69.4	16:28:04		69.4	69.4
69.0	16:28:05		69.0	69.0
69.4	16:28:06		69.4	69.4
69.6	16:28:07		69.6	69.6
68.0	16:28:08		68.0	68.0
65.6	16:28:09		65.6	65.6
63.0	16:28:10		63.0	63.0
60.7	16:28:11		60.7	60.7
58.7	16:28:12		58.7	58.7
57.7	16:28:13		57.7	57.7
58.1	16:28:14		58.1	58.1
59.0	16:28:15		59.0	59.0
59.6	16:28:16		59.6	59.6
60.5	16:28:17		60.5	60.5
62.3	16:28:18		62.3	62.3
63.9	16:28:19		63.9	63.9
65.2	16:28:20		65.2	65.2
64.3	16:28:21		64.3	64.3
62.4	16:28:22		62.4	62.4
60.1	16:28:23		60.1	60.1
58.0	16:28:24		58.0	58.0
56.1	16:28:25		56.1	56.1
54.0	16:28:26		54.0	54.0
52.5	16:28:27		52.5	52.5
51.4	16:28:28		51.4	51.4
51.3	16:28:29		51.3	51.3
50.3	16:28:30		50.3	50.3
49.2	16:28:31		49.2	49.2
48.5	16:28:32		48.5	48.5
48.2	16:28:33		48.2	48.2
47.5	16:28:34		47.5	47.5
47.0	16:28:35		47.0	47.0
47.3	16:28:36		47.3	47.3
47.4	16:28:37		47.4	47.4
46.9	16:28:38		46.9	46.9
46.7	16:28:39		46.7	46.7
46.3	16:28:40		46.3	46.3
47.0	16:28:41		47.0	47.0
49.0	16:28:42		49.0	49.0
49.6	16:28:43		49.6	49.6
49.5	16:28:44		49.5	49.5
48.4	16:28:45		48.4	48.4
48.9	16:28:46		48.9	48.9
48.1	16:28:47		48.1	48.1
46.9	16:28:48		46.9	46.9
47.0	16:28:49		47.0	47.0
47.8	16:28:50		47.8	47.8
47.3	16:28:51		47.3	47.3
45.7	16:28:52		45.7	45.7
44.6	16:28:53		44.6	44.6
45.0	16:28:54		45.0	45.0
44.8	16:28:55		44.8	44.8
44.1	16:28:56		44.1	44.1
42.6	16:28:57		42.6	42.6
41.5	16:28:58		41.5	41.5
41.0	16:28:59		41.0	41.0
40.8	16:29:00		40.8	40.8
40.1	16:29:01		40.1	40.1
39.8	16:29:02		39.8	39.8
40.0	16:29:03		40.0	40.0
40.8	16:29:04		40.8	40.8
42.1	16:29:05		42.1	42.1
43.5	16:29:06		43.5	43.5
43.5	16:29:07		43.5	43.5
42.8	16:29:08		42.8	42.8
42.4	16:29:09		42.4	42.4
42.4	16:29:10		42.4	42.4
42.3	16:29:11		42.3	42.3
42.5	16:29:12		42.5	42.5
42.7	16:29:13		42.7	42.7
42.5	16:29:14		42.5	42.5
42.0	16:29:15		42.0	42.0
42.1	16:29:16		42.1	42.1
41.7	16:29:17		41.7	41.7
41.3	16:29:18		41.3	41.3
41.2	16:29:19		41.2	41.2
41.4	16:29:20		41.4	41.4
41.9	16:29:21		41.9	41.9
41.7	16:29:22		41.7	41.7
42.1	16:29:23		42.1	42.1
42.2	16:29:24		42.2	42.2
42.9	16:29:25		42.9	42.9
43.1	16:29:26		43.1	43.1
42.6	16:29:27		42.6	42.6
42.3	16:29:28		42.3	42.3
42.1	16:29:29		42.1	42.1
41.6	16:29:30		41.6	41.6
41.7	16:29:31		41.7	41.7
42.1	16:29:32		42.1	42.1
41.8	16:29:33		41.8	41.8
41.7	16:29:34		41.7	41.7
42.3	16:29:35		42.3	42.3
43.8	16:29:36		43.8	43.8
46.8	16:29:37		46.8	46.8
49.4	16:29:38		49.4	49.4
50.2	16:29:39		50.2	50.2
51.7	16:29:40		51.7	51.7
54.2	16:29:41		54.2	54.2
58.5	16:29:42		58.5	58.5
63.3	16:29:43		63.3	63.3
68.1	16:29:44		68.1	68.1
69.3	16:29:45		69.3	69.3
67.5	16:29:46		67.5	67.5
64.2	16:29:47		64.2	64.2
60.7	16:29:48		60.7	60.7
57.7	16:29:49		57.7	57.7
55.1	16:29:50		55.1	55.1
53.0	16:29:51		53.0	53.0
51.4	16:29:52		51.4	51.4
49.6	16:29:53		49.6	49.6
47.8	16:29:54		47.8	47.8
46.6	16:29:55		46.6	46.6
46.1	16:29:56		46.1	46.1
45.4	16:29:57		45.4	45.4
45.3	16:29:58		45.3	45.3
44.3	16:29:59		44.3	44.3
44.0	16:30:00		44.0	44.0
45.6	16:30:01		45.6	45.6
45.0	16:30:02		45.0	45.0
44.9	16:30:03		44.9	44.9
45.8	16:30:04		45.8	45.8
47.3	16:30:05		47.3	47.3
49.0	16:30:06		49.0	49.0
51.2	16:30:07		51.2	51.2
53.7	16:30:08		53.7	53.7
58.0	16:30:09		58.0	58.0
64.2	16:30:10		64.2	64.2
68.9	16:30:11		68.9	68.9
69.8	16:30:12		69.8	69.8
67.3	16:30:13		67.3	67.3
64.2	16:30:14		64.2	64.2
61.5	16:30:15		61.5	61.5
59.0	16:30:16		59.0	59.0
57.1	16:30:17		57.1	57.1
55.1	16:30:18		55.1	55.1
53.9	16:30:19		53.9	53.9
52.8	16:30:20		52.8	52.8
51.5	16:30:21		51.5	51.5
50.2	16:30:22		50.2	50.2
49.3	16:30:23		49.3	49.3
48.6	16:30:24		48.6	48.6
47.9	16:30:25		47.9	47.9
46.4	16:30:26		46.4	46.4
45.8	16:30:27		45.8	45.8
45.6	16:30:28	

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
51.5	16:18:57		51.5	51.5
50.9	16:18:58		50.9	50.9
50.0	16:18:59		50.0	50.0
49.4	16:19:00		49.4	49.4
49.2	16:19:01		49.2	49.2
50.4	16:19:02		50.4	50.4
50.8	16:19:03		50.8	50.8
48.9	16:19:04		48.9	48.9
48.0	16:19:05		48.0	48.0
50.1	16:19:06		50.1	50.1
50.9	16:19:07		50.9	50.9
52.1	16:19:08		52.1	52.1
52.4	16:19:09		52.4	52.4
52.0	16:19:10		52.0	52.0
52.4	16:19:11		52.4	52.4
53.8	16:19:12		53.8	53.8
55.3	16:19:13		55.3	55.3
57.2	16:19:14		57.2	57.2
58.9	16:19:15		58.9	58.9
59.8	16:19:16		59.8	59.8
60.3	16:19:17		60.3	60.3
59.9	16:19:18		59.9	59.9
59.1	16:19:19		59.1	59.1
58.1	16:19:20		58.1	58.1
57.4	16:19:21		57.4	57.4
56.4	16:19:22		56.4	56.4
55.7	16:19:23		55.7	55.7
54.4	16:19:24		54.4	54.4
53.5	16:19:25		53.5	53.5
54.0	16:19:26		54.0	54.0
54.8	16:19:27		54.8	54.8
54.4	16:19:28		54.4	54.4
53.4	16:19:29		53.4	53.4
53.5	16:19:30		53.5	53.5
53.4	16:19:31		53.4	53.4
54.8	16:19:32		54.8	54.8
54.1	16:19:33		54.1	54.1
52.5	16:19:34		52.5	52.5
51.8	16:19:35		51.8	51.8
51.6	16:19:36		51.6	51.6
51.2	16:19:37		51.2	51.2
51.3	16:19:38		51.3	51.3
51.4	16:19:39		51.4	51.4
52.0	16:19:40		52.0	52.0
53.9	16:19:41		53.9	53.9
55.5	16:19:42		55.5	55.5
56.8	16:19:43		56.8	56.8
57.5	16:19:44		57.5	57.5
56.9	16:19:45		56.9	56.9
55.9	16:19:46		55.9	55.9
55.3	16:19:47		55.3	55.3
54.9	16:19:48		54.9	54.9
54.4	16:19:49		54.4	54.4
55.1	16:19:50		55.1	55.1
55.9	16:19:51		55.9	55.9
56.4	16:19:52		56.4	56.4
57.1	16:19:53		57.1	57.1
56.8	16:19:54		56.8	56.8
55.7	16:19:55		55.7	55.7
54.0	16:19:56		54.0	54.0
53.0	16:19:57		53.0	53.0
51.5	16:19:58		51.5	51.5
50.2	16:19:59		50.2	50.2
49.1	16:20:00		49.1	49.1
48.6	16:20:01		48.6	48.6
49.0	16:20:02		49.0	49.0
49.9	16:20:03		49.9	49.9
51.1	16:20:04		51.1	51.1
52.3	16:20:05		52.3	52.3
53.7	16:20:06		53.7	53.7
55.8	16:20:07		55.8	55.8
56.3	16:20:08		56.3	56.3
55.4	16:20:09		55.4	55.4
54.8	16:20:10		54.8	54.8
54.1	16:20:11		54.1	54.1
52.4	16:20:12		52.4	52.4
50.8	16:20:13		50.8	50.8
50.1	16:20:14		50.1	50.1
49.8	16:20:15		49.8	49.8
49.3	16:20:16		49.3	49.3
48.1	16:20:17		48.1	48.1
46.8	16:20:18		46.8	46.8
45.9	16:20:19		45.9	45.9
45.7	16:20:20		45.7	45.7
46.7	16:20:21		46.7	46.7
46.4	16:20:22		46.4	46.4
45.8	16:20:23		45.8	45.8
46.2	16:20:24		46.2	46.2
47.1	16:20:25		47.1	47.1
46.6	16:20:26		46.6	46.6
46.4	16:20:27		46.4	46.4
46.6	16:20:28		46.6	46.6
47.1	16:20:29		47.1	47.1
48.1	16:20:30		48.1	48.1
48.8	16:20:31		48.8	48.8
49.8	16:20:32		49.8	49.8
51.7	16:20:33		51.7	51.7
53.3	16:20:34		53.3	53.3
55.8	16:20:35		55.8	55.8
56.2	16:20:36		56.2	56.2
56.6	16:20:37		56.6	56.6
56.3	16:20:38		56.3	56.3
56.1	16:20:39		56.1	56.1
56.0	16:20:40		56.0	56.0
56.3	16:20:41		56.3	56.3
56.9	16:20:42		56.9	56.9
56.9	16:20:43		56.9	56.9
57.2	16:20:44		57.2	57.2
55.8	16:20:45		55.8	55.8
54.4	16:20:46		54.4	54.4
54.0	16:20:47		54.0	54.0
55.2	16:20:48		55.2	55.2
55.5	16:20:49		55.5	55.5
55.6	16:20:50		55.6	55.6
55.1	16:20:51		55.1	55.1
55.4	16:20:52		55.4	55.4
55.3	16:20:53		55.3	55.3
56.1	16:20:54		56.1	56.1
56.6	16:20:55		56.6	56.6
55.8	16:20:56		55.8	55.8
55.4	16:20:57		55.4	55.4
55.4	16:20:58		55.4	55.4
56.2	16:20:59		56.2	56.2
56.5	16:21:00		56.5	56.5
56.6	16:21:01		56.6	56.6
53.4	16:21:02		53.4	53.4
54.3	16:21:03		54.3	54.3
53.8	16:21:04		53.8	53.8
52.6	16:21:05		52.6	52.6
50.8	16:21:06		50.8	50.8
59.0	16:21:07		59.0	59.0
57.9	16:21:08		57.9	57.9
56.6	16:21:09		56.6	56.6
55.7	16:21:10		55.7	55.7
54.6	16:21:11		54.6	54.6
53.8	16:21:12		53.8	53.8
53.5	16:21:13		53.5	53.5
54.0	16:21:14		54.0	54.0
53.1	16:21:15		53.1	53.1
51.6	16:21:16		51.6	51.6
50.2	16:21:17		50.2	50.2
49.1	16:21:18		49.1	49.1
49.1	16:21:19		49.1	49.1
49.1	16:21:20		49.1	49.1
48.1	16:21:21		48.1	48.1
47.4	16:21:22		47.4	47.4
46.9	16:21:23		46.9	46.9
46.9	16:21:24		46.9	46.9
47.2	16:21:25		47.2	47.2
47.4	16:21:26		47.4	47.4
48.5	16:21:27		48.5	48.5
48.5	16:21:28		48.5	48.5
47.4	16:21:29		47.4	47.4
46.4	16:21:30		46.4	46.4
46.4	16:21:31		46.4	46.4
46.7	16:21:32		46.7	46.7
46.9	16:21:33		46.9	46.9
47.5	16:21:34		47.5	47.5
48.3	16:21:35		48.3	48.3
48.3	16:21:36		48.3	48.3
48.6	16:21:37		48.6	48.6
49.5	16:21:38		49.5	49.5
49.7	16:21:39		49.7	49.7
50.7	16:21:40		50.7	50.7
52.0	16:21:41		52.0	52.0
51.5	16:21:42		51.5	51.5
51.4	16:21:43		51.4	51.4
51.5	16:21:44		51.5	51.5
52.0	16:21:45		52.0	52.0
52.4	16:21:46		52.4	52.4
53.9	16:21:47		53.9	53.9
54.8	16:21:48		54.8	54.8
55.5	16:21:49		55.5	55.5
56.5	16:21:50		56.5	56.5
56.2	16:21:51		56.2	56.2
59.2	16:21:52		59.2	59.2
59.9	16:21:53		59.9	59.9
59.2	16:21:54		59.2	59.2
60.1	16:21:55		60.1	60.1
60.7	16:21:56		60.7	60.7
60.5	16:21:57		60.5	60.5
59.8	16:21:58		59.8	59.8
59.0	16:21:59		59.0	59.0
56.5	16:22:00		56.5	56.5
55.3	16:22:01		55.3	55.3
54.2	16:22:02		54.2	54.2
54.8	16:22:03		54.8	54.8
55.2	16:22:04		55.2	55.2
55.4	16:22:05		55.4	55.4
55.2	16:22:06		55.2	55.2
54.0	16:22:07		54.0	54.0
53.8	16:22:08		53.8	53.8
54.4	16:22:09		54.4	54.4
56.0	16:22:10		56.0	56.0
57.7	16:22:11		57.7	57.7
58.6	16:22:12		58.6	58.6
60.1	16:22:13		60.1	60.1
61.2	16:22:14		61.2	61.2
62.0	16:22:15		62.0	62.0
62.0	16:22:16		62.0	62.0
61.4	16:22:17		61.4	61.4
61.0	16:22:18		61.0	61.0
60.0	16:22:19		60.0	60.0
59.3	16:22:20		59.3	59.3
58.5	16:22:21		58.5	58.5
59.3	16:22:22		59.3	59.3
59.0	16:22:23		59.0	59.0
59.8	16:22:24		59.8	59.8
60.7	16:22:25		60.7	60.7
61.3	16:22:26		61.3	61.3
61.5	16:22:27		61.5	61.5
61.7	16:22:28		61.7	61.7
61.5	16:22:29		61.5	61.5

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
51.9	16:25:09		51.9	51.9
52.7	16:25:10		52.7	52.7
52.5	16:25:11		52.5	52.5
52.5	16:25:12		52.5	52.5
51.1	16:25:13		51.1	51.1
48.9	16:25:14		48.9	48.9
47.2	16:25:15		47.2	47.2
46.9	16:25:16		46.9	46.9
47.5	16:25:17		47.5	47.5
48.3	16:25:18		48.3	48.3
47.9	16:25:19		47.9	47.9
48.2	16:25:20		48.2	48.2
48.2	16:25:21		48.2	48.2
50.0	16:25:22		50.0	50.0
50.1	16:25:23		50.1	50.1
49.8	16:25:24		49.8	49.8
51.2	16:25:25		51.2	51.2
51.8	16:25:26		51.8	51.8
51.8	16:25:27		51.8	51.8
50.4	16:25:28		50.4	50.4
56.8	16:25:29		56.8	56.8
54.7	16:25:30		54.7	54.7
52.8	16:25:31		52.8	52.8
51.6	16:25:32		51.6	51.6
50.9	16:25:33		50.9	50.9
50.4	16:25:34		50.4	50.4
49.9	16:25:35		49.9	49.9
49.4	16:25:36		49.4	49.4
49.2	16:25:37		49.2	49.2
49.5	16:25:38		49.5	49.5
49.9	16:25:39		49.9	49.9
49.2	16:25:40		49.2	49.2
48.6	16:25:41		48.6	48.6
50.2	16:25:42		50.2	50.2
52.7	16:25:43		52.7	52.7
52.2	16:25:44		52.2	52.2
53.2	16:25:45		53.2	53.2
53.5	16:25:46		53.5	53.5
52.3	16:25:47		52.3	52.3
50.1	16:25:48		50.1	50.1
51.2	16:25:49		51.2	51.2
51.4	16:25:50		51.4	51.4
51.5	16:25:51		51.5	51.5
53.2	16:25:52		53.2	53.2
54.1	16:25:53		54.1	54.1
53.2	16:25:54		53.2	53.2
51.9	16:25:55		51.9	51.9
51.8	16:25:56		51.8	51.8
52.1	16:25:57		52.1	52.1
52.1	16:25:58		52.1	52.1
52.7	16:25:59		52.7	52.7
53.3	16:26:00		53.3	53.3
52.9	16:26:01		52.9	52.9
52.7	16:26:02		52.7	52.7
52.6	16:26:03		52.6	52.6
54.9	16:26:04		54.9	54.9
55.9	16:26:05		55.9	55.9
54.5	16:26:06		54.5	54.5
52.6	16:26:07		52.6	52.6
51.8	16:26:08		51.8	51.8
52.0	16:26:09		52.0	52.0
52.6	16:26:10		52.6	52.6
52.4	16:26:11		52.4	52.4
52.3	16:26:12		52.3	52.3
54.0	16:26:13		54.0	54.0
54.0	16:26:14		54.0	54.0
52.5	16:26:15		52.5	52.5
51.6	16:26:16		51.6	51.6
51.7	16:26:17		51.7	51.7
51.7	16:26:18		51.7	51.7
51.0	16:26:19		51.0	51.0
51.8	16:26:20		51.8	51.8
51.5	16:26:21		51.5	51.5
51.3	16:26:22		51.3	51.3
50.2	16:26:23		50.2	50.2
49.6	16:26:24		49.6	49.6
50.0	16:26:25		50.0	50.0
50.0	16:26:26		50.0	50.0
50.2	16:26:27		50.2	50.2
50.2	16:26:28		50.2	50.2
50.0	16:26:29		50.0	50.0
50.1	16:26:30		50.1	50.1
52.0	16:26:31		52.0	52.0
53.4	16:26:32		53.4	53.4
53.5	16:26:33		53.5	53.5
53.9	16:26:34		53.9	53.9
56.1	16:26:35		56.1	56.1
56.4	16:26:36		56.4	56.4
54.7	16:26:37		54.7	54.7
53.5	16:26:38		53.5	53.5
53.0	16:26:39		53.0	53.0
52.4	16:26:40		52.4	52.4
53.5	16:26:41		53.5	53.5
53.9	16:26:42		53.9	53.9
52.4	16:26:43		52.4	52.4
50.7	16:26:44		50.7	50.7
50.1	16:26:45		50.1	50.1
49.6	16:26:46		49.6	49.6
49.1	16:26:47		49.1	49.1
48.6	16:26:48		48.6	48.6
48.5	16:26:49		48.5	48.5
48.6	16:26:50		48.6	48.6
48.6	16:26:51		48.6	48.6
47.6	16:26:52		47.6	47.6
47.6	16:26:53		47.6	47.6
47.6	16:26:54		47.6	47.6
47.9	16:26:55		47.9	47.9
47.6	16:26:56		47.6	47.6
47.8	16:26:57		47.8	47.8
47.5	16:26:58		47.5	47.5
47.6	16:26:59		47.6	47.6
47.7	16:27:00		47.7	47.7
47.4	16:27:01		47.4	47.4
47.6	16:27:02		47.6	47.6
47.7	16:27:03		47.7	47.7
48.0	16:27:04		48.0	48.0
47.6	16:27:05		47.6	47.6
47.7	16:27:06		47.7	47.7
48.0	16:27:07		48.0	48.0
48.1	16:27:08		48.1	48.1
48.5	16:27:09		48.5	48.5
48.6	16:27:10		48.6	48.6
48.3	16:27:11		48.3	48.3
48.4	16:27:12		48.4	48.4
48.7	16:27:13		48.7	48.7
48.2	16:27:14		48.2	48.2
47.7	16:27:15		47.7	47.7
48.7	16:27:16		48.7	48.7
49.0	16:27:17		49.0	49.0
49.7	16:27:18		49.7	49.7
49.3	16:27:19		49.3	49.3
49.1	16:27:20		49.1	49.1
50.8	16:27:21		50.8	50.8
51.7	16:27:22		51.7	51.7
51.2	16:27:23		51.2	51.2
51.2	16:27:24		51.2	51.2
51.3	16:27:25		51.3	51.3
51.6	16:27:26		51.6	51.6
52.2	16:27:27		52.2	52.2
52.4	16:27:28		52.4	52.4
52.5	16:27:29		52.5	52.5
52.2	16:27:30		52.2	52.2
52.0	16:27:31		52.0	52.0
52.9	16:27:32		52.9	52.9
54.3	16:27:33		54.3	54.3
54.5	16:27:34		54.5	54.5
53.8	16:27:35		53.8	53.8
53.5	16:27:36		53.5	53.5
54.9	16:27:37		54.9	54.9
56.4	16:27:38		56.4	56.4
58.3	16:27:39		58.3	58.3
58.9	16:27:40		58.9	58.9
60.1	16:27:41		60.1	60.1
59.9	16:27:42		59.9	59.9
59.7	16:27:43		59.7	59.7
60.4	16:27:44		60.4	60.4
60.0	16:27:45		60.0	60.0
57.5	16:27:46		57.5	57.5
55.5	16:27:47		55.5	55.5
54.4	16:27:48		54.4	54.4
53.8	16:27:49		53.8	53.8
53.1	16:27:50		53.1	53.1
53.5	16:27:51		53.5	53.5
53.4	16:27:52		53.4	53.4
53.2	16:27:53		53.2	53.2
52.7	16:27:54		52.7	52.7
52.6	16:27:55		52.6	52.6
52.4	16:27:56		52.4	52.4
52.0	16:27:57		52.0	52.0
52.0	16:27:58		52.0	52.0
51.9	16:27:59		51.9	51.9
52.0	16:28:00		52.0	52.0
52.0	16:28:01		52.0	52.0
52.4	16:28:02		52.4	52.4
53.7	16:28:03		53.7	53.7
55.2	16:28:04		55.2	55.2
54.9	16:28:05		54.9	54.9
53.9	16:28:06		53.9	53.9
53.4	16:28:07		53.4	53.4
52.9	16:28:08		52.9	52.9
52.2	16:28:09		52.2	52.2
51.5	16:28:10		51.5	51.5
51.2	16:28:11		51.2	51.2
51.1	16:28:12		51.1	51.1
51.3	16:28:13		51.3	51.3
52.1	16:28:14		52.1	52.1
52.3	16:28:15		52.3	52.3
52.6	16:28:16		52.6	52.6
52.5	16:28:17		52.5	52.5
52.3	16:28:18		52.3	52.3
52.8	16:28:19		52.8	52.8
53.3	16:28:20		53.3	53.3
53.0	16:28:21		53.0	53.0
52.6	16:28:22		52.6	52.6
52.7	16:28:23		52.7	52.7
53.0	16:28:24		53.0	53.0
52.5	16:28:25		52.5	52.5
52.6	16:28:26		52.6	52.6
53.2	16:28:27		53.2	53.2
53.9	16:28:28		53.9	53.9
53.6	16:28:29		53.6	53.6
52.8	16:28:30		52.8	52.8
52.9	16:28:31		52.9	52.9
54.7	16:28:32		54.7	54.7
54.5	16:28:33		54.5	54.5
52.7	16:28:34		52.7	52.7
50.9	16:28:35		50.9	50.9
50.5	16:28:36		50.5	50.5
50.4	16:28:37		50.4	50.4
49.8	16:28:38		49.8	49.8
49.8	16:28:39		49.8	49.8
49.9	16:28:40		49.9	49.9
50.2	16:28:41		50.2	50.2

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
42.1	16:30:04		42.1	42.1
43.8	16:30:05		43.8	43.8
44.1	16:30:06		44.1	44.1
44.1	16:30:07		44.1	44.1
44.7	16:30:08		44.7	44.7
44.7	16:30:09		44.7	44.7
44.4	16:31:00		44.4	44.4
44.2	16:31:01		44.2	44.2
44.4	16:31:02		44.4	44.4
43.9	16:31:03		43.9	43.9
43.3	16:31:04		43.3	43.3
42.5	16:31:05		42.5	42.5
42.2	16:31:06		42.2	42.2
42.5	16:31:07		42.5	42.5
42.6	16:31:08		42.6	42.6
43.3	16:31:09		43.3	43.3
44.1	16:31:10		44.1	44.1
45.3	16:31:11		45.3	45.3
46.8	16:31:12		46.8	46.8
48.1	16:31:13		48.1	48.1
51.1	16:31:14		51.1	51.1
55.5	16:31:15		55.5	55.5
60.3	16:31:16		60.3	60.3
66.3	16:31:17		66.3	66.3
71.1	16:31:18		71.1	71.1
71.8	16:31:19		71.8	71.8
69.0	16:31:20		69.0	69.0
65.8	16:31:21		65.8	65.8
62.8	16:31:22		62.8	62.8
59.5	16:31:23		59.5	59.5
56.7	16:31:24		56.7	56.7
54.1	16:31:25		54.1	54.1
52.7	16:31:26		52.7	52.7
51.9	16:31:27		51.9	51.9
51.5	16:31:28		51.5	51.5
53.5	16:31:29		53.5	53.5
58.0	16:31:30		58.0	58.0
61.7	16:31:31		61.7	61.7
66.4	16:31:32		66.4	66.4
69.1	16:31:33		69.1	69.1
62.2	16:31:34		62.2	62.2
59.1	16:31:35		59.1	59.1
56.0	16:31:36		56.0	56.0
53.3	16:31:37		53.3	53.3
51.0	16:31:38		51.0	51.0
49.3	16:31:39		49.3	49.3
48.3	16:31:40		48.3	48.3
47.8	16:31:41		47.8	47.8
47.8	16:31:42		47.8	47.8
48.5	16:31:43		48.5	48.5
49.7	16:31:44		49.7	49.7
51.7	16:31:45		51.7	51.7
55.1	16:31:46		55.1	55.1
60.0	16:31:47		60.0	60.0
65.6	16:31:48		65.6	65.6
68.7	16:31:49		68.7	68.7
67.5	16:31:50		67.5	67.5
64.5	16:31:51		64.5	64.5
61.2	16:31:52		61.2	61.2
58.1	16:31:53		58.1	58.1
55.6	16:31:54		55.6	55.6
53.8	16:31:55		53.8	53.8
51.8	16:31:56		51.8	51.8
50.4	16:31:57		50.4	50.4
49.2	16:31:58		49.2	49.2
49.0	16:31:59		49.0	49.0
48.1	16:32:00		48.1	48.1
46.8	16:32:01		46.8	46.8
45.6	16:32:02		45.6	45.6
44.1	16:32:03		44.1	44.1
43.8	16:32:04		43.8	43.8
44.3	16:32:05		44.3	44.3
43.9	16:32:06		43.9	43.9
42.7	16:32:07		42.7	42.7
42.0	16:32:08		42.0	42.0
42.3	16:32:09		42.3	42.3
41.6	16:32:10		41.6	41.6
41.6	16:32:11		41.6	41.6
42.3	16:32:12		42.3	42.3
41.8	16:32:13		41.8	41.8
42.7	16:32:14		42.7	42.7
42.2	16:32:15		42.2	42.2
41.4	16:32:16		41.4	41.4
40.8	16:32:17		40.8	40.8
40.7	16:32:18		40.7	40.7
40.8	16:32:19		40.8	40.8
41.3	16:32:20		41.3	41.3
40.4	16:32:21		40.4	40.4
40.6	16:32:22		40.6	40.6
40.3	16:32:23		40.3	40.3
39.7	16:32:24		39.7	39.7
39.2	16:32:25		39.2	39.2
39.1	16:32:26		39.1	39.1
39.2	16:32:27		39.2	39.2
39.4	16:32:28		39.4	39.4
39.3	16:32:29		39.3	39.3
39.4	16:32:30		39.4	39.4
39.5	16:32:31		39.5	39.5
40.0	16:32:32		40.0	40.0
41.3	16:32:33		41.3	41.3
40.9	16:32:34		40.9	40.9
40.4	16:32:35		40.4	40.4
40.5	16:32:36		40.5	40.5
40.9	16:32:37		40.9	40.9
41.2	16:32:38		41.2	41.2
41.0	16:32:39		41.0	41.0
41.0	16:32:40		41.0	41.0
40.8	16:32:41		40.8	40.8
41.3	16:32:42		41.3	41.3
41.6	16:32:43		41.6	41.6
42.6	16:32:44		42.6	42.6
43.3	16:32:45		43.3	43.3
45.4	16:32:46		45.4	45.4
47.3	16:32:47		47.3	47.3
50.0	16:32:48		50.0	50.0
54.8	16:32:49		54.8	54.8
60.0	16:32:50		60.0	60.0
65.7	16:32:51		65.7	65.7
68.8	16:32:52	

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.8	16:22:30		60.8	60.8
59.8	16:22:31		59.8	59.8
58.2	16:22:32		58.2	58.2
56.7	16:22:33		56.7	56.7
54.9	16:22:34		54.9	54.9
53.8	16:22:35		53.8	53.8
53.3	16:22:36		53.3	53.3
53.1	16:22:37		53.1	53.1
52.9	16:22:38		52.9	52.9
53.2	16:22:39		53.2	53.2
53.8	16:22:40		53.8	53.8
54.0	16:22:41		54.0	54.0
53.8	16:22:42		53.8	53.8
52.9	16:22:43		52.9	52.9
51.9	16:22:44		51.9	51.9
51.4	16:22:45		51.4	51.4
50.6	16:22:46		50.6	50.6
50.0	16:22:47		50.0	50.0
49.3	16:22:48		49.3	49.3
48.8	16:22:49		48.8	48.8
48.7	16:22:50		48.7	48.7
48.6	16:22:51		48.6	48.6
48.4	16:22:52		48.4	48.4
48.7	16:22:53		48.7	48.7
48.8	16:22:54		48.8	48.8
48.3	16:22:55		48.3	48.3
47.8	16:22:56		47.8	47.8
47.8	16:22:57		47.8	47.8
48.8	16:22:58		48.8	48.8
49.1	16:22:59		49.1	49.1
48.5	16:23:00		48.5	48.5
48.0	16:23:01		48.0	48.0
47.7	16:23:02		47.7	47.7
47.7	16:23:03		47.7	47.7
47.6	16:23:04		47.6	47.6
48.2	16:23:05		48.2	48.2
48.1	16:23:06		48.1	48.1
47.8	16:23:07		47.8	47.8
47.2	16:23:08		47.2	47.2
46.3	16:23:09		46.3	46.3
45.8	16:23:10		45.8	45.8
44.9	16:23:11		44.9	44.9
44.9	16:23:12		44.9	44.9
45.2	16:23:13		45.2	45.2
45.4	16:23:14		45.4	45.4
45.9	16:23:15		45.9	45.9
46.3	16:23:16		46.3	46.3
46.7	16:23:17		46.7	46.7
46.9	16:23:18		46.9	46.9
47.2	16:23:19		47.2	47.2
46.9	16:23:20		46.9	46.9
46.7	16:23:21		46.7	46.7
46.6	16:23:22		46.6	46.6
46.3	16:23:23		46.3	46.3
46.3	16:23:24		46.3	46.3
46.5	16:23:25		46.5	46.5
47.5	16:23:26		47.5	47.5
48.7	16:23:27		48.7	48.7
50.2	16:23:28		50.2	50.2
50.7	16:23:29		50.7	50.7
50.8	16:23:30		50.8	50.8
49.8	16:23:31		49.8	49.8
49.3	16:23:32		49.3	49.3
49.4	16:23:33		49.4	49.4
49.9	16:23:34		49.9	49.9
51.2	16:23:35		51.2	51.2
51.6	16:23:36		51.6	51.6
52.1	16:23:37		52.1	52.1
52.9	16:23:38		52.9	52.9
54.6	16:23:39		54.6	54.6
54.5	16:23:40		54.5	54.5
54.8	16:23:41		54.8	54.8
57.0	16:23:42		57.0	57.0
59.0	16:23:43		59.0	59.0
59.7	16:23:44		59.7	59.7
59.4	16:23:45		59.4	59.4
58.2	16:23:46		58.2	58.2
57.2	16:23:47		57.2	57.2
56.8	16:23:48		56.8	56.8
57.0	16:23:49		57.0	57.0
58.2	16:23:50		58.2	58.2
60.0	16:23:51		60.0	60.0
61.7	16:23:52		61.7	61.7
63.1	16:23:53		63.1	63.1
64.0	16:23:54		64.0	64.0
63.5	16:23:55		63.5	63.5
62.7	16:23:56		62.7	62.7
62.2	16:23:57		62.2	62.2
62.3	16:23:58		62.3	62.3
62.2	16:23:59		62.2	62.2
62.0	16:24:00		62.0	62.0
62.3	16:24:01		62.3	62.3
62.4	16:24:02		62.4	62.4
62.0	16:24:03		62.0	62.0
60.8	16:24:04		60.8	60.8
59.2	16:24:05		59.2	59.2
58.5	16:24:06		58.5	58.5
58.2	16:24:07		58.2	58.2
57.9	16:24:08		57.9	57.9
58.2	16:24:09		58.2	58.2
58.0	16:24:10		58.0	58.0
58.1	16:24:11		58.1	58.1
58.7	16:24:12		58.7	58.7
58.6	16:24:13		58.6	58.6
58.0	16:24:14		58.0	58.0
57.3	16:24:15		57.3	57.3
57.3	16:24:16		57.3	57.3
56.4	16:24:17		56.4	56.4
55.0	16:24:18		55.0	55.0
53.6	16:24:19		53.6	53.6
53.2	16:24:20		53.2	53.2
53.7	16:24:21		53.7	53.7
58.0	16:24:22		58.0	58.0
57.9	16:24:23		57.9	57.9
55.7	16:24:24		55.7	55.7
53.0	16:24:25		53.0	53.0
51.0	16:24:26		51.0	51.0
50.1	16:24:27		50.1	50.1
49.6	16:24:28		49.6	49.6
49.5	16:24:29		49.5	49.5
49.0	16:24:30		49.0	49.0
48.7	16:24:31		48.7	48.7
48.9	16:24:32		48.9	48.9
49.8	16:24:33		49.8	49.8
50.8	16:24:34		50.8	50.8
52.0	16:24:35		52.0	52.0
53.4	16:24:36		53.4	53.4
54.4	16:24:37		54.4	54.4
54.7	16:24:38		54.7	54.7
54.3	16:24:39		54.3	54.3
53.2	16:24:40		53.2	53.2
51.9	16:24:41		51.9	51.9
50.7	16:24:42		50.7	50.7
49.9	16:24:43		49.9	49.9
49.3	16:24:44		49.3	49.3
48.7	16:24:45		48.7	48.7
47.9	16:24:46		47.9	47.9
48.0	16:24:47		48.0	48.0
48.0	16:24:48		48.0	48.0
47.7	16:24:49		47.7	47.7
47.1	16:24:50		47.1	47.1
47.1	16:24:51		47.1	47.1
46.8	16:24:52		46.8	46.8
46.4	16:24:53		46.4	46.4
46.4	16:24:54		46.4	46.4
46.6	16:24:55		46.6	46.6
46.2	16:24:56		46.2	46.2
46.0	16:24:57		46.0	46.0
46.5	16:24:58		46.5	46.5
46.7	16:24:59		46.7	46.7
46.5	16:25:00		46.5	46.5
45.9	16:25:01		45.9	45.9
45.1	16:25:02		45.1	45.1
44.9	16:25:03		44.9	44.9
44.4	16:25:04		44.4	44.4
43.8	16:25:05		43.8	43.8
43.8	16:25:06		43.8	43.8
45.1	16:25:07		45.1	45.1
45.5	16:25:08		45.5	45.5
45.1	16:25:09		45.1	45.1
44.8	16:25:10		44.8	44.8
44.7	16:25:11		44.7	44.7
45.1	16:25:12		45.1	45.1
45.8	16:25:13		45.8	45.8
47.3	16:25:14		47.3	47.3
48.2	16:25:15		48.2	48.2
52.3	16:25:16		52.3	52.3
53.4	16:25:17		53.4	53.4
55.7	16:25:18		55.7	55.7
55.0	16:25:19		55.0	55.0
55.7	16:25:20		55.7	55.7
56.3	16:25:21		56.3	56.3
55.9	16:25:22		55.9	55.9
59.3	16:25:23		59.3	59.3

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
49.5	16:28:42		49.5	49.5
49.1	16:28:43		49.1	49.1
49.5	16:28:44		49.5	49.5
49.0	16:28:45		49.0	49.0
49.9	16:28:46		49.9	49.9
51.9	16:28:47		51.9	51.9
52.4	16:28:48		52.4	52.4
50.9	16:28:49		50.9	50.9
49.5	16:28:50		49.5	49.5
48.5	16:28:51		48.5	48.5
47.9	16:28:52		47.9	47.9
48.4	16:28:53		48.4	48.4
47.6	16:28:54		47.6	47.6
46.6	16:28:55		46.6	46.6
45.6	16:28:56		45.6	45.6
45.1	16:28:57		45.1	45.1
44.6	16:28:58		44.6	44.6
44.2	16:28:59		44.2	44.2
45.0	16:29:00		45.0	45.0
47.3	16:29:01		47.3	47.3
47.2	16:29:02		47.2	47.2
46.2	16:29:03		46.2	46.2
46.3	16:29:04		46.3	46.3
45.9	16:29:05		45.9	45.9
45.7	16:29:06		45.7	45.7
46.1	16:29:07		46.1	46.1
46.0	16:29:08		46.0	46.0
46.2	16:29:09		46.2	46.2
46.0	16:29:10		46.0	46.0
45.2	16:29:11		45.2	45.2
45.5	16:29:12		45.5	45.5
45.8	16:29:13		45.8	45.8
46.3	16:29:14		46.3	46.3
46.8	16:29:15		46.8	46.8
46.2	16:29:16		46.2	46.2
45.7	16:29:17		45.7	45.7
46.1	16:29:18		46.1	46.1
46.7	16:29:19		46.7	46.7
45.9	16:29:20		45.9	45.9
45.7	16:29:21		45.7	45.7
46.2	16:29:22		46.2	46.2
47.2	16:29:23		47.2	47.2
46.9	16:29:24		46.9	46.9
47.1	16:29:25		47.1	47.1
48.1	16:29:26		48.1	48.1
48.2	16:29:27		48.2	48.2
49.3	16:29:28		49.3	49.3
53.4	16:29:29		53.4	53.4
53.6	16:29:30		53.6	53.6
51.2	16:29:31		51.2	51.2
49.7	16:29:32		49.7	49.7
50.6	16:29:33		50.6	50.6
55.3	16:29:34		55.3	55.3
57.3	16:29:35		57.3	57.3
55.5	16:29:36		55.5	55.5
53.3	16:29:37		53.3	53.3
52.7	16:29:38		52.7	52.7
52.3	16:29:39		52.3	52.3
51.7	16:29:40		51.7	51.7
51.7	16:29:41		51.7	51.7
51.4	16:29:42		51.4	51.4
50.0	16:29:43		50.0	50.0
49.3	16:29:44		49.3	49.3
49.6	16:29:45		49.6	49.6
49.6	16:29:46		49.6	49.6
49.3	16:29:47		49.3	49.3
48.6	16:29:48		48.6	48.6
48.3	16:29:49		48.3	48.3
48.7	16:29:50		48.7	48.7
48.7	16:29:51		48.7	48.7
48.9	16:29:52		48.9	48.9
50.5	16:29:53		50.5	50.5
54.1	16:29:54		54.1	54.1
54.3	16:29:55		54.3	54.3
52.2	16:29:56		52.2	52.2
50.5	16:29:57		50.5	50.5
50.1	16:29:58		50.1	50.1
49.7	16:29:59		49.7	49.7
49.2	16:30:00		49.2	49.2
48.9	16:30:01		48.9	48.9
50.1	16:30:02		50.1	50.1
50.7	16:30:03		50.7	50.7
50.5	16:30:04		50.5	50.5
50.6	16:30:05		50.6	50.6
50.7	16:30:06		50.7	50.7
50.7	16:30:07		50.7	50.7
50.4	16:30:08		50.4	50.4
50.6	16:30:09		50.6	50.6
50.4	16:30:10		50.4	50.4
49.9	16:30:11		49.9	49.9
49.5	16:30:12		49.5	49.5
49.5	16:30:13		49.5	49.5
49.3	16:30:14		49.3	49.3
49.5	16:30:15		49.5	49.5
49.9	16:30:16		49.9	49.9
50.0	16:30:17		50.0	50.0
49.8	16:30:18		49.8	49.8
49.7	16:30:19		49.7	49.7
50.3	16:30:20		50.3	50.3
50.1	16:30:21		50.1	50.1
50.1	16:30:22		50.1	50.1
50.2	16:30:23		50.2	50.2
50.1	16:30:24		50.1	50.1
50.3	16:30:25		50.3	50.3
50.2	16:30:26		50.2	50.2
51.3	16:30:27		51.3	51.3
50.7	16:30:28		50.7	50.7
50.7	16:30:29		50.7	50.7
54.8	16:30:30		54.8	54.8
53.2	16:30:31		53.2	53.2
51.9	16:30:32		51.9	51.9
52.6	16:30:33		52.6	52.6
50.0	16:30:34		50.0	50.0
47.4	16:30:35		47.4	47.4
46.2	16:30:36		46.2	46.2
45.8	16:30:37		45.8	45.8
44.9	16:30:38		44.9	44.9
44.6	16:30:39		44.6	44.6
44.4	16:30:40		44.4	44.4
44.5	16:30:41		44.5	44.5
44.7	16:30:42		44.7	44.7
47.0	16:30:43		47.0	47.0
46.3	16:30:44		46.3	46.3
45.5	16:30:45		45.5	45.5
44.9	16:30:46		44.9	44.9
44.9	16:30:47		44.9	44.9
44.9	16:30:48		44.9	44.9
44.8	16:30:49		44.8	44.8
45.2	16:30:50		45.2	45.2
46.4	16:30:51		46.4	46.4
47.3	16:30:52		47.3	47.3
46.9	16:30:53		46.9	46.9
46.7	16:30:54		46.7	46.7
47.8	16:30:55		47.8	47.8
49.5	16:30:56		49.5	49.5
51.1	16:30:57		51.1	51.1
51.9	16:30:58		51.9	51.9
51.8	16:30:59		51.8	51.8
52.5	16:31:00		52.5	52.5
52.7	16:31:01		52.7	52.7
54.9	16:31:02		54.9	54.9
57.3	16:31:03		57.3	57.3
56.2	16:31:04		56.2	56.2
54.7	16:31:05		54.7	54.7
53.5	16:31:06		53.5	53.5
52.2	16:31:07		52.2	52.2
51.6	16:31:08		51.6	51.6
50.6	16:31:09		50.6	50.6
50.5	16:31:10		50.5	50.5
50.8	16:31:11		50.8	50.8
50.3	16:31:12		50.3	50.3
49.1	16:31:13		49.1	49.1
48.6	16:31:14		48.6	48.6
48.4	16:31:15		48.4	48.4
49.4	16:31:16		49.4	49.4
49.6	16:31:17		49.6	49.6
49.2	16:31:18		49.2	49.2
49.1	16:31:19		49.1	49.1
48.5	16:31:20		48.5	48.5
48.1	16:31:21		48.1	48.1
48.9	16:31:22		48.9	48.9
49.0	16:31:23		49.0	49.0
47.8	16:31:24		47.8	47.8
46.9	16:31:25		46.9	46.9
46.5	16:31:26		46.5	46.5
46.8	16:31:27		46.8	46.8
46.8	16:31:28		46.8	46.8
47.5	16:31:29		47.5	47.5
48.4	16:31:30		48.4	48.4
48.4	16:31:31		48.4	48.4
49.4	16:31:32		49.4	49.4
53.8	16:31:33		53.8	53.8
53.8	16:31:34		53.8	53.8
51.6	16:31:35		51.6	51.6

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
41.7	16:34:27		41.7	41.7
41.7	16:34:28		41.7	41.7
41.6	16:34:29		41.6	41.6
41.1	16:34:30		41.1	41.1
40.7	16:34:31		40.7	40.7
40.6	16:34:32		40.6	40.6
40.6	16:34:33		40.6	40.6
40.7	16:34:34		40.7	40.7
40.6	16:34:35		40.6	40.6
40.8	16:34:36		40.8	40.8
40.6	16:34:37		40.6	40.6
40.6	16:34:38		40.6	40.6
41.2	16:34:39		41.2	41.2
41.7	16:34:40		41.7	41.7
41.5	16:34:41		41.5	41.5
41.6	16:34:42		41.6	41.6
41.7	16:34:43		41.7	41.7
41.9	16:34:44		41.9	41.9
41.9	16:34:45		41.9	41.9
42.1	16:34:46		42.1	42.1
43.1	16:34:47		43.1	43.1
43.4	16:34:48		43.4	43.4
43.8	16:34:49		43.8	43.8
45.1	16:34:50		45.1	45.1
46.2	16:34:51		46.2	46.2
47.1	16:34:52		47.1	47.1
48.1	16:34:53		48.1	48.1
49.7	16:34:54		49.7	49.7
52.1	16:34:55		52.1	52.1
55.9	16:34:56		55.9	55.9
59.8	16:34:57		59.8	59.8
64.0	16:34:58		64.0	64.0
66.6	16:34:59		66.6	66.6
66.4	16:35:00		66.4	66.4
64.1	16:35:01		64.1	64.1
62.7	16:35:02		62.7	62.7
65.2	16:35:03		65.2	65.2
67.1	16:35:04		67.1	67.1
66.7	16:35:05		66.7	66.7
64.7	16:35:06		64.7	64.7
62.2	16:35:07		62.2	62.2
59.6	16:35:08		59.6	59.6
57.0	16:35:09		57.0	57.0
54.7	16:35:10		54.7	54.7
52.9	16:35:11		52.9	52.9
51.5	16:35:12		51.5	51.5
51.0	16:35:13		51.0	51.0
50.9	16:35:14		50.9	50.9
51.8	16:35:15		51.8	51.8
52.9	16:35:16		52.9	52.9
54.9	16:35:17		54.9	54.9
56.8	16:35:18		56.8	56.8
58.6	16:35:19		58.6	58.6
62.9	16:35:20		62.9	62.9
66.0	16:35:21		66.0	66.0
66.4	16:35:22		66.4	66.4
65.5	16:35:23		65.5	65.5
66.6	16:35:24		66.6	66.6
70.4	16:35:25		70.4	70.4
71.2	16:35:26		71.2	71.2
69.1	16:35:27		69.1	69.1
66.0	16:35:28		66.0	66.0
62.8	16:35:29		62.8	62.8
59.7	16:35:30		59.7	59.7
57.1	16:35:31		57.1	57.1
54.7	16:35:32		54.7	54.7
52.5	16:35:33		52.5	52.5
50.4	16:35:34		50.4	50.4
48.7	16:35:35		48.7	48.7
47.9	16:35:36		47.9	47.9
47.5	16:35:37		47.5	47.5
48.0	16:35:38		48.0	48.0
47.8	16:35:39		47.8	47.8
47.9	16:35:40		47.9	47.9
47.8	16:35:41		47.8	47.8
48.2	16:35:42		48.2	48.2
49.6	16:35:43		49.6	49.6
51.5	16:35:44		51.5	51.5
55.4	16:35:45		55.4	55.4
61.3	16:35:46		61.3	61.3
67.9	16:35:47		67.9	67.9
71.5	16:35:48		71.5	71.5
70.8	16:35:49		70.8	70.8
67.6	16:35:50		67.6	67.6
64.1	16:35:51		64.1	64.1
60.9	16:35:52		60.9	60.9
58.0	16:35:53		58.0	58.0
55.6	16:35:54		55.6	55.6
53.8	16:35:55		53.8	53.8
52.3	16:35:56		52.3	52.3
51.0	16:35:57		51.0	51.0
49.9	16:35:58		49.9	49.9
49.3	16:35:59		49.3	49.3
48.0	16:36:00		48.0	48.0
46.9	16:36:01		46.9	46.9
46.5	16:36:02		46.5	46.5
46.1	16:36:03		46.1	46.1
45.9	16:36:04		45.9	45.9
45.3	16:36:05		45.3	45.3
44.6	16:36:06		44.6	44.6
44.1	16:36:07		44.1	44.1
44.3	16:36:08		44.3	44.3
44.1	16:36:09		44.1	44.1
44.0	16:36:10		44.0	44.0
43.8	16:36:11		43.8	43.8
43.4	16:36:12		43.4	43.4
43.4	16:36:13		43.4	43.4
43.5	16:36:14		43.5	43.5
43.6	16:36:15		43.6	43.6
44.2	16:36:16		44.2	44.2
45.9	16:36:17		45.9	45.9
48.5	16:36:18		48.5	48.5
51.5	16:36:19		51.5	51.5
54.4	16:36:20		54.4	54.4
58.5	16:36:21		58.5	58.5
65.7	16:36:22		65.7	65.7
71.3	16:36:23		71.3	71.3
70.3	16:36:24		70.3	70.3
67.4	16:36:25		67.4	67.4
64.0	16:36:26		64.0	64.0
60.6	16:36:27		60.6	60.6
58.4	16:36:28		58.4	58.4
58.4	16:36:29		58.4	58.4
60.6	16:36:30		60.6	60.6
63.9	16:36:31		63.9	63.9
66.2	16:36:32		66.2	66.2
65.9	16:36:33		65.9	65.9
63.9	16:36:34		63.9	63.9
61.3	16:36:35		61.3	61.3
58.7	16:36:36		58.7	58.7
56.3	16:36:37		56.3	56.3
53.8	16:36:38		53.8	53.8
52.0	16:36:39		52.0	52.0
50.3	16:36:40		50.3	50.3
48.6	16:36:41		48.6	48.6
47.0	16:36:42		47.0	47.0
45.9	16:36:43		45.9	45.9
45.2	16:36:44		45.2	45.2
45.0	16:36:45		45.0	45.0
47.7	16:36:46		47.7	47.7
47.9	16:36:47		47.9	47.9
46.8	16:36:48		46.8	46.8
46.2	16:36:49		46.2	46.2
46.5	16:36:50		46.5	46.5
46.2	16:36:51		46.2	46.2
45.5	16:36:52		45.5	45.5
45.4	16:36:53		45.4	45.4
45.2	16:36:54		45.2	45.2
45.2	16:36:55		45.2	45.2
45.3	16:36:56		45.3	45.3
45.4	16:36:57		45.4	45.4
45.9	16:36:58		45.9	45.9
46.4	16:36:59		46.4	46.4
47.2	16:37:00		47.2	47.2
48.3	16:37:01		48.3	48.3
49.7	16:37:02		49.7	49.7
51.4	16:37:03		51.4	51.4
55.0	16:37:04		55.0	55.0
59.3	16:37:05		59.3	59.3
65.3	16:37:06		65.3	65.3
69.3	16:37:07		69.3	69.3
69.5	16:37:08		69.5	69.5
68.0	16:37:09		68.0	68.0
69.1	16:37:10		69.1	69.1
70.3	16:37:11		70.3	70.3
69.8	16:37:12		69.8	69.8
71.0	16:37:13		71.0	71.0
71.2	16:37:14		71.2	71.2
69.4	16:37:15		69.4	69.4
66.7	16:37:16		66.7	66.7
64.0	16:37:17		64.0	64.0
61.5	16:37:18		61.5	61.5
59.2	16:37:19		59.2	59.2
57.3	16:37:20		57.3	57.3

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
64.5	16:25:24		64.5	64.5
65.9	16:25:25		65.9	65.9
66.4	16:25:26		66.4	66.4
66.1	16:25:27		66.1	66.1
64.2	16:25:28		64.2	64.2
64.0	16:25:29		64.0	64.0
63.5	16:25:30		63.5	63.5
62.3	16:25:31		62.3	62.3
60.8	16:25:32		60.8	60.8
59.3	16:25:33		59.3	59.3
57.9	16:25:34		57.9	57.9
57.0	16:25:35		57.0	57.0
57.2	16:25:36		57.2	57.2
57.0	16:25:37		57.0	57.0
56.2	16:25:38		56.2	56.2
55.7	16:25:39		55.7	55.7
55.4	16:25:40		55.4	55.4
54.1	16:25:41		54.1	54.1
53.5	16:25:42		53.5	53.5
52.7	16:25:43		52.7	52.7
51.8	16:25:44		51.8	51.8
51.3	16:25:45		51.3	51.3
53.1	16:25:46		53.1	53.1
54.4	16:25:47		54.4	54.4
55.7	16:25:48		55.7	55.7
57.3	16:25:49		57.3	57.3
57.5	16:25:50		57.5	57.5
56.6	16:25:51		56.6	56.6
55.2	16:25:52		55.2	55.2
53.9	16:25:53		53.9	53.9
52.6	16:25:54		52.6	52.6
51.9	16:25:55		51.9	51.9
51.4	16:25:56		51.4	51.4
50.9	16:25:57		50.9	50.9
50.4	16:25:58		50.4	50.4
49.5	16:25:59		49.5	49.5
49.2	16:26:00		49.2	49.2
49.3	16:26:01		49.3	49.3
48.9	16:26:02		48.9	48.9
48.6	16:26:03		48.6	48.6
48.3	16:26:04		48.3	48.3
47.7	16:26:05		47.7	47.7
47.7	16:26:06		47.7	47.7
49.0	16:26:07		49.0	49.0
49.9	16:26:08		49.9	49.9
49.3	16:26:09		49.3	49.3
49.1	16:26:10		49.1	49.1
49.5	16:26:11		49.5	49.5
50.4	16:26:12		50.4	50.4
51.6	16:26:13		51.6	51.6
53.4	16:26:14		53.4	53.4
55.3	16:26:15		55.3	55.3
57.5	16:26:16		57.5	57.5
59.5	16:26:17		59.5	59.5
60.5	16:26:18		60.5	60.5
60.8	16:26:19		60.8	60.8
61.2	16:26:20		61.2	61.2
61.3	16:26:21		61.3	61.3
61.4	16:26:22		61.4	61.4
61.0	16:26:23		61.0	61.0
60.3	16:26:24		60.3	60.3
59.6	16:26:25		59.6	59.6
58.9	16:26:26		58.9	58.9
58.6	16:26:27		58.6	58.6
59.1	16:26:28		59.1	59.1
60.4	16:26:29		60.4	60.4
61.5	16:26:30		61.5	61.5
62.4	16:26:31		62.4	62.4
62.5	16:26:32		62.5	62.5
62.4	16:26:33		62.4	62.4
61.9	16:26:34		61.9	61.9
61.0	16:26:35		61.0	61.0
59.5	16:26:36		59.5	59.5
58.0	16:26:37		58.0	58.0
57.0	16:26:38		57.0	57.0
56.6	16:26:39		56.6	56.6
56.9	16:26:40		56.9	56.9
57.4	16:26:41		57.4	57.4
57.8	16:26:42		57.8	57.8
57.3	16:26:43		57.3	57.3
56.1	16:26:44		56.1	56.1
54.9	16:26:45		54.9	54.9
53.8	16:26:46		53.8	53.8
52.5	16:26:47		52.5	52.5
51.9	16:26:48		51.9	51.9
51.5	16:26:49		51.5	51.5
50.4	16:26:50		50.4	50.4
49.9	16:26:51		49.9	49.9
49.7	16:26:52		49.7	49.7
48.6	16:26:53		48.6	48.6
47.4	16:26:54		47.4	47.4
46.7	16:26:55		46.7	46.7
46.7	16:26:56		46.7	46.7
46.6	16:26:57		46.6	46.6
47.0	16:26:58		47.0	47.0
48.3	16:26:59		48.3	48.3
49.8	16:27:00		49.8	49.8
50.5	16:27:01		50.5	50.5
51.4	16:27:02		51.4	51.4
52.6	16:27:03		52.6	52.6
53.3	16:27:04		53.3	53.3
52.9	16:27:05		52.9	52.9
52.6	16:27:06		52.6	52.6
54.3	16:27:07		54.3	54.3
56.1	16:27:08		56.1	56.1
57.8	16:27:09		57.8	57.8
59.8	16:27:10		59.8	59.8
60.9	16:27:11		60.9	60.9
61.7	16:27:12		61.7	61.7
61.6	16:27:13		61.6	61.6
61.1	16:27:14		61.1	61.1
60.6	16:27:15		60.6	60.6
59.9	16:27:16		59.9	59.9
58.6	16:27:17		58.6	58.6
57.3	16:27:18		57.3	57.3
56.5	16:27:19		56.5	56.5
56.1	16:27:20		56.1	56.1
56.0	16:27:21		56.0	56.0
55.7	16:27:22		55.7	55.7
55.4	16:27:23		55.4	55.4
54.9	16:27:24		54.9	54.9
54.8	16:27:25		54.8	54.8
54.5	16:27:26		54.5	54.5
53.9	16:27:27		53.9	53.9
52.7	16:27:28		52.7	52.7
52.2	16:27:29		52.2	52.2
51.8	16:27:30		51.8	51.8
51.5	16:27:31		51.5	51.5
50.9	16:27:32		50.9	50.9
50.4	16:27:33		50.4	50.4
49.8	16:27:34		49.8	49.8
49.8	16:27:35		49.8	49.8
49.5	16:27:36		49.5	49.5
48.4	16:27:37		48.4	48.4
47.7	16:27:38		47.7	47.7
47.9	16:27:39		47.9	47.9
48.3	16:27:40		48.3	48.3
48.5	16:27:41		48.5	48.5
49.0	16:27:42		49.0	49.0
50.2	16:27:43		50.2	50.2
50.2	16:27:44		50.2	50.2
51.2	16:27:45		51.2	51.2
53.0	16:27:46		53.0	53.0
54.7	16:27:47		54.7	54.7
54.8	16:27:48		54.8	54.8
54.6	16:27:49		54.6	54.6
55.2	16:27:50		55.2	55.2
55.8	16:27:51		55.8	55.8
57.6	16:27:52		57.6	57.6
60.0	16:27:53		60.0	60.0
61.1	16:27:54		61.1	61.1
62.4	16:27:55		62.4	62.4
64.3	16:27:56		64.3	64.3
66.8	16:27:57		66.8	66.8
70.2	16:27:58		70.2	70.2
71.2	16:27:59		71.2	71.2
69.2	16:28:00		69.2	69.2
66.0	16:28:01		66.0	66.0
63.0	16:28:02		63.0	63.0
60.2	16:28:03		60.2	60.2
57.8	16:28:04		57.8	57.8
56.3	16:28:05		56.3	56.3

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.5	16:31:36		50.5	50.5
49.9	16:31:37		49.9	49.9
49.5	16:31:38		49.5	49.5
49.6	16:31:39		49.6	49.6
49.9	16:31:40		49.9	49.9
49.8	16:31:41		49.8	49.8
49.8	16:31:42		49.8	49.8
49.1	16:31:43		49.1	49.1
48.0	16:31:44		48.0	48.0
47.2	16:31:45		47.2	47.2
46.7	16:31:46		46.7	46.7
46.3	16:31:47		46.3	46.3
46.7	16:31:48		46.7	46.7
47.9	16:31:49		47.9	47.9
47.5	16:31:50		47.5	47.5
47.9	16:31:51		47.9	47.9
48.2	16:31:52		48.2	48.2
47.0	16:31:53		47.0	47.0
46.3	16:31:54		46.3	46.3
46.7	16:31:55		46.7	46.7
47.0	16:31:56		47.0	47.0
46.7	16:31:57		46.7	46.7
46.4	16:31:58		46.4	46.4
46.2	16:31:59		46.2	46.2
46.7	16:32:00		46.7	46.7
46.5	16:32:01		46.5	46.5
46.5	16:32:02		46.5	46.5
47.1	16:32:03		47.1	47.1
46.3	16:32:04		46.3	46.3
45.6	16:32:05		45.6	45.6
46.4	16:32:06		46.4	46.4
46.8	16:32:07		46.8	46.8
46.8	16:32:08		46.8	46.8
47.0	16:32:09		47.0	47.0
46.1	16:32:10		46.1	46.1
45.9	16:32:11		45.9	45.9
46.1	16:32:12		46.1	46.1
45.7	16:32:13		45.7	45.7
45.0	16:32:14		45.0	45.0
45.0	16:32:15		45.0	45.0
46.2	16:32:16		46.2	46.2
47.1	16:32:17		47.1	47.1
45.9	16:32:18		45.9	45.9
45.7	16:32:19		45.7	45.7
46.2	16:32:20		46.2	46.2
45.3	16:32:21		45.3	45.3
44.4	16:32:22		44.4	44.4
44.1	16:32:23		44.1	44.1
43.6	16:32:24		43.6	43.6
44.6	16:32:25		44.6	44.6
44.6	16:32:26		44.6	44.6
43.8	16:32:27		43.8	43.8
43.5	16:32:28		43.5	43.5
43.6	16:32:29		43.6	43.6
44.8	16:32:30		44.8	44.8
45.8	16:32:31		45.8	45.8
46.7	16:32:32		46.7	46.7
47.6	16:32:33		47.6	47.6
47.4	16:32:34		47.4	47.4
48.7	16:32:35		48.7	48.7
50.8	16:32:36		50.8	50.8
50.8	16:32:37		50.8	50.8
49.5	16:32:38		49.5	49.5
48.9	16:32:39		48.9	48.9
48.6	16:32:40		48.6	48.6
47.9	16:32:41		47.9	47.9
47.8	16:32:42		47.8	47.8
48.3	16:32:43		48.3	48.3
49.0	16:32:44		49.0	49.0
49.2	16:32:45		49.2	49.2
49.6	16:32:46		49.6	49.6
49.2	16:32:47		49.2	49.2
48.6	16:32:48		48.6	48.6
48.5	16:32:49		48.5	48.5
48.1	16:32:50		48.1	48.1
48.3	16:32:51		48.3	48.3
47.9	16:32:52		47.9	47.9
47.5	16:32:53		47.5	47.5
47.8	16:32:54		47.8	47.8
47.6	16:32:55		47.6	47.6
47.7	16:32:56		47.7	47.7
48.3	16:32:57		48.3	48.3
48.9	16:32:58		48.9	48.9
49.3	16:32:59		49.3	49.3
49.3	16:33:00		49.3	49.3
48.6	16:33:01		48.6	48.6
49.0	16:33:02		49.0	49.0
50.1	16:33:03		50.1	50.1
51.0	16:33:04		51.0	51.0
50.0	16:33:05		50.0	50.0
49.5	16:33:06		49.5	49.5
50.5	16:33:07		50.5	50.5
50.6	16:33:08		50.6	50.6
50.5	16:33:09		50.5	50.5
50.8	16:33:10		50.8	50.8
51.3	16:33:11		51.3	51.3
51.1	16:33:12		51.1	51.1
51.5	16:33:13		51.5	51.5
53.2	16:33:14		53.2	53.2
54.5	16:33:15		54.5	54.5
54.0	16:33:16		54.0	54.0
53.3	16:33:17		53.3	53.3
51.9	16:33:18		51.9	51.9
49.8	16:33:19		49.8	49.8
48.5	16:33:20		48.5	48.5
47.8	16:33:21		47.8	47.8
47.0	16:33:22		47.0	47.0
46.6	16:33:23		46.6	46.6
46.0	16:33:24		46.0	46.0
46.8	16:33:25		46.8	46.8
46.7	16:33:26		46.7	46.7
46.9	16:33:27		46.9	46.9
46.9	16:33:28		46.9	46.9
48.8	16:33:29		48.8	48.8
48.4	16:33:30		48.4	48.4
48.3	16:33:31		48.3	48.3
48.4	16:33:32		48.4	48.4
47.4	16:33:33		47.4	47.4
47.3	16:33:34		47.3	47.3
48.3	16:33:35		48.3	48.3
48.3	16:33:36		48.3	48.3
48.0	16:33:37		48.0	48.0
47.9	16:33:38		47.9	47.9
48.2	16:33:39		48.2	48.2
47.9	16:33:40		47.9	47.9
47.3	16:33:41		47.3	47.3
46.9	16:33:42		46.9	46.9
47.0	16:33:43		47.0	47.0
46.4	16:33:44		46.4	46.4
46.0	16:33:45		46.0	46.0
45.1	16:33:46		45.1	45.1
45.0	16:33:47		45.0	45.0
45.5	16:33:48		45.5	45.5
44.9	16:33:49		44.9	44.9
44.8	16:33:50		44.8	44.8
45.8	16:33:51		45.8	45.8
48.3	16:33:52		48.3	48.3
48.3	16:33:53		48.3	48.3
47.5	16:33:54		47.5	47.5
46.5	16:33:55		46.5	46.5
47.1	16:33:56		47.1	47.1
46.9	16:33:57		46.9	46.9
46.2	16:33:58		46.2	46.2
47.5	16:33:59		47.5	47.5
48.1	16:34:00		48.1	48.1
48.9	16:34:01		48.9	48.9
47.8	16:34:02		47.8	47.8
48.7	16:34:03		48.7	48.7
49.5	16:34:04		49.5	49.5
48.2	16:34:05		48.2	48.2
46.9	16:34:06		46.9	46.9
47.2	16:34:07		47.2	47.2
47.4	16:34:08		47.4	47.4
46.8	16:34:09		46.8	46.8
46.9	16:34:10		46.9	46.9
46.9	16:34:11		46.9	46.9
46.7	16:34:12		46.7	46.7
47.2	16:34:13		47.2	47.2
47.0	16:34:14		47.0	47.0
47.3	16:34:15		47.3	47.3
47.1	16:34:16		47.1	47.1
46.4	16:34:17		46.4	46.4

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
55.4	16:37:21		55.4	55.4
53.7	16:37:22		53.7	53.7
53.4	16:37:23		53.4	53.4
53.4	16:37:24		53.4	53.4
56.5	16:37:25		56.5	56.5
59.4	16:37:26		59.4	59.4
64.6	16:37:27		64.6	64.6
69.7	16:37:28		69.7	69.7
70.0	16:37:29		70.0	70.0
67.1	16:37:30		67.1	67.1
63.6	16:37:31		63.6	63.6
60.1	16:37:32		60.1	60.1
57.0	16:37:33		57.0	57.0
54.3	16:37:34		54.3	54.3
51.9	16:37:35		51.9	51.9
49.8	16:37:36		49.8	49.8
47.8	16:37:37		47.8	47.8
46.3	16:37:38		46.3	46.3
45.2	16:37:39		45.2	45.2
44.1	16:37:40		44.1	44.1
42.9	16:37:41		42.9	42.9
42.1	16:37:42		42.1	42.1
42.0	16:37:43		42.0	42.0
41.5	16:37:44		41.5	41.5
40.7	16:37:45		40.7	40.7
40.3	16:37:46		40.3	40.3
40.0	16:37:47		40.0	40.0
40.0	16:37:48		40.0	40.0
40.3	16:37:49		40.3	40.3
40.3	16:37:50		40.3	40.3
40.3	16:37:51		40.3	40.3
40.6	16:37:52		40.6	40.6
41.0	16:37:53		41.0	41.0
41.0	16:37:54		41.0	41.0
41.0	16:37:55		41.0	41.0
40.9	16:37:56		40.9	40.9
41.0	16:37:57		41.0	41.0
41.7	16:37:58		41.7	41.7
42.8	16:37:59		42.8	42.8
42.6	16:38:00		42.6	42.6
42.2	16:38:01		42.2	42.2
41.8	16:38:02		41.8	41.8
41.5	16:38:03		41.5	41.5
41.8	16:38:04		41.8	41.8
41.4	16:38:05		41.4	41.4
41.4	16:38:06		41.4	41.4
43.0	16:38:07		43.0	43.0
43.1	16:38:08		43.1	43.1
42.8	16:38:09		42.8	42.8
41.7	16:38:10		41.7	41.7
41.0	16:38:11		41.0	41.0
40.7	16:38:12		40.7	40.7
40.3	16:38:13		40.3	40.3
40.2	16:38:14		40.2	40.2
41.6	16:38:15		41.6	41.6
41.9	16:38:16		41.9	41.9
42.5	16:38:17		42.5	42.5
43.8	16:38:18		43.8	43.8
45.3	16:38:19		45.3	45.3
47.5	16:38:20		47.5	47.5
49.7	16:38:21		49.7	49.7
53.8	16:38:22		53.8	53.8
58.7	16:38:23		58.7	58.7
65.0	16:38:24		65.0	65.0
69.5	16:38:25		69.5	69.5
67.4	16:38:26		67.4	67.4
64.0	16:38:27		64.0	64.0
60.3	16:38:28		60.3	60.3
57.0	16:38:29		57.0	57.0
54.2	16:38:30		54.2	54.2
51.9	16:38:31		51.9	51.9
50.8	16:38:32		50.8	50.8
50.2	16:38:33		50.2	50.2
50.3	16:38:34		50.3	50.3
51.5	16:38:35		51.5	51.5
54.4	16:38:36		54.4	54.4
57.4	16:38:37		57.4	57.4
61.1	16:38:38		61.1	61.1
66.1	16:38:39		66.1	66.1
67.7	16:38:40		67.7	67.7
67.1	16:38:41		67.1	67.1
66.1	16:38:42		66.1	66.1
69.0	16:38:43		69.0	69.0
72.3	16:38:44		72.3	72.3
72.3	16:38:45		72.3	72.3
70.4	16:38:46		70.4	70.4
69.8	16:38:47		69.8	69.8
69.8	16:38:48		69.8	69.8
70.3	16:38:49		70.3	70.3
71.3	16:38:50		71.3	71.3
70.5	16:38:51		70.5	70.5
68.5	16:38:52		68.5	68.5
66.0	16:38:53		66.0	66.0
63.1	16:38:54		63.1	63.1
60.2	16:38:55		60.2	60.2
57.5	16:38:56		57.5	57.5
55.0	16:38:57		55.0	55.0
53.0	16:38:58		53.0	53.0
51.4	16:38:59		51.4	51.4
50.7	16:39:00		50.7	50.7
50.2	16:39:01		50.2	50.2
49.5	16:39:02		49.5	49.5
50.2	16:39:03		50.2	50.2
51.8	16:39:04		51.8	51.8
52.2	16:39:05		52.2	52.2
53.1	16:39:06		53.1	53.1
55.7	16:39:07		55.7	55.7
58.9	16:39:08		58.9	58.9
62.9	16:39:09		62.9	62.9
67.0	16:39:10		67.0	67.0
67.2	16:39:11		67.2	67.2
65.6	16:39:12		65.6	65.6
63.2	16:39:13		63.2	63.2
61.2	16:39:14		61.2	61.2
61.3	16:39:15		61.3	61.3
64.2	16:39:16		64.2	64.2
65.7	16:39:17		65.7	65.7
64.9	16:39:18		64.9	64.9
62.9	16:39:19		62.9	62.9
60.3	16:39:20		60.3	60.3
57.6	16:39:21		57.6	57.6
55.5	16:39:22		55.5	55.5
54.3	16:39:23		54.3	54.3
55.5	16:39:24		55.5	55.5
58.2	16:39:25		58.2	58.2
61.9	16:39:26		61.9	61.9
67.4	16:39:27		67.4	67.4
72.8	16:39:28		72.8	72.8
73.8	16:39:29		73.8	73.8
71.4	16:39:30		71.4	71.4
68.0	16:39:31		68.0	68.0
64.3	16:39:32		64.3	64.3
60.9	16:39:33		60.9	60.9
57.6	16:39:34		57.6	57.6
54.9	16:39:35		54.9	54.9
53.3	16:39:36		53.3	53.3
52.6	16:39:37		52.6	52.6
52.7	16:39:38		52.7	52.7
53.5	16:39:39		53.5	53.5
56.9	16:39:40		56.9	56.9
58.9	16:39:41		58.9	58.9
62.7	16:39:42		62.7	62.7
66.9	16:39:43		66.9	66.9
68.0	16:39:44		68.0	68.0
67.2	16:39:45		67.2	67.2
66.4	16:39:46		66.4	66.4
67.1	16:39:47		67.1	67.1
67.3	16:39:48		67.3	67.3
66.1	16:39:49		66.1	66.1
63.8	16:39:50		63.8	63.8
61.5	16:39:51		61.5	61.5
59.6	16:39:52		59.6	59.6
58.1	16:39:53		58.1	58.1
56.9	16:39:54		56.9	56.9
56.6	16:39:55		56.6	56.6
59.3	16:39:56		59.3	59.3
64.5	16:39:57		64.5	64.5
67.9	16:39:58		67.9	67.9
70.8	16:39:59		70.8	70.8
70.8	16:40:00		70.8	70.8
68.5	16:40:01		68.5	68.5
67.0	16:40:02		67.0	67.0

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
55.4	16:28:06		55.4	55.4
54.9	16:28:07		54.9	54.9
54.7	16:28:08		54.7	54.7
54.9	16:28:09		54.9	54.9
56.0	16:28:10		56.0	56.0
56.5	16:28:11		56.5	56.5
57.2	16:28:12		57.2	57.2
58.1	16:28:13		58.1	58.1
59.1	16:28:14		59.1	59.1
60.0	16:28:15		60.0	60.0
60.2	16:28:16		60.2	60.2
60.1	16:28:17		60.1	60.1
59.1	16:28:18		59.1	59.1
58.4	16:28:19		58.4	58.4
58.6	16:28:20		58.6	58.6
58.9	16:28:21		58.9	58.9
59.6	16:28:22		59.6	59.6
60.1	16:28:23		60.1	60.1
62.2	16:28:24		62.2	62.2
63.6	16:28:25		63.6	63.6
63.8	16:28:26		63.8	63.8
63.0	16:28:27		63.0	63.0
63.7	16:28:28		63.7	63.7
64.9	16:28:29		64.9	64.9
65.0	16:28:30		65.0	65.0
65.9	16:28:31		65.9	65.9
66.6	16:28:32		66.6	66.6
67.0	16:28:33		67.0	67.0
67.1	16:28:34		67.1	67.1
66.2	16:28:35		66.2	66.2
64.7	16:28:36		64.7	64.7
63.3	16:28:37		63.3	63.3
62.3	16:28:38		62.3	62.3
61.1	16:28:39		61.1	61.1
60.4	16:28:40		60.4	60.4
60.0	16:28:41		60.0	60.0
59.9	16:28:42		59.9	59.9
59.7	16:28:43		59.7	59.7
59.2	16:28:44		59.2	59.2
58.4	16:28:45		58.4	58.4
57.9	16:28:46		57.9	57.9
56.9	16:28:47		56.9	56.9
56.2	16:28:48		56.2	56.2
55.6	16:28:49		55.6	55.6
55.5	16:28:50		55.5	55.5
54.8	16:28:51		54.8	54.8
54.3	16:28:52		54.3	54.3
54.9	16:28:53		54.9	54.9
56.3	16:28:54		56.3	56.3
61.1	16:28:55		61.1	61.1
61.1	16:28:56		61.1	61.1
59.7	16:28:57		59.7	59.7
59.5	16:28:58		59.5	59.5
59.2	16:28:59		59.2	59.2
58.2	16:29:00		58.2	58.2
58.0	16:29:01		58.0	58.0
58.6	16:29:02		58.6	58.6
58.6	16:29:03		58.6	58.6
57.7	16:29:04		57.7	57.7
57.1	16:29:05		57.1	57.1
56.9	16:29:06		56.9	56.9
57.2	16:29:07		57.2	57.2
57.8	16:29:08		57.8	57.8
57.8	16:29:09		57.8	57.8
57.6	16:29:10		57.6	57.6
57.4	16:29:11		57.4	57.4
57.1	16:29:12		57.1	57.1
56.5	16:29:13		56.5	56.5
56.5	16:29:14		56.5	56.5
57.7	16:29:15		57.7	57.7
58.1	16:29:16		58.1	58.1
57.3	16:29:17		57.3	57.3
56.3	16:29:18		56.3	56.3
54.9	16:29:19		54.9	54.9
53.6	16:29:20		53.6	53.6
52.6	16:29:21		52.6	52.6
52.3	16:29:22		52.3	52.3
53.6	16:29:23		53.6	53.6
55.8	16:29:24		55.8	55.8
56.3	16:29:25		56.3	56.3
56.3	16:29:26		56.3	56.3
56.7	16:29:27		56.7	56.7
55.8	16:29:28		55.8	55.8
53.7	16:29:29		53.7	53.7
51.8	16:29:30		51.8	51.8
50.7	16:29:31		50.7	50.7
50.7	16:29:32		50.7	50.7
50.1	16:29:33		50.1	50.1
49.8	16:29:34		49.8	49.8
50.3	16:29:35		50.3	50.3
50.4	16:29:36		50.4	50.4
49.3	16:29:37		49.3	49.3
47.7	16:29:38		47.7	47.7
46.3	16:29:39		46.3	46.3
45.4	16:29:40		45.4	45.4
44.7	16:29:41		44.7	44.7
44.9	16:29:42		44.9	44.9
44.9	16:29:43		44.9	44.9
44.7	16:29:44		44.7	44.7
44.5	16:29:45		44.5	44.5
43.9	16:29:46		43.9	43.9
43.9	16:29:47		43.9	43.9
44.1	16:29:48		44.1	44.1
44.4	16:29:49		44.4	44.4
44.8	16:29:50		44.8	44.8
45.0	16:29:51		45.0	45.0
45.0	16:29:52		45.0	45.0
45.3	16:29:53		45.3	45.3
45.3	16:29:54		45.3	45.3
44.9	16:29:55		44.9	44.9
45.6	16:29:56		45.6	45.6
45.8	16:29:57		45.8	45.8
45.9	16:29:58		45.9	45.9
46.0	16:29:59		46.0	46.0
47.1	16:30:00		47.1	47.1
47.0	16:30:01		47.0	47.0
46.7	16:30:02		46.7	46.7
47.8	16:30:03		47.8	47.8
48.9	16:30:04		48.9	48.9
50.0	16:30:05		50.0	50.0
51.8	16:30:06		51.8	51.8
54.3	16:30:07		54.3	54.3
56.7	16:30:08		56.7	56.7
58.6	16:30:09		58.6	58.6
59.7	16:30:10		59.7	59.7
59.6	16:30:11		59.6	59.6
59.2	16:30:12		59.2	59.2
59.2	16:30:13		59.2	59.2
60.0	16:30:14		60.0	60.0
61.6	16:30:15		61.6	61.6
63.4	16:30:16		63.4	63.4
65.1	16:30:17		65.1	65.1
67.3	16:30:18		67.3	67.3
69.1	16:30:19		69.1	69.1
69.2	16:30:20		69.2	69.2
68.6	16:30:21		68.6	68.6
67.3	16:30:22		67.3	67.3
65.9	16:30:23		65.9	65.9
64.5	16:30:24		64.5	64.5
63.6	16:30:25		63.6	63.6
63.3	16:30:26		63.3	63.3
63.0	16:30:27		63.0	63.0
61.9	16:30:28		61.9	61.9
61.3	16:30:29		61.3	61.3
60.9	16:30:30		60.9	60.9
61.0	16:30:31		61.0	61.0
60.8	16:30:32		60.8	60.8
59.7	16:30:33		59.7	59.7
59.1	16:30:34		59.1	59.1
58.8	16:30:35		58.8	58.8
58.8	16:30:36		58.8	58.8
59.7	16:30:37		59.7	59.7
60.8	16:30:38		60.8	60.8
61.4	16:30:39		61.4	61.4
61.0	16:30:40		61.0	61.0
59.9	16:30:41		59.9	59.9
58.7	16:30:42		58.7	58.7
57.3	16:30:43		57.3	57.3
58.3	16:30:44		58.3	58.3
57.3	16:30:45		57.3	57.3
55.4	16:30:46		55.4	55.4
54.9	16:30:47		54.9	54.9

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.2	16:34:18		46.2	46.2
46.3	16:34:19		46.3	46.3
45.7	16:34:20		45.7	45.7
45.4	16:34:21		45.4	45.4
45.5	16:34:22		45.5	45.5
45.9	16:34:23		45.9	45.9
45.5	16:34:24		45.5	45.5
45.6	16:34:25		45.6	45.6
46.5	16:34:26		46.5	46.5
46.3	16:34:27		46.3	46.3
46.2	16:34:28		46.2	46.2
46.3	16:34:29		46.3	46.3
46.7	16:34:30		46.7	46.7
46.9	16:34:31		46.9	46.9
47.2	16:34:32		47.2	47.2
47.5	16:34:33		47.5	47.5
47.9	16:34:34		47.9	47.9
48.1	16:34:35		48.1	48.1
47.5	16:34:36		47.5	47.5
47.4	16:34:37		47.4	47.4
48.4	16:34:38		48.4	48.4
51.3	16:34:39		51.3	51.3
52.2	16:34:40		52.2	52.2
51.5	16:34:41		51.5	51.5
49.9	16:34:42		49.9	49.9
48.6	16:34:43		48.6	48.6
48.0	16:34:44		48.0	48.0
47.6	16:34:45		47.6	47.6
47.1	16:34:46		47.1	47.1
46.9	16:34:47		46.9	46.9
46.9	16:34:48		46.9	46.9
47.4	16:34:49		47.4	47.4
47.6	16:34:50		47.6	47.6
47.2	16:34:51		47.2	47.2
46.9	16:34:52		46.9	46.9
46.6	16:34:53		46.6	46.6
46.4	16:34:54		46.4	46.4
46.5	16:34:55		46.5	46.5
47.3	16:34:56		47.3	47.3
48.5	16:34:57		48.5	48.5
49.9	16:34:58		49.9	49.9
50.1	16:34:59		50.1	50.1
50.0	16:35:00		50.0	50.0
49.6	16:35:01		49.6	49.6
49.7	16:35:02		49.7	49.7
50.6	16:35:03		50.6	50.6
52.7	16:35:04		52.7	52.7
55.1	16:35:05		55.1	55.1
53.7	16:35:06		53.7	53.7
54.4	16:35:07		54.4	54.4
53.2	16:35:08		53.2	53.2
52.9	16:35:09		52.9	52.9
52.1	16:35:10		52.1	52.1
51.8	16:35:11		51.8	51.8
50.7	16:35:12		50.7	50.7
49.8	16:35:13		49.8	49.8
50.0	16:35:14		50.0	50.0
49.7	16:35:15		49.7	49.7
49.8	16:35:16		49.8	49.8
49.0	16:35:17		49.0	49.0
48.6	16:35:18		48.6	48.6
48.6	16:35:19		48.6	48.6
48.9	16:35:20		48.9	48.9
49.4	16:35:21		49.4	49.4
50.0	16:35:22		50.0	50.0
50.2	16:35:23		50.2	50.2
50.8	16:35:24		50.8	50.8
51.1	16:35:25		51.1	51.1
51.6	16:35:26		51.6	51.6
52.3	16:35:27		52.3	52.3
53.4	16:35:28		53.4	53.4
53.8	16:35:29		53.8	53.8
53.6	16:35:30		53.6	53.6
54.0	16:35:31		54.0	54.0
55.3	16:35:32		55.3	55.3
56.7	16:35:33		56.7	56.7
57.2	16:35:34		57.2	57.2
58.2	16:35:35		58.2	58.2
56.8	16:35:36		56.8	56.8
54.6	16:35:37		54.6	54.6
52.8	16:35:38		52.8	52.8
51.5	16:35:39		51.5	51.5
51.1	16:35:40		51.1	51.1
50.4	16:35:41		50.4	50.4
49.7	16:35:42		49.7	49.7
49.3	16:35:43		49.3	49.3
48.9	16:35:44		48.9	48.9
49.8	16:35:45		49.8	49.8
50.7	16:35:46		50.7	50.7
50.3	16:35:47		50.3	50.3
49.3	16:35:48		49.3	49.3
47.8	16:35:49		47.8	47.8
47.9	16:35:50		47.9	47.9
47.5	16:35:51		47.5	47.5
46.9	16:35:52		46.9	46.9
47.1	16:35:53		47.1	47.1
47.0	16:35:54		47.0	47.0
47.3	16:35:55		47.3	47.3
47.4	16:35:56		47.4	47.4
47.4	16:35:57		47.4	47.4
47.5	16:35:58		47.5	47.5
47.8	16:35:59		47.8	47.8
47.9	16:36:00		47.9	47.9
48.0	16:36:01		48.0	48.0
47.9	16:36:02		47.9	47.9
48.6	16:36:03		48.6	48.6
48.9	16:36:04		48.9	48.9
48.8	16:36:05		48.8	48.8
51.1	16:36:06		51.1	51.1
55.0	16:36:07		55.0	55.0
54.6	16:36:08		54.6	54.6
52.6	16:36:09		52.6	52.6
51.2	16:36:10		51.2	51.2
50.5	16:36:11		50.5	50.5
49.7	16:36:12		49.7	49.7
48.9	16:36:13		48.9	48.9
49.1	16:36:14		49.1	49.1
49.3	16:36:15		49.3	49.3
49.2	16:36:16		49.2	49.2
49.8	16:36:17		49.8	49.8
49.5	16:36:18		49.5	49.5
48.5	16:36:19		48.5	48.5
47.9	16:36:20		47.9	47.9
47.4	16:36:21		47.4	47.4
47.5	16:36:22		47.5	47.5
47.2	16:36:23		47.2	47.2
47.1	16:36:24		47.1	47.1
47.3	16:36:25		47.3	47.3
47.7	16:36:26		47.7	47.7
47.8	16:36:27		47.8	47.8
48.6	16:36:28		48.6	48.6
49.1	16:36:29		49.1	49.1
49.6	16:36:30		49.6	49.6
51.0	16:36:31		51.0	51.0
51.4	16:36:32		51.4	51.4
52.1	16:36:33		52.1	52.1
51.9	16:36:34		51.9	51.9
51.7	16:36:35		51.7	51.7
51.0	16:36:36		51.0	51.0
50.2	16:36:37		50.2	50.2
49.9	16:36:38		49.9	49.9
50.2	16:36:39		50.2	50.2
50.0	16:36:40		50.0	50.0
49.6	16:36:41		49.6	49.6
50.4	16:36:42		50.4	50.4
52.5	16:36:43		52.5	52.5
52.3	16:36:44		52.3	52.3
51.0	16:36:45		51.0	51.0
50.2	16:36:46		50.2	50.2
50.9	16:36:47		50.9	50.9
50.7	16:36:48		50.7	50.7
49.8	16:36:49		49.8	49.8
49.2	16:36:50		49.2	49.2
50.2	16:36:51		50.2	50.2
49.8	16:36:52		49.8	49.8
49.5	16:36:53		49.5	49.5
49.4	16:36:54		49.4	49.4
49.3	16:36:55		49.3	49.3
50.6	16:36:56		50.6	50.6
50.1	16:36:57		50.1	50.1
49.0	16:36:58		49.0	49.0
48.5	16:36:59		48.5	48.5

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
65.8	16:40:03		65.8	65.8
64.4	16:40:04		64.4	64.4
62.5	16:40:05		62.5	62.5
60.3	16:40:06		60.3	60.3
58.3	16:40:07		58.3	58.3
56.8	16:40:08		56.8	56.8
55.9	16:40:09		55.9	55.9
55.8	16:40:10		55.8	55.8
56.3	16:40:11		56.3	56.3
57.9	16:40:12		57.9	57.9
61.0	16:40:13		61.0	61.0
64.6	16:40:14		64.6	64.6
65.8	16:40:15		65.8	65.8
64.9	16:40:16		64.9	64.9
62.6	16:40:17		62.6	62.6
60.1	16:40:18		60.1	60.1
57.4	16:40:19		57.4	57.4
54.9	16:40:20		54.9	54.9
52.9	16:40:21		52.9	52.9
50.8	16:40:22		50.8	50.8
49.3	16:40:23		49.3	49.3
48.4	16:40:24		48.4	48.4
48.3	16:40:25		48.3	48.3
48.0	16:40:26		48.0	48.0
48.1	16:40:27		48.1	48.1
49.0	16:40:28		49.0	49.0
49.8	16:40:29		49.8	49.8
51.9	16:40:30		51.9	51.9
56.1	16:40:31		56.1	56.1
60.5	16:40:32		60.5	60.5
66.1	16:40:33		66.1	66.1
69.7	16:40:34		69.7	69.7
69.8	16:40:35		69.8	69.8
66.9	16:40:36		66.9	66.9
63.7	16:40:37		63.7	63.7
60.6	16:40:38		60.6	60.6
57.9	16:40:39		57.9	57.9
56.0	16:40:40		56.0	56.0
54.4	16:40:41		54.4	54.4
53.7	16:40:42		53.7	53.7
52.4	16:40:43		52.4	52.4
50.6	16:40:44		50.6	50.6
49.8	16:40:45		49.8	49.8
49.0	16:40:46		49.0	49.0
48.6	16:40:47		48.6	48.6
48.1	16:40:48		48.1	48.1
47.2	16:40:49		47.2	47.2
46.1	16:40:50		46.1	46.1
45.2	16:40:51		45.2	45.2
45.0	16:40:52		45.0	45.0
44.5	16:40:53		44.5	44.5
43.8	16:40:54		43.8	43.8
43.4	16:40:55		43.4	43.4
43.2	16:40:56		43.2	43.2
44.9	16:40:57		44.9	44.9
45.1	16:40:58		45.1	45.1
45.6	16:40:59		45.6	45.6
47.0	16:41:00		47.0	47.0
48.6	16:41:01		48.6	48.6
50.6	16:41:02		50.6	50.6
53.9	16:41:03		53.9	53.9
57.5	16:41:04		57.5	57.5
61.5	16:41:05		61.5	61.5
69.5	16:41:06		69.5	69.5
71.9	16:41:07		71.9	71.9
70.1	16:41:08		70.1	70.1
67.0	16:41:09		67.0	67.0
63.5	16:41:10		63.5	63.5
60.4	16:41:11		60.4	60.4
57.9	16:41:12		57.9	57.9
56.2	16:41:13		56.2	56.2
54.9	16:41:14		54.9	54.9
54.9	16:41:15		54.9	54.9
55.5	16:41:16		55.5	55.5
56.6	16:41:17		56.6	56.6
57.5	16:41:18		57.5	57.5
60.9	16:41:19		60.9	60.9
64.8	16:41:20		64.8	64.8
67.0	16:41:21		67.0	67.0
65.8	16:41:22		65.8	65.8
63.6	16:41:23		63.6	63.6
60.7	16:41:24		60.7	60.7
58.0	16:41:25		58.0	58.0
55.4	16:41:26		55.4	55.4
52.4	16:41:27		52.4	52.4
49.9	16:41:28		49.9	49.9
47.6	16:41:29		47.6	47.6
46.2	16:41:30		46.2	46.2
45.1	16:41:31		45.1	45.1
44.1	16:41:32		44.1	44.1
43.3	16:41:33		43.3	43.3
42.9	16:41:34		42.9	42.9
42.5	16:41:35		42.5	42.5
42.7	16:41:36		42.7	42.7
42.4	16:41:37		42.4	42.4
42.5	16:41:38		42.5	42.5
42.5	16:41:39		42.5	42.5
42.6	16:41:40		42.6	42.6
44.7	16:41:41		44.7	44.7
44.3	16:41:42		44.3	44.3
43.3	16:41:43		43.3	43.3
42.5	16:41:44		42.5	42.5
42.1	16:41:45		42.1	42.1
42.0	16:41:46		42.0	42.0
42.1	16:41:47		42.1	42.1
42.2	16:41:48		42.2	42.2
42.7	16:41:49		42.7	42.7
42.7	16:41:50		42.7	42.7
43.1	16:41:51		43.1	43.1
43.2	16:41:52		43.2	43.2
42.6	16:41:53		42.6	42.6
42.4	16:41:54		42.4	42.4
42.0	16:41:55		42.0	42.0
42.1	16:41:56		42.1	42.1
43.3	16:41:57		43.3	43.3
42.7	16:41:58		42.7	42.7
42.4	16:41:59		42.4	42.4
42.5	16:42:00		42.5	42.5
43.1	16:42:01		43.1	43.1
43.2	16:42:02		43.2	43.2
43.5	16:42:03		43.5	43.5
44.5	16:42:04		44.5	44.5
45.0	16:42:05		45.0	45.0
45.0	16:42:06		45.0	45.0
45.2	16:42:07		45.2	45.2
44.5	16:42:08		44.5	44.5
44.0	16:42:09		44.0	44.0
45.4	16:42:10		45.4	45.4
46.0	16:42:11		46.0	46.0
45.6	16:42:12		45.6	45.6
45.1	16:42:13		45.1	45.1
46.3	16:42:14		46.3	46.3
46.7	16:42:15		46.7	46.7
46.8	16:42:16		46.8	46.8
47.1	16:42:17		47.1	47.1
48.7	16:42:18		48.7	48.7
49.5	16:42:19		49.5	49.5
48.5	16:42:20		48.5	48.5
47.7	16:42:21		47.7	47.7
49.4	16:42:22		49.4	49.4
49.5	16:42:23		49.5	49.5
49.1	16:42:24		49.1	49.1
47.5	16:42:25		47.5	47.5
47.6	16:42:26		47.6	47.6
47.7	16:42:27		47.7	47.7
47.0	16:42:28		47.0	47.0
47.0	16:42:29		47.0	47.0
47.9	16:42:30		47.9	47.9
48.8	16:42:31		48.8	48.8
49.8	16:42:32		49.8	49.8
51.1	16:42:33		51.1	51.1
53.5	16:42:34		53.5	53.5
56.6	16:42:35		56.6	56.6
60.4	16:42:36		60.4	60.4
65.6	16:42:37		65.6	65.6
68.2	16:42:38		68.2	68.2
67.5	16:42:39		67.5	67.5
65.2	16:42:40		65.2	65.2
62.2	16:42:41		62.2	62.2
59.3	16:42:42		59.3	59.3
56.8	16:42:43		56.8	56.8
54.8	16:42:44		54.8	54.8

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.9	16:30:48		53.9	53.9
52.7	16:30:49		52.7	52.7
53.3	16:30:50		53.3	53.3
53.4	16:30:51		53.4	53.4
52.9	16:30:52		52.9	52.9
53.4	16:30:53		53.4	53.4
54.8	16:30:54		54.8	54.8
56.3	16:30:55		56.3	56.3
58.0	16:30:56		58.0	58.0
59.3	16:30:57		59.3	59.3
59.2	16:30:58		59.2	59.2
57.6	16:30:59		57.6	57.6
56.2	16:31:00		56.2	56.2
55.0	16:31:01		55.0	55.0
53.3	16:31:02		53.3	53.3
52.1	16:31:03		52.1	52.1
51.4	16:31:04		51.4	51.4
53.0	16:31:05		53.0	53.0
53.0	16:31:06		53.0	53.0
52.9	16:31:07		52.9	52.9
53.6	16:31:08		53.6	53.6
54.8	16:31:09		54.8	54.8
55.7	16:31:10		55.7	55.7
56.0	16:31:11		56.0	56.0
56.1	16:31:12		56.1	56.1
55.8	16:31:13		55.8	55.8
54.6	16:31:14		54.6	54.6
54.1	16:31:15		54.1	54.1
54.0	16:31:16		54.0	54.0
53.3	16:31:17		53.3	53.3
52.4	16:31:18		52.4	52.4
51.0	16:31:19		51.0	51.0
50.3	16:31:20		50.3	50.3
49.2	16:31:21		49.2	49.2
48.3	16:31:22		48.3	48.3
47.9	16:31:23		47.9	47.9
48.1	16:31:24		48.1	48.1
48.4	16:31:25		48.4	48.4
48.8	16:31:26		48.8	48.8
50.0	16:31:27		50.0	50.0
50.8	16:31:28		50.8	50.8
51.0	16:31:29		51.0	51.0
51.1	16:31:30		51.1	51.1
51.7	16:31:31		51.7	51.7
53.1	16:31:32		53.1	53.1
55.1	16:31:33		55.1	55.1
57.3	16:31:34		57.3	57.3
60.0	16:31:35		60.0	60.0
61.5	16:31:36		61.5	61.5
62.5	16:31:37		62.5	62.5
63.3	16:31:38		63.3	63.3
62.7	16:31:39		62.7	62.7
62.1	16:31:40		62.1	62.1
61.0	16:31:41		61.0	61.0
59.4	16:31:42		59.4	59.4
57.9	16:31:43		57.9	57.9
56.1	16:31:44		56.1	56.1
54.8	16:31:45		54.8	54.8
54.8	16:31:46		54.8	54.8
54.8	16:31:47		54.8	54.8
54.7	16:31:48		54.7	54.7
54.2	16:31:49		54.2	54.2
53.8	16:31:50		53.8	53.8
53.7	16:31:51		53.7	53.7
54.3	16:31:52		54.3	54.3
54.3	16:31:53		54.3	54.3
54.4	16:31:54		54.4	54.4
55.1	16:31:55		55.1	55.1
56.6	16:31:56		56.6	56.6
57.7	16:31:57		57.7	57.7
57.1	16:31:58		57.1	57.1
56.4	16:31:59		56.4	56.4
55.4	16:32:00		55.4	55.4
54.3	16:32:01		54.3	54.3
53.9	16:32:02		53.9	53.9
53.0	16:32:03		53.0	53.0
52.6	16:32:04		52.6	52.6
52.9	16:32:05		52.9	52.9
52.5	16:32:06		52.5	52.5
51.9	16:32:07		51.9	51.9
51.1	16:32:08		51.1	51.1
51.4	16:32:09		51.4	51.4
51.5	16:32:10		51.5	51.5
50.7	16:32:11		50.7	50.7
50.3	16:32:12		50.3	50.3
49.5	16:32:13		49.5	49.5
50.2	16:32:14		50.2	50.2
49.5	16:32:15		49.5	49.5
48.3	16:32:16		48.3	48.3
48.9	16:32:17		48.9	48.9
48.7	16:32:18		48.7	48.7
48.1	16:32:19		48.1	48.1
48.1	16:32:20		48.1	48.1
48.7	16:32:21		48.7	48.7
49.6	16:32:22		49.6	49.6
50.0	16:32:23		50.0	50.0
49.1	16:32:24		49.1	49.1
47.8	16:32:25		47.8	47.8
48.0	16:32:26		48.0	48.0
47.9	16:32:27		47.9	47.9
47.0	16:32:28		47.0	47.0
46.2	16:32:29		46.2	46.2
45.5	16:32:30		45.5	45.5
45.5	16:32:31		45.5	45.5
45.8	16:32:32		45.8	45.8
46.7	16:32:33		46.7	46.7
48.8	16:32:34		48.8	48.8
49.2	16:32:35		49.2	49.2
49.7	16:32:36		49.7	49.7
50.0	16:32:37		50.0	50.0
50.7	16:32:38		50.7	50.7
52.1	16:32:39		52.1	52.1
53.4	16:32:40		53.4	53.4
54.3	16:32:41		54.3	54.3
55.6	16:32:42		55.6	55.6
57.6	16:32:43		57.6	57.6
57.8	16:32:44		57.8	57.8
57.6	16:32:45		57.6	57.6
57.3	16:32:46		57.3	57.3
56.8	16:32:47		56.8	56.8
57.7	16:32:48		57.7	57.7
57.3	16:32:49		57.3	57.3
56.6	16:32:50		56.6	56.6
55.6	16:32:51		55.6	55.6
54.2	16:32:52		54.2	54.2
53.3	16:32:53		53.3	53.3
52.9	16:32:54		52.9	52.9
52.8	16:32:55		52.8	52.8
53.4	16:32:56		53.4	53.4
54.4	16:32:57		54.4	54.4
54.5	16:32:58		54.5	54.5
54.9	16:32:59		54.9	54.9
56.2	16:33:00		56.2	56.2
58.0	16:33:01		58.0	58.0
60.6	16:33:02		60.6	60.6
62.2	16:33:03		62.2	62.2
61.4	16:33:04		61.4	61.4
60.1	16:33:05		60.1	60.1
59.1	16:33:06		59.1	59.1
58.6	16:33:07		58.6	58.6
58.8	16:33:08		58.8	58.8
58.8	16:33:09		58.8	58.8
58.9	16:33:10		58.9	58.9
59.1	16:33:11		59.1	59.1
59.7	16:33:12		59.7	59.7
59.7	16:33:13		59.7	59.7
59.6	16:33:14		59.6	59.6
59.4	16:33:15		59.4	59.4
59.1	16:33:16		59.1	59.1
59.2	16:33:17		59.2	59.2
59.2	16:33:18		59.2	59.2
59.3	16:33:19		59.3	59.3
59.1	16:33:20		59.1	59.1
59.4	16:33:21		59.4	59.4
59.3	16:33:22		59.3	59.3
59.3	16:33:23		59.3	59.3
59.7	16:33:24		59.7	59.7
60.5	16:33:25		60.5	60.5
60.7	16:33:26		60.7	60.7
59.9	16:33:27		59.9	59.9
59.6	16:33:28		59.6	59.6
59.2	16:33:29		59.2	59.2

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.6	16:37:00		48.6	48.6
49.0	16:37:01		49.0	49.0
49.5	16:37:02		49.5	49.5
50.4	16:37:03		50.4	50.4
51.3	16:37:04		51.3	51.3
51.8	16:37:05		51.8	51.8
52.7	16:37:06		52.7	52.7
53.5	16:37:07		53.5	53.5
54.5	16:37:08		54.5	54.5
55.7	16:37:09		55.7	55.7
55.9	16:37:10		55.9	55.9
56.5	16:37:11		56.5	56.5
56.7	16:37:12		56.7	56.7
57.8	16:37:13		57.8	57.8
58.7	16:37:14		58.7	58.7
59.2	16:37:15		59.2	59.2
58.1	16:37:16		58.1	58.1
56.5	16:37:17		56.5	56.5
57.0	16:37:18		57.0	57.0
56.9	16:37:19		56.9	56.9
55.9	16:37:20		55.9	55.9
56.3	16:37:21		56.3	56.3
57.7	16:37:22		57.7	57.7
56.5	16:37:23		56.5	56.5
54.1	16:37:24		54.1	54.1
52.7	16:37:25		52.7	52.7
51.6	16:37:26		51.6	51.6
50.2	16:37:27		50.2	50.2
48.7	16:37:28		48.7	48.7
47.7	16:37:29		47.7	47.7
46.8	16:37:30		46.8	46.8
46.2	16:37:31		46.2	46.2
46.0	16:37:32		46.0	46.0
45.8	16:37:33		45.8	45.8
45.6	16:37:34		45.6	45.6
45.9	16:37:35		45.9	45.9
46.0	16:37:36		46.0	46.0
46.3	16:37:37		46.3	46.3
46.5	16:37:38		46.5	46.5
46.7	16:37:39		46.7	46.7
45.9	16:37:40		45.9	45.9
45.2	16:37:41		45.2	45.2
45.6	16:37:42		45.6	45.6
45.4	16:37:43		45.4	45.4
45.4	16:37:44		45.4	45.4
45.0	16:37:45		45.0	45.0
45.2	16:37:46		45.2	45.2
45.5	16:37:47		45.5	45.5
45.6	16:37:48		45.6	45.6
45.4	16:37:49		45.4	45.4
45.4	16:37:50		45.4	45.4
45.9	16:37:51		45.9	45.9
46.4	16:37:52		46.4	46.4
45.8	16:37:53		45.8	45.8
46.1	16:37:54		46.1	46.1
46.0	16:37:55		46.0	46.0
46.0	16:37:56		46.0	46.0
46.2	16:37:57		46.2	46.2
46.5	16:37:58		46.5	46.5
47.0	16:37:59		47.0	47.0
47.5	16:38:00		47.5	47.5
46.8	16:38:01		46.8	46.8
47.2	16:38:02		47.2	47.2
47.0	16:38:03		47.0	47.0
47.6	16:38:04		47.6	47.6
48.4	16:38:05		48.4	48.4
48.9	16:38:06		48.9	48.9
48.8	16:38:07		48.8	48.8
51.0	16:38:08		51.0	51.0
54.2	16:38:09		54.2	54.2
53.4	16:38:10		53.4	53.4
51.8	16:38:11		51.8	51.8
51.2	16:38:12		51.2	51.2
50.2	16:38:13		50.2	50.2
49.0	16:38:14		49.0	49.0
47.9	16:38:15		47.9	47.9
49.1	16:38:16		49.1	49.1
49.8	16:38:17		49.8	49.8
49.9	16:38:18		49.9	49.9
49.5	16:38:19		49.5	49.5
49.7	16:38:20		49.7	49.7
49.0	16:38:21		49.0	49.0
48.5	16:38:22		48.5	48.5
47.9	16:38:23		47.9	47.9
48.0	16:38:24		48.0	48.0
49.2	16:38:25		49.2	49.2
50.4	16:38:26		50.4	50.4
51.0	16:38:27		51.0	51.0
51.7	16:38:28		51.7	51.7
53.7	16:38:29		53.7	53.7
55.5	16:38:30		55.5	55.5
53.9	16:38:31		53.9	53.9
52.9	16:38:32		52.9	52.9
53.9	16:38:33		53.9	53.9
55.0	16:38:34		55.0	55.0
54.0	16:38:35		54.0	54.0
53.7	16:38:36		53.7	53.7
53.6	16:38:37		53.6	53.6
53.8	16:38:38		53.8	53.8
53.8	16:38:39		53.8	53.8
54.5	16:38:40		54.5	54.5
55.2	16:38:41		55.2	55.2
55.3	16:38:42		55.3	55.3
55.3	16:38:43		55.3	55.3
54.6	16:38:44		54.6	54.6
54.8	16:38:45		54.8	54.8
54.9	16:38:46		54.9	54.9
55.2	16:38:47		55.2	55.2
56.6	16:38:48		56.6	56.6
57.3	16:38:49		57.3	57.3
56.7	16:38:50		56.7	56.7
56.1	16:38:51		56.1	56.1
55.6	16:38:52		55.6	55.6
55.0	16:38:53		55.0	55.0
54.5	16:38:54		54.5	54.5
55.3	16:38:55		55.3	55.3
55.1	16:38:56		55.1	55.1
54.3	16:38:57		54.3	54.3
53.8	16:38:58		53.8	53.8
54.7	16:38:59		54.7	54.7
55.8	16:39:00		55.8	55.8
56.4	16:39:01		56.4	56.4
55.6	16:39:02		55.6	55.6
54.6	16:39:03		54.6	54.6
53.8	16:39:04		53.8	53.8
53.0	16:39:05		53.0	53.0
52.5	16:39:06		52.5	52.5
51.7	16:39:07		51.7	51.7
51.3	16:39:08		51.3	51.3
50.8	16:39:09		50.8	50.8
51.5	16:39:10		51.5	51.5
51.9	16:39:11		51.9	51.9
51.4	16:39:12		51.4	51.4
52.6	16:39:13		52.6	52.6
52.4	16:39:14		52.4	52.4
51.6	16:39:15		51.6	51.6
51.9	16:39:16		51.9	51.9
52.3	16:39:17		52.3	52.3
52.4	16:39:18		52.4	52.4
54.6	16:39:19		54.6	54.6
56.7	16:39:20		56.7	56.7
55.8	16:39:21		55.8	55.8
54.2	16:39:22		54.2	54.2
53.1	16:39:23		53.1	53.1
52.9	16:39:24		52.9	52.9
53.7	16:39:25		53.7	53.7
54.3	16:39:26		54.3	54.3
54.4	16:39:27		54.4	54.4
54.9	16:39:28		54.9	54.9
55.7	16:39:29		55.7	55.7
55.3	16:39:30		55.3	55.3
54.5	16:39:31		54.5	54.5
53.9	16:39:32		53.9	53.9
53.9	16:39:33		53.9	53.9
54.0	16:39:34		54.0	54.0
53.9	16:39:35		53.9	53.9
57.2	16:39:36		57.2	57.2
59.3	16:39:37		59.3	59.3
57.8	16:39:38		57.8	57.8
55.6	16:39:39		55.6	55.6
54.8	16:39:40		54.8	54.8
54.3	16:39:41		54.3	54.3

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.0	16:42:45		53.0	53.0
51.1	16:42:46		51.1	51.1
49.4	16:42:47		49.4	49.4
48.6	16:42:48		48.6	48.6
48.4	16:42:49		48.4	48.4
48.5	16:42:50		48.5	48.5
48.6	16:42:51		48.6	48.6
48.3	16:42:52		48.3	48.3
47.6	16:42:53		47.6	47.6
46.5	16:42:54		46.5	46.5
45.8	16:42:55		45.8	45.8
44.9	16:42:56		44.9	44.9
43.8	16:42:57		43.8	43.8
42.5	16:42:58		42.5	42.5
41.5	16:42:59		41.5	41.5
41.3	16:43:00		41.3	41.3
41.3	16:43:01		41.3	41.3
41.3	16:43:02		41.3	41.3
41.0	16:43:03		41.0	41.0
40.9	16:43:04		40.9	40.9
41.0	16:43:05		41.0	41.0
41.1	16:43:06		41.1	41.1
41.4	16:43:07		41.4	41.4
41.5	16:43:08		41.5	41.5
41.8	16:43:09		41.8	41.8
41.6	16:43:10		41.6	41.6
41.7	16:43:11		41.7	41.7
42.0	16:43:12		42.0	42.0
42.4	16:43:13		42.4	42.4
43.4	16:43:14		43.4	43.4
43.7	16:43:15		43.7	43.7
43.2	16:43:16		43.2	43.2
43.9	16:43:17		43.9	43.9
44.2	16:43:18		44.2	44.2
43.8	16:43:19		43.8	43.8
44.0	16:43:20		44.0	44.0
44.3	16:43:21		44.3	44.3
43.7	16:43:22		43.7	43.7
43.2	16:43:23		43.2	43.2
43.2	16:43:24		43.2	43.2
43.3	16:43:25		43.3	43.3
43.5	16:43:26		43.5	43.5
43.7	16:43:27		43.7	43.7
43.9	16:43:28		43.9	43.9
44.4	16:43:29		44.4	44.4
45.2	16:43:30		45.2	45.2
47.1	16:43:31		47.1	47.1
50.5	16:43:32		50.5	50.5
51.5	16:43:33		51.5	51.5
52.8	16:43:34		52.8	52.8
56.6	16:43:35		56.6	56.6
60.9	16:43:36		60.9	60.9
66.6	16:43:37		66.6	66.6
70.3	16:43:38		70.3	70.3
69.5	16:43:39		69.5	69.5
67.0	16:43:40		67.0	67.0
64.0	16:43:41		64.0	64.0
61.0	16:43:42		61.0	61.0
58.2	16:43:43		58.2	58.2
55.4	16:43:44		55.4	55.4
54.1	16:43:45		54.1	54.1
56.7	16:43:46		56.7	56.7
62.7	16:43:47		62.7	62.7
69.0	16:43:48		69.0	69.0
70.8	16:43:49		70.8	70.8
67.9	16:43:50		67.9	67.9
64.5	16:43:51		64.5	64.5
63.2	16:43:52		63.2	63.2
66.6	16:43:53		66.6	66.6
69.5	16:43:54		69.5	69.5
69.1	16:43:55		69.1	69.1
66.3	16:43:56		66.3	66.3
63.1	16:43:57		63.1	63.1
60.1	16:43:58		60.1	60.1
57.3	16:43:59		57.3	57.3
55.0	16:44:00		55.0	55.0
53.5	16:44:01		53.5	53.5
52.2	16:44:02		52.2	52.2
50.5	16:44:03		50.5	50.5
48.5	16:44:04		48.5	48.5
47.1	16:44:05		47.1	47.1
45.9	16:44:06		45.9	45.9
45.1	16:44:07		45.1	45.1
44.7	16:44:08		44.7	44.7
43.8	16:44:09		43.8	43.8
43.1	16:44:10		43.1	43.1
42.9	16:44:11		42.9	42.9
43.3	16:44:12		43.3	43.3
44.2	16:44:13		44.2	44.2
44.8	16:44:14		44.8	44.8
45.3	16:44:15		45.3	45.3
45.9	16:44:16		45.9	45.9
46.5	16:44:17		46.5	46.5
46.9	16:44:18		46.9	46.9
48.2	16:44:19		48.2	48.2
50.4	16:44:20		50.4	50.4
53.1	16:44:21		53.1	53.1
55.9	16:44:22		55.9	55.9
59.8	16:44:23		59.8	59.8
62.3	16:44:24		62.3	62.3
62.4	16:44:25		62.4	62.4
61.3	16:44:26		61.3	61.3
60.0	16:44:27		60.0	60.0
60.6	16:44:28		60.6	60.6
65.7	16:44:29		65.7	65.7
69.6	16:44:30		69.6	69.6
69.9	16:44:31		69.9	69.9
68.2	16:44:32		68.2	68.2
65.5	16:44:33		65.5	65.5
62.3	16:44:34		62.3	62.3
59.1	16:44:35		59.1	59.1
56.6	16:44:36		56.6	56.6
54.6	16:44:37		54.6	54.6
53.1	16:44:38		53.1	53.1
52.1	16:44:39		52.1	52.1
51.4	16:44:40		51.4	51.4
50.8	16:44:41		50.8	50.8
50.4	16:44:42		50.4	50.4
49.8	16:44:43		49.8	49.8
48.9	16:44:44		48.9	48.9
49.2	16:44:45		49.2	49.2
48.9	16:44:46		48.9	48.9
48.6	16:44:47		48.6	48.6
48.0	16:44:48		48.0	48.0
47.7	16:44:49		47.7	47.7
47.0	16:44:50		47.0	47.0
46.5	16:44:51		46.5	46.5
46.3	16:44:52		46.3	46.3
46.8	16:44:53		46.8	46.8
47.8	16:44:54		47.8	47.8
48.7	16:44:55		48.7	48.7
50.5	16:44:56		50.5	50.5
52.3	16:44:57		52.3	52.3
54.2	16:44:58		54.2	54.2
56.5	16:44:59		56.5	56.5
60.9	16:45:00		60.9	60.9
62.9	16:45:01		62.9	62.9
62.9	16:45:02		62.9	62.9
61.6	16:45:03		61.6	61.6
59.3	16:45:04		59.3	59.3
56.6	16:45:05		56.6	56.6
54.0	16:45:06		54.0	54.0
51.6	16:45:07		51.6	51.6
49.4	16:45:08		49.4	49.4
48.1	16:45:09		48.1	48.1
47.7	16:45:10		47.7	47.7
47.0	16:45:11		47.0	47.0
46.4	16:45:12		46.4	46.4
46.0	16:45:13		46.0	46.0
46.2	16:45:14		46.2	46.2
46.5	16:45:15		46.5	46.5
46.2	16:45:16		46.2	46.2
45.6	16:45:17		45.6	45.6
45.9	16:45:18		45.9	45.9
45.9	16:45:19		45.9	45.9
45.4	16:45:20		45.4	45.4
45.7	16:45:21		45.7	45.7
45.7	16:45:22		45.7	45.7
45.8	16:45:23		45.8	45.8
45.8	16:45:24		45.8	45.8
45.9	16:45:25		45.9	45.9
46.3	16:45:26		46.3	46.3

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
58.9	16:33:30		58.9	58.9
58.0	16:33:31		58.0	58.0
57.6	16:33:32		57.6	57.6
57.5	16:33:33		57.5	57.5
57.7	16:33:34		57.7	57.7
57.8	16:33:35		57.8	57.8
57.5	16:33:36		57.5	57.5
57.2	16:33:37		57.2	57.2
56.5	16:33:38		56.5	56.5
54.7	16:33:39		54.7	54.7
53.6	16:33:40		53.6	53.6
52.4	16:33:41		52.4	52.4
50.9	16:33:42		50.9	50.9
50.2	16:33:43		50.2	50.2
50.4	16:33:44		50.4	50.4
50.6	16:33:45		50.6	50.6
51.4	16:33:46		51.4	51.4
52.5	16:33:47		52.5	52.5
52.6	16:33:48		52.6	52.6
53.1	16:33:49		53.1	53.1
54.5	16:33:50		54.5	54.5
55.7	16:33:51		55.7	55.7
56.4	16:33:52		56.4	56.4
56.5	16:33:53		56.5	56.5
55.2	16:33:54		55.2	55.2
53.6	16:33:55		53.6	53.6
52.2	16:33:56		52.2	52.2
50.5	16:33:57		50.5	50.5
48.9	16:33:58		48.9	48.9
48.0	16:33:59		48.0	48.0
47.7	16:34:00		47.7	47.7
48.3	16:34:01		48.3	48.3
49.1	16:34:02		49.1	49.1
49.0	16:34:03		49.0	49.0
48.5	16:34:04		48.5	48.5
48.9	16:34:05		48.9	48.9
49.6	16:34:06		49.6	49.6
50.2	16:34:07		50.2	50.2
50.8	16:34:08		50.8	50.8
52.0	16:34:09		52.0	52.0
52.4	16:34:10		52.4	52.4
52.9	16:34:11		52.9	52.9
54.0	16:34:12		54.0	54.0
55.5	16:34:13		55.5	55.5
57.4	16:34:14		57.4	57.4
58.1	16:34:15		58.1	58.1
58.3	16:34:16		58.3	58.3
58.5	16:34:17		58.5	58.5
58.3	16:34:18		58.3	58.3
57.6	16:34:19		57.6	57.6
57.8	16:34:20		57.8	57.8
58.5	16:34:21		58.5	58.5
59.3	16:34:22		59.3	59.3
59.8	16:34:23		59.8	59.8
60.7	16:34:24		60.7	60.7
61.5	16:34:25		61.5	61.5
61.7	16:34:26		61.7	61.7
61.8	16:34:27		61.8	61.8
61.6	16:34:28		61.6	61.6
61.0	16:34:29		61.0	61.0
60.2	16:34:30		60.2	60.2
59.7	16:34:31		59.7	59.7
59.3	16:34:32		59.3	59.3
58.6	16:34:33		58.6	58.6
57.6	16:34:34		57.6	57.6
56.5	16:34:35		56.5	56.5
55.4	16:34:36		55.4	55.4
54.4	16:34:37		54.4	54.4
53.4	16:34:38		53.4	53.4
52.9	16:34:39		52.9	52.9
52.8	16:34:40		52.8	52.8
52.6	16:34:41		52.6	52.6
52.2	16:34:42		52.2	52.2
52.0	16:34:43		52.0	52.0
51.9	16:34:44		51.9	51.9
52.1	16:34:45		52.1	52.1
51.6	16:34:46		51.6	51.6
51.4	16:34:47		51.4	51.4
51.5	16:34:48		51.5	51.5
51.4	16:34:49		51.4	51.4
51.5	16:34:50		51.5	51.5
52.2	16:34:51		52.2	52.2
52.4	16:34:52		52.4	52.4
53.3	16:34:53		53.3	53.3
53.8	16:34:54		53.8	53.8
54.6	16:34:55		54.6	54.6
55.5	16:34:56		55.5	55.5
56.6	16:34:57		56.6	56.6
57.9	16:34:58		57.9	57.9
58.4	16:34:59		58.4	58.4
58.5	16:35:00		58.5	58.5
58.4	16:35:01		58.4	58.4
57.0	16:35:02		57.0	57.0
55.6	16:35:03		55.6	55.6
55.2	16:35:04		55.2	55.2
55.3	16:35:05		55.3	55.3
57.1	16:35:06		57.1	57.1
59.5	16:35:07		59.5	59.5
61.8	16:35:08		61.8	61.8
63.3	16:35:09		63.3	63.3
64.0	16:35:10		64.0	64.0
63.6	16:35:11		63.6	63.6
62.8	16:35:12		62.8	62.8
61.7	16:35:13		61.7	61.7
61.6	16:35:14		61.6	61.6
61.8	16:35:15		61.8	61.8
62.0	16:35:16		62.0	62.0
61.9	16:35:17		61.9	61.9
61.6	16:35:18		61.6	61.6
61.3	16:35:19		61.3	61.3
60.6	16:35:20		60.6	60.6
59.8	16:35:21		59.8	59.8
59.8	16:35:22		59.8	59.8
59.2	16:35:23		59.2	59.2
58.2	16:35:24		58.2	58.2
57.0	16:35:25		57.0	57.0
56.2	16:35:26		56.2	56.2
55.4	16:35:27		55.4	55.4
54.9	16:35:28		54.9	54.9
55.2	16:35:29		55.2	55.2
56.6	16:35:30		56.6	56.6
57.9	16:35:31		57.9	57.9
59.3	16:35:32		59.3	59.3
59.1	16:35:33		59.1	59.1
57.9	16:35:34		57.9	57.9
56.6	16:35:35		56.6	56.6
55.5	16:35:36		55.5	55.5
55.2	16:35:37		55.2	55.2
55.8	16:35:38		55.8	55.8
56.8	16:35:39		56.8	56.8
57.3	16:35:40		57.3	57.3
57.0	16:35:41		57.0	57.0
56.2	16:35:42		56.2	56.2
55.4	16:35:43		55.4	55.4
55.6	16:35:44		55.6	55.6
55.9	16:35:45		55.9	55.9
57.8	16:35:46		57.8	57.8
58.8	16:35:47		58.8	58.8
58.2	16:35:48		58.2	58.2
57.0	16:35:49		57.0	57.0
55.0	16:35:50		55.0	55.0
53.3	16:35:51		53.3	53.3
52.0	16:35:52		52.0	52.0
51.1	16:35:53		51.1	51.1
50.6	16:35:54		50.6	50.6
49.5	16:35:55		49.5	49.5
48.3	16:35:56		48.3	48.3
48.2	16:35:57		48.2	48.2
48.4	16:35:58		48.4	48.4
49.1	16:35:59		49.1	49.1
49.6	16:36:00		49.6	49.6
50.2	16:36:01		50.2	50.2
51.5	16:36:02		51.5	51.5
52.0	16:36:03		52.0	52.0
52.2	16:36:04		52.2	52.2
52.6	16:36:05		52.6	52.6
54.9	16:36:06		54.9	54.9
57.4	16:36:07		57.4	57.4
60.0	16:36:08		60.0	60.0
61.8	16:36:09		61.8	61.8
62.1	16:36:10		62.1	62.1
61.5	16:36:11		61.5	61.5

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.9	16:39:42		53.9	53.9
56.2	16:39:43		56.2	56.2
58.7	16:39:44		58.7	58.7
57.4	16:39:45		57.4	57.4
55.4	16:39:46		55.4	55.4
54.0	16:39:47		54.0	54.0
53.5	16:39:48		53.5	53.5
53.7	16:39:49		53.7	53.7
53.2	16:39:50		53.2	53.2
53.0	16:39:51		53.0	53.0
53.2	16:39:52		53.2	53.2
54.0	16:39:53		54.0	54.0
55.4	16:39:54		55.4	55.4
55.3	16:39:55		55.3	55.3
53.8	16:39:56		53.8	53.8
53.0	16:39:57		53.0	53.0
54.4	16:39:58		54.4	54.4
54.3	16:39:59		54.3	54.3
52.6	16:40:00		52.6	52.6
51.4	16:40:01		51.4	51.4
51.4	16:40:02		51.4	51.4
50.5	16:40:03		50.5	50.5
49.3	16:40:04		49.3	49.3
48.8	16:40:05		48.8	48.8
48.2	16:40:06		48.2	48.2
47.8	16:40:07		47.8	47.8
48.6	16:40:08		48.6	48.6
49.3	16:40:09		49.3	49.3
49.5	16:40:10		49.5	49.5
50.5	16:40:11		50.5	50.5
49.8	16:40:12		49.8	49.8
49.6	16:40:13		49.6	49.6
50.0	16:40:14		50.0	50.0
51.0	16:40:15		51.0	51.0
51.4	16:40:16		51.4	51.4
51.7	16:40:17		51.7	51.7
52.3	16:40:18		52.3	52.3
52.2	16:40:19		52.2	52.2
51.2	16:40:20		51.2	51.2
50.9	16:40:21		50.9	50.9
50.9	16:40:22		50.9	50.9
51.4	16:40:23		51.4	51.4
51.4	16:40:24		51.4	51.4
51.3	16:40:25		51.3	51.3
51.9	16:40:26		51.9	51.9
52.9	16:40:27		52.9	52.9
52.9	16:40:28		52.9	52.9
51.9	16:40:29		51.9	51.9
50.6	16:40:30		50.6	50.6
50.3	16:40:31		50.3	50.3
50.1	16:40:32		50.1	50.1
49.4	16:40:33		49.4	49.4
48.7	16:40:34		48.7	48.7
47.5	16:40:35		47.5	47.5
46.8	16:40:36		46.8	46.8
47.3	16:40:37		47.3	47.3
46.3	16:40:38		46.3	46.3
45.8	16:40:39		45.8	45.8
47.3	16:40:40		47.3	47.3
49.7	16:40:41		49.7	49.7
48.5	16:40:42		48.5	48.5
47.8	16:40:43		47.8	47.8
46.2	16:40:44		46.2	46.2
46.0	16:40:45		46.0	46.0
46.7	16:40:46		46.7	46.7
48.0	16:40:47		48.0	48.0
49.6	16:40:48		49.6	49.6
49.6	16:40:49		49.6	49.6
51.8	16:40:50		51.8	51.8
55.9	16:40:51		55.9	55.9
54.8	16:40:52		54.8	54.8
52.3	16:40:53		52.3	52.3
50.7	16:40:54		50.7	50.7
49.8	16:40:55		49.8	49.8
49.1	16:40:56		49.1	49.1
48.3	16:40:57		48.3	48.3
47.7	16:40:58		47.7	47.7
47.3	16:40:59		47.3	47.3
47.3	16:41:00		47.3	47.3
47.2	16:41:01		47.2	47.2
47.6	16:41:02		47.6	47.6
47.5	16:41:03		47.5	47.5
47.6	16:41:04		47.6	47.6
47.0	16:41:05		47.0	47.0
47.1	16:41:06		47.1	47.1
47.1	16:41:07		47.1	47.1
46.7	16:41:08		46.7	46.7
46.4	16:41:09		46.4	46.4
46.4	16:41:10		46.4	46.4
46.2	16:41:11		46.2	46.2
46.2	16:41:12		46.2	46.2
46.5	16:41:13		46.5	46.5
47.0	16:41:14		47.0	47.0
47.1	16:41:15		47.1	47.1
47.2	16:41:16		47.2	47.2
47.3	16:41:17		47.3	47.3
47.6	16:41:18		47.6	47.6
47.7	16:41:19		47.7	47.7
48.0	16:41:20		48.0	48.0
48.7	16:41:21		48.7	48.7
48.9	16:41:22		48.9	48.9
49.0	16:41:23		49.0	49.0
49.1	16:41:24		49.1	49.1
49.5	16:41:25		49.5	49.5
49.5	16:41:26		49.5	49.5
50.1	16:41:27		50.1	50.1
50.6	16:41:28		50.6	50.6
51.0	16:41:29		51.0	51.0
51.0	16:41:30		51.0	51.0
50.9	16:41:31		50.9	50.9
52.7	16:41:32		52.7	52.7
55.1	16:41:33		55.1	55.1
54.1	16:41:34		54.1	54.1
51.6	16:41:35		51.6	51.6
49.7	16:41:36		49.7	49.7
49.0	16:41:37		49.0	49.0
48.5	16:41:38		48.5	48.5
48.6	16:41:39		48.6	48.6
48.4	16:41:40		48.4	48.4
47.9	16:41:41		47.9	47.9
47.7	16:41:42		47.7	47.7
47.1	16:41:43		47.1	47.1
46.5	16:41:44		46.5	46.5
46.3	16:41:45		46.3	46.3
45.9	16:41:46		45.9	45.9
45.8	16:41:47		45.8	45.8
45.6	16:41:48		45.6	45.6
45.8	16:41:49		45.8	45.8
46.1	16:41:50		46.1	46.1
46.0	16:41:51		46.0	46.0
46.0	16:41:52		46.0	46.0
46.2	16:41:53		46.2	46.2
45.9	16:41:54		45.9	45.9
45.5	16:41:55		45.5	45.5
45.4	16:41:56		45.4	45.4
45.5	16:41:57		45.5	45.5
45.5	16:41:58		45.5	45.5
46.3	16:41:59		46.3	46.3
46.7	16:42:00		46.7	46.7
46.8	16:42:01		46.8	46.8
47.2	16:42:02		47.2	47.2
47.6	16:42:03		47.6	47.6
47.5	16:42:04		47.5	47.5
47.4	16:42:05		47.4	47.4
46.8	16:42:06		46.8	46.8
47.0	16:42:07		47.0	47.0
46.8	16:42:08		46.8	46.8
47.8	16:42:09		47.8	47.8
48.3	16:42:10		48.3	48.3
48.5	16:42:11		48.5	48.5
48.9	16:42:12		48.9	48.9
49.4	16:42:13		49.4	49.4
49.6	16:42:14		49.6	49.6
50.2	16:42:15		50.2	50.2
51.1	16:42:16		51.1	51.1
50.7	16:42:17		50.7	50.7
50.4	16:42:18		50.4	50.4
51.1	16:42:19		51.1	51.1
51.6	16:42:20		51.6	51.6
50.7	16:42:21		50.7	50.7
51.2	16:42:22		51.2	51.2
51.0	16:42:23		51.0	51.0

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.3	16:45:27		46.3	46.3
46.6	16:45:28		46.6	46.6
47.3	16:45:29		47.3	47.3
49.2	16:45:30		49.2	49.2
50.9	16:45:31		50.9	50.9
52.1	16:45:32		52.1	52.1
53.5	16:45:33		53.5	53.5
56.2	16:45:34		56.2	56.2
59.1	16:45:35		59.1	59.1
60.6	16:45:36		60.6	60.6
60.8	16:45:37		60.8	60.8
59.7	16:45:38		59.7	59.7
57.5	16:45:39		57.5	57.5
54.8	16:45:40		54.8	54.8
52.0	16:45:41		52.0	52.0
49.8	16:45:42		49.8	49.8
48.5	16:45:43		48.5	48.5
47.5	16:45:44		47.5	47.5
46.8	16:45:45		46.8	46.8
46.5	16:45:46		46.5	46.5
45.9	16:45:47		45.9	45.9
44.9	16:45:48		44.9	44.9
44.2	16:45:49		44.2	44.2
43.9	16:45:50		43.9	43.9
43.9	16:45:51		43.9	43.9
43.4	16:45:52		43.4	43.4
42.7	16:45:53		42.7	42.7
44.4	16:45:54		44.4	44.4
44.5	16:45:55		44.5	44.5
43.4	16:45:56		43.4	43.4
42.5	16:45:57		42.5	42.5
42.1	16:45:58		42.1	42.1
42.1	16:45:59		42.1	42.1
41.8	16:46:00		41.8	41.8
41.8	16:46:01		41.8	41.8
41.9	16:46:02		41.9	41.9
41.8	16:46:03		41.8	41.8
43.5	16:46:04		43.5	43.5
44.0	16:46:05		44.0	44.0
45.6	16:46:06		45.6	45.6
47.5	16:46:07		47.5	47.5
48.3	16:46:08		48.3	48.3
48.7	16:46:09		48.7	48.7
49.0	16:46:10		49.0	49.0
48.1	16:46:11		48.1	48.1
46.4	16:46:12		46.4	46.4
44.7	16:46:13		44.7	44.7
43.4	16:46:14		43.4	43.4
43.0	16:46:15		43.0	43.0
42.5	16:46:16		42.5	42.5
42.6	16:46:17		42.6	42.6
42.5	16:46:18		42.5	42.5
42.1	16:46:19		42.1	42.1
42.0	16:46:20		42.0	42.0
41.5	16:46:21		41.5	41.5
41.9	16:46:22		41.9	41.9
41.8	16:46:23		41.8	41.8
41.6	16:46:24		41.6	41.6
43.1	16:46:25		43.1	43.1
43.3	16:46:26		43.3	43.3
43.0	16:46:27		43.0	43.0
42.4	16:46:28		42.4	42.4
42.6	16:46:29		42.6	42.6
42.7	16:46:30		42.7	42.7
42.9	16:46:31		42.9	42.9
43.0	16:46:32		43.0	43.0
43.0	16:46:33		43.0	43.0
42.8	16:46:34		42.8	42.8
42.5	16:46:35		42.5	42.5
42.1	16:46:36		42.1	42.1
42.2	16:46:37		42.2	42.2
43.2	16:46:38		43.2	43.2
43.2	16:46:39		43.2	43.2
42.8	16:46:40		42.8	42.8
42.5	16:46:41		42.5	42.5
43.0	16:46:42		43.0	43.0
43.1	16:46:43		43.1	43.1
42.6	16:46:44		42.6	42.6
42.0	16:46:45		42.0	42.0
42.2	16:46:46		42.2	42.2
42.8	16:46:47		42.8	42.8
43.2	16:46:48		43.2	43.2
43.5	16:46:49		43.5	43.5
43.9	16:46:50		43.9	43.9
44.4	16:46:51		44.4	44.4
44.5	16:46:52		44.5	44.5
44.8	16:46:53		44.8	44.8
45.7	16:46:54		45.7	45.7
46.2	16:46:55		46.2	46.2
47.3	16:46:56		47.3	47.3
49.2	16:46:57		49.2	49.2
52.5	16:46:58		52.5	52.5
55.2	16:46:59		55.2	55.2
57.9	16:47:00		57.9	57.9
62.5	16:47:01		62.5	62.5
65.4	16:47:02		65.4	65.4
66.2	16:47:03		66.2	66.2
64.6	16:47:04		64.6	64.6
62.3	16:47:05		62.3	62.3
59.8	16:47:06		59.8	59.8
57.4	16:47:07		57.4	57.4
54.7	16:47:08		54.7	54.7
52.5	16:47:09		52.5	52.5
50.0	16:47:10		50.0	50.0
48.3	16:47:11		48.3	48.3
46.9	16:47:12		46.9	46.9
45.7	16:47:13		45.7	45.7
44.6	16:47:14		44.6	44.6
44.1	16:47:15		44.1	44.1
44.9	16:47:16		44.9	44.9
45.7	16:47:17		45.7	45.7
45.0	16:47:18		45.0	45.0
44.2	16:47:19		44.2	44.2
43.0	16:47:20		43.0	43.0
42.0	16:47:21		42.0	42.0
41.3	16:47:22		41.3	41.3
40.7	16:47:23		40.7	40.7
40.4	16:47:24		40.4	40.4
39.9	16:47:25		39.9	39.9
40.3	16:47:26		40.3	40.3
41.0	16:47:27		41.0	41.0
40.4	16:47:28		40.4	40.4
40.0	16:47:29		40.0	40.0
39.5	16:47:30		39.5	39.5
39.4	16:47:31		39.4	39.4
39.3	16:47:32		39.3	39.3
39.3	16:47:33		39.3	39.3
41.9	16:47:34		41.9	41.9
42.8	16:47:35		42.8	42.8
41.7	16:47:36		41.7	41.7
40.8	16:47:37		40.8	40.8
40.1	16:47:38		40.1	40.1
40.1	16:47:39		40.1	40.1
40.2	16:47:40		40.2	40.2
40.4	16:47:41		40.4	40.4
40.5	16:47:42		40.5	40.5
40.4	16:47:43		40.4	40.4
40.5	16:47:44		40.5	40.5
41.1	16:47:45		41.1	41.1
41.3	16:47:46		41.3	41.3
41.5	16:47:47		41.5	41.5
42.1	16:47:48		42.1	42.1
42.8	16:47:49		42.8	42.8
43.4	16:47:50		43.4	43.4
44.0	16:47:51		44.0	44.0
44.6	16:47:52		44.6	44.6
45.7	16:47:53		45.7	45.7
46.6	16:47:54		46.6	46.6
47.2	16:47:55		47.2	47.2
48.3	16:47:56		48.3	48.3
49.5	16:47:57		49.5	49.5
51.5	16:47:58		51.5	51.5
53.5	16:47:59		53.5	53.5
55.9	16:48:00		55.9	55.9
60.3	16:48:01		60.3	60.3
63.6	16:48:02		63.6	63.6
64.7	16:48:03		64.7	64.7
63.7	16:48:04		63.7	63.7
61.6	16:48:05		61.6	61.6
58.8	16:48:06		58.8	58.8
56.0	16:48:07		56.0	56.0
53.2	16:48:08		53.2	53.2

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
61.4	16:36:12		61.4	61.4
61.4	16:36:13		61.4	61.4
60.9	16:36:14		60.9	60.9
60.1	16:36:15		60.1	60.1
58.9	16:36:16		58.9	58.9
57.5	16:36:17		57.5	57.5
56.1	16:36:18		56.1	56.1
55.0	16:36:19		55.0	55.0
54.4	16:36:20		54.4	54.4
54.0	16:36:21		54.0	54.0
53.8	16:36:22		53.8	53.8
54.0	16:36:23		54.0	54.0
54.1	16:36:24		54.1	54.1
54.2	16:36:25		54.2	54.2
53.8	16:36:26		53.8	53.8
53.5	16:36:27		53.5	53.5
53.0	16:36:28		53.0	53.0
52.0	16:36:29		52.0	52.0
51.5	16:36:30		51.5	51.5
50.9	16:36:31		50.9	50.9
50.1	16:36:32		50.1	50.1
48.9	16:36:33		48.9	48.9
48.2	16:36:34		48.2	48.2
47.9	16:36:35		47.9	47.9
47.6	16:36:36		47.6	47.6
47.5	16:36:37		47.5	47.5
47.8	16:36:38		47.8	47.8
48.3	16:36:39		48.3	48.3
49.1	16:36:40		49.1	49.1
50.4	16:36:41		50.4	50.4
50.8	16:36:42		50.8	50.8
51.9	16:36:43		51.9	51.9
53.1	16:36:44		53.1	53.1
54.3	16:36:45		54.3	54.3
54.8	16:36:46		54.8	54.8
55.6	16:36:47		55.6	55.6
56.3	16:36:48		56.3	56.3
57.4	16:36:49		57.4	57.4
58.4	16:36:50		58.4	58.4
59.1	16:36:51		59.1	59.1
59.5	16:36:52		59.5	59.5
59.9	16:36:53		59.9	59.9
60.3	16:36:54		60.3	60.3
60.3	16:36:55		60.3	60.3
60.1	16:36:56		60.1	60.1
60.0	16:36:57		60.0	60.0
60.6	16:36:58		60.6	60.6
60.6	16:36:59		60.6	60.6
60.7	16:37:00		60.7	60.7
60.5	16:37:01		60.5	60.5
60.3	16:37:02		60.3	60.3
60.1	16:37:03		60.1	60.1
59.9	16:37:04		59.9	59.9
59.6	16:37:05		59.6	59.6
58.5	16:37:06		58.5	58.5
57.7	16:37:07		57.7	57.7
57.2	16:37:08		57.2	57.2
57.7	16:37:09		57.7	57.7
58.2	16:37:10		58.2	58.2
58.6	16:37:11		58.6	58.6
58.5	16:37:12		58.5	58.5
57.4	16:37:13		57.4	57.4
56.4	16:37:14		56.4	56.4
55.8	16:37:15		55.8	55.8
55.5	16:37:16		55.5	55.5
56.3	16:37:17		56.3	56.3
57.4	16:37:18		57.4	57.4
58.3	16:37:19		58.3	58.3
59.0	16:37:20		59.0	59.0
59.6	16:37:21		59.6	59.6
60.5	16:37:22		60.5	60.5
61.4	16:37:23		61.4	61.4
60.9	16:37:24		60.9	60.9
60.2	16:37:25		60.2	60.2
59.4	16:37:26		59.4	59.4
58.5	16:37:27		58.5	58.5
58.6	16:37:28		58.6	58.6
59.0	16:37:29		59.0	59.0
58.8	16:37:30		58.8	58.8
58.0	16:37:31		58.0	58.0
56.9	16:37:32		56.9	56.9
55.7	16:37:33		55.7	55.7
54.4	16:37:34		54.4	54.4
53.2	16:37:35		53.2	53.2
52.3	16:37:36		52.3	52.3
51.6	16:37:37		51.6	51.6
51.0	16:37:38		51.0	51.0
50.9	16:37:39		50.9	50.9
52.1	16:37:40		52.1	52.1
53.3	16:37:41		53.3	53.3
54.4	16:37:42		54.4	54.4
54.8	16:37:43		54.8	54.8
55.2	16:37:44		55.2	55.2
54.6	16:37:45		54.6	54.6
53.0	16:37:46		53.0	53.0
52.0	16:37:47		52.0	52.0
50.7	16:37:48		50.7	50.7
49.8	16:37:49		49.8	49.8
48.9	16:37:50		48.9	48.9
48.7	16:37:51		48.7	48.7
49.2	16:37:52		49.2	49.2
49.9	16:37:53		49.9	49.9
51.6	16:37:54		51.6	51.6
53.7	16:37:55		53.7	53.7
56.1	16:37:56		56.1	56.1
58.0	16:37:57		58.0	58.0
59.3	16:37:58		59.3	59.3
59.9	16:37:59		59.9	59.9
58.7	16:38:00		58.7	58.7
57.1	16:38:01		57.1	57.1
55.7	16:38:02		55.7	55.7
54.3	16:38:03		54.3	54.3
53.0	16:38:04		53.0	53.0
51.6	16:38:05		51.6	51.6
50.6	16:38:06		50.6	50.6
50.1	16:38:07		50.1	50.1
50.5	16:38:08		50.5	50.5
51.2	16:38:09		51.2	51.2
52.9	16:38:10		52.9	52.9
55.4	16:38:11		55.4	55.4
56.0	16:38:12		56.0	56.0
55.6	16:38:13		55.6	55.6
54.9	16:38:14		54.9	54.9
53.9	16:38:15		53.9	53.9
53.2	16:38:16		53.2	53.2
52.4	16:38:17		52.4	52.4
53.0	16:38:18		53.0	53.0
54.0	16:38:19		54.0	54.0
54.2	16:38:20		54.2	54.2
53.2	16:38:21		53.2	53.2
52.1	16:38:22		52.1	52.1
51.1	16:38:23		51.1	51.1
50.9	16:38:24		50.9	50.9
51.4	16:38:25		51.4	51.4
50.6	16:38:26		50.6	50.6
50.0	16:38:27		50.0	50.0
49.7	16:38:28		49.7	49.7
49.2	16:38:29		49.2	49.2
48.6	16:38:30		48.6	48.6
47.8	16:38:31		47.8	47.8
47.4	16:38:32		47.4	47.4
47.0	16:38:33		47.0	47.0
47.0	16:38:34		47.0	47.0
47.0	16:38:35		47.0	47.0
46.3	16:38:36		46.3	46.3
46.0	16:38:37		46.0	46.0
45.7	16:38:38		45.7	45.7
46.2	16:38:39		46.2	46.2
47.1	16:38:40		47.1	47.1
47.5	16:38:41		47.5	47.5
47.1	16:38:42		47.1	47.1
47.6	16:38:43		47.6	47.6
49.0	16:38:44		49.0	49.0
50.3	16:38:45		50.3	50.3
50.6	16:38:46		50.6	50.6
51.0	16:38:47		51.0	51.0
51.1	16:38:48		51.1	51.1
50.8	16:38:49		50.8	50.8
51.2	16:38:50		51.2	51.2
51.5	16:38:51		51.5	51.5
52.2	16:38:52		52.2	52.2
52.8	16:38:53		52.8	52.8

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.4	16:42:24		50.4	50.4
50.2	16:42:25		50.2	50.2
50.0	16:42:26		50.0	50.0
50.0	16:42:27		50.0	50.0
50.0	16:42:28		50.0	50.0
49.8	16:42:29		49.8	49.8
49.9	16:42:30		49.9	49.9
49.9	16:42:31		49.9	49.9
50.3	16:42:32		50.3	50.3
50.6	16:42:33		50.6	50.6
51.3	16:42:34		51.3	51.3
52.5	16:42:35		52.5	52.5
53.0	16:42:36		53.0	53.0
52.8	16:42:37		52.8	52.8
52.7	16:42:38		52.7	52.7
54.0	16:42:39		54.0	54.0
55.0	16:42:40		55.0	55.0
54.2	16:42:41		54.2	54.2
53.4	16:42:42		53.4	53.4
52.7	16:42:43		52.7	52.7
53.4	16:42:44		53.4	53.4
52.9	16:42:45		52.9	52.9
51.7	16:42:46		51.7	51.7
52.2	16:42:47		52.2	52.2
53.7	16:42:48		53.7	53.7
52.7	16:42:49		52.7	52.7
50.8	16:42:50		50.8	50.8
50.2	16:42:51		50.2	50.2
50.5	16:42:52		50.5	50.5
49.3	16:42:53		49.3	49.3
47.7	16:42:54		47.7	47.7
46.4	16:42:55		46.4	46.4
46.0	16:42:56		46.0	46.0
46.7	16:42:57		46.7	46.7
46.5	16:42:58		46.5	46.5
46.3	16:42:59		46.3	46.3
46.4	16:43:00		46.4	46.4
46.8	16:43:01		46.8	46.8
47.4	16:43:02		47.4	47.4
48.0	16:43:03		48.0	48.0
47.7	16:43:04		47.7	47.7
47.6	16:43:05		47.6	47.6
47.7	16:43:06		47.7	47.7
48.5	16:43:07		48.5	48.5
50.1	16:43:08		50.1	50.1
50.7	16:43:09		50.7	50.7
51.0	16:43:10		51.0	51.0
51.4	16:43:11		51.4	51.4
50.4	16:43:12		50.4	50.4
50.8	16:43:13		50.8	50.8
50.7	16:43:14		50.7	50.7
50.7	16:43:15		50.7	50.7
50.5	16:43:16		50.5	50.5
50.9	16:43:17		50.9	50.9
50.7	16:43:18		50.7	50.7
50.1	16:43:19		50.1	50.1
49.4	16:43:20		49.4	49.4
49.1	16:43:21		49.1	49.1
49.4	16:43:22		49.4	49.4
48.8	16:43:23		48.8	48.8
48.9	16:43:24		48.9	48.9
49.8	16:43:25		49.8	49.8
50.1	16:43:26		50.1	50.1
49.7	16:43:27		49.7	49.7
49.8	16:43:28		49.8	49.8
50.2	16:43:29		50.2	50.2
50.3	16:43:30		50.3	50.3
49.9	16:43:31		49.9	49.9
51.9	16:43:32		51.9	51.9
55.6	16:43:33		55.6	55.6
55.8	16:43:34		55.8	55.8
54.4	16:43:35		54.4	54.4
54.3	16:43:36		54.3	54.3
55.2	16:43:37		55.2	55.2
56.0	16:43:38		56.0	56.0
55.0	16:43:39		55.0	55.0
54.7	16:43:40		54.7	54.7
54.6	16:43:41		54.6	54.6
53.5	16:43:42		53.5	53.5
53.0	16:43:43		53.0	53.0
52.6	16:43:44		52.6	52.6
53.2	16:43:45		53.2	53.2
55.4	16:43:46		55.4	55.4
55.6	16:43:47		55.6	55.6
53.3	16:43:48		53.3	53.3
51.5	16:43:49		51.5	51.5
50.5	16:43:50		50.5	50.5
49.9	16:43:51		49.9	49.9
49.6	16:43:52		49.6	49.6
48.6	16:43:53		48.6	48.6
47.8	16:43:54		47.8	47.8
47.5	16:43:55		47.5	47.5
47.3	16:43:56		47.3	47.3
47.1	16:43:57		47.1	47.1
47.0	16:43:58		47.0	47.0
47.5	16:43:59		47.5	47.5
47.1	16:44:00		47.1	47.1
46.8	16:44:01		46.8	46.8
47.9	16:44:02		47.9	47.9
50.0	16:44:03		50.0	50.0
50.3	16:44:04		50.3	50.3
50.3	16:44:05		50.3	50.3
52.5	16:44:06		52.5	52.5
53.5	16:44:07		53.5	53.5
51.8	16:44:08		51.8	51.8
50.9	16:44:09		50.9	50.9
50.1	16:44:10		50.1	50.1
49.5	16:44:11		49.5	49.5
49.3	16:44:12		49.3	49.3
48.7	16:44:13		48.7	48.7
48.3	16:44:14		48.3	48.3
47.8	16:44:15		47.8	47.8
48.0	16:44:16		48.0	48.0
48.2	16:44:17		48.2	48.2
47.6	16:44:18		47.6	47.6
46.7	16:44:19		46.7	46.7
46.3	16:44:20		46.3	46.3
46.5	16:44:21		46.5	46.5
46.7	16:44:22		46.7	46.7
46.7	16:44:23		46.7	46.7
46.4	16:44:24		46.4	46.4
46.6	16:44:25		46.6	46.6
47.4	16:44:26		47.4	47.4
49.6	16:44:27		49.6	49.6
50.1	16:44:28		50.1	50.1
50.1	16:44:29		50.1	50.1
50.2	16:44:30		50.2	50.2
50.5	16:44:31		50.5	50.5
51.2	16:44:32		51.2	51.2
52.8	16:44:33		52.8	52.8
52.7	16:44:34		52.7	52.7
52.2	16:44:35		52.2	52.2
51.4	16:44:36		51.4	51.4
51.5	16:44:37		51.5	51.5
51.7	16:44:38		51.7	51.7
53.4	16:44:39		53.4	53.4
55.8	16:44:40		55.8	55.8
55.3	16:44:41		55.3	55.3
53.0	16:44:42		53.0	53.0
50.9	16:44:43		50.9	50.9
49.4	16:44:44		49.4	49.4
48.1	16:44:45		48.1	48.1
47.7	16:44:46		47.7	47.7
46.6	16:44:47		46.6	46.6
45.6	16:44:48		45.6	45.6
45.7	16:44:49		45.7	45.7
45.9	16:44:50		45.9	45.9
46.2	16:44:51		46.2	46.2
47.5	16:44:52		47.5	47.5
48.3	16:44:53		48.3	48.3
47.3	16:44:54		47.3	47.3
46.8	16:44:55		46.8	46.8
46.8	16:44:56		46.8	46.8
48.5	16:44:57		48.5	48.5
48.1	16:44:58		48.1	48.1
48.0	16:44:59		48.0	48.0
48.9	16:45:00		48.9	48.9
48.8	16:45:01		48.8	48.8
48.2	16:45:02		48.2	48.2
48.0	16:45:03		48.0	48.0
47.9	16:45:04		47.9	47.9
47.7	16:45:05		47.7	47.7

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.8	16:48:09		50.8	50.8
48.8	16:48:10		48.8	48.8
47.1	16:48:11		47.1	47.1
46.1	16:48:12		46.1	46.1
45.9	16:48:13		45.9	45.9
45.6	16:48:14		45.6	45.6
45.7	16:48:15		45.7	45.7
46.0	16:48:16		46.0	46.0
46.4	16:48:17		46.4	46.4
48.0	16:48:18		48.0	48.0
50.7	16:48:19		50.7	50.7
54.3	16:48:20		54.3	54.3
58.4	16:48:21		58.4	58.4
63.8	16:48:22		63.8	63.8
67.3	16:48:23		67.3	67.3
67.4	16:48:24		67.4	67.4
65.3	16:48:25		65.3	65.3
65.4	16:48:26		65.4	65.4
67.2	16:48:27		67.2	67.2
67.2	16:48:28		67.2	67.2
65.5	16:48:29		65.5	65.5
63.3	16:48:30		63.3	63.3
60.9	16:48:31		60.9	60.9
58.7	16:48:32		58.7	58.7
56.5	16:48:33		56.5	56.5
54.9	16:48:34		54.9	54.9
53.6	16:48:35		53.6	53.6
52.9	16:48:36		52.9	52.9
51.9	16:48:37		51.9	51.9
50.7	16:48:38		50.7	50.7
49.5	16:48:39		49.5	49.5
48.4	16:48:40		48.4	48.4
47.7	16:48:41		47.7	47.7
47.7	16:48:42		47.7	47.7
48.3	16:48:43		48.3	48.3
49.1	16:48:44		49.1	49.1
49.3	16:48:45		49.3	49.3
49.4	16:48:46		49.4	49.4
49.9	16:48:47		49.9	49.9
50.5	16:48:48		50.5	50.5
50.4	16:48:49		50.4	50.4
50.5	16:48:50		50.5	50.5
51.1	16:48:51		51.1	51.1
51.6	16:48:52		51.6	51.6
52.5	16:48:53		52.5	52.5
53.1	16:48:54		53.1	53.1
54.5	16:48:55		54.5	54.5
56.4	16:48:56		56.4	56.4
58.0	16:48:57		58.0	58.0
60.5	16:48:58		60.5	60.5
62.2	16:48:59		62.2	62.2
65.0	16:49:00		65.0	65.0
69.7	16:49:01		69.7	69.7
74.4	16:49:02		74.4	74.4
76.1	16:49:03		76.1	76.1
74.6	16:49:04		74.6	74.6
71.7	16:49:05		71.7	71.7
68.6	16:49:06		68.6	68.6
65.4	16:49:07		65.4	65.4
62.6	16:49:08		62.6	62.6
60.2	16:49:09		60.2	60.2
58.1	16:49:10		58.1	58.1
56.3	16:49:11		56.3	56.3
55.0	16:49:12		55.0	55.0
55.1	16:49:13		55.1	55.1
54.8	16:49:14		54.8	54.8
54.0	16:49:15		54.0	54.0
53.1	16:49:16		53.1	53.1
52.9	16:49:17		52.9	52.9
52.8	16:49:18		52.8	52.8
52.1	16:49:19		52.1	52.1
52.4	16:49:20		52.4	52.4
53.3	16:49:21		53.3	53.3
54.5	16:49:22		54.5	54.5
56.9	16:49:23		56.9	56.9
60.2	16:49:24		60.2	60.2
64.3	16:49:25		64.3	64.3
69.7	16:49:26		69.7	69.7
72.6	16:49:27		72.6	72.6
72.6	16:49:28		72.6	72.6
72.8	16:49:29		72.8	72.8
71.5	16:49:30		71.5	71.5
69.1	16:49:31		69.1	69.1
66.3	16:49:32		66.3	66.3
63.5	16:49:33		63.5	63.5
60.7	16:49:34		60.7	60.7
57.9	16:49:35		57.9	57.9
55.5	16:49:36		55.5	55.5
55.0	16:49:37		55.0	55.0
57.2	16:49:38		57.2	57.2
61.9	16:49:39		61.9	61.9
66.6	16:49:40		66.6	66.6
68.0	16:49:41		68.0	68.0
66.0	16:49:42		66.0	66.0
62.9	16:49:43		62.9	62.9
60.0	16:49:44		60.0	60.0
57.1	16:49:45		57.1	57.1
54.7	16:49:46		54.7	54.7
52.8	16:49:47		52.8	52.8
51.7	16:49:48		51.7	51.7
52.1	16:49:49		52.1	52.1
54.2	16:49:50		54.2	54.2
57.3	16:49:51		57.3	57.3
63.3	16:49:52		63.3	63.3
68.1	16:49:53		68.1	68.1
70.1	16:49:54		70.1	70.1
67.8	16:49:55		67.8	67.8
64.6	16:49:56		64.6	64.6
61.3	16:49:57		61.3	61.3
58.3	16:49:58		58.3	58.3
56.1	16:49:59		56.1	56.1
54.4	16:50:00		54.4	54.4
53.3	16:50:01		53.3	53.3
52.0	16:50:02		52.0	52.0
50.2	16:50:03		50.2	50.2
48.4	16:50:04		48.4	48.4
47.3	16:50:05		47.3	47.3
46.8	16:50:06		46.8	46.8
46.6	16:50:07		46.6	46.6
46.1	16:50:08		46.1	46.1
46.0	16:50:09		46.0	46.0
46.1	16:50:10		46.1	46.1
46.0	16:50:11		46.0	46.0
45.3	16:50:12		45.3	45.3
44.4	16:50:13		44.4	44.4
43.9	16:50:14		43.9	43.9
44.0	16:50:15		44.0	44.0
43.3	16:50:16		43.3	43.3
42.3	16:50:17		42.3	42.3
42.2	16:50:18		42.2	42.2
42.3	16:50:19		42.3	42.3
41.8	16:50:20		41.8	41.8
41.3	16:50:21		41.3	41.3
41.5	16:50:22		41.5	41.5
41.1	16:50:23		41.1	41.1
40.7	16:50:24		40.7	40.7
40.3	16:50:25		40.3	40.3
41.1	16:50:26		41.1	41.1
42.2	16:50:27		42.2	42.2
41.3	16:50:28		41.3	41.3
41.6	16:50:29		41.6	41.6
42.2	16:50:30		42.2	42.2
42.9	16:50:31		42.9	42.9
43.5	16:50:32		43.5	43.5
43.7	16:50:33		43.7	43.7
43.6	16:50:34		43.6	43.6
43.7	16:50:35		43.7	43.7
43.6	16:50:36		43.6	43.6
43.9	16:50:37		43.9	43.9
44.2	16:50:38		44.2	44.2
44.6	16:50:39		44.6	44.6
44.8	16:50:40		44.8	44.8
45.5	16:50:41		45.5	45.5
46.1	16:50:42		46.1	46.1
46.6	16:50:43		46.6	46.6
47.5	16:50:44		47.5	47.5
48.5	16:50:45		48.5	48.5
49.9	16:50:46		49.9	49.9
51.7	16:50:47		51.7	51.7
54.8	16:50:48		54.8	54.8
57.0	16:50:49		57.0	57.0
59.8	16:50:50		59.8	59.8

Site 1 - Near Northeast Corner of Project Site					Site 2 - On East Side of Project Site					Site 3 - Near Southwest Corner of Project Site				
SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.7	16:38:54		53.7	53.7	48.1	16:45:06		48.1	48.1	63.8	16:50:51		63.8	63.8
54.7	16:38:55		54.7	54.7	48.2	16:45:07		48.2	48.2	66.7	16:50:52		66.7	66.7
55.5	16:38:56		55.5	55.5	48.4	16:45:08		48.4	48.4	67.7	16:50:53		67.7	67.7
56.5	16:38:57		56.5	56.5	49.3	16:45:09		49.3	49.3	68.5	16:50:54		68.5	68.5
56.7	16:38:58		56.7	56.7	49.7	16:45:10		49.7	49.7	70.2	16:50:55		70.2	70.2
57.3	16:38:59		57.3	57.3	50.0	16:45:11		50.0	50.0	70.0	16:50:56		70.0	70.0
58.1	16:39:00		58.1	58.1	50.3	16:45:12		50.3	50.3	67.8	16:50:57		67.8	67.8
59.5	16:39:01		59.5	59.5	50.3	16:45:13		50.3	50.3	65.1	16:50:58		65.1	65.1
60.9	16:39:02		60.9	60.9	50.6	16:45:14		50.6	50.6	62.5	16:50:59		62.5	62.5
62.4	16:39:03		62.4	62.4	52.4	16:45:15		52.4	52.4	59.8	16:51:00		59.8	59.8
63.4	16:39:04		63.4	63.4	52.5	16:45:16		52.5	52.5	57.2	16:51:01		57.2	57.2
63.1	16:39:05		63.1	63.1	51.3	16:45:17		51.3	51.3	55.0	16:51:02		55.0	55.0
61.5	16:39:06		61.5	61.5	50.3	16:45:18		50.3	50.3	53.2	16:51:03		53.2	53.2
60.8	16:39:07		60.8	60.8	49.7	16:45:19		49.7	49.7	51.6	16:51:04		51.6	51.6
60.0	16:39:08		60.0	60.0	49.5	16:45:20		49.5	49.5	50.5	16:51:05		50.5	50.5
58.8	16:39:09		58.8	58.8	48.8	16:45:21		48.8	48.8	49.7	16:51:06		49.7	49.7
59.2	16:39:10		59.2	59.2	48.4	16:45:22		48.4	48.4	48.6	16:51:07		48.6	48.6
60.9	16:39:11		60.9	60.9	48.6	16:45:23		48.6	48.6	50.4	16:51:08		50.4	50.4
62.3	16:39:12		62.3	62.3	48.0	16:45:24		48.0	48.0	51.2	16:51:09		51.2	51.2
64.2	16:39:13		64.2	64.2	47.5	16:45:25		47.5	47.5	50.3	16:51:10		50.3	50.3
65.5	16:39:14		65.5	65.5	46.7	16:45:26		46.7	46.7	50.2	16:51:11		50.2	50.2
66.3	16:39:15		66.3	66.3	46.4	16:45:27		46.4	46.4	50.5	16:51:12		50.5	50.5
66.3	16:39:16		66.3	66.3	48.2	16:45:28		48.2	48.2	52.7	16:51:13		52.7	52.7
65.9	16:39:17		65.9	65.9	47.3	16:45:29		47.3	47.3	54.7	16:51:14		54.7	54.7
65.7	16:39:18		65.7	65.7	46.7	16:45:30		46.7	46.7	56.2	16:51:15		56.2	56.2
66.1	16:39:19		66.1	66.1	46.6	16:45:31		46.6	46.6	58.4	16:51:16		58.4	58.4
65.5	16:39:20		65.5	65.5	46.2	16:45:32		46.2	46.2	62.2	16:51:17		62.2	62.2
64.7	16:39:21		64.7	64.7	48.5	16:45:33		48.5	48.5	64.2	16:51:18		64.2	64.2
64.1	16:39:22		64.1	64.1	47.5	16:45:34		47.5	47.5	63.9	16:51:19		63.9	63.9
62.9	16:39:23		62.9	62.9	46.5	16:45:35		46.5	46.5	61.7	16:51:20		61.7	61.7
61.9	16:39:24		61.9	61.9	46.0	16:45:36		46.0	46.0	59.0	16:51:21		59.0	59.0
61.1	16:39:25		61.1	61.1	47.0	16:45:37		47.0	47.0	56.2	16:51:22		56.2	56.2
59.9	16:39:26		59.9	59.9	46.6	16:45:38		46.6	46.6	53.7	16:51:23		53.7	53.7
58.5	16:39:27		58.5	58.5	46.2	16:45:39		46.2	46.2	51.2	16:51:24		51.2	51.2
58.0	16:39:28		58.0	58.0	48.1	16:45:40		48.1	48.1	49.5	16:51:25		49.5	49.5
57.4	16:39:29		57.4	57.4	47.6	16:45:41		47.6	47.6	48.1	16:51:26		48.1	48.1
56.5	16:39:30		56.5	56.5	47.6	16:45:42		47.6	47.6	47.4	16:51:27		47.4	47.4
56.3	16:39:31		56.3	56.3	48.2	16:45:43		48.2	48.2	46.6	16:51:28		46.6	46.6
56.4	16:39:32		56.4	56.4	48.6	16:45:44		48.6	48.6	45.7	16:51:29		45.7	45.7
57.3	16:39:33		57.3	57.3	48.3	16:45:45		48.3	48.3	45.3	16:51:30		45.3	45.3
57.7	16:39:34		57.7	57.7	48.3	16:45:46		48.3	48.3	45.7	16:51:31		45.7	45.7
56.5	16:39:35		56.5	56.5	47.7	16:45:47		47.7	47.7	45.3	16:51:32		45.3	45.3
55.1	16:39:36		55.1	55.1	49.4	16:45:48		49.4	49.4	45.7	16:51:33		45.7	45.7
54.4	16:39:37		54.4	54.4	48.6	16:45:49		48.6	48.6	46.0	16:51:34		46.0	46.0
53.2	16:39:38		53.2	53.2	47.4	16:45:50		47.4	47.4	46.0	16:51:35		46.0	46.0
52.1	16:39:39		52.1	52.1	47.9	16:45:51		47.9	47.9	45.6	16:51:36		45.6	45.6
51.8	16:39:40		51.8	51.8	48.0	16:45:52		48.0	48.0	45.7	16:51:37		45.7	45.7
51.8	16:39:41		51.8	51.8	47.3	16:45:53		47.3	47.3	46.3	16:51:38		46.3	46.3
53.3	16:39:42		53.3	53.3	47.1	16:45:54		47.1	47.1	47.5	16:51:39		47.5	47.5
54.6	16:39:43		54.6	54.6	46.9	16:45:55		46.9	46.9	48.7	16:51:40		48.7	48.7
56.1	16:39:44		56.1	56.1	47.4	16:45:56		47.4	47.4	50.0	16:51:41		50.0	50.0
57.0	16:39:45		57.0	57.0	47.9	16:45:57		47.9	47.9	51.4	16:51:42		51.4	51.4
56.4	16:39:46		56.4	56.4	47.9	16:45:58		47.9	47.9	53.5	16:51:43		53.5	53.5
55.0	16:39:47		55.0	55.0	48.0	16:45:59		48.0	48.0	56.7	16:51:44		56.7	56.7
53.6	16:39:48		53.6	53.6	47.8	16:46:00		47.8	47.8	59.6	16:51:45		59.6	59.6
51.9	16:39:49		51.9	51.9	48.4	16:46:01		48.4	48.4	63.1	16:51:46		63.1	63.1
51.4	16:39:50		51.4	51.4	51.6	16:46:02		51.6	51.6	67.4	16:51:47		67.4	67.4
51.8	16:39:51		51.8	51.8	53.8	16:46:03		53.8	53.8	68.9	16:51:48		68.9	68.9
52.4	16:39:52		52.4	52.4	53.2	16:46:04		53.2	53.2	67.7	16:51:49		67.7	67.7
52.5	16:39:53		52.5	52.5	51.7	16:46:05		51.7	51.7	65.6	16:51:50		65.6	65.6
52.7	16:39:54		52.7	52.7	49.8	16:46:06		49.8	49.8	62.8	16:51:51		62.8	62.8
53.6	16:39:55		53.6	53.6	48.3	16:46:07		48.3	48.3	59.7	16:51:52		59.7	59.7
54.6	16:39:56	58.1	54.6	54.6	47.4	16:46:08	53.4	47.4	47.4	56.8	16:51:53	61.0	56.8	56.8
55.7	16:39:57	58.1	55.7	55.7	46.4	16:46:09	53.4	46.4	46.4	54.3	16:51:54	61.0	54.3	54.3
56.5	16:39:58	58.1	56.5	56.5	46.3	16:46:10	53.4	46.3	46.3	52.0	16:51:55	61.1	52.0	52.0
57.3	16:39:59	58.1	57.3	57.3	45.8	16:46:11	53.4	45.8	45.8	50.1	16:51:56	61.1	50.1	50.1
58.4	16:40:00	58.1	58.4	58.4	45.8	16:46:12	53.4	45.8	45.8	48.5	16:51:57	61.1	48.5	48.5
58.3	16:40:01	58.1	58.3	58.3	45.3	16:46:13	53.4	45.3	45.3	47.5	16:51:58	61.1	47.5	47.5
57.2	16:40:02	58.1	57.2	57.2	45.3	16:46:14	53.4	45.3	45.3	48.5	16:51:59	61.1	48.5	48.5
56.6	16:40:03	58.1	56.6	56.6	45.5	16:46:15	53.4	45.5	45.5	48.6	16:52:00	61.1	48.6	48.6
56.0	16:40:04	58.1	56.0	56.0	45.0	16:46:16	53.4	45.0	45.0	47.4	16:52:01	61.1	47.4	47.4
55.6	16:40:05	58.1	55.6	55.6	44.7	16:46:17	53.4	44.7	44.7	46.8	16:52:02	61.0	46.8	46.8
55.7	16:40:06	58.1	55.7	55.7	44.7	16:46:18	53.4	44.7	44.7	46.5	16:52:03	61.0	46.5	46.5
56.5	16:40:07	58.1	56.5	56.5	44.8	16:46:19	53.3	44.8	44.8	46.5	16:52:04	61.0	46.5	46.5
56.0	16:40:08	58.1	56.0	56.0	44.8	16:46:20	53.3	44.8	44.8	46.5	16:52:05	61.0	46.5	46.5
54.4	16:40:09	58.1	54.4	54.4	44.6	16:46:21	53.3	44.6	44.6	47.2	16:52:06	61.0	47.2	47.2
53.0	16:40:10	58.1	53.0	53.0	44.7	16:46:22	53.3	44.7	44.7	46.1	16:52:07	61.0	46.1	46.1
51.5	16:40:11	58.1	51.5	51.5	45.2	16:46:23	53.2	45.2	45.2	45.2	16:52:08	61.0	45.2	45.2
50.5	16:40:12	58.1	50.5	50.5	45.1	16:46:24	53.2	45.1	45.1	44.3	16:52:09	61.0	44.3	44.3
49.8	16:40:13	58.1	49.8	49.8	44.8	16:46:25	53.2	44.8	44.8	44.3	16:52:10	61.0	44.3	44.3
48.9	16:40:14	58.1	48.9	48.9	44.8	16:46:26	53.2	44.8	44.8	44.1	16:52:11	61.0	44.1	44.1
49.4	16:40:15	58.1	49.4	49.4	45.0	16:46:27	53.2	45.0	45.0	43.6	16:52:12	61.0	43.6	43.6
50.3	16:40:16	58.1	50.3	50.3	45.2	16:46:28	53.2	45.2	45.2	42.5	16:52:13	61.0	42.5	42.5
51.9	16:40:17	58.1	51.9	51.9	46.0	16:46:29	53.2	46.0	46.0	41.8	16:52:14	61.0	41.8	41.8
54.2	16:40:18	58.1	54.2	54.2	46.0	16:46:30	53.2	46.0	46.0	41.5	16:52:15	61.0	41.5	41.5
57.2	16:40:19	58.1	57.2	57.2	45.5	16:46:31	53.2	45.5	45.5	41.7	16:52:16	61.0	41.7	41.7
57.9	16:40:20	58.1	57.9	57.9	45.5	16:46:32	53.1	45.5	45.5	41.6	16:52:17	61.0	41.6	41.6
57.4	16:40:21	58.1	57.4	57.4	45.7	16:46:33	53.1	45.7	45.7	41.2	16:52:18	61.0	41.2	41.2
55.5	16:40:22	58.1	55.5	55.5	45.6	16:46:34	53.1	45.6	45.6	41.5	16:52:19	61.0	41.5	41.5
53.2	16:40:23	58.1	53.2	53.2	46.6	16:46:35	53.1	46.6	46.6	41.8	16:52:20	61.0	41.8	41.8
51.4	16:40:24	58.0	51.4	51.4	46.6	16:46:36	53.0	46.6	46.6	41.5	16:52:21	61.0	41.5	41.5
49.7	16:40:25	58.0	49.7	49.7	46.1	16:46:37	53.0	46.1	46.1	41.2	16:52:22	61.0	41.2	41.2
49.1	16:40:26	58.0	49.1	49.1	45.9	16:46:38	53.0	45.9	45.9	41.4	16:52:23	61.0	41.4	41.4
47.6	16:40:27	58.0	47.6	47.6	46.8	16:46:39	53.0	46.8	46.8	41.3	16:52:24	61.0	41.3	41.3
46.9	16:40:28	58.0	46.9	46.9	47.4	16:46:40	53.0	47.4	47.4	41.0	16:52:25	61.0	41.0	41.0
46.8	16:40:29	58.0	46.8	46.8	47.0	16:46:41	53.0	47.0	47.0	41.2	16:52:26	61.0	41.2	41.2
46.8	16:40:30	58.0	46.8	46.8	46.9	16:46:42	53.0	46.9	46.9	41.4	16:52:27	61.0	41.4	41.4
47.5	16:40:31	58.0	47.5	47.5	46.9	16:46:43	52.9	46.9	46.9	41.5	16:52:28	61.0	41.5	41.5
47.9	16:40:32	58.0	47.9	47.9	47.0	16:46:44	52.9	47.0	47.0	41.5	16:52:29	61.0	41.5	41.5
49.3	16:40:33	58.0	49.3	49.3	47.2	16:46:45	52.9	47.2	47.2	41.8	16:52:30	61.0	41.8	41.8
49.9	16:40:34	57.9	49.9	49.9	47.4	16:46:46	52.9	47.4	47.4	42.2	16:52:31	61.0	42.2	42.2
50.4	16:40:35	57.9	50.4	50.4	47.5	16:46:47	52.9	47.5	47.5	43.9	16:52:32	61.0	43.9	43.9
49.9	16:40:36	57.9	49.9	49.9	47.9	16:46:48	52.9	47.9	47.9	45.1	16:52:33	61.0	45.1	45.1
49.4	16:40:37	57.9	49.4	49.4	48.3	16:46:49	52.8	48.3	48.3	44.9	16:52:34	61.0	44.9	44.9
49.3	16:40:38	57.9	49.3	49.3	47.8	16:46:50	52.8	47.8	47.8	45.0	16:52:35	61.0	45.0	45.0
49.0	16:40:39	57.9	49.0	49.0	47.6	16:46:51	52.8	47.6	47.6	45.6	16:52:36	60.9	45.6	45.6
48.9	16:40:40	57.9	48.9	48.9	47.3	16:46:52	52.8	47.3	47.3	47.3	16:52:37	60.9	47.3	47.3
49.3	16:40:41	57.9	49.3	49.3	47.0	16:46:53	52.7	47.0	47.0	49.9	16:52:38	60.9	49.9	49.9
49.5	16:40:42	57.9	49.5	49.5	46.9	16:46:54	52.7	46.9	46.9	53.2	16:52:39	60.9	53.2	53.2
50.4	16:40:43	57.9	50.4	50.4	46.7	16:46:55	52.7	46.7	46.7	56.7	16:52:40	60.9	56.7	56.7
49.7	16:40:44	57.9	49.7	49.7	46.3	16:46:56	52.7	46.3	46.3	60.9	16:52:41	60.9	60.9	60.9
49.6	16:40:45	57.9	49.6	49.6	46.7	16:46:57	52.7	46.7	46.7	63.9	16:52:42	60.9	63.9	63.9
49.5	16:40:46	57.9	49.5	49.5	46.8	16:46:58	52.7	46.8	46.8	65.3	16:52:43	60.9	65.3	65.3
50.5	16:40:47	57.9	50.5	50.5	46.6	16:46:59	52.7	46.6	46.6	64.3	16:52:44	60.9	64.3	64.3
50.1	16:40:48	57.9	50.1	50.1	46.6	16:47:00	52.7	46.6	46.6	62.1	16:52:45	60.9	62.1	62.1
49.7	16:40:49	57.9	49.7	49.7	47.1	16:47:01	52.7	47.1	47.1	59.6	16:52:46	60.9	59.6	59.6
50.4	16:40:50	57.9	50.4	50.4	49.1	16:47:02	52.7	49.1	49.1	56.5	16:52:47	60.9	56.5	56.5
50.4	16:40:51	57.9	50.4	50.4	49.2	16:47:03	52.7	49.2	49.2	54.2	16:52:48	60.9	54.2	54.2
49.7	16:40:52	57.9	49.7	49.7	48.3	16:47:04	52.7	48.3	48.3	52.8	16:52:49	60.9	52.8	52.8
49.1	16:40:53	57.9	49.1	49.1	48.1	16:47:05	52.7	48.1	48.1	51.4	16:52:50	60.9	51.4	51.4
48.7	16:40:54	57.9	48.7	48.7	48.9	16:47:06	52.6	48.9	48.9	50.1	16:52:51	60.9	50.1	50.1
48.4	16:40:55	57.8	48.4	48.4	48.4	16:47:07	52.6	48.4	48.4	48.9	16:52:52	60.9	48.9	48.9
47.5	16:40:56	57.8	47.5	47.5	48.4	16:47:08	52.5	48.4	48.4	47.7	16:52:53	60.9	47.7	47.7
47.4	16:40:57	57.8	47.4	47.4	48.3	16:47:09	52.5	48.3	48.3	46.7	16:52:54	60.9	46.7	46.7
48.3	16:40:58	57.8	48.3	48.3	48.6	16:47:10	52.5	48.6	48.6	45.7	16:52:55	60.9	45.7	45.7
47.5	16:40:59	57.8	47.5	47.5	48.7	16:47:11	52.4	48.7	48.7	44.6	16:52:56	60.9	44.6	44.6
47.2	16:41:00	57.8	47.2	47.2	48.9	16:47:12	52.4	48.9	48.9	43.3	16:52:57	60.9	43.3	43.3
47.7	16:41:01	57.8	47.7	47.7	52.4	16:47:13	52.4	52.4	52.4	42.4	16:52:58	60.9	42.4	42.4
47.1	16:41:02	57.8	47.1	47.1	53.6	16:47:14	52.4	53.6	53.6	41.9	16:52:59	60.9	41.9	41.9
46.4	16:41:03	57.8	46.4	46.4	52.2	16:47:15	52.4	52.2	52.2	41.5	16:53:00	60.9	41.5	41.5
46.6	16:41:04	57.8	46.6	46.6	49.8	16:47:16	52.3	49.8	49.8	41.3	16:53:01	60.9	41.3	41.3
47.0	16:41:05	57.7	47.0	47.0	48.4	16:47:17	52.3	48.4	48.4	41.3	16:53:02	60.9	41.3	41.3
47.2	16:41:06	57.7	47.2	47.2	47.8	16:47:18	52.3	47.8	47.8	41.5	16:53:03	60.8	41.5	41.5
47.5	16:41:07	57.7	47.5	47.5	47.2	16:47:19	52.3	47.2	47.2	41.8	16:53:04	60.8	41.8	41.8
48.7	16:41:08	57.7	48.7	48.7	46.6	16:47:20	52.3	46.6	46.6	42.9	16:53:05	60.8	42.9	42.9
50.6	16:41:09	57.7	50.6	50.6	45.6	16:47:21	52.3	45.6	45.6	43.8	16:53:06	60.8	43.8	43.8
52.8	16:41:10	57.7	52.8	52.8	45.0	16:47:22	52.3	45.0	45.0	44.6	16:53:07	60.8	44.6	44.6
55.0	16:41:11	57.7	55.0	55.0	44.8	16:47:23	52.2	44.8	44.8	46.0	16:53:08	60.8	46.0	46.0
57.4	16:41:12	57.7	57.4	57.4	44.5	16:47:24	52.2	44.5	44.5	48.2	16:53:09	60.8	48.2	48.2
59.2	16:41:13	57.7	59.2	59.2	44.5	16:47:25	52.2	44.5	44.5	50.2	16:53:10	60.8	50.2	50.2
61.9	16:41:14	57.7	61.9	61.9	44.3	16:47:26	52.0	44.3	44.3	52.6	16:53:11	60.8	52.6	52.6
63.5	16:41:15	57.7	63.5	63.5	43.9	16:47:27	52.0	43.9	43.9	56.3	16:53:12	60.8	56.3	56.3
65.9	16:41:16	57.7	65.9	65.9	43.9	16:47:28	51.9	43.9	43.9	60.0	16:53:13	60.8	60.0	60.0
66.6	16:41:17	57.7	66.6	66.6	43.5	16:47:29	51.9	43.5	43.5	62.8	16:53:14	60.8	62.8	62.8
65.2	16:41:18	57.7	65.2	65.2	43.2	16:47:30	51.9	43.2	43.2	64.6	16:53:15	60.8	64.6	64.6
64.1	16:41:19	57.7	64.1	64.1	43.3	16:47:31	51.9	43.3	43.3	64.3	16:53:16	60.8	64.3	64.3
62.9	16:41:20	57.7	62.9	62.9	43.8	16:47:32	51.9	43.8	43.8	61.8	16:53:17	60.8	61.8	61.8
61.9	16:41:21	57.7	61.9	61.9	43.8	16:47:33	51.9	43.8	43.8	58.4	16:53:18	60.8	58.4	58.4
61.5	16:41:22	57.7	61.5	61.5	43.8	16:47:34	51.9	43.8	43.8	55.0	16:53:19	60.8	55.0	55.0
61.4	16:41:23	57.7	61.4	61.4	43.8	16:47:35	51.9	43.8	43.8	51.7	16:53:20	60.8	51.7	51.7
61.8	16:41:24	57.7	61.8	61.8	44.2	16:47:36	51.9	44.2	44.2	48.7	16:53:21	60.8	48.7	48.7
61.4	16:41:25	57.7	61.4	61.4	44.4	16:47:37	51.9	44.4	44.4	46.8	16:53:22	60.8	46.8	46.8
61.1	16:41:26	57.7	61.1	61.1	45.1	16:47:38	51.9	45.1	45.1	45.8	16:53:23	60.8	45.8	45.8
61.2	16:41:27	57.7	61.2	61.2	45.6	16:47:39	51.9	45.6	45.6	45.1	16:53:24	60.8	45.1	45.1
61.7	16:41:28	57.7	61.7	61.7	46.0	16:47:40	51.9	46.0	46.0	44.6	16:53:25	60.7	44.6	44.6

APPENDIX C

RCNM Model Construction Noise Calculation Printouts

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	340	5
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Concrete Saw	67.9	60.9	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Total	**68**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Demolition

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	340	0
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0

		Calculated (dBA)		Results Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw		72.9	66	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
	Total	**73**	**70**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
	Total	**62**	**66**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Site Preparation

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
	Total	**67**	**71**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/22/2022
Case Description: Magnolia Ranch - Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Grader	No	40	85		340	5
Dozer	No	40		81.7	340	5
Scraper	No	40		83.6	340	5
Scraper	No	40		83.6	340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5

Results

	Calculated (dBA)		Day	Noise Limits (dBA)	Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Grader	63.3	59.4	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Scraper	61.9	58.0	N/A	N/A	N/A	N/A
Scraper	61.9	58.0	N/A	N/A	N/A	N/A
Tractor	62.3	58.4	N/A	N/A	N/A	N/A
Tractor	62.3	58.4	N/A	N/A	N/A	N/A
Total	**63**	**67**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/22/2022
Case Description: Magnolia Ranch - Grading

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Grader	No	40	85		340	0
Dozer	No	40		81.7	340	0
Scraper	No	40		83.6	340	0
Scraper	No	40		83.6	340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0

		Results Calculated (dBA)		Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Grader		68.3	64.4	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Scraper		66.9	63.0	N/A	N/A	N/A	N/A
Scraper		66.9	63.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
	Total	**68**	**72**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	340	5
Gradall	No	40		83.4	340	5
Gradall	No	40		83.4	340	5
Gradall	No	40		83.4	340	5
Generator	No	50		80.6	340	5
Tractor	No	40	84		340	5
Front End Loader	No	40		79.1	340	5
Backhoe	No	40		77.6	340	5
Welder / Torch	No	40		74	340	5

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Crane		58.9	50.9	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Generator		59.0	56.0	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Front End Loader		57.5	53.5	N/A	N/A	N/A	N/A
Backhoe		55.9	51.9	N/A	N/A	N/A	N/A
Welder / Torch		52.3	48.4	N/A	N/A	N/A	N/A
	Total	**62**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Building Construction

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	340	0
Gradall	No	40		83.4	340	0
Gradall	No	40		83.4	340	0
Gradall	No	40		83.4	340	0
Generator	No	50		80.6	340	0
Tractor	No	40	84		340	0
Front End Loader	No	40		79.1	340	0
Backhoe	No	40		77.6	340	0
Welder / Torch	No	40		74	340	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Crane		63.9	55.9	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Generator		64.0	61.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Front End Loader		62.5	58.5	N/A	N/A	N/A	N/A
Backhoe		60.9	56.9	N/A	N/A	N/A	N/A
Welder / Torch		57.3	53.4	N/A	N/A	N/A	N/A
	Total	**67**	**70**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Roller	No	20		80	340	5
Roller	No	20		80	340	5

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Roller	58.3	51.4	N/A	N/A	N/A	N/A
Roller	58.3	51.4	N/A	N/A	N/A	N/A
Total	**58**	**60**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Paving

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Roller	No	20		80	340	0
Roller	No	20		80	340	0

	Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Roller	63.3	56.4	N/A	N/A	N/A	N/A
Roller	63.3	56.4	N/A	N/A	N/A	N/A
Total	**63**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Painting

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	340	5

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		56.0	52.0	N/A	N/A	N/A	N/A
	Total	**56**	**52**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	340	0

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		61.0	57.0	N/A	N/A	N/A	N/A
	Total	**61**	**57**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

APPENDIX D

FHWA Model Offsite Traffic Noise Calculation Printouts

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 10950 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.81	-3.29	-1.20	63.05	60.68	59.38	53.33	61.76	62.39	70 dBA:	**27**	**29**
Medium Trucks	77.62	-16.67	-3.29	-1.20	56.46	37.25	29.47	38.68	44.83	44.87	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-14.45	-3.29	-1.20	63.20	46.21	38.43	47.64	53.79	53.82	60 dBA:	**124**	**135**
				Total:	**66.58**	**60.85**	**59.42**	**54.48**	**62.48**	**63.02**	55 dBA:	**268**	**291**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	1.67	-1.20	67.44	65.07	63.78	57.72	66.15	66.78	70 dBA:	**28**	**30**
Medium Trucks	77.62	-17.24	1.67	-1.20	60.85	41.64	33.86	43.07	49.22	49.26	65 dBA:	**60**	**65**
Heavy Trucks	82.14	-15.03	1.67	-1.20	67.59	50.60	42.82	52.03	58.18	58.21	60 dBA:	**129**	**140**
				Total:	**70.97**	**65.24**	**63.81**	**58.87**	**66.87**	**67.42**	55 dBA:	**278**	**303**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.96	-0.72	-1.20	64.46	62.09	60.80	54.74	63.18	63.81	70 dBA:	**24**	**26**
Medium Trucks	77.62	-17.82	-0.72	-1.20	57.88	38.67	30.89	40.09	46.25	46.28	65 dBA:	**51**	**55**
Heavy Trucks	82.14	-15.61	-0.72	-1.20	64.61	47.62	39.84	49.05	55.20	55.24	60 dBA:	**109**	**119**
				Total:	**67.99**	**62.26**	**60.84**	**55.90**	**63.89**	**64.44**	55 dBA:	**235**	**256**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**
Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**
Average Daily Traffic: 7450 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.14	-2.07	-1.20	59.70	57.58	56.26	50.25	58.67	59.30	70 dBA:	**12**	**14**
Medium Trucks	74.83	-19.38	-2.07	-1.20	52.18	30.93	36.95	18.66	31.80	34.55	65 dBA:	**27**	**29**
Heavy Trucks	80.05	-23.33	-2.07	-1.20	53.44	28.09	24.69	29.34	35.54	35.63	60 dBA:	**57**	**63**
				Total:	**61.20**	**57.59**	**56.32**	**50.29**	**58.70**	**59.33**	55 dBA:	**124**	**136**

Road Name: Scholar Way **Segment: South of Schleisman Road**
Average Daily Traffic: 6950 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.44	-0.98	-1.20	60.49	58.36	57.05	51.04	59.46	60.08	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.68	-0.98	-1.20	52.97	31.72	37.74	19.44	32.59	35.34	65 dBA:	**26**	**28**
Heavy Trucks	80.05	-23.63	-0.98	-1.20	54.23	28.88	25.48	30.13	36.33	36.42	60 dBA:	**55**	**61**
				Total:	**61.99**	**58.38**	**57.10**	**51.08**	**59.49**	**60.12**	55 dBA:	**119**	**132**

Road Name: Scholar Way **Segment: South of Orange Street**
Average Daily Traffic: 7200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.29	-0.98	-1.20	60.64	58.52	57.20	51.19	59.61	60.24	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.52	-0.98	-1.20	53.12	31.87	37.89	19.60	32.74	35.49	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.48	-0.98	-1.20	54.38	29.03	25.63	30.28	36.48	36.57	60 dBA:	**57**	**63**
				Total:	**62.14**	**58.53**	**57.26**	**51.23**	**59.64**	**60.27**	55 dBA:	**122**	**135**

Road Name: Scholar Way **Segment: South of Baltimore Street**
Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-2.55	-1.20	59.45	57.32	56.01	50.00	58.42	59.05	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-2.55	-1.20	51.93	30.68	36.70	18.41	31.55	34.30	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.11	-2.55	-1.20	53.19	27.84	24.44	29.09	35.29	35.38	60 dBA:	**59**	**65**
				Total:	**60.95**	**57.34**	**56.07**	**50.04**	**58.45**	**59.08**	55 dBA:	**127**	**140**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 24600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.71	-3.26	-1.20	66.60	64.23	62.93	56.88	65.31	65.94	70 dBA:	**49**	**53**
Medium Trucks	77.62	-13.16	-3.26	-1.20	60.01	40.80	33.02	42.23	48.38	48.42	65 dBA:	**105**	**115**
Heavy Trucks	82.14	-10.94	-3.26	-1.20	66.75	49.76	41.98	51.19	57.34	57.37	60 dBA:	**227**	**247**
				Total:	**70.13**	**64.40**	**62.97**	**58.03**	**66.03**	**66.57**	55 dBA:	**489**	**532**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 24650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.72	-4.08	-1.20	65.78	63.41	62.12	56.06	64.49	65.12	70 dBA:	**48**	**52**
Medium Trucks	77.62	-13.15	-4.08	-1.20	59.19	39.98	32.20	41.41	47.57	47.60	65 dBA:	**103**	**112**
Heavy Trucks	82.14	-10.93	-4.08	-1.20	65.93	48.94	41.16	50.37	56.52	56.56	60 dBA:	**223**	**242**
				Total:	**69.31**	**63.58**	**62.16**	**57.21**	**65.21**	**65.76**	55 dBA:	**479**	**521**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 18400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.45	-1.89	-1.20	66.71	64.33	63.04	56.99	65.42	66.05	70 dBA:	**39**	**42**
Medium Trucks	77.62	-14.42	-1.89	-1.20	60.12	40.91	33.13	42.33	48.49	48.52	65 dBA:	**83**	**91**
Heavy Trucks	82.14	-12.20	-1.89	-1.20	66.85	49.86	42.08	51.29	57.45	57.48	60 dBA:	**180**	**195**
				Total:	**70.24**	**64.50**	**63.08**	**58.14**	**66.14**	**66.68**	55 dBA:	**387**	**421**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	-2.28	-1.20	63.49	61.11	59.82	53.77	62.20	62.83	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.24	-2.28	-1.20	56.90	37.69	29.91	39.12	45.27	45.30	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-15.03	-2.28	-1.20	63.64	46.65	38.86	48.07	54.23	54.26	60 dBA:	**125**	**136**
				Total:	**67.02**	**61.29**	**59.86**	**54.92**	**62.92**	**63.46**	55 dBA:	**270**	**293**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 9400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.47	-2.28	-1.20	63.39	61.02	59.73	53.68	62.11	62.74	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.34	-2.28	-1.20	56.81	37.60	29.82	39.02	45.18	45.21	65 dBA:	**57**	**62**
Heavy Trucks	82.14	-15.12	-2.28	-1.20	63.54	46.55	38.77	47.98	54.14	54.17	60 dBA:	**123**	**134**
				Total:	**66.92**	**61.19**	**59.77**	**54.83**	**62.82**	**63.37**	55 dBA:	**266**	**289**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 8550 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.88	-2.28	-1.20	62.98	60.61	59.32	53.26	61.70	62.33	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.75	-2.28	-1.20	56.39	37.19	29.40	38.61	44.77	44.80	65 dBA:	**54**	**58**
Heavy Trucks	82.14	-15.53	-2.28	-1.20	63.13	46.14	38.36	47.57	53.72	53.76	60 dBA:	**116**	**126**
				Total:	**66.51**	**60.78**	**59.36**	**54.42**	**62.41**	**62.96**	55 dBA:	**250**	**271**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1100 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-9.78	1.52	-1.20	53.06	50.93	49.62	43.61	52.03	52.65	70 dBA:	**3**	**3**
Medium Trucks	73.11	-27.01	1.52	-1.20	46.42	25.17	31.19	12.90	26.04	28.79	65 dBA:	**6**	**6**
Heavy Trucks	80.26	-30.97	1.52	-1.20	49.61	24.26	20.86	25.51	31.71	31.80	60 dBA:	**12**	**13**
				Total:	**55.28**	**50.95**	**49.69**	**43.68**	**52.08**	**52.71**	55 dBA:	**26**	**28**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2450 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-6.30	-4.59	-1.20	50.42	48.30	46.99	40.97	49.39	50.02	70 dBA:	**4**	**5**
Medium Trucks	73.11	-23.54	-4.59	-1.20	43.79	22.54	28.56	10.26	23.41	26.16	65 dBA:	**9**	**10**
Heavy Trucks	80.26	-27.49	-4.59	-1.20	46.98	21.62	18.23	22.87	29.07	29.17	60 dBA:	**20**	**22**
				Total:	**52.65**	**48.32**	**47.05**	**41.04**	**49.44**	**50.07**	55 dBA:	**43**	**47**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11050 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.77	-3.29	-1.20	63.09	60.72	59.42	53.37	61.80	62.43	70 dBA:	**27**	**29**
Medium Trucks	77.62	-16.63	-3.29	-1.20	56.50	37.29	29.51	38.72	44.87	44.91	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-14.41	-3.29	-1.20	63.24	46.25	38.47	47.67	53.83	53.86	60 dBA:	**125**	**136**
				Total:	**66.62**	**60.89**	**59.46**	**54.52**	**62.52**	**63.06**	55 dBA:	**270**	**293**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 9750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.31	1.67	-1.20	67.51	65.14	63.84	57.79	66.22	66.85	70 dBA:	**28**	**31**
Medium Trucks	77.62	-17.18	1.67	-1.20	60.92	41.71	33.93	43.14	49.29	49.33	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.96	1.67	-1.20	67.66	50.67	42.89	52.09	58.25	58.28	60 dBA:	**131**	**142**
				Total:	**71.04**	**65.31**	**63.88**	**58.94**	**66.94**	**67.48**	55 dBA:	**281**	**306**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.96	-0.72	-1.20	64.46	62.09	60.80	54.74	63.18	63.81	70 dBA:	**24**	**26**
Medium Trucks	77.62	-17.82	-0.72	-1.20	57.88	38.67	30.89	40.09	46.25	46.28	65 dBA:	**51**	**55**
Heavy Trucks	82.14	-15.61	-0.72	-1.20	64.61	47.62	39.84	49.05	55.20	55.24	60 dBA:	**109**	**119**
				Total:	**67.99**	**62.26**	**60.84**	**55.90**	**63.89**	**64.44**	55 dBA:	**235**	**256**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 7550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.08	-2.07	-1.20	59.76	57.63	56.32	50.31	58.73	59.36	70 dBA:	**12**	**14**
Medium Trucks	74.83	-19.32	-2.07	-1.20	52.24	30.99	37.01	18.72	31.86	34.61	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.27	-2.07	-1.20	53.50	28.15	24.75	29.40	35.60	35.69	60 dBA:	**58**	**64**
				Total:	**61.26**	**57.65**	**56.37**	**50.35**	**58.76**	**59.39**	55 dBA:	**125**	**137**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7100 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.35	-0.98	-1.20	60.58	58.46	57.14	51.13	59.55	60.18	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.59	-0.98	-1.20	53.06	31.81	37.83	19.54	32.68	35.43	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.54	-0.98	-1.20	54.32	28.97	25.57	30.22	36.42	36.51	60 dBA:	**56**	**62**
				Total:	**62.08**	**58.47**	**57.20**	**51.17**	**59.58**	**60.21**	55 dBA:	**121**	**134**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.29	-0.98	-1.20	60.64	58.52	57.20	51.19	59.61	60.24	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.52	-0.98	-1.20	53.12	31.87	37.89	19.60	32.74	35.49	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.48	-0.98	-1.20	54.38	29.03	25.63	30.28	36.48	36.57	60 dBA:	**57**	**63**
				Total:	**62.14**	**58.53**	**57.26**	**51.23**	**59.64**	**60.27**	55 dBA:	**122**	**135**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-2.55	-1.20	59.45	57.32	56.01	50.00	58.42	59.05	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-2.55	-1.20	51.93	30.68	36.70	18.41	31.55	34.30	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.11	-2.55	-1.20	53.19	27.84	24.44	29.09	35.29	35.38	60 dBA:	**59**	**65**
				Total:	**60.95**	**57.34**	**56.07**	**50.04**	**58.45**	**59.08**	55 dBA:	**127**	**140**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**
Average Daily Traffic: 24650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.72	-3.26	-1.20	66.61	64.24	62.94	56.89	65.32	65.95	70 dBA:	**49**	**53**
Medium Trucks	77.62	-13.15	-3.26	-1.20	60.02	40.81	33.03	42.24	48.39	48.43	65 dBA:	**106**	**115**
Heavy Trucks	82.14	-10.93	-3.26	-1.20	66.76	49.77	41.99	51.19	57.35	57.38	60 dBA:	**227**	**247**
				Total:	**70.14**	**64.41**	**62.98**	**58.04**	**66.04**	**66.58**	55 dBA:	**490**	**533**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**
Average Daily Traffic: 24700 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.73	-4.08	-1.20	65.79	63.42	62.13	56.07	64.50	65.13	70 dBA:	**48**	**52**
Medium Trucks	77.62	-13.14	-4.08	-1.20	59.20	39.99	32.21	41.42	47.57	47.61	65 dBA:	**103**	**112**
Heavy Trucks	82.14	-10.92	-4.08	-1.20	65.94	48.95	41.17	50.38	56.53	56.56	60 dBA:	**223**	**242**
				Total:	**69.32**	**63.59**	**62.16**	**57.22**	**65.22**	**65.77**	55 dBA:	**480**	**522**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**
Average Daily Traffic: 18500 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.47	-1.89	-1.20	66.73	64.36	63.06	57.01	65.44	66.07	70 dBA:	**39**	**42**
Medium Trucks	77.62	-14.39	-1.89	-1.20	60.14	40.93	33.15	42.36	48.51	48.55	65 dBA:	**84**	**91**
Heavy Trucks	82.14	-12.18	-1.89	-1.20	66.88	49.89	42.11	51.31	57.47	57.50	60 dBA:	**180**	**196**
				Total:	**70.26**	**64.53**	**63.10**	**58.16**	**66.16**	**66.70**	55 dBA:	**388**	**422**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**
Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	-2.28	-1.20	63.49	61.11	59.82	53.77	62.20	62.83	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.24	-2.28	-1.20	56.90	37.69	29.91	39.12	45.27	45.30	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-15.03	-2.28	-1.20	63.64	46.65	38.86	48.07	54.23	54.26	60 dBA:	**125**	**136**
				Total:	**67.02**	**61.29**	**59.86**	**54.92**	**62.92**	**63.46**	55 dBA:	**270**	**293**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 9400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.47	-2.28	-1.20	63.39	61.02	59.73	53.68	62.11	62.74	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.34	-2.28	-1.20	56.81	37.60	29.82	39.02	45.18	45.21	65 dBA:	**57**	**62**
Heavy Trucks	82.14	-15.12	-2.28	-1.20	63.54	46.55	38.77	47.98	54.14	54.17	60 dBA:	**123**	**134**
				Total:	**66.92**	**61.19**	**59.77**	**54.83**	**62.82**	**63.37**	55 dBA:	**266**	**289**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 8600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.85	-2.28	-1.20	63.01	60.64	59.34	53.29	61.72	62.35	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.72	-2.28	-1.20	56.42	37.21	29.43	38.64	44.79	44.83	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.50	-2.28	-1.20	63.16	46.17	38.39	47.59	53.75	53.78	60 dBA:	**116**	**126**
				Total:	**66.54**	**60.81**	**59.38**	**54.44**	**62.44**	**62.98**	55 dBA:	**251**	**272**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1250 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-9.22	1.52	-1.20	53.61	51.49	50.17	44.16	52.58	53.21	70 dBA:	**3**	**3**
Medium Trucks	73.11	-26.46	1.52	-1.20	46.97	25.73	31.75	13.45	26.60	29.35	65 dBA:	**6**	**7**
Heavy Trucks	80.26	-30.42	1.52	-1.20	50.17	24.81	21.41	26.06	32.26	32.36	60 dBA:	**13**	**14**
				Total:	**55.84**	**51.51**	**50.24**	**44.23**	**52.63**	**53.26**	55 dBA:	**28**	**31**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2650 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.96	-4.59	-1.20	50.76	48.64	47.33	41.31	49.73	50.36	70 dBA:	**4**	**5**
Medium Trucks	73.11	-23.20	-4.59	-1.20	44.13	22.88	28.90	10.60	23.75	26.50	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-27.15	-4.59	-1.20	47.32	21.97	18.57	23.21	29.41	29.51	60 dBA:	**21**	**23**
				Total:	**52.99**	**48.66**	**47.39**	**41.38**	**49.78**	**50.41**	55 dBA:	**45**	**49**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.48	-3.29	-1.20	63.37	61.00	59.71	53.65	62.09	62.72	70 dBA:	**28**	**31**
Medium Trucks	77.62	-16.35	-3.29	-1.20	56.79	37.58	29.80	39.00	45.16	45.19	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.13	-3.29	-1.20	63.52	46.53	38.75	47.96	54.11	54.15	60 dBA:	**131**	**142**
				Total:	**66.90**	**61.17**	**59.75**	**54.81**	**62.80**	**63.35**	55 dBA:	**282**	**306**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 10600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.95	1.67	-1.20	67.87	65.50	64.21	58.15	66.58	67.21	70 dBA:	**30**	**32**
Medium Trucks	77.62	-16.81	1.67	-1.20	61.28	42.07	34.29	43.50	49.65	49.69	65 dBA:	**64**	**70**
Heavy Trucks	82.14	-14.59	1.67	-1.20	68.02	51.03	43.25	52.46	58.61	58.65	60 dBA:	**138**	**150**
				Total:	**71.40**	**65.67**	**64.24**	**59.30**	**67.30**	**67.85**	55 dBA:	**297**	**323**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.66	-0.72	-1.20	64.76	62.39	61.10	55.04	63.48	64.11	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.52	-0.72	-1.20	58.18	38.97	31.19	40.39	46.55	46.58	65 dBA:	**53**	**58**
Heavy Trucks	82.14	-15.31	-0.72	-1.20	64.91	47.92	40.14	49.35	55.50	55.54	60 dBA:	**114**	**124**
				Total:	**68.29**	**62.56**	**61.14**	**56.20**	**64.19**	**64.74**	55 dBA:	**246**	**268**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8050 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.80	-2.07	-1.20	60.04	57.91	56.60	50.59	59.01	59.63	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.04	-2.07	-1.20	52.52	31.27	37.29	18.99	32.14	34.89	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.00	-2.07	-1.20	53.78	28.43	25.03	29.68	35.88	35.97	60 dBA:	**60**	**67**
				Total:	**61.54**	**57.93**	**56.65**	**50.63**	**59.04**	**59.67**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.08	-0.98	-1.20	60.85	58.72	57.41	51.40	59.82	60.44	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.32	-0.98	-1.20	53.33	32.08	38.10	19.80	32.95	35.70	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.27	-0.98	-1.20	54.59	29.24	25.84	30.49	36.69	36.78	60 dBA:	**59**	**65**
				Total:	**62.35**	**58.74**	**57.46**	**51.44**	**59.85**	**60.48**	55 dBA:	**126**	**139**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.94	-0.98	-1.20	60.99	58.86	57.55	51.54	59.96	60.59	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.18	-0.98	-1.20	53.47	32.22	38.24	19.95	33.09	35.84	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.13	-0.98	-1.20	54.73	29.38	25.98	30.63	36.83	36.92	60 dBA:	**60**	**66**
				Total:	**62.49**	**58.88**	**57.61**	**51.58**	**59.99**	**60.62**	55 dBA:	**129**	**142**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8500 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.57	-2.55	-1.20	59.79	57.67	56.36	50.35	58.76	59.39	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.80	-2.55	-1.20	52.27	31.02	37.04	18.75	31.90	34.65	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.76	-2.55	-1.20	53.54	28.18	24.78	29.43	35.63	35.73	60 dBA:	**62**	**69**
				Total:	**61.30**	**57.68**	**56.41**	**50.38**	**58.79**	**59.42**	55 dBA:	**134**	**148**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 28800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.39	-3.26	-1.20	67.28	64.91	63.62	57.56	66.00	66.63	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.47	-3.26	-1.20	60.69	41.49	33.71	42.91	49.07	49.10	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.25	-3.26	-1.20	67.43	50.44	42.66	51.87	58.02	58.06	60 dBA:	**252**	**274**
				Total:	**70.81**	**65.08**	**63.66**	**58.72**	**66.71**	**67.26**	55 dBA:	**543**	**591**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 28600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.36	-4.08	-1.20	66.43	64.06	62.76	56.71	65.14	65.77	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.50	-4.08	-1.20	59.84	40.63	32.85	42.06	48.21	48.24	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.28	-4.08	-1.20	66.58	49.59	41.80	51.01	57.17	57.20	60 dBA:	**246**	**267**
				Total:	**69.96**	**64.23**	**62.80**	**57.86**	**65.86**	**66.40**	55 dBA:	**529**	**576**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 20100 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.83	-1.89	-1.20	67.09	64.72	63.42	57.37	65.80	66.43	70 dBA:	**41**	**45**
Medium Trucks	77.62	-14.03	-1.89	-1.20	60.50	41.29	33.51	42.72	48.87	48.91	65 dBA:	**88**	**96**
Heavy Trucks	82.14	-11.82	-1.89	-1.20	67.24	50.25	42.47	51.67	57.83	57.86	60 dBA:	**190**	**207**
				Total:	**70.62**	**64.89**	**63.46**	**58.52**	**66.52**	**67.06**	55 dBA:	**410**	**446**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 10900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.83	-2.28	-1.20	64.04	61.67	60.37	54.32	62.75	63.38	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.69	-2.28	-1.20	57.45	38.24	30.46	39.67	45.82	45.86	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-14.47	-2.28	-1.20	64.19	47.20	39.42	48.62	54.78	54.81	60 dBA:	**136**	**148**
				Total:	**67.57**	**61.84**	**60.41**	**55.47**	**63.47**	**64.01**	55 dBA:	**294**	**319**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	-2.28	-1.20	63.98	61.61	60.31	54.26	62.69	63.32	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.75	-2.28	-1.20	57.39	38.18	30.40	39.61	45.76	45.80	65 dBA:	**63**	**68**
Heavy Trucks	82.14	-14.53	-2.28	-1.20	64.13	47.14	39.36	48.56	54.72	54.75	60 dBA:	**135**	**147**
				Total:	**67.51**	**61.78**	**60.35**	**55.41**	**63.41**	**63.95**	55 dBA:	**291**	**316**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 9850 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.27	-2.28	-1.20	63.60	61.23	59.93	53.88	62.31	62.94	70 dBA:	**27**	**30**
Medium Trucks	77.62	-17.13	-2.28	-1.20	57.01	37.80	30.02	39.23	45.38	45.42	65 dBA:	**59**	**64**
Heavy Trucks	82.14	-14.91	-2.28	-1.20	63.75	46.76	38.98	48.18	54.34	54.37	60 dBA:	**127**	**138**
				Total:	**67.13**	**61.40**	**59.97**	**55.03**	**63.03**	**63.57**	55 dBA:	**274**	**298**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1350 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.89	1.52	-1.20	53.94	51.82	50.51	44.50	52.92	53.54	70 dBA:	**3**	**3**
Medium Trucks	73.11	-26.13	1.52	-1.20	47.31	26.06	32.08	13.79	26.93	29.68	65 dBA:	**6**	**7**
Heavy Trucks	80.26	-30.08	1.52	-1.20	50.50	25.15	21.75	26.40	32.60	32.69	60 dBA:	**14**	**15**
				Total:	**56.17**	**51.84**	**50.58**	**44.57**	**52.97**	**53.60**	55 dBA:	**29**	**32**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2750 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.80	-4.59	-1.20	50.92	48.80	47.49	41.48	49.89	50.52	70 dBA:	**5**	**5**
Medium Trucks	73.11	-23.04	-4.59	-1.20	44.29	23.04	29.06	10.77	23.91	26.66	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-26.99	-4.59	-1.20	47.48	22.13	18.73	23.38	29.57	29.67	60 dBA:	**21**	**24**
				Total:	**53.15**	**48.82**	**47.55**	**41.55**	**49.95**	**50.57**	55 dBA:	**46**	**51**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.44	-3.29	-1.20	63.41	61.04	59.75	53.69	62.12	62.75	70 dBA:	**28**	**31**
Medium Trucks	77.62	-16.31	-3.29	-1.20	56.82	37.61	29.83	39.04	45.19	45.23	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.09	-3.29	-1.20	63.56	46.57	38.79	48.00	54.15	54.19	60 dBA:	**131**	**143**
				Total:	**66.94**	**61.21**	**59.78**	**54.84**	**62.84**	**63.39**	55 dBA:	**283**	**308**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	1.67	-1.20	67.93	65.56	64.27	58.21	66.64	67.27	70 dBA:	**30**	**33**
Medium Trucks	77.62	-16.75	1.67	-1.20	61.34	42.13	34.35	43.56	49.72	49.75	65 dBA:	**65**	**70**
Heavy Trucks	82.14	-14.53	1.67	-1.20	68.08	51.09	43.31	52.52	58.67	58.71	60 dBA:	**139**	**151**
				Total:	**71.46**	**65.73**	**64.31**	**59.36**	**67.36**	**67.91**	55 dBA:	**300**	**326**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.66	-0.72	-1.20	64.76	62.39	61.10	55.04	63.48	64.11	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.52	-0.72	-1.20	58.18	38.97	31.19	40.39	46.55	46.58	65 dBA:	**53**	**58**
Heavy Trucks	82.14	-15.31	-0.72	-1.20	64.91	47.92	40.14	49.35	55.50	55.54	60 dBA:	**114**	**124**
				Total:	**68.29**	**62.56**	**61.14**	**56.20**	**64.19**	**64.74**	55 dBA:	**246**	**268**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8150 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.75	-2.07	-1.20	60.09	57.97	56.65	50.64	59.06	59.69	70 dBA:	**13**	**14**
Medium Trucks	74.83	-18.99	-2.07	-1.20	52.57	31.32	37.34	19.05	32.19	34.94	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-22.94	-2.07	-1.20	53.83	28.48	25.08	29.73	35.93	36.02	60 dBA:	**61**	**67**
				Total:	**61.59**	**57.98**	**56.71**	**50.68**	**59.09**	**59.72**	55 dBA:	**131**	**144**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7750 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.97	-0.98	-1.20	60.96	58.84	57.52	51.51	59.93	60.56	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.20	-0.98	-1.20	53.44	32.19	38.21	19.92	33.06	35.81	65 dBA:	**28**	**30**
Heavy Trucks	80.05	-23.16	-0.98	-1.20	54.70	29.35	25.95	30.60	36.80	36.89	60 dBA:	**60**	**66**
				Total:	**62.46**	**58.85**	**57.58**	**51.55**	**59.96**	**60.59**	55 dBA:	**128**	**142**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-0.98	-1.20	61.02	58.89	57.58	51.57	59.99	60.61	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-0.98	-1.20	53.50	32.25	38.27	19.97	33.12	35.87	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.11	-0.98	-1.20	54.76	29.41	26.01	30.66	36.85	36.95	60 dBA:	**60**	**66**
				Total:	**62.52**	**58.91**	**57.63**	**51.61**	**60.02**	**60.65**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.54	-2.55	-1.20	59.82	57.70	56.38	50.37	58.79	59.42	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.78	-2.55	-1.20	52.30	31.05	37.07	18.78	31.92	34.67	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.73	-2.55	-1.20	53.56	28.21	24.81	29.46	35.66	35.75	60 dBA:	**63**	**69**
				Total:	**61.32**	**57.71**	**56.44**	**50.41**	**58.82**	**59.45**	55 dBA:	**135**	**149**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 28800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.39	-3.26	-1.20	67.28	64.91	63.62	57.56	66.00	66.63	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.47	-3.26	-1.20	60.69	41.49	33.71	42.91	49.07	49.10	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.25	-3.26	-1.20	67.43	50.44	42.66	51.87	58.02	58.06	60 dBA:	**252**	**274**
				Total:	**70.81**	**65.08**	**63.66**	**58.72**	**66.71**	**67.26**	55 dBA:	**543**	**591**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 28650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.37	-4.08	-1.20	66.43	64.06	62.77	56.72	65.15	65.78	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.50	-4.08	-1.20	59.85	40.64	32.86	42.06	48.22	48.25	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.28	-4.08	-1.20	66.58	49.59	41.81	51.02	57.17	57.21	60 dBA:	**246**	**267**
				Total:	**69.96**	**64.23**	**62.81**	**57.87**	**65.86**	**66.41**	55 dBA:	**530**	**576**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 20150 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.84	-1.89	-1.20	67.10	64.73	63.43	57.38	65.81	66.44	70 dBA:	**41**	**45**
Medium Trucks	77.62	-14.02	-1.89	-1.20	60.51	41.30	33.52	42.73	48.88	48.92	65 dBA:	**89**	**96**
Heavy Trucks	82.14	-11.81	-1.89	-1.20	67.25	50.26	42.48	51.69	57.84	57.87	60 dBA:	**191**	**207**
				Total:	**70.63**	**64.90**	**63.47**	**58.53**	**66.53**	**67.07**	55 dBA:	**411**	**447**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 10900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.83	-2.28	-1.20	64.04	61.67	60.37	54.32	62.75	63.38	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.69	-2.28	-1.20	57.45	38.24	30.46	39.67	45.82	45.86	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-14.47	-2.28	-1.20	64.19	47.20	39.42	48.62	54.78	54.81	60 dBA:	**136**	**148**
				Total:	**67.57**	**61.84**	**60.41**	**55.47**	**63.47**	**64.01**	55 dBA:	**294**	**319**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	-2.28	-1.20	63.98	61.61	60.31	54.26	62.69	63.32	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.75	-2.28	-1.20	57.39	38.18	30.40	39.61	45.76	45.80	65 dBA:	**63**	**68**
Heavy Trucks	82.14	-14.53	-2.28	-1.20	64.13	47.14	39.36	48.56	54.72	54.75	60 dBA:	**135**	**147**
				Total:	**67.51**	**61.78**	**60.35**	**55.41**	**63.41**	**63.95**	55 dBA:	**291**	**316**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 9900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.24	-2.28	-1.20	63.62	61.25	59.95	53.90	62.33	62.96	70 dBA:	**28**	**30**
Medium Trucks	77.62	-17.11	-2.28	-1.20	57.03	37.82	30.04	39.25	45.40	45.44	65 dBA:	**59**	**64**
Heavy Trucks	82.14	-14.89	-2.28	-1.20	63.77	46.78	39.00	48.21	54.36	54.39	60 dBA:	**128**	**139**
				Total:	**67.15**	**61.42**	**59.99**	**55.05**	**63.05**	**63.60**	55 dBA:	**275**	**299**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1500 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.43	1.52	-1.20	54.40	52.28	50.97	44.95	53.37	54.00	70 dBA:	**3**	**3**
Medium Trucks	73.11	-25.67	1.52	-1.20	47.77	26.52	32.54	14.24	27.39	30.14	65 dBA:	**7**	**7**
Heavy Trucks	80.26	-29.62	1.52	-1.20	50.96	25.61	22.21	26.86	33.05	33.15	60 dBA:	**15**	**16**
				Total:	**56.63**	**52.30**	**51.03**	**45.03**	**53.43**	**54.05**	55 dBA:	**31**	**35**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 3000 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.42	-4.59	-1.20	51.30	49.18	47.87	41.85	50.27	50.90	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.66	-4.59	-1.20	44.66	23.42	29.44	11.14	24.29	27.04	65 dBA:	**11**	**12**
Heavy Trucks	80.26	-26.61	-4.59	-1.20	47.86	22.50	19.10	23.75	29.95	30.05	60 dBA:	**23**	**25**
				Total:	**53.53**	**49.20**	**47.93**	**41.92**	**50.32**	**50.95**	55 dBA:	**49**	**54**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	9.00%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 12500 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.23	-3.29	-1.20	63.62	61.25	59.96	53.90	62.34	62.97	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.10	-3.29	-1.20	57.04	37.83	30.05	39.25	45.41	45.44	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-13.88	-3.29	-1.20	63.77	46.78	39.00	48.21	54.36	54.40	60 dBA:	**136**	**148**
				Total:	**67.15**	**61.42**	**60.00**	**55.06**	**63.05**	**63.60**	55 dBA:	**293**	**318**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 11750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.50	1.67	-1.20	68.32	65.95	64.65	58.60	67.03	67.66	70 dBA:	**32**	**35**
Medium Trucks	77.62	-16.37	1.67	-1.20	61.73	42.52	34.74	43.95	50.10	50.14	65 dBA:	**69**	**75**
Heavy Trucks	82.14	-14.15	1.67	-1.20	68.47	51.48	43.70	52.90	59.06	59.09	60 dBA:	**148**	**161**
				Total:	**71.85**	**66.12**	**64.69**	**59.75**	**67.75**	**68.29**	55 dBA:	**319**	**346**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.51	-0.72	-1.20	64.91	62.53	61.24	55.19	63.62	64.25	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.38	-0.72	-1.20	58.32	39.11	31.33	40.54	46.69	46.72	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.16	-0.72	-1.20	65.06	48.07	40.28	49.49	55.65	55.68	60 dBA:	**117**	**127**
				Total:	**68.44**	**62.71**	**61.28**	**56.34**	**64.34**	**64.88**	55 dBA:	**252**	**273**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**
Average Daily Traffic: 8150 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.75	-2.07	-1.20	60.09	57.97	56.65	50.64	59.06	59.69	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.99	-2.07	-1.20	52.57	31.32	37.34	19.05	32.19	34.94	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-22.94	-2.07	-1.20	53.83	42.58	25.08	29.73	41.01	41.04	60 dBA:	**61**	**67**
				Total:	**61.59**	**58.10**	**56.71**	**50.68**	**59.14**	**59.76**	55 dBA:	**132**	**145**

Road Name: Scholar Way **Segment: South of Schleisman Road**
Average Daily Traffic: 7600 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.05	-0.98	-1.20	60.87	58.75	57.44	51.43	59.85	60.47	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.29	-0.98	-1.20	53.35	32.11	38.13	19.83	32.98	35.73	65 dBA:	**28**	**30**
Heavy Trucks	80.05	-23.25	-0.98	-1.20	54.62	43.37	25.87	30.51	41.80	41.83	60 dBA:	**59**	**65**
				Total:	**62.38**	**58.88**	**57.49**	**51.46**	**59.92**	**60.55**	55 dBA:	**128**	**141**

Road Name: Scholar Way **Segment: South of Orange Street**
Average Daily Traffic: 8200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.72	-0.98	-1.20	61.20	59.08	57.77	51.76	60.18	60.80	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.96	-0.98	-1.20	53.68	32.44	38.46	20.16	33.31	36.06	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.92	-0.98	-1.20	54.95	43.70	26.20	30.84	42.13	42.16	60 dBA:	**62**	**69**
				Total:	**62.71**	**59.21**	**57.82**	**51.79**	**60.25**	**60.88**	55 dBA:	**134**	**148**

Road Name: Scholar Way **Segment: South of Baltimore Street**
Average Daily Traffic: 8850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.39	-2.55	-1.20	59.97	57.85	56.53	50.52	58.94	59.57	70 dBA:	**14**	**15**
Medium Trucks	74.83	-18.63	-2.55	-1.20	52.45	31.20	37.22	18.93	32.07	34.82	65 dBA:	**30**	**33**
Heavy Trucks	80.05	-22.58	-2.55	-1.20	53.71	42.46	24.96	29.61	40.89	40.92	60 dBA:	**64**	**71**
				Total:	**61.47**	**57.98**	**56.59**	**50.56**	**59.02**	**59.64**	55 dBA:	**139**	**153**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**
Average Daily Traffic: 29800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.54	-3.26	-1.20	67.43	65.06	63.77	57.71	66.14	66.77	70 dBA:	**56**	**60**
Medium Trucks	77.62	-12.32	-3.26	-1.20	60.84	41.63	33.85	43.06	49.22	49.25	65 dBA:	**120**	**130**
Heavy Trucks	82.14	-10.11	-3.26	-1.20	67.58	50.59	42.81	52.02	58.17	58.21	60 dBA:	**258**	**281**
				Total:	**70.96**	**65.23**	**63.81**	**58.86**	**66.86**	**67.41**	55 dBA:	**556**	**604**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**
Average Daily Traffic: 29650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.52	-4.08	-1.20	66.58	64.21	62.92	56.86	65.30	65.93	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.35	-4.08	-1.20	59.99	40.79	33.01	42.21	48.37	48.40	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.13	-4.08	-1.20	66.73	49.74	41.96	51.17	57.32	57.36	60 dBA:	**252**	**274**
				Total:	**70.11**	**64.38**	**62.96**	**58.02**	**66.01**	**66.56**	55 dBA:	**542**	**590**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**
Average Daily Traffic: 30900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.70	-1.89	-1.20	68.96	66.58	65.29	59.24	67.67	68.30	70 dBA:	**55**	**59**
Medium Trucks	77.62	-12.17	-1.89	-1.20	62.37	43.16	35.38	44.59	50.74	50.77	65 dBA:	**118**	**128**
Heavy Trucks	82.14	-9.95	-1.89	-1.20	69.11	52.12	44.33	53.54	59.70	59.73	60 dBA:	**254**	**276**
				Total:	**72.49**	**66.76**	**65.33**	**60.39**	**68.39**	**68.93**	55 dBA:	**546**	**594**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**
Average Daily Traffic: 28300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.32	-2.28	-1.20	68.18	65.81	64.52	58.46	66.89	67.52	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.55	-2.28	-1.20	61.59	42.38	34.60	43.81	49.97	50.00	65 dBA:	**119**	**130**
Heavy Trucks	82.14	-10.33	-2.28	-1.20	68.33	51.34	43.56	52.77	58.92	58.96	60 dBA:	**257**	**280**
				Total:	**71.71**	**65.98**	**64.56**	**59.61**	**67.61**	**68.16**	55 dBA:	**554**	**603**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 33000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.99	-2.28	-1.20	68.85	66.48	65.18	59.13	67.56	68.19	70 dBA:	**61**	**67**
Medium Trucks	77.62	-11.88	-2.28	-1.20	62.26	43.05	35.27	44.48	50.63	50.67	65 dBA:	**132**	**144**
Heavy Trucks	82.14	-9.66	-2.28	-1.20	69.00	52.01	44.23	53.43	59.59	59.62	60 dBA:	**285**	**310**
				Total:	**72.38**	**66.65**	**65.22**	**60.28**	**68.28**	**68.82**	55 dBA:	**614**	**668**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 26350 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.01	-2.28	-1.20	67.87	65.50	64.21	58.15	66.58	67.21	70 dBA:	**53**	**57**
Medium Trucks	77.62	-12.86	-2.28	-1.20	61.28	42.07	34.29	43.50	49.66	49.69	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.64	-2.28	-1.20	68.02	51.03	43.25	52.46	58.61	58.65	60 dBA:	**245**	**267**
				Total:	**71.40**	**65.67**	**64.25**	**59.30**	**67.30**	**67.85**	55 dBA:	**529**	**575**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1650 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.02	1.52	-1.20	54.82	52.69	51.38	45.37	53.79	54.41	70 dBA:	**3**	**4**
Medium Trucks	73.11	-25.25	1.52	-1.20	48.18	26.93	32.95	14.66	27.80	30.55	65 dBA:	**7**	**8**
Heavy Trucks	80.26	-29.21	1.52	-1.20	51.37	40.12	22.62	27.27	38.55	38.58	60 dBA:	**16**	**17**
				Total:	**57.04**	**52.94**	**51.45**	**45.44**	**53.93**	**54.54**	55 dBA:	**34**	**37**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2900 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.57	-4.59	-1.20	51.15	49.03	47.72	41.71	50.13	50.75	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.80	-4.59	-1.20	44.52	23.27	29.29	11.00	24.14	26.89	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-26.76	-4.59	-1.20	47.71	36.46	18.96	23.61	34.89	34.92	60 dBA:	**22**	**25**
				Total:	**53.38**	**49.28**	**47.79**	**41.78**	**50.26**	**50.88**	55 dBA:	**48**	**53**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	9.00%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 12550 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.21	-3.29	-1.20	63.64	61.27	59.98	53.92	62.35	62.98	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.08	-3.29	-1.20	57.05	37.84	30.06	39.27	45.43	45.46	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-13.86	-3.29	-1.20	63.79	46.80	39.02	48.23	54.38	54.42	60 dBA:	**136**	**148**
				Total:	**67.17**	**61.44**	**60.02**	**55.07**	**63.07**	**63.62**	55 dBA:	**293**	**319**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 11900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.44	1.67	-1.20	68.37	66.00	64.71	58.65	67.09	67.72	70 dBA:	**32**	**35**
Medium Trucks	77.62	-16.31	1.67	-1.20	61.78	42.58	34.79	44.00	50.16	50.19	65 dBA:	**69**	**75**
Heavy Trucks	82.14	-14.09	1.67	-1.20	68.52	51.53	43.75	52.96	59.11	59.15	60 dBA:	**149**	**162**
				Total:	**71.90**	**66.17**	**64.75**	**59.81**	**67.80**	**68.35**	55 dBA:	**321**	**349**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9350 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.49	-0.72	-1.20	64.93	62.56	61.26	55.21	63.64	64.27	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.36	-0.72	-1.20	58.34	39.13	31.35	40.56	46.71	46.75	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.14	-0.72	-1.20	65.08	48.09	40.31	49.52	55.67	55.70	60 dBA:	**117**	**127**
				Total:	**68.46**	**62.73**	**61.30**	**56.36**	**64.36**	**64.90**	55 dBA:	**252**	**274**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8300 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.67	-2.07	-1.20	60.17	58.05	56.73	50.72	59.14	59.77	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.91	-2.07	-1.20	52.65	31.40	37.42	19.13	32.27	35.02	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.86	-2.07	-1.20	53.91	42.66	25.16	29.81	41.09	41.12	60 dBA:	**62**	**68**
				Total:	**61.67**	**58.18**	**56.79**	**50.76**	**59.22**	**59.84**	55 dBA:	**134**	**147**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.94	-0.98	-1.20	60.99	58.86	57.55	51.54	59.96	60.59	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.18	-0.98	-1.20	53.47	32.22	38.24	19.95	33.09	35.84	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.13	-0.98	-1.20	54.73	43.48	25.98	30.63	41.91	41.94	60 dBA:	**60**	**66**
				Total:	**62.49**	**59.00**	**57.61**	**51.58**	**60.04**	**60.66**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 8250 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.70	-0.98	-1.20	61.23	59.11	57.80	51.78	60.20	60.83	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.93	-0.98	-1.20	53.71	32.46	38.48	20.19	33.33	36.09	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.89	-0.98	-1.20	54.97	43.72	26.22	30.87	42.15	42.18	60 dBA:	**63**	**69**
				Total:	**62.73**	**59.24**	**57.85**	**51.82**	**60.28**	**60.90**	55 dBA:	**135**	**148**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8900 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.37	-2.55	-1.20	59.99	57.87	56.56	50.54	58.96	59.59	70 dBA:	**14**	**15**
Medium Trucks	74.83	-18.60	-2.55	-1.20	52.47	31.22	37.24	18.95	32.09	34.85	65 dBA:	**30**	**33**
Heavy Trucks	80.05	-22.56	-2.55	-1.20	53.73	42.49	24.98	29.63	40.92	40.95	60 dBA:	**65**	**71**
				Total:	**61.50**	**58.00**	**56.61**	**50.58**	**59.04**	**59.66**	55 dBA:	**139**	**153**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 29850 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.55	-3.26	-1.20	67.44	65.07	63.77	57.72	66.15	66.78	70 dBA:	**56**	**61**
Medium Trucks	77.62	-12.32	-3.26	-1.20	60.85	41.64	33.86	43.07	49.22	49.26	65 dBA:	**120**	**130**
Heavy Trucks	82.14	-10.10	-3.26	-1.20	67.59	50.60	42.82	52.03	58.18	58.21	60 dBA:	**258**	**281**
				Total:	**70.97**	**65.24**	**63.81**	**58.87**	**66.87**	**67.41**	55 dBA:	**557**	**605**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 29700 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.53	-4.08	-1.20	66.59	64.22	62.93	56.87	65.30	65.93	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.34	-4.08	-1.20	60.00	40.79	33.01	42.22	48.37	48.41	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.12	-4.08	-1.20	66.74	49.75	41.97	51.18	57.33	57.37	60 dBA:	**252**	**274**
				Total:	**70.12**	**64.39**	**62.96**	**58.02**	**66.02**	**66.57**	55 dBA:	**543**	**590**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 31000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.71	-1.89	-1.20	68.97	66.60	65.31	59.25	67.68	68.31	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.15	-1.89	-1.20	62.38	43.17	35.39	44.60	50.75	50.79	65 dBA:	**118**	**128**
Heavy Trucks	82.14	-9.93	-1.89	-1.20	69.12	52.13	44.35	53.56	59.71	59.74	60 dBA:	**254**	**276**
				Total:	**72.50**	**66.77**	**65.34**	**60.40**	**68.40**	**68.95**	55 dBA:	**548**	**595**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 28300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.32	-2.28	-1.20	68.18	65.81	64.52	58.46	66.89	67.52	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.55	-2.28	-1.20	61.59	42.38	34.60	43.81	49.97	50.00	65 dBA:	**119**	**130**
Heavy Trucks	82.14	-10.33	-2.28	-1.20	68.33	51.34	43.56	52.77	58.92	58.96	60 dBA:	**257**	**280**
				Total:	**71.71**	**65.98**	**64.56**	**59.61**	**67.61**	**68.16**	55 dBA:	**554**	**603**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 33000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.99	-2.28	-1.20	68.85	66.48	65.18	59.13	67.56	68.19	70 dBA:	**61**	**67**
Medium Trucks	77.62	-11.88	-2.28	-1.20	62.26	43.05	35.27	44.48	50.63	50.67	65 dBA:	**132**	**144**
Heavy Trucks	82.14	-9.66	-2.28	-1.20	69.00	52.01	44.23	53.43	59.59	59.62	60 dBA:	**285**	**310**
				Total:	**72.38**	**66.65**	**65.22**	**60.28**	**68.28**	**68.82**	55 dBA:	**614**	**668**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 26400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.02	-2.28	-1.20	67.88	65.51	64.21	58.16	66.59	67.22	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.85	-2.28	-1.20	61.29	42.08	34.30	43.51	49.66	49.70	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.63	-2.28	-1.20	68.03	51.04	43.26	52.47	58.62	58.65	60 dBA:	**246**	**267**
				Total:	**71.41**	**65.68**	**64.25**	**59.31**	**67.31**	**67.85**	55 dBA:	**529**	**576**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1850 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-7.52	1.52	-1.20	55.31	53.19	51.88	45.87	54.29	54.91	70 dBA:	**4**	**4**
Medium Trucks	73.11	-24.76	1.52	-1.20	48.68	27.43	33.45	15.16	28.30	31.05	65 dBA:	**8**	**9**
Heavy Trucks	80.26	-28.71	1.52	-1.20	51.87	40.62	23.12	27.77	39.05	39.08	60 dBA:	**17**	**19**
				Total:	**57.54**	**53.44**	**51.95**	**45.94**	**54.42**	**55.04**	55 dBA:	**37**	**40**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 3150 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.21	-4.59	-1.20	51.51	49.39	48.08	42.07	50.48	51.11	70 dBA:	**5**	**6**
Medium Trucks	73.11	-22.45	-4.59	-1.20	44.88	23.63	29.65	11.35	24.50	27.25	65 dBA:	**11**	**12**
Heavy Trucks	80.26	-26.40	-4.59	-1.20	48.07	36.82	19.32	23.97	35.25	35.28	60 dBA:	**24**	**26**
				Total:	**53.74**	**49.63**	**48.14**	**42.14**	**50.62**	**51.24**	55 dBA:	**51**	**56**

APPENDIX E

FHWA Model Onsite Traffic Noise Calculation Printouts

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 9
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	97 feet
Barrier Dist. To Observer (Structure):	21 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	615.4 feet
Road Elevation:	611.5 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	615.4 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.93	-1.20	0.00	-9.3	-8.7	-0.3
Med Trucks:	77.62	-11.88	-2.93	-1.20	0.00	-9.38	-8.4	-0.156
Hvy Trucks:	82.14	-9.66	-2.93	-1.20	0.00	-7.8	-6.16	0

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.3	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.3	51.4	43.6	52.8	58.9	59.0
Traffic Noise:	**71.7**	**65.9**	**64.4**	**59.5**	**67.5**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.9	56.5	55.2	49.2	57.6	58.2
Med Trucks:	52.2	33.0	25.2	34.4	40.6	40.6
Hvy Trucks:	60.5	43.6	35.8	45.0	51.1	51.2
Traffic Noise:	**63.2**	**56.8**	**55.3**	**50.7**	**58.6**	**59.1**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.5	56.2	54.9	48.8	57.3	57.9
Med Trucks:	52.3	33.1	25.3	34.5	40.6	40.7
Hvy Trucks:	61.2	44.2	36.5	45.7	51.8	51.9
Traffic Noise:	**63.5**	**56.5**	**54.9**	**50.6**	**58.4**	**58.9**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.5	63.2	57.1	65.6	66.2
Med Trucks:	60.4	41.2	33.4	42.6	48.8	48.8
Hvy Trucks:	67.3	50.3	42.5	51.7	57.9	57.9
Traffic Noise:	**70.5**	**64.7**	**63.2**	**58.3**	**66.3**	**66.9**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 11
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	109 feet
Barrier Dist. To Observer (Structure):	33 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	616.0 feet
Road Elevation:	613.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	616.0 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.92	-1.20	0.00	-9.12	-8.65	-0.95
Med Trucks:	77.62	-11.88	-2.92	-1.20	0.00	-9.15	-8.2	-0.4
Hvy Trucks:	82.14	-9.66	-2.92	-1.20	0.00	-7.55	-5.7	-0.161

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.4	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	58.9	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.5**	**67.5**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.1	56.7	55.4	49.4	57.8	58.4
Med Trucks:	52.5	33.3	25.5	34.7	40.8	40.9
Hvy Trucks:	60.8	43.8	36.0	45.2	51.4	51.4
Traffic Noise:	**63.4**	**57.0**	**55.5**	**50.9**	**58.8**	**59.3**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.7	55.4	54.1	48.0	56.4	57.1
Med Trucks:	51.6	32.4	24.6	33.8	40.0	40.0
Hvy Trucks:	60.8	43.8	36.1	45.3	51.4	51.4
Traffic Noise:	**62.9**	**55.7**	**54.1**	**50.0**	**57.7**	**58.2**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.0	61.7	55.6	64.1	64.7
Med Trucks:	59.3	40.1	32.3	41.5	47.7	47.7
Hvy Trucks:	66.3	49.3	41.5	50.7	56.9	56.9
Traffic Noise:	**69.3**	**63.2**	**61.7**	**57.0**	**64.9**	**65.4**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 13
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000	vehicles
Peak Hour Volume:	3,300	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	78	feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5**	**feet**
Barrier Type(Wall/Berm):	Wall	
Site Conditions(Hard/Soft):	Soft	
Centerline (C.L.) Dist. to Barrier:	76	feet
C.L. Dist. To Observer (Backyard):	86	feet
Barrier Dist. To Observer (Backyard):	10	feet
C.L. Dist. To Observer (Structure):	109	feet
Barrier Dist. To Observer (Structure):	33	feet
Road Grade:	0.00	%
Left View:	-90	degrees
Right View:	90	degrees

Elevations

Barrier Base Elevation:	615.6	feet
Road Elevation:	614.0	feet
Noise Source Elevation above Road		
Autos:	0	feet
Med Trucks:	2.3	feet
Hvy Trucks:	8	feet
Pad Elevation:	615.6	feet
Observer Heights Above Pad Elevation		
Exterior:	5	feet
First Floor:	5.5	feet
Second Floor:	14	feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.91	-1.20	0.00	-8.8	-8.05	-0.7
Med Trucks:	77.62	-11.88	-2.91	-1.20	0.00	-8.8	-7.6	-0.33
Hvy Trucks:	82.14	-9.66	-2.91	-1.20	0.00	-7.15	-5.2	-0.136

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.4	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.6**	**67.6**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.4	57.0	55.8	49.7	58.1	58.8
Med Trucks:	52.8	33.6	25.8	35.0	41.2	41.2
Hvy Trucks:	61.2	44.2	36.4	45.7	51.8	51.8
Traffic Noise:	**63.8**	**57.3**	**55.8**	**51.2**	**59.1**	**59.6**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	56.0	54.7	48.6	57.0	57.7
Med Trucks:	52.2	33.0	25.2	34.4	40.6	40.6
Hvy Trucks:	61.3	44.3	36.6	45.8	51.9	52.0
Traffic Noise:	**63.4**	**56.3**	**54.7**	**50.5**	**58.3**	**58.8**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.2	62.0	55.9	64.3	65.0
Med Trucks:	59.4	40.2	32.4	41.6	47.8	47.8
Hvy Trucks:	66.3	49.3	41.6	50.8	56.9	57.0
Traffic Noise:	**69.4**	**63.4**	**62.0**	**57.2**	**65.1**	**65.7**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road | Project Name: Magnolia Ranch
Lot Number: Building 15 | Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	99 feet
Barrier Dist. To Observer (Structure):	23 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	615.2 feet
Road Elevation:	615.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	615.2 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.90	-1.20	0.00	-8.4	-7.43	-0.19
Med Trucks:	77.62	-11.88	-2.90	-1.20	0.00	-8.35	-6.94	-0.124
Hvy Trucks:	82.14	-9.66	-2.90	-1.20	0.00	-6.72	-5.1	0

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.2	65.9	64.6	58.5	66.9	67.6
Med Trucks:	61.6	42.4	34.7	43.9	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.8**	**66.0**	**64.6**	**59.7**	**67.7**	**68.2**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.8	57.5	56.2	50.1	58.5	59.2
Med Trucks:	53.3	34.1	26.3	35.5	41.7	41.7
Hvy Trucks:	61.7	44.7	36.9	46.1	52.2	52.3
Traffic Noise:	**64.2**	**57.7**	**56.2**	**51.7**	**59.5**	**60.0**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	57.3	56.0	50.0	58.4	59.0
Med Trucks:	53.6	34.4	26.6	35.8	42.0	42.0
Hvy Trucks:	62.2	45.2	37.4	46.6	52.8	52.8
Traffic Noise:	**64.5**	**57.6**	**56.1**	**51.7**	**59.5**	**60.0**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	64.5	63.2	57.1	65.6	66.2
Med Trucks:	60.3	41.1	33.3	42.5	48.7	48.7
Hvy Trucks:	67.2	50.2	42.4	51.6	57.8	57.8
Traffic Noise:	**70.5**	**64.7**	**63.2**	**58.3**	**66.3**	**66.9**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Lot Number: Building 17

Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	121 feet
Barrier Dist. To Observer (Structure):	45 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	617.5 feet
Road Elevation:	617.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	617.5 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.90	-1.20	0.00	-8.5	-7.8	-1.4
Med Trucks:	77.62	-11.88	-2.90	-1.20	0.00	-8.45	-7.08	-0.56
Hvy Trucks:	82.14	-9.66	-2.90	-1.20	0.00	-6.8	-4.9	-0.173

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.8	64.5	58.4	66.8	67.5
Med Trucks:	61.6	42.4	34.6	43.9	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.6**	**67.6**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	57.4	56.1	50.0	58.4	59.1
Med Trucks:	53.2	34.0	26.2	35.4	41.6	41.6
Hvy Trucks:	61.6	44.6	36.8	46.0	52.2	52.2
Traffic Noise:	**64.1**	**57.6**	**56.1**	**51.6**	**59.4**	**59.9**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.8	55.4	54.2	48.1	56.5	57.2
Med Trucks:	51.9	32.7	25.0	34.2	40.3	40.4
Hvy Trucks:	60.9	43.9	36.1	45.3	51.5	51.5
Traffic Noise:	**63.0**	**55.8**	**54.2**	**50.0**	**57.8**	**58.3**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.2	61.8	60.5	54.5	62.9	63.5
Med Trucks:	58.4	39.2	31.4	40.6	46.8	46.8
Hvy Trucks:	65.5	48.6	40.8	50.0	56.1	56.2
Traffic Noise:	**68.4**	**62.0**	**60.6**	**55.9**	**63.8**	**64.3**

Appendix 10

Noise Impact Analysis

Magnolia Ranch Residential Project

Initial Study

.

NOISE IMPACT ANALYSIS

MAGNOLIA RANCH RESIDENTIAL PROJECT

CITY OF EASTVALE

Lead Agency:

City of Eastvale
12363 Limonite Street
Eastvale, CA 91752

Prepared by:

Vista Environmental
1021 Didrickson Way
Laguna Beach, CA 92651
949 510 5355
Greg Tonkovich, INCE

Project No. 21003

July 26, 2022

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ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
City	City of Eastvale
cmu	concrete masonry unit
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted decibels
DOT	Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
EPA	Environmental Protection Agency
Hz	Hertz
Ldn	Day-night average noise level
Leq	Equivalent sound level
Lmax	Maximum noise level
OSHA	Occupational Safety and Health Administration
PPV	Peak particle velocity
RMS	Root mean square
SEL	Single Event Level or Sound Exposure Level
STC	Sound Transmission Class
VdB	Vibration velocity level in decibels

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared to determine the noise impacts associated with the proposed Magnolia Ranch Residential project (proposed project). The following is provided in this report:

- A description of the study area and the proposed project;
- Information regarding the fundamentals of noise;
- Information regarding the fundamentals of vibration;
- A description of the local noise guidelines and standards;
- An evaluation of the current noise environment;
- An analysis of the potential short-term construction-related noise impacts from the proposed project; and
- An analysis of long-term operations-related noise impacts from the proposed project.

1.2 Site Location and Study Area

The project site is located in the City of Eastvale (City). The approximately 10.0 gross acre project site is relatively flat and currently includes a ranch house with barn and associated fencing and facilities for livestock/horses. The project site is bounded by Schleisman Road to the north, Eastvale Elementary School to the east, Orange Street and River Heights Intermediate School to the south and single-family homes to the west. The project study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

1.3 Proposed Project Description

The proposed project would consist of a residential development on 8.28 net acres that would include 41 detached single-family homes with approximately 22,000 square feet of common open space. New sidewalks will be provided along the north side of Orange Street, a walkway will run in a north-south direction adjacent to the east property line, and a walkway will run in an east-west direction through the common open space area. The proposed project would also include development of an internal road system and road improvements to the portion of Orange Street that is adjacent to the project site. It should be noted that the project applicant is proposing to pay TUMF fees in lieu of road improvements to the portion of Schleisman Road that is adjacent to the project site, however in order to provide a conservative analysis, it has been assumed that this area will be graded as part of the proposed project. The proposed site plan is shown in Figure 2.

1.4 Executive Summary

Standard Noise Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the City and State of California (State).

City of Eastvale Noise Regulations

The following lists the noise and vibration regulations from the City of Eastvale Development Code that are applicable, but not limited to the proposed project.

- Section 120.05.130(b) - Noise control standards
- Section 120.05.130(b) – Vibration standards

State of California Noise Regulations

The following lists the State of California noise regulations that are applicable, but not limited to the proposed project.

- California Vehicle Code Section 27200-27207 – On Road Vehicle Noise Limits
- California Vehicle Code Section 38365-38350 – Off-Road Vehicle Noise Limits

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines noise checklist questions.

Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than significant impact.

Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact.

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant impact.

1.5 Project Design Features Incorporated into the Proposed Project

This analysis was based on implementation of the following project design features that are either already depicted on the proposed project site plan and architectural plans or are required from City and State Regulations.

Project Design Feature 1:
Prior to the issuance of the grading permit, the project applicant shall submit a construction-related noise mitigation plan to the City for review and approval. The plan shall depict the

locations of where construction equipment will operate on the project site and how the noise from the construction equipment will be mitigated during construction of the project, through use of such methods as:

1. Temporary noise attenuation fences;
2. Preferential location of equipment
3. Length of equipment use and idling time; and,
4. Use of current noise suppression technology and equipment.

1.6 Mitigation Measures for the Proposed Project

This analysis found that through adherence to the noise and vibration regulations detailed in Section 1.4, through implementation of Project Design Feature 1 detailed in Section 1.5 above, and through implementation of the following mitigation all noise and vibration impacts would be reduced to less than significant levels.

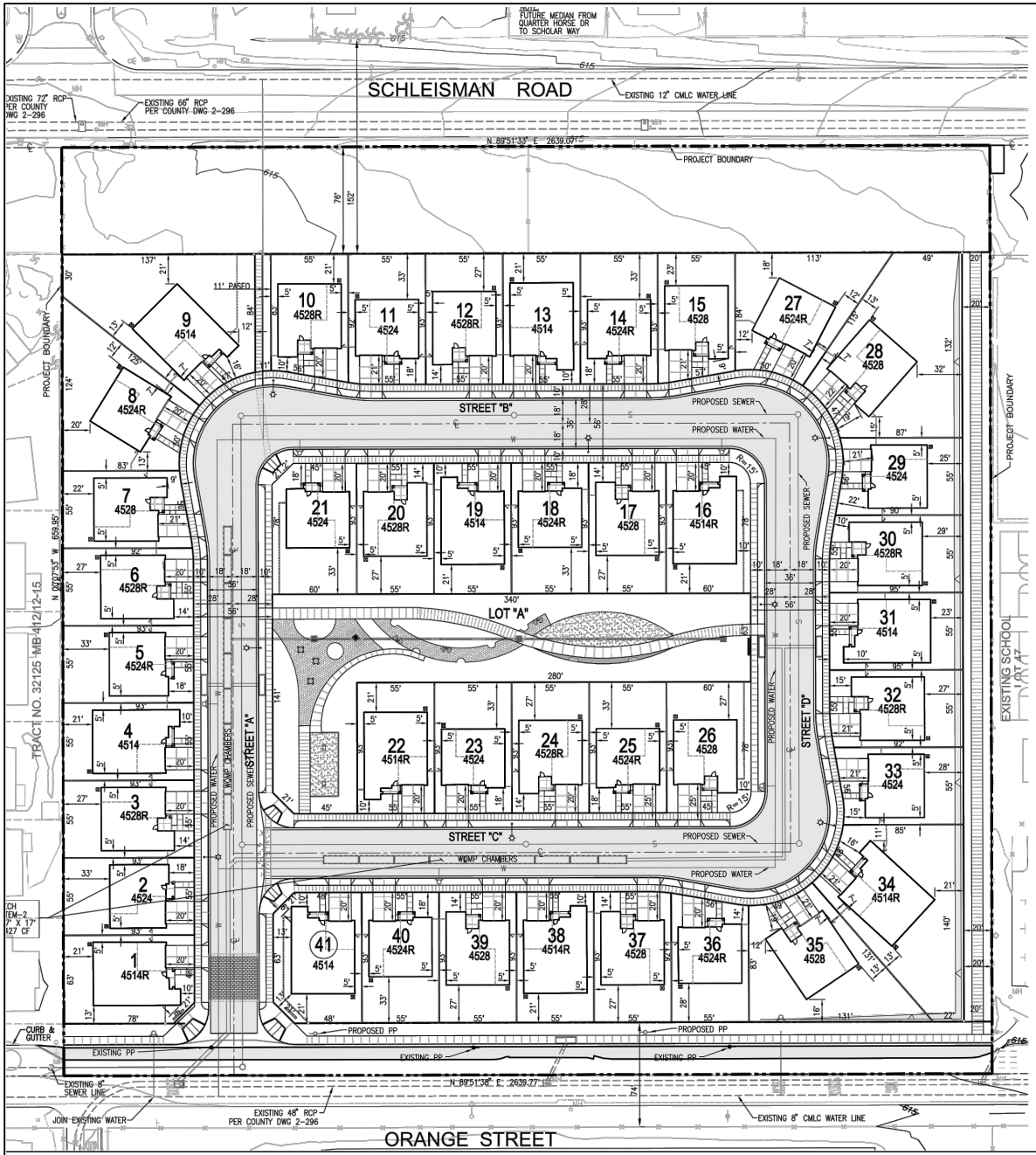
Mitigation Measure 1:

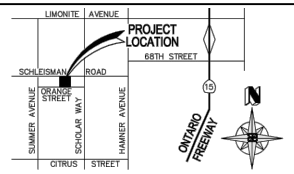
The project applicant shall construct a minimum 6.5-foot high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings.



VISTA ENVIRONMENTAL

Figure 1
Project Location Map





VICINITY MAP
N.T.S.

LEGAL DESCRIPTION

LOT 47 OF KINGSTON TRACT IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

ASSESSOR'S PARCEL NO.

152-040-003

SITE ADDRESS

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

MLC HOLDINGS, INC.
5 PETERS CANYON ROAD, SUITE 310
IRVINE, CA 92606
(949) 372-3310

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

ENGINEER

ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

BENCHMARK

RIVERSIDE COUNTY BENCHMARK "ML-34-1 RESET 2008" 3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTHERLY CURB, 10' FROM THE ECR AT THE INTERSECTION OF SUMNER AVENUE AND ORANGE STREET.

BASIS OF BEARINGS

BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15
BEING: N 89°51'33" E

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

LEGEND

10	UNIT NUMBER
1%	DRAINAGE FLOW DIRECTION
	SEWER LINE
	WATER LINE
	STORM DRAIN
	PROJECT BOUNDARY
	CENTERLINE
	ADA PATH OF TRAVEL
795	EXISTING CONTOUR
	AC/AB

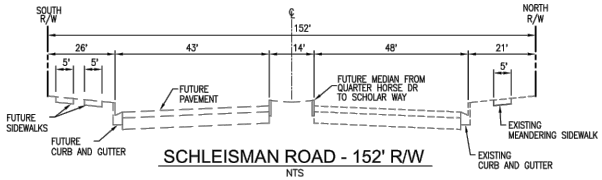
SITE STATISTICS

GROSS SITE AREA: 10.0 ACRES
DEVELOPABLE AREA: 8.28 ACRES

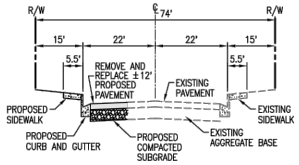
TOTAL LOTS: 41 HOMES

PLAN TYPE

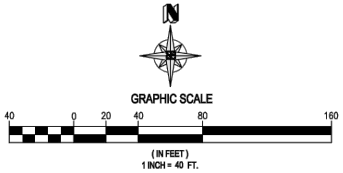
PLAN 4514 – 11 LOTS
PLAN 4524 – 15 LOTS
PLAN 4528 – 15 LOTS



SCHLEISMAN ROAD - 152' R/W
NTS



ORANGE STREET - 74' R/W
NTS



SOURCE: Allard Engineering.

VISTA ENVIRONMENTAL

Figure 2
Proposed Site Plan

2.0 NOISE FUNDAMENTALS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

2.1 Noise Descriptors

Noise Equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The worst-hour traffic Leq is the noise metric used by California Department of Transportation (Caltrans) for analyzing traffic noise impacts.

The Day-Night Average Level (Ldn or DNL) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the Ldn, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound appears louder in the evening and nighttime hours and is weighted accordingly. The City of Eastvale relies on the CNEL noise standard to assess transportation-related impacts on noise sensitive land uses.

2.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less

2.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in level of noise as the distance from the source increases. The manner in which the noise level reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features.

Sound from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD) between source and receiver. Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

3.0 GROUND-BORNE VIBRATION FUNDAMENTALS

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

3.1 Vibration Descriptors

There are several different methods that are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Due to the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is "VdB", which in this text, is when L_v is based on the reference quantity of 1 micro inch per second.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration.

3.3 Vibration Propagation

The propagation of ground-borne vibration is not as simple to model as airborne noise. This is due to the fact that noise in the air travels through a relatively uniform medium, while ground-borne vibrations travel through the earth which may contain significant geological differences. There are three main types of vibration propagation; surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 REGULATORY SETTING

The project site is located in the City of Eastvale. Noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA), which regulates transit noise, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the proposed project is not under the jurisdiction of the FTA, the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual), prepared by the FTA, September 2018, is the only guidance document from a government agency that has defined what constitutes a significant noise impact from implementing a project. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings are provided below in Table A.

Table A – FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA Leq or Ldn)	Allowable Noise Impact Exposure dBA Leq or Ldn		
	Project Only	Combined	Noise Exposure Increase
45	51	52	+7
50	53	55	+5
55	55	58	+3
60	57	62	+2
65	60	66	+1
70	64	71	+1
75	65	75	0

Source: Federal Transit Administration, 2018.

The FTA also provides guidance on construction noise and recommends developing construction noise criteria on a project-specific basis that utilizes local noise ordinances if possible. However, local noise ordinances usually relates to nuisance and hours of allowed activity and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the noise impacts of a construction project. Project construction noise criteria should take into account the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land uses. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings for a detailed construction noise assessment are provided below in Table B.

Table B – FTA Construction Noise Criteria

Land Use	Day (dBA $Leq_{(8\text{-hour})}$)	Night (dBA $Leq_{(8\text{-hour})}$)	30-day Average (dBA Ldn)
Residential	80	70	75
Commercial	85	85	80[(1)]
Industrial	90	90	85[(1)]

Notes:
[(1)] Use a 24-hour $Leq_{(24\ hour)}$ instead of $Ldn_{(30\ day)}$.
Source: Federal Transit Administration, 2018.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

4.2 State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle.

California Vehicle Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California. 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

Vibration Standards

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

The *Transportation- and Construction Vibration Guidance Manual*, prepared by Caltrans, April 2020, provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. However, this manual is also used as a reference point by many lead agencies and CEQA practitioners throughout California, as it provides numeric thresholds for vibration impacts. Thresholds are established for continuous (construction-related) and transient (transportation-related) sources of vibration, which found that the human response becomes distinctly perceptible at 0.25 inch per second PPV for transient sources and 0.04 inch per second PPV for continuous sources.

4.3 Local Regulations – City of Eastvale

The *City of Eastvale General Plan* (General Plan), approved June 13, 2012, and the Eastvale, CA Code of Ordinances (Municipal Code), January 7, 2022, establishes the following applicable policies related to noise and vibration.

General Plan

The following applicable goals and policies to the proposed project are from the Noise Element of the General Plan.

Goal N-1: Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Eastvale.

Goal N-3: Ensure that noise sensitive uses do not encroach into area needed by noise generating uses.

Goal N-4: Locate noise sources away from existing noise sensitive land uses unless appropriate noise control measures are provided.

Policy N-3: Consider the following uses to be sensitive to noise and vibration, and discourage these uses in areas where existing or projected future noise levels would be in excess of 65 CNEL and/or vibration would be more than 0.0787 Peak Particle Velocity (inches/second)

- Schools;
- Hospitals;
- Rest Homes;
- Long Term Care Facilities;
- Mental Care Facilities;
- Residential Uses;
- Libraries;
- Passive Recreation Uses; and
- Places of Worship

Policy N-4: Require noise sensitive land uses proposed in areas where existing or projected future noise levels would be in excess of 65 CNEL to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.

Policy N-5: Require that exterior noise forecasts use the appropriate Level of Service for the adjacent roadways, or a 20-year projection of traffic volumes (whichever is greater) for future noise forecasts.

Policy N-6: Mitigate exterior noise levels to the levels shown in Table N-3 (Table C) to the extent feasible.

Table C – City of Eastvale Noise Compatibility by Land Use Designation[1]

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60 – 70 dBA	70 – 75 dBA	Greater than 75 dBA
All Non-Residential (Commercial, Industrial & Institutional)	Less than 70 dBA	70 – 75 dBA	Greater than 75 dBA	--[(2)]
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65 – 70 dBA	70 – 75 dBA	Greater than 75 dBA

Notes:
[1] All noise levels shown in this Table are designated CNEL.
[2] To be determined as part of the project review process.
Source: City of Eastvale, 2012.

Policy N-7: Table N-4 (Table D) provides the City's standards for maximum exterior non-transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day. Where existing ambient noise levels

exceed these standards, the ambient noise level shall be the highest allowable noise level as measured in dBA Leq (30 minutes).

Note to Reader: Public schools are not regulated by the City; therefore, no noise standards for public schools are provided in this Chapter.

Table D – City of Eastvale Exterior Noise Level Standards for Non-Transportation Noise[1]

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

Notes:
[1] Measured as dBA Leq (30 minutes).

Policy N-9: The City may impose exterior noise standards which are less restrictive than those specified in Table N-4, provided that:

1) The noise impact on the residential or other noise-sensitive use is addressed in an environmental analysis and at least one outdoor area meets the standards; and
2) A finding is made by the approving body specifying why the exception would not be detrimental to the public health, safety and general welfare; and
3) The exception would not adversely affect the character of the surrounding development.
4) The exception would not be injurious to adjacent uses, property and improvements; and,
5) Alternatives have been considered but none are technologically feasible for the proposal and,
6) Interior noise levels resulting from and external source will be no more than 45 dBA CNEL from 7 a.m. to 10 p.m.; and,
7) Residents of noise sensitive uses are informed of the proposal during the review stage and prior to approval.

Policy N-10: Table N-5 (Table E): Maximum Acceptable Interior Noise Levels Created by Exterior Noise Sources provides the City's standards for acceptable indoor noise levels for various types of land uses. These standards should receive special attention when projects are considered in "Tentatively Compatible" or "Normally Incompatible" areas.

- Noise created inside a use listed below shall not count toward the acceptable noise levels to be maintained in accordance with this policy.

Table E – Maximum Acceptable Interior Noise Levels Created by Exterior Noise Sources

Land Use Type	Acceptable Noise Level (dBA CNEL)
Residential Living and Sleeping Areas	45 dBA
Residential Living and Sleeping Areas where the dwelling unit is subject to noise from railroad tracks, aircraft overflights, or similar sources which produce clearly identifiable, discrete noise events (such as the passing of a trains as opposed to relatively steady or constant noise sources such as roadways)	40 dBA
Private & Semi Private Classrooms[(1)]	55 dBA
All Places of Work Other than School Classrooms	Conform with applicable state and federal workplace safety standards

Notes:
[1] Standards for public schools are set and enforced by the State of California and are not regulated by the City of Eastvale.
Source: City of Eastvale, 2012.

Policy N-11: Developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise that exceeds the "completely compatible" guidelines in Table N-3 (see Table C) shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.

Policy N-22: Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

Policy N-23: Condition subdivision and other land development approval adjacent to developed/occupied noise-sensitive land uses to require the developer to submit a construction-related noise mitigation plan to the City for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and specify how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:

a) Temporary noise attenuation fences;

b) Preferential location of equipment

c) Length of equipment use and idling time; and,

d) Use of current noise suppression technology and equipment.

Policy N-24: Require that all construction equipment be kept properly tuned and use noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

City of Eastvale Municipal Code

The City of Eastvale Municipal Code establishes the following applicable standards for new residential development related to noise and vibration.

Section 8.52.020 - Exemptions

Sound emanating from the following sources is exempt from the provisions of this chapter:

(9) Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that construction does not occur between the hours of:

a. 6:00 p.m. and 6:00 a.m. during the months of June through September; and

b. 6:00 p.m. and 7:00 a.m. during the months of October through May;

(10) Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.;

(12) Heating and air conditioning equipment.

Section 8.52.040 – General sound level standards

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in the following table:

Table F – City of Eastvale Municipal Code Sound Level Standards

General Plan Foundation Component			Maximum Decibel Level	
Land Use Designation General Plan	Land Use Designation Name	Density (per acre)	7:00 a.m. – 10:00 p.m.	10:00 p.m. – 7:00 a.m.
MDR	Medium-Density Residential	2-5	55	45
MHDR	Medium High-Density Residential	5-8	55	45
HDR	High-Density Residential	8-14	55	45
PF	Public Facility		65	45
REC	Recreation		45	45

Source: City of Eastvale, 2015.

Section 120.05.130 – Noise, odor and vibration performance standards

a) *Applicability.* The standards of this section apply to all new and existing land uses within the city, unless otherwise exempted.

b) *Noise standards.* All uses shall comply with the noise standards set forth in the city's general plan and within the city's noise ordinance (see chapter 8.52).

d) *Vibration standards.* Uses shall be operated in compliance with the following provisions:

(1) Uses, activities and processes shall not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or which endanger the comfort, repose, health or peace of residents whose property abuts the property lines of the subject parcel.

(3) Vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks, trains and aircraft) are exempt from the provisions of this section.

5.0 EXISTING NOISE CONDITIONS

To determine the existing noise levels, noise measurements have been taken in the vicinity of the project site. The field survey noted that noise within the proposed project area is generally characterized by vehicle traffic on Schleisman Road that is adjacent to the north side of the project site and from Orange Street that is adjacent to the south side of the project site. There is also noise created from Eastvale Elementary School, adjacent to the east side of the project site. The following describes the measurement procedures, measurement locations, noise measurement results, and the modeling of the existing noise environment.

5.1 Noise Measurement Equipment

The noise measurements were taken using three Larson Davis Model LXT1 Class 1 sound level meters programmed in "slow" mode to record the sound pressure level at 1-second intervals for 24 hours in "A" weighted form. In addition, the L_{eq} averaged over the entire measuring time and L_{max} were recorded with the three sound level meters. The sound level meters and microphones were mounted on fences, were placed between four and six feet above the ground and were equipped with windscreens during all measurements. The noise meters were calibrated before and after the monitoring using a Larson Davis Cal200 calibrator. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (ANSI S1.4-2014 standard).

Noise Measurement Locations

The noise monitoring locations were selected in order to obtain noise levels on the project site and at the nearest residential uses located on the west side of the project site and at the school located on the east side of the project site. Descriptions of the noise monitoring sites are provided below in Table G and are shown in Figure 3. Appendix A includes a photo index of the study area and noise level measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 4:09 p.m. on Thursday, December 9, 2021 and 4:21 p.m. on Friday, December 10, 2021. When the noise measurements were started the sky was cloudy, the temperature was 56 degrees Fahrenheit, the humidity was 71 percent, barometric pressure was 29.20 inches of mercury, and the wind was blowing around three miles per hour. Overnight, the temperature dropped to 43 degrees Fahrenheit and the humidity peaked at 95 percent. At the conclusion of the noise measurements, the sky was partly cloudy, the temperature was 61 degrees Fahrenheit, the humidity was 47 percent, barometric pressure was 29.44 inches of mercury, and there was no wind.

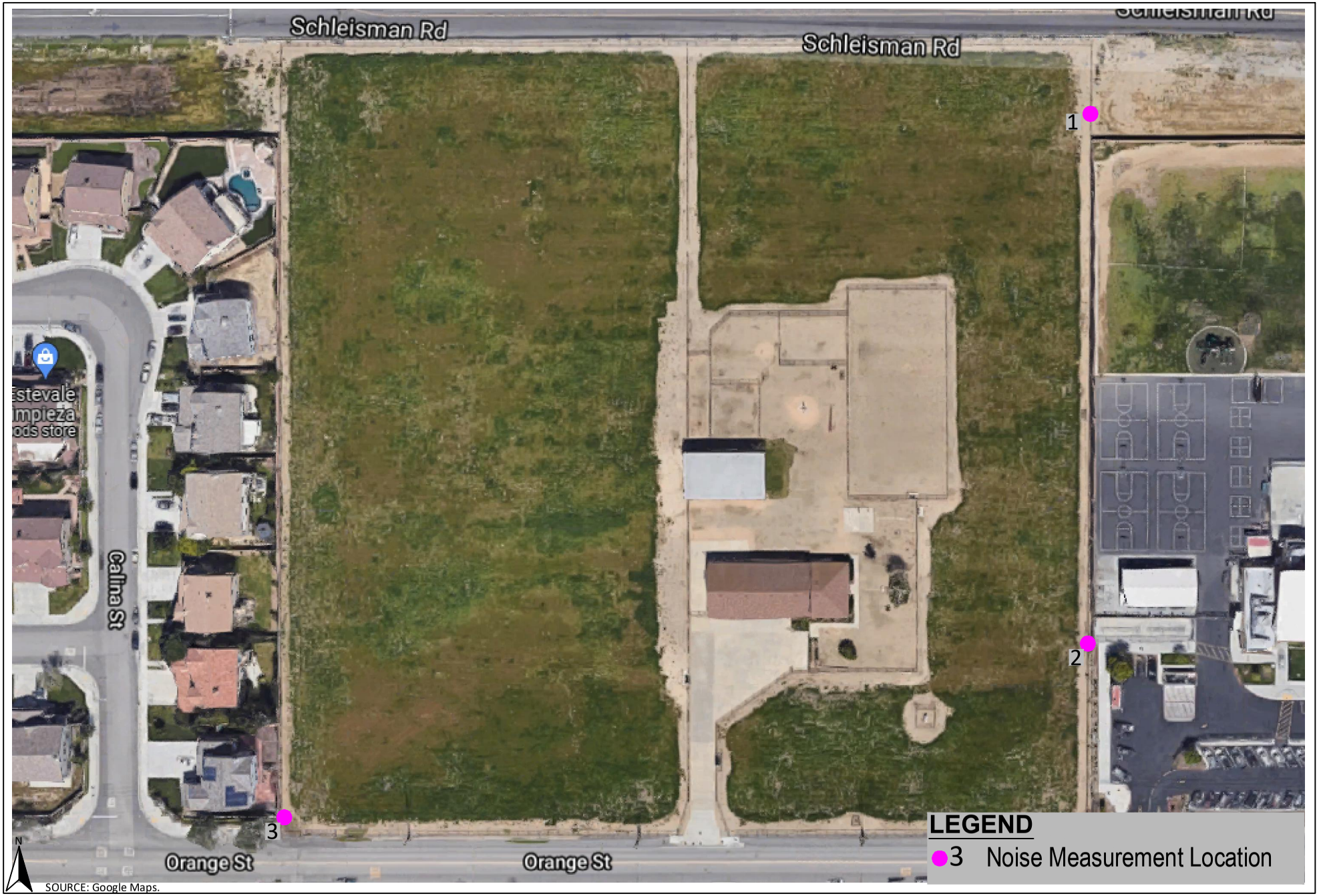
5.2 Noise Measurement Results

The results of the noise level measurements are presented in Table G. The measured sound pressure levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 1-hour intervals. Table G also shows the L_{eq}, L_{max}, and CNEL, based on the entire measurement time. The CNEL was calculated through use of the hourly Leq that was entered into Equation 2-23 from *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (TeNS), prepared by Caltrans, September 2013. The noise monitoring data printouts are included in Appendix B. Figure 4 shows a graph of the 24-hour noise measurements.

Table G – Existing (Ambient) Noise Level Measurements

Site No.	Site Description	Average (dBA L_{eq})		1-hr Average (dBA L_{eq}/Time)		24-hr dBA CNEL
		Daytime[1]	Nighttime[2]	Minimum	Maximum	
1	Located on a fence near the northeast corner of the project site, approximately 90 feet south of Schleisman Road centerline.	57.4	53.6	47.8 1:43 a.m.	60.4 6:59 a.m.	61.1
2	Located on a fence on the east side of the project site and adjacent to the bike parking area at Eastvale Elementary School and approximately 180 feet north of Orange Street centerline.	56.2	49.1	43.2 11:43 p.m.	63.4 11:39 a.m.	57.7
3	Located on a fence near the southwest corner of the project site and shared property line with the home at 7092 Calina Street, approximately 35 feet north of Orange Street centerline.	59.5	51.7	44.5 1:44 a.m.	64.2 7:33 a.m.	60.9

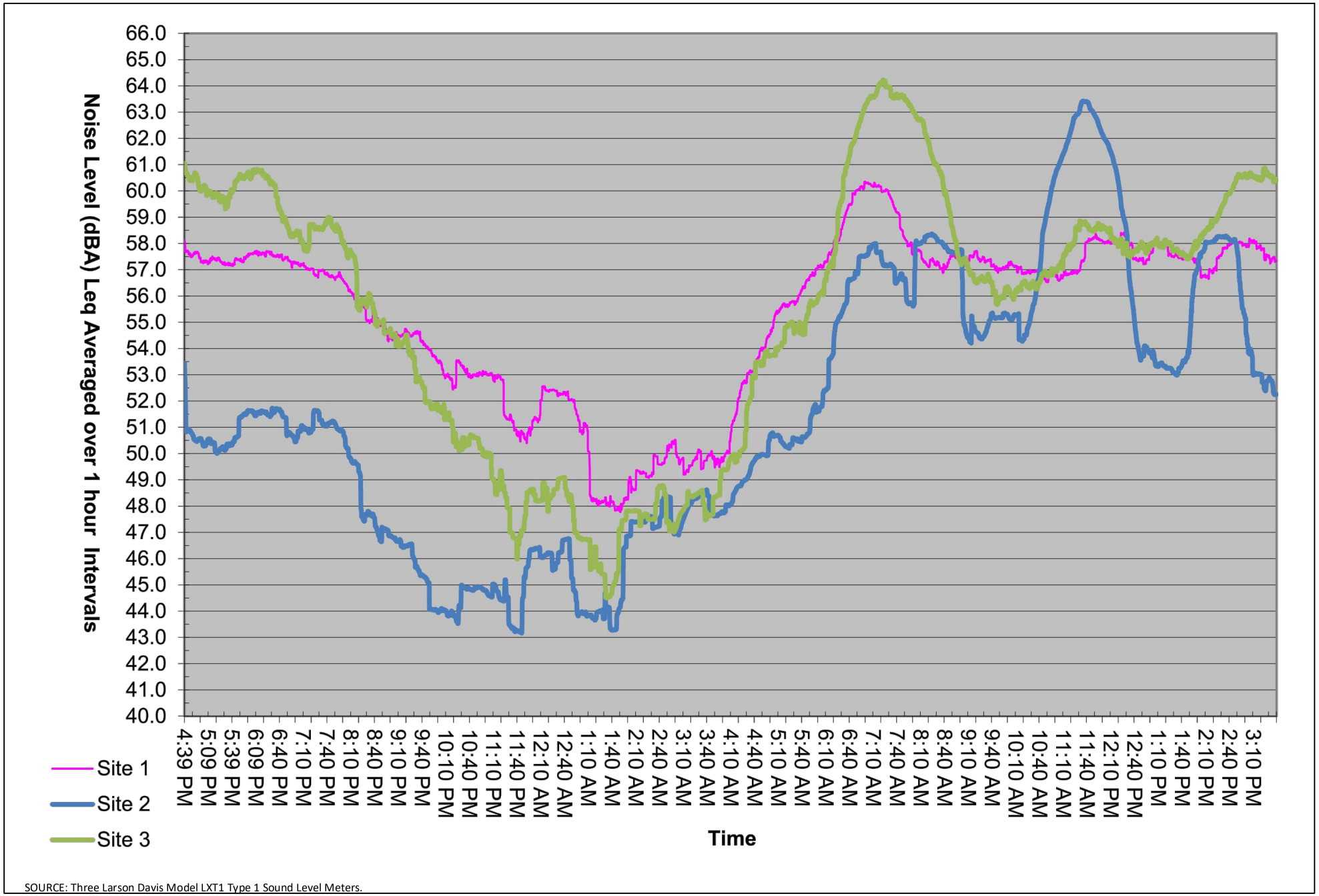
Notes:
[1] Daytime defined as 7:00 a.m. to 10:00 p.m. (Section 8.52.040 of the Municipal Code)
[2] Nighttime define as 10:00 p.m. to 7:00 a.m. (Section 8.52.040 of the Municipal Code)
Source: Noise measurements taken between Thursday, December 9, 2021 and Friday, December 10, 2021.



SOURCE: Google Maps.

VISTA ENVIRONMENTAL

Figure 3
Field Noise Monitoring Locations



SOURCE: Three Larson Davis Model LXT1 Type 1 Sound Level Meters.

VISTA ENVIRONMENTAL

Figure 4
Field Noise Measurements Graph

6.0 MODELING PARAMETERS AND ASSUMPTIONS

6.1 Construction Noise

The noise impacts from construction of the proposed project have been analyzed through use of the FHWA's Roadway Construction Noise Model (RCNM). The FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston. Table H below provides a list of the construction equipment anticipated to be used for each phase of construction that was obtained from the *Air Quality, Energy, and Greenhouse Gas Impact Analysis Magnolia Ranch Residential Project* (Air Quality Analysis), prepared by Vista Environmental, July 26, 2022.

Table H – Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Number of Equipment	Acoustical Use Factor[1] (percent)	Spec 721.560 Lmax at 50 feet[2] (dBA, slow[3])	Actual Measured Lmax at 50 feet[4] (dBA, slow[3])
Demolition				
Concrete/Industrial Saws	1	20	90	90
Excavators	3	40	85	81
Rubber Tired Dozers	2	40	85	82
Site Preparation				
Rubber Tired Dozers	3	40	85	82
Crawler Tractors	4	40	84	N/A
Grading				
Excavators	2	40	85	81
Grader	1	40	85	83
Rubber Tired Dozer	1	40	85	82
Scrapers	2	40	85	84
Crawler Tractors	2	40	84	N/A
Building Construction				
Crane	1	16	85	81
Forklift (Gradall)	3	40	85	83
Generator	1	50	82	81
Tractor	1	40	84	N/A
Front End Loader	1	40	80	79
Backhoe	1	40	80	78
Welder	1	40	73	74
Paving				
Paver	2	50	85	77
Paving Equipment	2	50	85	77
Roller	2	20	85	80
Architectural Coating				
Air Compressor	1	40	80	78

Notes:
[1] Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday.
[2] Spec 721.560 is the equipment noise level utilized by the RCNM program.
[3] The "slow" response averages sound levels over 1-second increments. A "fast" response averages sound levels over 0.125-second increments.

[4] Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.
Source: Federal Highway Administration, 2006 and CalEEMod default equipment mix.

Table H shows the associated measured noise emissions for each piece of equipment from the RCNM model and measured percentage of typical equipment use per day. Construction noise impacts to the nearby sensitive receptors have been calculated according to the equipment noise levels and usage factors listed Table H and through use of the RCNM. For each phase of construction, all construction equipment was analyzed based on being placed in the middle of the project site, which is based on the analysis methodology detailed in FTA Manual for a General Assessment. However, in order to provide a conservative analysis, all equipment was analyzed, instead of just the two nosiest pieces of equipment as detailed in the FTA Manual. The RCNM model printouts are provided in Appendix C.

6.2 Operations-Related Noise

FHWA Model Methodology

The proposed project would result in increases in traffic noise to the nearby roadways as well as introduce new sensitive receptors to the project site. The project impacts to the offsite roadways were analyzed through use of the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108 (FHWA Model). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the reference energy mean emission level to account for: the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT) and the percentage of ADT which flows during the day, evening and night, the travel speed, the vehicle mix on the roadway, which is a percentage of the volume of automobiles, medium trucks and heavy trucks, the roadway grade, the angle of view of the observer exposed to the roadway and site conditions ("hard" or "soft" relates to the absorption of the ground, pavement or landscaping). The following section provides a discussion of the software and modeling input parameters used in this analysis and a discussion of the resultant existing noise model.

FHWA Model Traffic Noise Prediction Model Inputs

The roadway parameters used for this study are presented in Table I. The roadway classifications are based on the City's General Plan Circulation Element. The roadway speeds are based on the posted speed limits. The distance to the nearest sensitive receptor was determined by measuring the distance from the roadway centerline to the nearest residence. Since the study area is located in a suburban environment and landscaping or natural vegetation exists along the sides of the nearby roads, soft site conditions were modeled.

Table I – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Distance to Nearest Receptor[1] (feet)
Sumner Avenue	North of Schleisman Road	Major	45	85
Sumner Avenue	South of Schleisman Road	Major	45	45
Sumner Avenue	South of Orange Street	Major	45	60
Scholar Way	North of Schleisman Road	Secondary	35	70
Scholar Way	South of Schleisman Road	Secondary	35	60

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Distance to Nearest Receptor[1] (feet)
Scholar Way	South of Orange Street	Secondary	35	60
Scholar Way	South of Baltimore Street	Secondary	35	75
Hamner Avenue	North of Schleisman Road	Urban Arterial	45	90
Hamner Avenue	South of Schleisman Road	Urban Arterial	45	100
Schleisman Road	West of Sumner Avenue	Major	45	70
Schleisman Road	East of Sumner Avenue	Urban Arterial	45	80
Schleisman Road	West of Scholar Way	Urban Arterial	45	80
Schleisman Road	East of Scholar Way	Urban Arterial	45	80
Orange Street	East of Sumner Avenue	Collector	30	40
Orange Street	West of Scholar Way	Collector	30	100

Notes:
[1] Distance measured from nearest offsite residential structure to centerline of roadway.
Source: City of Eastvale, 2012; Vista Environmental.

The average daily traffic (ADT) volumes were obtained from the *Project Scoping Agreement for Land Use Project – PLN22-20024* (Traffic Scoping Agreement), prepared by Urban Crossroads, June 27, 2022. The ADT volumes used in this analysis are shown in Table J.

Table J – Average Daily Traffic Volumes

		Average Daily Traffic Volumes					
Roadway	Segment	Existing	Existing + Project	2024 No Project	2024 + Project	2040 No Project	2040 + Project
Sumner Avenue	North of Schleisman Road	10,950	11,050	11,800	11,900	12,500	12,550
Sumner Avenue	South of Schleisman Road	9,600	9,750	10,600	10,750	11,750	11,900
Sumner Avenue	South of Orange Street	8,400	8,400	9,000	9,000	9,300	9,350
Scholar Way	North of Schleisman Road	7,450	7,550	8,050	8,150	8,150	8,300
Scholar Way	South of Schleisman Road	6,950	7,100	7,550	7,750	7,600	7,800
Scholar Way	South of Orange Street	7,200	7,200	7,800	7,850	8,200	8,250
Scholar Way	South of Baltimore Street	7,850	7,850	8,500	8,550	8,850	8,900
Hamner Avenue	North of Schleisman Road	24,600	24,650	28,800	28,800	29,800	29,850
Hamner Avenue	South of Schleisman Road	24,650	24,700	28,600	28,650	29,650	29,700
Schleisman Road	West of Sumner Avenue	18,400	18,500	20,100	20,150	30,900	31,000
Schleisman Road	East of Sumner Avenue	9,600	9,600	10,900	10,900	28,300	28,300
Schleisman Road	West of Scholar Way	9,400	9,400	10,750	10,750	33,000	33,000
Schleisman Road	East of Scholar Way	8,550	8,600	9,850	9,900	26,350	26,400
Orange Street	East of Sumner Avenue	1,100	1,250	1,350	1,500	1,650	1,850
Orange Street	West of Scholar Way	2,450	2,650	2,750	3,000	2,900	3,150

Source: City of Eastvale, 2012; Urban Crossroads, 2022.

The vehicle mixes used in the FHWA-RD-77-108 Model are shown in Table K and is based on the typical vehicle mixes observed in Riverside County. The vehicle mixes provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the FHWA model.

Table K – Roadway Vehicle Mixes

Vehicle Type	Traffic Flow Distributions			
	Day (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall
Secondary, Collector or Smaller				
Automobiles	73.60%	13.60%	10.22%	97.42%
Medium Trucks	0.90%	0.04%	0.9%	1.84%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%
Major, Arterial Highways, and Expressways				
Automobiles	69.50%	12.90%	9.60%	92.00%
Medium Trucks	1.44%	0.06%	1.50%	3.00%
Heavy Trucks	2.40%	0.10%	2.50%	5.00%

Source: County of Riverside, 2015.

FHWA Model Source Assumptions

To assess the roadway noise generation in a uniform manner, all vehicles are analyzed at the single lane equivalent acoustic center of the roadway being analyzed. In order to determine the height above the road grade where the noise is being emitted from, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

6.3 Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to damage at the highest levels. Table L gives approximate vibration levels for particular construction activities. The data in Table L provides a reasonable estimate for a wide range of soil conditions.

Table L – Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
Pile driver (impact)	Upper range	1.518	112
	typical	0.644	104
Pile driver (sonic)	Upper range	0.734	105
	typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drill		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Federal Transit Administration, 2018.

The construction-related vibration impacts have been calculated through the vibration levels shown above in Table L and through typical vibration propagation rates. The equipment assumptions were based on the equipment lists provided above in Table H.

7.0 IMPACT ANALYSIS

7.1 CEQA Thresholds of Significance

Consistent with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a significant impact related to noise would occur if a proposed project is determined to result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

7.2 Generation of Noise Levels in Excess of Standards

The proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The following section calculates the potential noise emissions associated with the temporary construction activities and long-term operations of the proposed project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings.

Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 8.52.020(9) of the City's Municipal Code exempts construction noise that occurs between 6:00 a.m. and 6:00 p.m. June thru September and between 7:00 a.m. and 6:00 p.m. October thru May. However, General Plan Policy N-23, requires that infill development projects to prepare a Construction Noise Mitigation Plan prior to obtaining a grading permit. The Plan will require the use temporary noise barriers, designated equipment staging areas, limits on idling and requirement of all equipment using mufflers. Project Design Feature 1 has been included in this analysis to ensure implementation of General Plan Policy N-23.

The City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction

noise levels may result in a significant substantial temporary noise increase to the nearby sensitive receptors. In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the FTA construction noise criteria thresholds detailed above in Section 4.1 have been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 80 dBA during the daytime at any of the nearby homes and school.

Construction noise impacts to the nearby sensitive receptors have been calculated through use of the RCNM and the parameters and assumptions detailed in Section 6.1 of this report including Table H that shows the anticipated construction equipment per phase. In order to account for the existing 6 to 7 foot high concrete masonry unit (cmu) wall on the west side of the project site, 5 dB of estimated shielding was added to the RCNM model for the homes to the west. The results are shown below in Table M and the RCNM printouts are provided in Appendix C.

Table M – Construction Noise Levels at the Nearest Sensitive Receptors

Construction Phase	Construction Noise Level (dBA Leq) at:	
	Nearest Homes to the West[1]	Nearest School to the East[2]
Demolition	65	70
Site Preparation	66	71
Grading	67	72
Building Construction	65	70
Paving	60	65
Painting	52	57
FTA Construction Noise Threshold[4]	**80**	**80**
Exceed Thresholds?	No	No

[1] The nearest homes to the west are located as near as 340 feet from the center of the project site. 5 dB of estimated shielding was included to account for the 6 to 7 foot high cmu wall on the west side of the project site.
[2] The nearest school structure to the east is located as near as 340 feet from the center of the project site.
[4] The FTA Construction noise thresholds are detailed above in Table B.
Source: RCNM, Federal Highway Administration, 2006

Table M shows that the greatest noise impacts would occur during the grading phase, with a noise level as high as 72 dBA Leq at the school to the east and 67 dBA Leq at the nearest homes to the west. Table M also shows that none of the construction phases would exceed the FTA noise standard of 80 dB at the nearby homes or school. Therefore, through adherence to the allowable construction times detailed in Section 8.52.020(9) of the Municipal Code and through implementation of Project Design Feature 1, that requires the preparation of a construction-related noise mitigation plan, prior to the issuance of the grading plan for the proposed project, the proposed project would not create a substantial temporary increase in ambient noise levels from construction of the proposed project. Impacts would be less than significant.

Operational-Related Noise

The proposed project would consist of a residential development with 41 single-family homes. Potential noise impacts associated with the operations of the proposed project would be from project-generated vehicular traffic on the nearby roadways. In addition, the proposed development would be adjacent to Schleisman Road and adjacent to Eastvale Elementary School, which may create exterior and interior noise levels in excess of City standards at the proposed homes. The noise impacts to the nearby existing homes and proposed homes have been analyzed separately below.

Roadway Vehicular Noise Impact to Nearby Homes

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not propose any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway so the proposed project's potential offsite noise impacts have been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.

Neither the General Plan nor the Municipal Code defines what constitutes a "substantial permanent increase to ambient noise levels". As such, this impact analysis has utilized guidance from the Federal Transit Administration for a moderate impact that has been detailed above in Table A that shows that the project contribution to the noise environment can range between 0 and 7 dB, which is dependent on the existing roadway noise levels.

The potential offsite traffic noise impacts created by the on-going operations of the proposed project have been analyzed through utilization of the FHWA model and parameters described above in Section 6.2 and the FHWA model traffic noise calculation spreadsheets are provided in Appendix D. The proposed project's potential offsite traffic noise impacts have been analyzed for the existing year, opening year 2024, and future year 2040 scenarios that are discussed separately below.

Existing Year Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the Existing scenario to the Existing With Project scenario. The results of this comparison are shown in Table N.

Table N – Existing Year Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Existing	Existing Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.0	63.1	0.1	+2 dBA
Sumner Avenue	South of Schleisman Road	67.4	67.5	0.1	+1 dBA
Sumner Avenue	South of Orange Street	64.4	64.4	0.0	+2 dBA
Scholar Way	North of Schleisman Road	59.3	59.4	0.1	+3 dBA
Scholar Way	South of Schleisman Road	60.1	60.2	0.1	+2 dBA
Scholar Way	South of Orange Street	60.3	60.3	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.1	59.1	0.0	+3 dBA
Hamner Avenue	North of Schleisman Road	66.6	66.6	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	65.8	65.8	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	66.7	66.7	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	63.5	63.5	0.0	+2 dBA
Schleisman Road	West of Scholar Way	63.4	63.4	0.0	+2 dBA
Schleisman Road	East of Scholar Way	63.0	63.0	0.0	+2 dBA
Orange Street	East of Sumner Avenue	52.7	53.3	0.6	+5 dBA
Orange Street	West of Scholar Way	50.1	50.4	0.3	+5 dBA

Notes:

[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table N shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the existing conditions. Impacts would be less than significant.

Opening Year 2024 Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the opening year 2024 scenario to the opening year 2024 with project scenario. The results of this comparison are shown in Table O.

Table O – Opening Year 2024 Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Year 2024	Year 2024 Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.3	63.4	0.1	+2 dBA
Sumner Avenue	South of Schleisman Road	67.8	67.9	0.1	+1 dBA
Sumner Avenue	South of Orange Street	64.7	64.7	0.0	+1 dBA
Scholar Way	North of Schleisman Road	59.7	59.7	0.0	+2 dBA
Scholar Way	South of Schleisman Road	60.5	60.6	0.1	+2 dBA
Scholar Way	South of Orange Street	60.6	60.6	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.4	59.5	0.1	+3 dBA
Hamner Avenue	North of Schleisman Road	67.3	67.3	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	66.4	66.4	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	67.1	67.1	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	64.0	64.0	0.0	+2 dBA
Schleisman Road	West of Scholar Way	64.0	64.0	0.0	+2 dBA
Schleisman Road	East of Scholar Way	63.6	63.6	0.0	+2 dBA
Orange Street	East of Sumner Avenue	53.6	54.1	0.5	+5 dBA
Orange Street	West of Scholar Way	50.6	51.0	0.4	+5 dBA

Notes:
[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table O shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the opening year 2024 conditions. Impacts would be less than significant.

Future Year 2040 Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the future year 2040 scenario to the future year 2040 with project scenario. The results of this comparison are shown in Table P.

Table P – Future Year 2040 Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Year 2040	Year 2040 Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.6	63.6	0.0	+2 dBA
Sumner Avenue	South of Schleisman Road	68.3	68.3	0.0	+1 dBA
Sumner Avenue	South of Orange Street	64.9	64.9	0.0	+1 dBA
Scholar Way	North of Schleisman Road	59.8	59.8	0.0	+2 dBA
Scholar Way	South of Schleisman Road	60.5	60.7	0.2	+2 dBA
Scholar Way	South of Orange Street	60.9	60.9	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.6	59.7	0.1	+2 dBA
Hamner Avenue	North of Schleisman Road	67.4	67.4	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	66.6	66.6	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	68.9	68.9	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	68.2	68.2	0.0	+1 dBA
Schleisman Road	West of Scholar Way	68.8	68.8	0.0	+1 dBA
Schleisman Road	East of Scholar Way	67.8	67.9	0.1	+1 dBA
Orange Street	East of Sumner Avenue	54.5	55.0	0.5	+5 dBA
Orange Street	West of Scholar Way	50.9	51.2	0.3	+5 dBA

Notes:
[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table P shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the future year 2040 conditions. Impacts would be less than significant.

Noise Impacts to the Proposed Homes

The proposed project would consist of a residential development with 41 single-family homes. The proposed development would be adjacent to Schleisman Road to the north and adjacent to Eastvale Elementary School to the east, which may create exterior and interior noise levels in excess of City standards at the proposed homes. The roadway noise impacts and non-transportation noise impacts have been analyzed separately below.

Non-Transportation Noise Impacts to Proposed Homes

The noise impacts from Eastvale Elementary School are controlled by General Plan Policy N-7 that provides the City's standards for maximum exterior non-transportation noise levels. For the proposed single-family homes, General Plan Policy N-7 provides a noise standard of 60 dBA between7 a.m. to 10 p.m. and 50 dBA between 10 p.m. to 7 a.m. at the exterior of the proposed single-family homes.

Noise Measurement 2 (see Table G above) is most representative of the noise created from the school, since it was located on the shared property line with the School, is in close proximity to the outdoor lunch area and playgrounds, and there are no roads in the immediate vicinity of Noise Measurement 2. Noise Measurement 2 recorded noise levels of 56.2 dBA Leq between 7 a.m. to 10 p.m. and 49.1 dBA Leq between 10 p.m. to 7 a.m.. As such, the noise created from the outdoor areas of the School are below the City's non-transportation exterior noise standards for single-family homes provided in General Plan Policy N-7. Therefore, the non-transportation noise impacts created from Eastvale Elementary School to the proposed homes would be within the City noise standards. Impacts would be less than significant.

Roadway Noise Impacts to Proposed Homes

The north side of the proposed development would be adjacent to Schleisman Road. General Plan Policy N-6 requires exterior noise levels for new residential uses to be mitigated to the levels shown above in Table C that shows the "Completely Compatible" noise standard of less than 60 dBA, "Tentatively Compatible" 60 to 70 dBA, "Normally Incompatible" 70 to 75 dBA, and "Completely Incompatible" greater than 75 dBA. General Plan Policy N-11 requires developers of new residential uses where the noise exceeds the "Completely Compatible" noise standard to ensure acceptable exterior and interior noise levels. General Plan Policy N-10 details that the maximum acceptable interior noise level from roadway noise sources is 45 dBA CNEL.

It is anticipated that the primary source of noise impacts to the project site will be traffic noise from Schleisman Road that is adjacent to the north side of the project site. The proposed homes will also experience some background traffic noise impacts from the proposed project's internal roadways and from Orange Street that is adjacent to the south side of the project site. As the traffic on these local streets would consist of low traffic volumes at slower speeds, the traffic noise from these roads would not make a significant contribution to the noise environment. As such, the noise levels from these roads were not analyzed. The FHWA traffic noise prediction model parameters used in this analysis are discussed above in detail in Section 6.2 and the FHWA model printouts are provided in Appendix G. The exterior and interior noise impacts to the proposed homes have been analyzed separately below.

Exterior Noise Impacts to Proposed Homes

The anticipated exterior noise levels have been calculated for the backyards of representative homes that are adjacent to Schleisman Road. For each backyard, the receptor was placed 10 feet behind the wall and 5 feet above the ground, which is based on the roadway noise analysis methodology provided in Appendix I-1 of the County of Riverside General Plan, December 8, 2015, since the City of Eastvale does not provide any roadway noise analysis standards to utilize. The calculated noise levels for backyards that are adjacent to Schleisman Road are shown below in Table R.

Table Q – Proposed Homes Exterior Noise Levels from Schleisman Road

Building Number	Exterior Noise Level Without Sound Walls (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?	Exterior Noise Level With 6.5 Foot High Sound Wall (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?
9	68.1	Yes	59.1	No
11	68.1	Yes	59.3	No
13	68.1	Yes	59.6	No
15	68.2	Yes	60.0	No
17	68.1	Yes	59.9	No

Notes:

City's residential 60 dBA CNEL residential exterior noise standard from General Plan Policy N-6.
Source: FHWA RD-77-108 Model.

Table R shows that without a sound wall, that the noise levels at all of the backyards adjacent to Schleisman Road would exceed the City's residential exterior noise standard of 60 dBA CNEL. This would be considered a significant impact.

Mitigation Measure 2 is provided that would require construction of a minimum 6.5 foot high cmu wall on the north side of all backyards that are adjacent to Schleisman Road. As shown in Table R, above, with implementation of Mitigation Measure 2, the proposed homes exterior noise levels would be within the City's 60 dBA CNEL residential exterior noise standard and would result in a less than significant impact.

Interior Noise Impacts to Proposed Homes

To assess the interior noise levels, the same proposed homes analyzed for the exterior private backyard analysis were also analyzed for their interior noise levels. The exterior noise level at the façade of the first and second floors were calculated through use of the same methodology detailed above for the outdoor noise calculations and the results are shown below in Table R. Table R also shows the interior noise levels calculated based on 25 dB of attenuation, which is the minimum exterior to interior noise reduction rate for new homes that are constructed to meet the required California Code of Regulations Title 24, Part 6 building energy-efficiency standards that require the installation of dual-paned windows as well as enhanced insulation requirements. The anticipated noise levels have been calculated at the facades of representative proposed homes to Schleisman Road and the results are shown below in Table R.

Table R – Proposed Homes Interior Noise Levels from Schleisman Road

Building Number	Floor	Road Noise Levels (dBA CNEL)		Exceed 45 dBA Interior Threshold?
		Exterior at Facade	Interior[1]	
9	First	58.9	33.9	No
	Second	66.9	40.4	No
11	First	58.2	33.2	No
	Second	65.4	40.4	No
13	First	58.8	33.8	No
	Second	65.7	40.7	No
15	First	60.0	35.0	No
	Second	66.9	41.9	No
17	First	58.3	33.3	No
	Second	64.3	39.3	No

Notes:
[1] Based on standard dual pane windows and doors with a 26 STC rating, which are required per Title 24 energy saving requirements.
Source: FHWA RD-77-108 Model.

Table R shows that the interior noise level of all homes adjacent to Schleisman Road would be within the City's 45 dBA CNEL interior noise standard. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1:

The project applicant shall construct a minimum 6.5-foot high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings.

Level of Significance After Mitigation

Less than significant impact.

7.3 Generation of Excessive Groundborne Vibration

The proposed project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operations of the proposed project.

Construction-Related Vibration Impacts

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings.

Vibration impacts from construction activities associated with the proposed project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 120.05.130(e) of the Municipal Code provides a vibration standard for new development of any vibration that causes discomfort or annoyance to reasonable persons of normal sensitivity. However Section 120.05.130(e) of the Municipal Code exempts construction activities from this standard. Since neither the Municipal nor the General Plan provide a quantifiable vibration threshold for temporary construction activities, guidance from the *Transportation and Construction-Induced Vibration Guidance Manual*, prepared by Caltrans, April 2020, has been utilized, which defines the threshold of perception from transient sources such as off-road construction equipment at 0.25 inch per second peak particle velocity (PPV).

The primary source of vibration during construction would be from the operation of a bulldozer. From Table L above a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. The vibration level at the nearest offsite homes (25 feet to west) and school structure (25 feet to east) would be below the 0.25 inch per second PPV threshold detailed above. Impacts would be less than significant.

Operations-Related Vibration Impacts

The proposed project would consist of the development of a residential community. The on-going operation of the proposed project would not include the operation of any known vibration sources other than typical onsite vehicle operations for a residential development. Therefore, a less than significant vibration impact is anticipated from operation of the proposed project.

Level of Significance

Less than significant impact.

7.4 Aircraft Noise

The proposed project may expose people residing in the project area to excessive noise levels from aircraft. The nearest airport is Chino Airport that is located as near as three miles west of the project site. The project site is located outside of the 60 dBA CNEL noise contours of this airport. Therefore, the proposed homes would not be exposed to excessive aircraft noise. Impacts would be less than significant.

Level of Significance

Less than significant impact.

8.0 REFERENCES

California Department of Transportation, *2016 Annual Average Daily Truck Traffic on the California State Highway System*, 2018.

California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analytics Protocol*, September 2013.

California Department of Transportation, *Transportation- and Construction Vibration Guidance Manual*, April 2020.

City of Eastvale, *Code of the City of Eastvale, California,* January 7, 2022.

City of Eastvale, *City of Eastvale General Plan,* adopted June 13, 2012.

County of Riverside, *County of Riverside General Plan,* December 2015.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment,* May 2006.

Urban Crossroads, *Project Scoping Agreement for Land Use Project – PLN22-20024*, June 27, 2022.

U.S. Department of Transportation, *FHWA Roadway Construction Noise Model User's Guide,* January, 2006.

U.S. Department of Transportation, *Highway Traffic Noise: Analysis and Abatement Guidance,* December, 2011.

Vista Environmental, *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project*, July 26, 2022.

APPENDIX A

Field Noise Measurements Photo Index



Noise Measurement Site 1 - looking north



Noise Measurement Site 1 - looking northeast



Noise Measurement Site 1 - looking east



Noise Measurement Site 1 - looking southeast



Noise Measurement Site 1 - looking south



Noise Measurement Site 1 - looking southwest



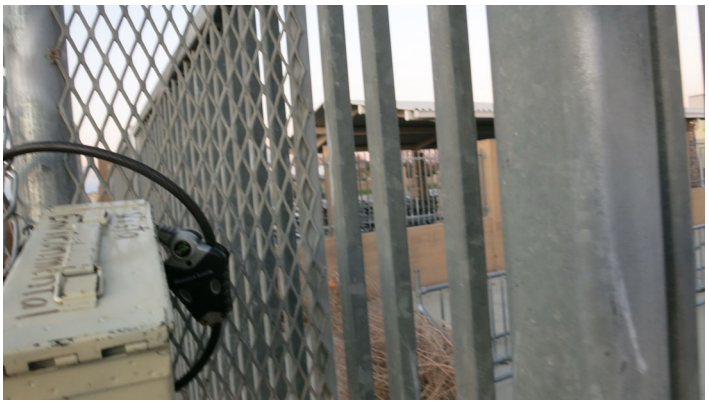
Noise Measurement Site 1 - looking west



Noise Measurement Site 1 - looking northwest



Noise Measurement Site 2 - looking north



Noise Measurement Site 2 - looking northeast



Noise Measurement Site 2 - looking east



Noise Measurement Site 2 - looking south



Noise Measurement Site 2 - looking southwest



Noise Measurement Site 2 - looking west



Noise Measurement Site 2 - looking northwest



Noise Measurement Site 2 - looking north northeast



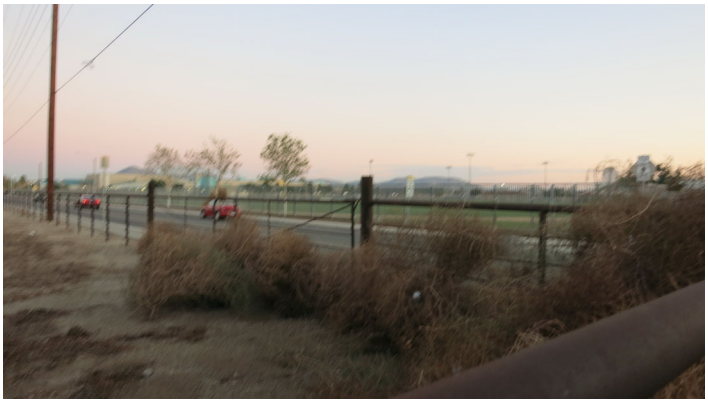
Noise Measurement Site 3 - looking north



Noise Measurement Site 3 - looking northeast



Noise Measurement Site 3 - looking east



Noise Measurement Site 3 - looking southeast



Noise Measurement Site 3 - looking south



Noise Measurement Site 3 - looking southwest



Noise Measurement Site 3 - looking west



Noise Measurement Site 3 - looking northwest

APPENDIX B

Field Noise Measurements Printouts

Site 1 - Near Northeast Corner of Project Site

December 9, 2021 4:09:56 PM Leq Daytime = 57.4
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 53.6
Record Num = 86402 CNEL(24hr)= 61.1
Leq = 56.3 Ldn(24hr)= 60.8
Min = 34.5 Min Leq hr at 1:43 AM 47.8
Max = 77.2 Max Leq hr at 6:59 AM 60.4

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.0	16:09:56		60.0	60.0
56.2	16:09:57		56.2	56.2
53.0	16:09:58		53.0	53.0
51.8	16:09:59		51.8	51.8
62.2	16:10:00		62.2	62.2
60.1	16:10:01		60.1	60.1
68.8	16:10:02		68.8	68.8
65.8	16:10:03		65.8	65.8
61.7	16:10:04		61.7	61.7
60.9	16:10:05		60.9	60.9
67.1	16:10:06		67.1	67.1
67.3	16:10:07		67.3	67.3
66.0	16:10:08		66.0	66.0
63.6	16:10:09		63.6	63.6
60.5	16:10:10		60.5	60.5
64.2	16:10:11		64.2	64.2
66.0	16:10:12		66.0	66.0
64.1	16:10:13		64.1	64.1
61.9	16:10:14		61.9	61.9
61.3	16:10:15		61.3	61.3
61.2	16:10:16		61.2	61.2
62.6	16:10:17		62.6	62.6
62.8	16:10:18		62.8	62.8
62.8	16:10:19		62.8	62.8
62.3	16:10:20		62.3	62.3
61.1	16:10:21		61.1	61.1
65.7	16:10:22		65.7	65.7
67.5	16:10:23		67.5	67.5
70.6	16:10:24		70.6	70.6
68.3	16:10:25		68.3	68.3
70.9	16:10:26		70.9	70.9
65.1	16:10:27		65.1	65.1
63.3	16:10:28		63.3	63.3
69.4	16:10:29		69.4	69.4
65.9	16:10:30		65.9	65.9
63.3	16:10:31		63.3	63.3
64.1	16:10:32		64.1	64.1
65.8	16:10:33		65.8	65.8
63.0	16:10:34		63.0	63.0
61.0	16:10:35		61.0	61.0
59.4	16:10:36		59.4	59.4
59.8	16:10:37		59.8	59.8
60.0	16:10:38		60.0	60.0
61.5	16:10:39		61.5	61.5
62.7	16:10:40		62.7	62.7
67.7	16:10:41		67.7	67.7
69.3	16:10:42		69.3	69.3
68.5	16:10:43		68.5	68.5
66.1	16:10:44		66.1	66.1
61.5	16:10:45		61.5	61.5
61.1	16:10:46		61.1	61.1
67.2	16:10:47		67.2	67.2
65.3	16:10:48		65.3	65.3
62.0	16:10:49		62.0	62.0
60.4	16:10:50		60.4	60.4
59.0	16:10:51		59.0	59.0
64.9	16:10:52		64.9	64.9
64.6	16:10:53		64.6	64.6
67.2	16:10:54		67.2	67.2
67.9	16:10:55		67.9	67.9
67.5	16:10:56		67.5	67.5
70.0	16:10:57		70.0	70.0
63.1	16:10:58		63.1	63.1
69.5	16:10:59		69.5	69.5
65.6	16:11:00		65.6	65.6
61.7	16:11:01		61.7	61.7
68.1	16:11:02		68.1	68.1
66.2	16:11:03		66.2	66.2
67.5	16:11:04		67.5	67.5
67.3	16:11:05		67.3	67.3
64.7	16:11:06		64.7	64.7
62.7	16:11:07		62.7	62.7
61.6	16:11:08		61.6	61.6
61.0	16:11:09		61.0	61.0
60.6	16:11:10		60.6	60.6
60.3	16:11:11		60.3	60.3
60.4	16:11:12		60.4	60.4
60.6	16:11:13		60.6	60.6
60.4	16:11:14		60.4	60.4
60.2	16:11:15		60.2	60.2
60.9	16:11:16		60.9	60.9
61.5	16:11:17		61.5	61.5
61.2	16:11:18		61.2	61.2
61.8	16:11:19		61.8	61.8
63.0	16:11:20		63.0	63.0
63.7	16:11:21		63.7	63.7
64.3	16:11:22		64.3	64.3
63.0	16:11:23		63.0	63.0
60.7	16:11:24		60.7	60.7
58.6	16:11:25		58.6	58.6
56.7	16:11:26		56.7	56.7
55.1	16:11:27		55.1	55.1
53.8	16:11:28		53.8	53.8
52.6	16:11:29		52.6	52.6
51.5	16:11:30		51.5	51.5
50.0	16:11:31		50.0	50.0
49.2	16:11:32		49.2	49.2
48.9	16:11:33		48.9	48.9
48.8	16:11:34		48.8	48.8
48.5	16:11:35		48.5	48.5
48.5	16:11:36		48.5	48.5
49.3	16:11:37		49.3	49.3
51.1	16:11:38		51.1	51.1
52.9	16:11:39		52.9	52.9
54.1	16:11:40		54.1	54.1
54.5	16:11:41		54.5	54.5
54.3	16:11:42		54.3	54.3
53.3	16:11:43		53.3	53.3
52.3	16:11:44		52.3	52.3
51.6	16:11:45		51.6	51.6
50.9	16:11:46		50.9	50.9
49.9	16:11:47		49.9	49.9
48.6	16:11:48		48.6	48.6
47.7	16:11:49		47.7	47.7
47.2	16:11:50		47.2	47.2
46.9	16:11:51		46.9	46.9
46.7	16:11:52		46.7	46.7
48.2	16:11:53		48.2	48.2
50.8	16:11:54		50.8	50.8
49.8	16:11:55		49.8	49.8
49.7	16:11:56		49.7	49.7
49.8	16:11:57		49.8	49.8
49.3	16:11:58		49.3	49.3
48.3	16:11:59		48.3	48.3
47.8	16:12:00		47.8	47.8
47.7	16:12:01		47.7	47.7
47.5	16:12:02		47.5	47.5
47.5	16:12:03		47.5	47.5
47.7	16:12:04		47.7	47.7
48.2	16:12:05		48.2	48.2
48.7	16:12:06		48.7	48.7
49.4	16:12:07		49.4	49.4
51.2	16:12:08		51.2	51.2
52.0	16:12:09		52.0	52.0
52.3	16:12:10		52.3	52.3
52.9	16:12:11		52.9	52.9
54.0	16:12:12		54.0	54.0
55.3	16:12:13		55.3	55.3
56.1	16:12:14		56.1	56.1
57.6	16:12:15		57.6	57.6
58.7	16:12:16		58.7	58.7
59.0	16:12:17		59.0	59.0
58.3	16:12:18		58.3	58.3
57.8	16:12:19		57.8	57.8
57.6	16:12:20		57.6	57.6
57.2	16:12:21		57.2	57.2
56.4	16:12:22		56.4	56.4
56.0	16:12:23		56.0	56.0
55.3	16:12:24		55.3	55.3
54.3	16:12:25		54.3	54.3
53.1	16:12:26		53.1	53.1
52.4	16:12:27		52.4	52.4
51.5	16:12:28		51.5	51.5
50.6	16:12:29		50.6	50.6
50.5	16:12:30		50.5	50.5
50.4	16:12:31		50.4	50.4
51.1	16:12:32		51.1	51.1
52.2	16:12:33		52.2	52.2
51.5	16:12:34		51.5	51.5
51.4	16:12:35		51.4	51.4
51.9	16:12:36		51.9	51.9
52.1	16:12:37		52.1	52.1
53.4	16:12:38		53.4	53.4
55.5	16:12:39		55.5	55.5
56.9	16:12:40		56.9	56.9
57.6	16:12:41		57.6	57.6
57.8	16:12:42		57.8	57.8
57.4	16:12:43		57.4	57.4
57.6	16:12:44		57.6	57.6
58.5	16:12:45		58.5	58.5

Site 2 - On East Side of Project Site

December 9, 2021 4:16:07 PM Leq Daytime = 56.2
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 49.1
Record Num = 86402 CNEL(24hr)= 57.7
Leq = 54.7 Ldn(24hr)= 57.6
Min = 35.1 Min Leq hr at 11:43 PM 43.2
Max = 81.3 Max Leq hr at 11:39 AM 63.4

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.9	16:16:08		60.9	60.9
57.0	16:16:09		57.0	57.0
53.6	16:16:10		53.6	53.6
51.5	16:16:11		51.5	51.5
51.0	16:16:12		51.0	51.0
51.6	16:16:13		51.6	51.6
58.1	16:16:14		58.1	58.1
62.9	16:16:15		62.9	62.9
68.0	16:16:16		68.0	68.0
62.2	16:16:17		62.2	62.2
69.8	16:16:18		69.8	69.8
67.5	16:16:19		67.5	67.5
63.8	16:16:20		63.8	63.8
65.3	16:16:21		65.3	65.3
65.5	16:16:22		65.5	65.5
61.4	16:16:23		61.4	61.4
57.8	16:16:24		57.8	57.8
54.5	16:16:25		54.5	54.5
55.3	16:16:26		55.3	55.3
59.5	16:16:27		59.5	59.5
59.0	16:16:28		59.0	59.0
67.3	16:16:29		67.3	67.3
64.2	16:16:30		64.2	64.2
66.3	16:16:31		66.3	66.3
67.0	16:16:32		67.0	67.0
63.0	16:16:33		63.0	63.0
64.8	16:16:34		64.8	64.8
70.6	16:16:35		70.6	70.6
66.6	16:16:36		66.6	66.6
63.2	16:16:37		63.2	63.2
61.3	16:16:38		61.3	61.3
61.8	16:16:39		61.8	61.8
58.6	16:16:40		58.6	58.6
58.9	16:16:41		58.9	58.9
66.4	16:16:42		66.4	66.4
67.7	16:16:43		67.7	67.7
63.7	16:16:44		63.7	63.7
61.7	16:16:45		61.7	61.7
60.1	16:16:46		60.1	60.1
62.5	16:16:47		62.5	62.5
68.9	16:16:48		68.9	68.9
66.8	16:16:49		66.8	66.8
63.2	16:16:50		63.2	63.2
62.0	16:16:51		62.0	62.0
58.6	16:16:52		58.6	58.6
56.0	16:16:53		56.0	56.0
54.0	16:16:54		54.0	54.0
53.7	16:16:55		53.7	53.7
54.1	16:16:56		54.1	54.1
53.2	16:16:57		53.2	53.2
54.1	16:16:58		54.1	54.1
53.8	16:16:59		53.8	53.8
55.1	16:17:00		55.1	55.1
56.9	16:17:01		56.9	56.9
56.4	16:17:02		56.4	56.4
66.3	16:17:03		66.3	66.3
65.4	16:17:04		65.4	65.4
69.6	16:17:05		69.6	69.6
68.8	16:17:06		68.8	68.8
67.7	16:17:07		67.7	67.7
66.1	16:17:08		66.1	66.1
66.5	16:17:09		66.5	66.5
68.3	16:17:10		68.3	68.3
65.3	16:17:11		65.3	65.3
64.1	16:17:12		64.1	64.1
65.9	16:17:13		65.9	65.9
63.3	16:17:14		63.3	63.3
64.0	16:17:15		64.0	64.0
63.2	16:17:16		63.2	63.2
62.7	16:17:17		62.7	62.7
62.7	16:17:18		62.7	62.7
63.4	16:17:19		63.4	63.4
63.6	16:17:20		63.6	63.6
64.4	16:17:21		64.4	64.4
64.6	16:17:22		64.6	64.6
65.4	16:17:23		65.4	65.4
67.5	16:17:24		67.5	67.5
73.0	16:17:25		73.0	73.0
68.8	16:17:26		68.8	68.8
64.7	16:17:27		64.7	64.7
61.0	16:17:28		61.0	61.0
57.8	16:17:29		57.8	57.8
55.4	16:17:30		55.4	55.4
52.8	16:17:31		52.8	52.8
50.9	16:17:32		50.9	50.9
50.1	16:17:33		50.1	50.1
49.1	16:17:34		49.1	49.1
48.0	16:17:35		48.0	48.0
47.4	16:17:36		47.4	47.4
47.7	16:17:37		47.7	47.7
47.8	16:17:38		47.8	47.8
48.4	16:17:39		48.4	48.4
64.8	16:17:40		64.8	64.8
63.8	16:17:41		63.8	63.8
62.6	16:17:42		62.6	62.6
66.2	16:17:43		66.2	66.2
73.0	16:17:44		73.0	73.0
72.4	16:17:45		72.4	72.4
68.8	16:17:46		68.8	68.8
64.9	16:17:47		64.9	64.9
61.2	16:17:48		61.2	61.2
59.3	16:17:49		59.3	59.3
58.1	16:17:50		58.1	58.1
67.5	16:17:51		67.5	67.5
65.5	16:17:52		65.5	65.5
61.9	16:17:53		61.9	61.9
59.8	16:17:54		59.8	59.8
59.4	16:17:55		59.4	59.4
65.8	16:17:56		65.8	65.8
69.4	16:17:57		69.4	69.4
67.3	16:17:58		67.3	67.3
68.0	16:17:59		68.0	68.0
65.3	16:18:00		65.3	65.3
62.3	16:18:01		62.3	62.3
59.8	16:18:02		59.8	59.8
60.1	16:18:03		60.1	60.1
61.6	16:18:04		61.6	61.6
61.7	16:18:05		61.7	61.7
60.4	16:18:06		60.4	60.4
60.5	16:18:07		60.5	60.5
60.0	16:18:08		60.0	60.0
64.2	16:18:09		64.2	64.2
66.3	16:18:10		66.3	66.3
63.2	16:18:11		63.2	63.2
59.6	16:18:12		59.6	59.6
58.6	16:18:13		58.6	58.6
56.8	16:18:14		56.8	56.8
56.0	16:18:15		56.0	56.0
56.9	16:18:16		56.9	56.9
56.0	16:18:17		56.0	56.0
54.0	16:18:18		54.0	54.0
57.8	16:18:19		57.8	57.8
58.2	16:18:20		58.2	58.2
57.4	16:18:21		57.4	57.4
53.8	16:18:22		53.8	53.8
51.1	16:18:23		51.1	51.1
49.8	16:18:24		49.8	49.8
49.4	16:18:25		49.4	49.4
49.7	16:18:26		49.7	49.7
48.6	16:18:27		48.6	48.6
47.6	16:18:28		47.6	47.6
47.3	16:18:29		47.3	47.3
46.9	16:18:30		46.9	46.9
46.5	16:18:31		46.5	46.5
46.3	16:18:32		46.3	46.3
46.5	16:18:33		46.5	46.5
46.4	16:18:34		46.4	46.4
46.2	16:18:35		46.2	46.2
46.1	16:18:36		46.1	46.1
46.2	16:18:37		46.2	46.2
46.9	16:18:38		46.9	46.9
48.1	16:18:39		48.1	48.1
48.4	16:18:40		48.4	48.4
48.5	16:18:41		48.5	48.5
47.7	16:18:42		47.7	47.7
47.2	16:18:43		47.2	47.2
46.9	16:18:44		46.9	46.9
47.0	16:18:45		47.0	47.0
47.7	16:18:46		47.7	47.7
48.6	16:18:47		48.6	48.6
47.9	16:18:48		47.9	47.9
46.7	16:18:49		46.7	46.7
46.1	16:18:50		46.1	46.1
45.7	16:18:51		45.7	45.7
45.2	16:18:52		45.2	45.2
45.0	16:18:53		45.0	45.0
45.0	16:18:54		45.0	45.0
45.3	16:18:55		45.3	45.3
47.3	16:18:56		47.3	47.3
50.3	16:18:57		50.3	50.3

Site 3 - Near Southwest Corner of Project Site

December 9, 2021 4:21:53 PM Leq Daytime = 59.5
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 51.7
Record Num = 86402 CNEL(24hr)= 60.9
Leq = 57.9 Ldn(24hr)= 60.5
Min = 33.0 Min Leq hr at 1:44 AM 44.5
Max = 81.2 Max Leq hr at 7:33 AM 64.2

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
59.3	16:21:53		59.3	59.3
55.3	16:21:54		55.3	55.3
54.5	16:21:55		54.5	54.5
52.8	16:21:56		52.8	52.8
50.7	16:21:57		50.7	50.7
55.8	16:21:58		55.8	55.8
58.8	16:21:59		58.8	58.8
56.4	16:22:00		56.4	56.4
63.6	16:22:01		63.6	63.6
66.5	16:22:02		66.5	66.5
63.2	16:22:03		63.2	63.2
61.5	16:22:04		61.5	61.5
60.1	16:22:05		60.1	60.1
65.9	16:22:06		65.9	65.9
61.8	16:22:07		61.8	61.8
57.8	16:22:08		57.8	57.8
53.8	16:22:09		53.8	53.8
53.1	16:22:10		53.1	53.1
67.3	16:22:11		67.3	67.3
63.5	16:22:12		63.5	63.5
63.5	16:22:13		63.5	63.5
66.8	16:22:14		66.8	66.8
65.5	16:22:15		65.5	65.5
65.8	16:22:16		65.8	65.8
64.4	16:22:17		64.4	64.4
65.6	16:22:18		65.6	65.6
66.1	16:22:19		66.1	66.1
65.6	16:22:20		65.6	65.6
66.7	16:22:21		66.7	66.7
66.1	16:22:22		66.1	66.1
69.1	16:22:23		69.1	69.1
69.0	16:22:24		69.0	69.0
64.8	16:22:25		64.8	64.8
60.8	16:22:26		60.8	60.8
60.9	16:22:27		60.9	60.9
59.7	16:22:28		59.7	59.7
59.4	16:22:29		59.4	59.4
62.1	16:22:30		62.1	62.1
60.7	16:22:31		60.7	60.7
61.5	16:22:32		61.5	61.5
66.1	16:22:33		66.1	66.1
70.5	16:22:34		70.5	70.5
70.6	16:22:35		70.6	70.6
68.9	16:22:36		68.9	68.9
66.8	16:22:37		66.8	66.8
64.2	16:22:38		64.2	64.2
61.6	16:22:39		61.6	61.6
65.1	16:22:40		65.1	65.1
65.5	16:22:41		65.5	65.5
67.7	16:22:42		67.7	67.7
68.3	16:22:43		68.3	68.3
68.5	16:22:44		68.5	68.5
69.2	16:22:45		69.2	69.2
71.2	16:22:46		71.2	71.2
67.6	16:22:47		67.6	67.6
63.8	16:22:48		63.8	63.8
60.8	16:22:49		60.8	60.8
57.9	16:22:50		57.9	57.9
55.6	16:22:51		55.6	55.6
56.1	16:22:52		56.1	56.1
56.3	16:22:53		56.3	56.3
57.7	16:22:54		57.7	57.7
61.1	16:22:55		61.1	61.1
60.3	16:22:56		60.3	60.3
61.9	16:22:57		61.9	61.9
62.6	16:22:58		62.6	62.6
60.0	16:22:59		60.0	60.0
65.4	16:23:00		65.4	65.4
65.7	16:23:01		65.7	65.7
67.9	16:23:02		67.9	67.9
64.0	16:23:03		64.0	64.0
69.9	16:23:04		69.9	69.9
65.8	16:23:05		65.8	65.8
64.9	16:23:06		64.9	64.9
62.8	16:23:07		62.8	62.8
60.9	16:23:08		60.9	60.9
68.4	16:23:09		68.4	68.4
68.6	16:23:10		68.6	68.6
64.5	16:23:11		64.5	64.5
62.9	16:23:12		62.9	62.9
72.3	16:23:13		72.3	72.3
69.2	16:23:14		69.2	69.2
66.0	16:23:15		66.0	66.0
62.4	16:23:16		62.4	62.4
60.6	16:23:17		60.6	60.6
60.2	16:23:18		60.2	60.2
59.3	16:23:19		59.3	59.3
59.6	16:23:20		59.6	59.6
60.8	16:23:21		60.8	60.8
72.5	16:23:22		72.5	72.5
73.0	16:23:23		73.0	73.0
69.7	16:23:24		69.7	69.7
65.7	16:23:25		65.7	65.7
61.8	16:23:26		61.8	61.8
58.3	16:23:27		58.3	58.3
56.2	16:23:28		56.2	56.2
56.5	16:23:29		56.5	56.5
59.9	16:23:30		59.9	59.9
62.4	16:23:31		62.4	62.4
66.8	16:23:32		66.8	66.8
68.1	16:23:33		68.1	68.1
67.3	16:23:34		67.3	67.3
66.8	16:23:35		66.8	66.8
65.8	16:23:36		65.8	65.8
64.9	16:23:37		64.9	64.9
65.3	16:23:38		65.3	65.3
67.1	16:23:39		67.1	67.1
66.7	16:23:40		66.7	66.7
64.8	16:23:41		64.8	64.8
62.4	16:23:42		62.4	62.4
59.9	16:23:43		59.9	59.9
57.9	16:23:44		57.9	57.9
56.6	16:23:45		56.6	56.6
55.7	16:23:46		55.7	55.7
54.6	16:23:47		54.6	54.6
53.4	16:23:48		53.4	53.4
51.8	16:23:49		51.8	51.8
50.5	16:23:50		50.5	50.5
50.3	16:23:51		50.3	50.3
49.5	16:23:52		49.5	49.5
49.4	16:23:53		49.4	49.4
48.5	16:23:54		48.5	48.5
47.8	16:23:55		47.8	47.8
47.9	16:23:56		47.9	47.9
48.8	16:23:57		48.8	48.8
49.8	16:23:58		49.8	49.8
52.2	16:23:59		52.2	52.2
55.1	16:24:00		55.1	55.1
58.2	16:24:01		58.2	58.2
60.7	16:24:02		60.7	60.7
64.8	16:24:03		64.8	64.8
65.1	16:24:04		65.1	65.1
63.7	16:24:05		63.7	63.7
62.2	16:24:06		62.2	62.2
61.2	16:24:07		61.2	61.2
61.7	16:24:08		61.7	61.7
62.0	16:24:09		62.0	62.0
60.8	16:24:10		60.8	60.8
58.7	16:24:11		58.7	58.7
56.5	16:24:12		56.5	56.5
54.3	16:24:13		54.3	54.3
52.3	16:24:14		52.3	52.3
50.8	16:24:15		50.8	50.8
49.4	16:24:16		49.4	49.4
48.7	16:24:17		48.7	48.7
48.1	16:24:18		48.1	48.1
47.2	16:24:19		47.2	47.2
46.4	16:24:20		46.4	46.4
46.4	16:24:21		46.4	46.4
46.7	16:24:22		46.7	46.7
46.8	16:24:23		46.8	46.8
46.5	16:24:24		46.5	46.5
46.5	16:24:25		46.5	46.5
47.1	16:24:26		47.1	47.1
48.0	16:24:27		48.0	48.0
49.7	16:24:28		49.7	49.7
49.9	16:24:29		49.9	49.9
51.3	16:24:30		51.3	51.3
52.1	16:24:31		52.1	52.1
53.5	16:24:32		53.5	53.5
55.6	16:24:33		55.6	55.6
58.4	16:24:34		58.4	58.4
62.7	16:24:35		62.7	62.7
63.4	16:24:36		63.4	63.4
62.5	16:24:37		62.5	62.5
60.9	16:24:38		60.9	60.9
58.3	16:24:39		58.3	58.3
55.7	16:24:40		55.7	55.7
53.9	16:24:41		53.9	53.9
52.9	16:24:42		52.9	52.9

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
59.6	16:12:46		59.6	59.6
60.4	16:12:47		60.4	60.4
61.1	16:12:48		61.1	61.1
61.6	16:12:49		61.6	61.6
61.8	16:12:50		61.8	61.8
61.4	16:12:51		61.4	61.4
60.8	16:12:52		60.8	60.8
60.6	16:12:53		60.6	60.6
60.3	16:12:54		60.3	60.3
61.0	16:12:55		61.0	61.0
60.6	16:12:56		60.6	60.6
59.2	16:12:57		59.2	59.2
57.0	16:12:58		57.0	57.0
55.3	16:12:59		55.3	55.3
53.1	16:13:00		53.1	53.1
51.2	16:13:01		51.2	51.2
50.4	16:13:02		50.4	50.4
50.6	16:13:03		50.6	50.6
51.7	16:13:04		51.7	51.7
53.0	16:13:05		53.0	53.0
52.4	16:13:06		52.4	52.4
52.1	16:13:07		52.1	52.1
51.8	16:13:08		51.8	51.8
51.0	16:13:09		51.0	51.0
51.7	16:13:10		51.7	51.7
52.6	16:13:11		52.6	52.6
52.5	16:13:12		52.5	52.5
52.1	16:13:13		52.1	52.1
52.8	16:13:14		52.8	52.8
54.1	16:13:15		54.1	54.1
54.6	16:13:16		54.6	54.6
54.8	16:13:17		54.8	54.8
53.7	16:13:18		53.7	53.7
52.4	16:13:19		52.4	52.4
51.2	16:13:20		51.2	51.2
49.5	16:13:21		49.5	49.5
48.6	16:13:22		48.6	48.6
47.7	16:13:23		47.7	47.7
47.1	16:13:24		47.1	47.1
46.7	16:13:25		46.7	46.7
46.3	16:13:26		46.3	46.3
46.1	16:13:27		46.1	46.1
46.7	16:13:28		46.7	46.7
47.4	16:13:29		47.4	47.4
46.2	16:13:30		46.2	46.2
46.1	16:13:31		46.1	46.1
45.5	16:13:32		45.5	45.5
45.0	16:13:33		45.0	45.0
47.3	16:13:34		47.3	47.3
50.5	16:13:35		50.5	50.5
54.1	16:13:36		54.1	54.1
56.6	16:13:37		56.6	56.6
57.6	16:13:38		57.6	57.6
57.3	16:13:39		57.3	57.3
56.9	16:13:40		56.9	56.9
56.1	16:13:41		56.1	56.1
56.6	16:13:42		56.6	56.6
54.5	16:13:43		54.5	54.5
52.5	16:13:44		52.5	52.5
51.2	16:13:45		51.2	51.2
50.1	16:13:46		50.1	50.1
48.2	16:13:47		48.2	48.2
47.5	16:13:48		47.5	47.5
47.3	16:13:49		47.3	47.3
46.5	16:13:50		46.5	46.5
47.1	16:13:51		47.1	47.1
47.3	16:13:52		47.3	47.3
47.1	16:13:53		47.1	47.1
47.6	16:13:54		47.6	47.6
47.9	16:13:55		47.9	47.9
48.3	16:13:56		48.3	48.3
49.6	16:13:57		49.6	49.6
51.7	16:13:58		51.7	51.7
52.9	16:13:59		52.9	52.9
55.0	16:14:00		55.0	55.0
56.9	16:14:01		56.9	56.9
58.3	16:14:02		58.3	58.3
59.6	16:14:03		59.6	59.6
60.2	16:14:04		60.2	60.2
60.4	16:14:05		60.4	60.4
60.2	16:14:06		60.2	60.2
59.8	16:14:07		59.8	59.8
60.2	16:14:08		60.2	60.2
61.6	16:14:09		61.6	61.6
62.0	16:14:10		62.0	62.0
62.3	16:14:11		62.3	62.3
61.5	16:14:12		61.5	61.5
60.6	16:14:13		60.6	60.6
59.3	16:14:14		59.3	59.3
57.3	16:14:15		57.3	57.3
55.4	16:14:16		55.4	55.4
53.9	16:14:17		53.9	53.9
53.2	16:14:18		53.2	53.2
52.9	16:14:19		52.9	52.9
53.2	16:14:20		53.2	53.2
53.3	16:14:21		53.3	53.3
53.6	16:14:22		53.6	53.6
53.8	16:14:23		53.8	53.8
54.1	16:14:24		54.1	54.1
54.2	16:14:25		54.2	54.2
54.0	16:14:26		54.0	54.0
54.7	16:14:27		54.7	54.7
54.7	16:14:28		54.7	54.7
54.1	16:14:29		54.1	54.1
52.8	16:14:30		52.8	52.8
51.4	16:14:31		51.4	51.4
50.2	16:14:32		50.2	50.2
49.3	16:14:33		49.3	49.3
49.0	16:14:34		49.0	49.0
49.1	16:14:35		49.1	49.1
49.4	16:14:36		49.4	49.4
49.8	16:14:37		49.8	49.8
50.1	16:14:38		50.1	50.1
50.8	16:14:39		50.8	50.8
52.1	16:14:40		52.1	52.1
54.1	16:14:41		54.1	54.1
54.2	16:14:42		54.2	54.2
53.3	16:14:43		53.3	53.3
53.4	16:14:44		53.4	53.4
54.3	16:14:45		54.3	54.3
54.2	16:14:46		54.2	54.2
54.8	16:14:47		54.8	54.8
55.5	16:14:48		55.5	55.5
56.6	16:14:49		56.6	56.6
58.9	16:14:50		58.9	58.9
60.8	16:14:51		60.8	60.8
62.1	16:14:52		62.1	62.1
62.6	16:14:53		62.6	62.6
61.8	16:14:54		61.8	61.8
60.3	16:14:55		60.3	60.3
58.9	16:14:56		58.9	58.9
58.1	16:14:57		58.1	58.1
58.6	16:14:58		58.6	58.6
60.1	16:14:59		60.1	60.1
61.7	16:15:00		61.7	61.7
63.1	16:15:01		63.1	63.1
65.3	16:15:02		65.3	65.3
64.5	16:15:03		64.5	64.5
62.9	16:15:04		62.9	62.9
62.1	16:15:05		62.1	62.1
61.3	16:15:06		61.3	61.3
60.9	16:15:07		60.9	60.9
61.9	16:15:08		61.9	61.9
63.5	16:15:09		63.5	63.5
64.4	16:15:10		64.4	64.4
65.3	16:15:11		65.3	65.3
66.1	16:15:12		66.1	66.1
64.9	16:15:13		64.9	64.9
62.6	16:15:14		62.6	62.6
60.2	16:15:15		60.2	60.2
57.8	16:15:16		57.8	57.8
56.1	16:15:17		56.1	56.1
55.2	16:15:18		55.2	55.2
55.9	16:15:19		55.9	55.9
57.9	16:15:20		57.9	57.9
58.6	16:15:21		58.6	58.6
57.9	16:15:22		57.9	57.9
56.5	16:15:23		56.5	56.5
55.2	16:15:24		55.2	55.2
54.1	16:15:25		54.1	54.1
53.9	16:15:26		53.9	53.9
55.0	16:15:27		55.0	55.0
56.3	16:15:28		56.3	56.3
56.8	16:15:29		56.8	56.8
57.5	16:15:30		57.5	57.5
58.4	16:15:31		58.4	58.4
59.3	16:15:32		59.3	59.3
59.6	16:15:33		59.6	59.6
60.0	16:15:34		60.0	60.0
60.7	16:15:35		60.7	60.7
60.8	16:15:36		60.8	60.8
61.4	16:15:37		61.4	61.4
61.8	16:15:38		61.8	61.8
62.1	16:15:39		62.1	62.1
61.9	16:15:40		61.9	61.9
61.8	16:15:41		61.8	61.8
61.7	16:15:42		61.7	61.7
61.1	16:15:43		61.1	61.1
60.9	16:15:44		60.9	60.9
60.8	16:15:45		60.8	60.8
59.8	16:15:46		59.8	59.8

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.1	16:18:58		48.1	48.1
46.9	16:18:59		46.9	46.9
46.3	16:19:00		46.3	46.3
45.6	16:19:01		45.6	45.6
45.7	16:19:02		45.7	45.7
45.7	16:19:03		45.7	45.7
46.5	16:19:04		46.5	46.5
47.1	16:19:05		47.1	47.1
48.2	16:19:06		48.2	48.2
47.6	16:19:07		47.6	47.6
46.7	16:19:08		46.7	46.7
46.1	16:19:09		46.1	46.1
45.7	16:19:10		45.7	45.7
46.4	16:19:11		46.4	46.4
46.9	16:19:12		46.9	46.9
47.3	16:19:13		47.3	47.3
46.7	16:19:14		46.7	46.7
46.4	16:19:15		46.4	46.4
46.5	16:19:16		46.5	46.5
46.7	16:19:17		46.7	46.7
47.1	16:19:18		47.1	47.1
47.3	16:19:19		47.3	47.3
47.0	16:19:20		47.0	47.0
46.4	16:19:21		46.4	46.4
46.5	16:19:22		46.5	46.5
46.1	16:19:23		46.1	46.1
46.5	16:19:24		46.5	46.5
47.2	16:19:25		47.2	47.2
47.7	16:19:26		47.7	47.7
48.2	16:19:27		48.2	48.2
49.8	16:19:28		49.8	49.8
48.9	16:19:29		48.9	48.9
47.9	16:19:30		47.9	47.9
47.6	16:19:31		47.6	47.6
47.3	16:19:32		47.3	47.3
52.5	16:19:33		52.5	52.5
52.5	16:19:34		52.5	52.5
50.1	16:19:35		50.1	50.1
48.6	16:19:36		48.6	48.6
48.2	16:19:37		48.2	48.2
48.9	16:19:38		48.9	48.9
48.9	16:19:39		48.9	48.9
48.9	16:19:40		48.9	48.9
48.6	16:19:41		48.6	48.6
48.8	16:19:42		48.8	48.8
49.2	16:19:43		49.2	49.2
49.2	16:19:44		49.2	49.2
48.4	16:19:45		48.4	48.4
47.9	16:19:46		47.9	47.9
47.7	16:19:47		47.7	47.7
47.2	16:19:48		47.2	47.2
47.4	16:19:49		47.4	47.4
47.9	16:19:50		47.9	47.9
47.1	16:19:51		47.1	47.1
47.6	16:19:52		47.6	47.6
48.4	16:19:53		48.4	48.4
47.5	16:19:54		47.5	47.5
47.6	16:19:55		47.6	47.6
48.2	16:19:56		48.2	48.2
48.3	16:19:57		48.3	48.3
47.8	16:19:58		47.8	47.8
48.3	16:19:59		48.3	48.3
47.4	16:20:00		47.4	47.4
47.1	16:20:01		47.1	47.1
46.8	16:20:02		46.8	46.8
48.2	16:20:03		48.2	48.2
47.9	16:20:04		47.9	47.9
46.9	16:20:05		46.9	46.9
46.9	16:20:06		46.9	46.9
47.2	16:20:07		47.2	47.2
47.2	16:20:08		47.2	47.2
46.9	16:20:09		46.9	46.9
46.8	16:20:10		46.8	46.8
46.6	16:20:11		46.6	46.6
46.9	16:20:12		46.9	46.9
47.0	16:20:13		47.0	47.0
47.0	16:20:14		47.0	47.0
47.8	16:20:15		47.8	47.8
48.1	16:20:16		48.1	48.1
48.9	16:20:17		48.9	48.9
48.9	16:20:18		48.9	48.9
50.4	16:20:19		50.4	50.4
54.2	16:20:20		54.2	54.2
53.8	16:20:21		53.8	53.8
51.8	16:20:22		51.8	51.8
50.3	16:20:23		50.3	50.3
49.4	16:20:24		49.4	49.4
48.9	16:20:25		48.9	48.9
49.5	16:20:26		49.5	49.5
49.6	16:20:27		49.6	49.6
49.4	16:20:28		49.4	49.4
49.2	16:20:29		49.2	49.2
48.7	16:20:30		48.7	48.7
48.6	16:20:31		48.6	48.6
48.5	16:20:32		48.5	48.5
47.6	16:20:33		47.6	47.6
46.8	16:20:34		46.8	46.8
46.1	16:20:35		46.1	46.1
45.8	16:20:36		45.8	45.8
45.5	16:20:37		45.5	45.5
45.2	16:20:38		45.2	45.2
44.9	16:20:39		44.9	44.9
45.3	16:20:40		45.3	45.3
45.3	16:20:41		45.3	45.3
45.4	16:20:42		45.4	45.4
46.2	16:20:43		46.2	46.2
47.0	16:20:44		47.0	47.0
48.1	16:20:45		48.1	48.1
48.4	16:20:46		48.4	48.4
48.3	16:20:47		48.3	48.3
48.7	16:20:48		48.7	48.7
48.7	16:20:49		48.7	48.7
48.7	16:20:50		48.7	48.7
48.4	16:20:51		48.4	48.4
47.7	16:20:52		47.7	47.7
48.0	16:20:53		48.0	48.0
47.8	16:20:54		47.8	47.8
47.4	16:20:55		47.4	47.4
47.4	16:20:56		47.4	47.4
47.6	16:20:57		47.6	47.6
48.1	16:20:58		48.1	48.1
48.3	16:20:59		48.3	48.3
48.1	16:21:00		48.1	48.1
48.5	16:21:01		48.5	48.5
48.7	16:21:02		48.7	48.7
48.2	16:21:03		48.2	48.2
47.4	16:21:04		47.4	47.4
47.1	16:21:05		47.1	47.1
47.3	16:21:06		47.3	47.3
47.3	16:21:07		47.3	47.3
47.5	16:21:08		47.5	47.5
47.3	16:21:09		47.3	47.3
46.9	16:21:10		46.9	46.9
46.6	16:21:11		46.6	46.6
46.7	16:21:12		46.7	46.7
47.3	16:21:13		47.3	47.3
47.7	16:21:14		47.7	47.7
47.3	16:21:15		47.3	47.3
47.1	16:21:16		47.1	47.1
47.1	16:21:17		47.1	47.1
47.1	16:21:18		47.1	47.1
47.4	16:21:19		47.4	47.4
47.8	16:21:20		47.8	47.8
47.9	16:21:21		47.9	47.9
48.2	16:21:22		48.2	48.2
47.1	16:21:23		47.1	47.1
47.0	16:21:24		47.0	47.0
47.6	16:21:25		47.6	47.6
48.2	16:21:26		48.2	48.2
48.0	16:21:27		48.0	48.0
48.2	16:21:28		48.2	48.2
48.7	16:21:29		48.7	48.7
48.8	16:21:30		48.8	48.8
48.7	16:21:31		48.7	48.7
48.5	16:21:32		48.5	48.5
48.4	16:21:33		48.4	48.4
47.8	16:21:34		47.8	47.8
47.8	16:21:35		47.8	47.8
48.3	16:21:36		48.3	48.3
48.9	16:21:37		48.9	48.9
49.0	16:21:38		49.0	49.0
48.6	16:21:39		48.6	48.6
48.8	16:21:40		48.8	48.8
49.2	16:21:41		49.2	49.2
49.4	16:21:42		49.4	49.4
50.2	16:21:43		50.2	50.2
48.9	16:21:44		48.9	48.9
48.8	16:21:45		48.8	48.8
48.6	16:21:46		48.6	48.6
48.1	16:21:47		48.1	48.1
48.2	16:21:48		48.2	48.2
48.3	16:21:49		48.3	48.3
47.6	16:21:50		47.6	47.6
47.0	16:21:51		47.0	47.0
46.3	16:21:52		46.3	46.3
45.8	16:21:53		45.8	45.8
45.4	16:21:54		45.4	45.4
45.4	16:21:55		45.4	45.4
46.0	16:21:56		46.0	46.0
46.4	16:21:57		46.4	46.4
46.5	16:21:58		46.5	46.5

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
52.4	16:24:43		52.4	52.4
53.5	16:24:44		53.5	53.5
55.6	16:24:45		55.6	55.6
59.8	16:24:46		59.8	59.8
63.4	16:24:47		63.4	63.4
63.8	16:24:48		63.8	63.8
62.8	16:24:49		62.8	62.8
61.1	16:24:50		61.1	61.1
59.0	16:24:51		59.0	59.0
57.2	16:24:52		57.2	57.2
55.7	16:24:53		55.7	55.7
53.8	16:24:54		53.8	53.8
51.8	16:24:55		51.8	51.8
49.6	16:24:56		49.6	49.6
47.7	16:24:57		47.7	47.7
46.7	16:24:58		46.7	46.7
46.2	16:24:59		46.2	46.2
46.3	16:25:00		46.3	46.3
47.2	16:25:01		47.2	47.2
48.8	16:25:02		48.8	48.8
49.6	16:25:03		49.6	49.6
49.3	16:25:04		49.3	49.3
50.0	16:25:05		50.0	50.0
51.6	16:25:06		51.6	51.6
53.9	16:25:07		53.9	53.9
56.1	16:25:08		56.1	56.1
60.1	16:25:09		60.1	60.1
64.3	16:25:10		64.3	64.3
69.5	16:25:11		69.5	69.5
68.0	16:25:12		68.0	68.0
64.8	16:25:13		64.8	64.8
61.8	16:25:14		61.8	61.8
58.9	16:25:15		58.9	58.9
56.7	16:25:16		56.7	56.7
54.2	16:25:17		54.2	54.2
51.9	16:25:18		51.9	51.9
50.7	16:25:19		50.7	50.7
50.3	16:25:20		50.3	50.3
49.9	16:25:21		49.9	49.9
49.2	16:25:22		49.2	49.2
48.5	16:25:23		48.5	48.5
48.2	16:25:24		48.2	48.2
49.1	16:25:25		49.1	49.1
48.5	16:25:26		48.5	48.5
48.3	16:25:27		48.3	48.3
47.4	16:25:28		47.4	47.4
45.9	16:25:29		45.9	45.9
45.3	16:25:30		45.3	45.3
45.3	16:25:31		45.3	45.3
46.0	16:25:32		46.0	46.0
47.2	16:25:33		47.2	47.2
47.5	16:25:34		47.5	47.5
47.4	16:25:35		47.4	47.4
48.3	16:25:36		48.3	48.3
49.7	16:25:37		49.7	49.7
51.1	16:25:38		51.1	51.1
52.9	16:25:39		52.9	52.9
57.3	16:25:40		57.3	57.3
61.7	16:25:41		61.7	61.7
66.6	16:25:42		66.6	66.6
70.7	16:25:43		70.7	70.7
71.6	16:25:44		71.6	71.6
69.1	16:25:45		69.1	69.1
65.8	16:25:46		65.8	65.8
62.2	16:25:47		62.2	62.2
58.9	16:25:48		58.9	58.9
56.3	16:25:49		56.3	56.3
54.9	16:25:50		54.9	54.9
54.9	16:25:51		54.9	54.9
56.5	16:25:52		56.5	56.5
59.9	16:25:53		59.9	59.9
62.4	16:25:54		62.4	62.4
65.5	16:25:55		65.5	65.5
68.6	16:25:56		68.6	68.6
66.9	16:25:57		66.9	66.9
64.1	16:25:58		64.1	64.1
61.7	16:25:59		61.7	61.7
60.8	16:26:00		60.8	60.8
61.6	16:26:01		61.6	61.6
65.0	16:26:02		65.0	65.0
64.5	16:26:03		64.5	64.5
62.4	16:26:04		62.4	62.4
59.7	16:26:05		59.7	59.7
56.8	16:26:06		56.8	56.8
54.3	16:26:07		54.3	54.3
53.2	16:26:08		53.2	53.2
52.1	16:26:09		52.1	52.1
51.1	16:26:10		51.1	51.1
50.2	16:26:11		50.2	50.2
48.9	16:26:12		48.9	48.9
48.3	16:26:13		48.3	48.3
48.3	16:26:14		48.3	48.3
47.1	16:26:15		47.1	47.1
47.4	16:26:16		47.4	47.4
47.4	16:26:17		47.4	47.4
47.2	16:26:18		47.2	47.2
47.3	16:26:19		47.3	47.3
48.3	16:26:20		48.3	48.3
49.4	16:26:21		49.4	49.4
48.7	16:26:22		48.7	48.7
48.3	16:26:23		48.3	48.3
48.7	16:26:24		48.7	48.7
48.3	16:26:25		48.3	48.3
48.1	16:26:26		48.1	48.1
49.0	16:26:27		49.0	49.0
52.0	16:26:28		52.0	52.0
55.3	16:26:29		55.3	55.3
58.4	16:26:30		58.4	58.4
60.7	16:26:31		60.7	60.7
64.3	16:26:32		64.3	64.3
64.9	16:26:33		64.9	64.9
63.0	16:26:34		63.0	63.0
60.5	16:26:35		60.5	60.5
58.3	16:26:36		58.3	58.3
55.6	16:26:37		55.6	55.6
53.2	16:26:38		53.2	53.2
51.0	16:26:39		51.0	51.0
49.1	16:26:40		49.1	49.1
47.5	16:26:41		47.5	47.5
47.2	16:26:42		47.2	47.2
47.7	16:26:43		47.7	47.7
48.2	16:26:44		48.2	48.2
49.5	16:26:45		49.5	49.5
51.4	16:26:46		51.4	51.4
55.4	16:26:47		55.4	55.4
59.9	16:26:48		59.9	59.9
65.5	16:26:49		65.5	65.5
69.6	16:26:50		69.6	69.6
69.4	16:26:51		69.4	69.4
66.4	16:26:52		66.4	66.4
62.9	16:26:53		62.9	62.9
59.2	16:26:54		59.2	59.2
55.9	16:26:55		55.9	55.9
53.2	16:26:56		53.2	53.2
51.4	16:26:57		51.4	51.4
50.2	16:26:58		50.2	50.2
48.9	16:26:59		48.9	48.9
48.1	16:27:00		48.1	48.1
47.5	16:27:01		47.5	47.5
46.2	16:27:02		46.2	46.2
45.4	16:27:03		45.4	45.4
44.7	16:27:04		44.7	44.7
44.2	16:27:05		44.2	44.2
44.2	16:27:06		44.2	44.2
44.1	16:27:07		44.1	44.1
44.6	16:27:08		44.6	44.6
45.0	16:27:09		45.0	45.0
46.8	16:27:10		46.8	46.8
47.3	16:27:11		47.3	47.3
47.6	16:27:12		47.6	47.6
47.6	16:27:13		47.6	47.6
47.8	16:27:14		47.8	47.8
48.6	16:27:15		48.6	48.6
49.2	16:27:16		49.2	49.2
50.4	16:27:17		50.4	50.4
52.3	16:27:18		52.3	52.3
55.9	16:27:19		55.9	55.9
59.2	16:27:20		59.2	59.2
61.4	16:27:21		61.4	61.4
64.6	16:27:22		64.6	64.6
67.0	16:27:23		67.0	67.0
67.0	16:27:24		67.0	67.0
66.6	16:27:25		66.6	66.6
67.1	16:27:26		67.1	67.1
65.9	16:27:27		65.9	65.9
63.2	16:27:28		63.2	63.2
60.2	16:27:29		60.2	60.2
57.3	16:27:30		57.3	57.3
55.1	16:27:31		55.1	55.1
53.5	16:27:32		53.5	53.5
52.0	16:27:33		52.0	52.0
50.1	16:27:34		50.1	50.1
48.7	16:27:35		48.7	48.7
48.4	16:27:36		48.4	48.4
48.0	16:27:37		48.0	48.0
47.3	16:27:38		47.3	47.3
47.0	16:27:39		47.0	47.0
47.6	16:27:40		47.6	47.6
49.7	16:27:41		49.7	49.7
53.9	16:27:42		53.9	53.9
58.6	16:27:43		58.6	58.6

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
58.9	16:15:47		58.9	58.9
57.7	16:15:48		57.7	57.7
57.2	16:15:49		57.2	57.2
56.7	16:15:50		56.7	56.7
57.0	16:15:51		57.0	57.0
57.7	16:15:52		57.7	57.7
58.1	16:15:53		58.1	58.1
57.0	16:15:54		57.0	57.0
55.6	16:15:55		55.6	55.6
54.4	16:15:56		54.4	54.4
54.5	16:15:57		54.5	54.5
53.9	16:15:58		53.9	53.9
54.2	16:15:59		54.2	54.2
54.6	16:16:00		54.6	54.6
54.0	16:16:01		54.0	54.0
54.0	16:16:02		54.0	54.0
54.7	16:16:03		54.7	54.7
55.4	16:16:04		55.4	55.4
55.7	16:16:05		55.7	55.7
56.8	16:16:06		56.8	56.8
58.3	16:16:07		58.3	58.3
59.0	16:16:08		59.0	59.0
59.3	16:16:09		59.3	59.3
58.1	16:16:10		58.1	58.1
56.4	16:16:11		56.4	56.4
54.9	16:16:12		54.9	54.9
54.2	16:16:13		54.2	54.2
54.0	16:16:14		54.0	54.0
53.6	16:16:15		53.6	53.6
53.8	16:16:16		53.8	53.8
55.1	16:16:17		55.1	55.1
57.0	16:16:18		57.0	57.0
59.6	16:16:19		59.6	59.6
62.6	16:16:20		62.6	62.6
62.0	16:16:21		62.0	62.0
59.6	16:16:22		59.6	59.6
57.2	16:16:23		57.2	57.2
55.4	16:16:24		55.4	55.4
54.8	16:16:25		54.8	54.8
53.9	16:16:26		53.9	53.9
53.6	16:16:27		53.6	53.6
53.3	16:16:28		53.3	53.3
52.8	16:16:29		52.8	52.8
52.3	16:16:30		52.3	52.3
51.7	16:16:31		51.7	51.7
51.9	16:16:32		51.9	51.9
51.4	16:16:33		51.4	51.4
51.1	16:16:34		51.1	51.1
51.3	16:16:35		51.3	51.3
51.2	16:16:36		51.2	51.2
52.2	16:16:37		52.2	52.2
52.8	16:16:38		52.8	52.8
52.8	16:16:39		52.8	52.8
53.1	16:16:40		53.1	53.1
54.4	16:16:41		54.4	54.4
55.9	16:16:42		55.9	55.9
56.3	16:16:43		56.3	56.3
55.8	16:16:44		55.8	55.8
55.0	16:16:45		55.0	55.0
53.7	16:16:46		53.7	53.7
52.3	16:16:47		52.3	52.3
51.0	16:16:48		51.0	51.0
50.1	16:16:49		50.1	50.1
49.6	16:16:50		49.6	49.6
49.0	16:16:51		49.0	49.0
48.4	16:16:52		48.4	48.4
48.3	16:16:53		48.3	48.3
48.5	16:16:54		48.5	48.5
49.1	16:16:55		49.1	49.1
49.2	16:16:56		49.2	49.2
49.1	16:16:57		49.1	49.1
48.8	16:16:58		48.8	48.8
48.2	16:16:59		48.2	48.2
48.6	16:17:00		48.6	48.6
48.7	16:17:01		48.7	48.7
48.8	16:17:02		48.8	48.8
49.5	16:17:03		49.5	49.5
51.2	16:17:04		51.2	51.2
52.4	16:17:05		52.4	52.4
52.6	16:17:06		52.6	52.6
52.3	16:17:07		52.3	52.3
51.1	16:17:08		51.1	51.1
50.7	16:17:09		50.7	50.7
52.3	16:17:10		52.3	52.3
52.5	16:17:11		52.5	52.5
54.6	16:17:12		54.6	54.6
55.1	16:17:13		55.1	55.1
54.8	16:17:14		54.8	54.8
55.9	16:17:15		55.9	55.9
58.4	16:17:16		58.4	58.4
61.7	16:17:17		61.7	61.7
63.3	16:17:18		63.3	63.3
63.2	16:17:19		63.2	63.2
63.0	16:17:20		63.0	63.0
63.8	16:17:21		63.8	63.8
64.7	16:17:22		64.7	64.7
64.4	16:17:23		64.4	64.4
64.0	16:17:24		64.0	64.0
63.9	16:17:25		63.9	63.9
63.9	16:17:26		63.9	63.9
63.9	16:17:27		63.9	63.9
63.8	16:17:28		63.8	63.8
63.5	16:17:29		63.5	63.5
63.3	16:17:30		63.3	63.3
63.1	16:17:31		63.1	63.1
62.8	16:17:32		62.8	62.8
62.2	16:17:33		62.2	62.2
62.0	16:17:34		62.0	62.0
62.3	16:17:35		62.3	62.3
63.2	16:17:36		63.2	63.2
64.7	16:17:37		64.7	64.7
66.1	16:17:38		66.1	66.1
66.4	16:17:39		66.4	66.4
66.2	16:17:40		66.2	66.2
65.3	16:17:41		65.3	65.3
63.5	16:17:42		63.5	63.5
62.0	16:17:43		62.0	62.0
60.9	16:17:44		60.9	60.9
60.1	16:17:45		60.1	60.1
59.1	16:17:46		59.1	59.1
59.3	16:17:47		59.3	59.3
59.2	16:17:48		59.2	59.2
58.5	16:17:49		58.5	58.5
58.1	16:17:50		58.1	58.1
58.3	16:17:51		58.3	58.3
59.2	16:17:52		59.2	59.2
60.5	16:17:53		60.5	60.5
60.6	16:17:54		60.6	60.6
60.2	16:17:55		60.2	60.2
59.8	16:17:56		59.8	59.8
59.7	16:17:57		59.7	59.7
59.9	16:17:58		59.9	59.9
58.5	16:17:59		58.5	58.5
56.4	16:18:00		56.4	56.4
53.4	16:18:01		53.4	53.4
53.2	16:18:02		53.2	53.2
51.9	16:18:03		51.9	51.9
51.2	16:18:04		51.2	51.2
50.5	16:18:05		50.5	50.5
50.0	16:18:06		50.0	50.0
50.2	16:18:07		50.2	50.2
50.9	16:18:08		50.9	50.9
51.4	16:18:09		51.4	51.4
51.7	16:18:10		51.7	51.7
51.9	16:18:11		51.9	51.9
52.8	16:18:12		52.8	52.8
54.3	16:18:13		54.3	54.3
55.7	16:18:14		55.7	55.7
56.7	16:18:15		56.7	56.7
57.8	16:18:16		57.8	57.8
58.7	16:18:17		58.7	58.7
59.6	16:18:18		59.6	59.6
59.7	16:18:19		59.7	59.7
59.6	16:18:20		59.6	59.6
58.5	16:18:21		58.5	58.5
56.9	16:18:22		56.9	56.9
56.1	16:18:23		56.1	56.1
57.1	16:18:24		57.1	57.1
59.0	16:18:25		59.0	59.0
60.1	16:18:26		60.1	60.1
61.0	16:18:27		61.0	61.0
60.8	16:18:28		60.8	60.8
59.3	16:18:29		59.3	59.3
57.8	16:18:30		57.8	57.8
56.5	16:18:31		56.5	56.5
55.5	16:18:32		55.5	55.5
55.6	16:18:33		55.6	55.6
55.5	16:18:34		55.5	55.5
55.6	16:18:35		55.6	55.6
56.8	16:18:36		56.8	56.8
57.9	16:18:37		57.9	57.9
59.3	16:18:38		59.3	59.3
59.4	16:18:39		59.4	59.4
59.0	16:18:40		59.0	59.0
57.9	16:18:41		57.9	57.9
56.2	16:18:42		56.2	56.2
54.5	16:18:43		54.5	54.5
53.5	16:18:44		53.5	53.5
52.8	16:18:45		52.8	52.8
52.4	16:18:46		52.4	52.4
52.2	16:18:47		52.2	52.2
51.8	16:18:48		51.8	51.8
50.9	16:18:49		50.9	50.9
50.5	16:18:50		50.5	50.5
50.1	16:18:51		50.1	50.1
49.8	16:18:52		49.8	49.8
49.4	16:18:53		49.4	49.4
49.6	16:18:54		49.6	49.6
50.7	16:18:55		50.7	50.7
51.1	16:18:56		51.1	51.1

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.9	16:21:59		46.9	46.9
46.6	16:22:00		46.6	46.6
46.3	16:22:01		46.3	46.3
46.4	16:22:02		46.4	46.4
46.3	16:22:03		46.3	46.3
45.9	16:22:04		45.9	45.9
45.8	16:22:05		45.8	45.8
45.9	16:22:06		45.9	45.9
47.2	16:22:07		47.2	47.2
48.8	16:22:08		48.8	48.8
48.5	16:22:09		48.5	48.5
47.8	16:22:10		47.8	47.8
49.9	16:22:11		49.9	49.9
50.6	16:22:12		50.6	50.6
50.2	16:22:13		50.2	50.2
51.1	16:22:14		51.1	51.1
51.6	16:22:15		51.6	51.6
52.7	16:22:16		52.7	52.7
53.0	16:22:17		53.0	53.0
53.0	16:22:18		53.0	53.0
53.0	16:22:19		53.0	53.0
57.1	16:22:20		57.1	57.1
57.7	16:22:21		57.7	57.7
55.3	16:22:22		55.3	55.3
54.3	16:22:23		54.3	54.3
53.8	16:22:24		53.8	53.8
53.2	16:22:25		53.2	53.2
53.7	16:22:26		53.7	53.7
56.6	16:22:27		56.6	56.6
55.9	16:22:28		55.9	55.9
54.1	16:22:29		54.1	54.1
52.8	16:22:30		52.8	52.8
51.8	16:22:31		51.8	51.8
51.3	16:22:32		51.3	51.3
50.9	16:22:33		50.9	50.9
50.7	16:22:34		50.7	50.7
50.7	16:22:35		50.7	50.7
51.4	16:22:36		51.4	51.4
52.7	16:22:37		52.7	52.7
52.2	16:22:38		52.2	52.2
50.6	16:22:39		50.6	50.6
49.1	16:22:40		49.1	49.1
48.0	16:22:41		48.0	48.0
47.0	16:22:42		47.0	47.0
46.4	16:22:43		46.4	46.4
46.5	16:22:44		46.5	46.5
46.7	16:22:45		46.7	46.7
46.4	16:22:46		46.4	46.4
46.0	16:22:47		46.0	46.0
46.2	16:22:48		46.2	46.2
46.3	16:22:49		46.3	46.3
46.3	16:22:50		46.3	46.3
46.8	16:22:51		46.8	46.8
46.8	16:22:52		46.8	46.8
46.4	16:22:53		46.4	46.4
46.1	16:22:54		46.1	46.1
46.1	16:22:55		46.1	46.1
46.3	16:22:56		46.3	46.3
46.6	16:22:57		46.6	46.6
47.0	16:22:58		47.0	47.0
47.7	16:22:59		47.7	47.7
47.6	16:23:00		47.6	47.6
47.1	16:23:01		47.1	47.1
46.9	16:23:02		46.9	46.9
46.8	16:23:03		46.8	46.8
47.0	16:23:04		47.0	47.0
47.2	16:23:05		47.2	47.2
47.9	16:23:06		47.9	47.9
47.6	16:23:07		47.6	47.6
47.7	16:23:08		47.7	47.7
47.7	16:23:09		47.7	47.7
47.6	16:23:10		47.6	47.6
48.0	16:23:11		48.0	48.0
47.9	16:23:12		47.9	47.9
48.0	16:23:13		48.0	48.0
48.4	16:23:14		48.4	48.4
49.0	16:23:15		49.0	49.0
49.8	16:23:16		49.8	49.8
50.1	16:23:17		50.1	50.1
50.2	16:23:18		50.2	50.2
49.8	16:23:19		49.8	49.8
50.1	16:23:20		50.1	50.1
50.6	16:23:21		50.6	50.6
51.2	16:23:22		51.2	51.2
50.6	16:23:23		50.6	50.6
50.0	16:23:24		50.0	50.0
50.2	16:23:25		50.2	50.2
49.8	16:23:26		49.8	49.8
49.4	16:23:27		49.4	49.4
49.7	16:23:28		49.7	49.7
49.9	16:23:29		49.9	49.9
50.2	16:23:30		50.2	50.2
52.3	16:23:31		52.3	52.3
53.9	16:23:32		53.9	53.9
53.2	16:23:33		53.2	53.2
54.4	16:23:34		54.4	54.4
55.0	16:23:35		55.0	55.0
54.6	16:23:36		54.6	54.6
54.6	16:23:37		54.6	54.6
54.3	16:23:38		54.3	54.3
53.9	16:23:39		53.9	53.9
53.9	16:23:40		53.9	53.9
54.5	16:23:41		54.5	54.5
55.8	16:23:42		55.8	55.8
55.3	16:23:43		55.3	55.3
54.8	16:23:44		54.8	54.8
54.4	16:23:45		54.4	54.4
53.6	16:23:46		53.6	53.6
52.6	16:23:47		52.6	52.6
51.9	16:23:48		51.9	51.9
53.3	16:23:49		53.3	53.3
53.7	16:23:50		53.7	53.7
52.8	16:23:51		52.8	52.8
52.1	16:23:52		52.1	52.1
51.1	16:23:53		51.1	51.1
50.1	16:23:54		50.1	50.1
51.1	16:23:55		51.1	51.1
52.7	16:23:56		52.7	52.7
50.7	16:23:57		50.7	50.7
49.1	16:23:58		49.1	49.1
49.1	16:23:59		49.1	49.1
48.8	16:24:00		48.8	48.8
48.4	16:24:01		48.4	48.4
49.7	16:24:02		49.7	49.7
51.1	16:24:03		51.1	51.1
50.4	16:24:04		50.4	50.4
49.7	16:24:05		49.7	49.7
49.2	16:24:06		49.2	49.2
49.7	16:24:07		49.7	49.7
49.8	16:24:08		49.8	49.8
50.0	16:24:09		50.0	50.0
50.4	16:24:10		50.4	50.4
50.6	16:24:11		50.6	50.6
49.8	16:24:12		49.8	49.8
49.4	16:24:13		49.4	49.4
50.3	16:24:14		50.3	50.3
52.6	16:24:15		52.6	52.6
52.9	16:24:16		52.9	52.9
51.5	16:24:17		51.5	51.5
50.0	16:24:18		50.0	50.0
49.8	16:24:19		49.8	49.8
49.7	16:24:20		49.7	49.7
49.5	16:24:21		49.5	49.5
51.9	16:24:22		51.9	51.9
56.5	16:24:23		56.5	56.5
56.2	16:24:24		56.2	56.2
56.3	16:24:25		56.3	56.3
54.2	16:24:26		54.2	54.2
51.7	16:24:27		51.7	51.7
49.7	16:24:28		49.7	49.7
47.9	16:24:29		47.9	47.9
47.0	16:24:30		47.0	47.0
46.5	16:24:31		46.5	46.5
46.7	16:24:32		46.7	46.7
47.2	16:24:33		47.2	47.2
48.7	16:24:34		48.7	48.7
49.3	16:24:35		49.3	49.3
49.2	16:24:36		49.2	49.2
48.9	16:24:37		48.9	48.9
46.5	16:24:38		46.5	46.5
48.9	16:24:39		48.9	48.9
49.2	16:24:40		49.2	49.2
48.7	16:24:41		48.7	48.7
48.8	16:24:42		48.8	48.8
48.5	16:24:43		48.5	48.5
48.2	16:24:44		48.2	48.2
47.9	16:24:45		47.9	47.9
48.1	16:24:46		48.1	48.1
48.2	16:24:47		48.2	48.2
49.1	16:24:48		49.1	49.1
51.0	16:24:49		51.0	51.0
51.9	16:24:50		51.9	51.9
52.9	16:24:51		52.9	52.9
53.3	16:24:52		53.3	53.3
52.3	16:24:53		52.3	52.3
51.3	16:24:54		51.3	51.3
50.6	16:24:55		50.6	50.6
50.6	16:24:56		50.6	50.6
50.9	16:24:57		50.9	50.9
51.3	16:24:58		51.3	51.3
54.1	16:24:59		54.1	54.1
55.4	16:25:00		55.4	55.4
54.0	16:25:01		54.0	54.0
51.8	16:25:02		51.8	51.8
50.1	16:25:03		50.1	50.1
49.3	16:25:04		49.3	49.3
51.2	16:25:05		51.2	51.2
50.1	16:25:06		50.1	50.1
51.3	16:25:07		51.3	51.3
50.7	16:25:08		50.7	50.7

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.8	16:27:44		60.8	60.8
58.9	16:27:45		58.9	58.9
57.7	16:27:46		57.7	57.7
56.9	16:27:47		56.9	56.9
57.2	16:27:48		57.2	57.2
58.4	16:27:49		58.4	58.4
60.3	16:27:50		60.3	60.3
64.1	16:27:51		64.1	64.1
65.2	16:27:52		65.2	65.2
64.1	16:27:53		64.1	64.1
62.0	16:27:54		62.0	62.0
59.8	16:27:55		59.8	59.8
58.7	16:27:56		58.7	58.7
60.2	16:27:57		60.2	60.2
65.5	16:27:58		65.5	65.5
70.3	16:27:59		70.3	70.3
70.8	16:28:00		70.8	70.8
67.9	16:28:01		67.9	67.9
65.3	16:28:02		65.3	65.3
66.1	16:28:03		66.1	66.1
69.4	16:28:04		69.4	69.4
69.0	16:28:05		69.0	69.0
69.4	16:28:06		69.4	69.4
69.6	16:28:07		69.6	69.6
68.0	16:28:08		68.0	68.0
65.6	16:28:09		65.6	65.6
63.0	16:28:10		63.0	63.0
60.7	16:28:11		60.7	60.7
58.7	16:28:12		58.7	58.7
57.7	16:28:13		57.7	57.7
58.1	16:28:14		58.1	58.1
59.0	16:28:15		59.0	59.0
59.6	16:28:16		59.6	59.6
60.5	16:28:17		60.5	60.5
62.3	16:28:18		62.3	62.3
63.9	16:28:19		63.9	63.9
65.2	16:28:20		65.2	65.2
64.3	16:28:21		64.3	64.3
62.4	16:28:22		62.4	62.4
60.1	16:28:23		60.1	60.1
58.0	16:28:24		58.0	58.0
56.1	16:28:25		56.1	56.1
54.0	16:28:26		54.0	54.0
52.5	16:28:27		52.5	52.5
51.4	16:28:28		51.4	51.4
51.3	16:28:29		51.3	51.3
50.3	16:28:30		50.3	50.3
49.2	16:28:31		49.2	49.2
48.5	16:28:32		48.5	48.5
48.2	16:28:33		48.2	48.2
47.5	16:28:34		47.5	47.5
47.0	16:28:35		47.0	47.0
47.3	16:28:36		47.3	47.3
47.4	16:28:37		47.4	47.4
46.9	16:28:38		46.9	46.9
46.7	16:28:39		46.7	46.7
46.3	16:28:40		46.3	46.3
47.0	16:28:41		47.0	47.0
49.0	16:28:42		49.0	49.0
49.6	16:28:43		49.6	49.6
49.5	16:28:44		49.5	49.5
48.4	16:28:45		48.4	48.4
48.9	16:28:46		48.9	48.9
48.1	16:28:47		48.1	48.1
46.9	16:28:48		46.9	46.9
47.0	16:28:49		47.0	47.0
47.8	16:28:50		47.8	47.8
47.3	16:28:51		47.3	47.3
45.7	16:28:52		45.7	45.7
44.6	16:28:53		44.6	44.6
45.0	16:28:54		45.0	45.0
44.8	16:28:55		44.8	44.8
44.1	16:28:56		44.1	44.1
42.6	16:28:57		42.6	42.6
41.5	16:28:58		41.5	41.5
41.0	16:28:59		41.0	41.0
40.8	16:29:00		40.8	40.8
40.1	16:29:01		40.1	40.1
39.8	16:29:02		39.8	39.8
40.0	16:29:03		40.0	40.0
40.8	16:29:04		40.8	40.8
42.1	16:29:05		42.1	42.1
43.5	16:29:06		43.5	43.5
43.5	16:29:07		43.5	43.5
42.8	16:29:08		42.8	42.8
42.4	16:29:09		42.4	42.4
42.4	16:29:10		42.4	42.4
42.3	16:29:11		42.3	42.3
42.5	16:29:12		42.5	42.5
42.7	16:29:13		42.7	42.7
42.5	16:29:14		42.5	42.5
42.0	16:29:15		42.0	42.0
42.1	16:29:16		42.1	42.1
41.7	16:29:17		41.7	41.7
41.3	16:29:18		41.3	41.3
41.2	16:29:19		41.2	41.2
41.4	16:29:20		41.4	41.4
41.9	16:29:21		41.9	41.9
41.7	16:29:22		41.7	41.7
42.1	16:29:23		42.1	42.1
42.2	16:29:24		42.2	42.2
42.9	16:29:25		42.9	42.9
43.1	16:29:26		43.1	43.1
42.6	16:29:27		42.6	42.6
42.3	16:29:28		42.3	42.3
42.1	16:29:29		42.1	42.1
41.6	16:29:30		41.6	41.6
41.7	16:29:31		41.7	41.7
42.1	16:29:32		42.1	42.1
41.8	16:29:33		41.8	41.8
41.7	16:29:34		41.7	41.7
42.3	16:29:35		42.3	42.3
43.8	16:29:36		43.8	43.8
46.8	16:29:37		46.8	46.8
49.4	16:29:38		49.4	49.4
50.2	16:29:39		50.2	50.2
51.7	16:29:40		51.7	51.7
54.2	16:29:41		54.2	54.2
58.5	16:29:42		58.5	58.5
63.3	16:29:43		63.3	63.3
68.1	16:29:44		68.1	68.1
69.3	16:29:45		69.3	69.3
67.5	16:29:46		67.5	67.5
64.2	16:29:47		64.2	64.2
60.7	16:29:48		60.7	60.7
57.7	16:29:49		57.7	57.7
55.1	16:29:50		55.1	55.1
53.0	16:29:51		53.0	53.0
51.4	16:29:52		51.4	51.4
49.6	16:29:53		49.6	49.6
47.8	16:29:54		47.8	47.8
46.6	16:29:55		46.6	46.6
46.1	16:29:56		46.1	46.1
45.4	16:29:57		45.4	45.4
45.3	16:29:58		45.3	45.3
44.3	16:29:59		44.3	44.3
44.0	16:30:00		44.0	44.0
45.6	16:30:01		45.6	45.6
45.0	16:30:02		45.0	45.0
44.9	16:30:03		44.9	44.9
45.8	16:30:04		45.8	45.8
47.3	16:30:05		47.3	47.3
49.0	16:30:06		49.0	49.0
51.2	16:30:07		51.2	51.2
53.7	16:30:08		53.7	53.7
58.0	16:30:09		58.0	58.0
64.2	16:30:10		64.2	64.2
68.9	16:30:11		68.9	68.9
69.8	16:30:12		69.8	69.8
67.3	16:30:13		67.3	67.3
64.2	16:30:14		64.2	64.2
61.5	16:30:15		61.5	61.5
59.0	16:30:16		59.0	59.0
57.1	16:30:17		57.1	57.1
55.1	16:30:18		55.1	55.1
53.9	16:30:19		53.9	53.9
52.8	16:30:20		52.8	52.8
51.5	16:30:21		51.5	51.5
50.2	16:30:22		50.2	50.2
49.3	16:30:23		49.3	49.3
48.6	16:30:24		48.6	48.6
47.9	16:30:25		47.9	47.9
46.4	16:30:26		46.4	46.4
45.8	16:30:27		45.8	45.8
45.6	16:30:28	

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
51.5	16:18:57		51.5	51.5
50.9	16:18:58		50.9	50.9
50.0	16:18:59		50.0	50.0
49.4	16:19:00		49.4	49.4
49.2	16:19:01		49.2	49.2
50.4	16:19:02		50.4	50.4
50.8	16:19:03		50.8	50.8
48.9	16:19:04		48.9	48.9
48.0	16:19:05		48.0	48.0
50.1	16:19:06		50.1	50.1
50.9	16:19:07		50.9	50.9
52.1	16:19:08		52.1	52.1
52.4	16:19:09		52.4	52.4
52.0	16:19:10		52.0	52.0
52.4	16:19:11		52.4	52.4
53.8	16:19:12		53.8	53.8
55.3	16:19:13		55.3	55.3
57.2	16:19:14		57.2	57.2
58.9	16:19:15		58.9	58.9
59.8	16:19:16		59.8	59.8
60.3	16:19:17		60.3	60.3
59.9	16:19:18		59.9	59.9
59.1	16:19:19		59.1	59.1
58.1	16:19:20		58.1	58.1
57.4	16:19:21		57.4	57.4
56.4	16:19:22		56.4	56.4
55.7	16:19:23		55.7	55.7
54.4	16:19:24		54.4	54.4
53.5	16:19:25		53.5	53.5
54.0	16:19:26		54.0	54.0
54.8	16:19:27		54.8	54.8
54.4	16:19:28		54.4	54.4
53.4	16:19:29		53.4	53.4
53.5	16:19:30		53.5	53.5
53.4	16:19:31		53.4	53.4
54.8	16:19:32		54.8	54.8
54.1	16:19:33		54.1	54.1
52.5	16:19:34		52.5	52.5
51.8	16:19:35		51.8	51.8
51.6	16:19:36		51.6	51.6
51.2	16:19:37		51.2	51.2
51.3	16:19:38		51.3	51.3
51.4	16:19:39		51.4	51.4
52.0	16:19:40		52.0	52.0
53.9	16:19:41		53.9	53.9
55.5	16:19:42		55.5	55.5
56.8	16:19:43		56.8	56.8
57.5	16:19:44		57.5	57.5
56.9	16:19:45		56.9	56.9
55.9	16:19:46		55.9	55.9
55.3	16:19:47		55.3	55.3
54.9	16:19:48		54.9	54.9
54.4	16:19:49		54.4	54.4
55.1	16:19:50		55.1	55.1
55.9	16:19:51		55.9	55.9
56.4	16:19:52		56.4	56.4
57.1	16:19:53		57.1	57.1
56.8	16:19:54		56.8	56.8
55.7	16:19:55		55.7	55.7
54.0	16:19:56		54.0	54.0
53.0	16:19:57		53.0	53.0
51.5	16:19:58		51.5	51.5
50.2	16:19:59		50.2	50.2
49.1	16:20:00		49.1	49.1
48.6	16:20:01		48.6	48.6
49.0	16:20:02		49.0	49.0
49.9	16:20:03		49.9	49.9
51.1	16:20:04		51.1	51.1
52.3	16:20:05		52.3	52.3
53.7	16:20:06		53.7	53.7
55.8	16:20:07		55.8	55.8
56.3	16:20:08		56.3	56.3
55.4	16:20:09		55.4	55.4
54.8	16:20:10		54.8	54.8
54.1	16:20:11		54.1	54.1
52.4	16:20:12		52.4	52.4
50.8	16:20:13		50.8	50.8
50.1	16:20:14		50.1	50.1
49.8	16:20:15		49.8	49.8
49.3	16:20:16		49.3	49.3
48.1	16:20:17		48.1	48.1
46.8	16:20:18		46.8	46.8
45.9	16:20:19		45.9	45.9
45.7	16:20:20		45.7	45.7
46.7	16:20:21		46.7	46.7
46.4	16:20:22		46.4	46.4
45.8	16:20:23		45.8	45.8
46.2	16:20:24		46.2	46.2
47.1	16:20:25		47.1	47.1
46.6	16:20:26		46.6	46.6
46.4	16:20:27		46.4	46.4
46.6	16:20:28		46.6	46.6
47.1	16:20:29		47.1	47.1
48.1	16:20:30		48.1	48.1
48.8	16:20:31		48.8	48.8
49.8	16:20:32		49.8	49.8
51.7	16:20:33		51.7	51.7
53.3	16:20:34		53.3	53.3
55.8	16:20:35		55.8	55.8
56.2	16:20:36		56.2	56.2
56.6	16:20:37		56.6	56.6
56.3	16:20:38		56.3	56.3
56.1	16:20:39		56.1	56.1
56.0	16:20:40		56.0	56.0
56.3	16:20:41		56.3	56.3
56.9	16:20:42		56.9	56.9
56.9	16:20:43		56.9	56.9
57.2	16:20:44		57.2	57.2
55.8	16:20:45		55.8	55.8
54.4	16:20:46		54.4	54.4
54.0	16:20:47		54.0	54.0
55.2	16:20:48		55.2	55.2
55.5	16:20:49		55.5	55.5
55.6	16:20:50		55.6	55.6
55.1	16:20:51		55.1	55.1
55.4	16:20:52		55.4	55.4
55.3	16:20:53		55.3	55.3
56.1	16:20:54		56.1	56.1
56.6	16:20:55		56.6	56.6
55.8	16:20:56		55.8	55.8
55.4	16:20:57		55.4	55.4
55.4	16:20:58		55.4	55.4
56.2	16:20:59		56.2	56.2
56.5	16:21:00		56.5	56.5
56.6	16:21:01		56.6	56.6
53.4	16:21:02		53.4	53.4
54.3	16:21:03		54.3	54.3
53.8	16:21:04		53.8	53.8
52.6	16:21:05		52.6	52.6
50.8	16:21:06		50.8	50.8
59.0	16:21:07		59.0	59.0
57.9	16:21:08		57.9	57.9
56.6	16:21:09		56.6	56.6
55.7	16:21:10		55.7	55.7
54.6	16:21:11		54.6	54.6
53.8	16:21:12		53.8	53.8
53.5	16:21:13		53.5	53.5
54.0	16:21:14		54.0	54.0
53.1	16:21:15		53.1	53.1
51.6	16:21:16		51.6	51.6
50.2	16:21:17		50.2	50.2
49.1	16:21:18		49.1	49.1
49.1	16:21:19		49.1	49.1
49.1	16:21:20		49.1	49.1
48.1	16:21:21		48.1	48.1
47.4	16:21:22		47.4	47.4
46.9	16:21:23		46.9	46.9
46.9	16:21:24		46.9	46.9
47.2	16:21:25		47.2	47.2
47.4	16:21:26		47.4	47.4
48.5	16:21:27		48.5	48.5
48.5	16:21:28		48.5	48.5
47.4	16:21:29		47.4	47.4
46.4	16:21:30		46.4	46.4
46.4	16:21:31		46.4	46.4
46.7	16:21:32		46.7	46.7
46.9	16:21:33		46.9	46.9
47.5	16:21:34		47.5	47.5
48.3	16:21:35		48.3	48.3
48.3	16:21:36		48.3	48.3
48.6	16:21:37		48.6	48.6
49.5	16:21:38		49.5	49.5
49.7	16:21:39		49.7	49.7
50.7	16:21:40		50.7	50.7
52.0	16:21:41		52.0	52.0
51.5	16:21:42		51.5	51.5
51.4	16:21:43		51.4	51.4
51.5	16:21:44		51.5	51.5
52.0	16:21:45		52.0	52.0
52.4	16:21:46		52.4	52.4
53.9	16:21:47		53.9	53.9
54.8	16:21:48		54.8	54.8
55.5	16:21:49		55.5	55.5
56.5	16:21:50		56.5	56.5
56.2	16:21:51		56.2	56.2
59.2	16:21:52		59.2	59.2
59.9	16:21:53		59.9	59.9
59.2	16:21:54		59.2	59.2
60.1	16:21:55		60.1	60.1
60.7	16:21:56		60.7	60.7
60.5	16:21:57		60.5	60.5
59.8	16:21:58		59.8	59.8
59.0	16:21:59		59.0	59.0
56.5	16:22:00		56.5	56.5
55.3	16:22:01		55.3	55.3
54.2	16:22:02		54.2	54.2
54.8	16:22:03		54.8	54.8
55.2	16:22:04		55.2	55.2
55.4	16:22:05		55.4	55.4
55.2	16:22:06		55.2	55.2
54.0	16:22:07		54.0	54.0
53.8	16:22:08		53.8	53.8
54.4	16:22:09		54.4	54.4
56.0	16:22:10		56.0	56.0
57.7	16:22:11		57.7	57.7
58.6	16:22:12		58.6	58.6
60.1	16:22:13		60.1	60.1
61.2	16:22:14		61.2	61.2
62.0	16:22:15		62.0	62.0
62.0	16:22:16		62.0	62.0
61.4	16:22:17		61.4	61.4
61.0	16:22:18		61.0	61.0
60.0	16:22:19		60.0	60.0
59.3	16:22:20		59.3	59.3
58.5	16:22:21		58.5	58.5
59.3	16:22:22		59.3	59.3
59.0	16:22:23		59.0	59.0
59.8	16:22:24		59.8	59.8
60.7	16:22:25		60.7	60.7
61.3	16:22:26		61.3	61.3
61.5	16:22:27		61.5	61.5
61.7	16:22:28		61.7	61.7
61.5	16:22:29		61.5	61.5

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
51.9	16:25:09		51.9	51.9
52.7	16:25:10		52.7	52.7
52.5	16:25:11		52.5	52.5
52.5	16:25:12		52.5	52.5
51.1	16:25:13		51.1	51.1
48.9	16:25:14		48.9	48.9
47.2	16:25:15		47.2	47.2
46.9	16:25:16		46.9	46.9
47.5	16:25:17		47.5	47.5
48.3	16:25:18		48.3	48.3
47.9	16:25:19		47.9	47.9
48.2	16:25:20		48.2	48.2
48.2	16:25:21		48.2	48.2
50.0	16:25:22		50.0	50.0
50.1	16:25:23		50.1	50.1
49.8	16:25:24		49.8	49.8
51.2	16:25:25		51.2	51.2
51.8	16:25:26		51.8	51.8
51.8	16:25:27		51.8	51.8
50.4	16:25:28		50.4	50.4
56.8	16:25:29		56.8	56.8
54.7	16:25:30		54.7	54.7
52.8	16:25:31		52.8	52.8
51.6	16:25:32		51.6	51.6
50.9	16:25:33		50.9	50.9
50.4	16:25:34		50.4	50.4
49.9	16:25:35		49.9	49.9
49.4	16:25:36		49.4	49.4
49.2	16:25:37		49.2	49.2
49.5	16:25:38		49.5	49.5
49.9	16:25:39		49.9	49.9
49.2	16:25:40		49.2	49.2
48.6	16:25:41		48.6	48.6
50.2	16:25:42		50.2	50.2
52.7	16:25:43		52.7	52.7
52.2	16:25:44		52.2	52.2
53.2	16:25:45		53.2	53.2
53.5	16:25:46		53.5	53.5
52.3	16:25:47		52.3	52.3
50.1	16:25:48		50.1	50.1
51.2	16:25:49		51.2	51.2
51.4	16:25:50		51.4	51.4
51.5	16:25:51		51.5	51.5
53.2	16:25:52		53.2	53.2
54.1	16:25:53		54.1	54.1
53.2	16:25:54		53.2	53.2
51.9	16:25:55		51.9	51.9
51.8	16:25:56		51.8	51.8
52.1	16:25:57		52.1	52.1
52.1	16:25:58		52.1	52.1
52.7	16:25:59		52.7	52.7
53.3	16:26:00		53.3	53.3
52.9	16:26:01		52.9	52.9
52.7	16:26:02		52.7	52.7
52.6	16:26:03		52.6	52.6
54.9	16:26:04		54.9	54.9
55.9	16:26:05		55.9	55.9
54.5	16:26:06		54.5	54.5
52.6	16:26:07		52.6	52.6
51.8	16:26:08		51.8	51.8
52.0	16:26:09		52.0	52.0
52.6	16:26:10		52.6	52.6
52.4	16:26:11		52.4	52.4
52.3	16:26:12		52.3	52.3
54.0	16:26:13		54.0	54.0
54.0	16:26:14		54.0	54.0
52.5	16:26:15		52.5	52.5
51.6	16:26:16		51.6	51.6
51.7	16:26:17		51.7	51.7
51.7	16:26:18		51.7	51.7
51.0	16:26:19		51.0	51.0
51.8	16:26:20		51.8	51.8
51.5	16:26:21		51.5	51.5
51.3	16:26:22		51.3	51.3
50.2	16:26:23		50.2	50.2
49.6	16:26:24		49.6	49.6
50.0	16:26:25		50.0	50.0
50.0	16:26:26		50.0	50.0
50.2	16:26:27		50.2	50.2
50.2	16:26:28		50.2	50.2
50.0	16:26:29		50.0	50.0
50.1	16:26:30		50.1	50.1
52.0	16:26:31		52.0	52.0
53.4	16:26:32		53.4	53.4
53.5	16:26:33		53.5	53.5
53.9	16:26:34		53.9	53.9
56.1	16:26:35		56.1	56.1
56.4	16:26:36		56.4	56.4
54.7	16:26:37		54.7	54.7
53.5	16:26:38		53.5	53.5
53.0	16:26:39		53.0	53.0
52.4	16:26:40		52.4	52.4
53.5	16:26:41		53.5	53.5
53.9	16:26:42		53.9	53.9
52.4	16:26:43		52.4	52.4
50.7	16:26:44		50.7	50.7
50.1	16:26:45		50.1	50.1
49.6	16:26:46		49.6	49.6
49.1	16:26:47		49.1	49.1
48.6	16:26:48		48.6	48.6
48.5	16:26:49		48.5	48.5
48.6	16:26:50		48.6	48.6
48.6	16:26:51		48.6	48.6
47.6	16:26:52		47.6	47.6
47.6	16:26:53		47.6	47.6
47.6	16:26:54		47.6	47.6
47.9	16:26:55		47.9	47.9
47.6	16:26:56		47.6	47.6
47.8	16:26:57		47.8	47.8
47.5	16:26:58		47.5	47.5
47.6	16:26:59		47.6	47.6
47.7	16:27:00		47.7	47.7
47.4	16:27:01		47.4	47.4
47.6	16:27:02		47.6	47.6
47.7	16:27:03		47.7	47.7
48.0	16:27:04		48.0	48.0
47.6	16:27:05		47.6	47.6
47.7	16:27:06		47.7	47.7
48.0	16:27:07		48.0	48.0
48.1	16:27:08		48.1	48.1
48.5	16:27:09		48.5	48.5
48.6	16:27:10		48.6	48.6
48.3	16:27:11		48.3	48.3
48.4	16:27:12		48.4	48.4
48.7	16:27:13		48.7	48.7
48.2	16:27:14		48.2	48.2
47.7	16:27:15		47.7	47.7
48.7	16:27:16		48.7	48.7
49.0	16:27:17		49.0	49.0
49.7	16:27:18		49.7	49.7
49.3	16:27:19		49.3	49.3
49.1	16:27:20		49.1	49.1
50.8	16:27:21		50.8	50.8
51.7	16:27:22		51.7	51.7
51.2	16:27:23		51.2	51.2
51.2	16:27:24		51.2	51.2
51.3	16:27:25		51.3	51.3
51.6	16:27:26		51.6	51.6
52.2	16:27:27		52.2	52.2
52.4	16:27:28		52.4	52.4
52.5	16:27:29		52.5	52.5
52.2	16:27:30		52.2	52.2
52.0	16:27:31		52.0	52.0
52.9	16:27:32		52.9	52.9
54.3	16:27:33		54.3	54.3
54.5	16:27:34		54.5	54.5
53.8	16:27:35		53.8	53.8
53.5	16:27:36		53.5	53.5
54.9	16:27:37		54.9	54.9
56.4	16:27:38		56.4	56.4
58.3	16:27:39		58.3	58.3
58.9	16:27:40		58.9	58.9
60.1	16:27:41		60.1	60.1
59.9	16:27:42		59.9	59.9
59.7	16:27:43		59.7	59.7
60.4	16:27:44		60.4	60.4
60.0	16:27:45		60.0	60.0
57.5	16:27:46		57.5	57.5
55.5	16:27:47		55.5	55.5
54.4	16:27:48		54.4	54.4
53.8	16:27:49		53.8	53.8
53.1	16:27:50		53.1	53.1
53.5	16:27:51		53.5	53.5
53.4	16:27:52		53.4	53.4
53.2	16:27:53		53.2	53.2
52.7	16:27:54		52.7	52.7
52.6	16:27:55		52.6	52.6
52.4	16:27:56		52.4	52.4
52.0	16:27:57		52.0	52.0
52.0	16:27:58		52.0	52.0
51.9	16:27:59		51.9	51.9
52.0	16:28:00		52.0	52.0
52.0	16:28:01		52.0	52.0
52.4	16:28:02		52.4	52.4
53.7	16:28:03		53.7	53.7
55.2	16:28:04		55.2	55.2
54.9	16:28:05		54.9	54.9
53.9	16:28:06		53.9	53.9
53.4	16:28:07		53.4	53.4
52.9	16:28:08		52.9	52.9
52.2	16:28:09		52.2	52.2
51.5	16:28:10		51.5	51.5
51.2	16:28:11		51.2	51.2
51.1	16:28:12		51.1	51.1
51.3	16:28:13		51.3	51.3
52.1	16:28:14		52.1	52.1
52.3	16:28:15		52.3	52.3
52.6	16:28:16		52.6	52.6
52.5	16:28:17		52.5	52.5
52.3	16:28:18		52.3	52.3
52.8	16:28:19		52.8	52.8
53.3	16:28:20		53.3	53.3
53.0	16:28:21		53.0	53.0
52.6	16:28:22		52.6	52.6
52.7	16:28:23		52.7	52.7
53.0	16:28:24		53.0	53.0
52.5	16:28:25		52.5	52.5
52.6	16:28:26		52.6	52.6
53.2	16:28:27		53.2	53.2
53.9	16:28:28		53.9	53.9
53.6	16:28:29		53.6	53.6
52.8	16:28:30		52.8	52.8
52.9	16:28:31		52.9	52.9
54.7	16:28:32		54.7	54.7
54.5	16:28:33		54.5	54.5
52.7	16:28:34		52.7	52.7
50.9	16:28:35		50.9	50.9
50.5	16:28:36		50.5	50.5
50.4	16:28:37		50.4	50.4
49.8	16:28:38		49.8	49.8
49.8	16:28:39		49.8	49.8
49.9	16:28:40		49.9	49.9
50.2	16:28:41		50.2	50.2

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
42.1	16:30:04		42.1	42.1
43.8	16:30:05		43.8	43.8
44.1	16:30:06		44.1	44.1
44.1	16:30:07		44.1	44.1
44.7	16:30:08		44.7	44.7
44.7	16:30:09		44.7	44.7
44.4	16:31:00		44.4	44.4
44.2	16:31:01		44.2	44.2
44.4	16:31:02		44.4	44.4
43.9	16:31:03		43.9	43.9
43.3	16:31:04		43.3	43.3
42.5	16:31:05		42.5	42.5
42.2	16:31:06		42.2	42.2
42.5	16:31:07		42.5	42.5
42.6	16:31:08		42.6	42.6
43.3	16:31:09		43.3	43.3
44.1	16:31:10		44.1	44.1
45.3	16:31:11		45.3	45.3
46.8	16:31:12		46.8	46.8
48.1	16:31:13		48.1	48.1
51.1	16:31:14		51.1	51.1
55.5	16:31:15		55.5	55.5
60.3	16:31:16		60.3	60.3
66.3	16:31:17		66.3	66.3
71.1	16:31:18		71.1	71.1
71.8	16:31:19		71.8	71.8
69.0	16:31:20		69.0	69.0
65.8	16:31:21		65.8	65.8
62.8	16:31:22		62.8	62.8
59.5	16:31:23		59.5	59.5
56.7	16:31:24		56.7	56.7
54.1	16:31:25		54.1	54.1
52.7	16:31:26		52.7	52.7
51.9	16:31:27		51.9	51.9
51.5	16:31:28		51.5	51.5
53.5	16:31:29		53.5	53.5
58.0	16:31:30		58.0	58.0
61.7	16:31:31		61.7	61.7
66.4	16:31:32		66.4	66.4
69.1	16:31:33		69.1	69.1
62.2	16:31:34		62.2	62.2
59.1	16:31:35		59.1	59.1
56.0	16:31:36		56.0	56.0
53.3	16:31:37		53.3	53.3
51.0	16:31:38		51.0	51.0
49.3	16:31:39		49.3	49.3
48.3	16:31:40		48.3	48.3
47.8	16:31:41		47.8	47.8
47.8	16:31:42		47.8	47.8
48.5	16:31:43		48.5	48.5
49.7	16:31:44		49.7	49.7
51.7	16:31:45		51.7	51.7
55.1	16:31:46		55.1	55.1
60.0	16:31:47		60.0	60.0
65.6	16:31:48		65.6	65.6
68.7	16:31:49		68.7	68.7
67.5	16:31:50		67.5	67.5
64.5	16:31:51		64.5	64.5
61.2	16:31:52		61.2	61.2
58.1	16:31:53		58.1	58.1
55.6	16:31:54		55.6	55.6
53.8	16:31:55		53.8	53.8
51.8	16:31:56		51.8	51.8
50.4	16:31:57		50.4	50.4
49.2	16:31:58		49.2	49.2
49.0	16:31:59		49.0	49.0
48.1	16:32:00		48.1	48.1
46.8	16:32:01		46.8	46.8
45.6	16:32:02		45.6	45.6
44.1	16:32:03		44.1	44.1
43.8	16:32:04		43.8	43.8
44.3	16:32:05		44.3	44.3
43.9	16:32:06		43.9	43.9
42.7	16:32:07		42.7	42.7
42.0	16:32:08		42.0	42.0
42.3	16:32:09		42.3	42.3
41.6	16:32:10		41.6	41.6
41.6	16:32:11		41.6	41.6
42.3	16:32:12		42.3	42.3
41.8	16:32:13		41.8	41.8
42.7	16:32:14		42.7	42.7
42.2	16:32:15		42.2	42.2
41.4	16:32:16		41.4	41.4
40.8	16:32:17		40.8	40.8
40.7	16:32:18		40.7	40.7
40.8	16:32:19		40.8	40.8
41.3	16:32:20		41.3	41.3
40.4	16:32:21		40.4	40.4
40.6	16:32:22		40.6	40.6
40.3	16:32:23		40.3	40.3
39.7	16:32:24		39.7	39.7
39.2	16:32:25		39.2	39.2
39.1	16:32:26		39.1	39.1
39.2	16:32:27		39.2	39.2
39.4	16:32:28		39.4	39.4
39.3	16:32:29		39.3	39.3
39.4	16:32:30		39.4	39.4
39.5	16:32:31		39.5	39.5
40.0	16:32:32		40.0	40.0
41.3	16:32:33		41.3	41.3
40.9	16:32:34		40.9	40.9
40.4	16:32:35		40.4	40.4
40.5	16:32:36		40.5	40.5
40.9	16:32:37		40.9	40.9
41.2	16:32:38		41.2	41.2
41.0	16:32:39		41.0	41.0
41.0	16:32:40		41.0	41.0
40.8	16:32:41		40.8	40.8
41.3	16:32:42		41.3	41.3
41.6	16:32:43		41.6	41.6
42.6	16:32:44		42.6	42.6
43.3	16:32:45		43.3	43.3
45.4	16:32:46		45.4	45.4
47.3	16:32:47		47.3	47.3
50.0	16:32:48		50.0	50.0
54.8	16:32:49		54.8	54.8
60.0	16:32:50		60.0	60.0
65.7	16:32:51		65.7	65.7
68.8	16:32:52	

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.8	16:22:30		60.8	60.8
59.8	16:22:31		59.8	59.8
58.2	16:22:32		58.2	58.2
56.7	16:22:33		56.7	56.7
54.9	16:22:34		54.9	54.9
53.8	16:22:35		53.8	53.8
53.3	16:22:36		53.3	53.3
53.1	16:22:37		53.1	53.1
52.9	16:22:38		52.9	52.9
53.2	16:22:39		53.2	53.2
53.8	16:22:40		53.8	53.8
54.0	16:22:41		54.0	54.0
53.8	16:22:42		53.8	53.8
52.9	16:22:43		52.9	52.9
51.9	16:22:44		51.9	51.9
51.4	16:22:45		51.4	51.4
50.6	16:22:46		50.6	50.6
50.0	16:22:47		50.0	50.0
49.3	16:22:48		49.3	49.3
48.8	16:22:49		48.8	48.8
48.7	16:22:50		48.7	48.7
48.6	16:22:51		48.6	48.6
48.4	16:22:52		48.4	48.4
48.7	16:22:53		48.7	48.7
48.8	16:22:54		48.8	48.8
48.3	16:22:55		48.3	48.3
47.8	16:22:56		47.8	47.8
47.8	16:22:57		47.8	47.8
48.8	16:22:58		48.8	48.8
49.1	16:22:59		49.1	49.1
48.5	16:23:00		48.5	48.5
48.0	16:23:01		48.0	48.0
47.7	16:23:02		47.7	47.7
47.7	16:23:03		47.7	47.7
47.6	16:23:04		47.6	47.6
48.2	16:23:05		48.2	48.2
48.1	16:23:06		48.1	48.1
47.8	16:23:07		47.8	47.8
47.2	16:23:08		47.2	47.2
46.3	16:23:09		46.3	46.3
45.8	16:23:10		45.8	45.8
44.9	16:23:11		44.9	44.9
44.9	16:23:12		44.9	44.9
45.2	16:23:13		45.2	45.2
45.4	16:23:14		45.4	45.4
45.9	16:23:15		45.9	45.9
46.3	16:23:16		46.3	46.3
46.7	16:23:17		46.7	46.7
46.9	16:23:18		46.9	46.9
47.2	16:23:19		47.2	47.2
46.9	16:23:20		46.9	46.9
46.7	16:23:21		46.7	46.7
46.6	16:23:22		46.6	46.6
46.3	16:23:23		46.3	46.3
46.3	16:23:24		46.3	46.3
46.5	16:23:25		46.5	46.5
47.5	16:23:26		47.5	47.5
48.7	16:23:27		48.7	48.7
50.2	16:23:28		50.2	50.2
50.7	16:23:29		50.7	50.7
50.8	16:23:30		50.8	50.8
49.8	16:23:31		49.8	49.8
49.3	16:23:32		49.3	49.3
49.4	16:23:33		49.4	49.4
49.9	16:23:34		49.9	49.9
51.2	16:23:35		51.2	51.2
51.6	16:23:36		51.6	51.6
52.1	16:23:37		52.1	52.1
52.9	16:23:38		52.9	52.9
54.6	16:23:39		54.6	54.6
54.5	16:23:40		54.5	54.5
54.8	16:23:41		54.8	54.8
57.0	16:23:42		57.0	57.0
59.0	16:23:43		59.0	59.0
59.7	16:23:44		59.7	59.7
59.4	16:23:45		59.4	59.4
58.2	16:23:46		58.2	58.2
57.2	16:23:47		57.2	57.2
56.8	16:23:48		56.8	56.8
57.0	16:23:49		57.0	57.0
58.2	16:23:50		58.2	58.2
60.0	16:23:51		60.0	60.0
61.7	16:23:52		61.7	61.7
63.1	16:23:53		63.1	63.1
64.0	16:23:54		64.0	64.0
63.5	16:23:55		63.5	63.5
62.7	16:23:56		62.7	62.7
62.2	16:23:57		62.2	62.2
62.3	16:23:58		62.3	62.3
62.2	16:23:59		62.2	62.2
62.0	16:24:00		62.0	62.0
62.3	16:24:01		62.3	62.3
62.4	16:24:02		62.4	62.4
62.0	16:24:03		62.0	62.0
60.8	16:24:04		60.8	60.8
59.2	16:24:05		59.2	59.2
58.5	16:24:06		58.5	58.5
58.2	16:24:07		58.2	58.2
57.9	16:24:08		57.9	57.9
58.2	16:24:09		58.2	58.2
58.0	16:24:10		58.0	58.0
58.1	16:24:11		58.1	58.1
58.7	16:24:12		58.7	58.7
58.6	16:24:13		58.6	58.6
58.0	16:24:14		58.0	58.0
57.3	16:24:15		57.3	57.3
57.3	16:24:16		57.3	57.3
56.4	16:24:17		56.4	56.4
55.0	16:24:18		55.0	55.0
53.6	16:24:19		53.6	53.6
53.2	16:24:20		53.2	53.2
53.7	16:24:21		53.7	53.7
58.0	16:24:22		58.0	58.0
57.9	16:24:23		57.9	57.9
55.7	16:24:24		55.7	55.7
53.0	16:24:25		53.0	53.0
51.0	16:24:26		51.0	51.0
50.1	16:24:27		50.1	50.1
49.6	16:24:28		49.6	49.6
49.5	16:24:29		49.5	49.5
49.0	16:24:30		49.0	49.0
48.7	16:24:31		48.7	48.7
48.9	16:24:32		48.9	48.9
49.8	16:24:33		49.8	49.8
50.8	16:24:34		50.8	50.8
52.0	16:24:35		52.0	52.0
53.4	16:24:36		53.4	53.4
54.4	16:24:37		54.4	54.4
54.7	16:24:38		54.7	54.7
54.3	16:24:39		54.3	54.3
53.2	16:24:40		53.2	53.2
51.9	16:24:41		51.9	51.9
50.7	16:24:42		50.7	50.7
49.9	16:24:43		49.9	49.9
49.3	16:24:44		49.3	49.3
48.7	16:24:45		48.7	48.7
47.9	16:24:46		47.9	47.9
48.0	16:24:47		48.0	48.0
48.0	16:24:48		48.0	48.0
47.7	16:24:49		47.7	47.7
47.1	16:24:50		47.1	47.1
47.1	16:24:51		47.1	47.1
46.8	16:24:52		46.8	46.8
46.4	16:24:53		46.4	46.4
46.4	16:24:54		46.4	46.4
46.6	16:24:55		46.6	46.6
46.2	16:24:56		46.2	46.2
46.0	16:24:57		46.0	46.0
46.5	16:24:58		46.5	46.5
46.7	16:24:59		46.7	46.7
46.5	16:25:00		46.5	46.5
45.9	16:25:01		45.9	45.9
45.1	16:25:02		45.1	45.1
44.9	16:25:03		44.9	44.9
44.4	16:25:04		44.4	44.4
43.8	16:25:05		43.8	43.8
43.8	16:25:06		43.8	43.8
45.1	16:25:07		45.1	45.1
45.5	16:25:08		45.5	45.5
45.1	16:25:09		45.1	45.1
44.8	16:25:10		44.8	44.8
44.7	16:25:11		44.7	44.7
45.1	16:25:12		45.1	45.1
45.8	16:25:13		45.8	45.8
47.3	16:25:14		47.3	47.3
48.2	16:25:15		48.2	48.2
52.3	16:25:16		52.3	52.3
53.4	16:25:17		53.4	53.4
55.7	16:25:18		55.7	55.7
55.0	16:25:19		55.0	55.0
55.7	16:25:20		55.7	55.7
56.3	16:25:21		56.3	56.3
55.9	16:25:22		55.9	55.9
59.3	16:25:23		59.3	59.3

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
49.5	16:28:42		49.5	49.5
49.1	16:28:43		49.1	49.1
49.5	16:28:44		49.5	49.5
49.0	16:28:45		49.0	49.0
49.9	16:28:46		49.9	49.9
51.9	16:28:47		51.9	51.9
52.4	16:28:48		52.4	52.4
50.9	16:28:49		50.9	50.9
49.5	16:28:50		49.5	49.5
48.5	16:28:51		48.5	48.5
47.9	16:28:52		47.9	47.9
48.4	16:28:53		48.4	48.4
47.6	16:28:54		47.6	47.6
46.6	16:28:55		46.6	46.6
45.6	16:28:56		45.6	45.6
45.1	16:28:57		45.1	45.1
44.6	16:28:58		44.6	44.6
44.2	16:28:59		44.2	44.2
45.0	16:29:00		45.0	45.0
47.3	16:29:01		47.3	47.3
47.2	16:29:02		47.2	47.2
46.2	16:29:03		46.2	46.2
46.3	16:29:04		46.3	46.3
45.9	16:29:05		45.9	45.9
45.7	16:29:06		45.7	45.7
46.1	16:29:07		46.1	46.1
46.0	16:29:08		46.0	46.0
46.2	16:29:09		46.2	46.2
46.0	16:29:10		46.0	46.0
45.2	16:29:11		45.2	45.2
45.5	16:29:12		45.5	45.5
45.8	16:29:13		45.8	45.8
46.3	16:29:14		46.3	46.3
46.8	16:29:15		46.8	46.8
46.2	16:29:16		46.2	46.2
45.7	16:29:17		45.7	45.7
46.1	16:29:18		46.1	46.1
46.7	16:29:19		46.7	46.7
45.9	16:29:20		45.9	45.9
45.7	16:29:21		45.7	45.7
46.2	16:29:22		46.2	46.2
47.2	16:29:23		47.2	47.2
46.9	16:29:24		46.9	46.9
47.1	16:29:25		47.1	47.1
48.1	16:29:26		48.1	48.1
48.2	16:29:27		48.2	48.2
49.3	16:29:28		49.3	49.3
53.4	16:29:29		53.4	53.4
53.6	16:29:30		53.6	53.6
51.2	16:29:31		51.2	51.2
49.7	16:29:32		49.7	49.7
50.6	16:29:33		50.6	50.6
55.3	16:29:34		55.3	55.3
57.3	16:29:35		57.3	57.3
55.5	16:29:36		55.5	55.5
53.3	16:29:37		53.3	53.3
52.7	16:29:38		52.7	52.7
52.3	16:29:39		52.3	52.3
51.7	16:29:40		51.7	51.7
51.7	16:29:41		51.7	51.7
51.4	16:29:42		51.4	51.4
50.0	16:29:43		50.0	50.0
49.3	16:29:44		49.3	49.3
49.6	16:29:45		49.6	49.6
49.6	16:29:46		49.6	49.6
49.3	16:29:47		49.3	49.3
48.6	16:29:48		48.6	48.6
48.3	16:29:49		48.3	48.3
48.7	16:29:50		48.7	48.7
48.7	16:29:51		48.7	48.7
48.9	16:29:52		48.9	48.9
50.5	16:29:53		50.5	50.5
54.1	16:29:54		54.1	54.1
54.3	16:29:55		54.3	54.3
52.2	16:29:56		52.2	52.2
50.5	16:29:57		50.5	50.5
50.1	16:29:58		50.1	50.1
49.7	16:29:59		49.7	49.7
49.2	16:30:00		49.2	49.2
48.9	16:30:01		48.9	48.9
50.1	16:30:02		50.1	50.1
50.7	16:30:03		50.7	50.7
50.5	16:30:04		50.5	50.5
50.6	16:30:05		50.6	50.6
50.7	16:30:06		50.7	50.7
50.7	16:30:07		50.7	50.7
50.4	16:30:08		50.4	50.4
50.6	16:30:09		50.6	50.6
50.4	16:30:10		50.4	50.4
49.9	16:30:11		49.9	49.9
49.5	16:30:12		49.5	49.5
49.5	16:30:13		49.5	49.5
49.3	16:30:14		49.3	49.3
49.5	16:30:15		49.5	49.5
49.9	16:30:16		49.9	49.9
50.0	16:30:17		50.0	50.0
49.8	16:30:18		49.8	49.8
49.7	16:30:19		49.7	49.7
50.3	16:30:20		50.3	50.3
50.1	16:30:21		50.1	50.1
50.1	16:30:22		50.1	50.1
50.2	16:30:23		50.2	50.2
50.1	16:30:24		50.1	50.1
50.3	16:30:25		50.3	50.3
50.2	16:30:26		50.2	50.2
51.3	16:30:27		51.3	51.3
50.7	16:30:28		50.7	50.7
50.7	16:30:29		50.7	50.7
54.8	16:30:30		54.8	54.8
53.2	16:30:31		53.2	53.2
51.9	16:30:32		51.9	51.9
52.6	16:30:33		52.6	52.6
50.0	16:30:34		50.0	50.0
47.4	16:30:35		47.4	47.4
46.2	16:30:36		46.2	46.2
45.8	16:30:37		45.8	45.8
44.9	16:30:38		44.9	44.9
44.6	16:30:39		44.6	44.6
44.4	16:30:40		44.4	44.4
44.5	16:30:41		44.5	44.5
44.7	16:30:42		44.7	44.7
47.0	16:30:43		47.0	47.0
46.3	16:30:44		46.3	46.3
45.5	16:30:45		45.5	45.5
44.9	16:30:46		44.9	44.9
44.9	16:30:47		44.9	44.9
44.9	16:30:48		44.9	44.9
44.8	16:30:49		44.8	44.8
45.2	16:30:50		45.2	45.2
46.4	16:30:51		46.4	46.4
47.3	16:30:52		47.3	47.3
46.9	16:30:53		46.9	46.9
46.7	16:30:54		46.7	46.7
47.8	16:30:55		47.8	47.8
49.5	16:30:56		49.5	49.5
51.1	16:30:57		51.1	51.1
51.9	16:30:58		51.9	51.9
51.8	16:30:59		51.8	51.8
52.5	16:31:00		52.5	52.5
52.7	16:31:01		52.7	52.7
54.9	16:31:02		54.9	54.9
57.3	16:31:03		57.3	57.3
56.2	16:31:04		56.2	56.2
54.7	16:31:05		54.7	54.7
53.5	16:31:06		53.5	53.5
52.2	16:31:07		52.2	52.2
51.6	16:31:08		51.6	51.6
50.6	16:31:09		50.6	50.6
50.5	16:31:10		50.5	50.5
50.8	16:31:11		50.8	50.8
50.3	16:31:12		50.3	50.3
49.1	16:31:13		49.1	49.1
48.6	16:31:14		48.6	48.6
48.4	16:31:15		48.4	48.4
49.4	16:31:16		49.4	49.4
49.6	16:31:17		49.6	49.6
49.2	16:31:18		49.2	49.2
49.1	16:31:19		49.1	49.1
48.5	16:31:20		48.5	48.5
48.1	16:31:21		48.1	48.1
48.9	16:31:22		48.9	48.9
49.0	16:31:23		49.0	49.0
47.8	16:31:24		47.8	47.8
46.9	16:31:25		46.9	46.9
46.5	16:31:26		46.5	46.5
46.8	16:31:27		46.8	46.8
46.8	16:31:28		46.8	46.8
47.5	16:31:29		47.5	47.5
48.4	16:31:30		48.4	48.4
48.4	16:31:31		48.4	48.4
49.4	16:31:32		49.4	49.4
53.8	16:31:33		53.8	53.8
53.8	16:31:34		53.8	53.8
51.6	16:31:35		51.6	51.6

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
41.7	16:34:27		41.7	41.7
41.7	16:34:28		41.7	41.7
41.6	16:34:29		41.6	41.6
41.1	16:34:30		41.1	41.1
40.7	16:34:31		40.7	40.7
40.6	16:34:32		40.6	40.6
40.6	16:34:33		40.6	40.6
40.7	16:34:34		40.7	40.7
40.6	16:34:35		40.6	40.6
40.8	16:34:36		40.8	40.8
40.6	16:34:37		40.6	40.6
40.6	16:34:38		40.6	40.6
41.2	16:34:39		41.2	41.2
41.7	16:34:40		41.7	41.7
41.5	16:34:41		41.5	41.5
41.6	16:34:42		41.6	41.6
41.7	16:34:43		41.7	41.7
41.9	16:34:44		41.9	41.9
41.9	16:34:45		41.9	41.9
42.1	16:34:46		42.1	42.1
43.1	16:34:47		43.1	43.1
43.4	16:34:48		43.4	43.4
43.8	16:34:49		43.8	43.8
45.1	16:34:50		45.1	45.1
46.2	16:34:51		46.2	46.2
47.1	16:34:52		47.1	47.1
48.1	16:34:53		48.1	48.1
49.7	16:34:54		49.7	49.7
52.1	16:34:55		52.1	52.1
55.9	16:34:56		55.9	55.9
59.8	16:34:57		59.8	59.8
64.0	16:34:58		64.0	64.0
66.6	16:34:59		66.6	66.6
66.4	16:35:00		66.4	66.4
64.1	16:35:01		64.1	64.1
62.7	16:35:02		62.7	62.7
65.2	16:35:03		65.2	65.2
67.1	16:35:04		67.1	67.1
66.7	16:35:05		66.7	66.7
64.7	16:35:06		64.7	64.7
62.2	16:35:07		62.2	62.2
59.6	16:35:08		59.6	59.6
57.0	16:35:09		57.0	57.0
54.7	16:35:10		54.7	54.7
52.9	16:35:11		52.9	52.9
51.5	16:35:12		51.5	51.5
51.0	16:35:13		51.0	51.0
50.9	16:35:14		50.9	50.9
51.8	16:35:15		51.8	51.8
52.9	16:35:16		52.9	52.9
54.9	16:35:17		54.9	54.9
56.8	16:35:18		56.8	56.8
58.6	16:35:19		58.6	58.6
62.9	16:35:20		62.9	62.9
66.0	16:35:21		66.0	66.0
66.4	16:35:22		66.4	66.4
65.5	16:35:23		65.5	65.5
66.6	16:35:24		66.6	66.6
70.4	16:35:25		70.4	70.4
71.2	16:35:26		71.2	71.2
69.1	16:35:27		69.1	69.1
66.0	16:35:28		66.0	66.0
62.8	16:35:29		62.8	62.8
59.7	16:35:30		59.7	59.7
57.1	16:35:31		57.1	57.1
54.7	16:35:32		54.7	54.7
52.5	16:35:33		52.5	52.5
50.4	16:35:34		50.4	50.4
48.7	16:35:35		48.7	48.7
47.9	16:35:36		47.9	47.9
47.5	16:35:37		47.5	47.5
48.0	16:35:38		48.0	48.0
47.8	16:35:39		47.8	47.8
47.9	16:35:40		47.9	47.9
47.8	16:35:41		47.8	47.8
48.2	16:35:42		48.2	48.2
49.6	16:35:43		49.6	49.6
51.5	16:35:44		51.5	51.5
55.4	16:35:45		55.4	55.4
61.3	16:35:46		61.3	61.3
67.9	16:35:47		67.9	67.9
71.5	16:35:48		71.5	71.5
70.8	16:35:49		70.8	70.8
67.6	16:35:50		67.6	67.6
64.1	16:35:51		64.1	64.1
60.9	16:35:52		60.9	60.9
58.0	16:35:53		58.0	58.0
55.6	16:35:54		55.6	55.6
53.8	16:35:55		53.8	53.8
52.3	16:35:56		52.3	52.3
51.0	16:35:57		51.0	51.0
49.9	16:35:58		49.9	49.9
49.3	16:35:59		49.3	49.3
48.0	16:36:00		48.0	48.0
46.9	16:36:01		46.9	46.9
46.5	16:36:02		46.5	46.5
46.1	16:36:03		46.1	46.1
45.9	16:36:04		45.9	45.9
45.3	16:36:05		45.3	45.3
44.6	16:36:06		44.6	44.6
44.1	16:36:07		44.1	44.1
44.3	16:36:08		44.3	44.3
44.1	16:36:09		44.1	44.1
44.0	16:36:10		44.0	44.0
43.8	16:36:11		43.8	43.8
43.4	16:36:12		43.4	43.4
43.4	16:36:13		43.4	43.4
43.5	16:36:14		43.5	43.5
43.6	16:36:15		43.6	43.6
44.2	16:36:16		44.2	44.2
45.9	16:36:17		45.9	45.9
48.5	16:36:18		48.5	48.5
51.5	16:36:19		51.5	51.5
54.4	16:36:20		54.4	54.4
58.5	16:36:21		58.5	58.5
65.7	16:36:22		65.7	65.7
71.3	16:36:23		71.3	71.3
70.3	16:36:24		70.3	70.3
67.4	16:36:25		67.4	67.4
64.0	16:36:26		64.0	64.0
60.6	16:36:27		60.6	60.6
58.4	16:36:28		58.4	58.4
58.4	16:36:29		58.4	58.4
60.6	16:36:30		60.6	60.6
63.9	16:36:31		63.9	63.9
66.2	16:36:32		66.2	66.2
65.9	16:36:33		65.9	65.9
63.9	16:36:34		63.9	63.9
61.3	16:36:35		61.3	61.3
58.7	16:36:36		58.7	58.7
56.3	16:36:37		56.3	56.3
53.8	16:36:38		53.8	53.8
52.0	16:36:39		52.0	52.0
50.3	16:36:40		50.3	50.3
48.6	16:36:41		48.6	48.6
47.0	16:36:42		47.0	47.0
45.9	16:36:43		45.9	45.9
45.2	16:36:44		45.2	45.2
45.0	16:36:45		45.0	45.0
47.7	16:36:46		47.7	47.7
47.9	16:36:47		47.9	47.9
46.8	16:36:48		46.8	46.8
46.2	16:36:49		46.2	46.2
46.5	16:36:50		46.5	46.5
46.2	16:36:51		46.2	46.2
45.5	16:36:52		45.5	45.5
45.4	16:36:53		45.4	45.4
45.2	16:36:54		45.2	45.2
45.2	16:36:55		45.2	45.2
45.3	16:36:56		45.3	45.3
45.4	16:36:57		45.4	45.4
45.9	16:36:58		45.9	45.9
46.4	16:36:59		46.4	46.4
47.2	16:37:00		47.2	47.2
48.3	16:37:01		48.3	48.3
49.7	16:37:02		49.7	49.7
51.4	16:37:03		51.4	51.4
55.0	16:37:04		55.0	55.0
59.3	16:37:05		59.3	59.3
65.3	16:37:06		65.3	65.3
69.3	16:37:07		69.3	69.3
69.5	16:37:08		69.5	69.5
68.0	16:37:09		68.0	68.0
69.1	16:37:10		69.1	69.1
70.3	16:37:11		70.3	70.3
69.8	16:37:12		69.8	69.8
71.0	16:37:13		71.0	71.0
71.2	16:37:14		71.2	71.2
69.4	16:37:15		69.4	69.4
66.7	16:37:16		66.7	66.7
64.0	16:37:17		64.0	64.0
61.5	16:37:18		61.5	61.5
59.2	16:37:19		59.2	59.2
57.3	16:37:20		57.3	57.3

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
64.5	16:25:24		64.5	64.5
65.9	16:25:25		65.9	65.9
66.4	16:25:26		66.4	66.4
66.1	16:25:27		66.1	66.1
64.2	16:25:28		64.2	64.2
64.0	16:25:29		64.0	64.0
63.5	16:25:30		63.5	63.5
62.3	16:25:31		62.3	62.3
60.8	16:25:32		60.8	60.8
59.3	16:25:33		59.3	59.3
57.9	16:25:34		57.9	57.9
57.0	16:25:35		57.0	57.0
57.2	16:25:36		57.2	57.2
57.0	16:25:37		57.0	57.0
56.2	16:25:38		56.2	56.2
55.7	16:25:39		55.7	55.7
55.4	16:25:40		55.4	55.4
54.1	16:25:41		54.1	54.1
53.5	16:25:42		53.5	53.5
52.7	16:25:43		52.7	52.7
51.8	16:25:44		51.8	51.8
51.3	16:25:45		51.3	51.3
53.1	16:25:46		53.1	53.1
54.4	16:25:47		54.4	54.4
55.7	16:25:48		55.7	55.7
57.3	16:25:49		57.3	57.3
57.5	16:25:50		57.5	57.5
56.6	16:25:51		56.6	56.6
55.2	16:25:52		55.2	55.2
53.9	16:25:53		53.9	53.9
52.6	16:25:54		52.6	52.6
51.9	16:25:55		51.9	51.9
51.4	16:25:56		51.4	51.4
50.9	16:25:57		50.9	50.9
50.4	16:25:58		50.4	50.4
49.5	16:25:59		49.5	49.5
49.2	16:26:00		49.2	49.2
49.3	16:26:01		49.3	49.3
48.9	16:26:02		48.9	48.9
48.6	16:26:03		48.6	48.6
48.3	16:26:04		48.3	48.3
47.7	16:26:05		47.7	47.7
47.7	16:26:06		47.7	47.7
49.0	16:26:07		49.0	49.0
49.9	16:26:08		49.9	49.9
49.3	16:26:09		49.3	49.3
49.1	16:26:10		49.1	49.1
49.5	16:26:11		49.5	49.5
50.4	16:26:12		50.4	50.4
51.6	16:26:13		51.6	51.6
53.4	16:26:14		53.4	53.4
55.3	16:26:15		55.3	55.3
57.5	16:26:16		57.5	57.5
59.5	16:26:17		59.5	59.5
60.5	16:26:18		60.5	60.5
60.8	16:26:19		60.8	60.8
61.2	16:26:20		61.2	61.2
61.3	16:26:21		61.3	61.3
61.4	16:26:22		61.4	61.4
61.0	16:26:23		61.0	61.0
60.3	16:26:24		60.3	60.3
59.6	16:26:25		59.6	59.6
58.9	16:26:26		58.9	58.9
58.6	16:26:27		58.6	58.6
59.1	16:26:28		59.1	59.1
60.4	16:26:29		60.4	60.4
61.5	16:26:30		61.5	61.5
62.4	16:26:31		62.4	62.4
62.5	16:26:32		62.5	62.5
62.4	16:26:33		62.4	62.4
61.9	16:26:34		61.9	61.9
61.0	16:26:35		61.0	61.0
59.5	16:26:36		59.5	59.5
58.0	16:26:37		58.0	58.0
57.0	16:26:38		57.0	57.0
56.6	16:26:39		56.6	56.6
56.9	16:26:40		56.9	56.9
57.4	16:26:41		57.4	57.4
57.8	16:26:42		57.8	57.8
57.3	16:26:43		57.3	57.3
56.1	16:26:44		56.1	56.1
54.9	16:26:45		54.9	54.9
53.8	16:26:46		53.8	53.8
52.5	16:26:47		52.5	52.5
51.9	16:26:48		51.9	51.9
51.5	16:26:49		51.5	51.5
50.4	16:26:50		50.4	50.4
49.9	16:26:51		49.9	49.9
49.7	16:26:52		49.7	49.7
48.6	16:26:53		48.6	48.6
47.4	16:26:54		47.4	47.4
46.7	16:26:55		46.7	46.7
46.7	16:26:56		46.7	46.7
46.6	16:26:57		46.6	46.6
47.0	16:26:58		47.0	47.0
48.3	16:26:59		48.3	48.3
49.8	16:27:00		49.8	49.8
50.5	16:27:01		50.5	50.5
51.4	16:27:02		51.4	51.4
52.6	16:27:03		52.6	52.6
53.3	16:27:04		53.3	53.3
52.9	16:27:05		52.9	52.9
52.6	16:27:06		52.6	52.6
54.3	16:27:07		54.3	54.3
56.1	16:27:08		56.1	56.1
57.8	16:27:09		57.8	57.8
59.8	16:27:10		59.8	59.8
60.9	16:27:11		60.9	60.9
61.7	16:27:12		61.7	61.7
61.6	16:27:13		61.6	61.6
61.1	16:27:14		61.1	61.1
60.6	16:27:15		60.6	60.6
59.9	16:27:16		59.9	59.9
58.6	16:27:17		58.6	58.6
57.3	16:27:18		57.3	57.3
56.5	16:27:19		56.5	56.5
56.1	16:27:20		56.1	56.1
56.0	16:27:21		56.0	56.0
55.7	16:27:22		55.7	55.7
55.4	16:27:23		55.4	55.4
54.9	16:27:24		54.9	54.9
54.8	16:27:25		54.8	54.8
54.5	16:27:26		54.5	54.5
53.9	16:27:27		53.9	53.9
52.7	16:27:28		52.7	52.7
52.2	16:27:29		52.2	52.2
51.8	16:27:30		51.8	51.8
51.5	16:27:31		51.5	51.5
50.9	16:27:32		50.9	50.9
50.4	16:27:33		50.4	50.4
49.8	16:27:34		49.8	49.8
49.8	16:27:35		49.8	49.8
49.5	16:27:36		49.5	49.5
48.4	16:27:37		48.4	48.4
47.7	16:27:38		47.7	47.7
47.9	16:27:39		47.9	47.9
48.3	16:27:40		48.3	48.3
48.5	16:27:41		48.5	48.5
49.0	16:27:42		49.0	49.0
50.2	16:27:43		50.2	50.2
50.2	16:27:44		50.2	50.2
51.2	16:27:45		51.2	51.2
53.0	16:27:46		53.0	53.0
54.7	16:27:47		54.7	54.7
54.8	16:27:48		54.8	54.8
54.6	16:27:49		54.6	54.6
55.2	16:27:50		55.2	55.2
55.8	16:27:51		55.8	55.8
57.6	16:27:52		57.6	57.6
60.0	16:27:53		60.0	60.0
61.1	16:27:54		61.1	61.1
62.4	16:27:55		62.4	62.4
64.3	16:27:56		64.3	64.3
66.8	16:27:57		66.8	66.8
70.2	16:27:58		70.2	70.2
71.2	16:27:59		71.2	71.2
69.2	16:28:00		69.2	69.2
66.0	16:28:01		66.0	66.0
63.0	16:28:02		63.0	63.0
60.2	16:28:03		60.2	60.2
57.8	16:28:04		57.8	57.8
56.3	16:28:05		56.3	56.3

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.5	16:31:36		50.5	50.5
49.9	16:31:37		49.9	49.9
49.5	16:31:38		49.5	49.5
49.6	16:31:39		49.6	49.6
49.9	16:31:40		49.9	49.9
49.8	16:31:41		49.8	49.8
49.8	16:31:42		49.8	49.8
49.1	16:31:43		49.1	49.1
48.0	16:31:44		48.0	48.0
47.2	16:31:45		47.2	47.2
46.7	16:31:46		46.7	46.7
46.3	16:31:47		46.3	46.3
46.7	16:31:48		46.7	46.7
47.9	16:31:49		47.9	47.9
47.5	16:31:50		47.5	47.5
47.9	16:31:51		47.9	47.9
48.2	16:31:52		48.2	48.2
47.0	16:31:53		47.0	47.0
46.3	16:31:54		46.3	46.3
46.7	16:31:55		46.7	46.7
47.0	16:31:56		47.0	47.0
46.7	16:31:57		46.7	46.7
46.4	16:31:58		46.4	46.4
46.2	16:31:59		46.2	46.2
46.7	16:32:00		46.7	46.7
46.5	16:32:01		46.5	46.5
46.5	16:32:02		46.5	46.5
47.1	16:32:03		47.1	47.1
46.3	16:32:04		46.3	46.3
45.6	16:32:05		45.6	45.6
46.4	16:32:06		46.4	46.4
46.8	16:32:07		46.8	46.8
46.8	16:32:08		46.8	46.8
47.0	16:32:09		47.0	47.0
46.1	16:32:10		46.1	46.1
45.9	16:32:11		45.9	45.9
46.1	16:32:12		46.1	46.1
45.7	16:32:13		45.7	45.7
45.0	16:32:14		45.0	45.0
45.0	16:32:15		45.0	45.0
46.2	16:32:16		46.2	46.2
47.1	16:32:17		47.1	47.1
45.9	16:32:18		45.9	45.9
45.7	16:32:19		45.7	45.7
46.2	16:32:20		46.2	46.2
45.3	16:32:21		45.3	45.3
44.4	16:32:22		44.4	44.4
44.1	16:32:23		44.1	44.1
43.6	16:32:24		43.6	43.6
44.6	16:32:25		44.6	44.6
44.6	16:32:26		44.6	44.6
43.8	16:32:27		43.8	43.8
43.5	16:32:28		43.5	43.5
43.6	16:32:29		43.6	43.6
44.8	16:32:30		44.8	44.8
45.8	16:32:31		45.8	45.8
46.7	16:32:32		46.7	46.7
47.6	16:32:33		47.6	47.6
47.4	16:32:34		47.4	47.4
48.7	16:32:35		48.7	48.7
50.8	16:32:36		50.8	50.8
50.8	16:32:37		50.8	50.8
49.5	16:32:38		49.5	49.5
48.9	16:32:39		48.9	48.9
48.6	16:32:40		48.6	48.6
47.9	16:32:41		47.9	47.9
47.8	16:32:42		47.8	47.8
48.3	16:32:43		48.3	48.3
49.0	16:32:44		49.0	49.0
49.2	16:32:45		49.2	49.2
49.6	16:32:46		49.6	49.6
49.2	16:32:47		49.2	49.2
48.6	16:32:48		48.6	48.6
48.5	16:32:49		48.5	48.5
48.1	16:32:50		48.1	48.1
48.3	16:32:51		48.3	48.3
47.9	16:32:52		47.9	47.9
47.5	16:32:53		47.5	47.5
47.8	16:32:54		47.8	47.8
47.6	16:32:55		47.6	47.6
47.7	16:32:56		47.7	47.7
48.3	16:32:57		48.3	48.3
48.9	16:32:58		48.9	48.9
49.3	16:32:59		49.3	49.3
49.3	16:33:00		49.3	49.3
48.6	16:33:01		48.6	48.6
49.0	16:33:02		49.0	49.0
50.1	16:33:03		50.1	50.1
51.0	16:33:04		51.0	51.0
50.0	16:33:05		50.0	50.0
49.5	16:33:06		49.5	49.5
50.5	16:33:07		50.5	50.5
50.6	16:33:08		50.6	50.6
50.5	16:33:09		50.5	50.5
50.8	16:33:10		50.8	50.8
51.3	16:33:11		51.3	51.3
51.1	16:33:12		51.1	51.1
51.5	16:33:13		51.5	51.5
53.2	16:33:14		53.2	53.2
54.5	16:33:15		54.5	54.5
54.0	16:33:16		54.0	54.0
53.3	16:33:17		53.3	53.3
51.9	16:33:18		51.9	51.9
49.8	16:33:19		49.8	49.8
48.5	16:33:20		48.5	48.5
47.8	16:33:21		47.8	47.8
47.0	16:33:22		47.0	47.0
46.6	16:33:23		46.6	46.6
46.0	16:33:24		46.0	46.0
46.8	16:33:25		46.8	46.8
46.7	16:33:26		46.7	46.7
46.9	16:33:27		46.9	46.9
46.9	16:33:28		46.9	46.9
48.8	16:33:29		48.8	48.8
48.4	16:33:30		48.4	48.4
48.3	16:33:31		48.3	48.3
48.4	16:33:32		48.4	48.4
47.4	16:33:33		47.4	47.4
47.3	16:33:34		47.3	47.3
48.3	16:33:35		48.3	48.3
48.3	16:33:36		48.3	48.3
48.0	16:33:37		48.0	48.0
47.9	16:33:38		47.9	47.9
48.2	16:33:39		48.2	48.2
47.9	16:33:40		47.9	47.9
47.3	16:33:41		47.3	47.3
46.9	16:33:42		46.9	46.9
47.0	16:33:43		47.0	47.0
46.4	16:33:44		46.4	46.4
46.0	16:33:45		46.0	46.0
45.1	16:33:46		45.1	45.1
45.0	16:33:47		45.0	45.0
45.5	16:33:48		45.5	45.5
44.9	16:33:49		44.9	44.9
44.8	16:33:50		44.8	44.8
45.8	16:33:51		45.8	45.8
48.3	16:33:52		48.3	48.3
48.3	16:33:53		48.3	48.3
47.5	16:33:54		47.5	47.5
46.5	16:33:55		46.5	46.5
47.1	16:33:56		47.1	47.1
46.9	16:33:57		46.9	46.9
46.2	16:33:58		46.2	46.2
47.5	16:33:59		47.5	47.5
48.1	16:34:00		48.1	48.1
48.9	16:34:01		48.9	48.9
47.8	16:34:02		47.8	47.8
48.7	16:34:03		48.7	48.7
49.5	16:34:04		49.5	49.5
48.2	16:34:05		48.2	48.2
46.9	16:34:06		46.9	46.9
47.2	16:34:07		47.2	47.2
47.4	16:34:08		47.4	47.4
46.8	16:34:09		46.8	46.8
46.9	16:34:10		46.9	46.9
46.9	16:34:11		46.9	46.9
46.7	16:34:12		46.7	46.7
47.2	16:34:13		47.2	47.2
47.0	16:34:14		47.0	47.0
47.3	16:34:15		47.3	47.3
47.1	16:34:16		47.1	47.1
46.4	16:34:17		46.4	46.4

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
55.4	16:37:21		55.4	55.4
53.7	16:37:22		53.7	53.7
53.4	16:37:23		53.4	53.4
53.4	16:37:24		53.4	53.4
56.5	16:37:25		56.5	56.5
59.4	16:37:26		59.4	59.4
64.6	16:37:27		64.6	64.6
69.7	16:37:28		69.7	69.7
70.0	16:37:29		70.0	70.0
67.1	16:37:30		67.1	67.1
63.6	16:37:31		63.6	63.6
60.1	16:37:32		60.1	60.1
57.0	16:37:33		57.0	57.0
54.3	16:37:34		54.3	54.3
51.9	16:37:35		51.9	51.9
49.8	16:37:36		49.8	49.8
47.8	16:37:37		47.8	47.8
46.3	16:37:38		46.3	46.3
45.2	16:37:39		45.2	45.2
44.1	16:37:40		44.1	44.1
42.9	16:37:41		42.9	42.9
42.1	16:37:42		42.1	42.1
42.0	16:37:43		42.0	42.0
41.5	16:37:44		41.5	41.5
40.7	16:37:45		40.7	40.7
40.3	16:37:46		40.3	40.3
40.0	16:37:47		40.0	40.0
40.0	16:37:48		40.0	40.0
40.3	16:37:49		40.3	40.3
40.3	16:37:50		40.3	40.3
40.3	16:37:51		40.3	40.3
40.6	16:37:52		40.6	40.6
41.0	16:37:53		41.0	41.0
41.0	16:37:54		41.0	41.0
41.0	16:37:55		41.0	41.0
40.9	16:37:56		40.9	40.9
41.0	16:37:57		41.0	41.0
41.7	16:37:58		41.7	41.7
42.8	16:37:59		42.8	42.8
42.6	16:38:00		42.6	42.6
42.2	16:38:01		42.2	42.2
41.8	16:38:02		41.8	41.8
41.5	16:38:03		41.5	41.5
41.8	16:38:04		41.8	41.8
41.4	16:38:05		41.4	41.4
41.4	16:38:06		41.4	41.4
43.0	16:38:07		43.0	43.0
43.1	16:38:08		43.1	43.1
42.8	16:38:09		42.8	42.8
41.7	16:38:10		41.7	41.7
41.0	16:38:11		41.0	41.0
40.7	16:38:12		40.7	40.7
40.3	16:38:13		40.3	40.3
40.2	16:38:14		40.2	40.2
41.6	16:38:15		41.6	41.6
41.9	16:38:16		41.9	41.9
42.5	16:38:17		42.5	42.5
43.8	16:38:18		43.8	43.8
45.3	16:38:19		45.3	45.3
47.5	16:38:20		47.5	47.5
49.7	16:38:21		49.7	49.7
53.8	16:38:22		53.8	53.8
58.7	16:38:23		58.7	58.7
65.0	16:38:24		65.0	65.0
69.5	16:38:25		69.5	69.5
67.4	16:38:26		67.4	67.4
64.0	16:38:27		64.0	64.0
60.3	16:38:28		60.3	60.3
57.0	16:38:29		57.0	57.0
54.2	16:38:30		54.2	54.2
51.9	16:38:31		51.9	51.9
50.8	16:38:32		50.8	50.8
50.2	16:38:33		50.2	50.2
50.3	16:38:34		50.3	50.3
51.5	16:38:35		51.5	51.5
54.4	16:38:36		54.4	54.4
57.4	16:38:37		57.4	57.4
61.1	16:38:38		61.1	61.1
66.1	16:38:39		66.1	66.1
67.7	16:38:40		67.7	67.7
67.1	16:38:41		67.1	67.1
66.1	16:38:42		66.1	66.1
69.0	16:38:43		69.0	69.0
72.3	16:38:44		72.3	72.3
72.3	16:38:45		72.3	72.3
70.4	16:38:46		70.4	70.4
69.8	16:38:47		69.8	69.8
69.8	16:38:48		69.8	69.8
70.3	16:38:49		70.3	70.3
71.3	16:38:50		71.3	71.3
70.5	16:38:51		70.5	70.5
68.5	16:38:52		68.5	68.5
66.0	16:38:53		66.0	66.0
63.1	16:38:54		63.1	63.1
60.2	16:38:55		60.2	60.2
57.5	16:38:56		57.5	57.5
55.0	16:38:57		55.0	55.0
53.0	16:38:58		53.0	53.0
51.4	16:38:59		51.4	51.4
50.7	16:39:00		50.7	50.7
50.2	16:39:01		50.2	50.2
49.5	16:39:02		49.5	49.5
50.2	16:39:03		50.2	50.2
51.8	16:39:04		51.8	51.8
52.2	16:39:05		52.2	52.2
53.1	16:39:06		53.1	53.1
55.7	16:39:07		55.7	55.7
58.9	16:39:08		58.9	58.9
62.9	16:39:09		62.9	62.9
67.0	16:39:10		67.0	67.0
67.2	16:39:11		67.2	67.2
65.6	16:39:12		65.6	65.6
63.2	16:39:13		63.2	63.2
61.2	16:39:14		61.2	61.2
61.3	16:39:15		61.3	61.3
64.2	16:39:16		64.2	64.2
65.7	16:39:17		65.7	65.7
64.9	16:39:18		64.9	64.9
62.9	16:39:19		62.9	62.9
60.3	16:39:20		60.3	60.3
57.6	16:39:21		57.6	57.6
55.5	16:39:22		55.5	55.5
54.3	16:39:23		54.3	54.3
55.5	16:39:24		55.5	55.5
58.2	16:39:25		58.2	58.2
61.9	16:39:26		61.9	61.9
67.4	16:39:27		67.4	67.4
72.8	16:39:28		72.8	72.8
73.8	16:39:29		73.8	73.8
71.4	16:39:30		71.4	71.4
68.0	16:39:31		68.0	68.0
64.3	16:39:32		64.3	64.3
60.9	16:39:33		60.9	60.9
57.6	16:39:34		57.6	57.6
54.9	16:39:35		54.9	54.9
53.3	16:39:36		53.3	53.3
52.6	16:39:37		52.6	52.6
52.7	16:39:38		52.7	52.7
53.5	16:39:39		53.5	53.5
56.9	16:39:40		56.9	56.9
58.9	16:39:41		58.9	58.9
62.7	16:39:42		62.7	62.7
66.9	16:39:43		66.9	66.9
68.0	16:39:44		68.0	68.0
67.2	16:39:45		67.2	67.2
66.4	16:39:46		66.4	66.4
67.1	16:39:47		67.1	67.1
67.3	16:39:48		67.3	67.3
66.1	16:39:49		66.1	66.1
63.8	16:39:50		63.8	63.8
61.5	16:39:51		61.5	61.5
59.6	16:39:52		59.6	59.6
58.1	16:39:53		58.1	58.1
56.9	16:39:54		56.9	56.9
56.6	16:39:55		56.6	56.6
59.3	16:39:56		59.3	59.3
64.5	16:39:57		64.5	64.5
67.9	16:39:58		67.9	67.9
70.8	16:39:59		70.8	70.8
70.8	16:40:00		70.8	70.8
68.5	16:40:01		68.5	68.5
67.0	16:40:02		67.0	67.0

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
55.4	16:28:06		55.4	55.4
54.9	16:28:07		54.9	54.9
54.7	16:28:08		54.7	54.7
54.9	16:28:09		54.9	54.9
56.0	16:28:10		56.0	56.0
56.5	16:28:11		56.5	56.5
57.2	16:28:12		57.2	57.2
58.1	16:28:13		58.1	58.1
59.1	16:28:14		59.1	59.1
60.0	16:28:15		60.0	60.0
60.2	16:28:16		60.2	60.2
60.1	16:28:17		60.1	60.1
59.1	16:28:18		59.1	59.1
58.4	16:28:19		58.4	58.4
58.6	16:28:20		58.6	58.6
58.9	16:28:21		58.9	58.9
59.6	16:28:22		59.6	59.6
60.1	16:28:23		60.1	60.1
62.2	16:28:24		62.2	62.2
63.6	16:28:25		63.6	63.6
63.8	16:28:26		63.8	63.8
63.0	16:28:27		63.0	63.0
63.7	16:28:28		63.7	63.7
64.9	16:28:29		64.9	64.9
65.0	16:28:30		65.0	65.0
65.9	16:28:31		65.9	65.9
66.6	16:28:32		66.6	66.6
67.0	16:28:33		67.0	67.0
67.1	16:28:34		67.1	67.1
66.2	16:28:35		66.2	66.2
64.7	16:28:36		64.7	64.7
63.3	16:28:37		63.3	63.3
62.3	16:28:38		62.3	62.3
61.1	16:28:39		61.1	61.1
60.4	16:28:40		60.4	60.4
60.0	16:28:41		60.0	60.0
59.9	16:28:42		59.9	59.9
59.7	16:28:43		59.7	59.7
59.2	16:28:44		59.2	59.2
58.4	16:28:45		58.4	58.4
57.9	16:28:46		57.9	57.9
56.9	16:28:47		56.9	56.9
56.2	16:28:48		56.2	56.2
55.6	16:28:49		55.6	55.6
55.5	16:28:50		55.5	55.5
54.8	16:28:51		54.8	54.8
54.3	16:28:52		54.3	54.3
54.9	16:28:53		54.9	54.9
56.3	16:28:54		56.3	56.3
61.1	16:28:55		61.1	61.1
61.1	16:28:56		61.1	61.1
59.7	16:28:57		59.7	59.7
59.5	16:28:58		59.5	59.5
59.2	16:28:59		59.2	59.2
58.2	16:29:00		58.2	58.2
58.0	16:29:01		58.0	58.0
58.6	16:29:02		58.6	58.6
58.6	16:29:03		58.6	58.6
57.7	16:29:04		57.7	57.7
57.1	16:29:05		57.1	57.1
56.9	16:29:06		56.9	56.9
57.2	16:29:07		57.2	57.2
57.8	16:29:08		57.8	57.8
57.8	16:29:09		57.8	57.8
57.6	16:29:10		57.6	57.6
57.4	16:29:11		57.4	57.4
57.1	16:29:12		57.1	57.1
56.5	16:29:13		56.5	56.5
56.5	16:29:14		56.5	56.5
57.7	16:29:15		57.7	57.7
58.1	16:29:16		58.1	58.1
57.3	16:29:17		57.3	57.3
56.3	16:29:18		56.3	56.3
54.9	16:29:19		54.9	54.9
53.6	16:29:20		53.6	53.6
52.6	16:29:21		52.6	52.6
52.3	16:29:22		52.3	52.3
53.6	16:29:23		53.6	53.6
55.8	16:29:24		55.8	55.8
56.3	16:29:25		56.3	56.3
56.3	16:29:26		56.3	56.3
56.7	16:29:27		56.7	56.7
55.8	16:29:28		55.8	55.8
53.7	16:29:29		53.7	53.7
51.8	16:29:30		51.8	51.8
50.7	16:29:31		50.7	50.7
50.7	16:29:32		50.7	50.7
50.1	16:29:33		50.1	50.1
49.8	16:29:34		49.8	49.8
50.3	16:29:35		50.3	50.3
50.4	16:29:36		50.4	50.4
49.3	16:29:37		49.3	49.3
47.7	16:29:38		47.7	47.7
46.3	16:29:39		46.3	46.3
45.4	16:29:40		45.4	45.4
44.7	16:29:41		44.7	44.7
44.9	16:29:42		44.9	44.9
44.9	16:29:43		44.9	44.9
44.7	16:29:44		44.7	44.7
44.5	16:29:45		44.5	44.5
43.9	16:29:46		43.9	43.9
43.9	16:29:47		43.9	43.9
44.1	16:29:48		44.1	44.1
44.4	16:29:49		44.4	44.4
44.8	16:29:50		44.8	44.8
45.0	16:29:51		45.0	45.0
45.0	16:29:52		45.0	45.0
45.3	16:29:53		45.3	45.3
45.3	16:29:54		45.3	45.3
44.9	16:29:55		44.9	44.9
45.6	16:29:56		45.6	45.6
45.8	16:29:57		45.8	45.8
45.9	16:29:58		45.9	45.9
46.0	16:29:59		46.0	46.0
47.1	16:30:00		47.1	47.1
47.0	16:30:01		47.0	47.0
46.7	16:30:02		46.7	46.7
47.8	16:30:03		47.8	47.8
48.9	16:30:04		48.9	48.9
50.0	16:30:05		50.0	50.0
51.8	16:30:06		51.8	51.8
54.3	16:30:07		54.3	54.3
56.7	16:30:08		56.7	56.7
58.6	16:30:09		58.6	58.6
59.7	16:30:10		59.7	59.7
59.6	16:30:11		59.6	59.6
59.2	16:30:12		59.2	59.2
59.2	16:30:13		59.2	59.2
60.0	16:30:14		60.0	60.0
61.6	16:30:15		61.6	61.6
63.4	16:30:16		63.4	63.4
65.1	16:30:17		65.1	65.1
67.3	16:30:18		67.3	67.3
69.1	16:30:19		69.1	69.1
69.2	16:30:20		69.2	69.2
68.6	16:30:21		68.6	68.6
67.3	16:30:22		67.3	67.3
65.9	16:30:23		65.9	65.9
64.5	16:30:24		64.5	64.5
63.6	16:30:25		63.6	63.6
63.3	16:30:26		63.3	63.3
63.0	16:30:27		63.0	63.0
61.9	16:30:28		61.9	61.9
61.3	16:30:29		61.3	61.3
60.9	16:30:30		60.9	60.9
61.0	16:30:31		61.0	61.0
60.8	16:30:32		60.8	60.8
59.7	16:30:33		59.7	59.7
59.1	16:30:34		59.1	59.1
58.8	16:30:35		58.8	58.8
58.8	16:30:36		58.8	58.8
59.7	16:30:37		59.7	59.7
60.8	16:30:38		60.8	60.8
61.4	16:30:39		61.4	61.4
61.0	16:30:40		61.0	61.0
59.9	16:30:41		59.9	59.9
58.7	16:30:42		58.7	58.7
57.3	16:30:43		57.3	57.3
58.3	16:30:44		58.3	58.3
57.3	16:30:45		57.3	57.3
55.4	16:30:46		55.4	55.4
54.9	16:30:47		54.9	54.9

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.2	16:34:18		46.2	46.2
46.3	16:34:19		46.3	46.3
45.7	16:34:20		45.7	45.7
45.4	16:34:21		45.4	45.4
45.5	16:34:22		45.5	45.5
45.9	16:34:23		45.9	45.9
45.5	16:34:24		45.5	45.5
45.6	16:34:25		45.6	45.6
46.5	16:34:26		46.5	46.5
46.3	16:34:27		46.3	46.3
46.2	16:34:28		46.2	46.2
46.3	16:34:29		46.3	46.3
46.7	16:34:30		46.7	46.7
46.9	16:34:31		46.9	46.9
47.2	16:34:32		47.2	47.2
47.5	16:34:33		47.5	47.5
47.9	16:34:34		47.9	47.9
48.1	16:34:35		48.1	48.1
47.5	16:34:36		47.5	47.5
47.4	16:34:37		47.4	47.4
48.4	16:34:38		48.4	48.4
51.3	16:34:39		51.3	51.3
52.2	16:34:40		52.2	52.2
51.5	16:34:41		51.5	51.5
49.9	16:34:42		49.9	49.9
48.6	16:34:43		48.6	48.6
48.0	16:34:44		48.0	48.0
47.6	16:34:45		47.6	47.6
47.1	16:34:46		47.1	47.1
46.9	16:34:47		46.9	46.9
46.9	16:34:48		46.9	46.9
47.4	16:34:49		47.4	47.4
47.6	16:34:50		47.6	47.6
47.2	16:34:51		47.2	47.2
46.9	16:34:52		46.9	46.9
46.6	16:34:53		46.6	46.6
46.4	16:34:54		46.4	46.4
46.5	16:34:55		46.5	46.5
47.3	16:34:56		47.3	47.3
48.5	16:34:57		48.5	48.5
49.9	16:34:58		49.9	49.9
50.1	16:34:59		50.1	50.1
50.0	16:35:00		50.0	50.0
49.6	16:35:01		49.6	49.6
49.7	16:35:02		49.7	49.7
50.6	16:35:03		50.6	50.6
52.7	16:35:04		52.7	52.7
55.1	16:35:05		55.1	55.1
53.7	16:35:06		53.7	53.7
54.4	16:35:07		54.4	54.4
53.2	16:35:08		53.2	53.2
52.9	16:35:09		52.9	52.9
52.1	16:35:10		52.1	52.1
51.8	16:35:11		51.8	51.8
50.7	16:35:12		50.7	50.7
49.8	16:35:13		49.8	49.8
50.0	16:35:14		50.0	50.0
49.7	16:35:15		49.7	49.7
49.8	16:35:16		49.8	49.8
49.0	16:35:17		49.0	49.0
48.6	16:35:18		48.6	48.6
48.6	16:35:19		48.6	48.6
48.9	16:35:20		48.9	48.9
49.4	16:35:21		49.4	49.4
50.0	16:35:22		50.0	50.0
50.2	16:35:23		50.2	50.2
50.8	16:35:24		50.8	50.8
51.1	16:35:25		51.1	51.1
51.6	16:35:26		51.6	51.6
52.3	16:35:27		52.3	52.3
53.4	16:35:28		53.4	53.4
53.8	16:35:29		53.8	53.8
53.6	16:35:30		53.6	53.6
54.0	16:35:31		54.0	54.0
55.3	16:35:32		55.3	55.3
56.7	16:35:33		56.7	56.7
57.2	16:35:34		57.2	57.2
58.2	16:35:35		58.2	58.2
56.8	16:35:36		56.8	56.8
54.6	16:35:37		54.6	54.6
52.8	16:35:38		52.8	52.8
51.5	16:35:39		51.5	51.5
51.1	16:35:40		51.1	51.1
50.4	16:35:41		50.4	50.4
49.7	16:35:42		49.7	49.7
49.3	16:35:43		49.3	49.3
48.9	16:35:44		48.9	48.9
49.8	16:35:45		49.8	49.8
50.7	16:35:46		50.7	50.7
50.3	16:35:47		50.3	50.3
49.3	16:35:48		49.3	49.3
47.8	16:35:49		47.8	47.8
47.9	16:35:50		47.9	47.9
47.5	16:35:51		47.5	47.5
46.9	16:35:52		46.9	46.9
47.1	16:35:53		47.1	47.1
47.0	16:35:54		47.0	47.0
47.3	16:35:55		47.3	47.3
47.4	16:35:56		47.4	47.4
47.4	16:35:57		47.4	47.4
47.5	16:35:58		47.5	47.5
47.8	16:35:59		47.8	47.8
47.9	16:36:00		47.9	47.9
48.0	16:36:01		48.0	48.0
47.9	16:36:02		47.9	47.9
48.6	16:36:03		48.6	48.6
48.9	16:36:04		48.9	48.9
48.8	16:36:05		48.8	48.8
51.1	16:36:06		51.1	51.1
55.0	16:36:07		55.0	55.0
54.6	16:36:08		54.6	54.6
52.6	16:36:09		52.6	52.6
51.2	16:36:10		51.2	51.2
50.5	16:36:11		50.5	50.5
49.7	16:36:12		49.7	49.7
48.9	16:36:13		48.9	48.9
49.1	16:36:14		49.1	49.1
49.3	16:36:15		49.3	49.3
49.2	16:36:16		49.2	49.2
49.8	16:36:17		49.8	49.8
49.5	16:36:18		49.5	49.5
48.5	16:36:19		48.5	48.5
47.9	16:36:20		47.9	47.9
47.4	16:36:21		47.4	47.4
47.5	16:36:22		47.5	47.5
47.2	16:36:23		47.2	47.2
47.1	16:36:24		47.1	47.1
47.3	16:36:25		47.3	47.3
47.7	16:36:26		47.7	47.7
47.8	16:36:27		47.8	47.8
48.6	16:36:28		48.6	48.6
49.1	16:36:29		49.1	49.1
49.6	16:36:30		49.6	49.6
51.0	16:36:31		51.0	51.0
51.4	16:36:32		51.4	51.4
52.1	16:36:33		52.1	52.1
51.9	16:36:34		51.9	51.9
51.7	16:36:35		51.7	51.7
51.0	16:36:36		51.0	51.0
50.2	16:36:37		50.2	50.2
49.9	16:36:38		49.9	49.9
50.2	16:36:39		50.2	50.2
50.0	16:36:40		50.0	50.0
49.6	16:36:41		49.6	49.6
50.4	16:36:42		50.4	50.4
52.5	16:36:43		52.5	52.5
52.3	16:36:44		52.3	52.3
51.0	16:36:45		51.0	51.0
50.2	16:36:46		50.2	50.2
50.9	16:36:47		50.9	50.9
50.7	16:36:48		50.7	50.7
49.8	16:36:49		49.8	49.8
49.2	16:36:50		49.2	49.2
50.2	16:36:51		50.2	50.2
49.8	16:36:52		49.8	49.8
49.5	16:36:53		49.5	49.5
49.4	16:36:54		49.4	49.4
49.3	16:36:55		49.3	49.3
50.6	16:36:56		50.6	50.6
50.1	16:36:57		50.1	50.1
49.0	16:36:58		49.0	49.0
48.5	16:36:59		48.5	48.5

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
65.8	16:40:03		65.8	65.8
64.4	16:40:04		64.4	64.4
62.5	16:40:05		62.5	62.5
60.3	16:40:06		60.3	60.3
58.3	16:40:07		58.3	58.3
56.8	16:40:08		56.8	56.8
55.9	16:40:09		55.9	55.9
55.8	16:40:10		55.8	55.8
56.3	16:40:11		56.3	56.3
57.9	16:40:12		57.9	57.9
61.0	16:40:13		61.0	61.0
64.6	16:40:14		64.6	64.6
65.8	16:40:15		65.8	65.8
64.9	16:40:16		64.9	64.9
62.6	16:40:17		62.6	62.6
60.1	16:40:18		60.1	60.1
57.4	16:40:19		57.4	57.4
54.9	16:40:20		54.9	54.9
52.9	16:40:21		52.9	52.9
50.8	16:40:22		50.8	50.8
49.3	16:40:23		49.3	49.3
48.4	16:40:24		48.4	48.4
48.3	16:40:25		48.3	48.3
48.0	16:40:26		48.0	48.0
48.1	16:40:27		48.1	48.1
49.0	16:40:28		49.0	49.0
49.8	16:40:29		49.8	49.8
51.9	16:40:30		51.9	51.9
56.1	16:40:31		56.1	56.1
60.5	16:40:32		60.5	60.5
66.1	16:40:33		66.1	66.1
69.7	16:40:34		69.7	69.7
69.8	16:40:35		69.8	69.8
66.9	16:40:36		66.9	66.9
63.7	16:40:37		63.7	63.7
60.6	16:40:38		60.6	60.6
57.9	16:40:39		57.9	57.9
56.0	16:40:40		56.0	56.0
54.4	16:40:41		54.4	54.4
53.7	16:40:42		53.7	53.7
52.4	16:40:43		52.4	52.4
50.6	16:40:44		50.6	50.6
49.8	16:40:45		49.8	49.8
49.0	16:40:46		49.0	49.0
48.6	16:40:47		48.6	48.6
48.1	16:40:48		48.1	48.1
47.2	16:40:49		47.2	47.2
46.1	16:40:50		46.1	46.1
45.2	16:40:51		45.2	45.2
45.0	16:40:52		45.0	45.0
44.5	16:40:53		44.5	44.5
43.8	16:40:54		43.8	43.8
43.4	16:40:55		43.4	43.4
43.2	16:40:56		43.2	43.2
44.9	16:40:57		44.9	44.9
45.1	16:40:58		45.1	45.1
45.6	16:40:59		45.6	45.6
47.0	16:41:00		47.0	47.0
48.6	16:41:01		48.6	48.6
50.6	16:41:02		50.6	50.6
53.9	16:41:03		53.9	53.9
57.5	16:41:04		57.5	57.5
61.5	16:41:05		61.5	61.5
69.5	16:41:06		69.5	69.5
71.9	16:41:07		71.9	71.9
70.1	16:41:08		70.1	70.1
67.0	16:41:09		67.0	67.0
63.5	16:41:10		63.5	63.5
60.4	16:41:11		60.4	60.4
57.9	16:41:12		57.9	57.9
56.2	16:41:13		56.2	56.2
54.9	16:41:14		54.9	54.9
54.9	16:41:15		54.9	54.9
55.5	16:41:16		55.5	55.5
56.6	16:41:17		56.6	56.6
57.5	16:41:18		57.5	57.5
60.9	16:41:19		60.9	60.9
64.8	16:41:20		64.8	64.8
67.0	16:41:21		67.0	67.0
65.8	16:41:22		65.8	65.8
63.6	16:41:23		63.6	63.6
60.7	16:41:24		60.7	60.7
58.0	16:41:25		58.0	58.0
55.4	16:41:26		55.4	55.4
52.4	16:41:27		52.4	52.4
49.9	16:41:28		49.9	49.9
47.6	16:41:29		47.6	47.6
46.2	16:41:30		46.2	46.2
45.1	16:41:31		45.1	45.1
44.1	16:41:32		44.1	44.1
43.3	16:41:33		43.3	43.3
42.9	16:41:34		42.9	42.9
42.5	16:41:35		42.5	42.5
42.7	16:41:36		42.7	42.7
42.4	16:41:37		42.4	42.4
42.5	16:41:38		42.5	42.5
42.5	16:41:39		42.5	42.5
42.6	16:41:40		42.6	42.6
44.7	16:41:41		44.7	44.7
44.3	16:41:42		44.3	44.3
43.3	16:41:43		43.3	43.3
42.5	16:41:44		42.5	42.5
42.1	16:41:45		42.1	42.1
42.0	16:41:46		42.0	42.0
42.1	16:41:47		42.1	42.1
42.2	16:41:48		42.2	42.2
42.7	16:41:49		42.7	42.7
42.7	16:41:50		42.7	42.7
43.1	16:41:51		43.1	43.1
43.2	16:41:52		43.2	43.2
42.6	16:41:53		42.6	42.6
42.4	16:41:54		42.4	42.4
42.0	16:41:55		42.0	42.0
42.1	16:41:56		42.1	42.1
43.3	16:41:57		43.3	43.3
42.7	16:41:58		42.7	42.7
42.4	16:41:59		42.4	42.4
42.5	16:42:00		42.5	42.5
43.1	16:42:01		43.1	43.1
43.2	16:42:02		43.2	43.2
43.5	16:42:03		43.5	43.5
44.5	16:42:04		44.5	44.5
45.0	16:42:05		45.0	45.0
45.0	16:42:06		45.0	45.0
45.2	16:42:07		45.2	45.2
44.5	16:42:08		44.5	44.5
44.0	16:42:09		44.0	44.0
45.4	16:42:10		45.4	45.4
46.0	16:42:11		46.0	46.0
45.6	16:42:12		45.6	45.6
45.1	16:42:13		45.1	45.1
46.3	16:42:14		46.3	46.3
46.7	16:42:15		46.7	46.7
46.8	16:42:16		46.8	46.8
47.1	16:42:17		47.1	47.1
48.7	16:42:18		48.7	48.7
49.5	16:42:19		49.5	49.5
48.5	16:42:20		48.5	48.5
47.7	16:42:21		47.7	47.7
49.4	16:42:22		49.4	49.4
49.5	16:42:23		49.5	49.5
49.1	16:42:24		49.1	49.1
47.5	16:42:25		47.5	47.5
47.6	16:42:26		47.6	47.6
47.7	16:42:27		47.7	47.7
47.0	16:42:28		47.0	47.0
47.0	16:42:29		47.0	47.0
47.9	16:42:30		47.9	47.9
48.8	16:42:31		48.8	48.8
49.8	16:42:32		49.8	49.8
51.1	16:42:33		51.1	51.1
53.5	16:42:34		53.5	53.5
56.6	16:42:35		56.6	56.6
60.4	16:42:36		60.4	60.4
65.6	16:42:37		65.6	65.6
68.2	16:42:38		68.2	68.2
67.5	16:42:39		67.5	67.5
65.2	16:42:40		65.2	65.2
62.2	16:42:41		62.2	62.2
59.3	16:42:42		59.3	59.3
56.8	16:42:43		56.8	56.8
54.8	16:42:44		54.8	54.8

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.9	16:30:48		53.9	53.9
52.7	16:30:49		52.7	52.7
53.3	16:30:50		53.3	53.3
53.4	16:30:51		53.4	53.4
52.9	16:30:52		52.9	52.9
53.4	16:30:53		53.4	53.4
54.8	16:30:54		54.8	54.8
56.3	16:30:55		56.3	56.3
58.0	16:30:56		58.0	58.0
59.3	16:30:57		59.3	59.3
59.2	16:30:58		59.2	59.2
57.6	16:30:59		57.6	57.6
56.2	16:31:00		56.2	56.2
55.0	16:31:01		55.0	55.0
53.3	16:31:02		53.3	53.3
52.1	16:31:03		52.1	52.1
51.4	16:31:04		51.4	51.4
53.0	16:31:05		53.0	53.0
53.0	16:31:06		53.0	53.0
52.9	16:31:07		52.9	52.9
53.6	16:31:08		53.6	53.6
54.8	16:31:09		54.8	54.8
55.7	16:31:10		55.7	55.7
56.0	16:31:11		56.0	56.0
56.1	16:31:12		56.1	56.1
55.8	16:31:13		55.8	55.8
54.6	16:31:14		54.6	54.6
54.1	16:31:15		54.1	54.1
54.0	16:31:16		54.0	54.0
53.3	16:31:17		53.3	53.3
52.4	16:31:18		52.4	52.4
51.0	16:31:19		51.0	51.0
50.3	16:31:20		50.3	50.3
49.2	16:31:21		49.2	49.2
48.3	16:31:22		48.3	48.3
47.9	16:31:23		47.9	47.9
48.1	16:31:24		48.1	48.1
48.4	16:31:25		48.4	48.4
48.8	16:31:26		48.8	48.8
50.0	16:31:27		50.0	50.0
50.8	16:31:28		50.8	50.8
51.0	16:31:29		51.0	51.0
51.1	16:31:30		51.1	51.1
51.7	16:31:31		51.7	51.7
53.1	16:31:32		53.1	53.1
55.1	16:31:33		55.1	55.1
57.3	16:31:34		57.3	57.3
60.0	16:31:35		60.0	60.0
61.5	16:31:36		61.5	61.5
62.5	16:31:37		62.5	62.5
63.3	16:31:38		63.3	63.3
62.7	16:31:39		62.7	62.7
62.1	16:31:40		62.1	62.1
61.0	16:31:41		61.0	61.0
59.4	16:31:42		59.4	59.4
57.9	16:31:43		57.9	57.9
56.1	16:31:44		56.1	56.1
54.8	16:31:45		54.8	54.8
54.8	16:31:46		54.8	54.8
54.8	16:31:47		54.8	54.8
54.7	16:31:48		54.7	54.7
54.2	16:31:49		54.2	54.2
53.8	16:31:50		53.8	53.8
53.7	16:31:51		53.7	53.7
54.3	16:31:52		54.3	54.3
54.3	16:31:53		54.3	54.3
54.4	16:31:54		54.4	54.4
55.1	16:31:55		55.1	55.1
56.6	16:31:56		56.6	56.6
57.7	16:31:57		57.7	57.7
57.1	16:31:58		57.1	57.1
56.4	16:31:59		56.4	56.4
55.4	16:32:00		55.4	55.4
54.3	16:32:01		54.3	54.3
53.9	16:32:02		53.9	53.9
53.0	16:32:03		53.0	53.0
52.6	16:32:04		52.6	52.6
52.9	16:32:05		52.9	52.9
52.5	16:32:06		52.5	52.5
51.9	16:32:07		51.9	51.9
51.1	16:32:08		51.1	51.1
51.4	16:32:09		51.4	51.4
51.5	16:32:10		51.5	51.5
50.7	16:32:11		50.7	50.7
50.3	16:32:12		50.3	50.3
49.5	16:32:13		49.5	49.5
50.2	16:32:14		50.2	50.2
49.5	16:32:15		49.5	49.5
48.3	16:32:16		48.3	48.3
48.9	16:32:17		48.9	48.9
48.7	16:32:18		48.7	48.7
48.1	16:32:19		48.1	48.1
48.1	16:32:20		48.1	48.1
48.7	16:32:21		48.7	48.7
49.6	16:32:22		49.6	49.6
50.0	16:32:23		50.0	50.0
49.1	16:32:24		49.1	49.1
47.8	16:32:25		47.8	47.8
48.0	16:32:26		48.0	48.0
47.9	16:32:27		47.9	47.9
47.0	16:32:28		47.0	47.0
46.2	16:32:29		46.2	46.2
45.5	16:32:30		45.5	45.5
45.5	16:32:31		45.5	45.5
45.8	16:32:32		45.8	45.8
46.7	16:32:33		46.7	46.7
48.8	16:32:34		48.8	48.8
49.2	16:32:35		49.2	49.2
49.7	16:32:36		49.7	49.7
50.0	16:32:37		50.0	50.0
50.7	16:32:38		50.7	50.7
52.1	16:32:39		52.1	52.1
53.4	16:32:40		53.4	53.4
54.3	16:32:41		54.3	54.3
55.6	16:32:42		55.6	55.6
57.6	16:32:43		57.6	57.6
57.8	16:32:44		57.8	57.8
57.6	16:32:45		57.6	57.6
57.3	16:32:46		57.3	57.3
56.8	16:32:47		56.8	56.8
57.7	16:32:48		57.7	57.7
57.3	16:32:49		57.3	57.3
56.6	16:32:50		56.6	56.6
55.6	16:32:51		55.6	55.6
54.2	16:32:52		54.2	54.2
53.3	16:32:53		53.3	53.3
52.9	16:32:54		52.9	52.9
52.8	16:32:55		52.8	52.8
53.4	16:32:56		53.4	53.4
54.4	16:32:57		54.4	54.4
54.5	16:32:58		54.5	54.5
54.9	16:32:59		54.9	54.9
56.2	16:33:00		56.2	56.2
58.0	16:33:01		58.0	58.0
60.6	16:33:02		60.6	60.6
62.2	16:33:03		62.2	62.2
61.4	16:33:04		61.4	61.4
60.1	16:33:05		60.1	60.1
59.1	16:33:06		59.1	59.1
58.6	16:33:07		58.6	58.6
58.8	16:33:08		58.8	58.8
58.8	16:33:09		58.8	58.8
58.9	16:33:10		58.9	58.9
59.1	16:33:11		59.1	59.1
59.7	16:33:12		59.7	59.7
59.7	16:33:13		59.7	59.7
59.6	16:33:14		59.6	59.6
59.4	16:33:15		59.4	59.4
59.1	16:33:16		59.1	59.1
59.2	16:33:17		59.2	59.2
59.2	16:33:18		59.2	59.2
59.3	16:33:19		59.3	59.3
59.1	16:33:20		59.1	59.1
59.4	16:33:21		59.4	59.4
59.3	16:33:22		59.3	59.3
59.3	16:33:23		59.3	59.3
59.7	16:33:24		59.7	59.7
60.5	16:33:25		60.5	60.5
60.7	16:33:26		60.7	60.7
59.9	16:33:27		59.9	59.9
59.6	16:33:28		59.6	59.6
59.2	16:33:29		59.2	59.2

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.6	16:37:00		48.6	48.6
49.0	16:37:01		49.0	49.0
49.5	16:37:02		49.5	49.5
50.4	16:37:03		50.4	50.4
51.3	16:37:04		51.3	51.3
51.8	16:37:05		51.8	51.8
52.7	16:37:06		52.7	52.7
53.5	16:37:07		53.5	53.5
54.5	16:37:08		54.5	54.5
55.7	16:37:09		55.7	55.7
55.9	16:37:10		55.9	55.9
56.5	16:37:11		56.5	56.5
56.7	16:37:12		56.7	56.7
57.8	16:37:13		57.8	57.8
58.7	16:37:14		58.7	58.7
59.2	16:37:15		59.2	59.2
58.1	16:37:16		58.1	58.1
56.5	16:37:17		56.5	56.5
57.0	16:37:18		57.0	57.0
56.9	16:37:19		56.9	56.9
55.9	16:37:20		55.9	55.9
56.3	16:37:21		56.3	56.3
57.7	16:37:22		57.7	57.7
56.5	16:37:23		56.5	56.5
54.1	16:37:24		54.1	54.1
52.7	16:37:25		52.7	52.7
51.6	16:37:26		51.6	51.6
50.2	16:37:27		50.2	50.2
48.7	16:37:28		48.7	48.7
47.7	16:37:29		47.7	47.7
46.8	16:37:30		46.8	46.8
46.2	16:37:31		46.2	46.2
46.0	16:37:32		46.0	46.0
45.8	16:37:33		45.8	45.8
45.6	16:37:34		45.6	45.6
45.9	16:37:35		45.9	45.9
46.0	16:37:36		46.0	46.0
46.3	16:37:37		46.3	46.3
46.5	16:37:38		46.5	46.5
46.7	16:37:39		46.7	46.7
45.9	16:37:40		45.9	45.9
45.2	16:37:41		45.2	45.2
45.6	16:37:42		45.6	45.6
45.4	16:37:43		45.4	45.4
45.4	16:37:44		45.4	45.4
45.0	16:37:45		45.0	45.0
45.2	16:37:46		45.2	45.2
45.5	16:37:47		45.5	45.5
45.6	16:37:48		45.6	45.6
45.4	16:37:49		45.4	45.4
45.4	16:37:50		45.4	45.4
45.9	16:37:51		45.9	45.9
46.4	16:37:52		46.4	46.4
45.8	16:37:53		45.8	45.8
46.1	16:37:54		46.1	46.1
46.0	16:37:55		46.0	46.0
46.0	16:37:56		46.0	46.0
46.2	16:37:57		46.2	46.2
46.5	16:37:58		46.5	46.5
47.0	16:37:59		47.0	47.0
47.5	16:38:00		47.5	47.5
46.8	16:38:01		46.8	46.8
47.2	16:38:02		47.2	47.2
47.0	16:38:03		47.0	47.0
47.6	16:38:04		47.6	47.6
48.4	16:38:05		48.4	48.4
48.9	16:38:06		48.9	48.9
48.8	16:38:07		48.8	48.8
51.0	16:38:08		51.0	51.0
54.2	16:38:09		54.2	54.2
53.4	16:38:10		53.4	53.4
51.8	16:38:11		51.8	51.8
51.2	16:38:12		51.2	51.2
50.2	16:38:13		50.2	50.2
49.0	16:38:14		49.0	49.0
47.9	16:38:15		47.9	47.9
49.1	16:38:16		49.1	49.1
49.8	16:38:17		49.8	49.8
49.9	16:38:18		49.9	49.9
49.5	16:38:19		49.5	49.5
49.7	16:38:20		49.7	49.7
49.0	16:38:21		49.0	49.0
48.5	16:38:22		48.5	48.5
47.9	16:38:23		47.9	47.9
48.0	16:38:24		48.0	48.0
49.2	16:38:25		49.2	49.2
50.4	16:38:26		50.4	50.4
51.0	16:38:27		51.0	51.0
51.7	16:38:28		51.7	51.7
53.7	16:38:29		53.7	53.7
55.5	16:38:30		55.5	55.5
53.9	16:38:31		53.9	53.9
52.9	16:38:32		52.9	52.9
53.9	16:38:33		53.9	53.9
55.0	16:38:34		55.0	55.0
54.0	16:38:35		54.0	54.0
53.7	16:38:36		53.7	53.7
53.6	16:38:37		53.6	53.6
53.8	16:38:38		53.8	53.8
53.8	16:38:39		53.8	53.8
54.5	16:38:40		54.5	54.5
55.2	16:38:41		55.2	55.2
55.3	16:38:42		55.3	55.3
55.3	16:38:43		55.3	55.3
54.6	16:38:44		54.6	54.6
54.8	16:38:45		54.8	54.8
54.9	16:38:46		54.9	54.9
55.2	16:38:47		55.2	55.2
56.6	16:38:48		56.6	56.6
57.3	16:38:49		57.3	57.3
56.7	16:38:50		56.7	56.7
56.1	16:38:51		56.1	56.1
55.6	16:38:52		55.6	55.6
55.0	16:38:53		55.0	55.0
54.5	16:38:54		54.5	54.5
55.3	16:38:55		55.3	55.3
55.1	16:38:56		55.1	55.1
54.3	16:38:57		54.3	54.3
53.8	16:38:58		53.8	53.8
54.7	16:38:59		54.7	54.7
55.8	16:39:00		55.8	55.8
56.4	16:39:01		56.4	56.4
55.6	16:39:02		55.6	55.6
54.6	16:39:03		54.6	54.6
53.8	16:39:04		53.8	53.8
53.0	16:39:05		53.0	53.0
52.5	16:39:06		52.5	52.5
51.7	16:39:07		51.7	51.7
51.3	16:39:08		51.3	51.3
50.8	16:39:09		50.8	50.8
51.5	16:39:10		51.5	51.5
51.9	16:39:11		51.9	51.9
51.4	16:39:12		51.4	51.4
52.6	16:39:13		52.6	52.6
52.4	16:39:14		52.4	52.4
51.6	16:39:15		51.6	51.6
51.9	16:39:16		51.9	51.9
52.3	16:39:17		52.3	52.3
52.4	16:39:18		52.4	52.4
54.6	16:39:19		54.6	54.6
56.7	16:39:20		56.7	56.7
55.8	16:39:21		55.8	55.8
54.2	16:39:22		54.2	54.2
53.1	16:39:23		53.1	53.1
52.9	16:39:24		52.9	52.9
53.7	16:39:25		53.7	53.7
54.3	16:39:26		54.3	54.3
54.4	16:39:27		54.4	54.4
54.9	16:39:28		54.9	54.9
55.7	16:39:29		55.7	55.7
55.3	16:39:30		55.3	55.3
54.5	16:39:31		54.5	54.5
53.9	16:39:32		53.9	53.9
53.9	16:39:33		53.9	53.9
54.0	16:39:34		54.0	54.0
53.9	16:39:35		53.9	53.9
57.2	16:39:36		57.2	57.2
59.3	16:39:37		59.3	59.3
57.8	16:39:38		57.8	57.8
55.6	16:39:39		55.6	55.6
54.8	16:39:40		54.8	54.8
54.3	16:39:41		54.3	54.3

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.0	16:42:45		53.0	53.0
51.1	16:42:46		51.1	51.1
49.4	16:42:47		49.4	49.4
48.6	16:42:48		48.6	48.6
48.4	16:42:49		48.4	48.4
48.5	16:42:50		48.5	48.5
48.6	16:42:51		48.6	48.6
48.3	16:42:52		48.3	48.3
47.6	16:42:53		47.6	47.6
46.5	16:42:54		46.5	46.5
45.8	16:42:55		45.8	45.8
44.9	16:42:56		44.9	44.9
43.8	16:42:57		43.8	43.8
42.5	16:42:58		42.5	42.5
41.5	16:42:59		41.5	41.5
41.3	16:43:00		41.3	41.3
41.3	16:43:01		41.3	41.3
41.3	16:43:02		41.3	41.3
41.0	16:43:03		41.0	41.0
40.9	16:43:04		40.9	40.9
41.0	16:43:05		41.0	41.0
41.1	16:43:06		41.1	41.1
41.4	16:43:07		41.4	41.4
41.5	16:43:08		41.5	41.5
41.8	16:43:09		41.8	41.8
41.6	16:43:10		41.6	41.6
41.7	16:43:11		41.7	41.7
42.0	16:43:12		42.0	42.0
42.4	16:43:13		42.4	42.4
43.4	16:43:14		43.4	43.4
43.7	16:43:15		43.7	43.7
43.2	16:43:16		43.2	43.2
43.9	16:43:17		43.9	43.9
44.2	16:43:18		44.2	44.2
43.8	16:43:19		43.8	43.8
44.0	16:43:20		44.0	44.0
44.3	16:43:21		44.3	44.3
43.7	16:43:22		43.7	43.7
43.2	16:43:23		43.2	43.2
43.2	16:43:24		43.2	43.2
43.3	16:43:25		43.3	43.3
43.5	16:43:26		43.5	43.5
43.7	16:43:27		43.7	43.7
43.9	16:43:28		43.9	43.9
44.4	16:43:29		44.4	44.4
45.2	16:43:30		45.2	45.2
47.1	16:43:31		47.1	47.1
50.5	16:43:32		50.5	50.5
51.5	16:43:33		51.5	51.5
52.8	16:43:34		52.8	52.8
56.6	16:43:35		56.6	56.6
60.9	16:43:36		60.9	60.9
66.6	16:43:37		66.6	66.6
70.3	16:43:38		70.3	70.3
69.5	16:43:39		69.5	69.5
67.0	16:43:40		67.0	67.0
64.0	16:43:41		64.0	64.0
61.0	16:43:42		61.0	61.0
58.2	16:43:43		58.2	58.2
55.4	16:43:44		55.4	55.4
54.1	16:43:45		54.1	54.1
56.7	16:43:46		56.7	56.7
62.7	16:43:47		62.7	62.7
69.0	16:43:48		69.0	69.0
70.8	16:43:49		70.8	70.8
67.9	16:43:50		67.9	67.9
64.5	16:43:51		64.5	64.5
63.2	16:43:52		63.2	63.2
66.6	16:43:53		66.6	66.6
69.5	16:43:54		69.5	69.5
69.1	16:43:55		69.1	69.1
66.3	16:43:56		66.3	66.3
63.1	16:43:57		63.1	63.1
60.1	16:43:58		60.1	60.1
57.3	16:43:59		57.3	57.3
55.0	16:44:00		55.0	55.0
53.5	16:44:01		53.5	53.5
52.2	16:44:02		52.2	52.2
50.5	16:44:03		50.5	50.5
48.5	16:44:04		48.5	48.5
47.1	16:44:05		47.1	47.1
45.9	16:44:06		45.9	45.9
45.1	16:44:07		45.1	45.1
44.7	16:44:08		44.7	44.7
43.8	16:44:09		43.8	43.8
43.1	16:44:10		43.1	43.1
42.9	16:44:11		42.9	42.9
43.3	16:44:12		43.3	43.3
44.2	16:44:13		44.2	44.2
44.8	16:44:14		44.8	44.8
45.3	16:44:15		45.3	45.3
45.9	16:44:16		45.9	45.9
46.5	16:44:17		46.5	46.5
46.9	16:44:18		46.9	46.9
48.2	16:44:19		48.2	48.2
50.4	16:44:20		50.4	50.4
53.1	16:44:21		53.1	53.1
55.9	16:44:22		55.9	55.9
59.8	16:44:23		59.8	59.8
62.3	16:44:24		62.3	62.3
62.4	16:44:25		62.4	62.4
61.3	16:44:26		61.3	61.3
60.0	16:44:27		60.0	60.0
60.6	16:44:28		60.6	60.6
65.7	16:44:29		65.7	65.7
69.6	16:44:30		69.6	69.6
69.9	16:44:31		69.9	69.9
68.2	16:44:32		68.2	68.2
65.5	16:44:33		65.5	65.5
62.3	16:44:34		62.3	62.3
59.1	16:44:35		59.1	59.1
56.6	16:44:36		56.6	56.6
54.6	16:44:37		54.6	54.6
53.1	16:44:38		53.1	53.1
52.1	16:44:39		52.1	52.1
51.4	16:44:40		51.4	51.4
50.8	16:44:41		50.8	50.8
50.4	16:44:42		50.4	50.4
49.8	16:44:43		49.8	49.8
48.9	16:44:44		48.9	48.9
49.2	16:44:45		49.2	49.2
48.9	16:44:46		48.9	48.9
48.6	16:44:47		48.6	48.6
48.0	16:44:48		48.0	48.0
47.7	16:44:49		47.7	47.7
47.0	16:44:50		47.0	47.0
46.5	16:44:51		46.5	46.5
46.3	16:44:52		46.3	46.3
46.8	16:44:53		46.8	46.8
47.8	16:44:54		47.8	47.8
48.7	16:44:55		48.7	48.7
50.5	16:44:56		50.5	50.5
52.3	16:44:57		52.3	52.3
54.2	16:44:58		54.2	54.2
56.5	16:44:59		56.5	56.5
60.9	16:45:00		60.9	60.9
62.9	16:45:01		62.9	62.9
62.9	16:45:02		62.9	62.9
61.6	16:45:03		61.6	61.6
59.3	16:45:04		59.3	59.3
56.6	16:45:05		56.6	56.6
54.0	16:45:06		54.0	54.0
51.6	16:45:07		51.6	51.6
49.4	16:45:08		49.4	49.4
48.1	16:45:09		48.1	48.1
47.7	16:45:10		47.7	47.7
47.0	16:45:11		47.0	47.0
46.4	16:45:12		46.4	46.4
46.0	16:45:13		46.0	46.0
46.2	16:45:14		46.2	46.2
46.5	16:45:15		46.5	46.5
46.2	16:45:16		46.2	46.2
45.6	16:45:17		45.6	45.6
45.9	16:45:18		45.9	45.9
45.9	16:45:19		45.9	45.9
45.4	16:45:20		45.4	45.4
45.7	16:45:21		45.7	45.7
45.7	16:45:22		45.7	45.7
45.8	16:45:23		45.8	45.8
45.8	16:45:24		45.8	45.8
45.9	16:45:25		45.9	45.9
46.3	16:45:26		46.3	46.3

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
58.9	16:33:30		58.9	58.9
58.0	16:33:31		58.0	58.0
57.6	16:33:32		57.6	57.6
57.5	16:33:33		57.5	57.5
57.7	16:33:34		57.7	57.7
57.8	16:33:35		57.8	57.8
57.5	16:33:36		57.5	57.5
57.2	16:33:37		57.2	57.2
56.5	16:33:38		56.5	56.5
54.7	16:33:39		54.7	54.7
53.6	16:33:40		53.6	53.6
52.4	16:33:41		52.4	52.4
50.9	16:33:42		50.9	50.9
50.2	16:33:43		50.2	50.2
50.4	16:33:44		50.4	50.4
50.6	16:33:45		50.6	50.6
51.4	16:33:46		51.4	51.4
52.5	16:33:47		52.5	52.5
52.6	16:33:48		52.6	52.6
53.1	16:33:49		53.1	53.1
54.5	16:33:50		54.5	54.5
55.7	16:33:51		55.7	55.7
56.4	16:33:52		56.4	56.4
56.5	16:33:53		56.5	56.5
55.2	16:33:54		55.2	55.2
53.6	16:33:55		53.6	53.6
52.2	16:33:56		52.2	52.2
50.5	16:33:57		50.5	50.5
48.9	16:33:58		48.9	48.9
48.0	16:33:59		48.0	48.0
47.7	16:34:00		47.7	47.7
48.3	16:34:01		48.3	48.3
49.1	16:34:02		49.1	49.1
49.0	16:34:03		49.0	49.0
48.5	16:34:04		48.5	48.5
48.9	16:34:05		48.9	48.9
49.6	16:34:06		49.6	49.6
50.2	16:34:07		50.2	50.2
50.8	16:34:08		50.8	50.8
52.0	16:34:09		52.0	52.0
52.4	16:34:10		52.4	52.4
52.9	16:34:11		52.9	52.9
54.0	16:34:12		54.0	54.0
55.5	16:34:13		55.5	55.5
57.4	16:34:14		57.4	57.4
58.1	16:34:15		58.1	58.1
58.3	16:34:16		58.3	58.3
58.5	16:34:17		58.5	58.5
58.3	16:34:18		58.3	58.3
57.6	16:34:19		57.6	57.6
57.8	16:34:20		57.8	57.8
58.5	16:34:21		58.5	58.5
59.3	16:34:22		59.3	59.3
59.8	16:34:23		59.8	59.8
60.7	16:34:24		60.7	60.7
61.5	16:34:25		61.5	61.5
61.7	16:34:26		61.7	61.7
61.8	16:34:27		61.8	61.8
61.6	16:34:28		61.6	61.6
61.0	16:34:29		61.0	61.0
60.2	16:34:30		60.2	60.2
59.7	16:34:31		59.7	59.7
59.3	16:34:32		59.3	59.3
58.6	16:34:33		58.6	58.6
57.6	16:34:34		57.6	57.6
56.5	16:34:35		56.5	56.5
55.4	16:34:36		55.4	55.4
54.4	16:34:37		54.4	54.4
53.4	16:34:38		53.4	53.4
52.9	16:34:39		52.9	52.9
52.8	16:34:40		52.8	52.8
52.6	16:34:41		52.6	52.6
52.2	16:34:42		52.2	52.2
52.0	16:34:43		52.0	52.0
51.9	16:34:44		51.9	51.9
52.1	16:34:45		52.1	52.1
51.6	16:34:46		51.6	51.6
51.4	16:34:47		51.4	51.4
51.5	16:34:48		51.5	51.5
51.4	16:34:49		51.4	51.4
51.5	16:34:50		51.5	51.5
52.2	16:34:51		52.2	52.2
52.4	16:34:52		52.4	52.4
53.3	16:34:53		53.3	53.3
53.8	16:34:54		53.8	53.8
54.6	16:34:55		54.6	54.6
55.5	16:34:56		55.5	55.5
56.6	16:34:57		56.6	56.6
57.9	16:34:58		57.9	57.9
58.4	16:34:59		58.4	58.4
58.5	16:35:00		58.5	58.5
58.4	16:35:01		58.4	58.4
57.0	16:35:02		57.0	57.0
55.6	16:35:03		55.6	55.6
55.2	16:35:04		55.2	55.2
55.3	16:35:05		55.3	55.3
57.1	16:35:06		57.1	57.1
59.5	16:35:07		59.5	59.5
61.8	16:35:08		61.8	61.8
63.3	16:35:09		63.3	63.3
64.0	16:35:10		64.0	64.0
63.6	16:35:11		63.6	63.6
62.8	16:35:12		62.8	62.8
61.7	16:35:13		61.7	61.7
61.6	16:35:14		61.6	61.6
61.8	16:35:15		61.8	61.8
62.0	16:35:16		62.0	62.0
61.9	16:35:17		61.9	61.9
61.6	16:35:18		61.6	61.6
61.3	16:35:19		61.3	61.3
60.6	16:35:20		60.6	60.6
59.8	16:35:21		59.8	59.8
59.8	16:35:22		59.8	59.8
59.2	16:35:23		59.2	59.2
58.2	16:35:24		58.2	58.2
57.0	16:35:25		57.0	57.0
56.2	16:35:26		56.2	56.2
55.4	16:35:27		55.4	55.4
54.9	16:35:28		54.9	54.9
55.2	16:35:29		55.2	55.2
56.6	16:35:30		56.6	56.6
57.9	16:35:31		57.9	57.9
59.3	16:35:32		59.3	59.3
59.1	16:35:33		59.1	59.1
57.9	16:35:34		57.9	57.9
56.6	16:35:35		56.6	56.6
55.5	16:35:36		55.5	55.5
55.2	16:35:37		55.2	55.2
55.8	16:35:38		55.8	55.8
56.8	16:35:39		56.8	56.8
57.3	16:35:40		57.3	57.3
57.0	16:35:41		57.0	57.0
56.2	16:35:42		56.2	56.2
55.4	16:35:43		55.4	55.4
55.6	16:35:44		55.6	55.6
55.9	16:35:45		55.9	55.9
57.8	16:35:46		57.8	57.8
58.8	16:35:47		58.8	58.8
58.2	16:35:48		58.2	58.2
57.0	16:35:49		57.0	57.0
55.0	16:35:50		55.0	55.0
53.3	16:35:51		53.3	53.3
52.0	16:35:52		52.0	52.0
51.1	16:35:53		51.1	51.1
50.6	16:35:54		50.6	50.6
49.5	16:35:55		49.5	49.5
48.3	16:35:56		48.3	48.3
48.2	16:35:57		48.2	48.2
48.4	16:35:58		48.4	48.4
49.1	16:35:59		49.1	49.1
49.6	16:36:00		49.6	49.6
50.2	16:36:01		50.2	50.2
51.5	16:36:02		51.5	51.5
52.0	16:36:03		52.0	52.0
52.2	16:36:04		52.2	52.2
52.6	16:36:05		52.6	52.6
54.9	16:36:06		54.9	54.9
57.4	16:36:07		57.4	57.4
60.0	16:36:08		60.0	60.0
61.8	16:36:09		61.8	61.8
62.1	16:36:10		62.1	62.1
61.5	16:36:11		61.5	61.5

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.9	16:39:42		53.9	53.9
56.2	16:39:43		56.2	56.2
58.7	16:39:44		58.7	58.7
57.4	16:39:45		57.4	57.4
55.4	16:39:46		55.4	55.4
54.0	16:39:47		54.0	54.0
53.5	16:39:48		53.5	53.5
53.7	16:39:49		53.7	53.7
53.2	16:39:50		53.2	53.2
53.0	16:39:51		53.0	53.0
53.2	16:39:52		53.2	53.2
54.0	16:39:53		54.0	54.0
55.4	16:39:54		55.4	55.4
55.3	16:39:55		55.3	55.3
53.8	16:39:56		53.8	53.8
53.0	16:39:57		53.0	53.0
54.4	16:39:58		54.4	54.4
54.3	16:39:59		54.3	54.3
52.6	16:40:00		52.6	52.6
51.4	16:40:01		51.4	51.4
51.4	16:40:02		51.4	51.4
50.5	16:40:03		50.5	50.5
49.3	16:40:04		49.3	49.3
48.8	16:40:05		48.8	48.8
48.2	16:40:06		48.2	48.2
47.8	16:40:07		47.8	47.8
48.6	16:40:08		48.6	48.6
49.3	16:40:09		49.3	49.3
49.5	16:40:10		49.5	49.5
50.5	16:40:11		50.5	50.5
49.8	16:40:12		49.8	49.8
49.6	16:40:13		49.6	49.6
50.0	16:40:14		50.0	50.0
51.0	16:40:15		51.0	51.0
51.4	16:40:16		51.4	51.4
51.7	16:40:17		51.7	51.7
52.3	16:40:18		52.3	52.3
52.2	16:40:19		52.2	52.2
51.2	16:40:20		51.2	51.2
50.9	16:40:21		50.9	50.9
50.9	16:40:22		50.9	50.9
51.4	16:40:23		51.4	51.4
51.4	16:40:24		51.4	51.4
51.3	16:40:25		51.3	51.3
51.9	16:40:26		51.9	51.9
52.9	16:40:27		52.9	52.9
52.9	16:40:28		52.9	52.9
51.9	16:40:29		51.9	51.9
50.6	16:40:30		50.6	50.6
50.3	16:40:31		50.3	50.3
50.1	16:40:32		50.1	50.1
49.4	16:40:33		49.4	49.4
48.7	16:40:34		48.7	48.7
47.5	16:40:35		47.5	47.5
46.8	16:40:36		46.8	46.8
47.3	16:40:37		47.3	47.3
46.3	16:40:38		46.3	46.3
45.8	16:40:39		45.8	45.8
47.3	16:40:40		47.3	47.3
49.7	16:40:41		49.7	49.7
48.5	16:40:42		48.5	48.5
47.8	16:40:43		47.8	47.8
46.2	16:40:44		46.2	46.2
46.0	16:40:45		46.0	46.0
46.7	16:40:46		46.7	46.7
48.0	16:40:47		48.0	48.0
49.6	16:40:48		49.6	49.6
49.6	16:40:49		49.6	49.6
51.8	16:40:50		51.8	51.8
55.9	16:40:51		55.9	55.9
54.8	16:40:52		54.8	54.8
52.3	16:40:53		52.3	52.3
50.7	16:40:54		50.7	50.7
49.8	16:40:55		49.8	49.8
49.1	16:40:56		49.1	49.1
48.3	16:40:57		48.3	48.3
47.7	16:40:58		47.7	47.7
47.3	16:40:59		47.3	47.3
47.3	16:41:00		47.3	47.3
47.2	16:41:01		47.2	47.2
47.6	16:41:02		47.6	47.6
47.5	16:41:03		47.5	47.5
47.6	16:41:04		47.6	47.6
47.0	16:41:05		47.0	47.0
47.1	16:41:06		47.1	47.1
47.1	16:41:07		47.1	47.1
46.7	16:41:08		46.7	46.7
46.4	16:41:09		46.4	46.4
46.4	16:41:10		46.4	46.4
46.2	16:41:11		46.2	46.2
46.2	16:41:12		46.2	46.2
46.5	16:41:13		46.5	46.5
47.0	16:41:14		47.0	47.0
47.1	16:41:15		47.1	47.1
47.2	16:41:16		47.2	47.2
47.3	16:41:17		47.3	47.3
47.6	16:41:18		47.6	47.6
47.7	16:41:19		47.7	47.7
48.0	16:41:20		48.0	48.0
48.7	16:41:21		48.7	48.7
48.9	16:41:22		48.9	48.9
49.0	16:41:23		49.0	49.0
49.1	16:41:24		49.1	49.1
49.5	16:41:25		49.5	49.5
49.5	16:41:26		49.5	49.5
50.1	16:41:27		50.1	50.1
50.6	16:41:28		50.6	50.6
51.0	16:41:29		51.0	51.0
51.0	16:41:30		51.0	51.0
50.9	16:41:31		50.9	50.9
52.7	16:41:32		52.7	52.7
55.1	16:41:33		55.1	55.1
54.1	16:41:34		54.1	54.1
51.6	16:41:35		51.6	51.6
49.7	16:41:36		49.7	49.7
49.0	16:41:37		49.0	49.0
48.5	16:41:38		48.5	48.5
48.6	16:41:39		48.6	48.6
48.4	16:41:40		48.4	48.4
47.9	16:41:41		47.9	47.9
47.7	16:41:42		47.7	47.7
47.1	16:41:43		47.1	47.1
46.5	16:41:44		46.5	46.5
46.3	16:41:45		46.3	46.3
45.9	16:41:46		45.9	45.9
45.8	16:41:47		45.8	45.8
45.6	16:41:48		45.6	45.6
45.8	16:41:49		45.8	45.8
46.1	16:41:50		46.1	46.1
46.0	16:41:51		46.0	46.0
46.0	16:41:52		46.0	46.0
46.2	16:41:53		46.2	46.2
45.9	16:41:54		45.9	45.9
45.5	16:41:55		45.5	45.5
45.4	16:41:56		45.4	45.4
45.5	16:41:57		45.5	45.5
45.5	16:41:58		45.5	45.5
46.3	16:41:59		46.3	46.3
46.7	16:42:00		46.7	46.7
46.8	16:42:01		46.8	46.8
47.2	16:42:02		47.2	47.2
47.6	16:42:03		47.6	47.6
47.5	16:42:04		47.5	47.5
47.4	16:42:05		47.4	47.4
46.8	16:42:06		46.8	46.8
47.0	16:42:07		47.0	47.0
46.8	16:42:08		46.8	46.8
47.8	16:42:09		47.8	47.8
48.3	16:42:10		48.3	48.3
48.5	16:42:11		48.5	48.5
48.9	16:42:12		48.9	48.9
49.4	16:42:13		49.4	49.4
49.6	16:42:14		49.6	49.6
50.2	16:42:15		50.2	50.2
51.1	16:42:16		51.1	51.1
50.7	16:42:17		50.7	50.7
50.4	16:42:18		50.4	50.4
51.1	16:42:19		51.1	51.1
51.6	16:42:20		51.6	51.6
50.7	16:42:21		50.7	50.7
51.2	16:42:22		51.2	51.2
51.0	16:42:23		51.0	51.0

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.3	16:45:27		46.3	46.3
46.6	16:45:28		46.6	46.6
47.3	16:45:29		47.3	47.3
49.2	16:45:30		49.2	49.2
50.9	16:45:31		50.9	50.9
52.1	16:45:32		52.1	52.1
53.5	16:45:33		53.5	53.5
56.2	16:45:34		56.2	56.2
59.1	16:45:35		59.1	59.1
60.6	16:45:36		60.6	60.6
60.8	16:45:37		60.8	60.8
59.7	16:45:38		59.7	59.7
57.5	16:45:39		57.5	57.5
54.8	16:45:40		54.8	54.8
52.0	16:45:41		52.0	52.0
49.8	16:45:42		49.8	49.8
48.5	16:45:43		48.5	48.5
47.5	16:45:44		47.5	47.5
46.8	16:45:45		46.8	46.8
46.5	16:45:46		46.5	46.5
45.9	16:45:47		45.9	45.9
44.9	16:45:48		44.9	44.9
44.2	16:45:49		44.2	44.2
43.9	16:45:50		43.9	43.9
43.9	16:45:51		43.9	43.9
43.4	16:45:52		43.4	43.4
42.7	16:45:53		42.7	42.7
44.4	16:45:54		44.4	44.4
44.5	16:45:55		44.5	44.5
43.4	16:45:56		43.4	43.4
42.5	16:45:57		42.5	42.5
42.1	16:45:58		42.1	42.1
42.1	16:45:59		42.1	42.1
41.8	16:46:00		41.8	41.8
41.8	16:46:01		41.8	41.8
41.9	16:46:02		41.9	41.9
41.8	16:46:03		41.8	41.8
43.5	16:46:04		43.5	43.5
44.0	16:46:05		44.0	44.0
45.6	16:46:06		45.6	45.6
47.5	16:46:07		47.5	47.5
48.3	16:46:08		48.3	48.3
48.7	16:46:09		48.7	48.7
49.0	16:46:10		49.0	49.0
48.1	16:46:11		48.1	48.1
46.4	16:46:12		46.4	46.4
44.7	16:46:13		44.7	44.7
43.4	16:46:14		43.4	43.4
43.0	16:46:15		43.0	43.0
42.5	16:46:16		42.5	42.5
42.6	16:46:17		42.6	42.6
42.5	16:46:18		42.5	42.5
42.1	16:46:19		42.1	42.1
42.0	16:46:20		42.0	42.0
41.5	16:46:21		41.5	41.5
41.9	16:46:22		41.9	41.9
41.8	16:46:23		41.8	41.8
41.6	16:46:24		41.6	41.6
43.1	16:46:25		43.1	43.1
43.3	16:46:26		43.3	43.3
43.0	16:46:27		43.0	43.0
42.4	16:46:28		42.4	42.4
42.6	16:46:29		42.6	42.6
42.7	16:46:30		42.7	42.7
42.9	16:46:31		42.9	42.9
43.0	16:46:32		43.0	43.0
43.0	16:46:33		43.0	43.0
42.8	16:46:34		42.8	42.8
42.5	16:46:35		42.5	42.5
42.1	16:46:36		42.1	42.1
42.2	16:46:37		42.2	42.2
43.2	16:46:38		43.2	43.2
43.2	16:46:39		43.2	43.2
42.8	16:46:40		42.8	42.8
42.5	16:46:41		42.5	42.5
43.0	16:46:42		43.0	43.0
43.1	16:46:43		43.1	43.1
42.6	16:46:44		42.6	42.6
42.0	16:46:45		42.0	42.0
42.2	16:46:46		42.2	42.2
42.8	16:46:47		42.8	42.8
43.2	16:46:48		43.2	43.2
43.5	16:46:49		43.5	43.5
43.9	16:46:50		43.9	43.9
44.4	16:46:51		44.4	44.4
44.5	16:46:52		44.5	44.5
44.8	16:46:53		44.8	44.8
45.7	16:46:54		45.7	45.7
46.2	16:46:55		46.2	46.2
47.3	16:46:56		47.3	47.3
49.2	16:46:57		49.2	49.2
52.5	16:46:58		52.5	52.5
55.2	16:46:59		55.2	55.2
57.9	16:47:00		57.9	57.9
62.5	16:47:01		62.5	62.5
65.4	16:47:02		65.4	65.4
66.2	16:47:03		66.2	66.2
64.6	16:47:04		64.6	64.6
62.3	16:47:05		62.3	62.3
59.8	16:47:06		59.8	59.8
57.4	16:47:07		57.4	57.4
54.7	16:47:08		54.7	54.7
52.5	16:47:09		52.5	52.5
50.0	16:47:10		50.0	50.0
48.3	16:47:11		48.3	48.3
46.9	16:47:12		46.9	46.9
45.7	16:47:13		45.7	45.7
44.6	16:47:14		44.6	44.6
44.1	16:47:15		44.1	44.1
44.9	16:47:16		44.9	44.9
45.7	16:47:17		45.7	45.7
45.0	16:47:18		45.0	45.0
44.2	16:47:19		44.2	44.2
43.0	16:47:20		43.0	43.0
42.0	16:47:21		42.0	42.0
41.3	16:47:22		41.3	41.3
40.7	16:47:23		40.7	40.7
40.4	16:47:24		40.4	40.4
39.9	16:47:25		39.9	39.9
40.3	16:47:26		40.3	40.3
41.0	16:47:27		41.0	41.0
40.4	16:47:28		40.4	40.4
40.0	16:47:29		40.0	40.0
39.5	16:47:30		39.5	39.5
39.4	16:47:31		39.4	39.4
39.3	16:47:32		39.3	39.3
39.3	16:47:33		39.3	39.3
41.9	16:47:34		41.9	41.9
42.8	16:47:35		42.8	42.8
41.7	16:47:36		41.7	41.7
40.8	16:47:37		40.8	40.8
40.1	16:47:38		40.1	40.1
40.1	16:47:39		40.1	40.1
40.2	16:47:40		40.2	40.2
40.4	16:47:41		40.4	40.4
40.5	16:47:42		40.5	40.5
40.4	16:47:43		40.4	40.4
40.5	16:47:44		40.5	40.5
41.1	16:47:45		41.1	41.1
41.3	16:47:46		41.3	41.3
41.5	16:47:47		41.5	41.5
42.1	16:47:48		42.1	42.1
42.8	16:47:49		42.8	42.8
43.4	16:47:50		43.4	43.4
44.0	16:47:51		44.0	44.0
44.6	16:47:52		44.6	44.6
45.7	16:47:53		45.7	45.7
46.6	16:47:54		46.6	46.6
47.2	16:47:55		47.2	47.2
48.3	16:47:56		48.3	48.3
49.5	16:47:57		49.5	49.5
51.5	16:47:58		51.5	51.5
53.5	16:47:59		53.5	53.5
55.9	16:48:00		55.9	55.9
60.3	16:48:01		60.3	60.3
63.6	16:48:02		63.6	63.6
64.7	16:48:03		64.7	64.7
63.7	16:48:04		63.7	63.7
61.6	16:48:05		61.6	61.6
58.8	16:48:06		58.8	58.8
56.0	16:48:07		56.0	56.0
53.2	16:48:08		53.2	53.2

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
61.4	16:36:12		61.4	61.4
61.4	16:36:13		61.4	61.4
60.9	16:36:14		60.9	60.9
60.1	16:36:15		60.1	60.1
58.9	16:36:16		58.9	58.9
57.5	16:36:17		57.5	57.5
56.1	16:36:18		56.1	56.1
55.0	16:36:19		55.0	55.0
54.4	16:36:20		54.4	54.4
54.0	16:36:21		54.0	54.0
53.8	16:36:22		53.8	53.8
54.0	16:36:23		54.0	54.0
54.1	16:36:24		54.1	54.1
54.2	16:36:25		54.2	54.2
53.8	16:36:26		53.8	53.8
53.5	16:36:27		53.5	53.5
53.0	16:36:28		53.0	53.0
52.0	16:36:29		52.0	52.0
51.5	16:36:30		51.5	51.5
50.9	16:36:31		50.9	50.9
50.1	16:36:32		50.1	50.1
48.9	16:36:33		48.9	48.9
48.2	16:36:34		48.2	48.2
47.9	16:36:35		47.9	47.9
47.6	16:36:36		47.6	47.6
47.5	16:36:37		47.5	47.5
47.8	16:36:38		47.8	47.8
48.3	16:36:39		48.3	48.3
49.1	16:36:40		49.1	49.1
50.4	16:36:41		50.4	50.4
50.8	16:36:42		50.8	50.8
51.9	16:36:43		51.9	51.9
53.1	16:36:44		53.1	53.1
54.3	16:36:45		54.3	54.3
54.8	16:36:46		54.8	54.8
55.6	16:36:47		55.6	55.6
56.3	16:36:48		56.3	56.3
57.4	16:36:49		57.4	57.4
58.4	16:36:50		58.4	58.4
59.1	16:36:51		59.1	59.1
59.5	16:36:52		59.5	59.5
59.9	16:36:53		59.9	59.9
60.3	16:36:54		60.3	60.3
60.3	16:36:55		60.3	60.3
60.1	16:36:56		60.1	60.1
60.0	16:36:57		60.0	60.0
60.6	16:36:58		60.6	60.6
60.6	16:36:59		60.6	60.6
60.7	16:37:00		60.7	60.7
60.5	16:37:01		60.5	60.5
60.3	16:37:02		60.3	60.3
60.1	16:37:03		60.1	60.1
59.9	16:37:04		59.9	59.9
59.6	16:37:05		59.6	59.6
58.5	16:37:06		58.5	58.5
57.7	16:37:07		57.7	57.7
57.2	16:37:08		57.2	57.2
57.7	16:37:09		57.7	57.7
58.2	16:37:10		58.2	58.2
58.6	16:37:11		58.6	58.6
58.5	16:37:12		58.5	58.5
57.4	16:37:13		57.4	57.4
56.4	16:37:14		56.4	56.4
55.8	16:37:15		55.8	55.8
55.5	16:37:16		55.5	55.5
56.3	16:37:17		56.3	56.3
57.4	16:37:18		57.4	57.4
58.3	16:37:19		58.3	58.3
59.0	16:37:20		59.0	59.0
59.6	16:37:21		59.6	59.6
60.5	16:37:22		60.5	60.5
61.4	16:37:23		61.4	61.4
60.9	16:37:24		60.9	60.9
60.2	16:37:25		60.2	60.2
59.4	16:37:26		59.4	59.4
58.5	16:37:27		58.5	58.5
58.6	16:37:28		58.6	58.6
59.0	16:37:29		59.0	59.0
58.8	16:37:30		58.8	58.8
58.0	16:37:31		58.0	58.0
56.9	16:37:32		56.9	56.9
55.7	16:37:33		55.7	55.7
54.4	16:37:34		54.4	54.4
53.2	16:37:35		53.2	53.2
52.3	16:37:36		52.3	52.3
51.6	16:37:37		51.6	51.6
51.0	16:37:38		51.0	51.0
50.9	16:37:39		50.9	50.9
52.1	16:37:40		52.1	52.1
53.3	16:37:41		53.3	53.3
54.4	16:37:42		54.4	54.4
54.8	16:37:43		54.8	54.8
55.2	16:37:44		55.2	55.2
54.6	16:37:45		54.6	54.6
53.0	16:37:46		53.0	53.0
52.0	16:37:47		52.0	52.0
50.7	16:37:48		50.7	50.7
49.8	16:37:49		49.8	49.8
48.9	16:37:50		48.9	48.9
48.7	16:37:51		48.7	48.7
49.2	16:37:52		49.2	49.2
49.9	16:37:53		49.9	49.9
51.6	16:37:54		51.6	51.6
53.7	16:37:55		53.7	53.7
56.1	16:37:56		56.1	56.1
58.0	16:37:57		58.0	58.0
59.3	16:37:58		59.3	59.3
59.9	16:37:59		59.9	59.9
58.7	16:38:00		58.7	58.7
57.1	16:38:01		57.1	57.1
55.7	16:38:02		55.7	55.7
54.3	16:38:03		54.3	54.3
53.0	16:38:04		53.0	53.0
51.6	16:38:05		51.6	51.6
50.6	16:38:06		50.6	50.6
50.1	16:38:07		50.1	50.1
50.5	16:38:08		50.5	50.5
51.2	16:38:09		51.2	51.2
52.9	16:38:10		52.9	52.9
55.4	16:38:11		55.4	55.4
56.0	16:38:12		56.0	56.0
55.6	16:38:13		55.6	55.6
54.9	16:38:14		54.9	54.9
53.9	16:38:15		53.9	53.9
53.2	16:38:16		53.2	53.2
52.4	16:38:17		52.4	52.4
53.0	16:38:18		53.0	53.0
54.0	16:38:19		54.0	54.0
54.2	16:38:20		54.2	54.2
53.2	16:38:21		53.2	53.2
52.1	16:38:22		52.1	52.1
51.1	16:38:23		51.1	51.1
50.9	16:38:24		50.9	50.9
51.4	16:38:25		51.4	51.4
50.6	16:38:26		50.6	50.6
50.0	16:38:27		50.0	50.0
49.7	16:38:28		49.7	49.7
49.2	16:38:29		49.2	49.2
48.6	16:38:30		48.6	48.6
47.8	16:38:31		47.8	47.8
47.4	16:38:32		47.4	47.4
47.0	16:38:33		47.0	47.0
47.0	16:38:34		47.0	47.0
47.0	16:38:35		47.0	47.0
46.3	16:38:36		46.3	46.3
46.0	16:38:37		46.0	46.0
45.7	16:38:38		45.7	45.7
46.2	16:38:39		46.2	46.2
47.1	16:38:40		47.1	47.1
47.5	16:38:41		47.5	47.5
47.1	16:38:42		47.1	47.1
47.6	16:38:43		47.6	47.6
49.0	16:38:44		49.0	49.0
50.3	16:38:45		50.3	50.3
50.6	16:38:46		50.6	50.6
51.0	16:38:47		51.0	51.0
51.1	16:38:48		51.1	51.1
50.8	16:38:49		50.8	50.8
51.2	16:38:50		51.2	51.2
51.5	16:38:51		51.5	51.5
52.2	16:38:52		52.2	52.2
52.8	16:38:53		52.8	52.8

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.4	16:42:24		50.4	50.4
50.2	16:42:25		50.2	50.2
50.0	16:42:26		50.0	50.0
50.0	16:42:27		50.0	50.0
50.0	16:42:28		50.0	50.0
49.8	16:42:29		49.8	49.8
49.9	16:42:30		49.9	49.9
49.9	16:42:31		49.9	49.9
50.3	16:42:32		50.3	50.3
50.6	16:42:33		50.6	50.6
51.3	16:42:34		51.3	51.3
52.5	16:42:35		52.5	52.5
53.0	16:42:36		53.0	53.0
52.8	16:42:37		52.8	52.8
52.7	16:42:38		52.7	52.7
54.0	16:42:39		54.0	54.0
55.0	16:42:40		55.0	55.0
54.2	16:42:41		54.2	54.2
53.4	16:42:42		53.4	53.4
52.7	16:42:43		52.7	52.7
53.4	16:42:44		53.4	53.4
52.9	16:42:45		52.9	52.9
51.7	16:42:46		51.7	51.7
52.2	16:42:47		52.2	52.2
53.7	16:42:48		53.7	53.7
52.7	16:42:49		52.7	52.7
50.8	16:42:50		50.8	50.8
50.2	16:42:51		50.2	50.2
50.5	16:42:52		50.5	50.5
49.3	16:42:53		49.3	49.3
47.7	16:42:54		47.7	47.7
46.4	16:42:55		46.4	46.4
46.0	16:42:56		46.0	46.0
46.7	16:42:57		46.7	46.7
46.5	16:42:58		46.5	46.5
46.3	16:42:59		46.3	46.3
46.4	16:43:00		46.4	46.4
46.8	16:43:01		46.8	46.8
47.4	16:43:02		47.4	47.4
48.0	16:43:03		48.0	48.0
47.7	16:43:04		47.7	47.7
47.6	16:43:05		47.6	47.6
47.7	16:43:06		47.7	47.7
48.5	16:43:07		48.5	48.5
50.1	16:43:08		50.1	50.1
50.7	16:43:09		50.7	50.7
51.0	16:43:10		51.0	51.0
51.4	16:43:11		51.4	51.4
50.4	16:43:12		50.4	50.4
50.8	16:43:13		50.8	50.8
50.7	16:43:14		50.7	50.7
50.7	16:43:15		50.7	50.7
50.5	16:43:16		50.5	50.5
50.9	16:43:17		50.9	50.9
50.7	16:43:18		50.7	50.7
50.1	16:43:19		50.1	50.1
49.4	16:43:20		49.4	49.4
49.1	16:43:21		49.1	49.1
49.4	16:43:22		49.4	49.4
48.8	16:43:23		48.8	48.8
48.9	16:43:24		48.9	48.9
49.8	16:43:25		49.8	49.8
50.1	16:43:26		50.1	50.1
49.7	16:43:27		49.7	49.7
49.8	16:43:28		49.8	49.8
50.2	16:43:29		50.2	50.2
50.3	16:43:30		50.3	50.3
49.9	16:43:31		49.9	49.9
51.9	16:43:32		51.9	51.9
55.6	16:43:33		55.6	55.6
55.8	16:43:34		55.8	55.8
54.4	16:43:35		54.4	54.4
54.3	16:43:36		54.3	54.3
55.2	16:43:37		55.2	55.2
56.0	16:43:38		56.0	56.0
55.0	16:43:39		55.0	55.0
54.7	16:43:40		54.7	54.7
54.6	16:43:41		54.6	54.6
53.5	16:43:42		53.5	53.5
53.0	16:43:43		53.0	53.0
52.6	16:43:44		52.6	52.6
53.2	16:43:45		53.2	53.2
55.4	16:43:46		55.4	55.4
55.6	16:43:47		55.6	55.6
53.3	16:43:48		53.3	53.3
51.5	16:43:49		51.5	51.5
50.5	16:43:50		50.5	50.5
49.9	16:43:51		49.9	49.9
49.6	16:43:52		49.6	49.6
48.6	16:43:53		48.6	48.6
47.8	16:43:54		47.8	47.8
47.5	16:43:55		47.5	47.5
47.3	16:43:56		47.3	47.3
47.1	16:43:57		47.1	47.1
47.0	16:43:58		47.0	47.0
47.5	16:43:59		47.5	47.5
47.1	16:44:00		47.1	47.1
46.8	16:44:01		46.8	46.8
47.9	16:44:02		47.9	47.9
50.0	16:44:03		50.0	50.0
50.3	16:44:04		50.3	50.3
50.3	16:44:05		50.3	50.3
52.5	16:44:06		52.5	52.5
53.5	16:44:07		53.5	53.5
51.8	16:44:08		51.8	51.8
50.9	16:44:09		50.9	50.9
50.1	16:44:10		50.1	50.1
49.5	16:44:11		49.5	49.5
49.3	16:44:12		49.3	49.3
48.7	16:44:13		48.7	48.7
48.3	16:44:14		48.3	48.3
47.8	16:44:15		47.8	47.8
48.0	16:44:16		48.0	48.0
48.2	16:44:17		48.2	48.2
47.6	16:44:18		47.6	47.6
46.7	16:44:19		46.7	46.7
46.3	16:44:20		46.3	46.3
46.5	16:44:21		46.5	46.5
46.7	16:44:22		46.7	46.7
46.7	16:44:23		46.7	46.7
46.4	16:44:24		46.4	46.4
46.6	16:44:25		46.6	46.6
47.4	16:44:26		47.4	47.4
49.6	16:44:27		49.6	49.6
50.1	16:44:28		50.1	50.1
50.1	16:44:29		50.1	50.1
50.2	16:44:30		50.2	50.2
50.5	16:44:31		50.5	50.5
51.2	16:44:32		51.2	51.2
52.8	16:44:33		52.8	52.8
52.7	16:44:34		52.7	52.7
52.2	16:44:35		52.2	52.2
51.4	16:44:36		51.4	51.4
51.5	16:44:37		51.5	51.5
51.7	16:44:38		51.7	51.7
53.4	16:44:39		53.4	53.4
55.8	16:44:40		55.8	55.8
55.3	16:44:41		55.3	55.3
53.0	16:44:42		53.0	53.0
50.9	16:44:43		50.9	50.9
49.4	16:44:44		49.4	49.4
48.1	16:44:45		48.1	48.1
47.7	16:44:46		47.7	47.7
46.6	16:44:47		46.6	46.6
45.6	16:44:48		45.6	45.6
45.7	16:44:49		45.7	45.7
45.9	16:44:50		45.9	45.9
46.2	16:44:51		46.2	46.2
47.5	16:44:52		47.5	47.5
48.3	16:44:53		48.3	48.3
47.3	16:44:54		47.3	47.3
46.8	16:44:55		46.8	46.8
46.8	16:44:56		46.8	46.8
48.5	16:44:57		48.5	48.5
48.1	16:44:58		48.1	48.1
48.0	16:44:59		48.0	48.0
48.9	16:45:00		48.9	48.9
48.8	16:45:01		48.8	48.8
48.2	16:45:02		48.2	48.2
48.0	16:45:03		48.0	48.0
47.9	16:45:04		47.9	47.9
47.7	16:45:05		47.7	47.7

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.8	16:48:09		50.8	50.8
48.8	16:48:10		48.8	48.8
47.1	16:48:11		47.1	47.1
46.1	16:48:12		46.1	46.1
45.9	16:48:13		45.9	45.9
45.6	16:48:14		45.6	45.6
45.7	16:48:15		45.7	45.7
46.0	16:48:16		46.0	46.0
46.4	16:48:17		46.4	46.4
48.0	16:48:18		48.0	48.0
50.7	16:48:19		50.7	50.7
54.3	16:48:20		54.3	54.3
58.4	16:48:21		58.4	58.4
63.8	16:48:22		63.8	63.8
67.3	16:48:23		67.3	67.3
67.4	16:48:24		67.4	67.4
65.3	16:48:25		65.3	65.3
65.4	16:48:26		65.4	65.4
67.2	16:48:27		67.2	67.2
67.2	16:48:28		67.2	67.2
65.5	16:48:29		65.5	65.5
63.3	16:48:30		63.3	63.3
60.9	16:48:31		60.9	60.9
58.7	16:48:32		58.7	58.7
56.5	16:48:33		56.5	56.5
54.9	16:48:34		54.9	54.9
53.6	16:48:35		53.6	53.6
52.9	16:48:36		52.9	52.9
51.9	16:48:37		51.9	51.9
50.7	16:48:38		50.7	50.7
49.5	16:48:39		49.5	49.5
48.4	16:48:40		48.4	48.4
47.7	16:48:41		47.7	47.7
47.7	16:48:42		47.7	47.7
48.3	16:48:43		48.3	48.3
49.1	16:48:44		49.1	49.1
49.3	16:48:45		49.3	49.3
49.4	16:48:46		49.4	49.4
49.9	16:48:47		49.9	49.9
50.5	16:48:48		50.5	50.5
50.4	16:48:49		50.4	50.4
50.5	16:48:50		50.5	50.5
51.1	16:48:51		51.1	51.1
51.6	16:48:52		51.6	51.6
52.5	16:48:53		52.5	52.5
53.1	16:48:54		53.1	53.1
54.5	16:48:55		54.5	54.5
56.4	16:48:56		56.4	56.4
58.0	16:48:57		58.0	58.0
60.5	16:48:58		60.5	60.5
62.2	16:48:59		62.2	62.2
65.0	16:49:00		65.0	65.0
69.7	16:49:01		69.7	69.7
74.4	16:49:02		74.4	74.4
76.1	16:49:03		76.1	76.1
74.6	16:49:04		74.6	74.6
71.7	16:49:05		71.7	71.7
68.6	16:49:06		68.6	68.6
65.4	16:49:07		65.4	65.4
62.6	16:49:08		62.6	62.6
60.2	16:49:09		60.2	60.2
58.1	16:49:10		58.1	58.1
56.3	16:49:11		56.3	56.3
55.0	16:49:12		55.0	55.0
55.1	16:49:13		55.1	55.1
54.8	16:49:14		54.8	54.8
54.0	16:49:15		54.0	54.0
53.1	16:49:16		53.1	53.1
52.9	16:49:17		52.9	52.9
52.8	16:49:18		52.8	52.8
52.1	16:49:19		52.1	52.1
52.4	16:49:20		52.4	52.4
53.3	16:49:21		53.3	53.3
54.5	16:49:22		54.5	54.5
56.9	16:49:23		56.9	56.9
60.2	16:49:24		60.2	60.2
64.3	16:49:25		64.3	64.3
69.7	16:49:26		69.7	69.7
72.6	16:49:27		72.6	72.6
72.6	16:49:28		72.6	72.6
72.8	16:49:29		72.8	72.8
71.5	16:49:30		71.5	71.5
69.1	16:49:31		69.1	69.1
66.3	16:49:32		66.3	66.3
63.5	16:49:33		63.5	63.5
60.7	16:49:34		60.7	60.7
57.9	16:49:35		57.9	57.9
55.5	16:49:36		55.5	55.5
55.0	16:49:37		55.0	55.0
57.2	16:49:38		57.2	57.2
61.9	16:49:39		61.9	61.9
66.6	16:49:40		66.6	66.6
68.0	16:49:41		68.0	68.0
66.0	16:49:42		66.0	66.0
62.9	16:49:43		62.9	62.9
60.0	16:49:44		60.0	60.0
57.1	16:49:45		57.1	57.1
54.7	16:49:46		54.7	54.7
52.8	16:49:47		52.8	52.8
51.7	16:49:48		51.7	51.7
52.1	16:49:49		52.1	52.1
54.2	16:49:50		54.2	54.2
57.3	16:49:51		57.3	57.3
63.3	16:49:52		63.3	63.3
68.1	16:49:53		68.1	68.1
70.1	16:49:54		70.1	70.1
67.8	16:49:55		67.8	67.8
64.6	16:49:56		64.6	64.6
61.3	16:49:57		61.3	61.3
58.3	16:49:58		58.3	58.3
56.1	16:49:59		56.1	56.1
54.4	16:50:00		54.4	54.4
53.3	16:50:01		53.3	53.3
52.0	16:50:02		52.0	52.0
50.2	16:50:03		50.2	50.2
48.4	16:50:04		48.4	48.4
47.3	16:50:05		47.3	47.3
46.8	16:50:06		46.8	46.8
46.6	16:50:07		46.6	46.6
46.1	16:50:08		46.1	46.1
46.0	16:50:09		46.0	46.0
46.1	16:50:10		46.1	46.1
46.0	16:50:11		46.0	46.0
45.3	16:50:12		45.3	45.3
44.4	16:50:13		44.4	44.4
43.9	16:50:14		43.9	43.9
44.0	16:50:15		44.0	44.0
43.3	16:50:16		43.3	43.3
42.3	16:50:17		42.3	42.3
42.2	16:50:18		42.2	42.2
42.3	16:50:19		42.3	42.3
41.8	16:50:20		41.8	41.8
41.3	16:50:21		41.3	41.3
41.5	16:50:22		41.5	41.5
41.1	16:50:23		41.1	41.1
40.7	16:50:24		40.7	40.7
40.3	16:50:25		40.3	40.3
41.1	16:50:26		41.1	41.1
42.2	16:50:27		42.2	42.2
41.3	16:50:28		41.3	41.3
41.6	16:50:29		41.6	41.6
42.2	16:50:30		42.2	42.2
42.9	16:50:31		42.9	42.9
43.5	16:50:32		43.5	43.5
43.7	16:50:33		43.7	43.7
43.6	16:50:34		43.6	43.6
43.7	16:50:35		43.7	43.7
43.6	16:50:36		43.6	43.6
43.9	16:50:37		43.9	43.9
44.2	16:50:38		44.2	44.2
44.6	16:50:39		44.6	44.6
44.8	16:50:40		44.8	44.8
45.5	16:50:41		45.5	45.5
46.1	16:50:42		46.1	46.1
46.6	16:50:43		46.6	46.6
47.5	16:50:44		47.5	47.5
48.5	16:50:45		48.5	48.5
49.9	16:50:46		49.9	49.9
51.7	16:50:47		51.7	51.7
54.8	16:50:48		54.8	54.8
57.0	16:50:49		57.0	57.0
59.8	16:50:50		59.8	59.8

Site 1 - Near Northeast Corner of Project Site					Site 2 - On East Side of Project Site					Site 3 - Near Southwest Corner of Project Site				
SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.7	16:38:54		53.7	53.7	48.1	16:45:06		48.1	48.1	63.8	16:50:51		63.8	63.8
54.7	16:38:55		54.7	54.7	48.2	16:45:07		48.2	48.2	66.7	16:50:52		66.7	66.7
55.5	16:38:56		55.5	55.5	48.4	16:45:08		48.4	48.4	67.7	16:50:53		67.7	67.7
56.5	16:38:57		56.5	56.5	49.3	16:45:09		49.3	49.3	68.5	16:50:54		68.5	68.5
56.7	16:38:58		56.7	56.7	49.7	16:45:10		49.7	49.7	70.2	16:50:55		70.2	70.2
57.3	16:38:59		57.3	57.3	50.0	16:45:11		50.0	50.0	70.0	16:50:56		70.0	70.0
58.1	16:39:00		58.1	58.1	50.3	16:45:12		50.3	50.3	67.8	16:50:57		67.8	67.8
59.5	16:39:01		59.5	59.5	50.3	16:45:13		50.3	50.3	65.1	16:50:58		65.1	65.1
60.9	16:39:02		60.9	60.9	50.6	16:45:14		50.6	50.6	62.5	16:50:59		62.5	62.5
62.4	16:39:03		62.4	62.4	52.4	16:45:15		52.4	52.4	59.8	16:51:00		59.8	59.8
63.4	16:39:04		63.4	63.4	52.5	16:45:16		52.5	52.5	57.2	16:51:01		57.2	57.2
63.1	16:39:05		63.1	63.1	51.3	16:45:17		51.3	51.3	55.0	16:51:02		55.0	55.0
61.5	16:39:06		61.5	61.5	50.3	16:45:18		50.3	50.3	53.2	16:51:03		53.2	53.2
60.8	16:39:07		60.8	60.8	49.7	16:45:19		49.7	49.7	51.6	16:51:04		51.6	51.6
60.0	16:39:08		60.0	60.0	49.5	16:45:20		49.5	49.5	50.5	16:51:05		50.5	50.5
58.8	16:39:09		58.8	58.8	48.8	16:45:21		48.8	48.8	49.7	16:51:06		49.7	49.7
59.2	16:39:10		59.2	59.2	48.4	16:45:22		48.4	48.4	48.6	16:51:07		48.6	48.6
60.9	16:39:11		60.9	60.9	48.6	16:45:23		48.6	48.6	50.4	16:51:08		50.4	50.4
62.3	16:39:12		62.3	62.3	48.0	16:45:24		48.0	48.0	51.2	16:51:09		51.2	51.2
64.2	16:39:13		64.2	64.2	47.5	16:45:25		47.5	47.5	50.3	16:51:10		50.3	50.3
65.5	16:39:14		65.5	65.5	46.7	16:45:26		46.7	46.7	50.2	16:51:11		50.2	50.2
66.3	16:39:15		66.3	66.3	46.4	16:45:27		46.4	46.4	50.5	16:51:12		50.5	50.5
66.3	16:39:16		66.3	66.3	48.2	16:45:28		48.2	48.2	52.7	16:51:13		52.7	52.7
65.9	16:39:17		65.9	65.9	47.3	16:45:29		47.3	47.3	54.7	16:51:14		54.7	54.7
65.7	16:39:18		65.7	65.7	46.7	16:45:30		46.7	46.7	56.2	16:51:15		56.2	56.2
66.1	16:39:19		66.1	66.1	46.6	16:45:31		46.6	46.6	58.4	16:51:16		58.4	58.4
65.5	16:39:20		65.5	65.5	46.2	16:45:32		46.2	46.2	62.2	16:51:17		62.2	62.2
64.7	16:39:21		64.7	64.7	48.5	16:45:33		48.5	48.5	64.2	16:51:18		64.2	64.2
64.1	16:39:22		64.1	64.1	47.5	16:45:34		47.5	47.5	63.9	16:51:19		63.9	63.9
62.9	16:39:23		62.9	62.9	46.5	16:45:35		46.5	46.5	61.7	16:51:20		61.7	61.7
61.9	16:39:24		61.9	61.9	46.0	16:45:36		46.0	46.0	59.0	16:51:21		59.0	59.0
61.1	16:39:25		61.1	61.1	47.0	16:45:37		47.0	47.0	56.2	16:51:22		56.2	56.2
59.9	16:39:26		59.9	59.9	46.6	16:45:38		46.6	46.6	53.7	16:51:23		53.7	53.7
58.5	16:39:27		58.5	58.5	46.2	16:45:39		46.2	46.2	51.2	16:51:24		51.2	51.2
58.0	16:39:28		58.0	58.0	48.1	16:45:40		48.1	48.1	49.5	16:51:25		49.5	49.5
57.4	16:39:29		57.4	57.4	47.6	16:45:41		47.6	47.6	48.1	16:51:26		48.1	48.1
56.5	16:39:30		56.5	56.5	47.6	16:45:42		47.6	47.6	47.4	16:51:27		47.4	47.4
56.3	16:39:31		56.3	56.3	48.2	16:45:43		48.2	48.2	46.6	16:51:28		46.6	46.6
56.4	16:39:32		56.4	56.4	48.6	16:45:44		48.6	48.6	45.7	16:51:29		45.7	45.7
57.3	16:39:33		57.3	57.3	48.3	16:45:45		48.3	48.3	45.3	16:51:30		45.3	45.3
57.7	16:39:34		57.7	57.7	48.3	16:45:46		48.3	48.3	45.7	16:51:31		45.7	45.7
56.5	16:39:35		56.5	56.5	47.7	16:45:47		47.7	47.7	45.3	16:51:32		45.3	45.3
55.1	16:39:36		55.1	55.1	49.4	16:45:48		49.4	49.4	45.7	16:51:33		45.7	45.7
54.4	16:39:37		54.4	54.4	48.6	16:45:49		48.6	48.6	46.0	16:51:34		46.0	46.0
53.2	16:39:38		53.2	53.2	47.4	16:45:50		47.4	47.4	46.0	16:51:35		46.0	46.0
52.1	16:39:39		52.1	52.1	47.9	16:45:51		47.9	47.9	45.6	16:51:36		45.6	45.6
51.8	16:39:40		51.8	51.8	48.0	16:45:52		48.0	48.0	45.7	16:51:37		45.7	45.7
51.8	16:39:41		51.8	51.8	47.3	16:45:53		47.3	47.3	46.3	16:51:38		46.3	46.3
53.3	16:39:42		53.3	53.3	47.1	16:45:54		47.1	47.1	47.5	16:51:39		47.5	47.5
54.6	16:39:43		54.6	54.6	46.9	16:45:55		46.9	46.9	48.7	16:51:40		48.7	48.7
56.1	16:39:44		56.1	56.1	47.4	16:45:56		47.4	47.4	50.0	16:51:41		50.0	50.0
57.0	16:39:45		57.0	57.0	47.9	16:45:57		47.9	47.9	51.4	16:51:42		51.4	51.4
56.4	16:39:46		56.4	56.4	47.9	16:45:58		47.9	47.9	53.5	16:51:43		53.5	53.5
55.0	16:39:47		55.0	55.0	48.0	16:45:59		48.0	48.0	56.7	16:51:44		56.7	56.7
53.6	16:39:48		53.6	53.6	47.8	16:46:00		47.8	47.8	59.6	16:51:45		59.6	59.6
51.9	16:39:49		51.9	51.9	48.4	16:46:01		48.4	48.4	63.1	16:51:46		63.1	63.1
51.4	16:39:50		51.4	51.4	51.6	16:46:02		51.6	51.6	67.4	16:51:47		67.4	67.4
51.8	16:39:51		51.8	51.8	53.8	16:46:03		53.8	53.8	68.9	16:51:48		68.9	68.9
52.4	16:39:52		52.4	52.4	53.2	16:46:04		53.2	53.2	67.7	16:51:49		67.7	67.7
52.5	16:39:53		52.5	52.5	51.7	16:46:05		51.7	51.7	65.6	16:51:50		65.6	65.6
52.7	16:39:54		52.7	52.7	49.8	16:46:06		49.8	49.8	62.8	16:51:51		62.8	62.8
53.6	16:39:55		53.6	53.6	48.3	16:46:07		48.3	48.3	59.7	16:51:52		59.7	59.7
54.6	16:39:56	58.1	54.6	54.6	47.4	16:46:08	53.4	47.4	47.4	56.8	16:51:53	61.0	56.8	56.8
55.7	16:39:57	58.1	55.7	55.7	46.4	16:46:09	53.4	46.4	46.4	54.3	16:51:54	61.0	54.3	54.3
56.5	16:39:58	58.1	56.5	56.5	46.3	16:46:10	53.4	46.3	46.3	52.0	16:51:55	61.1	52.0	52.0
57.3	16:39:59	58.1	57.3	57.3	45.8	16:46:11	53.4	45.8	45.8	50.1	16:51:56	61.1	50.1	50.1
58.4	16:40:00	58.1	58.4	58.4	45.8	16:46:12	53.4	45.8	45.8	48.5	16:51:57	61.1	48.5	48.5
58.3	16:40:01	58.1	58.3	58.3	45.3	16:46:13	53.4	45.3	45.3	47.5	16:51:58	61.1	47.5	47.5
57.2	16:40:02	58.1	57.2	57.2	45.3	16:46:14	53.4	45.3	45.3	48.5	16:51:59	61.1	48.5	48.5
56.6	16:40:03	58.1	56.6	56.6	45.5	16:46:15	53.4	45.5	45.5	48.6	16:52:00	61.1	48.6	48.6
56.0	16:40:04	58.1	56.0	56.0	45.0	16:46:16	53.4	45.0	45.0	47.4	16:52:01	61.1	47.4	47.4
55.6	16:40:05	58.1	55.6	55.6	44.7	16:46:17	53.4	44.7	44.7	46.8	16:52:02	61.0	46.8	46.8
55.7	16:40:06	58.1	55.7	55.7	44.7	16:46:18	53.4	44.7	44.7	46.5	16:52:03	61.0	46.5	46.5
56.5	16:40:07	58.1	56.5	56.5	44.8	16:46:19	53.3	44.8	44.8	46.5	16:52:04	61.0	46.5	46.5
56.0	16:40:08	58.1	56.0	56.0	44.8	16:46:20	53.3	44.8	44.8	46.5	16:52:05	61.0	46.5	46.5
54.4	16:40:09	58.1	54.4	54.4	44.6	16:46:21	53.3	44.6	44.6	47.2	16:52:06	61.0	47.2	47.2
53.0	16:40:10	58.1	53.0	53.0	44.7	16:46:22	53.3	44.7	44.7	46.1	16:52:07	61.0	46.1	46.1
51.5	16:40:11	58.1	51.5	51.5	45.2	16:46:23	53.2	45.2	45.2	45.2	16:52:08	61.0	45.2	45.2
50.5	16:40:12	58.1	50.5	50.5	45.1	16:46:24	53.2	45.1	45.1	44.3	16:52:09	61.0	44.3	44.3
49.8	16:40:13	58.1	49.8	49.8	44.8	16:46:25	53.2	44.8	44.8	44.3	16:52:10	61.0	44.3	44.3
48.9	16:40:14	58.1	48.9	48.9	44.8	16:46:26	53.2	44.8	44.8	44.1	16:52:11	61.0	44.1	44.1
49.4	16:40:15	58.1	49.4	49.4	45.0	16:46:27	53.2	45.0	45.0	43.6	16:52:12	61.0	43.6	43.6
50.3	16:40:16	58.1	50.3	50.3	45.2	16:46:28	53.2	45.2	45.2	42.5	16:52:13	61.0	42.5	42.5
51.9	16:40:17	58.1	51.9	51.9	46.0	16:46:29	53.2	46.0	46.0	41.8	16:52:14	61.0	41.8	41.8
54.2	16:40:18	58.1	54.2	54.2	46.0	16:46:30	53.2	46.0	46.0	41.5	16:52:15	61.0	41.5	41.5
57.2	16:40:19	58.1	57.2	57.2	45.5	16:46:31	53.2	45.5	45.5	41.7	16:52:16	61.0	41.7	41.7
57.9	16:40:20	58.1	57.9	57.9	45.5	16:46:32	53.1	45.5	45.5	41.6	16:52:17	61.0	41.6	41.6
57.4	16:40:21	58.1	57.4	57.4	45.7	16:46:33	53.1	45.7	45.7	41.2	16:52:18	61.0	41.2	41.2
55.5	16:40:22	58.1	55.5	55.5	45.6	16:46:34	53.1	45.6	45.6	41.5	16:52:19	61.0	41.5	41.5
53.2	16:40:23	58.1	53.2	53.2	46.6	16:46:35	53.1	46.6	46.6	41.8	16:52:20	61.0	41.8	41.8
51.4	16:40:24	58.0	51.4	51.4	46.6	16:46:36	53.0	46.6	46.6	41.5	16:52:21	61.0	41.5	41.5
49.7	16:40:25	58.0	49.7	49.7	46.1	16:46:37	53.0	46.1	46.1	41.2	16:52:22	61.0	41.2	41.2
49.1	16:40:26	58.0	49.1	49.1	45.9	16:46:38	53.0	45.9	45.9	41.4	16:52:23	61.0	41.4	41.4
47.6	16:40:27	58.0	47.6	47.6	46.8	16:46:39	53.0	46.8	46.8	41.3	16:52:24	61.0	41.3	41.3
46.9	16:40:28	58.0	46.9	46.9	47.4	16:46:40	53.0	47.4	47.4	41.0	16:52:25	61.0	41.0	41.0
46.8	16:40:29	58.0	46.8	46.8	47.0	16:46:41	53.0	47.0	47.0	41.2	16:52:26	61.0	41.2	41.2
46.8	16:40:30	58.0	46.8	46.8	46.9	16:46:42	53.0	46.9	46.9	41.4	16:52:27	61.0	41.4	41.4
47.5	16:40:31	58.0	47.5	47.5	46.9	16:46:43	52.9	46.9	46.9	41.5	16:52:28	61.0	41.5	41.5
47.9	16:40:32	58.0	47.9	47.9	47.0	16:46:44	52.9	47.0	47.0	41.5	16:52:29	61.0	41.5	41.5
49.3	16:40:33	58.0	49.3	49.3	47.2	16:46:45	52.9	47.2	47.2	41.8	16:52:30	61.0	41.8	41.8
49.9	16:40:34	57.9	49.9	49.9	47.4	16:46:46	52.9	47.4	47.4	42.2	16:52:31	61.0	42.2	42.2
50.4	16:40:35	57.9	50.4	50.4	47.5	16:46:47	52.9	47.5	47.5	43.9	16:52:32	61.0	43.9	43.9
49.9	16:40:36	57.9	49.9	49.9	47.9	16:46:48	52.9	47.9	47.9	45.1	16:52:33	61.0	45.1	45.1
49.4	16:40:37	57.9	49.4	49.4	48.3	16:46:49	52.8	48.3	48.3	44.9	16:52:34	61.0	44.9	44.9
49.3	16:40:38	57.9	49.3	49.3	47.8	16:46:50	52.8	47.8	47.8	45.0	16:52:35	61.0	45.0	45.0
49.0	16:40:39	57.9	49.0	49.0	47.6	16:46:51	52.8	47.6	47.6	45.6	16:52:36	60.9	45.6	45.6
48.9	16:40:40	57.9	48.9	48.9	47.3	16:46:52	52.8	47.3	47.3	47.3	16:52:37	60.9	47.3	47.3
49.3	16:40:41	57.9	49.3	49.3	47.0	16:46:53	52.7	47.0	47.0	49.9	16:52:38	60.9	49.9	49.9
49.5	16:40:42	57.9	49.5	49.5	46.9	16:46:54	52.7	46.9	46.9	53.2	16:52:39	60.9	53.2	53.2
50.4	16:40:43	57.9	50.4	50.4	46.7	16:46:55	52.7	46.7	46.7	56.7	16:52:40	60.9	56.7	56.7
49.7	16:40:44	57.9	49.7	49.7	46.3	16:46:56	52.7	46.3	46.3	60.9	16:52:41	60.9	60.9	60.9
49.6	16:40:45	57.9	49.6	49.6	46.7	16:46:57	52.7	46.7	46.7	63.9	16:52:42	60.9	63.9	63.9
49.5	16:40:46	57.9	49.5	49.5	46.8	16:46:58	52.7	46.8	46.8	65.3	16:52:43	60.9	65.3	65.3
50.5	16:40:47	57.9	50.5	50.5	46.6	16:46:59	52.7	46.6	46.6	64.3	16:52:44	60.9	64.3	64.3
50.1	16:40:48	57.9	50.1	50.1	46.6	16:47:00	52.7	46.6	46.6	62.1	16:52:45	60.9	62.1	62.1
49.7	16:40:49	57.9	49.7	49.7	47.1	16:47:01	52.7	47.1	47.1	59.6	16:52:46	60.9	59.6	59.6
50.4	16:40:50	57.9	50.4	50.4	49.1	16:47:02	52.7	49.1	49.1	56.5	16:52:47	60.9	56.5	56.5
50.4	16:40:51	57.9	50.4	50.4	49.2	16:47:03	52.7	49.2	49.2	54.2	16:52:48	60.9	54.2	54.2
49.7	16:40:52	57.9	49.7	49.7	48.3	16:47:04	52.7	48.3	48.3	52.8	16:52:49	60.9	52.8	52.8
49.1	16:40:53	57.9	49.1	49.1	48.1	16:47:05	52.7	48.1	48.1	51.4	16:52:50	60.9	51.4	51.4
48.7	16:40:54	57.9	48.7	48.7	48.9	16:47:06	52.6	48.9	48.9	50.1	16:52:51	60.9	50.1	50.1
48.4	16:40:55	57.8	48.4	48.4	48.4	16:47:07	52.6	48.4	48.4	48.9	16:52:52	60.9	48.9	48.9
47.5	16:40:56	57.8	47.5	47.5	48.4	16:47:08	52.5	48.4	48.4	47.7	16:52:53	60.9	47.7	47.7
47.4	16:40:57	57.8	47.4	47.4	48.3	16:47:09	52.5	48.3	48.3	46.7	16:52:54	60.9	46.7	46.7
48.3	16:40:58	57.8	48.3	48.3	48.6	16:47:10	52.5	48.6	48.6	45.7	16:52:55	60.9	45.7	45.7
47.5	16:40:59	57.8	47.5	47.5	48.7	16:47:11	52.4	48.7	48.7	44.6	16:52:56	60.9	44.6	44.6
47.2	16:41:00	57.8	47.2	47.2	48.9	16:47:12	52.4	48.9	48.9	43.3	16:52:57	60.9	43.3	43.3
47.7	16:41:01	57.8	47.7	47.7	52.4	16:47:13	52.4	52.4	52.4	42.4	16:52:58	60.9	42.4	42.4
47.1	16:41:02	57.8	47.1	47.1	53.6	16:47:14	52.4	53.6	53.6	41.9	16:52:59	60.9	41.9	41.9
46.4	16:41:03	57.8	46.4	46.4	52.2	16:47:15	52.4	52.2	52.2	41.5	16:53:00	60.9	41.5	41.5
46.6	16:41:04	57.8	46.6	46.6	49.8	16:47:16	52.3	49.8	49.8	41.3	16:53:01	60.9	41.3	41.3
47.0	16:41:05	57.7	47.0	47.0	48.4	16:47:17	52.3	48.4	48.4	41.3	16:53:02	60.9	41.3	41.3
47.2	16:41:06	57.7	47.2	47.2	47.8	16:47:18	52.3	47.8	47.8	41.5	16:53:03	60.8	41.5	41.5
47.5	16:41:07	57.7	47.5	47.5	47.2	16:47:19	52.3	47.2	47.2	41.8	16:53:04	60.8	41.8	41.8
48.7	16:41:08	57.7	48.7	48.7	46.6	16:47:20	52.3	46.6	46.6	42.9	16:53:05	60.8	42.9	42.9
50.6	16:41:09	57.7	50.6	50.6	45.6	16:47:21	52.3	45.6	45.6	43.8	16:53:06	60.8	43.8	43.8
52.8	16:41:10	57.7	52.8	52.8	45.0	16:47:22	52.3	45.0	45.0	44.6	16:53:07	60.8	44.6	44.6
55.0	16:41:11	57.7	55.0	55.0	44.8	16:47:23	52.2	44.8	44.8	46.0	16:53:08	60.8	46.0	46.0
57.4	16:41:12	57.7	57.4	57.4	44.5	16:47:24	52.2	44.5	44.5	48.2	16:53:09	60.8	48.2	48.2
59.2	16:41:13	57.7	59.2	59.2	44.5	16:47:25	52.2	44.5	44.5	50.2	16:53:10	60.8	50.2	50.2
61.9	16:41:14	57.7	61.9	61.9	44.3	16:47:26	52.0	44.3	44.3	52.6	16:53:11	60.8	52.6	52.6
63.5	16:41:15	57.7	63.5	63.5	43.9	16:47:27	52.0	43.9	43.9	56.3	16:53:12	60.8	56.3	56.3
65.9	16:41:16	57.7	65.9	65.9	43.9	16:47:28	51.9	43.9	43.9	60.0	16:53:13	60.8	60.0	60.0
66.6	16:41:17	57.7	66.6	66.6	43.5	16:47:29	51.9	43.5	43.5	62.8	16:53:14	60.8	62.8	62.8
65.2	16:41:18	57.7	65.2	65.2	43.2	16:47:30	51.9	43.2	43.2	64.6	16:53:15	60.8	64.6	64.6
64.1	16:41:19	57.7	64.1	64.1	43.3	16:47:31	51.9	43.3	43.3	64.3	16:53:16	60.8	64.3	64.3
62.9	16:41:20	57.7	62.9	62.9	43.8	16:47:32	51.9	43.8	43.8	61.8	16:53:17	60.8	61.8	61.8
61.9	16:41:21	57.7	61.9	61.9	43.8	16:47:33	51.9	43.8	43.8	58.4	16:53:18	60.8	58.4	58.4
61.5	16:41:22	57.7	61.5	61.5	43.8	16:47:34	51.9	43.8	43.8	55.0	16:53:19	60.8	55.0	55.0
61.4	16:41:23	57.7	61.4	61.4	43.8	16:47:35	51.9	43.8	43.8	51.7	16:53:20	60.8	51.7	51.7
61.8	16:41:24	57.7	61.8	61.8	44.2	16:47:36	51.9	44.2	44.2	48.7	16:53:21	60.8	48.7	48.7
61.4	16:41:25	57.7	61.4	61.4	44.4	16:47:37	51.9	44.4	44.4	46.8	16:53:22	60.8	46.8	46.8
61.1	16:41:26	57.7	61.1	61.1	45.1	16:47:38	51.9	45.1	45.1	45.8	16:53:23	60.8	45.8	45.8
61.2	16:41:27	57.7	61.2	61.2	45.6	16:47:39	51.9	45.6	45.6	45.1	16:53:24	60.8	45.1	45.1
61.7	16:41:28	57.7	61.7	61.7	46.0	16:47:40	51.9	46.0	46.0	44.6	16:53:25	60.7	44.6	44.6

APPENDIX C

RCNM Model Construction Noise Calculation Printouts

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	340	5
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Concrete Saw	67.9	60.9	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Total	**68**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Demolition

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	340	0
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0

		Calculated (dBA)		Results Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw		72.9	66	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
	Total	**73**	**70**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
	Total	**62**	**66**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Site Preparation

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
	Total	**67**	**71**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/22/2022
Case Description: Magnolia Ranch - Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Grader	No	40	85		340	5
Dozer	No	40		81.7	340	5
Scraper	No	40		83.6	340	5
Scraper	No	40		83.6	340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5

Results

	Calculated (dBA)		Day	Noise Limits (dBA)	Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Grader	63.3	59.4	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Scraper	61.9	58.0	N/A	N/A	N/A	N/A
Scraper	61.9	58.0	N/A	N/A	N/A	N/A
Tractor	62.3	58.4	N/A	N/A	N/A	N/A
Tractor	62.3	58.4	N/A	N/A	N/A	N/A
Total	**63**	**67**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/22/2022
Case Description: Magnolia Ranch - Grading

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Grader	No	40	85		340	0
Dozer	No	40		81.7	340	0
Scraper	No	40		83.6	340	0
Scraper	No	40		83.6	340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0

		Results Calculated (dBA)		Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Grader		68.3	64.4	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Scraper		66.9	63.0	N/A	N/A	N/A	N/A
Scraper		66.9	63.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
	Total	**68**	**72**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	340	5
Gradall	No	40		83.4	340	5
Gradall	No	40		83.4	340	5
Gradall	No	40		83.4	340	5
Generator	No	50		80.6	340	5
Tractor	No	40	84		340	5
Front End Loader	No	40		79.1	340	5
Backhoe	No	40		77.6	340	5
Welder / Torch	No	40		74	340	5

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Crane		58.9	50.9	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Generator		59.0	56.0	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Front End Loader		57.5	53.5	N/A	N/A	N/A	N/A
Backhoe		55.9	51.9	N/A	N/A	N/A	N/A
Welder / Torch		52.3	48.4	N/A	N/A	N/A	N/A
	Total	**62**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Building Construction

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	340	0
Gradall	No	40		83.4	340	0
Gradall	No	40		83.4	340	0
Gradall	No	40		83.4	340	0
Generator	No	50		80.6	340	0
Tractor	No	40	84		340	0
Front End Loader	No	40		79.1	340	0
Backhoe	No	40		77.6	340	0
Welder / Torch	No	40		74	340	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Crane		63.9	55.9	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Generator		64.0	61.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Front End Loader		62.5	58.5	N/A	N/A	N/A	N/A
Backhoe		60.9	56.9	N/A	N/A	N/A	N/A
Welder / Torch		57.3	53.4	N/A	N/A	N/A	N/A
	Total	**67**	**70**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Roller	No	20		80	340	5
Roller	No	20		80	340	5

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Roller	58.3	51.4	N/A	N/A	N/A	N/A
Roller	58.3	51.4	N/A	N/A	N/A	N/A
Total	**58**	**60**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Paving

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Roller	No	20		80	340	0
Roller	No	20		80	340	0

	Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Roller	63.3	56.4	N/A	N/A	N/A	N/A
Roller	63.3	56.4	N/A	N/A	N/A	N/A
Total	**63**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Painting

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	340	5

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		56.0	52.0	N/A	N/A	N/A	N/A
	Total	**56**	**52**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	340	0

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		61.0	57.0	N/A	N/A	N/A	N/A
	Total	**61**	**57**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

APPENDIX D

FHWA Model Offsite Traffic Noise Calculation Printouts

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 10950 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.81	-3.29	-1.20	63.05	60.68	59.38	53.33	61.76	62.39	70 dBA:	**27**	**29**
Medium Trucks	77.62	-16.67	-3.29	-1.20	56.46	37.25	29.47	38.68	44.83	44.87	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-14.45	-3.29	-1.20	63.20	46.21	38.43	47.64	53.79	53.82	60 dBA:	**124**	**135**
				Total:	**66.58**	**60.85**	**59.42**	**54.48**	**62.48**	**63.02**	55 dBA:	**268**	**291**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	1.67	-1.20	67.44	65.07	63.78	57.72	66.15	66.78	70 dBA:	**28**	**30**
Medium Trucks	77.62	-17.24	1.67	-1.20	60.85	41.64	33.86	43.07	49.22	49.26	65 dBA:	**60**	**65**
Heavy Trucks	82.14	-15.03	1.67	-1.20	67.59	50.60	42.82	52.03	58.18	58.21	60 dBA:	**129**	**140**
				Total:	**70.97**	**65.24**	**63.81**	**58.87**	**66.87**	**67.42**	55 dBA:	**278**	**303**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.96	-0.72	-1.20	64.46	62.09	60.80	54.74	63.18	63.81	70 dBA:	**24**	**26**
Medium Trucks	77.62	-17.82	-0.72	-1.20	57.88	38.67	30.89	40.09	46.25	46.28	65 dBA:	**51**	**55**
Heavy Trucks	82.14	-15.61	-0.72	-1.20	64.61	47.62	39.84	49.05	55.20	55.24	60 dBA:	**109**	**119**
				Total:	**67.99**	**62.26**	**60.84**	**55.90**	**63.89**	**64.44**	55 dBA:	**235**	**256**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**
Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**
Average Daily Traffic: 7450 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.14	-2.07	-1.20	59.70	57.58	56.26	50.25	58.67	59.30	70 dBA:	**12**	**14**
Medium Trucks	74.83	-19.38	-2.07	-1.20	52.18	30.93	36.95	18.66	31.80	34.55	65 dBA:	**27**	**29**
Heavy Trucks	80.05	-23.33	-2.07	-1.20	53.44	28.09	24.69	29.34	35.54	35.63	60 dBA:	**57**	**63**
				Total:	**61.20**	**57.59**	**56.32**	**50.29**	**58.70**	**59.33**	55 dBA:	**124**	**136**

Road Name: Scholar Way **Segment: South of Schleisman Road**
Average Daily Traffic: 6950 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.44	-0.98	-1.20	60.49	58.36	57.05	51.04	59.46	60.08	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.68	-0.98	-1.20	52.97	31.72	37.74	19.44	32.59	35.34	65 dBA:	**26**	**28**
Heavy Trucks	80.05	-23.63	-0.98	-1.20	54.23	28.88	25.48	30.13	36.33	36.42	60 dBA:	**55**	**61**
				Total:	**61.99**	**58.38**	**57.10**	**51.08**	**59.49**	**60.12**	55 dBA:	**119**	**132**

Road Name: Scholar Way **Segment: South of Orange Street**
Average Daily Traffic: 7200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.29	-0.98	-1.20	60.64	58.52	57.20	51.19	59.61	60.24	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.52	-0.98	-1.20	53.12	31.87	37.89	19.60	32.74	35.49	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.48	-0.98	-1.20	54.38	29.03	25.63	30.28	36.48	36.57	60 dBA:	**57**	**63**
				Total:	**62.14**	**58.53**	**57.26**	**51.23**	**59.64**	**60.27**	55 dBA:	**122**	**135**

Road Name: Scholar Way **Segment: South of Baltimore Street**
Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-2.55	-1.20	59.45	57.32	56.01	50.00	58.42	59.05	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-2.55	-1.20	51.93	30.68	36.70	18.41	31.55	34.30	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.11	-2.55	-1.20	53.19	27.84	24.44	29.09	35.29	35.38	60 dBA:	**59**	**65**
				Total:	**60.95**	**57.34**	**56.07**	**50.04**	**58.45**	**59.08**	55 dBA:	**127**	**140**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 24600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.71	-3.26	-1.20	66.60	64.23	62.93	56.88	65.31	65.94	70 dBA:	**49**	**53**
Medium Trucks	77.62	-13.16	-3.26	-1.20	60.01	40.80	33.02	42.23	48.38	48.42	65 dBA:	**105**	**115**
Heavy Trucks	82.14	-10.94	-3.26	-1.20	66.75	49.76	41.98	51.19	57.34	57.37	60 dBA:	**227**	**247**
				Total:	**70.13**	**64.40**	**62.97**	**58.03**	**66.03**	**66.57**	55 dBA:	**489**	**532**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 24650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.72	-4.08	-1.20	65.78	63.41	62.12	56.06	64.49	65.12	70 dBA:	**48**	**52**
Medium Trucks	77.62	-13.15	-4.08	-1.20	59.19	39.98	32.20	41.41	47.57	47.60	65 dBA:	**103**	**112**
Heavy Trucks	82.14	-10.93	-4.08	-1.20	65.93	48.94	41.16	50.37	56.52	56.56	60 dBA:	**223**	**242**
				Total:	**69.31**	**63.58**	**62.16**	**57.21**	**65.21**	**65.76**	55 dBA:	**479**	**521**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 18400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.45	-1.89	-1.20	66.71	64.33	63.04	56.99	65.42	66.05	70 dBA:	**39**	**42**
Medium Trucks	77.62	-14.42	-1.89	-1.20	60.12	40.91	33.13	42.33	48.49	48.52	65 dBA:	**83**	**91**
Heavy Trucks	82.14	-12.20	-1.89	-1.20	66.85	49.86	42.08	51.29	57.45	57.48	60 dBA:	**180**	**195**
				Total:	**70.24**	**64.50**	**63.08**	**58.14**	**66.14**	**66.68**	55 dBA:	**387**	**421**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	-2.28	-1.20	63.49	61.11	59.82	53.77	62.20	62.83	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.24	-2.28	-1.20	56.90	37.69	29.91	39.12	45.27	45.30	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-15.03	-2.28	-1.20	63.64	46.65	38.86	48.07	54.23	54.26	60 dBA:	**125**	**136**
				Total:	**67.02**	**61.29**	**59.86**	**54.92**	**62.92**	**63.46**	55 dBA:	**270**	**293**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 9400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.47	-2.28	-1.20	63.39	61.02	59.73	53.68	62.11	62.74	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.34	-2.28	-1.20	56.81	37.60	29.82	39.02	45.18	45.21	65 dBA:	**57**	**62**
Heavy Trucks	82.14	-15.12	-2.28	-1.20	63.54	46.55	38.77	47.98	54.14	54.17	60 dBA:	**123**	**134**
				Total:	**66.92**	**61.19**	**59.77**	**54.83**	**62.82**	**63.37**	55 dBA:	**266**	**289**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 8550 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.88	-2.28	-1.20	62.98	60.61	59.32	53.26	61.70	62.33	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.75	-2.28	-1.20	56.39	37.19	29.40	38.61	44.77	44.80	65 dBA:	**54**	**58**
Heavy Trucks	82.14	-15.53	-2.28	-1.20	63.13	46.14	38.36	47.57	53.72	53.76	60 dBA:	**116**	**126**
				Total:	**66.51**	**60.78**	**59.36**	**54.42**	**62.41**	**62.96**	55 dBA:	**250**	**271**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1100 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-9.78	1.52	-1.20	53.06	50.93	49.62	43.61	52.03	52.65	70 dBA:	**3**	**3**
Medium Trucks	73.11	-27.01	1.52	-1.20	46.42	25.17	31.19	12.90	26.04	28.79	65 dBA:	**6**	**6**
Heavy Trucks	80.26	-30.97	1.52	-1.20	49.61	24.26	20.86	25.51	31.71	31.80	60 dBA:	**12**	**13**
				Total:	**55.28**	**50.95**	**49.69**	**43.68**	**52.08**	**52.71**	55 dBA:	**26**	**28**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2450 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-6.30	-4.59	-1.20	50.42	48.30	46.99	40.97	49.39	50.02	70 dBA:	**4**	**5**
Medium Trucks	73.11	-23.54	-4.59	-1.20	43.79	22.54	28.56	10.26	23.41	26.16	65 dBA:	**9**	**10**
Heavy Trucks	80.26	-27.49	-4.59	-1.20	46.98	21.62	18.23	22.87	29.07	29.17	60 dBA:	**20**	**22**
				Total:	**52.65**	**48.32**	**47.05**	**41.04**	**49.44**	**50.07**	55 dBA:	**43**	**47**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11050 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.77	-3.29	-1.20	63.09	60.72	59.42	53.37	61.80	62.43	70 dBA:	**27**	**29**
Medium Trucks	77.62	-16.63	-3.29	-1.20	56.50	37.29	29.51	38.72	44.87	44.91	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-14.41	-3.29	-1.20	63.24	46.25	38.47	47.67	53.83	53.86	60 dBA:	**125**	**136**
				Total:	**66.62**	**60.89**	**59.46**	**54.52**	**62.52**	**63.06**	55 dBA:	**270**	**293**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 9750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.31	1.67	-1.20	67.51	65.14	63.84	57.79	66.22	66.85	70 dBA:	**28**	**31**
Medium Trucks	77.62	-17.18	1.67	-1.20	60.92	41.71	33.93	43.14	49.29	49.33	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.96	1.67	-1.20	67.66	50.67	42.89	52.09	58.25	58.28	60 dBA:	**131**	**142**
				Total:	**71.04**	**65.31**	**63.88**	**58.94**	**66.94**	**67.48**	55 dBA:	**281**	**306**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.96	-0.72	-1.20	64.46	62.09	60.80	54.74	63.18	63.81	70 dBA:	**24**	**26**
Medium Trucks	77.62	-17.82	-0.72	-1.20	57.88	38.67	30.89	40.09	46.25	46.28	65 dBA:	**51**	**55**
Heavy Trucks	82.14	-15.61	-0.72	-1.20	64.61	47.62	39.84	49.05	55.20	55.24	60 dBA:	**109**	**119**
				Total:	**67.99**	**62.26**	**60.84**	**55.90**	**63.89**	**64.44**	55 dBA:	**235**	**256**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 7550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.08	-2.07	-1.20	59.76	57.63	56.32	50.31	58.73	59.36	70 dBA:	**12**	**14**
Medium Trucks	74.83	-19.32	-2.07	-1.20	52.24	30.99	37.01	18.72	31.86	34.61	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.27	-2.07	-1.20	53.50	28.15	24.75	29.40	35.60	35.69	60 dBA:	**58**	**64**
				Total:	**61.26**	**57.65**	**56.37**	**50.35**	**58.76**	**59.39**	55 dBA:	**125**	**137**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7100 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.35	-0.98	-1.20	60.58	58.46	57.14	51.13	59.55	60.18	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.59	-0.98	-1.20	53.06	31.81	37.83	19.54	32.68	35.43	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.54	-0.98	-1.20	54.32	28.97	25.57	30.22	36.42	36.51	60 dBA:	**56**	**62**
				Total:	**62.08**	**58.47**	**57.20**	**51.17**	**59.58**	**60.21**	55 dBA:	**121**	**134**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.29	-0.98	-1.20	60.64	58.52	57.20	51.19	59.61	60.24	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.52	-0.98	-1.20	53.12	31.87	37.89	19.60	32.74	35.49	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.48	-0.98	-1.20	54.38	29.03	25.63	30.28	36.48	36.57	60 dBA:	**57**	**63**
				Total:	**62.14**	**58.53**	**57.26**	**51.23**	**59.64**	**60.27**	55 dBA:	**122**	**135**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-2.55	-1.20	59.45	57.32	56.01	50.00	58.42	59.05	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-2.55	-1.20	51.93	30.68	36.70	18.41	31.55	34.30	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.11	-2.55	-1.20	53.19	27.84	24.44	29.09	35.29	35.38	60 dBA:	**59**	**65**
				Total:	**60.95**	**57.34**	**56.07**	**50.04**	**58.45**	**59.08**	55 dBA:	**127**	**140**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**
Average Daily Traffic: 24650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.72	-3.26	-1.20	66.61	64.24	62.94	56.89	65.32	65.95	70 dBA:	**49**	**53**
Medium Trucks	77.62	-13.15	-3.26	-1.20	60.02	40.81	33.03	42.24	48.39	48.43	65 dBA:	**106**	**115**
Heavy Trucks	82.14	-10.93	-3.26	-1.20	66.76	49.77	41.99	51.19	57.35	57.38	60 dBA:	**227**	**247**
				Total:	**70.14**	**64.41**	**62.98**	**58.04**	**66.04**	**66.58**	55 dBA:	**490**	**533**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**
Average Daily Traffic: 24700 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.73	-4.08	-1.20	65.79	63.42	62.13	56.07	64.50	65.13	70 dBA:	**48**	**52**
Medium Trucks	77.62	-13.14	-4.08	-1.20	59.20	39.99	32.21	41.42	47.57	47.61	65 dBA:	**103**	**112**
Heavy Trucks	82.14	-10.92	-4.08	-1.20	65.94	48.95	41.17	50.38	56.53	56.56	60 dBA:	**223**	**242**
				Total:	**69.32**	**63.59**	**62.16**	**57.22**	**65.22**	**65.77**	55 dBA:	**480**	**522**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**
Average Daily Traffic: 18500 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.47	-1.89	-1.20	66.73	64.36	63.06	57.01	65.44	66.07	70 dBA:	**39**	**42**
Medium Trucks	77.62	-14.39	-1.89	-1.20	60.14	40.93	33.15	42.36	48.51	48.55	65 dBA:	**84**	**91**
Heavy Trucks	82.14	-12.18	-1.89	-1.20	66.88	49.89	42.11	51.31	57.47	57.50	60 dBA:	**180**	**196**
				Total:	**70.26**	**64.53**	**63.10**	**58.16**	**66.16**	**66.70**	55 dBA:	**388**	**422**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**
Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	-2.28	-1.20	63.49	61.11	59.82	53.77	62.20	62.83	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.24	-2.28	-1.20	56.90	37.69	29.91	39.12	45.27	45.30	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-15.03	-2.28	-1.20	63.64	46.65	38.86	48.07	54.23	54.26	60 dBA:	**125**	**136**
				Total:	**67.02**	**61.29**	**59.86**	**54.92**	**62.92**	**63.46**	55 dBA:	**270**	**293**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 9400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.47	-2.28	-1.20	63.39	61.02	59.73	53.68	62.11	62.74	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.34	-2.28	-1.20	56.81	37.60	29.82	39.02	45.18	45.21	65 dBA:	**57**	**62**
Heavy Trucks	82.14	-15.12	-2.28	-1.20	63.54	46.55	38.77	47.98	54.14	54.17	60 dBA:	**123**	**134**
				Total:	**66.92**	**61.19**	**59.77**	**54.83**	**62.82**	**63.37**	55 dBA:	**266**	**289**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 8600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.85	-2.28	-1.20	63.01	60.64	59.34	53.29	61.72	62.35	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.72	-2.28	-1.20	56.42	37.21	29.43	38.64	44.79	44.83	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.50	-2.28	-1.20	63.16	46.17	38.39	47.59	53.75	53.78	60 dBA:	**116**	**126**
				Total:	**66.54**	**60.81**	**59.38**	**54.44**	**62.44**	**62.98**	55 dBA:	**251**	**272**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1250 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-9.22	1.52	-1.20	53.61	51.49	50.17	44.16	52.58	53.21	70 dBA:	**3**	**3**
Medium Trucks	73.11	-26.46	1.52	-1.20	46.97	25.73	31.75	13.45	26.60	29.35	65 dBA:	**6**	**7**
Heavy Trucks	80.26	-30.42	1.52	-1.20	50.17	24.81	21.41	26.06	32.26	32.36	60 dBA:	**13**	**14**
				Total:	**55.84**	**51.51**	**50.24**	**44.23**	**52.63**	**53.26**	55 dBA:	**28**	**31**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2650 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.96	-4.59	-1.20	50.76	48.64	47.33	41.31	49.73	50.36	70 dBA:	**4**	**5**
Medium Trucks	73.11	-23.20	-4.59	-1.20	44.13	22.88	28.90	10.60	23.75	26.50	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-27.15	-4.59	-1.20	47.32	21.97	18.57	23.21	29.41	29.51	60 dBA:	**21**	**23**
				Total:	**52.99**	**48.66**	**47.39**	**41.38**	**49.78**	**50.41**	55 dBA:	**45**	**49**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.48	-3.29	-1.20	63.37	61.00	59.71	53.65	62.09	62.72	70 dBA:	**28**	**31**
Medium Trucks	77.62	-16.35	-3.29	-1.20	56.79	37.58	29.80	39.00	45.16	45.19	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.13	-3.29	-1.20	63.52	46.53	38.75	47.96	54.11	54.15	60 dBA:	**131**	**142**
				Total:	**66.90**	**61.17**	**59.75**	**54.81**	**62.80**	**63.35**	55 dBA:	**282**	**306**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 10600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.95	1.67	-1.20	67.87	65.50	64.21	58.15	66.58	67.21	70 dBA:	**30**	**32**
Medium Trucks	77.62	-16.81	1.67	-1.20	61.28	42.07	34.29	43.50	49.65	49.69	65 dBA:	**64**	**70**
Heavy Trucks	82.14	-14.59	1.67	-1.20	68.02	51.03	43.25	52.46	58.61	58.65	60 dBA:	**138**	**150**
				Total:	**71.40**	**65.67**	**64.24**	**59.30**	**67.30**	**67.85**	55 dBA:	**297**	**323**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.66	-0.72	-1.20	64.76	62.39	61.10	55.04	63.48	64.11	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.52	-0.72	-1.20	58.18	38.97	31.19	40.39	46.55	46.58	65 dBA:	**53**	**58**
Heavy Trucks	82.14	-15.31	-0.72	-1.20	64.91	47.92	40.14	49.35	55.50	55.54	60 dBA:	**114**	**124**
				Total:	**68.29**	**62.56**	**61.14**	**56.20**	**64.19**	**64.74**	55 dBA:	**246**	**268**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8050 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.80	-2.07	-1.20	60.04	57.91	56.60	50.59	59.01	59.63	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.04	-2.07	-1.20	52.52	31.27	37.29	18.99	32.14	34.89	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.00	-2.07	-1.20	53.78	28.43	25.03	29.68	35.88	35.97	60 dBA:	**60**	**67**
				Total:	**61.54**	**57.93**	**56.65**	**50.63**	**59.04**	**59.67**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.08	-0.98	-1.20	60.85	58.72	57.41	51.40	59.82	60.44	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.32	-0.98	-1.20	53.33	32.08	38.10	19.80	32.95	35.70	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.27	-0.98	-1.20	54.59	29.24	25.84	30.49	36.69	36.78	60 dBA:	**59**	**65**
				Total:	**62.35**	**58.74**	**57.46**	**51.44**	**59.85**	**60.48**	55 dBA:	**126**	**139**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.94	-0.98	-1.20	60.99	58.86	57.55	51.54	59.96	60.59	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.18	-0.98	-1.20	53.47	32.22	38.24	19.95	33.09	35.84	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.13	-0.98	-1.20	54.73	29.38	25.98	30.63	36.83	36.92	60 dBA:	**60**	**66**
				Total:	**62.49**	**58.88**	**57.61**	**51.58**	**59.99**	**60.62**	55 dBA:	**129**	**142**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8500 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.57	-2.55	-1.20	59.79	57.67	56.36	50.35	58.76	59.39	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.80	-2.55	-1.20	52.27	31.02	37.04	18.75	31.90	34.65	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.76	-2.55	-1.20	53.54	28.18	24.78	29.43	35.63	35.73	60 dBA:	**62**	**69**
				Total:	**61.30**	**57.68**	**56.41**	**50.38**	**58.79**	**59.42**	55 dBA:	**134**	**148**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 28800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.39	-3.26	-1.20	67.28	64.91	63.62	57.56	66.00	66.63	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.47	-3.26	-1.20	60.69	41.49	33.71	42.91	49.07	49.10	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.25	-3.26	-1.20	67.43	50.44	42.66	51.87	58.02	58.06	60 dBA:	**252**	**274**
				Total:	**70.81**	**65.08**	**63.66**	**58.72**	**66.71**	**67.26**	55 dBA:	**543**	**591**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 28600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.36	-4.08	-1.20	66.43	64.06	62.76	56.71	65.14	65.77	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.50	-4.08	-1.20	59.84	40.63	32.85	42.06	48.21	48.24	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.28	-4.08	-1.20	66.58	49.59	41.80	51.01	57.17	57.20	60 dBA:	**246**	**267**
				Total:	**69.96**	**64.23**	**62.80**	**57.86**	**65.86**	**66.40**	55 dBA:	**529**	**576**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 20100 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.83	-1.89	-1.20	67.09	64.72	63.42	57.37	65.80	66.43	70 dBA:	**41**	**45**
Medium Trucks	77.62	-14.03	-1.89	-1.20	60.50	41.29	33.51	42.72	48.87	48.91	65 dBA:	**88**	**96**
Heavy Trucks	82.14	-11.82	-1.89	-1.20	67.24	50.25	42.47	51.67	57.83	57.86	60 dBA:	**190**	**207**
				Total:	**70.62**	**64.89**	**63.46**	**58.52**	**66.52**	**67.06**	55 dBA:	**410**	**446**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 10900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.83	-2.28	-1.20	64.04	61.67	60.37	54.32	62.75	63.38	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.69	-2.28	-1.20	57.45	38.24	30.46	39.67	45.82	45.86	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-14.47	-2.28	-1.20	64.19	47.20	39.42	48.62	54.78	54.81	60 dBA:	**136**	**148**
				Total:	**67.57**	**61.84**	**60.41**	**55.47**	**63.47**	**64.01**	55 dBA:	**294**	**319**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	-2.28	-1.20	63.98	61.61	60.31	54.26	62.69	63.32	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.75	-2.28	-1.20	57.39	38.18	30.40	39.61	45.76	45.80	65 dBA:	**63**	**68**
Heavy Trucks	82.14	-14.53	-2.28	-1.20	64.13	47.14	39.36	48.56	54.72	54.75	60 dBA:	**135**	**147**
				Total:	**67.51**	**61.78**	**60.35**	**55.41**	**63.41**	**63.95**	55 dBA:	**291**	**316**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 9850 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.27	-2.28	-1.20	63.60	61.23	59.93	53.88	62.31	62.94	70 dBA:	**27**	**30**
Medium Trucks	77.62	-17.13	-2.28	-1.20	57.01	37.80	30.02	39.23	45.38	45.42	65 dBA:	**59**	**64**
Heavy Trucks	82.14	-14.91	-2.28	-1.20	63.75	46.76	38.98	48.18	54.34	54.37	60 dBA:	**127**	**138**
				Total:	**67.13**	**61.40**	**59.97**	**55.03**	**63.03**	**63.57**	55 dBA:	**274**	**298**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1350 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.89	1.52	-1.20	53.94	51.82	50.51	44.50	52.92	53.54	70 dBA:	**3**	**3**
Medium Trucks	73.11	-26.13	1.52	-1.20	47.31	26.06	32.08	13.79	26.93	29.68	65 dBA:	**6**	**7**
Heavy Trucks	80.26	-30.08	1.52	-1.20	50.50	25.15	21.75	26.40	32.60	32.69	60 dBA:	**14**	**15**
				Total:	**56.17**	**51.84**	**50.58**	**44.57**	**52.97**	**53.60**	55 dBA:	**29**	**32**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2750 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.80	-4.59	-1.20	50.92	48.80	47.49	41.48	49.89	50.52	70 dBA:	**5**	**5**
Medium Trucks	73.11	-23.04	-4.59	-1.20	44.29	23.04	29.06	10.77	23.91	26.66	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-26.99	-4.59	-1.20	47.48	22.13	18.73	23.38	29.57	29.67	60 dBA:	**21**	**24**
				Total:	**53.15**	**48.82**	**47.55**	**41.55**	**49.95**	**50.57**	55 dBA:	**46**	**51**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.44	-3.29	-1.20	63.41	61.04	59.75	53.69	62.12	62.75	70 dBA:	**28**	**31**
Medium Trucks	77.62	-16.31	-3.29	-1.20	56.82	37.61	29.83	39.04	45.19	45.23	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.09	-3.29	-1.20	63.56	46.57	38.79	48.00	54.15	54.19	60 dBA:	**131**	**143**
				Total:	**66.94**	**61.21**	**59.78**	**54.84**	**62.84**	**63.39**	55 dBA:	**283**	**308**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	1.67	-1.20	67.93	65.56	64.27	58.21	66.64	67.27	70 dBA:	**30**	**33**
Medium Trucks	77.62	-16.75	1.67	-1.20	61.34	42.13	34.35	43.56	49.72	49.75	65 dBA:	**65**	**70**
Heavy Trucks	82.14	-14.53	1.67	-1.20	68.08	51.09	43.31	52.52	58.67	58.71	60 dBA:	**139**	**151**
				Total:	**71.46**	**65.73**	**64.31**	**59.36**	**67.36**	**67.91**	55 dBA:	**300**	**326**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.66	-0.72	-1.20	64.76	62.39	61.10	55.04	63.48	64.11	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.52	-0.72	-1.20	58.18	38.97	31.19	40.39	46.55	46.58	65 dBA:	**53**	**58**
Heavy Trucks	82.14	-15.31	-0.72	-1.20	64.91	47.92	40.14	49.35	55.50	55.54	60 dBA:	**114**	**124**
				Total:	**68.29**	**62.56**	**61.14**	**56.20**	**64.19**	**64.74**	55 dBA:	**246**	**268**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8150 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.75	-2.07	-1.20	60.09	57.97	56.65	50.64	59.06	59.69	70 dBA:	**13**	**14**
Medium Trucks	74.83	-18.99	-2.07	-1.20	52.57	31.32	37.34	19.05	32.19	34.94	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-22.94	-2.07	-1.20	53.83	28.48	25.08	29.73	35.93	36.02	60 dBA:	**61**	**67**
				Total:	**61.59**	**57.98**	**56.71**	**50.68**	**59.09**	**59.72**	55 dBA:	**131**	**144**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7750 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.97	-0.98	-1.20	60.96	58.84	57.52	51.51	59.93	60.56	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.20	-0.98	-1.20	53.44	32.19	38.21	19.92	33.06	35.81	65 dBA:	**28**	**30**
Heavy Trucks	80.05	-23.16	-0.98	-1.20	54.70	29.35	25.95	30.60	36.80	36.89	60 dBA:	**60**	**66**
				Total:	**62.46**	**58.85**	**57.58**	**51.55**	**59.96**	**60.59**	55 dBA:	**128**	**142**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-0.98	-1.20	61.02	58.89	57.58	51.57	59.99	60.61	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-0.98	-1.20	53.50	32.25	38.27	19.97	33.12	35.87	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.11	-0.98	-1.20	54.76	29.41	26.01	30.66	36.85	36.95	60 dBA:	**60**	**66**
				Total:	**62.52**	**58.91**	**57.63**	**51.61**	**60.02**	**60.65**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.54	-2.55	-1.20	59.82	57.70	56.38	50.37	58.79	59.42	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.78	-2.55	-1.20	52.30	31.05	37.07	18.78	31.92	34.67	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.73	-2.55	-1.20	53.56	28.21	24.81	29.46	35.66	35.75	60 dBA:	**63**	**69**
				Total:	**61.32**	**57.71**	**56.44**	**50.41**	**58.82**	**59.45**	55 dBA:	**135**	**149**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 28800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.39	-3.26	-1.20	67.28	64.91	63.62	57.56	66.00	66.63	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.47	-3.26	-1.20	60.69	41.49	33.71	42.91	49.07	49.10	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.25	-3.26	-1.20	67.43	50.44	42.66	51.87	58.02	58.06	60 dBA:	**252**	**274**
				Total:	**70.81**	**65.08**	**63.66**	**58.72**	**66.71**	**67.26**	55 dBA:	**543**	**591**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 28650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.37	-4.08	-1.20	66.43	64.06	62.77	56.72	65.15	65.78	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.50	-4.08	-1.20	59.85	40.64	32.86	42.06	48.22	48.25	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.28	-4.08	-1.20	66.58	49.59	41.81	51.02	57.17	57.21	60 dBA:	**246**	**267**
				Total:	**69.96**	**64.23**	**62.81**	**57.87**	**65.86**	**66.41**	55 dBA:	**530**	**576**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 20150 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.84	-1.89	-1.20	67.10	64.73	63.43	57.38	65.81	66.44	70 dBA:	**41**	**45**
Medium Trucks	77.62	-14.02	-1.89	-1.20	60.51	41.30	33.52	42.73	48.88	48.92	65 dBA:	**89**	**96**
Heavy Trucks	82.14	-11.81	-1.89	-1.20	67.25	50.26	42.48	51.69	57.84	57.87	60 dBA:	**191**	**207**
				Total:	**70.63**	**64.90**	**63.47**	**58.53**	**66.53**	**67.07**	55 dBA:	**411**	**447**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 10900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.83	-2.28	-1.20	64.04	61.67	60.37	54.32	62.75	63.38	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.69	-2.28	-1.20	57.45	38.24	30.46	39.67	45.82	45.86	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-14.47	-2.28	-1.20	64.19	47.20	39.42	48.62	54.78	54.81	60 dBA:	**136**	**148**
				Total:	**67.57**	**61.84**	**60.41**	**55.47**	**63.47**	**64.01**	55 dBA:	**294**	**319**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	-2.28	-1.20	63.98	61.61	60.31	54.26	62.69	63.32	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.75	-2.28	-1.20	57.39	38.18	30.40	39.61	45.76	45.80	65 dBA:	**63**	**68**
Heavy Trucks	82.14	-14.53	-2.28	-1.20	64.13	47.14	39.36	48.56	54.72	54.75	60 dBA:	**135**	**147**
				Total:	**67.51**	**61.78**	**60.35**	**55.41**	**63.41**	**63.95**	55 dBA:	**291**	**316**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 9900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.24	-2.28	-1.20	63.62	61.25	59.95	53.90	62.33	62.96	70 dBA:	**28**	**30**
Medium Trucks	77.62	-17.11	-2.28	-1.20	57.03	37.82	30.04	39.25	45.40	45.44	65 dBA:	**59**	**64**
Heavy Trucks	82.14	-14.89	-2.28	-1.20	63.77	46.78	39.00	48.21	54.36	54.39	60 dBA:	**128**	**139**
				Total:	**67.15**	**61.42**	**59.99**	**55.05**	**63.05**	**63.60**	55 dBA:	**275**	**299**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1500 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.43	1.52	-1.20	54.40	52.28	50.97	44.95	53.37	54.00	70 dBA:	**3**	**3**
Medium Trucks	73.11	-25.67	1.52	-1.20	47.77	26.52	32.54	14.24	27.39	30.14	65 dBA:	**7**	**7**
Heavy Trucks	80.26	-29.62	1.52	-1.20	50.96	25.61	22.21	26.86	33.05	33.15	60 dBA:	**15**	**16**
				Total:	**56.63**	**52.30**	**51.03**	**45.03**	**53.43**	**54.05**	55 dBA:	**31**	**35**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 3000 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.42	-4.59	-1.20	51.30	49.18	47.87	41.85	50.27	50.90	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.66	-4.59	-1.20	44.66	23.42	29.44	11.14	24.29	27.04	65 dBA:	**11**	**12**
Heavy Trucks	80.26	-26.61	-4.59	-1.20	47.86	22.50	19.10	23.75	29.95	30.05	60 dBA:	**23**	**25**
				Total:	**53.53**	**49.20**	**47.93**	**41.92**	**50.32**	**50.95**	55 dBA:	**49**	**54**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	9.00%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 12500 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.23	-3.29	-1.20	63.62	61.25	59.96	53.90	62.34	62.97	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.10	-3.29	-1.20	57.04	37.83	30.05	39.25	45.41	45.44	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-13.88	-3.29	-1.20	63.77	46.78	39.00	48.21	54.36	54.40	60 dBA:	**136**	**148**
				Total:	**67.15**	**61.42**	**60.00**	**55.06**	**63.05**	**63.60**	55 dBA:	**293**	**318**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 11750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.50	1.67	-1.20	68.32	65.95	64.65	58.60	67.03	67.66	70 dBA:	**32**	**35**
Medium Trucks	77.62	-16.37	1.67	-1.20	61.73	42.52	34.74	43.95	50.10	50.14	65 dBA:	**69**	**75**
Heavy Trucks	82.14	-14.15	1.67	-1.20	68.47	51.48	43.70	52.90	59.06	59.09	60 dBA:	**148**	**161**
				Total:	**71.85**	**66.12**	**64.69**	**59.75**	**67.75**	**68.29**	55 dBA:	**319**	**346**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.51	-0.72	-1.20	64.91	62.53	61.24	55.19	63.62	64.25	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.38	-0.72	-1.20	58.32	39.11	31.33	40.54	46.69	46.72	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.16	-0.72	-1.20	65.06	48.07	40.28	49.49	55.65	55.68	60 dBA:	**117**	**127**
				Total:	**68.44**	**62.71**	**61.28**	**56.34**	**64.34**	**64.88**	55 dBA:	**252**	**273**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**
Average Daily Traffic: 8150 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.75	-2.07	-1.20	60.09	57.97	56.65	50.64	59.06	59.69	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.99	-2.07	-1.20	52.57	31.32	37.34	19.05	32.19	34.94	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-22.94	-2.07	-1.20	53.83	42.58	25.08	29.73	41.01	41.04	60 dBA:	**61**	**67**
				Total:	**61.59**	**58.10**	**56.71**	**50.68**	**59.14**	**59.76**	55 dBA:	**132**	**145**

Road Name: Scholar Way **Segment: South of Schleisman Road**
Average Daily Traffic: 7600 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.05	-0.98	-1.20	60.87	58.75	57.44	51.43	59.85	60.47	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.29	-0.98	-1.20	53.35	32.11	38.13	19.83	32.98	35.73	65 dBA:	**28**	**30**
Heavy Trucks	80.05	-23.25	-0.98	-1.20	54.62	43.37	25.87	30.51	41.80	41.83	60 dBA:	**59**	**65**
				Total:	**62.38**	**58.88**	**57.49**	**51.46**	**59.92**	**60.55**	55 dBA:	**128**	**141**

Road Name: Scholar Way **Segment: South of Orange Street**
Average Daily Traffic: 8200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.72	-0.98	-1.20	61.20	59.08	57.77	51.76	60.18	60.80	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.96	-0.98	-1.20	53.68	32.44	38.46	20.16	33.31	36.06	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.92	-0.98	-1.20	54.95	43.70	26.20	30.84	42.13	42.16	60 dBA:	**62**	**69**
				Total:	**62.71**	**59.21**	**57.82**	**51.79**	**60.25**	**60.88**	55 dBA:	**134**	**148**

Road Name: Scholar Way **Segment: South of Baltimore Street**
Average Daily Traffic: 8850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.39	-2.55	-1.20	59.97	57.85	56.53	50.52	58.94	59.57	70 dBA:	**14**	**15**
Medium Trucks	74.83	-18.63	-2.55	-1.20	52.45	31.20	37.22	18.93	32.07	34.82	65 dBA:	**30**	**33**
Heavy Trucks	80.05	-22.58	-2.55	-1.20	53.71	42.46	24.96	29.61	40.89	40.92	60 dBA:	**64**	**71**
				Total:	**61.47**	**57.98**	**56.59**	**50.56**	**59.02**	**59.64**	55 dBA:	**139**	**153**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**
Average Daily Traffic: 29800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.54	-3.26	-1.20	67.43	65.06	63.77	57.71	66.14	66.77	70 dBA:	**56**	**60**
Medium Trucks	77.62	-12.32	-3.26	-1.20	60.84	41.63	33.85	43.06	49.22	49.25	65 dBA:	**120**	**130**
Heavy Trucks	82.14	-10.11	-3.26	-1.20	67.58	50.59	42.81	52.02	58.17	58.21	60 dBA:	**258**	**281**
				Total:	**70.96**	**65.23**	**63.81**	**58.86**	**66.86**	**67.41**	55 dBA:	**556**	**604**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**
Average Daily Traffic: 29650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.52	-4.08	-1.20	66.58	64.21	62.92	56.86	65.30	65.93	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.35	-4.08	-1.20	59.99	40.79	33.01	42.21	48.37	48.40	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.13	-4.08	-1.20	66.73	49.74	41.96	51.17	57.32	57.36	60 dBA:	**252**	**274**
				Total:	**70.11**	**64.38**	**62.96**	**58.02**	**66.01**	**66.56**	55 dBA:	**542**	**590**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**
Average Daily Traffic: 30900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.70	-1.89	-1.20	68.96	66.58	65.29	59.24	67.67	68.30	70 dBA:	**55**	**59**
Medium Trucks	77.62	-12.17	-1.89	-1.20	62.37	43.16	35.38	44.59	50.74	50.77	65 dBA:	**118**	**128**
Heavy Trucks	82.14	-9.95	-1.89	-1.20	69.11	52.12	44.33	53.54	59.70	59.73	60 dBA:	**254**	**276**
				Total:	**72.49**	**66.76**	**65.33**	**60.39**	**68.39**	**68.93**	55 dBA:	**546**	**594**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**
Average Daily Traffic: 28300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.32	-2.28	-1.20	68.18	65.81	64.52	58.46	66.89	67.52	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.55	-2.28	-1.20	61.59	42.38	34.60	43.81	49.97	50.00	65 dBA:	**119**	**130**
Heavy Trucks	82.14	-10.33	-2.28	-1.20	68.33	51.34	43.56	52.77	58.92	58.96	60 dBA:	**257**	**280**
				Total:	**71.71**	**65.98**	**64.56**	**59.61**	**67.61**	**68.16**	55 dBA:	**554**	**603**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 33000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.99	-2.28	-1.20	68.85	66.48	65.18	59.13	67.56	68.19	70 dBA:	**61**	**67**
Medium Trucks	77.62	-11.88	-2.28	-1.20	62.26	43.05	35.27	44.48	50.63	50.67	65 dBA:	**132**	**144**
Heavy Trucks	82.14	-9.66	-2.28	-1.20	69.00	52.01	44.23	53.43	59.59	59.62	60 dBA:	**285**	**310**
				Total:	**72.38**	**66.65**	**65.22**	**60.28**	**68.28**	**68.82**	55 dBA:	**614**	**668**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 26350 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.01	-2.28	-1.20	67.87	65.50	64.21	58.15	66.58	67.21	70 dBA:	**53**	**57**
Medium Trucks	77.62	-12.86	-2.28	-1.20	61.28	42.07	34.29	43.50	49.66	49.69	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.64	-2.28	-1.20	68.02	51.03	43.25	52.46	58.61	58.65	60 dBA:	**245**	**267**
				Total:	**71.40**	**65.67**	**64.25**	**59.30**	**67.30**	**67.85**	55 dBA:	**529**	**575**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1650 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.02	1.52	-1.20	54.82	52.69	51.38	45.37	53.79	54.41	70 dBA:	**3**	**4**
Medium Trucks	73.11	-25.25	1.52	-1.20	48.18	26.93	32.95	14.66	27.80	30.55	65 dBA:	**7**	**8**
Heavy Trucks	80.26	-29.21	1.52	-1.20	51.37	40.12	22.62	27.27	38.55	38.58	60 dBA:	**16**	**17**
				Total:	**57.04**	**52.94**	**51.45**	**45.44**	**53.93**	**54.54**	55 dBA:	**34**	**37**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2900 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.57	-4.59	-1.20	51.15	49.03	47.72	41.71	50.13	50.75	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.80	-4.59	-1.20	44.52	23.27	29.29	11.00	24.14	26.89	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-26.76	-4.59	-1.20	47.71	36.46	18.96	23.61	34.89	34.92	60 dBA:	**22**	**25**
				Total:	**53.38**	**49.28**	**47.79**	**41.78**	**50.26**	**50.88**	55 dBA:	**48**	**53**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	9.00%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 12550 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.21	-3.29	-1.20	63.64	61.27	59.98	53.92	62.35	62.98	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.08	-3.29	-1.20	57.05	37.84	30.06	39.27	45.43	45.46	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-13.86	-3.29	-1.20	63.79	46.80	39.02	48.23	54.38	54.42	60 dBA:	**136**	**148**
				Total:	**67.17**	**61.44**	**60.02**	**55.07**	**63.07**	**63.62**	55 dBA:	**293**	**319**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 11900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.44	1.67	-1.20	68.37	66.00	64.71	58.65	67.09	67.72	70 dBA:	**32**	**35**
Medium Trucks	77.62	-16.31	1.67	-1.20	61.78	42.58	34.79	44.00	50.16	50.19	65 dBA:	**69**	**75**
Heavy Trucks	82.14	-14.09	1.67	-1.20	68.52	51.53	43.75	52.96	59.11	59.15	60 dBA:	**149**	**162**
				Total:	**71.90**	**66.17**	**64.75**	**59.81**	**67.80**	**68.35**	55 dBA:	**321**	**349**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9350 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.49	-0.72	-1.20	64.93	62.56	61.26	55.21	63.64	64.27	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.36	-0.72	-1.20	58.34	39.13	31.35	40.56	46.71	46.75	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.14	-0.72	-1.20	65.08	48.09	40.31	49.52	55.67	55.70	60 dBA:	**117**	**127**
				Total:	**68.46**	**62.73**	**61.30**	**56.36**	**64.36**	**64.90**	55 dBA:	**252**	**274**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8300 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.67	-2.07	-1.20	60.17	58.05	56.73	50.72	59.14	59.77	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.91	-2.07	-1.20	52.65	31.40	37.42	19.13	32.27	35.02	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.86	-2.07	-1.20	53.91	42.66	25.16	29.81	41.09	41.12	60 dBA:	**62**	**68**
				Total:	**61.67**	**58.18**	**56.79**	**50.76**	**59.22**	**59.84**	55 dBA:	**134**	**147**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.94	-0.98	-1.20	60.99	58.86	57.55	51.54	59.96	60.59	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.18	-0.98	-1.20	53.47	32.22	38.24	19.95	33.09	35.84	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.13	-0.98	-1.20	54.73	43.48	25.98	30.63	41.91	41.94	60 dBA:	**60**	**66**
				Total:	**62.49**	**59.00**	**57.61**	**51.58**	**60.04**	**60.66**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 8250 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.70	-0.98	-1.20	61.23	59.11	57.80	51.78	60.20	60.83	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.93	-0.98	-1.20	53.71	32.46	38.48	20.19	33.33	36.09	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.89	-0.98	-1.20	54.97	43.72	26.22	30.87	42.15	42.18	60 dBA:	**63**	**69**
				Total:	**62.73**	**59.24**	**57.85**	**51.82**	**60.28**	**60.90**	55 dBA:	**135**	**148**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8900 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.37	-2.55	-1.20	59.99	57.87	56.56	50.54	58.96	59.59	70 dBA:	**14**	**15**
Medium Trucks	74.83	-18.60	-2.55	-1.20	52.47	31.22	37.24	18.95	32.09	34.85	65 dBA:	**30**	**33**
Heavy Trucks	80.05	-22.56	-2.55	-1.20	53.73	42.49	24.98	29.63	40.92	40.95	60 dBA:	**65**	**71**
				Total:	**61.50**	**58.00**	**56.61**	**50.58**	**59.04**	**59.66**	55 dBA:	**139**	**153**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 29850 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.55	-3.26	-1.20	67.44	65.07	63.77	57.72	66.15	66.78	70 dBA:	**56**	**61**
Medium Trucks	77.62	-12.32	-3.26	-1.20	60.85	41.64	33.86	43.07	49.22	49.26	65 dBA:	**120**	**130**
Heavy Trucks	82.14	-10.10	-3.26	-1.20	67.59	50.60	42.82	52.03	58.18	58.21	60 dBA:	**258**	**281**
				Total:	**70.97**	**65.24**	**63.81**	**58.87**	**66.87**	**67.41**	55 dBA:	**557**	**605**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 29700 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.53	-4.08	-1.20	66.59	64.22	62.93	56.87	65.30	65.93	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.34	-4.08	-1.20	60.00	40.79	33.01	42.22	48.37	48.41	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.12	-4.08	-1.20	66.74	49.75	41.97	51.18	57.33	57.37	60 dBA:	**252**	**274**
				Total:	**70.12**	**64.39**	**62.96**	**58.02**	**66.02**	**66.57**	55 dBA:	**543**	**590**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 31000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.71	-1.89	-1.20	68.97	66.60	65.31	59.25	67.68	68.31	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.15	-1.89	-1.20	62.38	43.17	35.39	44.60	50.75	50.79	65 dBA:	**118**	**128**
Heavy Trucks	82.14	-9.93	-1.89	-1.20	69.12	52.13	44.35	53.56	59.71	59.74	60 dBA:	**254**	**276**
				Total:	**72.50**	**66.77**	**65.34**	**60.40**	**68.40**	**68.95**	55 dBA:	**548**	**595**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 28300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.32	-2.28	-1.20	68.18	65.81	64.52	58.46	66.89	67.52	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.55	-2.28	-1.20	61.59	42.38	34.60	43.81	49.97	50.00	65 dBA:	**119**	**130**
Heavy Trucks	82.14	-10.33	-2.28	-1.20	68.33	51.34	43.56	52.77	58.92	58.96	60 dBA:	**257**	**280**
				Total:	**71.71**	**65.98**	**64.56**	**59.61**	**67.61**	**68.16**	55 dBA:	**554**	**603**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 33000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.99	-2.28	-1.20	68.85	66.48	65.18	59.13	67.56	68.19	70 dBA:	**61**	**67**
Medium Trucks	77.62	-11.88	-2.28	-1.20	62.26	43.05	35.27	44.48	50.63	50.67	65 dBA:	**132**	**144**
Heavy Trucks	82.14	-9.66	-2.28	-1.20	69.00	52.01	44.23	53.43	59.59	59.62	60 dBA:	**285**	**310**
				Total:	**72.38**	**66.65**	**65.22**	**60.28**	**68.28**	**68.82**	55 dBA:	**614**	**668**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 26400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.02	-2.28	-1.20	67.88	65.51	64.21	58.16	66.59	67.22	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.85	-2.28	-1.20	61.29	42.08	34.30	43.51	49.66	49.70	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.63	-2.28	-1.20	68.03	51.04	43.26	52.47	58.62	58.65	60 dBA:	**246**	**267**
				Total:	**71.41**	**65.68**	**64.25**	**59.31**	**67.31**	**67.85**	55 dBA:	**529**	**576**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1850 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-7.52	1.52	-1.20	55.31	53.19	51.88	45.87	54.29	54.91	70 dBA:	**4**	**4**
Medium Trucks	73.11	-24.76	1.52	-1.20	48.68	27.43	33.45	15.16	28.30	31.05	65 dBA:	**8**	**9**
Heavy Trucks	80.26	-28.71	1.52	-1.20	51.87	40.62	23.12	27.77	39.05	39.08	60 dBA:	**17**	**19**
				Total:	**57.54**	**53.44**	**51.95**	**45.94**	**54.42**	**55.04**	55 dBA:	**37**	**40**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 3150 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.21	-4.59	-1.20	51.51	49.39	48.08	42.07	50.48	51.11	70 dBA:	**5**	**6**
Medium Trucks	73.11	-22.45	-4.59	-1.20	44.88	23.63	29.65	11.35	24.50	27.25	65 dBA:	**11**	**12**
Heavy Trucks	80.26	-26.40	-4.59	-1.20	48.07	36.82	19.32	23.97	35.25	35.28	60 dBA:	**24**	**26**
				Total:	**53.74**	**49.63**	**48.14**	**42.14**	**50.62**	**51.24**	55 dBA:	**51**	**56**

APPENDIX E

FHWA Model Onsite Traffic Noise Calculation Printouts

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 9
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	97 feet
Barrier Dist. To Observer (Structure):	21 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	615.4 feet
Road Elevation:	611.5 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	615.4 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.93	-1.20	0.00	-9.3	-8.7	-0.3
Med Trucks:	77.62	-11.88	-2.93	-1.20	0.00	-9.38	-8.4	-0.156
Hvy Trucks:	82.14	-9.66	-2.93	-1.20	0.00	-7.8	-6.16	0

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.3	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.3	51.4	43.6	52.8	58.9	59.0
Traffic Noise:	**71.7**	**65.9**	**64.4**	**59.5**	**67.5**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.9	56.5	55.2	49.2	57.6	58.2
Med Trucks:	52.2	33.0	25.2	34.4	40.6	40.6
Hvy Trucks:	60.5	43.6	35.8	45.0	51.1	51.2
Traffic Noise:	**63.2**	**56.8**	**55.3**	**50.7**	**58.6**	**59.1**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.5	56.2	54.9	48.8	57.3	57.9
Med Trucks:	52.3	33.1	25.3	34.5	40.6	40.7
Hvy Trucks:	61.2	44.2	36.5	45.7	51.8	51.9
Traffic Noise:	**63.5**	**56.5**	**54.9**	**50.6**	**58.4**	**58.9**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.5	63.2	57.1	65.6	66.2
Med Trucks:	60.4	41.2	33.4	42.6	48.8	48.8
Hvy Trucks:	67.3	50.3	42.5	51.7	57.9	57.9
Traffic Noise:	**70.5**	**64.7**	**63.2**	**58.3**	**66.3**	**66.9**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 11
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	109 feet
Barrier Dist. To Observer (Structure):	33 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	616.0 feet
Road Elevation:	613.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	616.0 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.92	-1.20	0.00	-9.12	-8.65	-0.95
Med Trucks:	77.62	-11.88	-2.92	-1.20	0.00	-9.15	-8.2	-0.4
Hvy Trucks:	82.14	-9.66	-2.92	-1.20	0.00	-7.55	-5.7	-0.161

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.4	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	58.9	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.5**	**67.5**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.1	56.7	55.4	49.4	57.8	58.4
Med Trucks:	52.5	33.3	25.5	34.7	40.8	40.9
Hvy Trucks:	60.8	43.8	36.0	45.2	51.4	51.4
Traffic Noise:	**63.4**	**57.0**	**55.5**	**50.9**	**58.8**	**59.3**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.7	55.4	54.1	48.0	56.4	57.1
Med Trucks:	51.6	32.4	24.6	33.8	40.0	40.0
Hvy Trucks:	60.8	43.8	36.1	45.3	51.4	51.4
Traffic Noise:	**62.9**	**55.7**	**54.1**	**50.0**	**57.7**	**58.2**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.0	61.7	55.6	64.1	64.7
Med Trucks:	59.3	40.1	32.3	41.5	47.7	47.7
Hvy Trucks:	66.3	49.3	41.5	50.7	56.9	56.9
Traffic Noise:	**69.3**	**63.2**	**61.7**	**57.0**	**64.9**	**65.4**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 13
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000	vehicles
Peak Hour Volume:	3,300	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	78	feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5**	**feet**
Barrier Type(Wall/Berm):	Wall	
Site Conditions(Hard/Soft):	Soft	
Centerline (C.L.) Dist. to Barrier:	76	feet
C.L. Dist. To Observer (Backyard):	86	feet
Barrier Dist. To Observer (Backyard):	10	feet
C.L. Dist. To Observer (Structure):	109	feet
Barrier Dist. To Observer (Structure):	33	feet
Road Grade:	0.00	%
Left View:	-90	degrees
Right View:	90	degrees

Elevations

Barrier Base Elevation:	615.6	feet
Road Elevation:	614.0	feet
Noise Source Elevation above Road		
Autos:	0	feet
Med Trucks:	2.3	feet
Hvy Trucks:	8	feet
Pad Elevation:	615.6	feet
Observer Heights Above Pad Elevation		
Exterior:	5	feet
First Floor:	5.5	feet
Second Floor:	14	feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.91	-1.20	0.00	-8.8	-8.05	-0.7
Med Trucks:	77.62	-11.88	-2.91	-1.20	0.00	-8.8	-7.6	-0.33
Hvy Trucks:	82.14	-9.66	-2.91	-1.20	0.00	-7.15	-5.2	-0.136

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.4	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.6**	**67.6**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.4	57.0	55.8	49.7	58.1	58.8
Med Trucks:	52.8	33.6	25.8	35.0	41.2	41.2
Hvy Trucks:	61.2	44.2	36.4	45.7	51.8	51.8
Traffic Noise:	**63.8**	**57.3**	**55.8**	**51.2**	**59.1**	**59.6**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	56.0	54.7	48.6	57.0	57.7
Med Trucks:	52.2	33.0	25.2	34.4	40.6	40.6
Hvy Trucks:	61.3	44.3	36.6	45.8	51.9	52.0
Traffic Noise:	**63.4**	**56.3**	**54.7**	**50.5**	**58.3**	**58.8**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.2	62.0	55.9	64.3	65.0
Med Trucks:	59.4	40.2	32.4	41.6	47.8	47.8
Hvy Trucks:	66.3	49.3	41.6	50.8	56.9	57.0
Traffic Noise:	**69.4**	**63.4**	**62.0**	**57.2**	**65.1**	**65.7**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road | Project Name: Magnolia Ranch
Lot Number: Building 15 | Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	99 feet
Barrier Dist. To Observer (Structure):	23 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	615.2 feet
Road Elevation:	615.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	615.2 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.90	-1.20	0.00	-8.4	-7.43	-0.19
Med Trucks:	77.62	-11.88	-2.90	-1.20	0.00	-8.35	-6.94	-0.124
Hvy Trucks:	82.14	-9.66	-2.90	-1.20	0.00	-6.72	-5.1	0

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.2	65.9	64.6	58.5	66.9	67.6
Med Trucks:	61.6	42.4	34.7	43.9	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.8**	**66.0**	**64.6**	**59.7**	**67.7**	**68.2**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.8	57.5	56.2	50.1	58.5	59.2
Med Trucks:	53.3	34.1	26.3	35.5	41.7	41.7
Hvy Trucks:	61.7	44.7	36.9	46.1	52.2	52.3
Traffic Noise:	**64.2**	**57.7**	**56.2**	**51.7**	**59.5**	**60.0**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	57.3	56.0	50.0	58.4	59.0
Med Trucks:	53.6	34.4	26.6	35.8	42.0	42.0
Hvy Trucks:	62.2	45.2	37.4	46.6	52.8	52.8
Traffic Noise:	**64.5**	**57.6**	**56.1**	**51.7**	**59.5**	**60.0**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	64.5	63.2	57.1	65.6	66.2
Med Trucks:	60.3	41.1	33.3	42.5	48.7	48.7
Hvy Trucks:	67.2	50.2	42.4	51.6	57.8	57.8
Traffic Noise:	**70.5**	**64.7**	**63.2**	**58.3**	**66.3**	**66.9**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Lot Number: Building 17

Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	121 feet
Barrier Dist. To Observer (Structure):	45 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	617.5 feet
Road Elevation:	617.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	617.5 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.90	-1.20	0.00	-8.5	-7.8	-1.4
Med Trucks:	77.62	-11.88	-2.90	-1.20	0.00	-8.45	-7.08	-0.56
Hvy Trucks:	82.14	-9.66	-2.90	-1.20	0.00	-6.8	-4.9	-0.173

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.8	64.5	58.4	66.8	67.5
Med Trucks:	61.6	42.4	34.6	43.9	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.6**	**67.6**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	57.4	56.1	50.0	58.4	59.1
Med Trucks:	53.2	34.0	26.2	35.4	41.6	41.6
Hvy Trucks:	61.6	44.6	36.8	46.0	52.2	52.2
Traffic Noise:	**64.1**	**57.6**	**56.1**	**51.6**	**59.4**	**59.9**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.8	55.4	54.2	48.1	56.5	57.2
Med Trucks:	51.9	32.7	25.0	34.2	40.3	40.4
Hvy Trucks:	60.9	43.9	36.1	45.3	51.5	51.5
Traffic Noise:	**63.0**	**55.8**	**54.2**	**50.0**	**57.8**	**58.3**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.2	61.8	60.5	54.5	62.9	63.5
Med Trucks:	58.4	39.2	31.4	40.6	46.8	46.8
Hvy Trucks:	65.5	48.6	40.8	50.0	56.1	56.2
Traffic Noise:	**68.4**	**62.0**	**60.6**	**55.9**	**63.8**	**64.3**

Appendix 11

Traffic Analysis

Magnolia Ranch Residential Project

Initial Study

URBAN | CROSSROADS

MAGNOLIA RANCH

TRAFFIC ANALYSIS

PREPARED BY: Charlene So | cso@urbanxroads.com
Aric Evatt | aevatt@urbanxroads.com



Reference Number	Agency	Date
15629-01 TA Report	City of Eastvale	August 10, 2023

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CAMUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing plus Project
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
NCHRP	National Cooperative Highway Research Program
OPR	Office of Planning and Research
PHF	Peak Hour Factor
PMP	Parking Management Plan
Project	Magnolia Ranch
RBBD	Road and Bridge Benefit District
RCTC	Riverside County Transportation Commission
RivTAM	Riverside County Transportation Analysis Model
ROW	Right-of-Way
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
TA	Traffic Analysis
TUMF	Transportation Uniform Mitigation Fee
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane
WRCOG	Western Riverside Council of Governments

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1 INTRODUCTION

This report presents the results of the traffic analysis (**TA**) for the proposed Magnolia Ranch development (**Project**), which is bounded by Schleisman Road to the north and Orange Street to the south in the City of Eastvale. The Project's location relative to the surrounding area is shown on Exhibit 1-1.

The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to achieve acceptable circulation system operational conditions. As directed by City of Eastvale staff, this traffic study has been prepared in accordance with the County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled, and consultation with City staff during the scoping process. (1) The approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

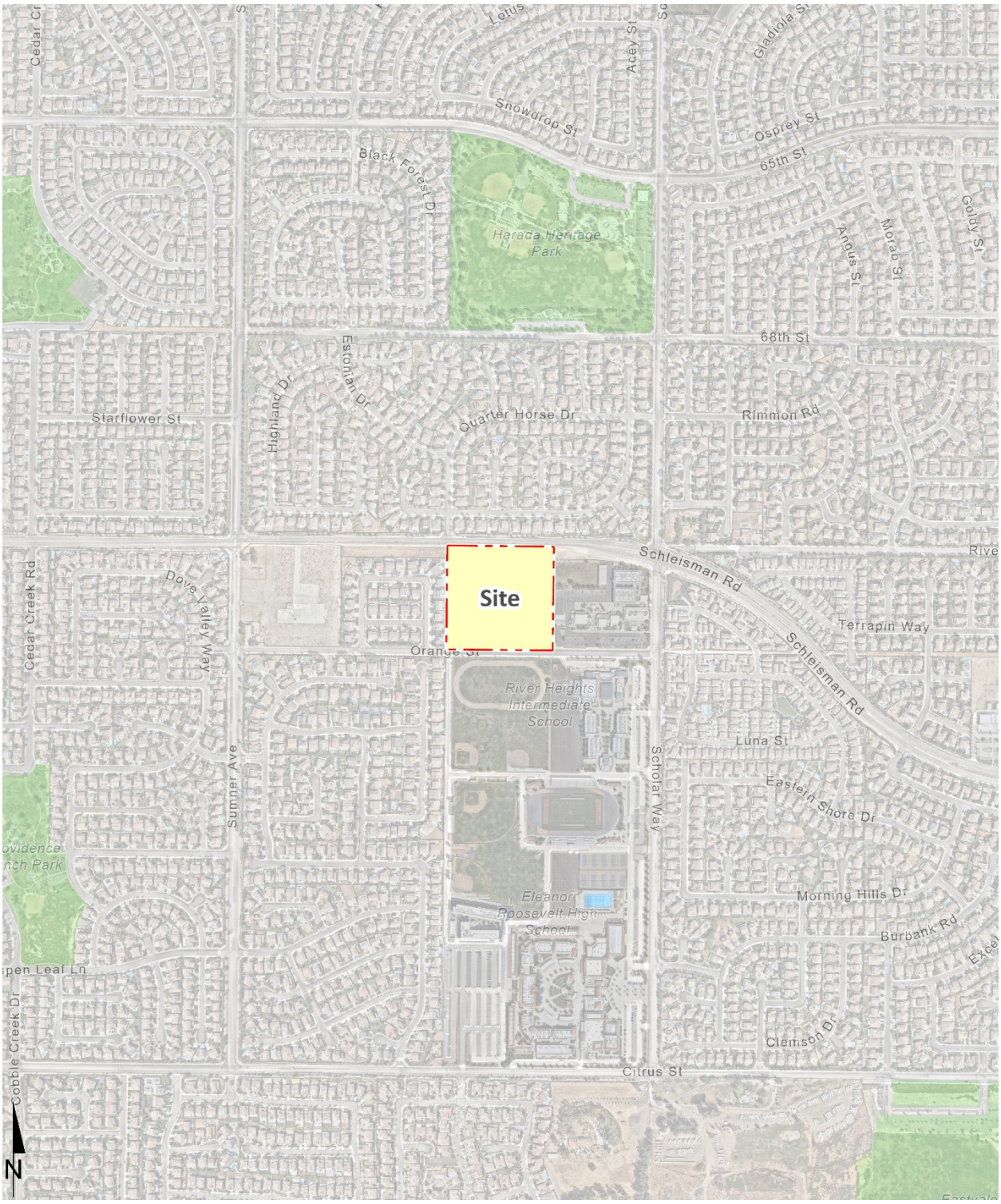
1.1 SUMMARY OF FINDINGS

The Project is to construct the following improvements as design features in conjunction with development of the site:

- Project to install stop sign for egress traffic from the proposed Project at Driveway 1 on Orange Street, which is proposed for full access.
- The Project will construct Orange Street from the western Project boundary to the eastern Project boundary at its ultimate half-section width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan.

Additional details and intersection lane geometrics are provided in Section 1.7 *Recommendations* of this report. The addition of Project traffic is not anticipated to result in any operational deficiencies at the study area intersections under any of the future traffic conditions.

EXHIBIT 1-1: LOCATION MAP



1.2 PROJECT OVERVIEW

Exhibit 1-2 illustrates the preliminary site plan. As indicated on Exhibit 1-2, the Project is proposed to consist of up to 41 single family detached residential units. Regional access to the Project site is available via the I-15 Freeway at Limonite Avenue interchange. Vehicular traffic access will be provided via the following driveway:

- Driveway 1 via Orange Street – Full access

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (**ITE**) Trip Generation Manual, 11th Edition, 2017. (2) The proposed Project is anticipated to generate a total of 388 vehicle trip-ends per day with 28 AM peak hour trips and 38 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2021) Conditions
- Existing plus Project (**E+P**) Conditions
- Opening Year Cumulative (2025) Without Project Conditions
- Opening Year Cumulative (2025) With Project Conditions
- Horizon Year (2040) Without Project Conditions
- Horizon Year (2040) With Project Conditions

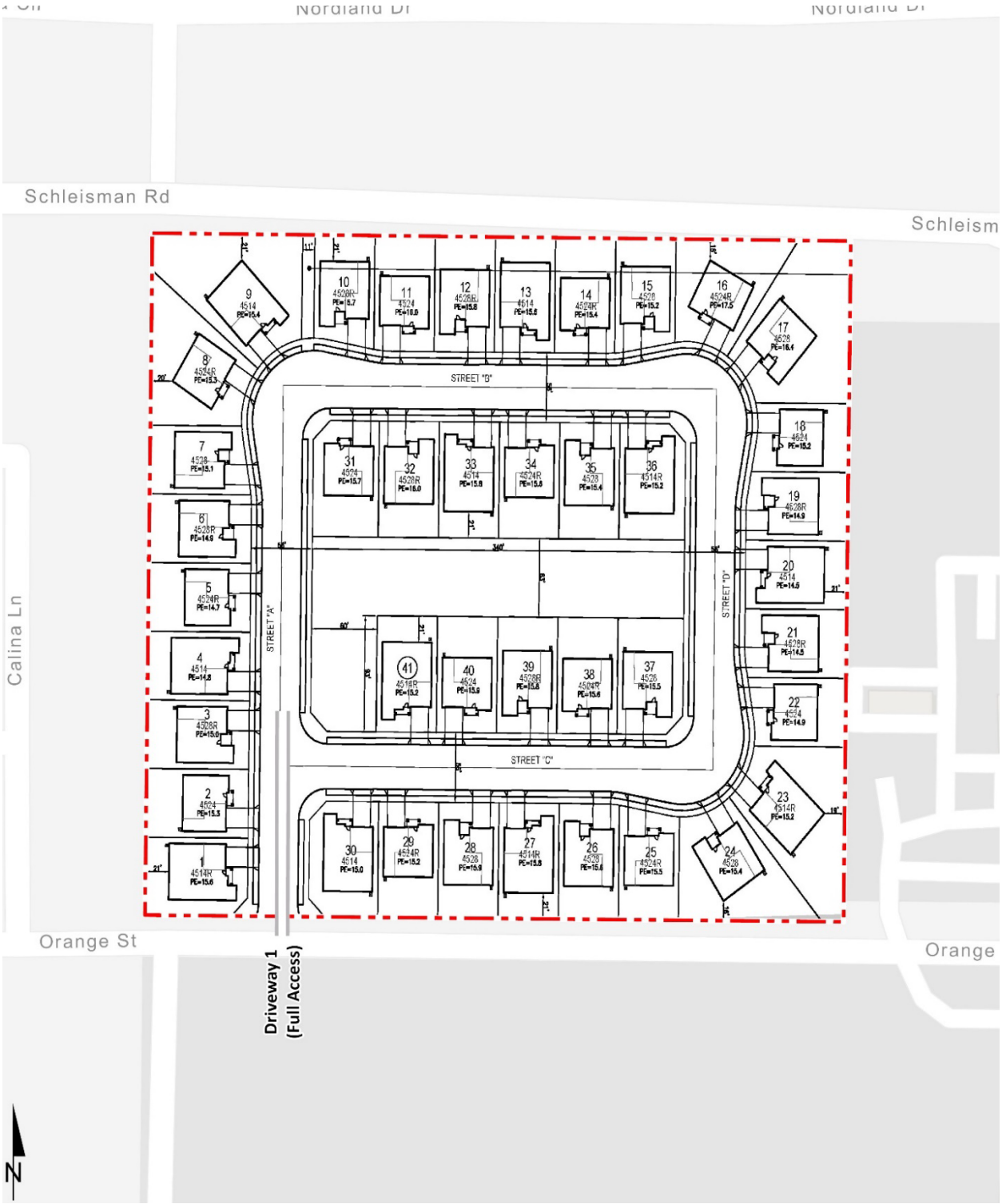
1.3.1 EXISTING (2021) CONDITIONS

Information for Existing (2021) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Due to the currently ongoing COVID-19 pandemic, the traffic counts utilized for the purposes of this analysis relied on both historic data and adjusted 2021 count data. Details on adjustments to the existing traffic counts are discussed in Section 3.5 *Existing (2021) Traffic Counts* of this TA.

1.3.2 EXISTING PLUS PROJECT CONDITIONS

The E+P analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions. The E+P analysis is intended to identify the project-specific traffic deficiencies associated solely with the development of the proposed Project based on a comparison of the E+P traffic conditions to Existing (2021) conditions.

EXHIBIT 1-2: PRELIMINARY SITE PLAN



1.3.3 OPENING YEAR CUMULATIVE CONDITIONS

The Opening Year Cumulative traffic conditions analysis determines the potential near-term cumulative circulation system deficiencies. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth factor from Existing conditions of 6.81 (for 2025 conditions – 1.6 percent per year compounded over 4 years) are included for Opening Year Cumulative traffic conditions. This list was compiled from information provided by the City of Eastvale.

1.3.4 HORIZON YEAR (2040) CONDITIONS

Traffic projections for Horizon Year Without Project conditions were derived from the Riverside Transportation Analysis Model (**RivTAM**) for study area intersections located in Riverside County. The Horizon Year conditions analysis will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Western Riverside Council of Governments Transportation Uniform Mitigation Fee (**TUMF**), City of Eastvale Development Impact Fee (**DIF**) programs, or other approved funding mechanism (e.g., Mira Loma Road and Bridge Benefit District (**RBBD**), etc.) can accommodate the long-range cumulative traffic at the target Level of Service (**LOS**) identified in the City of Eastvale (lead agency) General Plan. (3) Other improvements needed beyond the "funded" improvements (such as localized improvements to non-TUMF, non-DIF, or non-RBBD facilities) are identified as such.

1.4 STUDY AREA

To ensure that this TA satisfies the City of Eastvale's traffic study requirements, Urban Crossroads, Inc. prepared a project traffic study scoping package for review by City staff prior to the preparation of this report. The Agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology (see Appendix 1.1).

1.4.1 INTERSECTIONS

The following 8 study area intersections shown on Exhibit 1-3 and listed in Table 1-1 were selected for this TA based on consultation with City of Eastvale staff. The "50 peak hour trip" criterion utilized by the City of Eastvale is consistent with the methodology employed by the County of Riverside, and generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively deficient by a given development proposal. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a widely utilized tool for estimating a potential area of analysis (i.e., study area).

EXHIBIT 1-3: STUDY AREA

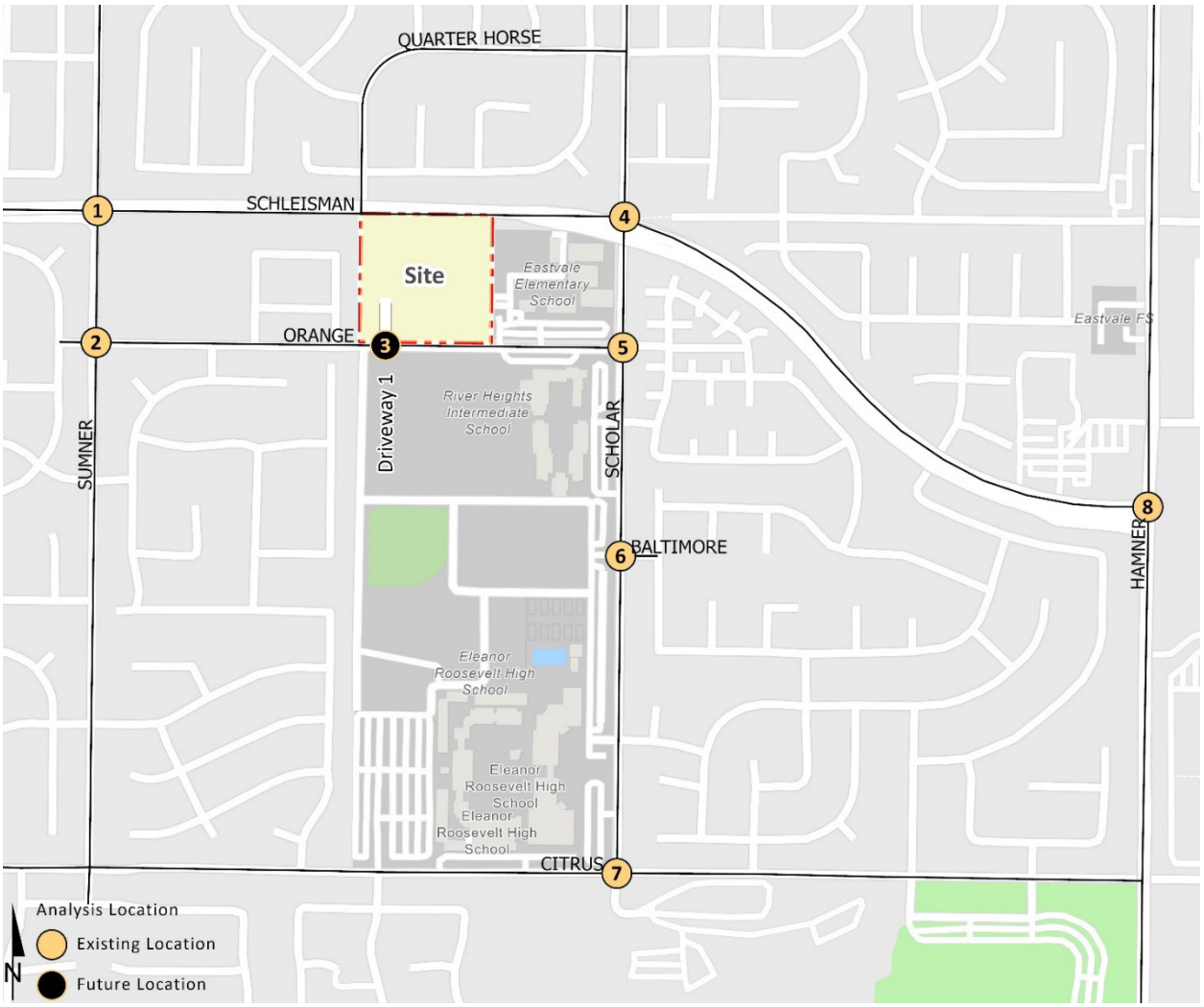


TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	Jurisdiction	CMP?
1	Sumner Av. & Schleisman Rd.	Eastvale	No
2	Sumner Av. & Orange St.	Eastvale	No
3	Driveway 1 & Orange St.	Eastvale	No
4	Scholar Wy. & Schleisman Rd.	Eastvale	No
5	Scholar Wy. & Orange St.	Eastvale	No
6	Scholar Wy. & Baltimore St.	Eastvale	No
7	Scholar Wy. & Citrus St.	Eastvale	No
8	Hamner Av. & Schleisman Rd.	Eastvale	No

The intent of a Congestion Management Program (**CMP**) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and updated most recently updated in 2011. The Riverside County Transportation Commission (**RCTC**) adopted the 2011 CMP for the County of Riverside in December 2011. (4) No study area intersections are CMP intersections.

1.5 SENATE BILL 743 – VEHICLE MILES TRAVELED (VMT)

Senate Bill 743 (**SB 743**), approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (**CEQA**). The Office of Planning and Research (**OPR**) has recommended the use of vehicle miles traveled (**VMT**) as the replacement for automobile delay-based LOS. In December 2018, the Natural Resources Agency finalized updates to CEQA Guidelines to incorporate SB 743 (i.e., VMT). The VMT thresholds and methodology outlined in the City's TA guidelines will be utilized to conduct the VMT analysis for the Project. The City's TA Guidelines provides details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed project level analysis. Based on our review of applicable VMT screening thresholds, the proposed Project meets the screening thresholds and would therefore be assumed to result in a less than significant VMT impact; no additional VMT analysis is required. The VMT screening thresholds are provided in Appendix 1.1.

1.6 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 5 *E+P Traffic Conditions*, Section 6 *Opening Year Cumulative (2025) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Table 1-2.

TABLE 1-2: SUMMARY OF DEFICIENT INTERSECTIONS BY ANALYSIS SCENARIO

#	Intersection	Existing AM	Existing PM	E+P AM	E+P PM	2025 Without Project AM	2025 Without Project PM	2025 With Project AM	2025 With Project PM	2040 Without Project AM	2040 Without Project PM	2040 With Project AM	2040 With Project PM
1	Sumner Av. & Schleisman Rd.	F	E	F	E	F	E	F	E	F	F	F	F
2	Sumner Av. & Orange St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
3	Driveway 1 & Orange St.	N/A	N/A	A-D	A-D	N/A	N/A	A-D	A-D	N/A	N/A	A-D	A-D
4	Scholar Wy. & Schleisman Rd.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
5	Scholar Wy. & Orange St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
6	Scholar Wy. & Baltimore St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
7	Scholar Wy. & Citrus St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
8	Hamner Av. & Schleisman Rd.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D

= A - D = E = F

1.6.1 EXISTING (2021) CONDITIONS

The following study area intersection is anticipated to operate at a deficient LOS during one or both peak hours for Existing traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

1.6.2 E+P CONDITIONS

The following study area intersection is anticipated continue to operate at a deficient LOS during one or both peak hours for E+P traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

1.6.3 OPENING YEAR CUMULATIVE (2025) CONDITIONS

The following study area intersection is anticipated to operate at a deficient LOS during one or both peak hours for Opening Year Cumulative (2025) Without Project traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

There are no additional study area intersections anticipated to operate at an unacceptable LOS with the addition of Project traffic under Opening Year Cumulative (2025) With Project traffic conditions.

1.6.4 HORIZON YEAR (2040) CONDITIONS

The following study area intersection is anticipated to operate at a deficient LOS during one or both peak hours under Horizon Year (2040) Without Project traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM and PM peak hours

There are no additional study area intersections anticipated to operate at an unacceptable LOS with the addition of Project traffic under Horizon Year (2040) With Project traffic conditions.

1.7 RECOMMENDATIONS

1.7.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the improvements needed to accommodate site access. The site adjacent recommendations are shown on Exhibit 1-4.

Recommendation 1 – Driveway 1 & Orange Street (#4) – The following improvements are necessary to accommodate site access:

- Project to install a stop control for the southbound exiting Project traffic with a shared left-right turn lane.
- Project to restripe the existing eastbound through lane to provide an eastbound shared left-through lane.

Recommendation 2 – **Orange Street** – Orange Street is an east-west oriented roadway located along the southern boundary of the Project. Project to construct Orange Street from the western Project boundary to the eastern Project boundary at its ultimate half-section width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan.

Wherever necessary, roadways adjacent to the Project, site access points and site-adjacent intersections will be constructed to be consistent with the identified roadway classifications and respective cross-sections in the City of Eastvale General Plan Circulation Element.

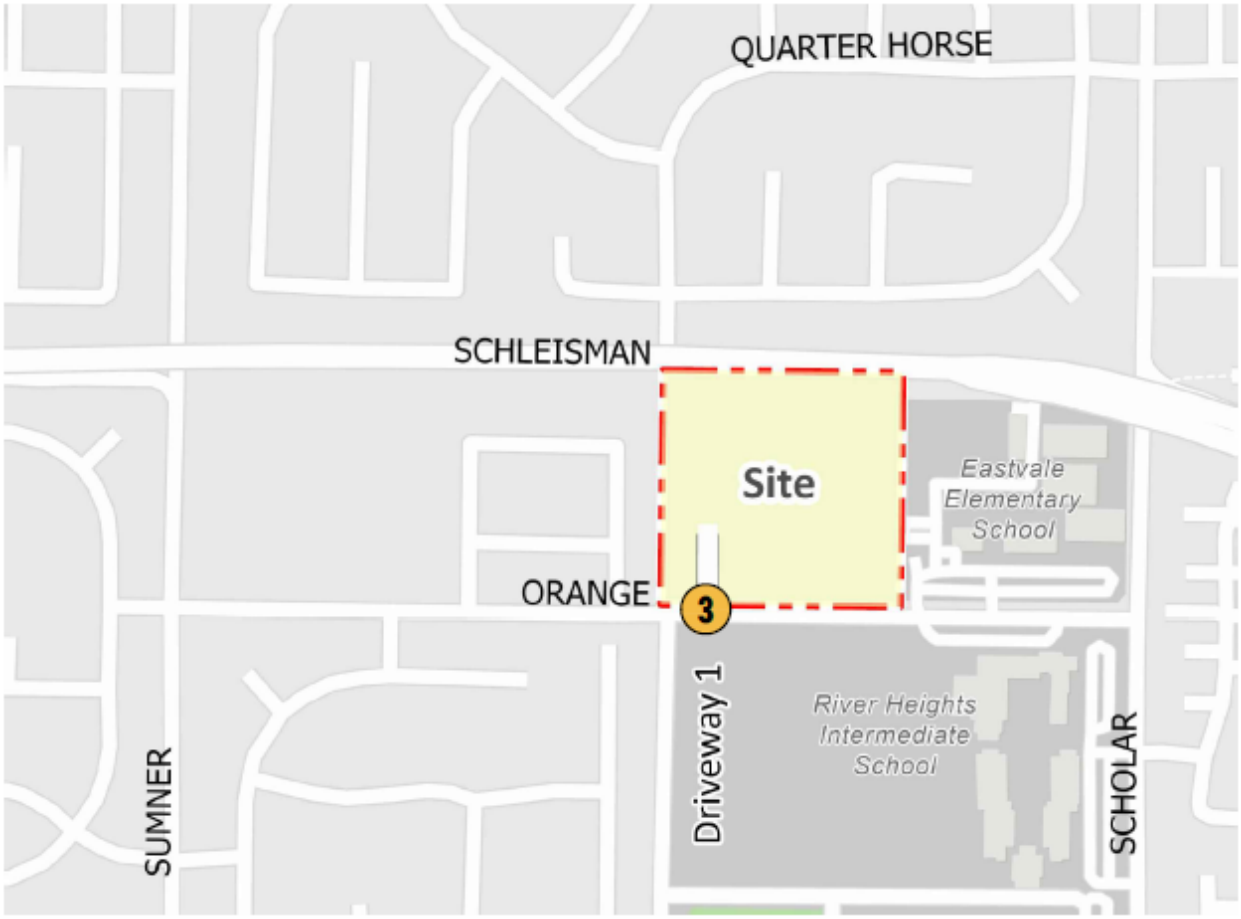
On-site traffic signing and striping should be implemented in compliance with the provisions of the California Department of Transportation (Caltrans) California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

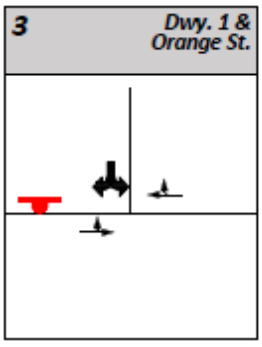
Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Eastvale sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

1.7.2 OFF-SITE RECOMMENDATIONS

The recommended improvements needed to address the cumulative deficiencies identified under Existing (2021), E+P, Opening Year Cumulative (2025), and Horizon Year (2040) traffic conditions are shown in Table 1-3. For those improvements listed in Table 1-3 and not constructed as part of the Project, the Project Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fees or fair share that would be assigned to construction of the identified recommended improvements.

EXHIBIT 1-4: SITE ACCESS RECOMMENDATIONS





= Stop Sign Improvement
= Existing Lane
= Lane Improvement

TABLE 1-3: SUMMARY OF IMPROVEMENTS AND ROUGH ORDER OF MAGNITUDE COSTS

#	Intersection	Jurisdiction	E+P	2025 With Project	Horizon Year (2040) With Project	Improvements in County DIF?[1]	Project Responsibility[2]	Total Cost[3,4]	Fair Share %[5]	Fair Share Cost[6]
1	Sumner Av. & Schleisman Rd.	Eastvale	Restripe the EB and WB lanes to accommodate 1 left turn lane and 1 shared through-right lane	Same	Same	No	Fair Share	$40,300	0.63%	$255
					Add 2nd NB through lane	No	Fair Share	$290,160		$1,838
					Add 2nd EB through lane	No	Fair Share	$290,160		$1,838
					Add 2nd WB through lane	No	Fair Share	$290,160		$1,838
					Add a WB left turn lane	No	Fair Share	$80,600		$511
							Total	$991,380		$6,280
							Total Costs for Horizon Year Improvements	**$991,380**		**$6,280**
							Total Project Fair Share Contribution to the City of Eastvale[7]			**$6,280**

[1] Improvements included in City of Eastvale DIF program for local and regional components.

[2] Identifies the Project's responsibility to construct an improvement or contribute fair share or fee payment towards the implementation of the improvement shown.

[3] Costs have been estimated using the data provided in Appendix "G" of the CMP for preliminary construction costs.

[4] Appendix "G" costs escalated by a factor of 1.612 except Traffic Signals.

[5] Program improvements constructed by project may be eligible for fee credit, at discretion of City. See Table 8-1 for Fair Share Calculations.

[6] Rough order of magnitude cost estimate.

[7] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within the City of Eastvale.

1.8 QUEUING ANALYSIS

A queuing analysis was conducted along the site adjacent roadways of Orange Street, Schleisman Road, and at the Project driveways for Horizon Year (2040) traffic conditions to determine the turn pocket lengths and lane geometric necessary to accommodate long-term 95th percentile queues and recommend storage lengths for the turning movements shown on Exhibit 1-4. The analysis was conducted for the weekday AM and weekday PM peak hours using the SimTraffic modeling software. The Horizon Year (2040) queuing results are provided in Table 1-4 and Appendix 7.5 of this TA.

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro (Version 11) to generate random simulations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 30-minute periods with 60-minute recording intervals.

As shown in Table 1-4, the available storage area would be able to accommodate Horizon Year (2040) With Project 95th percentile queues.

TABLE 1-4: QUEUING ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS

#	Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet) AM Peak Hour	95th Percentile Queue (Feet) PM Peak Hour	Acceptable? [1] AM	Acceptable? [1] PM
4	Driveway 1 & Orange St.	EBL/T	1,500	0	10	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown in this table, where applicable.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with City of Eastvale traffic study guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (**LOS**). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The Highway Capacity Manual (**HCM**) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (5) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Eastvale requires signalized intersection operations analysis based on the methodology described in the HCM. (5) Intersection LOS operations are based on an intersection's average control delay. Control delays include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. A saturation flow rate of 1900 has been utilized for all study area intersections located within the County of Riverside. The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections within the City of Eastvale.

The peak hour traffic volumes have been adjusted using a peak hour factor (**PHF**) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. New intersections utilize a PHF of 0.92. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (5)

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Eastvale requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (5) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. The worst delay and associated LOS for a controlled movement is utilized for the overall intersection delay and LOS for two-way stop-controlled intersections. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA update uses the signal warrant criteria presented in the latest edition of the Caltrans' California Manual on Uniform Traffic Control Devices (**CA MUTCD**), for all applicable study area intersections. (6) As shown in Table 2-3, traffic signal warrant analyses were performed for the following unsignalized study area intersection based on the average daily traffic (Figure 4C-103 (CA) of the CA MUTCD): (6)

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection	Jurisdiction
3	Driveway 1 & Orange St.	Eastvale

The traffic signal warrant analyses are presented in Section 5 *E+P Traffic Conditions*, Section 6 *Opening Year Cumulative (2025) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions* of this report. It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The City of Eastvale General Plan Policy C-10 sets a standard of LOS C with LOS D as acceptable in commercial and employment areas and at intersections of any combination of major highways, urban arterials, secondary highways, or freeway ramps. Based on this criterion, where feasible, LOS D is the minimum acceptable LOS at each of the study intersections within the City of Eastvale.

2.5 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

For the study area intersections that lie within the City of Eastvale, Project related deficiencies will be identified by comparing the "Without Project" condition to the "With Project" condition based on the following criteria:

- If the LOS deteriorates from acceptable LOS (LOS D or better) to unacceptable LOS (LOS E or F); or
- If the intersection is already operating at an unacceptable LOS (LOS E or F) in Without Project conditions and the addition of Project traffic increases the delay by more than 2.5 seconds.

Based on discussions with City staff, when the pre-Project condition is already below LOS D (i.e., unacceptable LOS), the Project will be responsible for improving its deficiencies to a level of service equal to or better than it was under pre-project traffic conditions for intersections that receive 50 or more project-related peak hour trips. This is a standard protocol in many urban jurisdictions to meet the circulation policies outlined in the respective General Plans. Thus, for intersections currently operating at unacceptable LOS during either the AM and/or PM peak hour under Without Project traffic conditions, improvements have been identified to bring the project's effect to a deficient intersection LOS that is equal to or better than pre-Project conditions.

Cumulative traffic deficiencies are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic deficiencies requiring additional improvements to maintain acceptable level of service operations with or without the Project. A project's contribution to a cumulative deficiency can be improved if the project is required to implement or fund its fair share of improvements designed to alleviate its contribution to the deficiency. A deficiency has been deemed cumulatively considerable if the project contributes 50 or more peak hour trips.

2.6 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the TUMF and/or DIF will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share contribution based on the Project's proportional share may be imposed in order to address the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the City Traffic Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval). The Project's fair share contribution is determined based on the following equation, which is the ratio of Project traffic to net new traffic (where net new traffic is the future traffic less existing traffic):

Project Fair Share % = Project Traffic / (2040 With Project Total Traffic – Existing Traffic)

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Eastvale General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Eastvale staff (Appendix 1.1), the study area includes a total of 8 existing and future intersections as shown previously on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF EASTVALE GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Eastvale. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Eastvale General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Eastvale General Plan Circulation Element, and Exhibit 3-3 illustrates the City of Eastvale General Plan roadway cross-sections.

The study area roadways that are classified as 6-lane Urban Arterials are identified as having three lanes of travel in each direction. The following study area roadways within the City of Eastvale are classified as 6-lane Urban Arterials:

- Schleisman Road
- Hamner Avenue

The study area roadway that is classified as a 2-lane Major Collector is identified as having one lane of travel in each direction. The following study area roadway is classified as a 2-lane Major Collector:

- Sumner Avenue

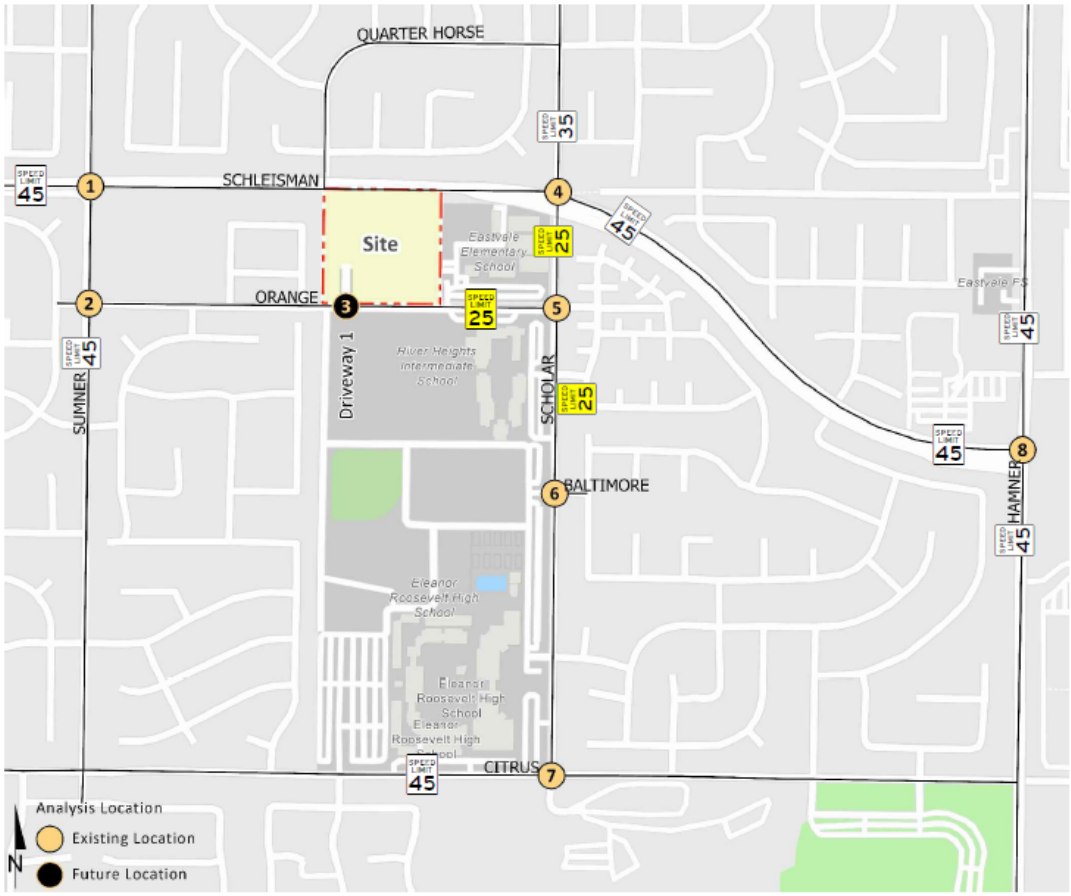
The study area roadways that are classified as 2-lane Secondary Collectors are identified as having one lane of travel in each direction. The following study area roadways are classified as Secondary Collectors:

- Scholar Way
- Citrus Street

The study area roadway that is classified as a 2-lane Local Road is identified as having one lane of travel in each direction. The following study area roadways are classified as Local Roads:

- Orange Street

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



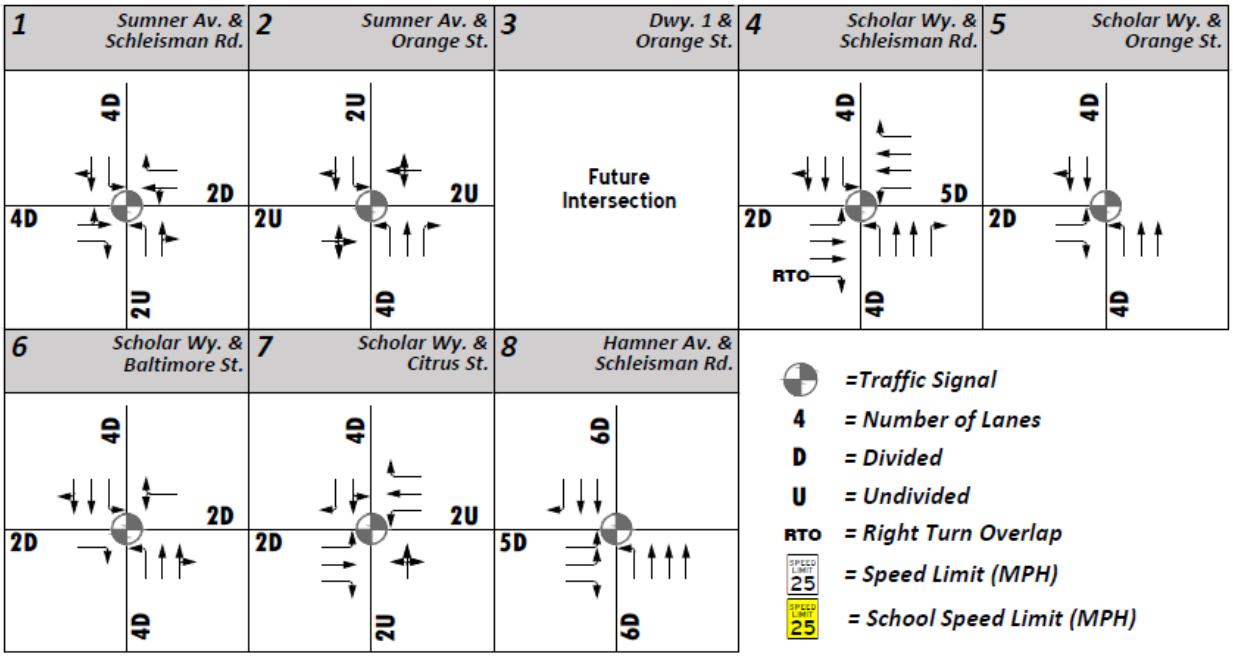


EXHIBIT 3-2: CITY OF EASTVALE GENERAL PLAN CIRCULATION ELEMENT

CHAPTER 4:
CIRCULATION AND INFRASTRUCTURE

CITY OF EASTVALE

FIGURE C-1: CIRCULATION PLAN

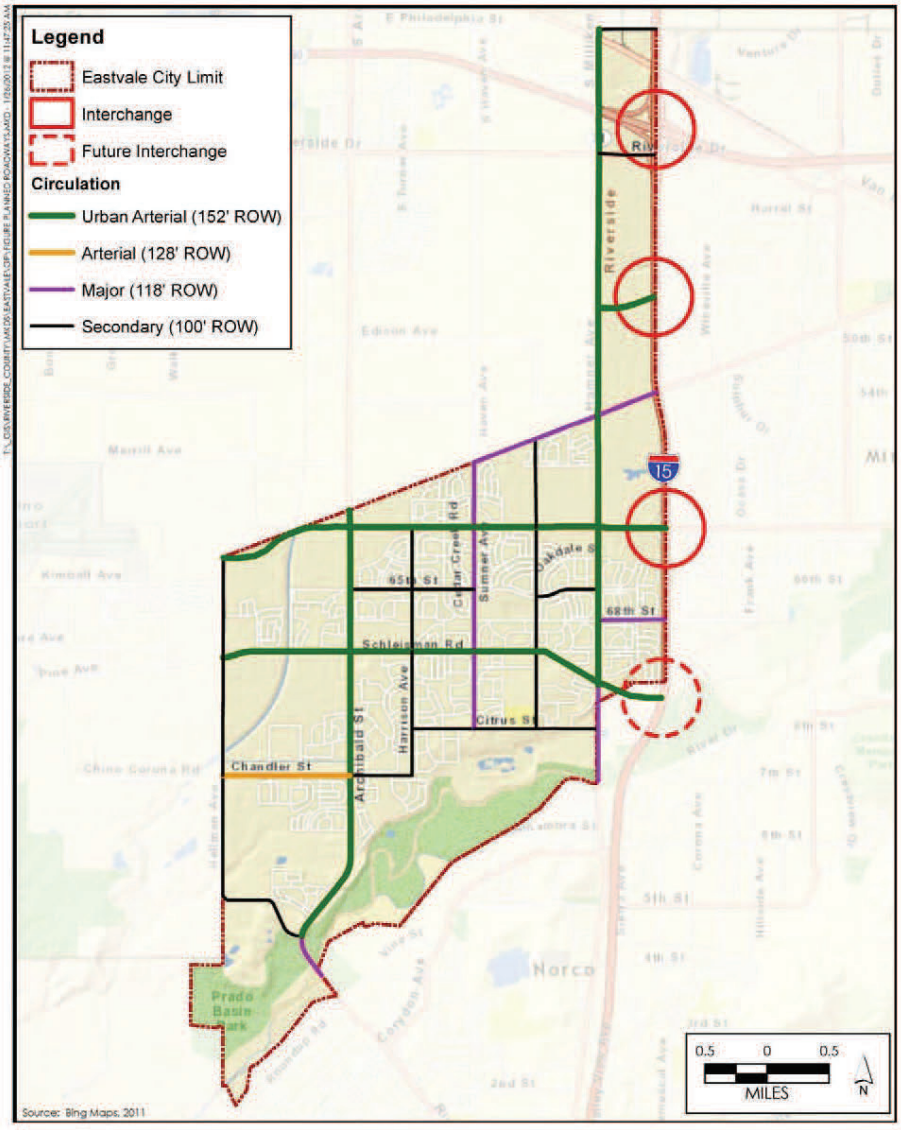
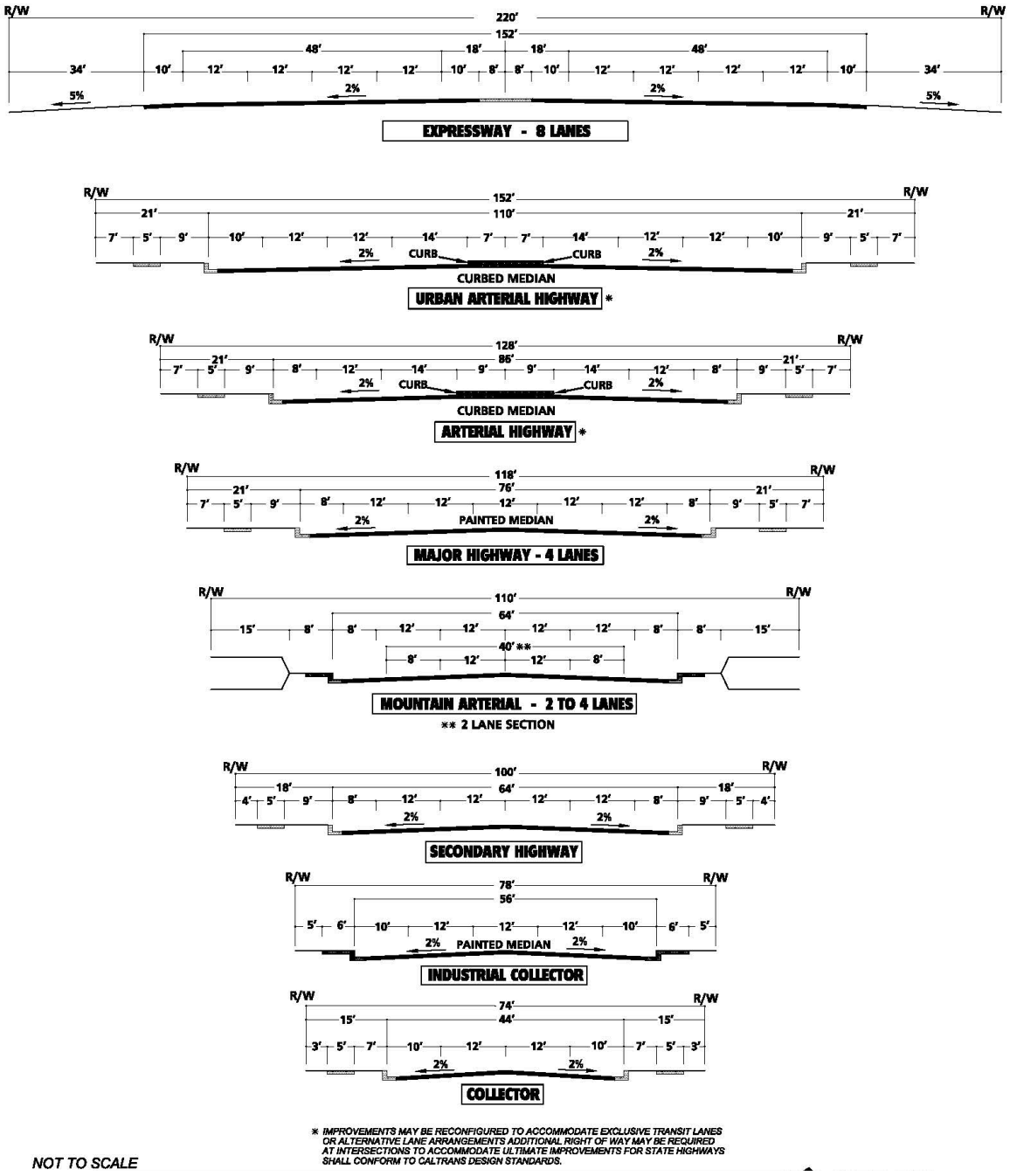


EXHIBIT 3-3: CITY OF EASTVALE GENERAL PLAN ROADWAY CROSS-SECTIONS



3.3 BICYCLE & PEDESTRIAN FACILITIES

Exhibit 3-4 illustrates the City of Eastvale current and future trails and bikeway systems which proposes off-street Class I multi-use trails along Schleisman Road. On-street Class II bike lanes are also proposed along Orange Street near the vicinity of the site. Existing pedestrian facilities within the study area are shown on Exhibit 3-5.

3.4 TRANSIT SERVICE

The Riverside Transit Authority (**RTA**) serves the City of Eastvale. Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Based on a review of the existing transit routes within the vicinity of the proposed Project, RTA Route 3 currently operates on 68th Street, Sumner Avenue, and Citrus Street. Existing transit routes in the vicinity of the study area are illustrated on Exhibit 3-6. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.5 EXISTING (2021) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in October 2016, February 2018, January 2019, and January 2021. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Due to the currently ongoing COVID-19 pandemic, schools and businesses within the study area were closed or operating at less than full capacity at the time this study was prepared. As such, historic traffic counts were utilized in conjunction with a 1.6% compounded growth rate per year (compounded annually) to reflect 2021 conditions. The comparison of historical counts and adjustment factor calculation are included in Appendix 3.1. The historical weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes.

Historic traffic counts were not available for the intersections of Scholar Way & Orange Street, Scholar Way & Baltimore Street, and Scholar Way & Citrus Street. As such, new traffic counts were conducted in August 2021. August 2021 traffic counts were also conducted at the intersection of Hamner Avenue & Schleisman Road in order to determine an adjustment factor between the adjusted historic count data (to 2021) and the August 2021 traffic count for this location. This adjustment factor was then applied to August 2021 counts to determine the adjusted 2021 baseline to be used for the operations analysis. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. Existing weekday ADT volumes are shown on Exhibit 3-7. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 14.88 = Leg Volume

EXHIBIT 3-4: EASTVALE AREA TRAILS AND BIKEWAY SYSTEM

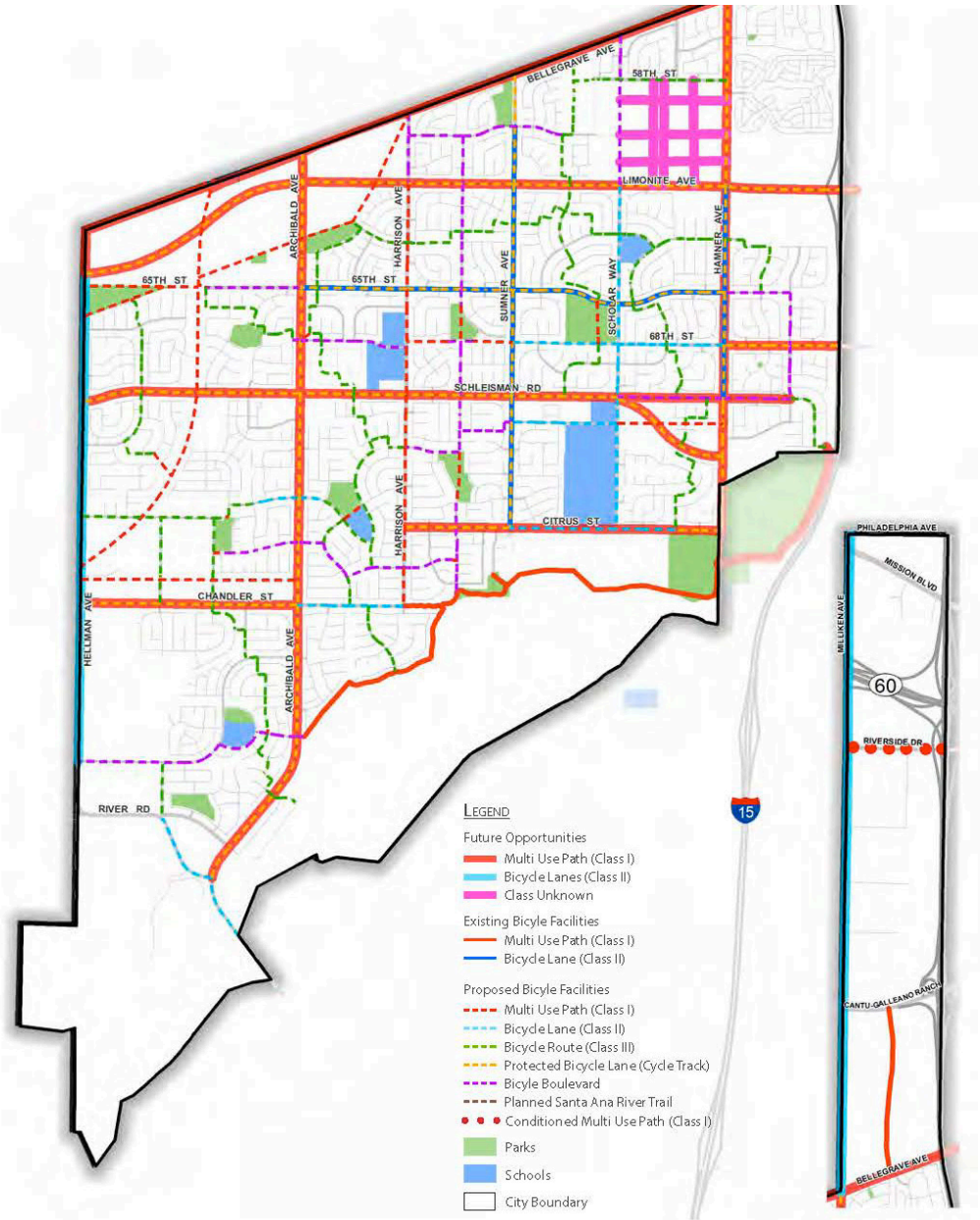


EXHIBIT 3-5: EXISTING PEDESTRIAN FACILITIES

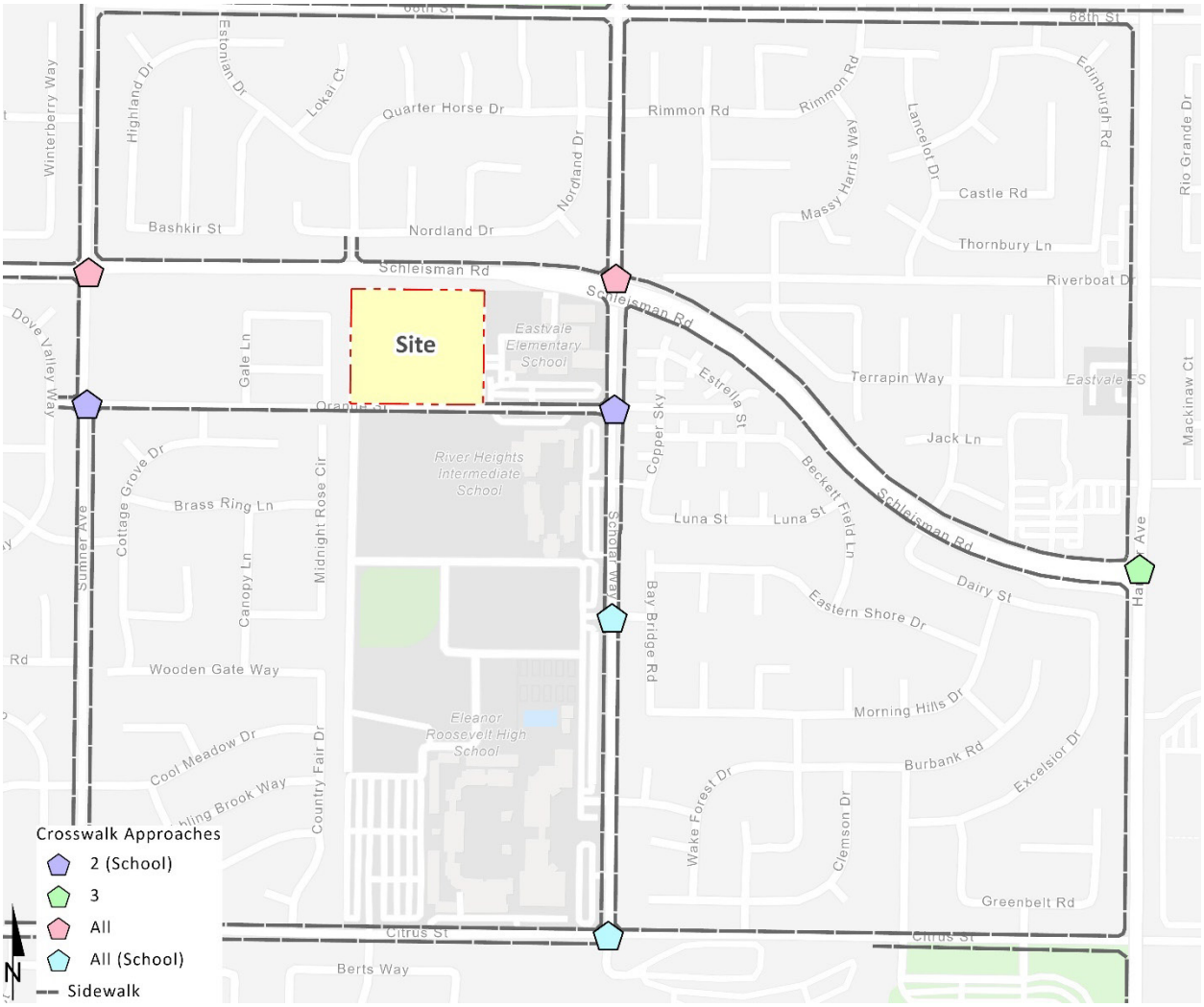


EXHIBIT 3-6: EXISTING TRANSIT ROUTES

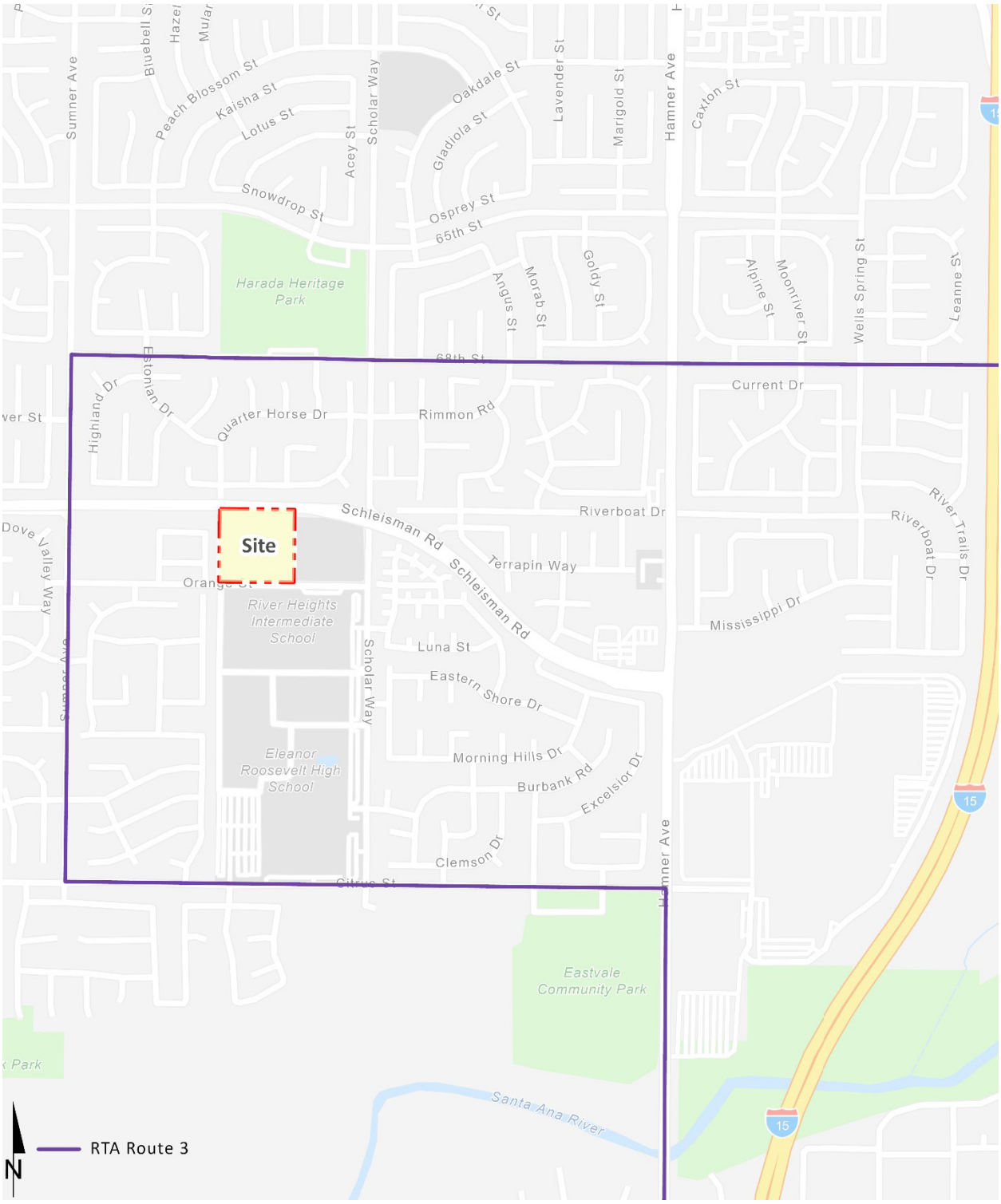


EXHIBIT 3-7: EXISTING (2021) TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

10,950 — 9,600

162(177) ↲	250(223) ←	104(31) ↳
181(229) ↳		↱ 66(39)
256(347) →		← 378(288)
302(291) ↲		↰ 13(13)
↰ 155(60)	↑ 349(129)	↱ 14(9)

18,400 — 9,600

2 Sumner Av. & Orange St.

9,600 — 1,100

15(24) ↲	519(451) ←	31(52) ↳
46(14) ↳		↱ 28(13)
6(3) →		← 0(4)
0(1) ↲		↰ 6(1)
↰ 0(1)	↑ 444(171)	↱ 6(9)

600 — 8,400

3 Orange St. & Driveway 1

Future Intersection

4 Scholar Wy. & Schleisman Rd.

7,450 — 8,550

23(34) ↲	605(221) ←	25(16) ↳
31(94) ↳		↱ 122(41)
334(296) →		← 300(217)
136(28) ↲		↰ 205(39)
↰ 133(42)	↑ 450(157)	↱ 147(38)

9,400 — 6,950

5 Scholar Wy. & Orange St.

6,950

267(30) ↲	679(258) ←	
126(54) ↳		
245(81) ↲		
↰ 153(21)	↑ 600(183)	

2,450 — 7,200

6 Scholar Wy. & Baltimore St.

8,400 — 1,200

344(240) ↲	501(156) ←	82(28) ↳
		↱ 154(30)
383(162) ↲		← 29(8)
		↰ 19(8)
↰ 132(68)	↑ 596(181)	↱ 21(17)

6,300 — 7,850

7 Scholar Wy. & Citrus St.

9,000 — 16,200

439(240) ↲	2(2) ←	339(162) ↳
303(169) ↳		↱ 277(106)
408(580) →		← 308(365)
29(7) ↲		↰ 10(6)
↰ 20(6)	↑ 4(1)	↱ 20(5)

18,100 — 350

8 Hamner Av. & Schleisman Rd.

24,600

491(180) ↲	593(687) ←	1(1) ↳
376(182) ↳		
199(111) ↲		
↰ 172(254)	↑ 603(811)	

9,600 — 24,650

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.56 percent. As such, the above equation utilizing a factor of 14.88 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.56 percent (i.e., 1/0.0756 = 14.88) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are also shown on Exhibit 3-7.

3.6 EXISTING (2021) TRAFFIC SPEED SURVEY

Count and speed data collection devices were placed along Orange Street, adjacent to the Project site. Existing traffic speed data by direction was collected, for 48 hours beginning on August 31, 2021, and ending on September 1, 2021.

The speed survey for Orange Street indicates that the vehicle pace speed is within the 31-40 MPH range with an 85th percentile speed of 39 MPH. The speed survey results on Orange Street indicate that vehicles are travelling above the 25 MPH speed limit. Approximately 60% of vehicles in the 48-hour survey exceeded the 25 MPH posted speed limit. The raw data is included in Appendix 3.2 of this TA.

3.7 EXISTING (2021) INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1, which indicates that the following study area intersection operating at an unacceptable LOS under Existing (2021) traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

The intersection operations analysis worksheets are included in Appendix 3.3 of this TA.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2021) CONDITIONS

#	Intersection	Traffic Control[1]	Delay[2] (secs.) AM	Delay[2] (secs.) PM	Level of Service AM	Level of Service PM
1	Sumner Av. & Schleisman Rd.	TS	**111.2**	**58.6**	**F**	**E**
2	Sumner Av. & Orange St.	TS	8.6	8.5	A	A
3	Driveway 1 & Orange St.		Future Intersection			
4	Scholar Wy. & Schleisman Rd.	TS	23.1	17.6	C	B
5	Scholar Wy. & Orange St.	TS	3.6	6.4	A	A
6	Scholar Wy. & Baltimore St.	TS	21.0	10.8	C	B
7	Scholar Wy. & Citrus St.	TS	40.1	18.8	D	B
8	Hamner Av. & Schleisman Rd.	TS	14.6	11.9	B	B

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 CSS = Cross-street Stop; TS = Traffic Signal

2 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

3.8 TRAFFIC SIGNAL WARRANTS ANALYSIS

All of the study area intersections are currently signalized. As such, no traffic signal warrants have bene evaluated for Existing traffic conditions.

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of up to 41 single family detached residential units.

Regional access to the Project site is available from the I-15 Freeway at Limonite Avenue interchange. The Project is bounded by Schleisman Road to the north and Orange Street to the south in the City of Eastvale. Vehicular traffic access will be provided via the following driveway:

- Driveway 1 via Orange Street – Full access

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

Trip generation represents the amount of traffic that is attracted and produced by a development and is based upon the specific land uses planned for a given project. The Single Family Detached Residential (ITE Land Use Code 210) trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (**ITE**) as provided in their Trip Generation Manual (11th Edition, 2017). (2) Trip generation rates used to estimate Project traffic are shown in Table 4-1.

The resulting trip generation for the proposed Project is also shown in Table 4-1. As shown in Table 4-1, the proposed Project is anticipated to generate a total of 388 vehicle trip-ends per day with 28 AM peak hour trips and 38 PM peak hour trips.

TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

	ITE		AM Peak Hour			PM Peak Hour			
Land Use	Code	Units[2]	In	Out	Total	In	Out	Total	Daily
Trip Generation Rates[1]									
Single Family Detached Residential	210	DU	0.18	0.52	0.70	0.59	0.35	0.94	9.43

			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[2]	In	Out	Total	In	Out	Total	Daily
Trip Generation Summary									
Single Family Detached Residential	41	DU	7	21	28	24	14	38	388

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] DU = Dwelling Units

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Exhibit 4-1 illustrates the Project trip distribution patterns.

4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project only ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-2.

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION

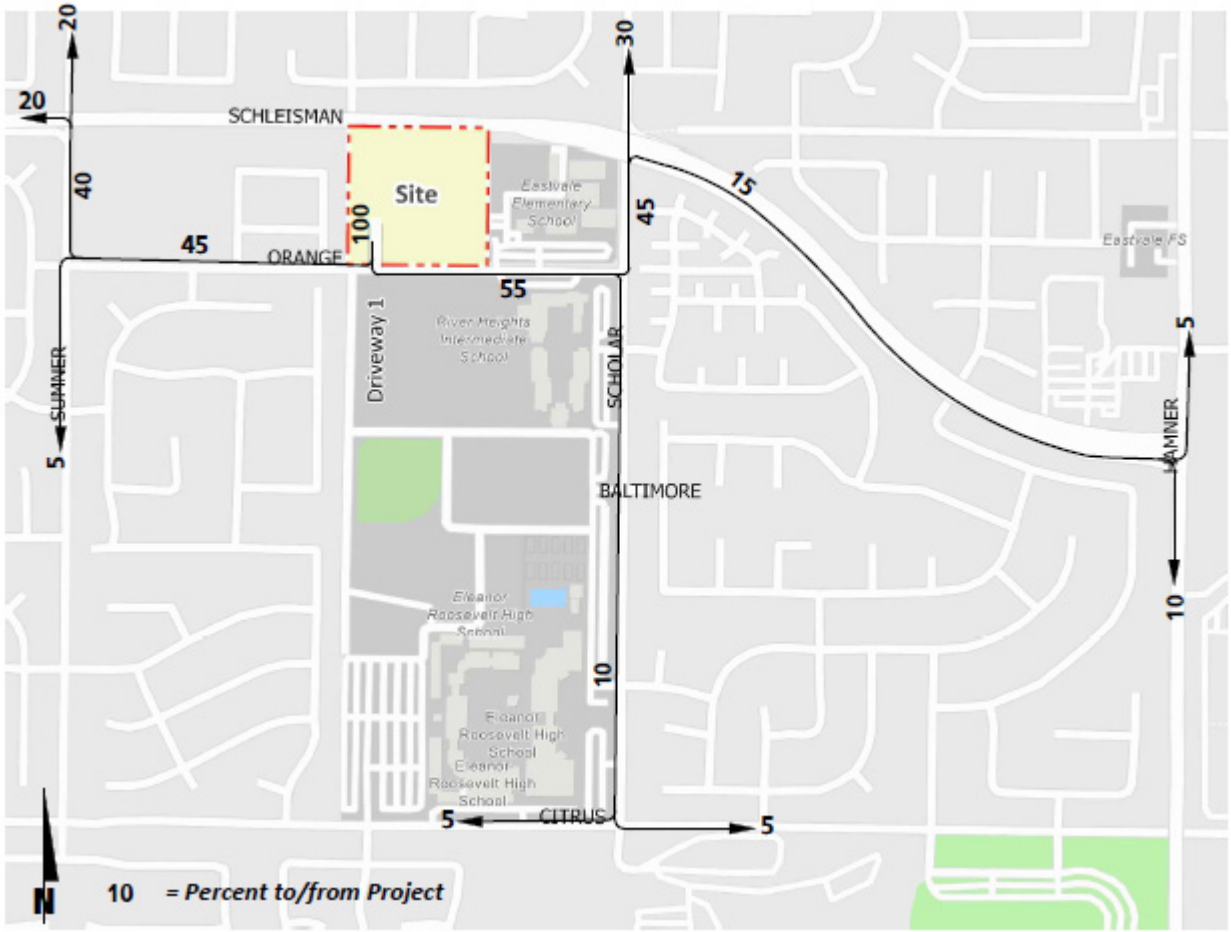


EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.	2 Sumner Av. & Orange St.	3 Orange St. & Driveway 1	4 Scholar Wy. & Schleisman Rd.
100 ← 1(5) 1(5) ↵ 4(3) ↰ 4(3) ↑ *100* *150*	*150* 3(10) ↳ ↱ 8(6) ↰ 1(1) 0(1) ↱ *200*	*400* 9(6) ↵ 12(8) ↳ 3(11) ↳ ↱ 4(13) *150* *200*	*100* ← 2(7) ↰ 1(4) 6(4) → 3(2) ↱ *150* *Nominal*

5 Scholar Wy. & Orange St.	6 Scholar Wy. & Baltimore St.	7 Scholar Wy. & Citrus St.	8 Hamner Av. & Schleisman Rd.
150 ↵ 3(11) 9(6) ↳ 2(1) ↵ ↰ 1(2) *200* *Nominal*	*Nominal* ← 2(1) 1(2) → ↱ *Nominal*	*Nominal* ↵ 1(1) ↳ 1(1) 0(1) ↳ ↱ 0(1)	↵ 0(1) 1(1) ↳ 2(1) ↵ ↰ 1(2) *Nominal* *Nominal*

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

4.5 BACKGROUND TRAFFIC

4.5.1 OPENING YEAR CUMULATIVE CONDITIONS

Future year traffic forecasts have been based upon background (ambient) growth at 1.6% per year for 2025 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth factor is 6.81 for 2025 traffic conditions (growth of 1.6 percent per year compounded over 4 years). This ambient growth rate is applied to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth traffic volumes have been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

Opening Year Cumulative (2025) traffic volumes are provided in Section 6 of this report. The traffic generated by the proposed Project was then manually added to the base volume to determine Opening Year Cumulative "With Project" forecasts for 2025.

4.5.2 HORIZON YEAR CONDITIONS

Horizon Year conditions represent the General Plan Buildout of the City of Eastvale and is based on the Riverside County Transportation Analysis Model (**RivTAM**) (see Section 4.7 *Horizon Year Volume Development* for additional discussion). The adopted Southern California Association of Governments (**SCAG**) 2020 Regional Transportation Plan/Sustainable Communities Strategy (**RTP/SCS**) (adopted September 2020) growth forecasts for the City of Eastvale identifies projected growth in population of 63,900 in 2016 to 72,700 in 2045, or a 13.77% increase over the 29-year period. (7) The change in population equates to roughly a 0.45% growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 13.50%, or a 0.44% annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 191.89%, or a 3.76% annual growth rate.

Based on a comparison of Existing (2021) traffic volumes to the Horizon Year forecasts, the average growth rate is estimated at approximately 2.46%, compounded annually between Existing (2021) and 2040 traffic conditions. The annual growth rate at each individual intersection is not lower than 0.62% compounded annually to as high as 6.55% compounded annually over the same time period.

Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Eastvale for Opening Year Cumulative and Horizon Year traffic conditions, especially when considered along with the addition of project-related traffic. As such, the growth in traffic volumes assumed in this traffic analysis would tend to overstate as opposed to understating the potential deficiencies to traffic and circulation.

EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP

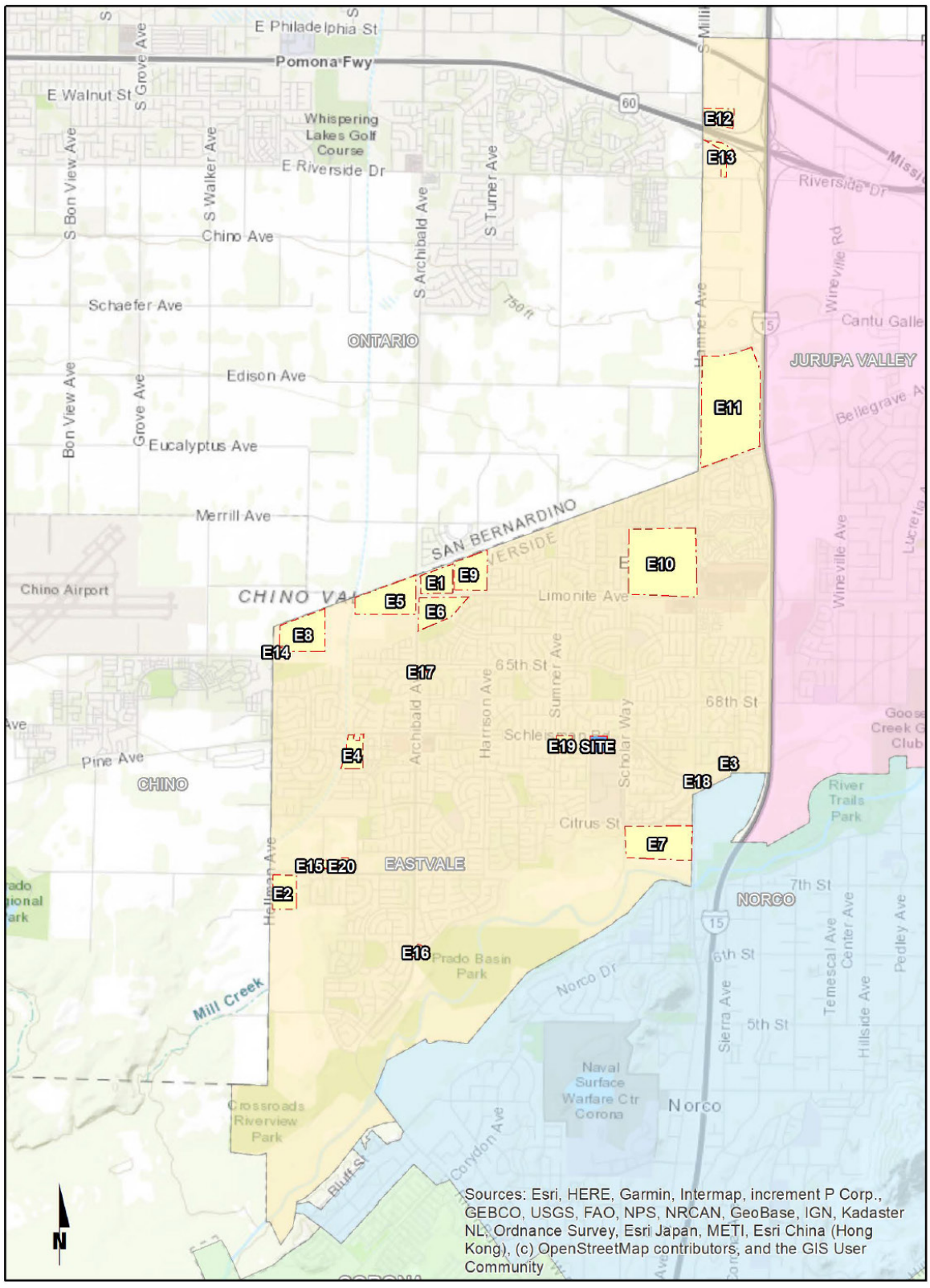


EXHIBIT 4-4: CUMULATIVE ONLY TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

1,100 | 2,650
- 1(1) ↲ 35(25) ← 8(12) ↳
- 7(12) ↰ 47(92) ← 16(12) ↑
- 1(1) ↳ 78(97) → 21(4) ↲
- 35(12) ↱ 37(19) → 21(14) ↱

2,550 | 1,850

2 Sumner Av. & Orange St.

1,250 | 650
- 20(19) ← 65(28) ↳
- 89(46) →

650 | 600

3 Orange St. & Driveway 1

650 | 650

650 | 650

4 Scholar Wy. & Schleisman Rd.

750 | 2,850
- 10(1) ↲ 7(23) ← 13(10) ↳
- 6(12) ↰ 68(112) ← 6(10) ↑
- 6(1) ↳ 100(95) → 11(18) ↲
- 16(15) ↱ 20(13) → 12(9) ↱

2,850 | 950

5 Scholar Wy. & Orange St.

950 | 950
- 24(51) ←
- 48(37) →

650 | 950

6 Scholar Wy. & Baltimore St.

950 | 950
- 24(51) ←
- 48(37) →

950 | 950

7 Scholar Wy. & Citrus St.

100 | 400
- 24(51) ↲
- 28(27) ↱
- 20(10) ↳

400 | 950

8 Hamner Av. & Schleisman Rd.

9,850 | 9,050
- 40(51) ↲ 26(145) ↳
- 117(160) ↰ 20(54) ← 169(171) ↑
- 26(8) ↳ 49(40) → 50(66) ↲
- 20(30) ↱ 208(133) ↱

2,850 | 9,150

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

#	Project/Location	Land Use[1]	Quantity	Units[2]
E1	The Merge	Warehousing	336.501	TSF
		Shopping Center	4.750	TSF
		Supermarket	30.000	TSF
		Gas Station w/ convenience store	16	VFP
		Pharmacy/Drugstore with Drive-Thru	14.600	TSF
		Fast-Food with Drive-Thru	6.000	TSF
		Automated Car Wash	4.000	TSF
		Fast-Food Without Drive-Thru	7.750	TSF
		Coffee/Donut Shop With Drive-Thru	2.500	TSF
E2	TR29997	SFDR	122	DU
E3	Hamner Place	Hotel	120	RM
		Civic Center	50.000	TSF
		Shopping Center	33	TSF
E4	TR35751	Condo/Townhouse	243	DU
E5	PP23219 (PM35865) (50% complete)	General Light Industrial	738.430	TSF
E6	Eastvale Shopping Center	Free-Standing Discount Superstore	192.000	TSF
		Specialty Retail	9.200	TSF
		Fast-Food Without Drive-Thru	7.200	TSF
		Coffee/Donut Shop w/ Drive Thru	2.000	TSF
		Fast-Food with Drive-Thru	3.500	TSF
		Gas Station w/ convenience store and car wash	16	VFP
E7	Van Leeuwen	Senior Housing	224	DU
E8	SP00358 - The Ranch at Eastvale	Shopping Center	267.200	TSF
		General Light Industrial	801.500	TSF
		Business Park	801.500	TSF
E9	SC Limonite, LLC	SFDR	330.000	TSF
E10	Leal Master Plan	Lifestyle Center (Commercial)	1,300.000	TSF
		General Commercial	225.000	TSF
		Office	920.000	TSF
		Hotel	450	RM
		High Density Residential	500-660	DU
E11	Eastvale Goodman Center	Shopping Center	677.000	TSF
		Supermarket	35.000	TSF
		Food Hall	16.500	TSF
E12	S. Milliken Warehouse	High-Cube Warehouse	280.000	TSF
E13	15-1508 - Industrial Warehouse	Warehousing	155.000	TSF
E14	Beyond Mart Development	Gas Station w/ convenience store and car wash	20.000	VFP
E15	PLN19-20047	Self-Storage	158.000	TSF
E16	Vantage Point Church	Church	10.000	AC
E17	Campus at Eastvale	Warehousing	733.688	TSF
		Gas Station w/ convenience stor and car wash	16	VFP
		Self-Storage	152.268	TSF
E18	PLN18-20037	Shopping Center	19.104	TSF
E-19	Sumner Place	Multifamily Housing (Low-Rise)	22	DU
		Multifamily Housing (Mid-Rise)	194	DU
		Retail	2.500	TSF
		Fast-Food without Drive-Thru	2.500	TSF
E 20	Gossett Self-Storage	Office	158.267	TSF
		Storage	950	Units

[1] SFDR = Single Family Detached Residential

[2] TSF = Thousand Square Feet; DU = Dwelling Unit; VFP = Vehicle Fueling Position ; AC = Acres; RM = Rooms

The model data from RivTAM represents peak hour data and therefore did not require adjustments. Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing or Opening Year Cumulative traffic conditions were not assumed as part of this analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year forecasts. Horizon Year turning volumes were compared to Opening Year Cumulative (2025) volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between Opening Year Cumulative (2025) and Horizon Year traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2021) and Opening Year Cumulative (2025) conditions. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the Horizon Year peak hour forecasts.

The future Horizon Year Without Project peak hour turning movements were then reviewed by Urban Crossroads, Inc. for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two adjacent driveway locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis.

RivTAM does not include a truck component or has data that is unusually low. As such, in an effort to conduct a conservative analysis, the presence of trucks has been accounted for based on the manual volume adjustments made to demonstrate growth above Opening Year Cumulative (2025) traffic forecasts. Post-processing worksheets for Horizon Year Without Project traffic conditions are provided in Appendix 4.1.

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (**E+P**) conditions and the resulting intersection operations and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

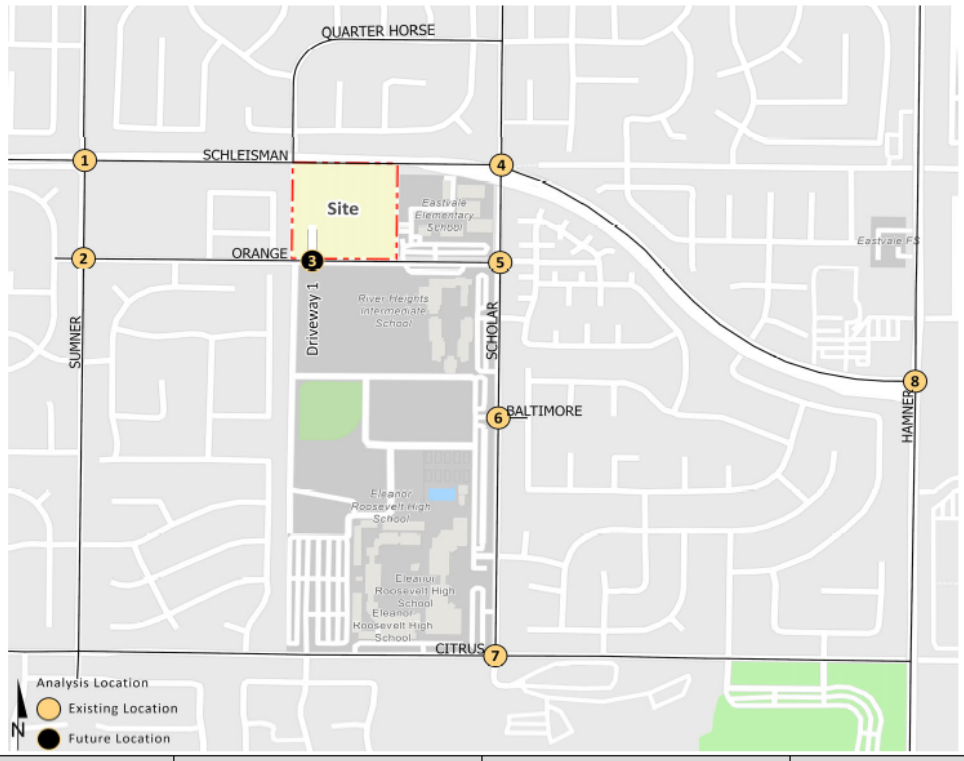
5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. The ADT volumes and weekday AM and PM peak hour intersection turning movement volumes which can be expected for E+P traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1, which indicates no additional intersections are anticipated to operate at an unacceptable LOS with addition of Project traffic, consistent with Existing (2021) traffic conditions. The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TA.

EXHIBIT 5-1: E+P TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

11,050 | 162(177) ↲ 251(228) ↓ 104(31) ↳ | *9,600* | 66(39) ↱ 378(288) ← 13(13) ↰
181(229) → | 159(63) ↰ 353(132) ↑ 14(9) ↱
256(347) → |
303(296) ↳ | *9,750*
18,500

2 Sumner Av. & Orange St.

9,750 | 15(24) ↲ 519(451) ↓ 34(62) ↳ | *1,250* | 36(19) ↱ 0(4) ← 7(2) ↰
46(14) → | 0(1) ↰ 444(171) ↑ 6(10) ↱
6(3) →
0(1) ↳ | *8,400*
600

3 Orange St. & Driveway 1

400 | 9(6) ↲ 12(8) ↳ | *1,300* | 4(13) ↱ 34(18) ←
3(11) → |
43(64) → |
1,250

4 Scholar Wy. & Schleisman Rd.

7,550 | 23(34) ↲ 607(228) ↓ 25(16) ↳ | *8,600* | 122(41) ↱ 300(217) ← 206(43) ↰
31(94) → | 133(42) ↰ 456(161) ↑ 150(40) ↱
334(296) →
136(28) ↳ | *7,100*
9,400

5 Scholar Wy. & Orange St.

7,100 | 270(41) ↲ 679(258) ↓ |
135(60) → | 154(23) ↰ 600(183) ↑
247(82) ↳ | *7,200*
2,650

6 Scholar Wy. & Baltimore St.

8,450 | 344(240) ↲ 503(157) ↓ 82(28) ↳ | *1,200* | 154(30) ↱ 29(8) ← 19(8) ↰
383(162) ↳ | 132(68) ↰ 597(183) ↑ 21(17) ↱ | *7,850*
6,300

7 Scholar Wy. & Citrus St.

9,050 | 440(241) ↲ 2(2) ↓ 340(163) ↳ | *16,200* | 277(107) ↱ 308(365) ← 10(6) ↰
303(170) → | 20(6) ↰ 4(1) ↑ 20(5) ↱
408(580) →
29(7) ↳ | *350*
18,100

8 Hamner Av. & Schleisman Rd.

24,650 | 491(181) ↲ 593(687) ↓ 1(1) ↳ |
377(183) → | 173(256) ↰ 603(811) ↑
201(112) ↳ | *24,700*
9,700

##(##) AM(PM) Peak Hour Intersection Volumes
*## **Average Daily Trips***

TABLE 5-1: INTERSECTION ANALYSIS FOR E+P CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2021) Delay[1] (secs.) AM	Existing (2021) Delay[1] (secs.) PM	Existing (2021) Level of Service AM	Existing (2021) Level of Service PM	E+P Delay[1] (secs.) AM	E+P Delay[1] (secs.) PM	E+P Level of Service AM	E+P Level of Service PM
1	Sumner Av. & Schleisman Rd.	TS	**111.2**	**58.6**	**F**	**E**	**114.2**	**60.1**	**F**	**E**
2	Sumner Av. & Orange St.	TS	8.6	8.5	A	A	9.0	8.9	A	A
3	Driveway 1 & Orange St.	--/CSS	Future Intersection				9.0	9.0	A	A
4	Scholar Wy. & Schleisman Rd.	TS	23.1	17.6	C	B	24.9	17.6	C	B
5	Scholar Wy. & Orange St.	TS	3.6	6.4	A	A	3.6	6.6	A	A
6	Scholar Wy. & Baltimore St.	TS	21.0	10.8	C	B	21.0	10.8	C	B
7	Scholar Wy. & Citrus St.	TS	40.1	18.8	D	B	40.2	18.9	D	B
8	Hamner Av. & Schleisman Rd.	TS	14.6	11.9	B	B	14.7	12.0	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

2 CSS = Cross-street Stop; TS = Traffic Signal; CSS = Improvement

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

No study area intersections are anticipated to meet average daily volume-based traffic signal warrants for E+P traffic conditions (see Appendix 5.2) of this report.

5.5 DEFICIENCIES AND IMPROVEMENTS

Improvements have been identified for each of the study area intersections that are operating at an unacceptable LOS during the peak hours. The effectiveness of the recommended improvement strategies to address E+P traffic deficiencies are presented on Table 5-2. Worksheets for E+P Conditions, with improvements, HCM calculation worksheets are provided in Appendix 5.3.

TABLE 5-2: SUMMARY OF INTERSECTION ANALYSIS FOR E+P CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	Sumner Av. & Schleisman Rd.																	
	-Without Improvements	TS	1	1	0	1	1	0	0	1	1	0	1	1	**114.2**	**60.1**	**F**	**E**
	-With Improvements[4]	TS	1	1	0	1	1	0	**1**	1	**0**	**1**	1	**0**	38.8	27.0	D	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes: L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

[3] TS = Traffic Signal

[4] Improvements require additional right-of-way. The improvements are assumed to be constructed by a future project adjacent to the intersection.

6 OPENING YEAR CUMULATIVE (2025) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2025) Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrant, analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).

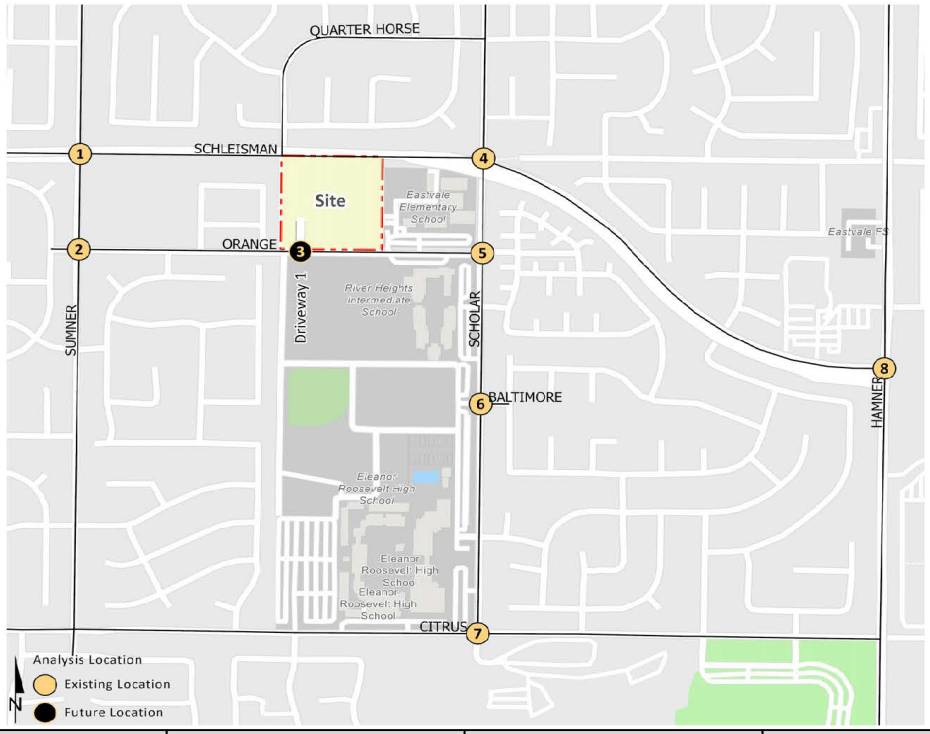
6.2 OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth of 6.8% plus traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2025) Without Project traffic conditions are shown on Exhibit 6-1.

6.3 OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Opening Year Cumulative (2025) Without Project traffic in conjunction with the addition of Project traffic. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2025) With Project traffic conditions are shown on Exhibit 6-2.

EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

12,000 | 11,050 | 10,800 | 20,400

193(244) →	176(68)	21(14)
296(399) →	383(143)	
328(311) ↲		
↲ 173(189)	↑ 72(45)	
↓ 277(245)	↑ 417(334)	
↳ 113(37)	↱ 19(17)	

2 Sumner Av. & Orange St.

10,600 | 1,350 | 9,100 | 650

49(15) →	0(1)	6(10)
6(3) →	500(196)	
0(1) ↲		
↲ 16(26)	↑ 30(14)	
↓ 559(486)	↑ 0(4)	
↳ 53(64)	↱ 6(1)	

3 Orange St. & Driveway 1

Future Intersection

4 Scholar Wy. & Schleisman Rd.

8,150 | 10,000 | 7,700 | 10,900

35(100) →	147(49)	160(43)
386(344) →	485(171)	
148(35) ↲		
↲ 28(37)	↑ 132(47)	
↓ 647(242)	↑ 347(295)	
↳ 31(20)	↱ 220(45)	

5 Scholar Wy. & Orange St.

7,700 | 7,950 | 2,800

134(58) →	163(22)	
261(86) ↲	658(206)	
↲ 285(32)		
↓ 731(290)		

6 Scholar Wy. & Baltimore St.

9,250 | 1,300 | 8,650 | 6,750

408(173) ↲	141(72)	22(18)
	649(204)	
	↰ 164(32)	
↓ 367(256)	↑ 31(9)	
↓ 541(182)	↰ 20(9)	
↳ 87(30)		

7 Scholar Wy. & Citrus St.

9,600 | 17,400 | 650 | 19,400

329(183) →	21(6)	21(5)
435(618) →	4(1)	
31(7) ↲		
↲ 475(271)	↑ 304(121)	
↓ 2(2)	↑ 328(389)	
↳ 361(173)	↰ 11(6)	

8 Hamner Av. & Schleisman Rd.

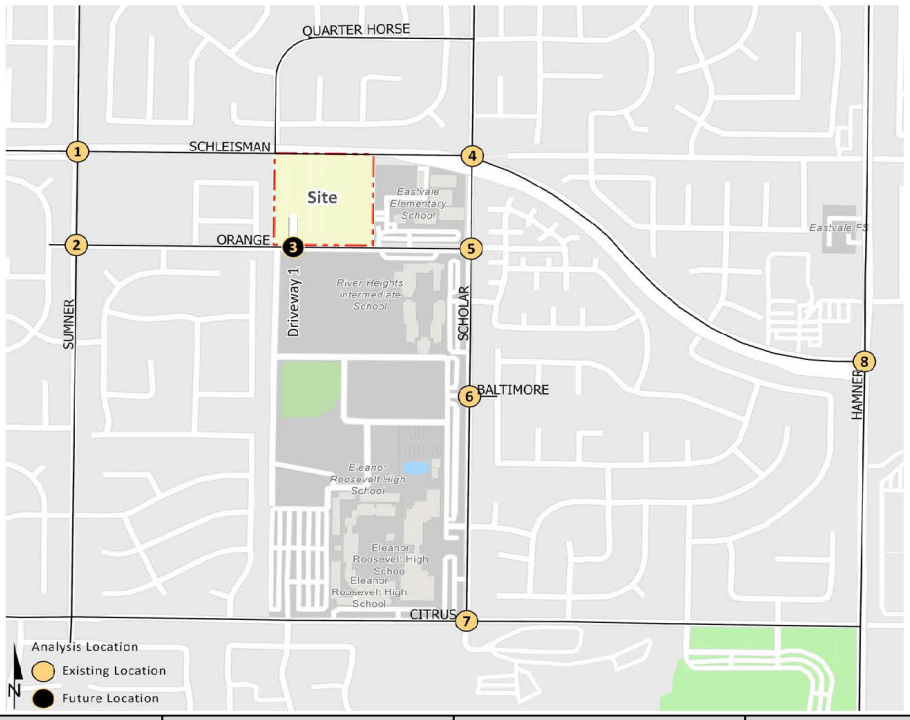
29,200 | 2,750 | 29,000 | 11,100

408(196) →	189(280)	62(40)
15(12) →	643(864)	
227(138) ↲		
↲ 535(207)	↑ 35(48)	
↓ 632(732)	↑ 6(16)	
↳ 9(45)	↱ 51(51)	

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd. — 11,050

12,100	173(189) ↲	278(250) ↓	113(37) ↳
193(244) ↳	180(71) ↰	387(146) ↑	21(14) ↱
296(399) →			
329(316) ↲			10,950
20,450			

2 Sumner Av. & Orange St. — 1,500

10,750	16(26) ↲	559(486) ↓	56(74) ↳
49(15) ↳	0(1) ↰	500(196) ↑	6(11) ↱
6(3) →			
0(1) ↲			9,150
650			

3 Orange St. & Driveway 1 — 1,550

400	9(6) ↲	12(8) ↳
3(11) ↳		4(13) ↱
65(77) →		36(19) ←
1,500		

4 Scholar Wy. & Schleisman Rd. — 10,050

8,300	28(37) ↲	649(249) ↓	31(20) ↳
35(100) ↳	147(49) ↰	491(175) ↑	163(45) ↱
386(344) →			
148(35) ↲			7,850
10,900			

5 Scholar Wy. & Orange St.

7,850	288(43) ↲	731(290) ↓	
143(64) ↳	164(24) ↰	658(206) ↑	
263(87) ↲			7,950
3,050			

6 Scholar Wy. & Baltimore St. — 1,300

9,250	367(256) ↲	543(183) ↓	87(30) ↳
			164(32) ↱
			31(9) ←
408(173) ↲			20(9) ↰
	141(72) ↰	650(206) ↑	22(18) ↱
6,750			8,650

7 Scholar Wy. & Citrus St. — 17,400

9,650	476(272) ↲	2(2) ↓	362(174) ↳
			304(122) ↱
			328(389) ←
			11(6) ↰
329(184) ↳	21(6) ↰	4(1) ↑	21(5) ↱
435(618) →			
31(7) ↲			650
19,400			

8 Hamner Av. & Schleisman Rd. — 2,750

29,200	535(208) ↲	632(732) ↓	9(45) ↳
			35(48) ↱
			6(16) ←
			51(51) ↰
409(197) ↳	190(282) ↰	643(864) ↑	62(40) ↱
15(12) →			
229(139) ↲			29,050
11,150			

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

6.4 INTERSECTION OPERATIONS ANALYSIS

6.4.1 OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC CONDITIONS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2025) Without Project conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown on Table 6-1, the following study area intersection is anticipated to operate at an unacceptable LOS under Opening Year Cumulative (2025) Without Project traffic conditions, consistent with Existing (2021) traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

The intersection operations analysis worksheets for Opening Year Cumulative (2025) Without Project traffic conditions are included in Appendix 6.1 of this TA.

6.4.2 OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 6-1, no additional study area intersections are anticipated to operate at a deficient LOS during the peak hours with the addition of Project traffic. The intersection operations analysis worksheets for Opening Year Cumulative (2025) With Project traffic conditions are included in Appendix 6.2 of this TA.

TABLE 6-1: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2025) CONDITIONS

			2025 Without Project				2025 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
#	Intersection	Traffic Control[2]	AM	PM	AM	PM	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.	TS	**157.8**	**76.8**	**F**	**E**	**161.5**	**78.3**	**F**	**E**
2	Sumner Av. & Orange St.	TS	9.3	8.7	A	A	9.6	9.1	A	A
3	Driveway 1 & Orange St.	--/**CSS**	Future Intersection				9.1	9.1	A	A
4	Scholar Wy. & Schleisman Rd.	TS	26.4	18.2	C	B	28.5	18.2	C	B
5	Scholar Wy. & Orange St.	TS	3.8	6.4	A	A	3.7	6.6	A	A
6	Scholar Wy. & Baltimore St.	TS	24.0	11.2	C	B	24.1	11.2	C	B
7	Scholar Wy. & Citrus St.	TS	50.6	19.6	D	B	50.8	19.6	D	B
8	Hamner Av. & Schleisman Rd.	TS	52.4	21.3	D	C	52.7	24.5	D	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

2 CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

The following study area intersection is not anticipated to meet average daily traffic volume-based traffic signal warrants for Opening Year Cumulative (2025) With Project traffic conditions (see Appendix 6.3).

6.6 DEFICIENCIES AND IMPROVEMENTS

Improvements have been identified for each of the study area intersections anticipated operating at an unacceptable LOS during the peak hours. The effectiveness of the recommended improvement strategies to address its traffic deficiencies are presented on Table 6-2. HCM calculation worksheets for Opening Year Cumulative (2025) With Project With Improvements are provided in Appendix 6.4 of this TA.

TABLE 6-2: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2025) CONDITIONS WITH IMPROVEMENTS

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.																	
	-Without Improvements	TS	1	1	0	1	1	0	0	1	1	0	1	1	**161.5**	**78.3**	**F**	**E**
	-With Improvements[4]	TS	1	1	0	1	1	0	**1**	1	**0**	**1**	1	**0**	54.0	31.8	D	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes: L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

[3] TS = Traffic Signal; **TS** = Improvement

[4] Improvements require additional right-of-way. The improvements are assumed to be constructed by a future project adjacent to the intersection.

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7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year (2040) Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrant analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2040) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Horizon Year conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Horizon Year conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).

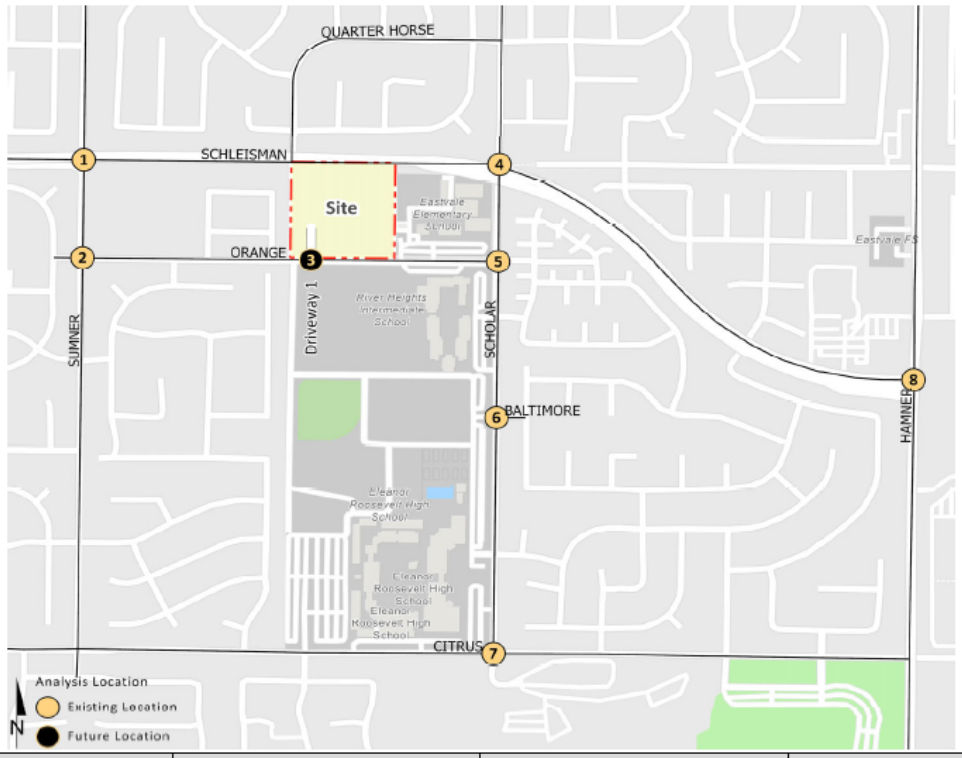
7.2 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM (see Section 4.7 *Horizon Year Volume Development* of this TA for a detailed discussion on the post-processing methodology) and represents the General Plan buildout of the City of Eastvale. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year Without Project traffic conditions are shown on Exhibit 7-1.

7.3 HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM, plus the traffic generated by the proposed Project (see Section 4.7 *Horizon Year Volume Development* of this TA for a detailed discussion on the post-processing methodology). Horizon Year With Project traffic forecasts reflects buildout of the Project. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year With Project traffic conditions are shown on Exhibit 7-2.

EXHIBIT 7-1: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

12,500 | 181(198) ↲ 315(267) ← 119(39) ↳ | 28,300 | 76(48) ↱ 934(1495) ← 28(19) ↰
203(256) ↳ | 208(77) ↰ 423(156) ↑ 33(17) ↱
1046(1449) → |
360(325) ↲ |
30,900 | 11,750

2 Sumner Av. & Orange St.

11,150 | 17(27) ↲ 595(512) ← 103(79) ↳ | 1,650 | 23(9) ↱ 0(4) ← 6(0) ↰
51(16) ↳ | 0(1) ↰ 518(200) ↑ 7(9) ↱
7(3) → |
0(1) ↲ |
650 | 9,300

3 Orange St. & Driveway 1

Future Intersection

4 Scholar Wy. & Schleisman Rd.

8,150 | 37(39) ↲ 676(248) ← 32(21) ↳ | 26,350 | 27(50) ↱ 1026(1727) ← 230(43) ↰
41(106) ↳ | 155(56) ↰ 504(176) ↑ 165(43) ↱
1206(1517) → |
159(40) ↲ |
33,000 | 7,600

5 Scholar Wy. & Orange St.

7,950 | 306(40) ↲ 759(291) ← | |
149(65) ↳ | 174(25) ↰ 675(210) ↑
279(93) ↲ |
2,900 | 8,200

6 Scholar Wy. & Baltimore St.

9,450 | 391(273) ↲ 580(196) ← 93(32) ↳ | 1,300 | 175(34) ↱ 33(9) ← 22(9) ↰
435(184) ↲ | 150(77) ↰ 694(221) ↑ 24(19) ↱
6,850 | 8,850

7 Scholar Wy. & Citrus St.

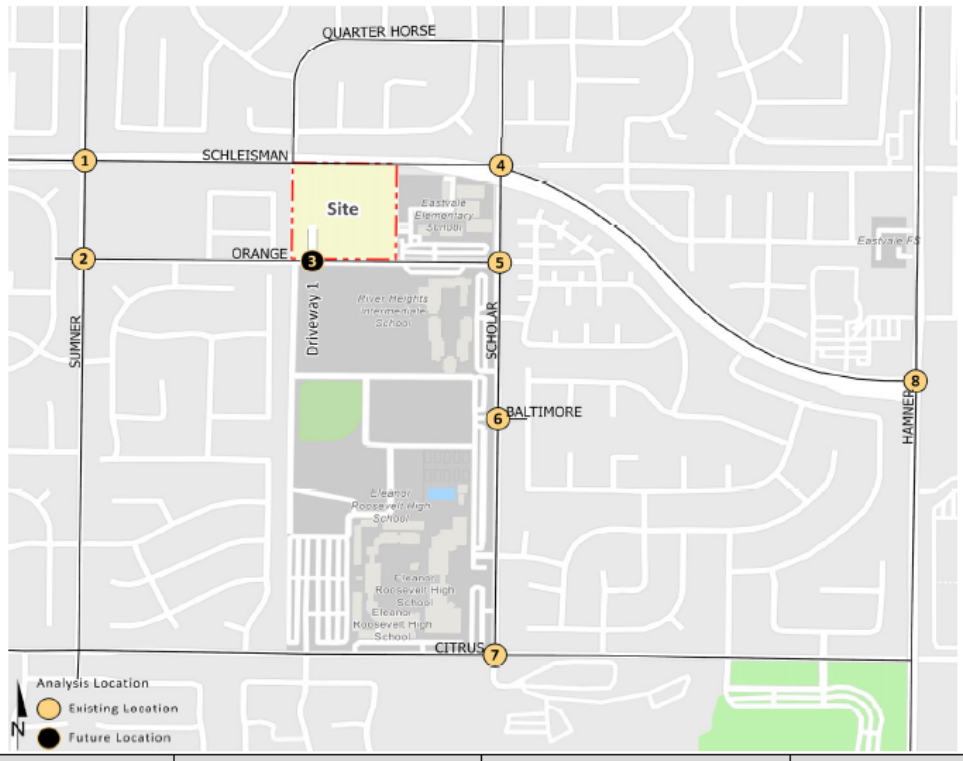
9,950 | 508(289) ↲ 2(2) ← 386(184) ↳ | 17,950 | 325(130) ↱ 350(414) ← 11(7) ↰
352(196) ↳ | 23(7) ↰ 5(1) ↑ 23(6) ↱
463(659) → |
33(8) ↲ |
20,050 | 700

8 Hamner Av. & Schleisman Rd.

29,800 | 572(222) ↲ 673(780) ← 26(145) ↳ | 9,050 | 117(160) ↱ 20(54) ← 169(171) ↰
437(209) ↳ | 203(302) ↰ 685(921) ↑ 208(133) ↱
49(40) → |
246(150) ↲ |
11,400 | 29,650

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

EXHIBIT 7-2: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd. — 28,300 ADT

12,550	181(198) ↳ 316(272) ← 119(39) ↳	↰ 76(48) ← 934(1495) ↰ 28(19)
203(256) ↳	↱	↱
1046(1449) →	212(80) →	427(159) →
361(330) ↴	33(17) ↱	11,900
31,000		

2 Sumner Av. & Orange St. — 1,850 ADT

11,300	17(27) ↳ 595(512) ← 106(89) ↳	↰ 31(15) ← 0(4) ↰ 7(1)
51(16) ↳	↱	↱
7(3) →	0(1) →	518(200) →
0(1) ↴	7(10) ↱	9,350
650		

3 Orange St. & Driveway 1 — 1,600 ADT

400	9(6) ↳ 12(8) ↳	↱ 4(13) ← 39(21)
3(11) ↳		
71(83) →		
1,600		

4 Scholar Wy. & Schleisman Rd. — 26,400 ADT

8,300	37(39) ↳ 678(255) ← 32(21) ↳	↰ 27(50) ← 1026(1727) ↰ 231(47)
41(106) ↳	↱	↱
1206(1517) →	155(56) →	510(180) →
159(40) ↴	168(45) ↱	7,800
33,000		

5 Scholar Wy. & Orange St. — 8,250 ADT

8,150	309(51) ↳ 759(291) ←	
158(71) ↳	↰	↰
281(94) ↴	175(27) →	675(210) →
3,150		8,250

6 Scholar Wy. & Baltimore St. — 1,300 ADT

9,500	391(273) ↳ 582(197) ← 93(32) ↳	↰ 175(34) ← 33(9) ↰ 22(9)
435(184) ↴	↱	↱
6,850	150(77) →	695(223) →
	24(19) ↱	8,900

7 Scholar Wy. & Citrus St. — 18,000 ADT

10,000	509(290) ↳ 2(2) ← 387(185) ↳	↰ 325(131) ← 350(414) ↰ 11(7)
352(197) ↳	↰	↰
463(659) →	23(7) →	5(1) →
33(8) ↴	23(6) ↱	700
20,050		

8 Hamner Av. & Schleisman Rd. — 9,050 ADT

29,850	572(223) ↳ 673(780) ← 26(145) ↳	↰ 117(160) ← 20(54) ↰ 169(171)
438(210) ↳	↰	↰
49(40) →	204(304) →	685(921) →
248(151) ↴	208(133) ↱	29,700
11,450		

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

7.4 INTERSECTION OPERATIONS ANALYSIS

7.4.1 HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS

LOS calculations were conducted for the study area intersections to evaluate their operations under Horizon Year Without Project traffic conditions with roadway and intersection geometrics consistent with Section 7.1 *Roadway Improvements*. As shown in Table 7-1, the following study area intersection is anticipated to operate at an unacceptable LOS under Horizon Year Without Project traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM and PM peak hours

The intersection operations analysis worksheets for Horizon Year Without Project traffic conditions are included in Appendix 7.1 of this TA.

7.4.2 HORIZON YEAR (2040) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 7-1, no additional study area intersections are anticipated to operate at a deficient LOS during the peak hours with the addition of Project traffic, consistent with Horizon Year Without Project traffic conditions. The intersection operations analysis worksheets for Horizon Year With Project traffic conditions are included in Appendix 7.2 of this TA.

TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS

			2040 Without Project				2040 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
#	Intersection	Traffic Control[2]	AM	PM	AM	PM	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
2	Sumner Av. & Orange St.	TS	10.1	8.6	B	A	10.4	9.1	B	A
3	Driveway 1 & Orange St.	--/**CSS**	Future Intersection				9.1	9.1	A	A
4	Scholar Wy. & Schleisman Rd.	TS	32.3	43.1	C	D	34.4	43.6	C	D
5	Scholar Wy. & Orange St.	TS	8.1	6.7	A	A	8.1	6.8	A	A
6	Scholar Wy. & Baltimore St.	TS	28.4	11.5	C	B	28.6	11.5	C	B
7	Scholar Wy. & Citrus St.	TS	53.8	21.5	D	C	53.9	21.6	D	C
8	Hamner Av. & Schleisman Rd.	TS	48.7	45.1	D	D	48.9	45.3	D	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

2 CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

3 The change in delay is calculated between pre-project and With Project scenarios for City of Eastvale intersections already operating at an unacceptable LOS in the pre-project traffic condition.

7.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

No study area intersections are anticipated to meet average daily traffic volume-based traffic signal warrants for Horizon Year (2040) With Project traffic conditions (see Appendix 7.3).

7.6 DEFICIENCIES AND IMPROVEMENTS

Improvements have been identified for each of the study area intersections that would be operating at an unacceptable LOS during the peak hours. The effectiveness of the recommended improvement strategies to address its traffic deficiencies are presented on Table 7-4. HCM calculation worksheets for Horizon Year With Project With Improvements are provided in Appendix 7.4 of this TA.

TABLE 7-3: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS WITH IMPROVEMENTS

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.																	
	-Without Improvements	TS	1	1	0	1	1	0	0	1	1	0	1	1	**>200.0**	**>200.0**	**F**	**F**
	-With Improvements[4]	TS	1	**2**	0	1	1	0	**1**	**2**	**0**	**1**	**2**	**1**	51.9	51.2	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes: L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

[3] TS = Traffic Signal; **TS** = Improvement

[4] Improvements require additional right-of-way. The improvements are assumed to be constructed by a future project adjacent to the intersection.

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8 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Eastvale are funded through a combination of construction of improvements, development impact fee programs or fair share contributions, such as the City of Eastvale Development Impact Fee (**DIF**) program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

8.1 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by the WRCOG based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (3) TUMF identifies a network of backbone and local roadways that are needed to accommodate growth through 2035. This regional program was put into place to ensure that development pays its fair share, and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region.

TUMF fees are imposed on new residential, industrial, and commercial development through application of the TUMF fee ordinance and fees are collected at the building or occupancy permit stage. The fee is $10,104 per dwelling unit for single family detached residential dwelling units (applicable to the proposed Project, effective January 1, 2022). In addition, an annual inflation adjustment is considered each year in January. In this way, TUMF fees are adjusted upwards on a regular basis to ensure that the development impact fees collected keep pace with construction and labor costs, etc.

The Project Applicant will be subject to the TUMF fee program and will pay the requisite TUMF fees at the rates then in effect pursuant to the TUMF Ordinance. WRCOG has a successful track record funding and overseeing the construction of improvements funded through the TUMF program. In total, the TUMF program is anticipated to generate nearly $5 billion in transportation projects for Western Riverside County.

8.2 CITY OF EASTVALE DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The City of Eastvale has prepared a Nexus Study to establish fees which has been adopted by the City as of July 1, 2012. It is our understanding that the DIF program includes widening of the Hellman Avenue bridge over Cucamonga Creek and the signalization of up to twenty-three intersections. The fee for single family detached residential is $9,146 per dwelling unit as of December 2019. In addition, an annual inflation adjustment is considered each year. Fee credits and reimbursements will be available as part of the Fee Program and will only be given to projects that are identified as a Fee Program facility. The Project's Conditions of Approval will establish and clarify eligibility.

The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of implementing the improvements listed in its facilities list. The City also uses this data to ensure that the improvements listed on the facilities list are constructed before the LOS falls below the LOS performance standards adopted by the City. In this way, the improvements are constructed before the LOS falls below the City's LOS performance

thresholds. The Project Applicant will be subject to the City's DIF fee program and will pay the requisite City DIF fees at the rates then in effect pursuant to the City's ordinance.

8.3 MIRA LOMA ROAD AND BRIDGE BENEFIT DISTRICT

Similar to other regions within Riverside County, the City of Eastvale is anticipated to experience substantial growth. Extensive improvements are necessitated by new development within the region. In particular, Riverside County recognized the impact of this growth on the vicinity of the study area when it formed the Mira Loma RBBD. The proposed Project lies within Zone D of the Mira Loma RBBD. Zone D is generally bounded by Bellegrave Avenue to the north, Hellman Avenue to the west, Hamner Avenue to the east, and the Eastvale city boundary to the south. As discussed above, the facilities improvements that will be ultimately constructed as a result of the collection of these fees and assessments are significant. The fee for residential use is $2,681 per single family residential dwelling unit within Zone D. They include:

Mira Loma Road and Bridge Benefits District (Zone D):

- Limonite Avenue interchange at the I-15 Freeway and between Hamner Avenue and Wineville Avenue
- Bellegrave Avenue overcrossing improvement at the I-15 Freeway
- Archibald Avenue roadway from River Road to the San Bernardino and Riverside County jurisdictional line
- Limonite Avenue roadway from Hamner Avenue to Archibald Avenue
- Schleisman Road roadway from Hamner Avenue to the San Bernardino and Riverside County jurisdictional line
- Archibald Avenue landscaped median from River Road to the San Bernardino and Riverside County jurisdictional line
- Hamner Avenue landscaped median between Bellegrave Avenue and the Santa Ana River
- Limonite Avenue landscaped median between Hamner Avenue and Archibald Avenue
- Schleisman Road landscaped median from Hamner Avenue to the San Bernardino and Riverside County jurisdictional line

8.4 FAIR SHARE CONTRIBUTION

Project improvement may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, has been provided on Table 8-1 for the applicable deficient study area intersections.

These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

TABLE 8-1: PROJECT FAIR SHARE CALCULATIONS

#	Intersection		Existing	Total Project	2040 With Project	Total New Traffic	Project % of New Traffic
1	Sumner Av. & Schleisman Rd.						
		AM:	2,230	10	3,936	1,706	0.59%
		PM:	1,836	16	4,362	2,526	**0.63%**

BOLD = Denotes highest fair share percentage.

[1] Fair share based on total traffic only.

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9 REFERENCES

1. **Riverside County Transportation Department.** *Guidelines Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled.* County of Riverside : s.n., December 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **Western Riverside Council of Governments.** *TUMF Nexus Study, 2016 Program Update.* July 2017.
4. **Riverside County Transportation Commission.** *2011 Riverside County Congestion Management Program.* County of Riverside : RCTC, December 14, 2011.
5. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
6. **Caltrans.** Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2014.
7. **Southern California Association of Governments.** *2020 Regional Transportation Plan/Sustainable Communities Strategy.* Adopted September 2020.

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RESOLUTION NO. 23-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF EASTVALE, CALIFORNIA, APPROVING TENTATIVE TRACT MAP NO. 38167 TO SUBDIVIDE A 10-ACRE PARCEL OF LAND (8.28 NET ACRES) INTO FORTY-ONE (41) PARCELS AND THREE (3) LETTERED LOTS AND THE MASTER BUILDING ARCHITECTURE AND SITE PLANNING OF THE NEW MAGNOLIA RANCH RESIDENTIAL COMMUNITY ON REAL PROPERTY LOCATED NORTH OF ORANGE STREET, SOUTH OF SCHLEISMAN ROAD, EAST OF QUARTER HORSE DRIVE AND WEST OF SCHOLAR WAY, ASSESSOR'S PARCEL NUMBERS 152-040-003.

WHEREAS, the applicant, Woodside 05S, LP filed an application for Tentative Tract Map No. 38167 as part of Project No. PLN23-20043, to subdivide 10-acres (8.28 net) of land into forty-one (41) single-family lots and three (3) lettered lots for purposes of water quality, common open space, and pedestrian corridors, along with the master building and site planning of the new 41 unit residential community located north of Orange Street, south of Schleisman Road, east of Quarter Horse Drive, and west of Scholar Way, Assessor's Parcel Number 152-040-003; and

WHEREAS, the proposed application (Project No. PLN23-20043) is considered a "project" as defined by the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.; and

WHEREAS, the City, as the Lead Agency, determined that the proposed project required the preparation of an Initial Study and Mitigated Negative Declaration (IS/MND) (SCH #2023090664) for compliance with the provisions of CEQA; and

WHEREAS, on September 28, 2023, in accordance with the CEQA Guidelines Section 15072(b), the City posted a Notice of Intent (NOI), and also published the NOI in the *Press Enterprise*, a local newspaper of general circulation, regarding the 20-day public review period; and

WHEREAS, the City made the proposed Mitigated Negative Declaration available for public review beginning on September 28, 2023, and concluding October 17, 2023, a period of not less than 20-days as prescribed by law; and

WHEREAS, in accordance with state law, on September 28, 2023, the City of Eastvale Planning Department published a legal notice in compliance with state law concerning Project No. PLN23-20043 in the *Press Enterprise*, a local newspaper of general circulation, regarding the Planning Commission meeting on October 18, 2023. In addition, September 25, 2023, a public hearing notice was mailed to each property owner and commercial tenant within a 600-foot radius of the project site, indicating the date and time of the public hearing at the Planning Commission meeting for Project No. PLN23-20043; and

WHEREAS, the City of Eastvale Planning Commission conducted a duly noticed public hearing on October 18, 2023, at which public testimony was received concerning Project No. PLN23-20043, and at which time the Commission considered proposed Project No. PLN23-20043.

NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF EASTVALE DOES HEREBY RESOLVE, DETERMINE, AND ORDER AS FOLLOWS:

SECTION 1. FINDINGS FOR THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The Planning Commission of the City of Eastvale, in light of the whole record before it, including, but not limited to, the City's local CEQA Guidelines and thresholds of significance, the IS/MND (SCH #2023090664) and other documents incorporated therein by reference, the Mitigation Monitoring and Reporting Program (MMRP), any written comments received and responses provided, and other substantial evidence, within the meaning of Public Resources Code Sections 21080(e) and 21082.2, within the record and/or provided at the public hearing, hereby finds, determines, and certifies as follows:

A. Review Period: That the IS/MND has been provided for public review within the duration required under CEQA Guidelines.

B. Compliance with Law: That the IS/MND was prepared, processed, and noticed in accordance with CEQA (Public Resources Code Section 21000 et seq.), the CEQA Guidelines (14 California Code of Regulations Section 15000 et seq.), and the local CEQA guidelines and thresholds of significance adopted by the City of Eastvale. That the IS/MND was presented to the Planning Commission, and the Planning Commission has reviewed and considered the information contained in the IS/MND, and public testimony received thereon during the hearing, prior to any action on the project.

C. Independent Judgment: That the IS/MND reflects and represents the City of Eastvale's independent judgment and analysis and adequately addresses the impacts of, and proposes appropriate mitigation measures upon, the City's actions in approving or taking action on proposed Project No. PLN23-20043.

D. Mitigation Monitoring and Reporting Program: The Mitigation Monitoring and Reporting Program (MMRP) is designed to ensure compliance during project implementation in that changes to the project and/or mitigation measures have been incorporated into the project and are fully enforceable through permit conditions, agreements, or other measures as required by Public Resources Code Section 21081.6.

E. Less Than Significant Impact: The mitigation measures imposed on the project avoid or mitigate any potential significant effects on the environment identified in the IS/MND to a point below the threshold of significance. Furthermore, after

taking into consideration the revisions to the project and the mitigation measures imposed, the Planning Commission finds that there is no substantial evidence, in light of the whole record, from which it could be fairly argued that the project may have a significant effect on the environment. Therefore, the Planning Commission concludes that the project will not have a significant effect on the environment with adoption of the proposed mitigation measures as outlined in the MMRP.

SECTION 2. FINDINGS FOR TENTATIVE TRACT MAP NO. 38167

Pursuant to Eastvale Subdivision Ordinance No. 460, the staff report dated October 18, 2023, and all evidence and testimony heard at the public hearing of this item, the Planning Commission hereby finds and determines as follows:

Finding 1: Tentative Tract Map No. 38167 is consistent with the City's General Plan and any applicable specific plan as specified in Government Code Section 65451.

Evidence: The General Plan Land Use designation is Medium Density Residential. Proposed Tentative Tract Map No. 38167 is a land division to subdivide a 10-acre (8.28-acres net) site into forty-one (41) parcels and three (3) lettered lots to facilitate the future residential community referred to as Magnolia Ranch. The proposed density of 4.95 dwelling units per acre is consistent with the Medium Density Residential land use designation of 2.1-5 dwelling units to an acre. Further, Tentative Tract Map No. 38167 is processed under the provisions of Senate Bill 330 excusing the project from the requirement of rezoning the property if it is consistent with the General Plan; therefore, the project is not subject to any specific plan.

Finding 2: The design or improvement of the proposed subdivision is consistent with the City's General Plan and any applicable specific plan.

Evidence: Tentative Tract Map No. 35601 is designed to meet all City standards applicable to residential development to the extent feasible under the provisions of SB 330, including street widths, drainage, utilities, lot size and configuration, grading, required dedications and providing satisfactory pedestrian and vehicular circulation, emergency vehicle access and on- and off-site public improvements.

Finding 3: The site is physically suitable for the type and proposed density of development.

Evidence: The site is physically suitable for the type of development proposed in that the infrastructure and utilities either already serve the site or can be readily expanded to serve the site, and there are no intractable topographical peculiarities associated with the physical character of the property that may prevent the development of forth-one (41) lots with single family dwellings and three (3) lettered lots for community use. Further the site is physically suitable for the

proposed density of development of 4.95 dwelling units per acre in that the applicant has submitted a conceptual development plan which illustrates that single-family dwelling units can be constructed on this 10-acre (8.28-acre) site without adversely affecting the health, safety, or welfare of anyone who will live within the development or anyone living within the surrounding community.

Finding 4: The design of the subdivision or proposed improvements is not likely to cause significant environmental damage or substantially and avoidably injure fish or wildlife or their habitat.

Evidence: The City, as the Lead Agency, determined that the proposed project required the preparation of an Initial Study and Mitigated Negative Declaration (IS/MND) to evaluate the effect of the project on the environment. The mitigation measures identified in the IS/MND and conditioned on the project avoid or mitigate any potential significant effects on the environment to a point below the threshold of significance. As conditioned, the project will not have a significant effect on the environment or substantially and avoidably injure fish or wildlife or their habitat.

Finding 5: The design of the subdivision or type of improvements is not likely to cause serious public health problems.

Evidence: The design of the subdivision is in conformance with the City's General Plan, Zoning Code, and Subdivision Ordinance. Accordingly, the subdivision and improvements will comply with all applicable local, state, and federal laws to ensure the public's general health, safety, and welfare.

Finding 6: The design of the subdivision or the type of improvements will not conflict with easements, acquired by the public at large, for access through or use of property within the proposed subdivision.

Evidence: The project site includes a thirty-foot-wide public access easement along the eastern boundary of the site. The proposed easement will not conflict with the proposed subdivision and will encourage pedestrian and vehicular circulation around the project site.

SECTION 3. FINDINGS FOR MAJOR DEVELOPMENT REVIEW

The criteria and required findings for a Major Development Review are outlined in Section 120.02.010 "Development Review." The Planning Commission may approve a Major Development Review, with or without conditions, only after first making specific findings. The required findings and an analysis of the merits of the Major Development Review application are listed below:

Finding 1: The proposed project is consistent with the objectives of the general plan, and

complies with applicable zoning regulations, specific plan provisions, special planning area provisions, design guidelines, and improvement standards adopted by the city.

Evidence: The General Plan land use designation of the proposed site is Medium Density Residential. The Medium Density Residential land use designation allows for the development of single-family residential development with a maximum density of five (5) dwelling units to the acre. The proposed project would be consistent with the surrounding area and is consistent with the General Plan designation and Zoning to the extent permittable under the provisions of Senate Bill 330.

Finding 2: The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community.

Evidence: The proposed project has been designed to conform to the logical pattern of development as envisioned by the Eastvale General Plan and has been designed to satisfy the General Plan design policies. The project has been designed with high-quality urban design, architecture, and landscaping, that includes common open space and connectivity between existing street networks for pedestrian and bicyclist, as well as landscaping along the proposed streets and paseos. The project has been designed to provide connections to the future trail along the south side of Schleisman Road, which will promote pedestrian activities between the project site and nearby uses. Finally, the project has been designed to meet the requirements and development standards of the Eastvale Zoning Code to the extent permitted under the provisions of Senate Bill SB 330.

Finding 3: The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting and signing and similar elements, establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties.

Evidence: The architectural theme of the proposed single-family residential units are consistent with the surrounding neighborhoods in terms of character, scale, and quality. These standards focus on high quality design and articulation to provide visual interest and variety (both vertically and horizontally). The building includes stone veneer, board and batten, colored and scored stucco, shutters, and decorative garage doors as examples of the variation of materials designed to complement the exterior plaster and building finishes. Thus, the proposed design is consistent with the Eastvale Zoning Code and the General Plan.

Finding 4: The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation.

Evidence: The proposed project is conditioned to ensure adequate circulation to and from the site. All streets have also been designed to handle the type and quantity of vehicular traffic associated with the project proposal. As conditioned, the project will include sidewalks and pedestrian and bicycle connections that will not create conflicts with motorized vehicles.

Finding 5: If the project is located within the Chino Airport influence area, the proposed project is consistent with the most recently adopted version of the airport land use compatibility plan.

Evidence: The project is not located within the Chino Airport Influence Area.

SECTION 4. MULTIPLE SPECIES HABITAT CONSERVATION PLAN

Finding: The project is found to be consistent with the Multiple Species Habitat Conservation Plan (MSHCP).

Evidence: The project is located outside of any MSHCP criteria area, and mitigation is provided through payment of the MSHCP Mitigation Fee.

SECTION 4. RECORD OF PROCEEDING

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include but are not limited to the staff reports as well as all materials that support the staff reports for the proposed project, are located in the Planning Division of the City of Eastvale at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752. The custodian of these documents is the City Clerk of the City of Eastvale.

SECTION 5. DETERMINATION

Based upon the findings outlined in Sections 1 through 4 above, the Planning Commission of the City of Eastvale hereby approves PLN23-20043 Tentative Tract Map 38167 and Major Development Review, subject to the attached conditions of approval and directs the Community Development Director to file a Notice of Determination with the County of Riverside Clerk's Office within five (5) days of the approval date.

PASSED, APPROVED AND ADOPTED this 18th day of October 2023.

_____
Kevin Mensen
Chair

APPROVED AS TO FORM:

_____
Chad Herrington
Assistant City Attorney

ATTEST:

_____
Whitney Mayo
Deputy City Clerk

(STATE OF CALIFORNIA)
(COUNTY OF RIVERSIDE) §
(CITY OF EASTVALE)

I, Whitney Mayo, Deputy City Clerk of the City of Eastvale, California, do hereby certify that the foregoing Planning Commission Resolution No. 23-XX, was duly adopted by the Planning Commission of the City of Eastvale, California, at a regular meeting held on the 18th day of October 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

_____
Whitney Mayo,
Deputy City Clerk

CONDITIONS OF APPROVAL
Planning Application Number and Description: Project No. 23-20043 - Tentative Tract Map No. 38167 allows the subdivision of a 10-acre (8.28 net) site into 41 residential lots and three lettered lots for open space and water basins purposes. The project site is located at 13175 Orange Street, south of Schleisman Road, east of Quarter Horse Drive, west of Scholar Way, on the north side of Orange Street.
Assessor's Parcel Numbers: 152-040-003
Planning Commission Approval Date:

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
General Conditions				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Department. Project approval is not final unital a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	In compliance with Section 15075 of the California Environmental Quality Act (CEQA) Guidelines, a Notice of Determination (NOD) shall be filed with the Riverside County Clerk within five (5) days of project approval. The NOD shall include the required California Department of Fish and Wildlife (CDFW) (Code Section 711.4.d.3) fee and the Riverside County Clerk administrative fee.	Five (5) days from project approval	Planning Division	
3.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands,	Ongoing	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under CEQA, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent jurisdiction. It is expressly agreed that the City shall have the right to approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
4.	Any approval shall not be final until and unless the applicant's deposit account with Planning has a balance of at least **$5,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-	Ongoing	Planning and Building Divisions	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20043** on the check.			
5.	Any approval shall not be final until and unless the applicant's deposit account with Public Works Division has a balance of at least $10,000 to cover staff time to follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to half work if the deposit account is exhausted.	Ongoing	Public Works Department	
6.	Tentative Tract Map 38167 is granted for a period of two years, until October 18, 2025, at which time said Map shall expire unless prior to the expiration date, either the final map has recorded or a written request for time extension, accompanied by the appropriate fee, is received by the Planning Division.	Ongoing	Public Works Department	
7.	Development shall occur substantially as shown on the plans approved by the Planning Commission and on file with the Community Development Department. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned. Amended entitlement approvals may be necessary as a result.	Ongoing	Planning Division	
8.	Applicable mitigation measures included in the IS/MND shall be required for development of the proposed project (PLN23-20043) and are incorporated herein by reference.	Ongoing	Planning Division	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
9.	All applicable Major Development Review conditions of approval (PLN23-20043) shall be incorporated herein by reference.	Ongoing	Planning Division	
10.	The project shall conform to the requirements of Senate Bill (SB) 330 Housing Crisis Act of 2019.	Ongoing	Planning Division	
11.	Applicants are responsible for all costs associated with off-site right-of-way acquisition, including any costs associated with the eminent domain process, if necessary.	Ongoing	Public Works Department	
12.	Should this project lie within any assessment/benefit district, the project proponent shall, prior to acceptance of improvements, make application for and pay for their reapportionment of the assessments or pay the unit fees in the benefit district unless said fees are otherwise deferred.	Ongoing	Public Works Department	
13.	The developer shall fully disclose in writing to the purchaser at time of entering escrow those requirements and obligations remaining outstanding or otherwise incomplete, including (but not limited to) streets, utilities, drainage, grading, walls, landscape planting and irrigation, and structure, or seismic activity. Such written disclosure shall be limited to subjects covered by these conditions of approval.	Ongoing	Planning Division	
14.	Final lot configurations shall be reviewed and approved by the Community Development Director and City Engineer prior to recordation of any portion of Tentative Tract Map 38167.	Ongoing	Planning & Public Works Divisions	
15.	Approval of this request shall not excuse compliance with all other applicable City ordinances and development standards	Ongoing	Planning, Public Works, and	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	in effect at this time.		Building Divisions	
16.	This project is subject to compliance with Jurupa Community Services District's rules, regulations, conditions, requirements, and payment of appropriate fees.	Ongoing	Jurupa Community Services District	
17.	If this project proposes channels, storm drains 36 inches or larger in diameter, or other facilities that could be considered regional in nature and/or a logical extension of a District's facility, the District would consider accepting ownership of such facilities on written request by the City. The Project applicant shall enter into a cooperative agreement establishing the terms and conditions of inspection, operation, and maintenance with the District and any other maintenance partners. Facilities must be constructed to District standards, and District plan check and inspection will be required for District acceptance. Plan check, inspection, and administrative fees will be required. The regulatory permits' terms and conditions shall be approved by the District prior to improvement plan approval, map recordation, or finalization of the regulatory permits. There shall be no unreasonable constraint upon the District's ability to operate and maintain the flood control facility(ies) to protect public health and safety.	Ongoing	Riverside County Flood Control and Water Conservation District	
18.	An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely Eastvale Master Drainage Plan Lateral D-7. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact	Ongoing	Riverside County Flood Control and Water Conservation District	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	the District's Encroachment Permit Section at 951.955.1266.			
19.	The project proponent shall bear the responsibility for complying with all applicable mitigation measures defined in the California Environmental Quality Act (CEQA) document (i.e., Negative Declaration, Mitigation Negative Declaration, Environmental Impact Report) and/or Mitigation Monitoring and Reporting Program, if a CEQA document was prepared for the project. The project proponent shall also bear the responsibility for complying with all other federal, state, and local environmental rules and regulations that may apply.	Ongoing	Riverside County Flood Control and Water Conservation District	
20.	If a natural watercourse or mapped floodplain is impacted by this project, the City should require the applicant to obtain a Section 1602 Agreement from the California Department of Fish and Wildlife and Clean Water Act Section 404 Permit from the U.S. Army Corps of Engineers, or written correspondence from these agencies indicating the project is exempt from these requirements. A Clean Water Act Section 401 Water Quality Certification may be required from the local California Regional Water Quality Control Board prior to issuance of the Corps 404 permit.	Ongoing	Riverside County Flood Control and Water Conservation District	
21.	If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made.	Ongoing	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Following discovery and during assessment of the remains, work will be diverted at least 50 feet from the burial. The discovery shall be kept confidential, and secure to prevent disturbance. If left overnight, remains will be covered with a muslin cloth and steel plate over the excavation to protect the remains. If this method of protection is not feasible, a guard will be posted. If the Riverside County coroner determines the remains to be of Native American origin, the NAHC must be contacted by the coroner within 24 hours of the coroner's determination. The NAHC must then immediately identify the most likely descendants(s) for purposes of receiving notification of discovery. The most likely descendant(s) shall then make recommendations within 48 hours from the time that site access is granted and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 507.98.			
22.	If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City.	Ongoing	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	MM CUL-1			
23.	The following measure shall be incorporated into project plans as implementation of SCAQMD Rule 402: • A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.	Ongoing	Planning Division	
24.	The following measures shall be incorporated into project plans as implementation of SCAQMD Rule 403: • All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions. • The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project site are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.	Ongoing	Planning Division	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	• The contractor shall ensure that traffic speeds on unpaved roads and in project site areas are reduced to 15 mph or less.			
25.	The following measure shall be incorporated into project plans as implementation of SCAQMD Rule 1113: • In order to limit the volatile organic compound (VOC) content of architectural coatings used in the SCAB, architectural coatings shall be no more than a low VOC default level of 50 grams per liter (g/L) unless otherwise specified in the SCAQMD Table of Standards.	Ongoing	Planning Division	
26.	All applicable measures shall be incorporated into project plans as implementation of SCAQMD Rule 1403 if asbestos is found during the demolition of existing structures.	Ongoing	Planning Division	
27.	The project shall comply with the California Building Code and the City of Eastvale's grading requirements in Eastvale Municipal Code Section 130.08.040, *Street Grades*, and subject to the approval of the City Engineer.	Ongoing	Planning Division	
28.	The project shall comply with all recommendations contained in the project-specific Geotechnical Evaluation.	Ongoing	Planning Division	
29.	The following are applicable to the project and would assist in the reduction of GHG emissions: • Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) - requires CARB to	Ongoing	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020 • Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill [SB] 375) • California Code of Regulations, Title 24 (California Building Standards Code) – establishes energy efficiency requirements for new construction • California Code of Regulations, Title 20, Division 2, Chapter 4 (Appliance Efficiency Regulations) – establishes energy efficiency requirements for appliances • Senate Bill 100 (SB 1078) – requires that 100 percent of retail sales of electricity be generated from renewable or zero-carbon sources, by December 2045			
30.	The project will be subject to the general sound level standards of Eastvale Municipal Code Section 8.52.040, *General Sound Level Standards*.	Ongoing	Planning, Public Works, and Building Divisions	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
Prior to Grading Permit				
31.	This project may require a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Clearance for grading, recordation, or other final approval should not be given until the City has determined that the project has been granted a permit or is shown to be exempt.	Prior to Grading Permit Issuance	Riverside County Flood Control and Water Conservation District	
32.	If this project involves a Federal Emergency Management Agency (FEMA) mapped floodplain, then the City should require the applicant to provide all studies, calculations, plans, and other information required to meet FEMA requirements, and should further require that the applicant obtain a Conditional Letter of Map Revision (CLOMR) prior to grading, recordation, or other final approval of the project and a Letter of Map Revision (LOMR) prior to occupancy.	Prior to Grading Permit Issuance	Riverside County Flood Control and Water Conservation District	
33.	The developer shall prepare an address blocking exhibit with the proposed addressing and street names for review and approval by the Planning Division. This plan, including updates to the plan, shall include addressing for buildings (primary address and units) and utilities such as but not limited to electrical/water/single/dual irrigation meter pedestal(s) or temporary power poles.	Prior to Grading Permit Issuance	Planning and Building Divisions	
34.	Street names shall be approved by the Community Development Director. Suggested street names and alternatives shall be submitted in writing to the Community Development Director for approval. Phonic similarity with existing street names should be avoided.	Prior to Grading Permit Issuance	Planning and Building Divisions	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
35.	Prior to issuance of grading permits, the project applicant shall prepare construction documents for approval by the City Engineer which shall include plans to construct a minimum 6.5□foot-high wall on the north side of Lots 9 through 15 and Lots 27-28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings. *MM NOI-1*	Prior to Grading Permit Issuance	Planning and Public Works Divisions	
36.	The project shall conduct focused burrowing owl pre-construction surveys as follows: 1. No more than 30 days prior to the first ground-disturbing activities, the project applicant shall retain a qualified Biologist to conduct a pre-construction survey of the project site. The survey shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with the California Department of Fish and Wildlife (CDFW) and Western Riverside County Regional Conservation Authority (RCA) survey guidelines. 2. On the parcel where the activity is proposed, the Biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and burrowing owl. The survey shall take place near sunrise or sunset in accordance with the CDFW and RCA guidelines. All burrows or burrowing owl shall be identified and mapped. During the breeding season (February 1– August 31), surveys shall document whether burrowing	Prior to Grading Permit Issuance	Planning Division	

Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
owl are nesting on or directly adjacent to disturbance areas. During the non-breeding season (September 1– January 31), surveys shall document whether burrowing owl are using habitat on or directly adjacent to any disturbance area. Survey results shall be valid only for the season during which the survey is conducted. 3. If burrowing owl are not discovered, further mitigation is not required. If burrowing owl are observed during the pre-construction surveys, the applicant shall perform the following measures to limit the impact on the burrowing owls: A. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. Construction may occur during the breeding season if a qualified Biologist monitors the nest and determines that the birds have not begun egg-laying and incubation, or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1-January 31), the project applicant shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. B. If it is not possible to avoid occupied burrows, passive relocation shall be implemented. Burrowing owl shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow			

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent re-occupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any burrowing owl inside the burrow. *MM BIO-1*			
37.	The project applicant shall employ protective measures for active bird nests as follows (including pre-construction survey and implementation of avoidance buffer, if found): 1. Removal of trees shall be limited to only those necessary to construct the proposed project as reflected in the relevant project approval documents. It is recommended that a Biologist make sure the bird houses are not occupied and then block access to the bird houses for the duration of construction to avoid attracting nesting birds. 2. If construction occurs during the nesting season (February 1 to August 31), pre- construction surveys shall be conducted within 14 days prior to tree removal to determine whether or not active nests are present. 3. If an active nest is located during pre-construction surveys, a qualified Biologist shall determine an appropriately-sized avoidance buffer based on the species and anticipated disturbance level. A qualified	Prior to Grading Permit Issuance	Planning Division	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s). 4. The qualified Biologist shall monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project, until the young have fledged. *MM BIO-2*			
38.	Prior to the issuance of a grading permit, the project applicant shall prepare and submit a Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis report to City of Eastvale to document the project's consistency with the goals, objectives, and requirements of the MSHCP. *MM BIO-3*	Prior to Grading Permit Issuance	Planning Division	
39.	Eastvale Municipal Code Section 4.62.100, *Payment of Fees*, states that the Western Riverside County MSHCP fee shall be paid at the time a certificate of occupancy is issued for a residential unit or development project or upon final inspection, whichever occurs first. Furthermore, no final inspection shall be made, and no certificate of occupancy shall be issued, prior to full payment of the Western Riverside County Multiple Species Habitat Conservation Plan fee. However, this section shall not be construed to prevent payment of the fee prior to the issuance of an	Prior to Grading Permit Issuance	Public Works Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	occupancy permit or final inspection.			
40.	Prior to the issuance of a Grading Permit, the Developer shall pay all necessary fees as determined by the City Engineer including, but not limited to Multiple Species Habitat Conservation Plan ("MSHCP") fees and grading permit fees.	Prior to Grading Permit Issuance	Public Works Department	
41.	Grading in excess of 199 cubic yards will required performance security to be posted with the City	Prior to Grading Permit Issuance	Public Works Department	
42.	A permit for the hauling of material to and from the project site shall be submitted to the City for approval.	Prior to Grading Permit Issuance	Public Works Department	
43.	Submit a California registered Civil Engineer prepared earthwork cut and fill certification letter to the Engineering Division for review. If the required earthwork in cubic yards is 50 CY or less, a Precise Grading/Paving Plan will not be required; however, the applicant is required to pull an NPDES/Public Works permit prior to issuance of a Building Permit for record purposes.	Prior to Grading Permit Issuance	Public Works Department	
44.	Development of the site is subject to the requirements of the National Pollution Discharge Elimination System ("NPDES") Permit for the City of Eastvale, under the Santa Ana Regional Water Quality Control Board, Board Order No. R8-2010-0036. Pursuant to the NPDES Permit, the developer shall ensure development of the site incorporates post-construction Best Management Practices (“BMPs”) in accordance with the Model Water Quality Management Plan (“WQMP”) approved for use for the Santa Ana River Watershed. The developer is advised that applicable Site Design BMPs will be required to be incorporated into the final site design, pursuant to a site specific WQMP submitted	Prior to Grading Permit Issuance	Public Works Department	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	to the City Engineer for review and approval. The site specific WQMP shall be submitted to the City Engineer for review and approval with the Precise Grading/Paving Plan.			
45.	Prior to commencing with any grading, the required erosion and dust control measures shall be in place. In addition, the following shall be included if not already identified: a. 6 foot high tan colored perimeter screened fencing b. Contractor information signage including contact information along the street frontage. c. Post dust control signage with the following verbiage: "Project Name, WDID No., IF YOU SEE DUST COMING FROM THIS PROJECT CALL: NAME (XXX) XXX-XXX, If you do not receive a response, please call the AQMD at 1-800-CUT-SMOG/1-800-228-7664"	Prior to Grading Permit Issuance	Public Works Department	
46.	A WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be required, obligating the Homeowners Association (HOA)/property owner(s) to appropriate operation and maintenance obligations of on-site BMPs constructed pursuant to the approved WQMP. The WQMP and Stormwater BMP Transfer, Access and Maintenance Agreement shall be approved prior to issuance of a Building Permit and shall be recorded by the Developer at the San Bernardino County Recorder's Office with a recorded copy provided to the Public Works Division prior to issuance of a Certificate of Occupancy.	Prior to Grading Permit Issuance	Public Works Department	
47.	A Notice of Intent ("NOI") to comply with the California General Construction Stormwater Permit is required via the California Regional Water Quality Control Board online	Prior to Grading Permit Issuance	Public Works Department	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Stormwater Multiple Application and Report Tracking System ("SMARTS"). A copy of the executed letter issuing a Waste Discharge Identification ("WDID") number shall be provided to the City Engineer. The Construction General Permit requires the Developer's contractor to prepare and maintain a Storm Water Pollution Prevention Plan ("SWPPP"). The SWPPP requires all appropriate measures be implemented to prevent erosion and water pollution during construction.			
48.	A California registered Geotechnical Engineer prepared Geotechnical/Soils Report shall be required for and incorporated as an integral part of the grading/paving plan for the proposed development. A copy of the Geotechnical/Soils Report shall be submitted to the Engineering Division with the first submittal of the Precise Grading/Paving Plan.	Prior to Grading Permit Issuance	Public Works Department	
49.	All stormwater runoff passing through the site shall be accepted and conveyed across the property in a manner acceptable to the City Engineer. All on-site City Engineer approved retention or other facilities are required to contain the increase stormwater runoff generated from the proposed development. Provide a hydrology study to determine the volume of increased stormwater runoff due to development of the site, and to determine required stormwater runoff mitigation measures for the proposed development. The City Engineer must approve the final retention basin sizing and other stormwater runoff mitigation measures determined upon review and approval of the hydrology and may require redesign or changes to site configuration or layout consistent with the findings of the final hydrology study. The existing "pre-developed" condition compared to the proposed	Prior to Grading Permit Issuance	Public Works Department	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	"developed" condition shall be used to calculate the volume of increased stormwater runoff to retain on-site under the 100-year frequency storm.			
50.	Direct release of on-site nuisance water or stormwater runoff shall not be permitted to the adjacent public streets. Provisions for the interception of nuisance water from entering adjacent public streets from the project site shall be provided through the use of a minor storm drain system that collects and conveys nuisance water to landscape or parkway areas, and in only a stormwater runoff condition, pass runoff directly to the streets through parkway or under sidewalk drains.	Prior to Grading Permit Issuance	Public Works Department	
51.	The proposed project would be required to obtain coverage under the Santa Ana regional water quality control board's Statewide General Construction Permit (CGP), which requires the preparation, approval, and implementation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP would include Best Management Practices (BMPs) to be implemented during and after project construction to minimize erosion and sedimentation of downstream watercourses.	Prior to Grading Permit Issuance	Public Works Department	
52.	The project is subject to the Riverside County Storm Water Permit, also issued by the Santa Ana RWQCB (Order No. R8-2010-003, NPDES No. CAS 618033, as amended by R8-2013-0024, NPDES No. CAS618033) for discharges into the Municipal Separate Storm Sewer Systems (MS4S) draining the county.	Prior to Grading Permit Issuance	Public Works Department	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
53.	The project applicant will be required to prepare a final WQMP for the project, with BMPs incorporated in the plan.	Prior to Grading Permit Issuance	Public Works Department	
54.	Prior to the issuance of the grading permit, the project applicant shall submit a construction-related noise mitigation plan to the City for review and approval. The plan shall depict the locations of where construction equipment will operate on the project site and how the noise from the construction equipment will be mitigated during construction of the project, through use of such methods as: 1. Temporary noise attenuation fences; 2. Preferential location of equipment 3. Length of equipment use and idling time; and, 4. Use of current noise suppression technology and equipment	Prior to Grading Permit Issuance	Planning Division	
55.	Prior to the initiation of construction, the project applicant shall prepare a Traffic Management Plan (TMP) for approval by the City of Eastvale Traffic Engineer. The TMP shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and include measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and the need for a construction flag-person to direct traffic during heavy equipment use. The TMP shall specify that one lane of	Prior to Grading Permit Issuance	Public Works Department	

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	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	travel in each direction must always be maintained for Orange Street and Schleisman Road throughout project construction. The TMP shall be incorporated into project specifications for verification prior to final plan approval.			
56.	Prior to ground disturbing activities, the City of Eastvale Traffic Engineer shall verify that the project plans identify a stop control for southbound exiting project traffic with a shared left-right turn lane. The City of Eastvale Traffic Engineer shall also verify that the project plans indicate the existing eastbound through lane is restriped to provide an eastbound shared left-through lane. *MM TRA-1*	Prior to Grading Permit Issuance	Public Works Department	
57.	Prior to ground disturbing activities, the City of Eastvale Traffic Engineer shall verify that the project plans identify Orange Street from the western project boundary to the eastern project boundary at its ultimate half-section width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan. *MM TRA-2*	Prior to Grading Permit Issuance	Public Works Department	
Prior to Map Recordation				
58.	All provisions of Title 130 of the Eastvale Municipal Code shall be met as they relate to the division of land.	Prior to Map Recordation	Public Works Department	
59.	An irrevocable offer of dedication for public trail and landscape purposes shall be dedicated to the City of Eastvale	Prior to Map	Public Works Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	and shown on the final map to the satisfaction of the City Engineer. A 30' easement for trail and landscape purpose shall be dedicated to the City of Eastvale along the entirety of the eastern project boundary.	Recordation		
60.	Those portions of the subject property proposed to be held under common ownership shall be labeled as such and identified by a separate lot number/letter on the final map.	Prior to Map Recordation	Public Works Department	
61.	Public street right-of-way and street improvements shall be dedicated and constructed in conformance with the street cross sections shown on the approved Tentative Tract Map as approved by the Planning Commission.	Prior to Map Recordation	Public Works Department	
62.	The Developer shall enter into a Subdivision Improvement Agreement with the City and shall guarantee by posting security(ies) to include all public improvements that the developer is conditioned to construct as part of this approval.	Prior to Map Recordation	Public Works Department	
63.	Dedicate City Engineer approved additional right-of-way along the entire frontage as may be required to provide a property line at ultimate right-of-way in accordance with the City General Plan, any applicable Specific Plan and/or as requested by the City Engineer. Dedicate 76' of right-of-way along Schleisman Road to the City for public right-of-way purposes.	Prior to Map Recordation	Public Works Department	
64.	A Final Map prepared by a California licensed Land Surveyor or registered Civil Engineer authorized to practice land surveying (pre-1982, RCE #33965 and lower) and all supporting documents to the Public Works Division for review and approval. A Title Report prepared for subdivision	Prior to Map Recordation	Public Works Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	guarantee for the subject property, the traverse closures for the existing parcel and all lots created therefrom, and copies of record documents shall be submitted with the Final Map to the Engineering Division as part of the review of the Final Map. The Final Map shall be approved by the City Council prior to recordation of the Final Map.			
65.	Monument bond shall be posted with the City. The Developer shall provide a cost estimate to set monuments prepared by a California licensed Land Surveyor or registered Civil Engineer to the Public Works Division for review and approval by the City Engineer.	Prior to Map Recordation	Public Works Department	
66.	The Developer shall enter into an agreement with the City for bonding and improvements of all public streets, public infrastructure, private streets, and private infrastructure.	Prior to Map Recordation	Public Works Department	
67.	Various blanket and specific transportation and/or utility easements that are no longer in use are to be quitclaimed/abandoned on the Final Map.	Prior to Map Recordation	Public Works Department	
Prior to Encroachment Permit Issuance				
68.	The minimum pavement section for all on-site pavements shall be 3 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City	Prior to Encroachment Permit Issuance	Public Works Department	

	Conditions of Approval	Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Engineer for approval.			
69.	Traffic Control Plan prepared by a California registered Civil Engineer or Traffic Engineer shall be submitted to the City Engineer for review and approval. Construction traffic shall be coordinated with Eastvale Elementary School and River Heights Intermediate to minimize disruptions during drop-off and pick-up hours.	Prior to Encroachment Permit Issuance	Public Works Department	
Prior to Building Permit Issuance				
70.	Major Development Review approval by the Planning Commission shall be accomplished for development of Tentative Tract Map 38167.	Prior to Building Permit Issuance	Planning Division	
71.	This project shall be subject to applicable school fees, the payment of which shall be documented to the satisfaction of the Building Official.	Prior to Building Permit Issuance	Building Division	
72.	All ground-mounted utility and mechanical equipment shall be screened and sound buffered to the satisfaction of the Community Development Director.	Prior to Building Permit Issuance	Planning Division	
73.	The applicant shall include plans to construct a minimum 6.5□ foot-high wall on the north side of Lots 9 through 15 and Lot 27 and 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings. *MM NOI-1*	Prior to Building Permit Issuance	Planning Division	
74.	Mailboxes shall be designed, installed, and located by the developer to the satisfaction of the Community Development	Prior to Building	Planning	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Director.	Permit Issuance	Division	
75.	The final site plan and model mix shall be reviewed and approved to the satisfaction of the Community Development Director.	Prior to Building Permit Issuance	Planning Division	
76.	An even mix of exterior façade treatments, colors and roof tile colors shall be used on the homes approved to the satisfaction of the Community Development Director.	Prior to Building Permit Issuance	Planning Division	
77.	Enhanced elevations shall be provided for side, rear, and corner view elevations visible from the public right-of-way and community open space. Front elevations of all product types are to be enhanced by nature.	Prior to Building Permit Issuance	Planning Division	
78.	Construction and architectural detailing shall be in substantial conformance with the approved plans, including but not necessarily limited to elevation drawings and material/colors sample board submitted as a part of this application and as approved by the Planning Commission, except that any modification shall be subject to the discretion of the Community Development Director upon finding that any changes are comparable in substance and quality to the original approval.	Prior to Building Permit Issuance	Planning Division	
79.	Any future modification to the building colors and materials approved by the Planning Commission shall be subject to review and approval by the Community Development Director. At the Community Development Director's discretion, proposed color and material modification may be referred to the Planning Commission for Major Development Plan review.	Prior to Building Permit Issuance	Planning Division	
80.	Any future monumentation into the development shall be subject to review and approval by the Community Development Director and City Traffic Engineer.	Prior to Building Permit Issuance	Planning Division	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
81.	The master conceptual wall and fence plan approved by the Planning Commission as part of **PLN23-20043** shall serve as the master plan of development for community walls and fences within TTM 38167. The final design and location of project walls and fences shall be subject to review and approval of the Community Development Director.	Prior to Building Permit Issuance	Planning Division	
82.	Landscape construction plans shall be submitted to the Planning Division for review and approval. The plans shall be consistent with the Conceptual Landscape Plan approved by the Planning Commission on **October 18, 2023**. The plan shall be certified by a licensed landscape architect as required, taking into account approved preliminary landscape plan (if any), adopted plant palette guides, applicable scenic and master/specific plan requirements, and water conservation measures. This submittal shall be made to the Planning Division with the appropriate Application and Fee.	Prior to Building Permit Issuance	Planning Division	
83.	Submit photometric plan of street lighting. All lights shall be Edison LS-3 tariff and utilize General Electric Evolve LED luminaires per City Specifications. The Developer shall be responsible for applying with Southern California Edison ("SCE") for all appropriate service points and electrical meters early in the process to avoid delays. The Developer must pay for the electrical service of new meter pedestals installed until such time the improvements have been accepted and the underlying property is annexed into Community Facilities District ("CFD") or Landscaping Maintenance District ("LMD").	Prior to Building Permit Issuance	Public Works Department	
84.	The public street improvements outlined in these Conditions	Prior to Building	Public Works	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	of Approval are intended to convey to the developer an accurate scope of required improvements; however, the City Engineer reserves the right to require reasonable additional improvements as may be determined in the course of the review and approval of street improvement plans required herein.	Permit Issuance	Department	
85.	The Developer shall submit landscape plans for the easterly 30' trail prepared by a California registered Landscape Architect.	Prior to Building Permit Issuance	Planning and Public Works Department	
86.	The Precise Grading/Paving Plan shall be City Engineer approved prior to issuance of a building permit.	Prior to Building Permit Issuance	Public Works Department	
87.	Provide pad elevation certifications for all building pads in conformance with the approved Precise Grading Plan to the Public Works Division prior to construction of any building foundation.	Prior to Building Permit Issuance	Public Works Department	
88.	The Developer shall connect to the JCSD sewer system and apply for a sewer connection account with JCSD. The project applicant, developer, or successor in interest shall provide written verification that the JCSD can and will provide sanitary sewer service to the project.	Prior to Building Permit Issuance	Public Works Department	
89.	The Developer shall submit sewer improvement plans prepared by a California registered Civil Engineer to the JCSD/Public Works Division. The plans shall be approved by the JCSD/City Engineer prior to issuance of any building permits.	Prior to Building Permit Issuance	Public Works Department	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
90.	The Developer is advised that domestic water service is provided by JCSD. The developer shall be responsible for coordinating with JCSD and complying with all requirements for establishing domestic water service to the property.	Prior to Building Permit Issuance	Public Works Department	
91.	The Developer shall submit street improvement plans prepared by a California registered Civil Engineer to the Public Works Division for review and approval. Unless otherwise approved, the street improvement plans shall be approved concurrently with any street light, landscape and irrigation, and traffic signal plans.	Prior to Building Permit Issuance	Public Works Department	
92.	The Developer shall submit traffic striping and signage plans prepared by a California registered Civil Engineer, for review and approval by the City Engineer. All required traffic striping and signage improvements shall be completed concurrently with required street improvements, to the satisfaction of the City Engineer, and prior to issuance of a Building Permit.	Prior to Building Permit Issuance	Public Works Department	
Prior to Certificate Occupancy				
93.	Applicant shall build recycled water pipeline fronting their site and the landscaping area in Lot A shall be served by recycled water pipeline.	Prior to Certificate of Occupancy	JCSD	
94.	All parkway landscaping shall be guaranteed for a period of one (1) year from the date of the City Engineer acceptance. Any landscaping that fails during the one (1) year landscape maintenance period shall be replaced with similar plant material to the satisfaction of the City Engineer, and shall be subject to a subsequent one (1) year landscape maintenance	Prior to Certificate of Occupancy	Public Works Department	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	period.			
95.	The development shall be annexed into all applicable City of Eastvale owned and administered Community Facilities Districts (CFDs) and/or Landscaping Maintenance Districts (LMDs) for ongoing maintenance of traffic signals, traffic signal synchronization, License Plate Reader cameras, street lights, full capture systems for all storm drains, multipurpose trails, and landscape maintenance of raised landscaped median and public parkways, to the satisfaction of the City Engineer or otherwise form a district where one is not currently in place.	Prior to Certificate of Occupancy	Public Works Department	
96.	With the exception of transmission lines, all existing overhead utility lines shall be undergrounded within the project frontage(s). Utility undergrounding shall extend to the nearest off-site power pole. Unless City Engineer approved, no new power poles shall be installed. A letter from the owners of the affected utilities shall be submitted to the City Engineer prior to approval of the Precise Grading/Paving Plan, informing the City that they have been notified of the City's utility undergrounding requirement and their intent to commence design of utility undergrounding plans. When available, the utility undergrounding plan shall be submitted to the City Engineer identifying all above ground facilities in the area of the project to be undergrounded.	Prior to Certificate of Occupancy	Public Works Department	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
97.	Upon City Engineer approval of any improvement plan, the improvement plan shall be provided to the City in digital format, consisting of a DWG (AutoCAD drawing file), DXF (AutoCAD ASCII drawing exchange file), and PDF (Adobe Acrobat) formats. Variation of the type and format of the digital data to be submitted to the City may be authorized, upon prior City Engineer approval.	Prior to Certificate of Occupancy	Public Works Department	
98.	Mira Loma Road and Bridge Benefit Assessment District Fee ("MLRBA"), Transportation Uniform Mitigation Fee ("TUMF"), Area Drainage Plan ("ADP") fee, and any other regional pass-through fees in effect at that time shall be paid prior to issuance of Certificate of Occupancy.	Prior to Certificate of Occupancy	Public Works Department	
99.	The Developer shall submit to the City Engineer for review and approval the Covenants, Conditions, and Restrictions ("CC&Rs") and/or a Property Owners Association document to maintain and operate common areas and/or facilities including, but not limited to, parking areas, private utilities, and water quality basins.	Prior to Certificate of Occupancy	Public Works Department	
100.	Prior to issuance of a Certificate of Occupancy or final City approvals, demonstrate that all structural BMP's have been constructed and installed in conformance with approved plans and specifications, and as identified in the approved WQMP.	Prior to Certificate of Occupancy	Public Work Department	
101.	The applicant shall develop and construct a 30' wide trail along the eastern boundary of the property and dedicate an easement to the City. The trail shall be perpetually maintained by the HOA, CFD, or other entity acceptable to the City Engineer.	Prior to Certificate of Occupancy	Public Works Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
102.	The Developer shall provide certification from JCSD Water Services demonstrating that all water and/or wastewater service accounts have been documented, prior to the issuance of a Certifiate of Occupancy.	Prior to Certificate of Occupancy	Public Works Department	
103.	All damaged, destroyed, or modified pavement legends, traffic control devices, signing, striping, and street lights, associated with the proposed development shall be replaced.	Prior to Certificate of Occupancy	Public Works Department	
104.	Remove existing, and construct new pavement with a minimum pavement section of 5 inches asphalt concrete pavement over 6 inches crushed aggregate base with a minimum subgrade of 24 inches at 95% relative compaction, or equal, along the entire half-width street frontage in accordance with City of Eastvale Standard Drawings. The pavement section shall be determined using appropriate Traffic Index ("TI") accepted by the City Engineer. A California registered Geotechnical Engineer shall design the pavement section using "R" values from the project site and submitted to the City Engineer for approval. Alternatively, depending on the existing street condition and as approved by the City Engineer, a street overlay, slurry seal, or other repair can be performed to preserve recent pavement improvements.	Prior to Certificate of Occupancy	Public Works Department	
105.	Construct an Americans with Disabilities Act ("ADA") compliant sidewalk behind curb along the entire frontage and interior streets in accordance with the General Plan, any Specific Plan, the City of Eastvale Standard Drawings, subject to the approval of the City Engineer.	Prior to Certificate of Occupancy	Public Works Department	
106.	Construct a curb ramp meeting current California State	Prior to	Public Works	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	Accessibility standards along both sides of the Street "A" The developer shall ensure that an appropriate path of travel, meeting ADA guidelines, is provided across the driveway, and shall adjust the location of the access ramps, if necessary, to meet ADA guidelines, subject to the approval of the City Engineer. If necessary, additional pedestrian and sidewalk easements shall be provided on-site to construct a path of travel meeting ADA guidelines.	Certificate of Occupancy	Department	
107.	Grind and overlay entire ROW width of Orange Street within the project frontages.	Prior to Certificate of Occupancy	Public Works Department	
108.	The Developer is required to implement any recommendations/mitigations and pay any fair share costs identified in the approved Traffic Impact Analysis (TIA) and as required by the City Engineer: a. Driveway 1 & Orange Street - Install a stop control for the southbound existing Project traffic with a shared left-right turn lane. b. Driveway 1 & Orange Street - Restripe the existing eastbound through lane to provide an eastbound shared left-through lane. c. Orange Street - Construct Orange Street from the western Project boundary to the eastern Project boundary at its ultimate width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan.	Prior to Certificate of Occupancy	Public Works Department	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	d. Pay a Project Fair Share Contribution to the City of Eastvale in the amount of $6,280 for future improvements at the intersection of Sumner Ave & Schleisman Road.			
109.	The Developer shall be responsible for coordinating with Riverside Transit Authority ("RTA") regarding the location of existing, proposed, and future bus stops along the property frontage of all public streets. The Developer shall design street, bus pad, and sidewalk improvements in accordance with the latest RTA bus stop guidelines and in compliance with current accessibility standards pursuant to the Americans with Disabilities Act ("ADA") requirements. The Developer shall design all bus stops to accommodate the RTA Shelters. The Developer shall submit to Public Works verification from RTA acknowledging concurrence with the existing, proposed, and future bus stop improvements in conformance with the Premium Shelter design guidelines.	Prior to Certificate of Occupancy	Public Works Department	
Ongoing				
110.	Provide street sweeping services for onsite and offsite within project frontages weekly.	Ongoing	Public Works Department	
111.	Remove all graffiti within 24 hours pre-construction, during construction, and after a Certificate of Occupancy is issued.	Ongoing	Public Works Department	
112.	A City of Eastvale Encroachment Permit is required for any improvements within the public right-of-way.	Ongoing	Public Works Department	
113.	All street cuts for utilities shall be repaired in accordance with City Standard or as recommended; and any interim trench repairs shall consist of compacted backfill to the bottom of the	Ongoing	Public Works Department	

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Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	pavement structural section followed by placement of standard base course material in accord by the City Engineer and with the Standard Specifications for Public Work Construction ("Greenbook"). The base course material shall be placed the full height of the structural section to be flush with the existing pavement surface and provide a smooth pavement surface until permanent cap paving occurs using an acceptable surface course material.			
114.	In accordance with City's Moratorium policy to preserve newly paved streets, any and all street and/or trench cuts in newly paved streets will be prohibited or be subject to moratorium street repair standards as reference in Section 12.08.260 of the Eastvale Municipal Code.	Ongoing	Public Works Department	
115.	Any and all utility trenches or other excavations within existing asphalt concrete pavement of off-site streets resulting from the proposed development shall be backfilled and repaired in accordance with City of Eastvale Standard Drawings. The Developer shall be responsible for removing, grinding, paving and/or overlaying existing asphalt concrete pavement of off-site streets including pavement repairs in addition to pavement repairs made by utility companies for utilities installed for the benefit of the proposed development (i.e. Jurupa Community Services District, Southern California Edison, Southern California Gas Company, Time Warner, Verizon, etc.). Multiple excavations, trenches, and other street cuts within existing asphalt concrete pavement of off-site streets resulting from the proposed development may require complete grinding and asphalt concrete overlay of the affected off-site streets, at the discretion of the City Engineer. The	Ongoing	Public Works Department	

Conditions of Approval		Timing/ Implementation	Enforcement/ Monitoring	Verification (Date and Signature)
	pavement condition of the existing off-site streets shall be returned to a condition equal to or better than what existed prior to construction of the proposed development.			
116.	Construction signing, lighting and barricading shall be provided during all phases of construction in accordance with City Standards and the direction of the City Engineer. As a minimum, all construction signing, lighting and barricading shall be in accordance with Part 6 "Temporary Traffic Control" of the latest California Manual on Uniform Traffic Control Devices, or subsequent editions in force at the time of construction.	Ongoing	Public Works Department	
117.	An encroachment permit shall be obtained for any construction related activities occurring within District right of way or facilities, namely Eastvale Master Drainage Plan Lateral D-7. If a proposed storm drain connection exceeds the hydraulic performance of the existing drainage facilities, mitigation will be required. For further information, contact the District's Encroachment Permit Section at 951.955.1266.	Ongoing	Riverside County Flood Control and Water Conservation District	
118.	The project applicant will be required to comply with the recommendations of the Riverside County Waste Management Department and all federal, State, and local statutes and regulations related to solid waste, including the Solid Waste Reuse and Recycling Access Act of 1991.	Ongoing	Waste Management	

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CONDITIONS OF APPROVAL				
Planning Application Number and Description: Project No. PLN23-20043 – Major Development Review for the construction of 41 single family detached residential units on Tentative Tract Map 38167. The project also includes the development of a common open space area, and two (2) paseos.				
Assessor's Parcel Number: 152-040-003				
Planning Commission Approval Date:				
	Conditions of Approval	**Timing/ Implementation**	**Enforcement/ Monitoring**	**Verification (Date and Signature)**
General Conditions/Requirements				
1.	The applicant shall review and sign below verifying the "Acceptance of the Conditions of Approval" and return the signed page to the Eastvale Planning Department. Project approval is not final until a signed copy of these conditions is filed with the City. Applicant Signature Date	Must be completed to finalize approval	Planning Division	
2.	The applicant shall indemnify, protect, defend, and hold harmless the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, from any and all claims, demands, law suits, writs of mandamus, and other actions and proceedings (whether legal, equitable, declaratory, administrative, or adjudicatory in nature), and alternative dispute resolutions procedures (including but not limited to arbitrations, mediations, and other such procedures) (collectively "Actions"), brought against the City, and/or any of its officials, officers, employees, agents, departments, agencies, and instrumentalities thereof, that challenge, attack, or seek to modify, set aside, void, or annul any action of, or any permit or approval issued by, the City and/or any of its officials, officers,	Ongoing	Planning Division	

	employees, agents, departments, agencies, and instrumentalities thereof (including actions approved by the voters of the City), for or concerning the project, whether such Actions are brought under the California Environmental Quality Act, the Planning and Zoning Law, the Subdivisions Map Act, Code of Civil Procedure Section 1085 or 1094.5, or any other state, federal, or local statute, law, ordinance, rule, regulation, or any decision of a court of competent jurisdiction. It is expressly agreed that the City shall have the right to approve, which approval will not be unreasonably withheld, the legal counsel providing the City's defense, and that applicant shall reimburse City for any costs and expenses directly and necessarily incurred by the City in the course of the defense. City shall promptly notify the applicant of any Action brought and City shall cooperate with applicant in the defense of the Action.			
3.	Any approval shall not be final until and unless the applicant's deposit account with Planning has a balance of at least **$5,000** at the time that the applicant signs these conditions of approval (per **Condition No. 1**) to cover staff time for follow-up, monitoring, and other post-approval work by staff. The City reserves the right to request additional deposits to cover post-approval staff work and to halt work if the deposit account is exhausted. Make check payable to the **City of Eastvale** and include **Project No. PLN23-20043** on the check.	Ongoing	Planning Division	
4.	Applicant understands and agrees that failure to comply with all conditions of approval may result in the City Council/Planning Commission taking action resulting in modification of conditions of approval and/or suspension or revocation of the Major Development Review permit.	Ongoing	Planning Division	
5.	Approval of Major Development Review (PLN23-20043) shall lapse and become void as of October 18, 2025, unless building permits have been issued and construction is commenced and diligently pursued towards completion on the structures that are the subject of Major	Ongoing	Planning Division	

	Development Review (PLN23-20043), or a time extension is requested in writing prior to that date.			
6.	Approval of Major Development Review (PLN23-20043) is contingent upon approval of Tentative Tract Map 38167. Failure to approve Tentative Tract Map 38167 shall render any approval of Major Development Review (PLN23-20043) null and void.	Ongoing	Planning Division	
7.	All applicable Tentative Tract Map 38167 conditions of approval (PLN23-20043) shall be incorporated herein by reference.	Ongoing	Building, Planning, and Public Works Divisions	
8.	Applicable mitigation measures included in the IS/MND shall be required for the development of the proposed project (PLN23-20043) and are incorporated herein by reference.	Ongoing	Planning Division	
9.	Major Development Review (PLN23-20043) is for the site planning and architecture of 41 single-family residential dwellings within Tract 38167 along with three lettered lots for water quality, common open space and a pedestrian paseo.	Ongoing	Planning Division	
10	The project shall conform to the requirements of Senate Bill (SB) 330 Housing Crisis Act of 2019.	Ongoing	Planning Division/City Attorney's Office	
Notes on Grading and Construction Plans to be Implemented During Construction				
11.	The cover sheet of the building construction drawings shall include a blue line print of the City's conditions of approval and shall be attached to each set of plans submitted for City approval	On Going	Planning Division	
12.	The Title Sheet of the plans shall include: Occupancy Group Occupant Load	On Going	Building Division	

	Description of use Type of Construction Height of Building Floor area of buildings(s) and/or occupancy group(s)			
13.	Dimensioned building setbacks and property lines, street centerlines, and between buildings or other structures shall be designed on the plot plan.	On Going	Building, Planning, and Public Works Divisions	
14.	All property lines and easements must be shown on the plot plan. A statement that such lines and easements are shown is required.	On Going	Building, Planning, and Public Works Divisions	
15.	The project design will conform with energy conservation measures articulated in Title 24 of the California Code of Regulations and address measures to reduce energy consumption such as flow restrictions for toilets, low consumptions light fixtures, and insulation, and shall use to the extent feasible drought tolerant landscaping.	On Going	Building Divisions	
16.	A design professional will be required at the time of construction drawings, to prepare plans for proposed improvements per the Building and Professions Code.	On Going	Building Divisions	
17.	A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.	To be Implemented by the Applicant During Construction	Building and Public Works Divisions	

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18.	All clearing, grading, earthmoving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.	To be Implemented by the Applicant During Construction	Building and Public Works Divisions	
19.	The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project site are watered at least three times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three times a day, preferably in the mid-morning, afternoon, and after work is done for the day.	To be Implemented by the Applicant During Construction	Building and Public Works Divisions	
20.	The contractor shall ensure that traffic speeds on unpaved roads and in project site areas are reduced to 15 mph or less.	To be Implemented by the Applicant During Construction	Building and Public Works Divisions	
21.	In order to limit the volatile organic compound (VOC) content of architectural coatings used in the SCAB, architectural coatings shall be no more than a low VOC default level of 50 grams per liter (g/L) unless otherwise specified in the SCAQMD Table of Standards.	To be Implemented by the Applicant During Construction	Building and Public Works Divisions	
22.	If human remains are encountered, California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. Following discovery and during assessment of the remains, work will be diverted at least 50 feet from the burial. The discovery shall	To be Implemented by the Applicant During Construction	Planning Division	

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	be kept confidential, and secure to prevent disturbance. If left overnight, remains will be covered with a muslin cloth and steel plate over the excavation to protect the remains. If this method of protection is not feasible, a guard will be posted. If the Riverside County coroner determines the remains to be of Native American origin, the NAHC must be contacted by the coroner within 24 hours of the coroner's determination. The NAHC must then immediately identify the most likely descendants(s) for purposes of receiving notification of discovery. The most likely descendant(s) shall then make recommendations within 48 hours from the time that site access is granted and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 507.98.			
23.	If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall cease and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology shall be contacted immediately to evaluate the find(s). If the discovery proves to be significant under the California Environment Quality Act, additional work such as data recovery excavation may be warranted and shall be reported to the City. *MM CUL-1*	To be Implemented by the Applicant During Construction	Planning Division	
24.	The project shall comply with the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, as well as with the 2022 California Building Code (CBC), which includes specific design measures intended to maximize structural stability in the event of an earthquake. Construction of the project shall also be required to comply with current seismic design parameters and all other	To be Implemented by the Applicant During Construction	Building Division	

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	recommendations as contained in the Geotechnical Evaluation to ensure structural integrity in the event of an earthquake.			
25.	The project shall comply with the California Building Code and the City of Eastvale's grading requirements in Eastvale Municipal Code Section 130.08.040, *Street Grades*, and subject to the approval of the City Engineer.	To be Implemented by the Applicant During Construction	Building Division	
26.	The project shall comply with all recommendations contained in the project-specific Geotechnical Evaluation.	To be Implemented by the Applicant During Construction	Building and Public Works Division	
27.	The project will be subject to the general sound level standards of Eastvale Municipal Code Section 8.52.040, *General Sound Level Standards.*	To be Implemented by the Applicant During Construction	Planning and Community Enhancement and Safety Divisions	
28.	As an infill development site, construction will be occurring within a noise-sensitive environment. In accordance with Municipal Code requirements, any construction or maintenance activity on real property which may disturb the peace and comfort of inhabitants of the neighborhood or comfortable enjoyment of life and property is prohibited between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September and 6:00 p.m. and 7:00 a.m. during the months of October through May, unless said work is of an emergency nature or a prior permit has been obtained from the Community Development Director.	To be Implemented by the Applicant During Construction	Planning and Community Enhancement and safety Divisions	
29.	Grading in excess of 199 cubic yards will require performance security to be posted with the City.	To be Implemented by the Applicant	Public Works Department	

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		During Construction		
Prior to Issuance of Grading Permit				
30.	Prior to issuance of grading permits, the project applicant shall prepare construction documents for approval by the City Engineer which shall include plans to construct a minimum 6.5□foot-high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings. *MM NOI-1*	Prior to Issuance of Grading Permit	Planning and Public Works Divisions	
31.	The project shall conduct focused burrowing owl pre-construction surveys as follows: 1. No more than 30 days prior to the first ground-disturbing activities, the project applicant shall retain a qualified Biologist to conduct a pre-construction survey of the project site. The survey shall establish the presence or absence of western burrowing owl and/or habitat features and evaluate use by owls in accordance with the California Department of Fish and Wildlife (CDFW) and Western Riverside County Regional Conservation Authority (RCA) survey guidelines. 2. On the parcel where the activity is proposed, the Biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and burrowing owl. The survey shall take place near sunrise or sunset in accordance with the CDFW and RCA guidelines. All burrows or burrowing owl shall be identified and mapped. During the breeding season (February 1–August 31), surveys shall document whether burrowing owl are nesting on or directly adjacent to disturbance areas. During the	Prior to Issuance of Grading Permit	Planning Division	

	non-breeding season (September 1–January 31), surveys shall document whether burrowing owl are using habitat on or directly adjacent to any disturbance area. Survey results shall be valid only for the season during which the survey is conducted. 3. If burrowing owl are not discovered, further mitigation is not required. If burrowing owl are observed during the pre-construction surveys, the applicant shall perform the following measures to limit the impact on the burrowing owls: A. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. Construction may occur during the breeding season if a qualified Biologist monitors the nest and determines that the birds have not begun egg-laying and incubation, or that the juveniles from the occupied burrows have fledged. During the non-breeding season (September 1-January 31), the project applicant shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a 160-foot non-disturbance buffer zone. B. If it is not possible to avoid occupied burrows, passive relocation shall be implemented. Burrowing owl shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. These doors shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent re-occupation. Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to			

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	maintain an escape route for any burrowing owl inside the burrow. *MM BIO-1*			
32.	The project applicant shall employ protective measures for active bird nests as follows (including pre-construction survey and implementation of avoidance buffer, if found): 1. Removal of trees shall be limited to only those necessary to construct the proposed project as reflected in the relevant project approval documents. It is recommended that a Biologist make sure the bird houses are not occupied and then block access to the bird houses for the duration of construction to avoid attracting nesting birds. 2. If construction occurs during the nesting season (February 1 to August 31), pre- construction surveys shall be conducted within 14 days prior to tree removal to determine whether or not active nests are present. 3. If an active nest is located during pre-construction surveys, a qualified Biologist shall determine an appropriately-sized avoidance buffer based on the species and anticipated disturbance level. A qualified Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s). 4. The qualified Biologist shall monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project, until the young have fledged.	Prior to Issuance of Grading Permit	Planning Division	

	MM BIO-2			
33.	Prior to the issuance of a grading permit, the project applicant shall prepare and submit a Multiple Species Habitat Conservation Plan (MSHCP) Consistency Analysis report to City of Eastvale to document the project's consistency with the goals, objectives, and requirements of the MSHCP. *MM BIO-3*	Prior to Issuance of Grading Permit	Planning Division	
34.	The developer shall pay the appropriate drainage impact mitigation fee to the Riverside County Flood Control and Water Conservation District.	Prior to the Issuance of Grading Permit	Public Works Department	
35.	The developer shall obtain coverage under the appropriate NPDES General Construction Permit for storm water discharges associated with construction activities. Order No. 99-08-DWQ, NPDES No. CAS000002.	Prior to the Issuance of Grading Permit	Public Works Department	
36.	The developer's contractor is required to submit for a haul route permit for the hauling of material to and from the project site. Said permit will include limitations of haul hours, number of loads per day, and the posting of traffic control personnel at all approved entrances/exits onto public roads. This permit shall be in place prior to the issuance of the grading permit and the mobilization of equipment on the project site.	Prior to the Issuance of Grading Permit	Public Works Department	
37.	Street names shall be approved by the Community Development Director prior to issuance of grading permit. Suggested street names and alternatives shall be submitted in writing to the Community Development Director for approval. Phonic similarity with existing street names should be avoided.	Prior to Issuance of Grading Permit	Planning Division	
38.	The applicant shall be responsible for creating a proposed addressing list and exhibit for review and approval by the Community Development Director, prior to issuance of grading permit. Addresses shall be suggested for any building(s) and/or any	Prior to Issuance of Grading Permit	Planning Division	

	electrical/water single/dual irrigation meter pedestal(s) or temporary power poles.			
Prior to Issuance of Building Permit				
39.	The developer shall pay all necessary impact and mitigation fees required. These fees include, but are not limited to, fees associated with Transportation Uniform Mitigation Fee (TUMF), Road Bridges Benefit District (RBBD) Fees, Quimby (parkland in-lieu) Fee, and City Development Impact Fees.	Prior to issuance of Building Permits	Building Division	
40.	The project applicant is required to pay school impact fees. California Government Code Section 65996 indicates that payment of school impact fees is considered full mitigation for project impacts to a school district.	Prior to issuance of Building Permits	Building Divisions	
41.	The project applicant will be required to comply with the recommendations of the Riverside County Waste Management Department and all federal, State, and local statutes and regulations related to solid waste, including the Solid Waste Reuse and Recycling Access Act of 1991.	Prior to issuance of Building Permits	Waste Management	
42.	The project applicant, developer, or successor in interest shall provide written verification that the Jurupa Community Services District can and will provide potable water service to the project.	Prior to issuance of Building Permits	Building Divisions	
43.	Water service is available from an existing 12-inch diameter waterline in Schleisman Road and an existing 8-inch diameter waterline in Orange Street. The applicant must provide the Jurupa Community Services District (District) with fire flow requirements from the Riverside County Fire Department to determine the adequacy of the existing water system. Two separate water service points of connection are required for the proposed residential development showing a total of 41 residential parcels. It is noted that the proposed technical site plan has only one connection to the existing waterline in Orange Street. A second connection is required.	Prior to issuance of Building Permits	Jurupa Community Services District	

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	Any proposed waterline outside the public right-of-way must be located in an easement in favor of the District and comply with the District's standards and requirements for such an easement.			
44.	This project will be required to construct an 8-inch recycled waterline along the full frontage of Orange Street. All Common areas and frontages must be irrigated using recycled water sourced from this 8-inch recycled waterline. In the event that the District's facilities are not available when irrigation is needed, the developer will construct a connection to the potable water system with a District approved back flow device that the District will remove when the District's recycled water system is connected to the proposed 8-inch recycled waterline.	Prior to issuance of Building Permits	Jurupa Community Services District	
45.	A Final Site Plan of Development shall be approved prior to issuance of any building permits. The Final Site Plan of Development shall include but is not limited to the following: a. Master home plans and elevations. b. Dimensioned site plan showing, but not limited to, the following: o Setbacks o Attractive, walkways and/or design features at paseos o Location of mailboxes c. Final grading plan d. Landscape and irrigation plans for private, common, and public areas e. Wall and fence plans f. Photometric Lighting Plan to ensure proper outdoor light, pursuant to City of Eastvale Municipal Code Section 120.05.050, Outdoor Lighting	Prior to Issuance of Building Permit	Planning Department	

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46.	Construction and architectural detailing shall be in substantial conformance with the approved plans, including but not necessarily limited to elevation drawings and material/colors sample board, submitted as part of this application and as approved by the Planning Commission.	Prior to Issuance of Building Permits	Planning Division	
47.	Any future modification to the building colors or architectural style approved by the Planning Commission shall be subject to review and approval by the Community Development Director. At the Community Development Director's discretion, proposed color or architectural style modifications may be referred to the Planning Commission for Major Development Review approval.	Prior to Issuance of Building Permits	Planning Division	
48.	Final plotting of homes on lots within Major Development Review (PLN23-20043) shall be subject to review and approval by the Planning Division.	Prior to Issuance of Building Permits	Planning Division	
49.	An even mix of exterior façade treatments, colors, and roof tile colors shall be used on the homes approved per this Major Development Review to the satisfaction of the Community Development Director. Applicant shall provide a tabulation of proposed architectural styles and colors schemes to be implemented on lots for review and approval by the Planning Division prior to issuance of building permits.	Prior to Issuance of Building Permits	Planning Division	
50.	Mailboxes shall be designed, installed and located by the developer to the satisfaction of the Community Development Director.	Prior to Issuance of Building Permits	Planning Division	
51.	Outdoor furniture and amenities provide on Lot A of Tentative Tract Map 38167 shall be safe, comfortable, of sturdy construction, hygienic and designed for outdoor use.	Prior to Issuance of Building Permits	Planning Division	
52.	Any future entry monumentation into the development of Tentative Tract Map 38167 shall be subject to review and approval by the	Prior to Issuance of Building Permits	Planning Division	

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	Community Development Director and the City Traffic Engineer prior to issuance of a building permit.			
53.	The Master Conceptual Wall and Fence Plan approved by the Planning Commission as part of Major Development Review (PLN23-20043) shall serve as the master plan of development for community walls and fences within Major Development Review (PLN23-20043). The final design and location of project walls shall be subject to review and approval by the Community Development Director prior to issuance of building permits.	Prior to Issuance of Building Permits	Planning Division	
54.	The applicant shall include plans to construct a minimum 6.5□foot-high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings. *MM NOI-1*	To be Incorporated Into Building Plans	Planning and Building Divisions	
55.	All mechanical equipment, including but not limited to HVAC units, shall be screened from public view and sound buffered from adjacent properties to the satisfaction of the Community Development Director and Building Official	Prior to Issuance of Building Permits	Planning and Building Divisions	
56.	Two sets of construction landscape plans as well as a digital copy shall be submitted to the Planning Division for review and approval. The plan shall be certified by a licensed landscape architect as required, taking into account approved preliminary landscape plan (if any), adopted plant alette guides, applicable scenic and specific plan requirements, and water conservation measures. **This submittal shall be made to the Planning Division with the appropriate Application and fee.**	Prior to Issuance of Building Permits	Planning Division	
57.	The above-described plans shall be in substantial conformance with the conceptual landscape plans as approved by the City Landscape	Prior to Issuance of Building Permits	Planning Division	

	Architect, City Administrative staff, Planning Commission and/or City Council. Notes, details, and specifications shall be included.			
58.	The Applicant shall submit a set of development plans, including a lighting plan, to the Eastvale Police Department for review and approval for appropriate safety measures including, but not limited to, the following: PROPERTY GATES AND KNOX BOX ENTRY a. The installation of the Knox Rapid Entry System if property gates are installed. This system permits law enforcement, fire, and first responders to obtain independent access to the property in the event of an emergency. The necessary order forms for the Knox Company may be obtained by contacting the Jurupa Valley Sheriff's Station Crime Prevention Programs Coordinator at (951) 955-9225. ADDRESS NUMBERING: b. Prominently displayed address numbering in size and contrasting in color from the building façade or on a fixed sign near the street/main entrances. The numbers need to be visible from the street and interior property sides for any approaching emergency vehicles. No obstructions should limit their visibility (i.e., landscaping). SECURITY AND LIGHTING PLAN c. Adequate crime prevention measures to assist with identifying any suspect(s) of any potential future vandalism or theft attempts. Due to the high possibility of theft/vandalism attempts during construction, additional security measures should be added during that time frame of proposed construction. All exterior access points should be properly illuminated to make clearly visible any person on or about the premises during the hours of darkness.	Prior to Issuance of Building Permit	Building and Police Departments	

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	Residential units shall be equipped with solid core doors and quality dead bolt locking devices at entry points.			
59.	Plans should reflect that all street lights and other outdoor lighting are hooded or shielded to prevent either the spillage of lumens or reflection into the sky or above the horizontal plane.	Prior to Issuance of Building Permit	Planning Division	
Prior to Issuance of Certificate of Occupancy				
60.	A copy of the covenants, conditions, and restrictions (CC&R's) shall be submitted to the Community Development Director for review and approval, prior to execution.	Prior to Issuance of Certificate of Occupancy	Planning Division	
61.	Applicant shall include notification within the CC& R's as well as within the project sales office informing potential homeowners that landscaping within City or H.O.A.-maintained areas is not to be modified in any way by the homeowner, without express authorization by the entity (either the City or H.O.A) responsible for maintain said landscape.	Prior to Issuance of Certificate of Occupancy	Planning Division	
62.	Applicant shall build recycled water pipeline fronting their site and the landscaping area in Lot A shall be served by recycled water pipeline.	Prior to Issuance of Certificate of Occupancy	JCSD	
63.	All required landscape planting and irrigation shall have been installed consistent with the approved construction plans and shall be in a condition acceptable to the Community Development Director. The plants shall be healthy and free of weeds, disease, or pests. The irrigation system shall be properly constructed and in good working order. The applicant shall contact the Planning Division to schedule the final inspection(s).	Prior to Issuance of Certificate of Occupancy	Planning Department	
64.	The applicant shall develop and construct a 30' wide trail along the eastern boundary of the property and dedicate an easement to the City. The trail shall be perpetually maintained by the HOA, CFD, or other entity acceptable to the City Engineer.	Prior to Issuance of Certificate of Occupancy	Planning Department	

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Ongoing/ General Conditions				
65.	The applicant shall comply with all provisions and procedures of the Eastvale Building Department related to the plan check review process. (Please contact the Building Department at 951-703-4450.)	Ongoing	Building Division	
66.	All construction shall comply with the most recently adopted City and State building codes: 2022 California Building Code 2022 California Residential Code 2022 California Electrical Code 2022 California Mechanical Code 2022 California Plumbing Code 2022 California Fire Code 2022 California Green Code	Ongoing	Building Division	
67.	Special Inspections- As indicated by California Building Code Section 1704, the owner shall employ one or more special inspectors who shall provide special inspections when required by CBC Section 1704. Please contact the Building Division at the time of plan submittal to obtain an application for special inspections.			
68.	No obstruction shall be placed on any existing easement. An approval document from easement holders shall be required for any easement encroachment.	Ongoing	Public Works Department	
69.	Written permission shall be obtained from the affected property owners allowing the proposed grading and/or facilities to be installed outside of the project boundaries.	Ongoing	Public Works Department	

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70.	Project runoff shall be directed to a safe point of discharge. Any additional easement that may be necessary to accomplish such shall be obtained prior to issuance of grading permit. The applicant shall submit a Final Water Quality Management Plan (WQMP) in conformance with the requirements of the Riverside County Flood Control District. All storm water quality treatment devices shall be located outside of the ultimate public right-of-way. The applicant shall design the storm water quality treatment devices to accommodate all project runoff, ensuring post-construction flow rate, volumes, velocity, and duration do not exceed pre-construction levels, in accordance with City of Eastvale's Hydrology Manual, Storm water Quality Best Management Practice Design Handbook, Improvement Standards, and to the satisfaction of the City Engineer. These best management practices shall be consistent with the Final WQMP and installed to the satisfaction of the City Engineer.	Ongoing	Public Works Department	
71.	All connection to flood control facilities shall be reviewed and permitted by the Riverside County Flood Control and Water Conservation District, and shall be submitted through the City of Eastvale, unless otherwise directed by the City Engineer.	Ongoing	Public Works Department	
72.	The developer shall prepare and submit to the City for review and approval all required development plans including but not limited to Grading (Rough and/or Precise), Street Improvement, Street Light, Storm Drain, Traffic Signal, and Striping and Signing. All applicable processing and review fees and/or deposits shall be submitted with the first plan submittal.	Ongoing	Public Works Department	
73.	No grading shall be performed without prior issuance of a grading permit by the City.	Ongoing	Public Works Departments	
74.	All grading shall conform to the California Building Code and to all other relevant laws, rules, and regulations governing grading in the City of Eastvale. Prior to commencing any grading which includes	Ongoing	Public Works Department	

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	50 or more cubic yards, the developer shall obtain a grading permit from the Public Works/Engineering Department.			
75.	All necessary measures to control dust shall be implemented by the applicant during grading to the satisfaction of the City Engineer.	Ongoing	Public Works Department	
76.	Graded slopes shall be limited to a maximum steepness ratio of 2:1 (horizontal to vertical) unless otherwise approved by the City Engineer.	Ongoing	Public Works Department	
77.	Grading in excess of 199 cubic yards will require performance security to be posted with the City.	Ongoing	Public Works Department	
78.	Erosion control-landscape plans, required for manufactured slopes greater than 3 feet in vertical height, are to be signed by a registered landscape architect and bonded accordingly. Planting shall occur within 30 days of meeting final grades to minimize erosion and to ensure slope coverage prior to the rainy season. The developer shall plant and irrigate all manufactured slopes steeper than a 4:1 (horizontal to vertical) ratio and 3 feet or greater in vertical height with grass or ground cover; slopes 15 feet or greater in vertical height shall be planted with additional shrubs or trees or as approved by the City Engineer.	Ongoing	Public Works Department	
79.	If soil is encountered during site development that is suspected of being contaminated by hazardous materials, work will be halted and site conditions will be evaluated by a qualified environmental professional. The results of the evaluation will be submitted to the County of Riverside Department of Environmental Health, and the appropriate response/remedial measures will be implemented, as directed by County of Riverside Department of Environmental Health, or other applicable oversight agency, until all specified	Ongoing	Public Works Department	

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	requirements of the oversight agencies are satisfied and a "no-further-action" status is attained. Fill material imported from other areas shall be tested to assess that it is suitable to be used as fill, including testing for unsafe levels of hazardous materials, prior to placement on-site.			
80.	Outdoor furniture and amenities must at all times be properly secured and confined within Lot A of Tentative Tract Map 38167 and shall not impact the safety of other users or obstruct pedestrian or vehicular circulation.	Ongoing	Community Enhancement and Safety Division	
81.	Lot A of Tentative Tract Map 38167 shall be maintained in sound and aesthetically acceptable conditions, to the satisfaction of the Community Development Director. Landscaping shall remain in a healthy and thriving condition at all times and all amenities provided shall be free of graffiti, safe to use, and in good working order at all times. Further, the area shall be kept tidy and free of all debris.	Ongoing	Community Enhancement and Safety Division	

Fire Department Conditions of Approval

The Fire Department requires the listed fire protection measures be provided in accordance with the City of Eastvale and Riverside County Fire Department Fire Protection Standards. This is a preliminary review; final conditions will be addressed when complete buildings plans are reviewed.

1. Fire Hydrants and Fire Flow: Prior to the issuance of building permits, plans for the water system shall be submitted to the fire department for review and approval. The water system shall be capable of delivering the required fire flow. Fire hydrant location and spacing shall comply with the fire code An approved water supply shall be installed and accepted by the Office of the Fire Marshal prior to the arrival of combustible materials on site. Reference 2019 California Fire Code (CFC) 507.5.1, 3312, Appendices B and C.

2. Fire Department Access: The access roads shall be capable of sustaining 60,000 lbs. over two axels. Approved vehicle access, either permanent or temporary shall be provided during construction. CFC 503.1.1, 3310.1 and 503.2.1

3. Traffic calming devices shall be prohibited unless the design is reviewed and approved by the Office of the Fire Marshal. Ref. CFC 503.4.1

4. Phased Construction Access: If construction is phased, each phase shall provide approved access to any construction. Ref. CFC 503.1

5. Driveway Gates: Manual gates shall be equipped with approved Knox equipment. Electric gates shall be provided with Knox key switches. Electric gates shall also be connected to a remote signal receiver compatible for use with the premption devices on the Riverside County fire apparatus. Ref. CFC 506.1

6. Residential Fire Sprinklers: Residential fire sprinklers are required in all one and wo-family dwellings per the California Residential Code (CRC). Plans must be submitted to the Office of the Fire Marshal for review and approval prior to installation. Ref. CRC 313.2

7. Addressing: All residential dwellings shall display street numbers in a prominent location on the street side of the premises. Ref. CFC 505.1

8. Projects in the Fire Hazard Severity Zone: Prior to the approval of any tentative map, preliminary fuel modification plans shall be reviewed and approved by the Office of the Fire Marshal. Final fuel modification plans shall be reviewed and approved prior to the issuance of a grading permit. CFC 4906

Nothing in our review shall be construed as encompassing structural integrity. Review of this plan does not authorize or approve any omission or deviation from all applicable regulations. Final approval is subject to field inspection. All questions regarding the meaning of the code requirements should be directed to the Fire Department at (951) 737-8097.

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NOISE IMPACT ANALYSIS

MAGNOLIA RANCH RESIDENTIAL PROJECT

CITY OF EASTVALE

Lead Agency:

City of Eastvale
12363 Limonite Street
Eastvale, CA 91752

Prepared by:

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Project No. 21003

July 26, 2022

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ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
City	City of Eastvale
cmu	concrete masonry unit
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted decibels
DOT	Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
EPA	Environmental Protection Agency
Hz	Hertz
Ldn	Day-night average noise level
Leq	Equivalent sound level
Lmax	Maximum noise level
OSHA	Occupational Safety and Health Administration
PPV	Peak particle velocity
RMS	Root mean square
SEL	Single Event Level or Sound Exposure Level
STC	Sound Transmission Class
VdB	Vibration velocity level in decibels

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared to determine the noise impacts associated with the proposed Magnolia Ranch Residential project (proposed project). The following is provided in this report:

- A description of the study area and the proposed project;
- Information regarding the fundamentals of noise;
- Information regarding the fundamentals of vibration;
- A description of the local noise guidelines and standards;
- An evaluation of the current noise environment;
- An analysis of the potential short-term construction-related noise impacts from the proposed project; and
- An analysis of long-term operations-related noise impacts from the proposed project.

1.2 Site Location and Study Area

The project site is located in the City of Eastvale (City). The approximately 10.0 gross acre project site is relatively flat and currently includes a ranch house with barn and associated fencing and facilities for livestock/horses. The project site is bounded by Schleisman Road to the north, Eastvale Elementary School to the east, Orange Street and River Heights Intermediate School to the south and single-family homes to the west. The project study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

1.3 Proposed Project Description

The proposed project would consist of a residential development on 8.28 net acres that would include 41 detached single-family homes with approximately 22,000 square feet of common open space. New sidewalks will be provided along the north side of Orange Street, a walkway will run in a north-south direction adjacent to the east property line, and a walkway will run in an east-west direction through the common open space area. The proposed project would also include development of an internal road system and road improvements to the portion of Orange Street that is adjacent to the project site. It should be noted that the project applicant is proposing to pay TUMF fees in lieu of road improvements to the portion of Schleisman Road that is adjacent to the project site, however in order to provide a conservative analysis, it has been assumed that this area will be graded as part of the proposed project. The proposed site plan is shown in Figure 2.

1.4 Executive Summary

Standard Noise Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the City and State of California (State).

City of Eastvale Noise Regulations

The following lists the noise and vibration regulations from the City of Eastvale Development Code that are applicable, but not limited to the proposed project.

- Section 120.05.130(b) - Noise control standards
- Section 120.05.130(b) – Vibration standards

State of California Noise Regulations

The following lists the State of California noise regulations that are applicable, but not limited to the proposed project.

- California Vehicle Code Section 27200-27207 – On Road Vehicle Noise Limits
- California Vehicle Code Section 38365-38350 – Off-Road Vehicle Noise Limits

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines noise checklist questions.

Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than significant impact.

Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact.

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less than significant impact.

1.5 Project Design Features Incorporated into the Proposed Project

This analysis was based on implementation of the following project design features that are either already depicted on the proposed project site plan and architectural plans or are required from City and State Regulations.

Project Design Feature 1:
Prior to the issuance of the grading permit, the project applicant shall submit a construction-related noise mitigation plan to the City for review and approval. The plan shall depict the

locations of where construction equipment will operate on the project site and how the noise from the construction equipment will be mitigated during construction of the project, through use of such methods as:

1. Temporary noise attenuation fences;
2. Preferential location of equipment
3. Length of equipment use and idling time; and,
4. Use of current noise suppression technology and equipment.

1.6 Mitigation Measures for the Proposed Project

This analysis found that through adherence to the noise and vibration regulations detailed in Section 1.4, through implementation of Project Design Feature 1 detailed in Section 1.5 above, and through implementation of the following mitigation all noise and vibration impacts would be reduced to less than significant levels.

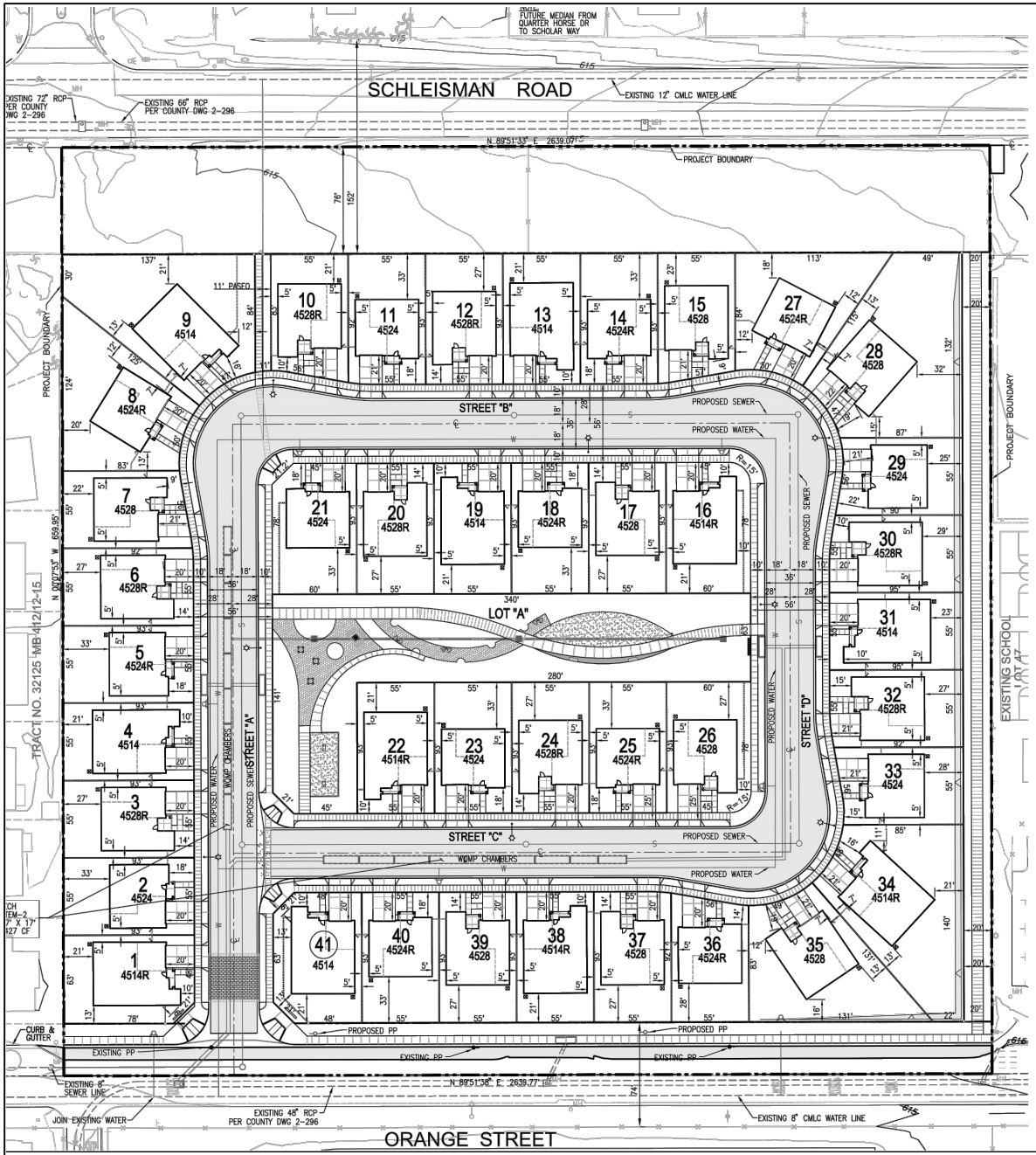
Mitigation Measure 1:

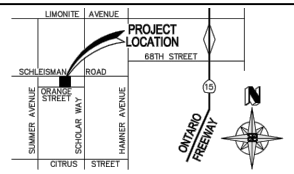
The project applicant shall construct a minimum 6.5-foot high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings.



VISTA ENVIRONMENTAL

Figure 1
Project Location Map





VICINITY MAP
N.T.S.

LEGAL DESCRIPTION

LOT 47 OF KINGSTON TRACT IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 12 PAGE 6 OF MAPS, SAN BERNARDINO COUNTY RECORDS.

ASSESSOR'S PARCEL NO.

152-040-003

SITE ADDRESS

13175 ORANGE STREET
EASTVALE, CA 92880

DEVELOPER

MLC HOLDINGS, INC.
5 PETERS CANYON ROAD, SUITE 310
IRVINE, CA 92606
(949) 372-3310

OWNER

KRAIG A. KRISHER, AS TRUSTEE
KRAIG A. KRISHER TRUST
P.O. BOX 3365
SOUTH EL MONTE, CA 91733

ENGINEER

ALLARD ENGINEERING
16866 SEVILLE AVENUE
FONTANA, CALIFORNIA 92335
PHONE (909) 356-1815
FAX (909) 356-1795

BENCHMARK

RIVERSIDE COUNTY BENCHMARK "ML-34-1 RESET 2008" 3" ALUMINUM DISK LOCATED IN THE TOP OF SOUTHERLY CURB, 10' FROM THE ECR AT THE INTERSECTION OF SUMNER AVENUE AND ORANGE STREET.

BASIS OF BEARINGS

BASED ON THE CENTERLINE OF SCHLEISMAN ROAD PER TRACT NO. 32125, MB 412/12-15
BEING: N 89°51'33" E

SOILS ENGINEER

GEO TEK, INC.
1548 NORTH MAPLE STREET
CORONA, CA 92880
(951) 710-1160 OFFICE
(951) 710-1167 FAX

LEGEND

10	UNIT NUMBER
1%	DRAINAGE FLOW DIRECTION
	SEWER LINE
	WATER LINE
	STORM DRAIN
	PROJECT BOUNDARY
	CENTERLINE
	ADA PATH OF TRAVEL
795	EXISTING CONTOUR
	AC/AB

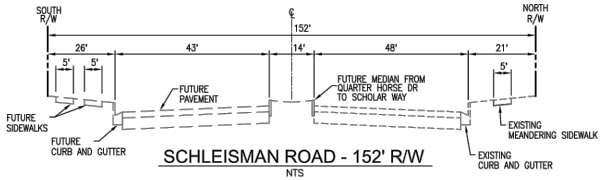
SITE STATISTICS

GROSS SITE AREA: 10.0 ACRES
DEVELOPABLE AREA: 8.28 ACRES

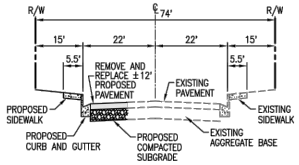
TOTAL LOTS: 41 HOMES

PLAN TYPE

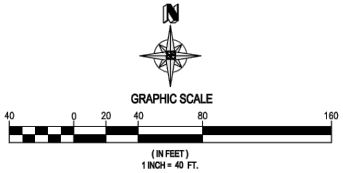
PLAN 4514 – 11 LOTS
PLAN 4524 – 15 LOTS
PLAN 4528 – 15 LOTS



SCHLEISMAN ROAD - 152' R/W
NTS



ORANGE STREET - 74' R/W
NTS



SOURCE: Allard Engineering.

VISTA ENVIRONMENTAL

Figure 2
Proposed Site Plan

2.0 NOISE FUNDAMENTALS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

2.1 Noise Descriptors

Noise Equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The worst-hour traffic Leq is the noise metric used by California Department of Transportation (Caltrans) for analyzing traffic noise impacts.

The Day-Night Average Level (Ldn or DNL) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the Ldn, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound appears louder in the evening and nighttime hours and is weighted accordingly. The City of Eastvale relies on the CNEL noise standard to assess transportation-related impacts on noise sensitive land uses.

2.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less

2.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in level of noise as the distance from the source increases. The manner in which the noise level reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features.

Sound from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD) between source and receiver. Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

3.0 GROUND-BORNE VIBRATION FUNDAMENTALS

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

3.1 Vibration Descriptors

There are several different methods that are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Due to the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is "VdB", which in this text, is when L_v is based on the reference quantity of 1 micro inch per second.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration.

3.3 Vibration Propagation

The propagation of ground-borne vibration is not as simple to model as airborne noise. This is due to the fact that noise in the air travels through a relatively uniform medium, while ground-borne vibrations travel through the earth which may contain significant geological differences. There are three main types of vibration propagation; surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 REGULATORY SETTING

The project site is located in the City of Eastvale. Noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA), which regulates transit noise, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the proposed project is not under the jurisdiction of the FTA, the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual), prepared by the FTA, September 2018, is the only guidance document from a government agency that has defined what constitutes a significant noise impact from implementing a project. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings are provided below in Table A.

Table A – FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA Leq or Ldn)	Allowable Noise Impact Exposure dBA Leq or Ldn		
	Project Only	Combined	Noise Exposure Increase
45	51	52	+7
50	53	55	+5
55	55	58	+3
60	57	62	+2
65	60	66	+1
70	64	71	+1
75	65	75	0

Source: Federal Transit Administration, 2018.

The FTA also provides guidance on construction noise and recommends developing construction noise criteria on a project-specific basis that utilizes local noise ordinances if possible. However, local noise ordinances usually relates to nuisance and hours of allowed activity and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the noise impacts of a construction project. Project construction noise criteria should take into account the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land uses. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings for a detailed construction noise assessment are provided below in Table B.

Table B – FTA Construction Noise Criteria

Land Use	Day (dBA $Leq_{(8\text{-hour})}$)	Night (dBA $Leq_{(8\text{-hour})}$)	30-day Average (dBA Ldn)
Residential	80	70	75
Commercial	85	85	80[(1)]
Industrial	90	90	85[(1)]

Notes:
[(1)] Use a 24-hour $Leq_{(24\ hour)}$ instead of $Ldn_{(30\ day)}$.
Source: Federal Transit Administration, 2018.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

4.2 State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle.

California Vehicle Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California. 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

Vibration Standards

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

The *Transportation- and Construction Vibration Guidance Manual*, prepared by Caltrans, April 2020, provides practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. However, this manual is also used as a reference point by many lead agencies and CEQA practitioners throughout California, as it provides numeric thresholds for vibration impacts. Thresholds are established for continuous (construction-related) and transient (transportation-related) sources of vibration, which found that the human response becomes distinctly perceptible at 0.25 inch per second PPV for transient sources and 0.04 inch per second PPV for continuous sources.

4.3 Local Regulations – City of Eastvale

The *City of Eastvale General Plan* (General Plan), approved June 13, 2012, and the Eastvale, CA Code of Ordinances (Municipal Code), January 7, 2022, establishes the following applicable policies related to noise and vibration.

General Plan

The following applicable goals and policies to the proposed project are from the Noise Element of the General Plan.

Goal N-1: Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Eastvale.

Goal N-3: Ensure that noise sensitive uses do not encroach into area needed by noise generating uses.

Goal N-4: Locate noise sources away from existing noise sensitive land uses unless appropriate noise control measures are provided.

Policy N-3: Consider the following uses to be sensitive to noise and vibration, and discourage these uses in areas where existing or projected future noise levels would be in excess of 65 CNEL and/or vibration would be more than 0.0787 Peak Particle Velocity (inches/second)

- Schools;
- Hospitals;
- Rest Homes;
- Long Term Care Facilities;
- Mental Care Facilities;
- Residential Uses;
- Libraries;
- Passive Recreation Uses; and
- Places of Worship

Policy N-4: Require noise sensitive land uses proposed in areas where existing or projected future noise levels would be in excess of 65 CNEL to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.

Policy N-5: Require that exterior noise forecasts use the appropriate Level of Service for the adjacent roadways, or a 20-year projection of traffic volumes (whichever is greater) for future noise forecasts.

Policy N-6: Mitigate exterior noise levels to the levels shown in Table N-3 (Table C) to the extent feasible.

Table C – City of Eastvale Noise Compatibility by Land Use Designation[1]

Land Use Designations	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
All Residential (Single- and Multi-Family)	Less than 60 dBA	60 – 70 dBA	70 – 75 dBA	Greater than 75 dBA
All Non-Residential (Commercial, Industrial & Institutional)	Less than 70 dBA	70 – 75 dBA	Greater than 75 dBA	--[(2)]
Public Parks (Lands on which public parks are located or planned)	Less than 65 dBA	65 – 70 dBA	70 – 75 dBA	Greater than 75 dBA

Notes:
[1] All noise levels shown in this Table are designated CNEL.
[2] To be determined as part of the project review process.
Source: City of Eastvale, 2012.

Policy N-7: Table N-4 (Table D) provides the City's standards for maximum exterior non-transportation noise levels to which land designated for residential land uses may be exposed for any 30-minute period on any day. Where existing ambient noise levels

exceed these standards, the ambient noise level shall be the highest allowable noise level as measured in dBA Leq (30 minutes).

Note to Reader: Public schools are not regulated by the City; therefore, no noise standards for public schools are provided in this Chapter.

Table D – City of Eastvale Exterior Noise Level Standards for Non-Transportation Noise[1]

Land Use Type	Time Period	Maximum Noise Level (dBA)
Single-Family Homes and Duplexes	10 p.m. to 7 a.m.	50
	7 a.m. to 10 p.m.	60
Multiple Residential 3 or More Units per Building (Triplex +)	10 p.m. to 7 a.m.	55
	7 a.m. to 10 p.m.	60

Notes:
[1] Measured as dBA Leq (30 minutes).

Policy N-9: The City may impose exterior noise standards which are less restrictive than those specified in Table N-4, provided that:

1) The noise impact on the residential or other noise-sensitive use is addressed in an environmental analysis and at least one outdoor area meets the standards; and
2) A finding is made by the approving body specifying why the exception would not be detrimental to the public health, safety and general welfare; and
3) The exception would not adversely affect the character of the surrounding development.
4) The exception would not be injurious to adjacent uses, property and improvements; and,
5) Alternatives have been considered but none are technologically feasible for the proposal and,
6) Interior noise levels resulting from and external source will be no more than 45 dBA CNEL from 7 a.m. to 10 p.m.; and,
7) Residents of noise sensitive uses are informed of the proposal during the review stage and prior to approval.

Policy N-10: Table N-5 (Table E): Maximum Acceptable Interior Noise Levels Created by Exterior Noise Sources provides the City's standards for acceptable indoor noise levels for various types of land uses. These standards should receive special attention when projects are considered in "Tentatively Compatible" or "Normally Incompatible" areas.

- Noise created inside a use listed below shall not count toward the acceptable noise levels to be maintained in accordance with this policy.

Table E – Maximum Acceptable Interior Noise Levels Created by Exterior Noise Sources

Land Use Type	Acceptable Noise Level (dBA CNEL)
Residential Living and Sleeping Areas	45 dBA
Residential Living and Sleeping Areas where the dwelling unit is subject to noise from railroad tracks, aircraft overflights, or similar sources which produce clearly identifiable, discrete noise events (such as the passing of a trains as opposed to relatively steady or constant noise sources such as roadways)	40 dBA
Private & Semi Private Classrooms[(1)]	55 dBA
All Places of Work Other than School Classrooms	Conform with applicable state and federal workplace safety standards

Notes:
[1] Standards for public schools are set and enforced by the State of California and are not regulated by the City of Eastvale.
Source: City of Eastvale, 2012.

Policy N-11: Developers of new residential or other noise-sensitive uses which are placed in environments subject to existing or projected noise that exceeds the "completely compatible" guidelines in Table N-3 (see Table C) shall be responsible for ensuring that acceptable exterior and interior noise levels will be achieved.

Policy N-22: Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.

Policy N-23: Condition subdivision and other land development approval adjacent to developed/occupied noise-sensitive land uses to require the developer to submit a construction-related noise mitigation plan to the City for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and specify how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:

a) Temporary noise attenuation fences;

b) Preferential location of equipment

c) Length of equipment use and idling time; and,

d) Use of current noise suppression technology and equipment.

Policy N-24: Require that all construction equipment be kept properly tuned and use noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

City of Eastvale Municipal Code

The City of Eastvale Municipal Code establishes the following applicable standards for new residential development related to noise and vibration.

Section 8.52.020 - Exemptions

Sound emanating from the following sources is exempt from the provisions of this chapter:

(9) Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that construction does not occur between the hours of:

a. 6:00 p.m. and 6:00 a.m. during the months of June through September; and

b. 6:00 p.m. and 7:00 a.m. during the months of October through May;

(10) Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7:00 a.m. and 8:00 p.m.;

(12) Heating and air conditioning equipment.

Section 8.52.040 – General sound level standards

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in the following table:

Table F – City of Eastvale Municipal Code Sound Level Standards

General Plan Foundation Component			Maximum Decibel Level	
Land Use Designation General Plan	Land Use Designation Name	Density (per acre)	7:00 a.m. – 10:00 p.m.	10:00 p.m. – 7:00 a.m.
MDR	Medium-Density Residential	2-5	55	45
MHDR	Medium High-Density Residential	5-8	55	45
HDR	High-Density Residential	8-14	55	45
PF	Public Facility		65	45
REC	Recreation		45	45

Source: City of Eastvale, 2015.

Section 120.05.130 – Noise, odor and vibration performance standards

a) *Applicability.* The standards of this section apply to all new and existing land uses within the city, unless otherwise exempted.

b) *Noise standards.* All uses shall comply with the noise standards set forth in the city's general plan and within the city's noise ordinance (see chapter 8.52).

d) *Vibration standards.* Uses shall be operated in compliance with the following provisions:

(1) Uses, activities and processes shall not generate vibrations that cause discomfort or annoyance to reasonable persons of normal sensitivity or which endanger the comfort, repose, health or peace of residents whose property abuts the property lines of the subject parcel.

(3) Vibrations from temporary construction/demolition and vehicles that leave the subject parcel (e.g., trucks, trains and aircraft) are exempt from the provisions of this section.

5.0 EXISTING NOISE CONDITIONS

To determine the existing noise levels, noise measurements have been taken in the vicinity of the project site. The field survey noted that noise within the proposed project area is generally characterized by vehicle traffic on Schleisman Road that is adjacent to the north side of the project site and from Orange Street that is adjacent to the south side of the project site. There is also noise created from Eastvale Elementary School, adjacent to the east side of the project site. The following describes the measurement procedures, measurement locations, noise measurement results, and the modeling of the existing noise environment.

5.1 Noise Measurement Equipment

The noise measurements were taken using three Larson Davis Model LXT1 Class 1 sound level meters programmed in "slow" mode to record the sound pressure level at 1-second intervals for 24 hours in "A" weighted form. In addition, the L_{eq} averaged over the entire measuring time and L_{max} were recorded with the three sound level meters. The sound level meters and microphones were mounted on fences, were placed between four and six feet above the ground and were equipped with windscreens during all measurements. The noise meters were calibrated before and after the monitoring using a Larson Davis Cal200 calibrator. All noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (ANSI S1.4-2014 standard).

Noise Measurement Locations

The noise monitoring locations were selected in order to obtain noise levels on the project site and at the nearest residential uses located on the west side of the project site and at the school located on the east side of the project site. Descriptions of the noise monitoring sites are provided below in Table G and are shown in Figure 3. Appendix A includes a photo index of the study area and noise level measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 4:09 p.m. on Thursday, December 9, 2021 and 4:21 p.m. on Friday, December 10, 2021. When the noise measurements were started the sky was cloudy, the temperature was 56 degrees Fahrenheit, the humidity was 71 percent, barometric pressure was 29.20 inches of mercury, and the wind was blowing around three miles per hour. Overnight, the temperature dropped to 43 degrees Fahrenheit and the humidity peaked at 95 percent. At the conclusion of the noise measurements, the sky was partly cloudy, the temperature was 61 degrees Fahrenheit, the humidity was 47 percent, barometric pressure was 29.44 inches of mercury, and there was no wind.

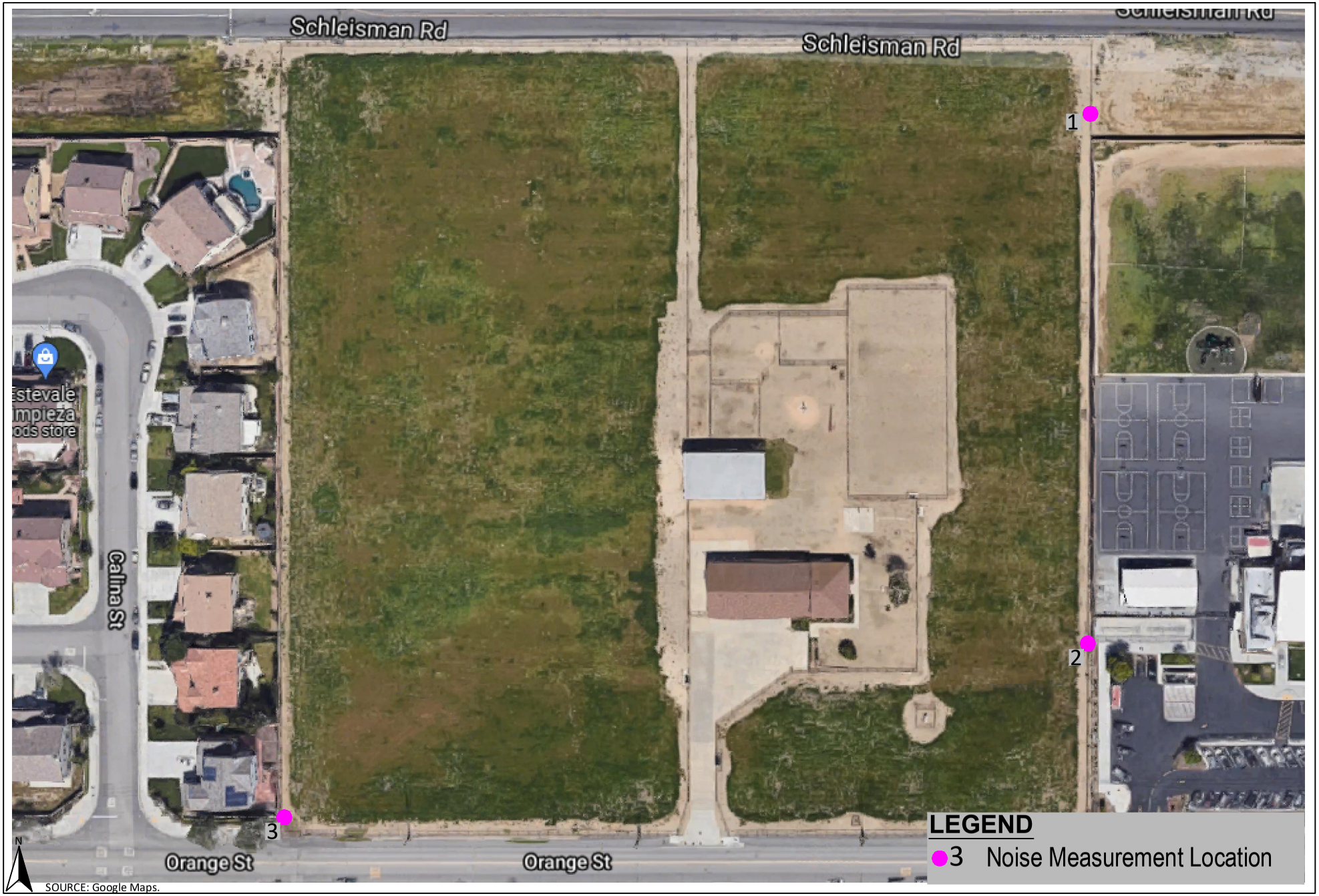
5.2 Noise Measurement Results

The results of the noise level measurements are presented in Table G. The measured sound pressure levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 1-hour intervals. Table G also shows the L_{eq}, L_{max}, and CNEL, based on the entire measurement time. The CNEL was calculated through use of the hourly Leq that was entered into Equation 2-23 from *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (TeNS), prepared by Caltrans, September 2013. The noise monitoring data printouts are included in Appendix B. Figure 4 shows a graph of the 24-hour noise measurements.

Table G – Existing (Ambient) Noise Level Measurements

Site No.	Site Description	Average (dBA L_{eq})		1-hr Average (dBA L_{eq}/Time)		24-hr dBA CNEL
		Daytime[1]	Nighttime[2]	Minimum	Maximum	
1	Located on a fence near the northeast corner of the project site, approximately 90 feet south of Schleisman Road centerline.	57.4	53.6	47.8 1:43 a.m.	60.4 6:59 a.m.	61.1
2	Located on a fence on the east side of the project site and adjacent to the bike parking area at Eastvale Elementary School and approximately 180 feet north of Orange Street centerline.	56.2	49.1	43.2 11:43 p.m.	63.4 11:39 a.m.	57.7
3	Located on a fence near the southwest corner of the project site and shared property line with the home at 7092 Calina Street, approximately 35 feet north of Orange Street centerline.	59.5	51.7	44.5 1:44 a.m.	64.2 7:33 a.m.	60.9

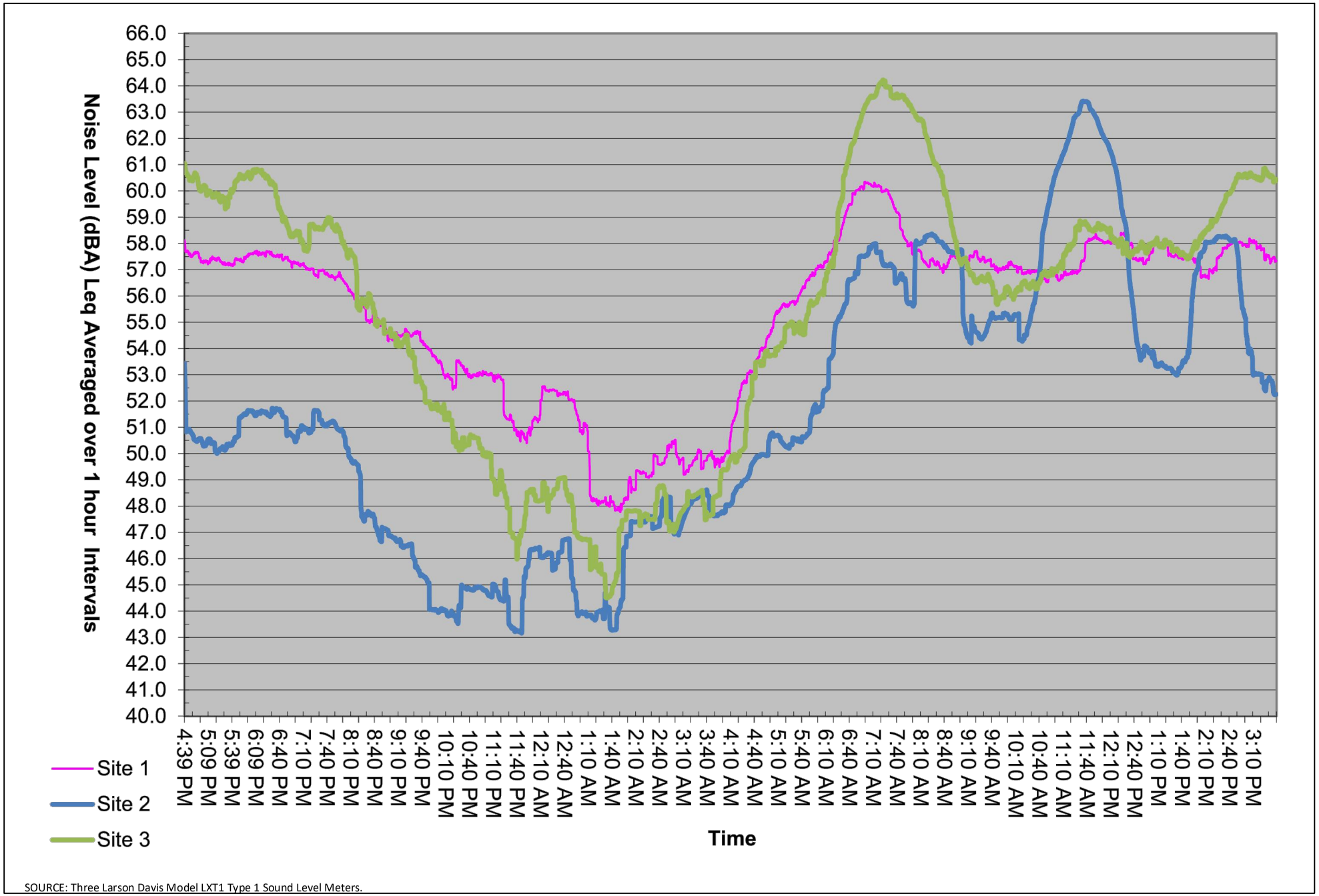
Notes:
[1] Daytime defined as 7:00 a.m. to 10:00 p.m. (Section 8.52.040 of the Municipal Code)
[2] Nighttime define as 10:00 p.m. to 7:00 a.m. (Section 8.52.040 of the Municipal Code)
Source: Noise measurements taken between Thursday, December 9, 2021 and Friday, December 10, 2021.



SOURCE: Google Maps.

VISTA ENVIRONMENTAL

Figure 3
Field Noise Monitoring Locations



SOURCE: Three Larson Davis Model LXT1 Type 1 Sound Level Meters.

VISTA ENVIRONMENTAL

Figure 4
Field Noise Measurements Graph

6.0 MODELING PARAMETERS AND ASSUMPTIONS

6.1 Construction Noise

The noise impacts from construction of the proposed project have been analyzed through use of the FHWA's Roadway Construction Noise Model (RCNM). The FHWA compiled noise measurement data regarding the noise generating characteristics of several different types of construction equipment used during the Central Artery/Tunnel project in Boston. Table H below provides a list of the construction equipment anticipated to be used for each phase of construction that was obtained from the *Air Quality, Energy, and Greenhouse Gas Impact Analysis Magnolia Ranch Residential Project* (Air Quality Analysis), prepared by Vista Environmental, July 26, 2022.

Table H – Construction Equipment Noise Emissions and Usage Factors

Equipment Description	Number of Equipment	Acoustical Use Factor[1] (percent)	Spec 721.560 Lmax at 50 feet[2] (dBA, slow[3])	Actual Measured Lmax at 50 feet[4] (dBA, slow[3])
Demolition				
Concrete/Industrial Saws	1	20	90	90
Excavators	3	40	85	81
Rubber Tired Dozers	2	40	85	82
Site Preparation				
Rubber Tired Dozers	3	40	85	82
Crawler Tractors	4	40	84	N/A
Grading				
Excavators	2	40	85	81
Grader	1	40	85	83
Rubber Tired Dozer	1	40	85	82
Scrapers	2	40	85	84
Crawler Tractors	2	40	84	N/A
Building Construction				
Crane	1	16	85	81
Forklift (Gradall)	3	40	85	83
Generator	1	50	82	81
Tractor	1	40	84	N/A
Front End Loader	1	40	80	79
Backhoe	1	40	80	78
Welder	1	40	73	74
Paving				
Paver	2	50	85	77
Paving Equipment	2	50	85	77
Roller	2	20	85	80
Architectural Coating				
Air Compressor	1	40	80	78

Notes:
[1] Acoustical use factor is the percentage of time each piece of equipment is operational during a typical workday.
[2] Spec 721.560 is the equipment noise level utilized by the RCNM program.
[3] The "slow" response averages sound levels over 1-second increments. A "fast" response averages sound levels over 0.125-second increments.

[4] Actual Measured is the average noise level measured of each piece of equipment during the Central Artery/Tunnel project in Boston, Massachusetts primarily during the 1990s.
Source: Federal Highway Administration, 2006 and CalEEMod default equipment mix.

Table H shows the associated measured noise emissions for each piece of equipment from the RCNM model and measured percentage of typical equipment use per day. Construction noise impacts to the nearby sensitive receptors have been calculated according to the equipment noise levels and usage factors listed Table H and through use of the RCNM. For each phase of construction, all construction equipment was analyzed based on being placed in the middle of the project site, which is based on the analysis methodology detailed in FTA Manual for a General Assessment. However, in order to provide a conservative analysis, all equipment was analyzed, instead of just the two nosiest pieces of equipment as detailed in the FTA Manual. The RCNM model printouts are provided in Appendix C.

6.2 Operations-Related Noise

FHWA Model Methodology

The proposed project would result in increases in traffic noise to the nearby roadways as well as introduce new sensitive receptors to the project site. The project impacts to the offsite roadways were analyzed through use of the FHWA Traffic Noise Prediction Model - FHWA-RD-77-108 (FHWA Model). The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Adjustments are then made to the reference energy mean emission level to account for: the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT) and the percentage of ADT which flows during the day, evening and night, the travel speed, the vehicle mix on the roadway, which is a percentage of the volume of automobiles, medium trucks and heavy trucks, the roadway grade, the angle of view of the observer exposed to the roadway and site conditions ("hard" or "soft" relates to the absorption of the ground, pavement or landscaping). The following section provides a discussion of the software and modeling input parameters used in this analysis and a discussion of the resultant existing noise model.

FHWA Model Traffic Noise Prediction Model Inputs

The roadway parameters used for this study are presented in Table I. The roadway classifications are based on the City's General Plan Circulation Element. The roadway speeds are based on the posted speed limits. The distance to the nearest sensitive receptor was determined by measuring the distance from the roadway centerline to the nearest residence. Since the study area is located in a suburban environment and landscaping or natural vegetation exists along the sides of the nearby roads, soft site conditions were modeled.

Table I – FHWA Model Roadway Parameters

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Distance to Nearest Receptor[1] (feet)
Sumner Avenue	North of Schleisman Road	Major	45	85
Sumner Avenue	South of Schleisman Road	Major	45	45
Sumner Avenue	South of Orange Street	Major	45	60
Scholar Way	North of Schleisman Road	Secondary	35	70
Scholar Way	South of Schleisman Road	Secondary	35	60

Roadway	Segment	General Plan Classification	Vehicle Speed (MPH)	Distance to Nearest Receptor[1] (feet)
Scholar Way	South of Orange Street	Secondary	35	60
Scholar Way	South of Baltimore Street	Secondary	35	75
Hamner Avenue	North of Schleisman Road	Urban Arterial	45	90
Hamner Avenue	South of Schleisman Road	Urban Arterial	45	100
Schleisman Road	West of Sumner Avenue	Major	45	70
Schleisman Road	East of Sumner Avenue	Urban Arterial	45	80
Schleisman Road	West of Scholar Way	Urban Arterial	45	80
Schleisman Road	East of Scholar Way	Urban Arterial	45	80
Orange Street	East of Sumner Avenue	Collector	30	40
Orange Street	West of Scholar Way	Collector	30	100

Notes:
[1] Distance measured from nearest offsite residential structure to centerline of roadway.
Source: City of Eastvale, 2012; Vista Environmental.

The average daily traffic (ADT) volumes were obtained from the *Project Scoping Agreement for Land Use Project – PLN22-20024* (Traffic Scoping Agreement), prepared by Urban Crossroads, June 27, 2022. The ADT volumes used in this analysis are shown in Table J.

Table J – Average Daily Traffic Volumes

		Average Daily Traffic Volumes					
Roadway	Segment	Existing	Existing + Project	2024 No Project	2024 + Project	2040 No Project	2040 + Project
Sumner Avenue	North of Schleisman Road	10,950	11,050	11,800	11,900	12,500	12,550
Sumner Avenue	South of Schleisman Road	9,600	9,750	10,600	10,750	11,750	11,900
Sumner Avenue	South of Orange Street	8,400	8,400	9,000	9,000	9,300	9,350
Scholar Way	North of Schleisman Road	7,450	7,550	8,050	8,150	8,150	8,300
Scholar Way	South of Schleisman Road	6,950	7,100	7,550	7,750	7,600	7,800
Scholar Way	South of Orange Street	7,200	7,200	7,800	7,850	8,200	8,250
Scholar Way	South of Baltimore Street	7,850	7,850	8,500	8,550	8,850	8,900
Hamner Avenue	North of Schleisman Road	24,600	24,650	28,800	28,800	29,800	29,850
Hamner Avenue	South of Schleisman Road	24,650	24,700	28,600	28,650	29,650	29,700
Schleisman Road	West of Sumner Avenue	18,400	18,500	20,100	20,150	30,900	31,000
Schleisman Road	East of Sumner Avenue	9,600	9,600	10,900	10,900	28,300	28,300
Schleisman Road	West of Scholar Way	9,400	9,400	10,750	10,750	33,000	33,000
Schleisman Road	East of Scholar Way	8,550	8,600	9,850	9,900	26,350	26,400
Orange Street	East of Sumner Avenue	1,100	1,250	1,350	1,500	1,650	1,850
Orange Street	West of Scholar Way	2,450	2,650	2,750	3,000	2,900	3,150

Source: City of Eastvale, 2012; Urban Crossroads, 2022.

The vehicle mixes used in the FHWA-RD-77-108 Model are shown in Table K and is based on the typical vehicle mixes observed in Riverside County. The vehicle mixes provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the FHWA model.

Table K – Roadway Vehicle Mixes

Vehicle Type	Traffic Flow Distributions			
	Day (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Night (10 p.m. to 7 a.m.)	Overall
Secondary, Collector or Smaller				
Automobiles	73.60%	13.60%	10.22%	97.42%
Medium Trucks	0.90%	0.04%	0.9%	1.84%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%
Major, Arterial Highways, and Expressways				
Automobiles	69.50%	12.90%	9.60%	92.00%
Medium Trucks	1.44%	0.06%	1.50%	3.00%
Heavy Trucks	2.40%	0.10%	2.50%	5.00%

Source: County of Riverside, 2015.

FHWA Model Source Assumptions

To assess the roadway noise generation in a uniform manner, all vehicles are analyzed at the single lane equivalent acoustic center of the roadway being analyzed. In order to determine the height above the road grade where the noise is being emitted from, each type of vehicle has been analyzed independently with autos at road grade, medium trucks at 2.3 feet above road grade, and heavy trucks at 8 feet above road grade. These elevations were determined through a noise-weighted average of the elevation of the exhaust pipe, tires and mechanical parts in the engine, which are the primary noise emitters from a vehicle.

6.3 Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to damage at the highest levels. Table L gives approximate vibration levels for particular construction activities. The data in Table L provides a reasonable estimate for a wide range of soil conditions.

Table L – Vibration Source Levels for Construction Equipment

Equipment		Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v)at 25 feet
Pile driver (impact)	Upper range	1.518	112
	typical	0.644	104
Pile driver (sonic)	Upper range	0.734	105
	typical	0.170	93
Clam shovel drop (slurry wall)		0.202	94
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drill		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

Source: Federal Transit Administration, 2018.

The construction-related vibration impacts have been calculated through the vibration levels shown above in Table L and through typical vibration propagation rates. The equipment assumptions were based on the equipment lists provided above in Table H.

7.0 IMPACT ANALYSIS

7.1 CEQA Thresholds of Significance

Consistent with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a significant impact related to noise would occur if a proposed project is determined to result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

7.2 Generation of Noise Levels in Excess of Standards

The proposed project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The following section calculates the potential noise emissions associated with the temporary construction activities and long-term operations of the proposed project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings.

Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 8.52.020(9) of the City's Municipal Code exempts construction noise that occurs between 6:00 a.m. and 6:00 p.m. June thru September and between 7:00 a.m. and 6:00 p.m. October thru May. However, General Plan Policy N-23, requires that infill development projects to prepare a Construction Noise Mitigation Plan prior to obtaining a grading permit. The Plan will require the use temporary noise barriers, designated equipment staging areas, limits on idling and requirement of all equipment using mufflers. Project Design Feature 1 has been included in this analysis to ensure implementation of General Plan Policy N-23.

The City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction

noise levels may result in a significant substantial temporary noise increase to the nearby sensitive receptors. In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the FTA construction noise criteria thresholds detailed above in Section 4.1 have been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 80 dBA during the daytime at any of the nearby homes and school.

Construction noise impacts to the nearby sensitive receptors have been calculated through use of the RCNM and the parameters and assumptions detailed in Section 6.1 of this report including Table H that shows the anticipated construction equipment per phase. In order to account for the existing 6 to 7 foot high concrete masonry unit (cmu) wall on the west side of the project site, 5 dB of estimated shielding was added to the RCNM model for the homes to the west. The results are shown below in Table M and the RCNM printouts are provided in Appendix C.

Table M – Construction Noise Levels at the Nearest Sensitive Receptors

Construction Phase	Construction Noise Level (dBA Leq) at:	
	Nearest Homes to the West[1]	Nearest School to the East[2]
Demolition	65	70
Site Preparation	66	71
Grading	67	72
Building Construction	65	70
Paving	60	65
Painting	52	57
FTA Construction Noise Threshold[4]	**80**	**80**
Exceed Thresholds?	No	No

[1] The nearest homes to the west are located as near as 340 feet from the center of the project site. 5 dB of estimated shielding was included to account for the 6 to 7 foot high cmu wall on the west side of the project site.
[2] The nearest school structure to the east is located as near as 340 feet from the center of the project site.
[4] The FTA Construction noise thresholds are detailed above in Table B.
Source: RCNM, Federal Highway Administration, 2006

Table M shows that the greatest noise impacts would occur during the grading phase, with a noise level as high as 72 dBA Leq at the school to the east and 67 dBA Leq at the nearest homes to the west. Table M also shows that none of the construction phases would exceed the FTA noise standard of 80 dB at the nearby homes or school. Therefore, through adherence to the allowable construction times detailed in Section 8.52.020(9) of the Municipal Code and through implementation of Project Design Feature 1, that requires the preparation of a construction-related noise mitigation plan, prior to the issuance of the grading plan for the proposed project, the proposed project would not create a substantial temporary increase in ambient noise levels from construction of the proposed project. Impacts would be less than significant.

Operational-Related Noise

The proposed project would consist of a residential development with 41 single-family homes. Potential noise impacts associated with the operations of the proposed project would be from project-generated vehicular traffic on the nearby roadways. In addition, the proposed development would be adjacent to Schleisman Road and adjacent to Eastvale Elementary School, which may create exterior and interior noise levels in excess of City standards at the proposed homes. The noise impacts to the nearby existing homes and proposed homes have been analyzed separately below.

Roadway Vehicular Noise Impact to Nearby Homes

Vehicle noise is a combination of the noise produced by the engine, exhaust and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The proposed project does not propose any uses that would require a substantial number of truck trips and the proposed project would not alter the speed limit on any existing roadway so the proposed project's potential offsite noise impacts have been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the proposed project.

Neither the General Plan nor the Municipal Code defines what constitutes a "substantial permanent increase to ambient noise levels". As such, this impact analysis has utilized guidance from the Federal Transit Administration for a moderate impact that has been detailed above in Table A that shows that the project contribution to the noise environment can range between 0 and 7 dB, which is dependent on the existing roadway noise levels.

The potential offsite traffic noise impacts created by the on-going operations of the proposed project have been analyzed through utilization of the FHWA model and parameters described above in Section 6.2 and the FHWA model traffic noise calculation spreadsheets are provided in Appendix D. The proposed project's potential offsite traffic noise impacts have been analyzed for the existing year, opening year 2024, and future year 2040 scenarios that are discussed separately below.

Existing Year Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the Existing scenario to the Existing With Project scenario. The results of this comparison are shown in Table N.

Table N – Existing Year Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Existing	Existing Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.0	63.1	0.1	+2 dBA
Sumner Avenue	South of Schleisman Road	67.4	67.5	0.1	+1 dBA
Sumner Avenue	South of Orange Street	64.4	64.4	0.0	+2 dBA
Scholar Way	North of Schleisman Road	59.3	59.4	0.1	+3 dBA
Scholar Way	South of Schleisman Road	60.1	60.2	0.1	+2 dBA
Scholar Way	South of Orange Street	60.3	60.3	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.1	59.1	0.0	+3 dBA
Hamner Avenue	North of Schleisman Road	66.6	66.6	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	65.8	65.8	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	66.7	66.7	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	63.5	63.5	0.0	+2 dBA
Schleisman Road	West of Scholar Way	63.4	63.4	0.0	+2 dBA
Schleisman Road	East of Scholar Way	63.0	63.0	0.0	+2 dBA
Orange Street	East of Sumner Avenue	52.7	53.3	0.6	+5 dBA
Orange Street	West of Scholar Way	50.1	50.4	0.3	+5 dBA

Notes:

[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table N shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the existing conditions. Impacts would be less than significant.

Opening Year 2024 Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the opening year 2024 scenario to the opening year 2024 with project scenario. The results of this comparison are shown in Table O.

Table O – Opening Year 2024 Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Year 2024	Year 2024 Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.3	63.4	0.1	+2 dBA
Sumner Avenue	South of Schleisman Road	67.8	67.9	0.1	+1 dBA
Sumner Avenue	South of Orange Street	64.7	64.7	0.0	+1 dBA
Scholar Way	North of Schleisman Road	59.7	59.7	0.0	+2 dBA
Scholar Way	South of Schleisman Road	60.5	60.6	0.1	+2 dBA
Scholar Way	South of Orange Street	60.6	60.6	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.4	59.5	0.1	+3 dBA
Hamner Avenue	North of Schleisman Road	67.3	67.3	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	66.4	66.4	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	67.1	67.1	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	64.0	64.0	0.0	+2 dBA
Schleisman Road	West of Scholar Way	64.0	64.0	0.0	+2 dBA
Schleisman Road	East of Scholar Way	63.6	63.6	0.0	+2 dBA
Orange Street	East of Sumner Avenue	53.6	54.1	0.5	+5 dBA
Orange Street	West of Scholar Way	50.6	51.0	0.4	+5 dBA

Notes:
[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table O shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the opening year 2024 conditions. Impacts would be less than significant.

Future Year 2040 Conditions

The proposed project's potential offsite traffic noise impacts have been calculated through a comparison of the future year 2040 scenario to the future year 2040 with project scenario. The results of this comparison are shown in Table P.

Table P – Future Year 2040 Traffic Noise Contributions

		dBA CNEL at Nearest Receptor[1]			
Roadway	Segment	Year 2040	Year 2040 Plus Project	Project Contribution	Increase Threshold[2]
Sumner Avenue	North of Schleisman Road	63.6	63.6	0.0	+2 dBA
Sumner Avenue	South of Schleisman Road	68.3	68.3	0.0	+1 dBA
Sumner Avenue	South of Orange Street	64.9	64.9	0.0	+1 dBA
Scholar Way	North of Schleisman Road	59.8	59.8	0.0	+2 dBA
Scholar Way	South of Schleisman Road	60.5	60.7	0.2	+2 dBA
Scholar Way	South of Orange Street	60.9	60.9	0.0	+2 dBA
Scholar Way	South of Baltimore Street	59.6	59.7	0.1	+2 dBA
Hamner Avenue	North of Schleisman Road	67.4	67.4	0.0	+1 dBA
Hamner Avenue	South of Schleisman Road	66.6	66.6	0.0	+1 dBA
Schleisman Road	West of Sumner Avenue	68.9	68.9	0.0	+1 dBA
Schleisman Road	East of Sumner Avenue	68.2	68.2	0.0	+1 dBA
Schleisman Road	West of Scholar Way	68.8	68.8	0.0	+1 dBA
Schleisman Road	East of Scholar Way	67.8	67.9	0.1	+1 dBA
Orange Street	East of Sumner Avenue	54.5	55.0	0.5	+5 dBA
Orange Street	West of Scholar Way	50.9	51.2	0.3	+5 dBA

Notes:
[1] Distance to nearest residential use shown in Table I, does not take into account existing noise barriers.
[2] Increase Threshold obtained from the FTA's allowable noise impact exposures detailed above in Table A.
Source: FHWA Traffic Noise Prediction Model FHWA-RD-77-108.

Table P shows that the proposed project's permanent roadway noise increases to the nearby homes from the generation of additional vehicular traffic would not exceed the FTA's allowable increase thresholds detailed above. Therefore, the proposed project would not result in a substantial permanent increase in ambient noise levels for the future year 2040 conditions. Impacts would be less than significant.

Noise Impacts to the Proposed Homes

The proposed project would consist of a residential development with 41 single-family homes. The proposed development would be adjacent to Schleisman Road to the north and adjacent to Eastvale Elementary School to the east, which may create exterior and interior noise levels in excess of City standards at the proposed homes. The roadway noise impacts and non-transportation noise impacts have been analyzed separately below.

Non-Transportation Noise Impacts to Proposed Homes

The noise impacts from Eastvale Elementary School are controlled by General Plan Policy N-7 that provides the City's standards for maximum exterior non-transportation noise levels. For the proposed single-family homes, General Plan Policy N-7 provides a noise standard of 60 dBA between7 a.m. to 10 p.m. and 50 dBA between 10 p.m. to 7 a.m. at the exterior of the proposed single-family homes.

Noise Measurement 2 (see Table G above) is most representative of the noise created from the school, since it was located on the shared property line with the School, is in close proximity to the outdoor lunch area and playgrounds, and there are no roads in the immediate vicinity of Noise Measurement 2. Noise Measurement 2 recorded noise levels of 56.2 dBA Leq between 7 a.m. to 10 p.m. and 49.1 dBA Leq between 10 p.m. to 7 a.m.. As such, the noise created from the outdoor areas of the School are below the City's non-transportation exterior noise standards for single-family homes provided in General Plan Policy N-7. Therefore, the non-transportation noise impacts created from Eastvale Elementary School to the proposed homes would be within the City noise standards. Impacts would be less than significant.

Roadway Noise Impacts to Proposed Homes

The north side of the proposed development would be adjacent to Schleisman Road. General Plan Policy N-6 requires exterior noise levels for new residential uses to be mitigated to the levels shown above in Table C that shows the "Completely Compatible" noise standard of less than 60 dBA, "Tentatively Compatible" 60 to 70 dBA, "Normally Incompatible" 70 to 75 dBA, and "Completely Incompatible" greater than 75 dBA. General Plan Policy N-11 requires developers of new residential uses where the noise exceeds the "Completely Compatible" noise standard to ensure acceptable exterior and interior noise levels. General Plan Policy N-10 details that the maximum acceptable interior noise level from roadway noise sources is 45 dBA CNEL.

It is anticipated that the primary source of noise impacts to the project site will be traffic noise from Schleisman Road that is adjacent to the north side of the project site. The proposed homes will also experience some background traffic noise impacts from the proposed project's internal roadways and from Orange Street that is adjacent to the south side of the project site. As the traffic on these local streets would consist of low traffic volumes at slower speeds, the traffic noise from these roads would not make a significant contribution to the noise environment. As such, the noise levels from these roads were not analyzed. The FHWA traffic noise prediction model parameters used in this analysis are discussed above in detail in Section 6.2 and the FHWA model printouts are provided in Appendix G. The exterior and interior noise impacts to the proposed homes have been analyzed separately below.

Exterior Noise Impacts to Proposed Homes

The anticipated exterior noise levels have been calculated for the backyards of representative homes that are adjacent to Schleisman Road. For each backyard, the receptor was placed 10 feet behind the wall and 5 feet above the ground, which is based on the roadway noise analysis methodology provided in Appendix I-1 of the County of Riverside General Plan, December 8, 2015, since the City of Eastvale does not provide any roadway noise analysis standards to utilize. The calculated noise levels for backyards that are adjacent to Schleisman Road are shown below in Table R.

Table Q – Proposed Homes Exterior Noise Levels from Schleisman Road

Building Number	Exterior Noise Level Without Sound Walls (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?	Exterior Noise Level With 6.5 Foot High Sound Wall (dBA CNEL)	Exceed City's 60 dBA CNEL Threshold?
9	68.1	Yes	59.1	No
11	68.1	Yes	59.3	No
13	68.1	Yes	59.6	No
15	68.2	Yes	60.0	No
17	68.1	Yes	59.9	No

Notes:

City's residential 60 dBA CNEL residential exterior noise standard from General Plan Policy N-6.
Source: FHWA RD-77-108 Model.

Table R shows that without a sound wall, that the noise levels at all of the backyards adjacent to Schleisman Road would exceed the City's residential exterior noise standard of 60 dBA CNEL. This would be considered a significant impact.

Mitigation Measure 2 is provided that would require construction of a minimum 6.5 foot high cmu wall on the north side of all backyards that are adjacent to Schleisman Road. As shown in Table R, above, with implementation of Mitigation Measure 2, the proposed homes exterior noise levels would be within the City's 60 dBA CNEL residential exterior noise standard and would result in a less than significant impact.

Interior Noise Impacts to Proposed Homes

To assess the interior noise levels, the same proposed homes analyzed for the exterior private backyard analysis were also analyzed for their interior noise levels. The exterior noise level at the façade of the first and second floors were calculated through use of the same methodology detailed above for the outdoor noise calculations and the results are shown below in Table R. Table R also shows the interior noise levels calculated based on 25 dB of attenuation, which is the minimum exterior to interior noise reduction rate for new homes that are constructed to meet the required California Code of Regulations Title 24, Part 6 building energy-efficiency standards that require the installation of dual-paned windows as well as enhanced insulation requirements. The anticipated noise levels have been calculated at the facades of representative proposed homes to Schleisman Road and the results are shown below in Table R.

Table R – Proposed Homes Interior Noise Levels from Schleisman Road

Building Number	Floor	Road Noise Levels (dBA CNEL)		Exceed 45 dBA Interior Threshold?
		Exterior at Facade	Interior[1]	
9	First	58.9	33.9	No
	Second	66.9	40.4	No
11	First	58.2	33.2	No
	Second	65.4	40.4	No
13	First	58.8	33.8	No
	Second	65.7	40.7	No
15	First	60.0	35.0	No
	Second	66.9	41.9	No
17	First	58.3	33.3	No
	Second	64.3	39.3	No

Notes:
[1] Based on standard dual pane windows and doors with a 26 STC rating, which are required per Title 24 energy saving requirements.
Source: FHWA RD-77-108 Model.

Table R shows that the interior noise level of all homes adjacent to Schleisman Road would be within the City's 45 dBA CNEL interior noise standard. Impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1:

The project applicant shall construct a minimum 6.5-foot high wall on the north side of Lots 9 through 28 that are adjacent to Schleisman Road. The walls shall be constructed of concrete masonry units (CMUs) and shall be free of any decorative cutouts or openings.

Level of Significance After Mitigation

Less than significant impact.

7.3 Generation of Excessive Groundborne Vibration

The proposed project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operations of the proposed project.

Construction-Related Vibration Impacts

The construction activities for the proposed project are anticipated to include demolition of the existing ranch house with barn and associated fencing and facilities for livestock/horses, site preparation and grading of the 10.0 gross acre project site, building construction of the 41 single-family homes, paving of the onsite roads and road improvements to the portion of Orange Street that is adjacent to the project site, and application of architectural coatings.

Vibration impacts from construction activities associated with the proposed project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the project site are the single-family homes that are located as near as 25 feet west of the project site. The nearest structure at Eastvale Elementary School is a covered lunch area that is as near as 25 feet east of the project site.

Section 120.05.130(e) of the Municipal Code provides a vibration standard for new development of any vibration that causes discomfort or annoyance to reasonable persons of normal sensitivity. However Section 120.05.130(e) of the Municipal Code exempts construction activities from this standard. Since neither the Municipal nor the General Plan provide a quantifiable vibration threshold for temporary construction activities, guidance from the *Transportation and Construction-Induced Vibration Guidance Manual*, prepared by Caltrans, April 2020, has been utilized, which defines the threshold of perception from transient sources such as off-road construction equipment at 0.25 inch per second peak particle velocity (PPV).

The primary source of vibration during construction would be from the operation of a bulldozer. From Table L above a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. The vibration level at the nearest offsite homes (25 feet to west) and school structure (25 feet to east) would be below the 0.25 inch per second PPV threshold detailed above. Impacts would be less than significant.

Operations-Related Vibration Impacts

The proposed project would consist of the development of a residential community. The on-going operation of the proposed project would not include the operation of any known vibration sources other than typical onsite vehicle operations for a residential development. Therefore, a less than significant vibration impact is anticipated from operation of the proposed project.

Level of Significance

Less than significant impact.

7.4 Aircraft Noise

The proposed project may expose people residing in the project area to excessive noise levels from aircraft. The nearest airport is Chino Airport that is located as near as three miles west of the project site. The project site is located outside of the 60 dBA CNEL noise contours of this airport. Therefore, the proposed homes would not be exposed to excessive aircraft noise. Impacts would be less than significant.

Level of Significance

Less than significant impact.

8.0 REFERENCES

California Department of Transportation, *2016 Annual Average Daily Truck Traffic on the California State Highway System*, 2018.

California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analytics Protocol*, September 2013.

California Department of Transportation, *Transportation- and Construction Vibration Guidance Manual*, April 2020.

City of Eastvale, *Code of the City of Eastvale, California,* January 7, 2022.

City of Eastvale, *City of Eastvale General Plan,* adopted June 13, 2012.

County of Riverside, *County of Riverside General Plan,* December 2015.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment,* May 2006.

Urban Crossroads, *Project Scoping Agreement for Land Use Project – PLN22-20024*, June 27, 2022.

U.S. Department of Transportation, *FHWA Roadway Construction Noise Model User's Guide,* January, 2006.

U.S. Department of Transportation, *Highway Traffic Noise: Analysis and Abatement Guidance,* December, 2011.

Vista Environmental, *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis Magnolia Ranch Residential Project*, July 26, 2022.

APPENDIX A

Field Noise Measurements Photo Index



Noise Measurement Site 1 - looking north



Noise Measurement Site 1 - looking northeast



Noise Measurement Site 1 - looking east



Noise Measurement Site 1 - looking southeast



Noise Measurement Site 1 - looking south



Noise Measurement Site 1 - looking southwest



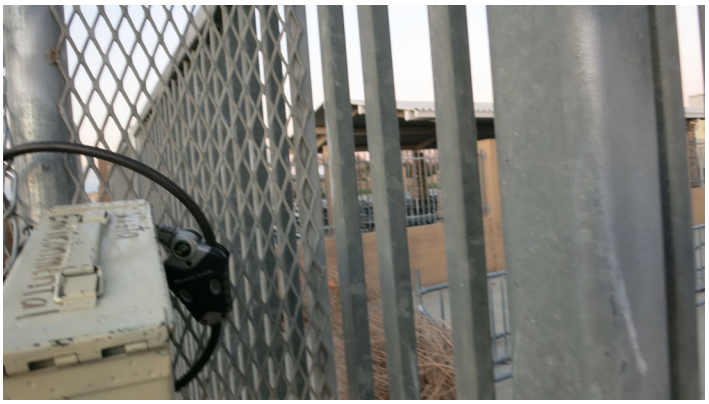
Noise Measurement Site 1 - looking west



Noise Measurement Site 1 - looking northwest



Noise Measurement Site 2 - looking north



Noise Measurement Site 2 - looking northeast



Noise Measurement Site 2 - looking east



Noise Measurement Site 2 - looking south



Noise Measurement Site 2 - looking southwest



Noise Measurement Site 2 - looking west



Noise Measurement Site 2 - looking northwest



Noise Measurement Site 2 - looking north northeast



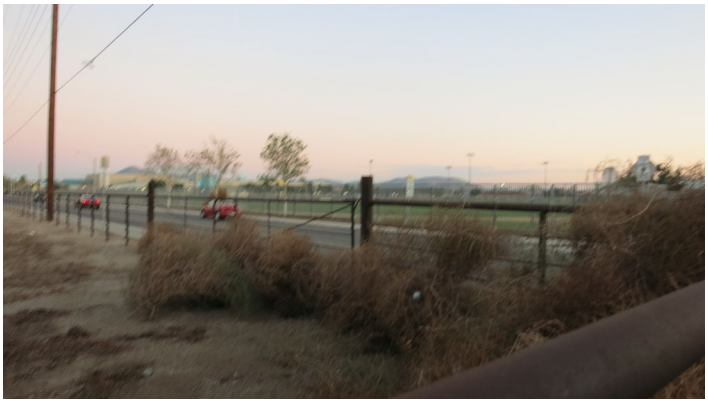
Noise Measurement Site 3 - looking north



Noise Measurement Site 3 - looking northeast



Noise Measurement Site 3 - looking east



Noise Measurement Site 3 - looking southeast



Noise Measurement Site 3 - looking south



Noise Measurement Site 3 - looking southwest



Noise Measurement Site 3 - looking west



Noise Measurement Site 3 - looking northwest

APPENDIX B

Field Noise Measurements Printouts

Site 1 - Near Northeast Corner of Project Site

December 9, 2021 4:09:56 PM Leq Daytime = 57.4
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 53.6
Record Num = 86402 CNEL(24hr)= 61.1
Leq = 56.3 Ldn(24hr)= 60.8
Min = 34.5 Min Leq hr at 1:43 AM 47.8
Max = 77.2 Max Leq hr at 6:59 AM 60.4

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.0	16:09:56		60.0	60.0
56.2	16:09:57		56.2	56.2
53.0	16:09:58		53.0	53.0
51.8	16:09:59		51.8	51.8
62.2	16:10:00		62.2	62.2
60.1	16:10:01		60.1	60.1
68.8	16:10:02		68.8	68.8
65.8	16:10:03		65.8	65.8
61.7	16:10:04		61.7	61.7
60.9	16:10:05		60.9	60.9
67.1	16:10:06		67.1	67.1
67.3	16:10:07		67.3	67.3
66.0	16:10:08		66.0	66.0
63.6	16:10:09		63.6	63.6
60.5	16:10:10		60.5	60.5
64.2	16:10:11		64.2	64.2
66.0	16:10:12		66.0	66.0
64.1	16:10:13		64.1	64.1
61.9	16:10:14		61.9	61.9
61.3	16:10:15		61.3	61.3
61.2	16:10:16		61.2	61.2
62.6	16:10:17		62.6	62.6
62.8	16:10:18		62.8	62.8
62.8	16:10:19		62.8	62.8
62.3	16:10:20		62.3	62.3
61.1	16:10:21		61.1	61.1
65.7	16:10:22		65.7	65.7
67.5	16:10:23		67.5	67.5
70.6	16:10:24		70.6	70.6
68.3	16:10:25		68.3	68.3
70.9	16:10:26		70.9	70.9
65.1	16:10:27		65.1	65.1
63.3	16:10:28		63.3	63.3
69.4	16:10:29		69.4	69.4
65.9	16:10:30		65.9	65.9
63.3	16:10:31		63.3	63.3
64.1	16:10:32		64.1	64.1
65.8	16:10:33		65.8	65.8
63.0	16:10:34		63.0	63.0
61.0	16:10:35		61.0	61.0
59.4	16:10:36		59.4	59.4
59.8	16:10:37		59.8	59.8
60.0	16:10:38		60.0	60.0
61.5	16:10:39		61.5	61.5
62.7	16:10:40		62.7	62.7
67.7	16:10:41		67.7	67.7
69.3	16:10:42		69.3	69.3
68.5	16:10:43		68.5	68.5
66.1	16:10:44		66.1	66.1
61.5	16:10:45		61.5	61.5
61.1	16:10:46		61.1	61.1
67.2	16:10:47		67.2	67.2
65.3	16:10:48		65.3	65.3
62.0	16:10:49		62.0	62.0
60.4	16:10:50		60.4	60.4
59.0	16:10:51		59.0	59.0
64.9	16:10:52		64.9	64.9
64.6	16:10:53		64.6	64.6
67.2	16:10:54		67.2	67.2
67.9	16:10:55		67.9	67.9
67.5	16:10:56		67.5	67.5
70.0	16:10:57		70.0	70.0
63.1	16:10:58		63.1	63.1
69.5	16:10:59		69.5	69.5
65.6	16:11:00		65.6	65.6
61.7	16:11:01		61.7	61.7
68.1	16:11:02		68.1	68.1
66.2	16:11:03		66.2	66.2
67.5	16:11:04		67.5	67.5
67.3	16:11:05		67.3	67.3
64.7	16:11:06		64.7	64.7
62.7	16:11:07		62.7	62.7
61.6	16:11:08		61.6	61.6
61.0	16:11:09		61.0	61.0
60.6	16:11:10		60.6	60.6
60.3	16:11:11		60.3	60.3
60.4	16:11:12		60.4	60.4
60.6	16:11:13		60.6	60.6
60.4	16:11:14		60.4	60.4
60.2	16:11:15		60.2	60.2
60.9	16:11:16		60.9	60.9
61.5	16:11:17		61.5	61.5
61.2	16:11:18		61.2	61.2
61.8	16:11:19		61.8	61.8
63.0	16:11:20		63.0	63.0
63.7	16:11:21		63.7	63.7
64.3	16:11:22		64.3	64.3
63.0	16:11:23		63.0	63.0
60.7	16:11:24		60.7	60.7
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56.7	16:11:26		56.7	56.7
55.1	16:11:27		55.1	55.1
53.8	16:11:28		53.8	53.8
52.6	16:11:29		52.6	52.6
51.5	16:11:30		51.5	51.5
50.0	16:11:31		50.0	50.0
49.2	16:11:32		49.2	49.2
48.9	16:11:33		48.9	48.9
48.8	16:11:34		48.8	48.8
48.5	16:11:35		48.5	48.5
48.5	16:11:36		48.5	48.5
49.3	16:11:37		49.3	49.3
51.1	16:11:38		51.1	51.1
52.9	16:11:39		52.9	52.9
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54.5	16:11:41		54.5	54.5
54.3	16:11:42		54.3	54.3
53.3	16:11:43		53.3	53.3
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51.6	16:11:45		51.6	51.6
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49.9	16:11:47		49.9	49.9
48.6	16:11:48		48.6	48.6
47.7	16:11:49		47.7	47.7
47.2	16:11:50		47.2	47.2
46.9	16:11:51		46.9	46.9
46.7	16:11:52		46.7	46.7
48.2	16:11:53		48.2	48.2
50.8	16:11:54		50.8	50.8
49.8	16:11:55		49.8	49.8
49.7	16:11:56		49.7	49.7
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48.3	16:11:59		48.3	48.3
47.8	16:12:00		47.8	47.8
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47.7	16:12:04		47.7	47.7
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51.2	16:12:08		51.2	51.2
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52.9	16:12:11		52.9	52.9
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55.3	16:12:13		55.3	55.3
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57.6	16:12:15		57.6	57.6
58.7	16:12:16		58.7	58.7
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57.6	16:12:20		57.6	57.6
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56.4	16:12:22		56.4	56.4
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53.1	16:12:26		53.1	53.1
52.4	16:12:27		52.4	52.4
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50.4	16:12:31		50.4	50.4
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51.5	16:12:34		51.5	51.5
51.4	16:12:35		51.4	51.4
51.9	16:12:36		51.9	51.9
52.1	16:12:37		52.1	52.1
53.4	16:12:38		53.4	53.4
55.5	16:12:39		55.5	55.5
56.9	16:12:40		56.9	56.9
57.6	16:12:41		57.6	57.6
57.8	16:12:42		57.8	57.8
57.4	16:12:43		57.4	57.4
57.6	16:12:44		57.6	57.6
58.5	16:12:45		58.5	58.5

Site 2 - On East Side of Project Site

December 9, 2021 4:16:07 PM Leq Daytime = 56.2
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 49.1
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Leq = 54.7 Ldn(24hr)= 57.6
Min = 35.1 Min Leq hr at 11:43 PM 43.2
Max = 81.3 Max Leq hr at 11:39 AM 63.4

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
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57.0	16:16:09		57.0	57.0
53.6	16:16:10		53.6	53.6
51.5	16:16:11		51.5	51.5
51.0	16:16:12		51.0	51.0
51.6	16:16:13		51.6	51.6
58.1	16:16:14		58.1	58.1
62.9	16:16:15		62.9	62.9
68.0	16:16:16		68.0	68.0
62.2	16:16:17		62.2	62.2
69.8	16:16:18		69.8	69.8
67.5	16:16:19		67.5	67.5
63.8	16:16:20		63.8	63.8
65.3	16:16:21		65.3	65.3
65.5	16:16:22		65.5	65.5
61.4	16:16:23		61.4	61.4
57.8	16:16:24		57.8	57.8
54.5	16:16:25		54.5	54.5
55.3	16:16:26		55.3	55.3
59.5	16:16:27		59.5	59.5
59.0	16:16:28		59.0	59.0
67.3	16:16:29		67.3	67.3
64.2	16:16:30		64.2	64.2
66.3	16:16:31		66.3	66.3
67.0	16:16:32		67.0	67.0
63.0	16:16:33		63.0	63.0
64.8	16:16:34		64.8	64.8
70.6	16:16:35		70.6	70.6
66.6	16:16:36		66.6	66.6
63.2	16:16:37		63.2	63.2
61.3	16:16:38		61.3	61.3
61.8	16:16:39		61.8	61.8
58.6	16:16:40		58.6	58.6
58.9	16:16:41		58.9	58.9
66.4	16:16:42		66.4	66.4
67.7	16:16:43		67.7	67.7
63.7	16:16:44		63.7	63.7
61.7	16:16:45		61.7	61.7
60.1	16:16:46		60.1	60.1
62.5	16:16:47		62.5	62.5
68.9	16:16:48		68.9	68.9
66.8	16:16:49		66.8	66.8
63.2	16:16:50		63.2	63.2
62.0	16:16:51		62.0	62.0
58.6	16:16:52		58.6	58.6
56.0	16:16:53		56.0	56.0
54.0	16:16:54		54.0	54.0
53.7	16:16:55		53.7	53.7
54.1	16:16:56		54.1	54.1
53.2	16:16:57		53.2	53.2
54.1	16:16:58		54.1	54.1
53.8	16:16:59		53.8	53.8
55.1	16:17:00		55.1	55.1
56.9	16:17:01		56.9	56.9
56.4	16:17:02		56.4	56.4
66.3	16:17:03		66.3	66.3
65.4	16:17:04		65.4	65.4
69.6	16:17:05		69.6	69.6
68.8	16:17:06		68.8	68.8
67.7	16:17:07		67.7	67.7
66.1	16:17:08		66.1	66.1
66.5	16:17:09		66.5	66.5
68.3	16:17:10		68.3	68.3
65.3	16:17:11		65.3	65.3
64.1	16:17:12		64.1	64.1
65.9	16:17:13		65.9	65.9
63.3	16:17:14		63.3	63.3
64.0	16:17:15		64.0	64.0
63.2	16:17:16		63.2	63.2
62.7	16:17:17		62.7	62.7
62.7	16:17:18		62.7	62.7
63.4	16:17:19		63.4	63.4
63.6	16:17:20		63.6	63.6
64.4	16:17:21		64.4	64.4
64.6	16:17:22		64.6	64.6
65.4	16:17:23		65.4	65.4
67.5	16:17:24		67.5	67.5
73.0	16:17:25		73.0	73.0
68.8	16:17:26		68.8	68.8
64.7	16:17:27		64.7	64.7
61.0	16:17:28		61.0	61.0
57.8	16:17:29		57.8	57.8
55.4	16:17:30		55.4	55.4
52.8	16:17:31		52.8	52.8
50.9	16:17:32		50.9	50.9
50.1	16:17:33		50.1	50.1
49.1	16:17:34		49.1	49.1
48.0	16:17:35		48.0	48.0
47.4	16:17:36		47.4	47.4
47.7	16:17:37		47.7	47.7
47.8	16:17:38		47.8	47.8
48.4	16:17:39		48.4	48.4
64.8	16:17:40		64.8	64.8
63.8	16:17:41		63.8	63.8
62.6	16:17:42		62.6	62.6
66.2	16:17:43		66.2	66.2
73.0	16:17:44		73.0	73.0
72.4	16:17:45		72.4	72.4
68.8	16:17:46		68.8	68.8
64.9	16:17:47		64.9	64.9
61.2	16:17:48		61.2	61.2
59.3	16:17:49		59.3	59.3
58.1	16:17:50		58.1	58.1
67.5	16:17:51		67.5	67.5
65.5	16:17:52		65.5	65.5
61.9	16:17:53		61.9	61.9
59.8	16:17:54		59.8	59.8
59.4	16:17:55		59.4	59.4
65.8	16:17:56		65.8	65.8
69.4	16:17:57		69.4	69.4
67.3	16:17:58		67.3	67.3
68.0	16:17:59		68.0	68.0
65.3	16:18:00		65.3	65.3
62.3	16:18:01		62.3	62.3
59.8	16:18:02		59.8	59.8
60.1	16:18:03		60.1	60.1
61.6	16:18:04		61.6	61.6
61.7	16:18:05		61.7	61.7
60.4	16:18:06		60.4	60.4
60.5	16:18:07		60.5	60.5
60.0	16:18:08		60.0	60.0
64.2	16:18:09		64.2	64.2
66.3	16:18:10		66.3	66.3
63.2	16:18:11		63.2	63.2
59.6	16:18:12		59.6	59.6
58.6	16:18:13		58.6	58.6
56.8	16:18:14		56.8	56.8
56.0	16:18:15		56.0	56.0
56.9	16:18:16		56.9	56.9
56.0	16:18:17		56.0	56.0
54.0	16:18:18		54.0	54.0
57.8	16:18:19		57.8	57.8
58.2	16:18:20		58.2	58.2
57.4	16:18:21		57.4	57.4
53.8	16:18:22		53.8	53.8
51.1	16:18:23		51.1	51.1
49.8	16:18:24		49.8	49.8
49.4	16:18:25		49.4	49.4
49.7	16:18:26		49.7	49.7
48.6	16:18:27		48.6	48.6
47.6	16:18:28		47.6	47.6
47.3	16:18:29		47.3	47.3
46.9	16:18:30		46.9	46.9
46.5	16:18:31		46.5	46.5
46.3	16:18:32		46.3	46.3
46.5	16:18:33		46.5	46.5
46.4	16:18:34		46.4	46.4
46.2	16:18:35		46.2	46.2
46.1	16:18:36		46.1	46.1
46.2	16:18:37		46.2	46.2
46.9	16:18:38		46.9	46.9
48.1	16:18:39		48.1	48.1
48.4	16:18:40		48.4	48.4
48.5	16:18:41		48.5	48.5
47.7	16:18:42		47.7	47.7
47.2	16:18:43		47.2	47.2
46.9	16:18:44		46.9	46.9
47.0	16:18:45		47.0	47.0
47.7	16:18:46		47.7	47.7
48.6	16:18:47		48.6	48.6
47.9	16:18:48		47.9	47.9
46.7	16:18:49		46.7	46.7
46.1	16:18:50		46.1	46.1
45.7	16:18:51		45.7	45.7
45.2	16:18:52		45.2	45.2
45.0	16:18:53		45.0	45.0
45.0	16:18:54		45.0	45.0
45.3	16:18:55		45.3	45.3
47.3	16:18:56		47.3	47.3
50.3	16:18:57		50.3	50.3

Site 3 - Near Southwest Corner of Project Site

December 9, 2021 4:21:53 PM Leq Daytime = 59.5
ampling Time = 1 se Freq Weighting=A Leq Nighttime = 51.7
Record Num = 86402 CNEL(24hr)= 60.9
Leq = 57.9 Ldn(24hr)= 60.5
Min = 33.0 Min Leq hr at 1:44 AM 44.5
Max = 81.2 Max Leq hr at 7:33 AM 64.2

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
59.3	16:21:53		59.3	59.3
55.3	16:21:54		55.3	55.3
54.5	16:21:55		54.5	54.5
52.8	16:21:56		52.8	52.8
50.7	16:21:57		50.7	50.7
55.8	16:21:58		55.8	55.8
58.8	16:21:59		58.8	58.8
56.4	16:22:00		56.4	56.4
63.6	16:22:01		63.6	63.6
66.5	16:22:02		66.5	66.5
63.2	16:22:03		63.2	63.2
61.5	16:22:04		61.5	61.5
60.1	16:22:05		60.1	60.1
65.9	16:22:06		65.9	65.9
61.8	16:22:07		61.8	61.8
57.8	16:22:08		57.8	57.8
53.8	16:22:09		53.8	53.8
53.1	16:22:10		53.1	53.1
67.3	16:22:11		67.3	67.3
63.5	16:22:12		63.5	63.5
63.5	16:22:13		63.5	63.5
66.8	16:22:14		66.8	66.8
65.5	16:22:15		65.5	65.5
65.8	16:22:16		65.8	65.8
64.4	16:22:17		64.4	64.4
65.6	16:22:18		65.6	65.6
66.1	16:22:19		66.1	66.1
65.6	16:22:20		65.6	65.6
66.7	16:22:21		66.7	66.7
66.1	16:22:22		66.1	66.1
69.1	16:22:23		69.1	69.1
69.0	16:22:24		69.0	69.0
64.8	16:22:25		64.8	64.8
60.8	16:22:26		60.8	60.8
60.9	16:22:27		60.9	60.9
59.7	16:22:28		59.7	59.7
59.4	16:22:29		59.4	59.4
62.1	16:22:30		62.1	62.1
60.7	16:22:31		60.7	60.7
61.5	16:22:32		61.5	61.5
66.1	16:22:33		66.1	66.1
70.5	16:22:34		70.5	70.5
70.6	16:22:35		70.6	70.6
68.9	16:22:36		68.9	68.9
66.8	16:22:37		66.8	66.8
64.2	16:22:38		64.2	64.2
61.6	16:22:39		61.6	61.6
65.1	16:22:40		65.1	65.1
65.5	16:22:41		65.5	65.5
67.7	16:22:42		67.7	67.7
68.3	16:22:43		68.3	68.3
68.5	16:22:44		68.5	68.5
69.2	16:22:45		69.2	69.2
71.2	16:22:46		71.2	71.2
67.6	16:22:47		67.6	67.6
63.8	16:22:48		63.8	63.8
60.8	16:22:49		60.8	60.8
57.9	16:22:50		57.9	57.9
55.6	16:22:51		55.6	55.6
56.1	16:22:52		56.1	56.1
56.3	16:22:53		56.3	56.3
57.7	16:22:54		57.7	57.7
61.1	16:22:55		61.1	61.1
60.3	16:22:56		60.3	60.3
61.9	16:22:57		61.9	61.9
62.6	16:22:58		62.6	62.6
60.0	16:22:59		60.0	60.0
65.4	16:23:00		65.4	65.4
65.7	16:23:01		65.7	65.7
67.9	16:23:02		67.9	67.9
64.0	16:23:03		64.0	64.0
69.9	16:23:04		69.9	69.9
65.8	16:23:05		65.8	65.8
64.9	16:23:06		64.9	64.9
62.8	16:23:07		62.8	62.8
60.9	16:23:08		60.9	60.9
68.4	16:23:09		68.4	68.4
68.6	16:23:10		68.6	68.6
64.5	16:23:11		64.5	64.5
62.9	16:23:12		62.9	62.9
72.3	16:23:13		72.3	72.3
69.2	16:23:14		69.2	69.2
66.0	16:23:15		66.0	66.0
62.4	16:23:16		62.4	62.4
60.6	16:23:17		60.6	60.6
60.2	16:23:18		60.2	60.2
59.3	16:23:19		59.3	59.3
59.6	16:23:20		59.6	59.6
60.8	16:23:21		60.8	60.8
72.5	16:23:22		72.5	72.5
73.0	16:23:23		73.0	73.0
69.7	16:23:24		69.7	69.7
65.7	16:23:25		65.7	65.7
61.8	16:23:26		61.8	61.8
58.3	16:23:27		58.3	58.3
56.2	16:23:28		56.2	56.2
56.5	16:23:29		56.5	56.5
59.9	16:23:30		59.9	59.9
62.4	16:23:31		62.4	62.4
66.8	16:23:32		66.8	66.8
68.1	16:23:33		68.1	68.1
67.3	16:23:34		67.3	67.3
66.8	16:23:35		66.8	66.8
65.8	16:23:36		65.8	65.8
64.9	16:23:37		64.9	64.9
65.3	16:23:38		65.3	65.3
67.1	16:23:39		67.1	67.1
66.7	16:23:40		66.7	66.7
64.8	16:23:41		64.8	64.8
62.4	16:23:42		62.4	62.4
59.9	16:23:43		59.9	59.9
57.9	16:23:44		57.9	57.9
56.6	16:23:45		56.6	56.6
55.7	16:23:46		55.7	55.7
54.6	16:23:47		54.6	54.6
53.4	16:23:48		53.4	53.4
51.8	16:23:49		51.8	51.8
50.5	16:23:50		50.5	50.5
50.3	16:23:51		50.3	50.3
49.5	16:23:52		49.5	49.5
49.4	16:23:53		49.4	49.4
48.5	16:23:54		48.5	48.5
47.8	16:23:55		47.8	47.8
47.9	16:23:56		47.9	47.9
48.8	16:23:57		48.8	48.8
49.8	16:23:58		49.8	49.8
52.2	16:23:59		52.2	52.2
55.1	16:24:00		55.1	55.1
58.2	16:24:01		58.2	58.2
60.7	16:24:02		60.7	60.7
64.8	16:24:03		64.8	64.8
65.1	16:24:04		65.1	65.1
63.7	16:24:05		63.7	63.7
62.2	16:24:06		62.2	62.2
61.2	16:24:07		61.2	61.2
61.7	16:24:08		61.7	61.7
62.0	16:24:09		62.0	62.0
60.8	16:24:10		60.8	60.8
58.7	16:24:11		58.7	58.7
56.5	16:24:12		56.5	56.5
54.3	16:24:13		54.3	54.3
52.3	16:24:14		52.3	52.3
50.8	16:24:15		50.8	50.8
49.4	16:24:16		49.4	49.4
48.7	16:24:17		48.7	48.7
48.1	16:24:18		48.1	48.1
47.2	16:24:19		47.2	47.2
46.4	16:24:20		46.4	46.4
46.4	16:24:21		46.4	46.4
46.7	16:24:22		46.7	46.7
46.8	16:24:23		46.8	46.8
46.5	16:24:24		46.5	46.5
46.5	16:24:25		46.5	46.5
47.1	16:24:26		47.1	47.1
48.0	16:24:27		48.0	48.0
49.7	16:24:28		49.7	49.7
49.9	16:24:29		49.9	49.9
51.3	16:24:30		51.3	51.3
52.1	16:24:31		52.1	52.1
53.5	16:24:32		53.5	53.5
55.6	16:24:33		55.6	55.6
58.4	16:24:34		58.4	58.4
62.7	16:24:35		62.7	62.7
63.4	16:24:36		63.4	63.4
62.5	16:24:37		62.5	62.5
60.9	16:24:38		60.9	60.9
58.3	16:24:39		58.3	58.3
55.7	16:24:40		55.7	55.7
53.9	16:24:41		53.9	53.9
52.9	16:24:42		52.9	52.9

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
59.6	16:12:46		59.6	59.6
60.4	16:12:47		60.4	60.4
61.1	16:12:48		61.1	61.1
61.6	16:12:49		61.6	61.6
61.8	16:12:50		61.8	61.8
61.4	16:12:51		61.4	61.4
60.8	16:12:52		60.8	60.8
60.6	16:12:53		60.6	60.6
60.3	16:12:54		60.3	60.3
61.0	16:12:55		61.0	61.0
60.6	16:12:56		60.6	60.6
59.2	16:12:57		59.2	59.2
57.0	16:12:58		57.0	57.0
55.3	16:12:59		55.3	55.3
53.1	16:13:00		53.1	53.1
51.2	16:13:01		51.2	51.2
50.4	16:13:02		50.4	50.4
50.6	16:13:03		50.6	50.6
51.7	16:13:04		51.7	51.7
53.0	16:13:05		53.0	53.0
52.4	16:13:06		52.4	52.4
52.1	16:13:07		52.1	52.1
51.8	16:13:08		51.8	51.8
51.0	16:13:09		51.0	51.0
51.7	16:13:10		51.7	51.7
52.6	16:13:11		52.6	52.6
52.5	16:13:12		52.5	52.5
52.1	16:13:13		52.1	52.1
52.8	16:13:14		52.8	52.8
54.1	16:13:15		54.1	54.1
54.6	16:13:16		54.6	54.6
54.8	16:13:17		54.8	54.8
53.7	16:13:18		53.7	53.7
52.4	16:13:19		52.4	52.4
51.2	16:13:20		51.2	51.2
49.5	16:13:21		49.5	49.5
48.6	16:13:22		48.6	48.6
47.7	16:13:23		47.7	47.7
47.1	16:13:24		47.1	47.1
46.7	16:13:25		46.7	46.7
46.3	16:13:26		46.3	46.3
46.1	16:13:27		46.1	46.1
46.7	16:13:28		46.7	46.7
47.4	16:13:29		47.4	47.4
46.2	16:13:30		46.2	46.2
46.1	16:13:31		46.1	46.1
45.5	16:13:32		45.5	45.5
45.0	16:13:33		45.0	45.0
47.3	16:13:34		47.3	47.3
50.5	16:13:35		50.5	50.5
54.1	16:13:36		54.1	54.1
56.6	16:13:37		56.6	56.6
57.6	16:13:38		57.6	57.6
57.3	16:13:39		57.3	57.3
56.9	16:13:40		56.9	56.9
56.1	16:13:41		56.1	56.1
56.6	16:13:42		56.6	56.6
54.5	16:13:43		54.5	54.5
52.5	16:13:44		52.5	52.5
51.2	16:13:45		51.2	51.2
50.1	16:13:46		50.1	50.1
48.2	16:13:47		48.2	48.2
47.5	16:13:48		47.5	47.5
47.3	16:13:49		47.3	47.3
46.5	16:13:50		46.5	46.5
47.1	16:13:51		47.1	47.1
47.3	16:13:52		47.3	47.3
47.1	16:13:53		47.1	47.1
47.6	16:13:54		47.6	47.6
47.9	16:13:55		47.9	47.9
48.3	16:13:56		48.3	48.3
49.6	16:13:57		49.6	49.6
51.7	16:13:58		51.7	51.7
52.9	16:13:59		52.9	52.9
55.0	16:14:00		55.0	55.0
56.9	16:14:01		56.9	56.9
58.3	16:14:02		58.3	58.3
59.6	16:14:03		59.6	59.6
60.2	16:14:04		60.2	60.2
60.4	16:14:05		60.4	60.4
60.2	16:14:06		60.2	60.2
59.8	16:14:07		59.8	59.8
60.2	16:14:08		60.2	60.2
61.6	16:14:09		61.6	61.6
62.0	16:14:10		62.0	62.0
62.3	16:14:11		62.3	62.3
61.5	16:14:12		61.5	61.5
60.6	16:14:13		60.6	60.6
59.3	16:14:14		59.3	59.3
57.3	16:14:15		57.3	57.3
55.4	16:14:16		55.4	55.4
53.9	16:14:17		53.9	53.9
53.2	16:14:18		53.2	53.2
52.9	16:14:19		52.9	52.9
53.2	16:14:20		53.2	53.2
53.3	16:14:21		53.3	53.3
53.6	16:14:22		53.6	53.6
53.8	16:14:23		53.8	53.8
54.1	16:14:24		54.1	54.1
54.2	16:14:25		54.2	54.2
54.0	16:14:26		54.0	54.0
54.7	16:14:27		54.7	54.7
54.7	16:14:28		54.7	54.7
54.1	16:14:29		54.1	54.1
52.8	16:14:30		52.8	52.8
51.4	16:14:31		51.4	51.4
50.2	16:14:32		50.2	50.2
49.3	16:14:33		49.3	49.3
49.0	16:14:34		49.0	49.0
49.1	16:14:35		49.1	49.1
49.4	16:14:36		49.4	49.4
49.8	16:14:37		49.8	49.8
50.1	16:14:38		50.1	50.1
50.8	16:14:39		50.8	50.8
52.1	16:14:40		52.1	52.1
54.1	16:14:41		54.1	54.1
54.2	16:14:42		54.2	54.2
53.3	16:14:43		53.3	53.3
53.4	16:14:44		53.4	53.4
54.3	16:14:45		54.3	54.3
54.2	16:14:46		54.2	54.2
54.8	16:14:47		54.8	54.8
55.5	16:14:48		55.5	55.5
56.6	16:14:49		56.6	56.6
58.9	16:14:50		58.9	58.9
60.8	16:14:51		60.8	60.8
62.1	16:14:52		62.1	62.1
62.6	16:14:53		62.6	62.6
61.8	16:14:54		61.8	61.8
60.3	16:14:55		60.3	60.3
58.9	16:14:56		58.9	58.9
58.1	16:14:57		58.1	58.1
58.6	16:14:58		58.6	58.6
60.1	16:14:59		60.1	60.1
61.7	16:15:00		61.7	61.7
63.1	16:15:01		63.1	63.1
65.3	16:15:02		65.3	65.3
64.5	16:15:03		64.5	64.5
62.9	16:15:04		62.9	62.9
62.1	16:15:05		62.1	62.1
61.3	16:15:06		61.3	61.3
60.9	16:15:07		60.9	60.9
61.9	16:15:08		61.9	61.9
63.5	16:15:09		63.5	63.5
64.4	16:15:10		64.4	64.4
65.3	16:15:11		65.3	65.3
66.1	16:15:12		66.1	66.1
64.9	16:15:13		64.9	64.9
62.6	16:15:14		62.6	62.6
60.2	16:15:15		60.2	60.2
57.8	16:15:16		57.8	57.8
56.1	16:15:17		56.1	56.1
55.2	16:15:18		55.2	55.2
55.9	16:15:19		55.9	55.9
57.9	16:15:20		57.9	57.9
58.6	16:15:21		58.6	58.6
57.9	16:15:22		57.9	57.9
56.5	16:15:23		56.5	56.5
55.2	16:15:24		55.2	55.2
54.1	16:15:25		54.1	54.1
53.9	16:15:26		53.9	53.9
55.0	16:15:27		55.0	55.0
56.3	16:15:28		56.3	56.3
56.8	16:15:29		56.8	56.8
57.5	16:15:30		57.5	57.5
58.4	16:15:31		58.4	58.4
59.3	16:15:32		59.3	59.3
59.6	16:15:33		59.6	59.6
60.0	16:15:34		60.0	60.0
60.7	16:15:35		60.7	60.7
60.8	16:15:36		60.8	60.8
61.4	16:15:37		61.4	61.4
61.8	16:15:38		61.8	61.8
62.1	16:15:39		62.1	62.1
61.9	16:15:40		61.9	61.9
61.8	16:15:41		61.8	61.8
61.7	16:15:42		61.7	61.7
61.1	16:15:43		61.1	61.1
60.9	16:15:44		60.9	60.9
60.8	16:15:45		60.8	60.8
59.8	16:15:46		59.8	59.8

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.1	16:18:58		48.1	48.1
46.9	16:18:59		46.9	46.9
46.3	16:19:00		46.3	46.3
45.6	16:19:01		45.6	45.6
45.7	16:19:02		45.7	45.7
45.7	16:19:03		45.7	45.7
46.5	16:19:04		46.5	46.5
47.1	16:19:05		47.1	47.1
48.2	16:19:06		48.2	48.2
47.6	16:19:07		47.6	47.6
46.7	16:19:08		46.7	46.7
46.1	16:19:09		46.1	46.1
45.7	16:19:10		45.7	45.7
46.4	16:19:11		46.4	46.4
46.9	16:19:12		46.9	46.9
47.3	16:19:13		47.3	47.3
46.7	16:19:14		46.7	46.7
46.4	16:19:15		46.4	46.4
46.5	16:19:16		46.5	46.5
46.7	16:19:17		46.7	46.7
47.1	16:19:18		47.1	47.1
47.3	16:19:19		47.3	47.3
47.0	16:19:20		47.0	47.0
46.4	16:19:21		46.4	46.4
46.5	16:19:22		46.5	46.5
46.1	16:19:23		46.1	46.1
46.5	16:19:24		46.5	46.5
47.2	16:19:25		47.2	47.2
47.7	16:19:26		47.7	47.7
48.2	16:19:27		48.2	48.2
49.8	16:19:28		49.8	49.8
48.9	16:19:29		48.9	48.9
47.9	16:19:30		47.9	47.9
47.6	16:19:31		47.6	47.6
47.3	16:19:32		47.3	47.3
52.5	16:19:33		52.5	52.5
52.5	16:19:34		52.5	52.5
50.1	16:19:35		50.1	50.1
48.6	16:19:36		48.6	48.6
48.2	16:19:37		48.2	48.2
48.9	16:19:38		48.9	48.9
48.9	16:19:39		48.9	48.9
48.9	16:19:40		48.9	48.9
48.6	16:19:41		48.6	48.6
48.8	16:19:42		48.8	48.8
49.2	16:19:43		49.2	49.2
49.2	16:19:44		49.2	49.2
48.4	16:19:45		48.4	48.4
47.9	16:19:46		47.9	47.9
47.7	16:19:47		47.7	47.7
47.2	16:19:48		47.2	47.2
47.4	16:19:49		47.4	47.4
47.9	16:19:50		47.9	47.9
47.1	16:19:51		47.1	47.1
47.6	16:19:52		47.6	47.6
48.4	16:19:53		48.4	48.4
47.5	16:19:54		47.5	47.5
47.6	16:19:55		47.6	47.6
48.2	16:19:56		48.2	48.2
48.3	16:19:57		48.3	48.3
47.8	16:19:58		47.8	47.8
48.3	16:19:59		48.3	48.3
47.4	16:20:00		47.4	47.4
47.1	16:20:01		47.1	47.1
46.8	16:20:02		46.8	46.8
48.2	16:20:03		48.2	48.2
47.9	16:20:04		47.9	47.9
46.9	16:20:05		46.9	46.9
46.9	16:20:06		46.9	46.9
47.2	16:20:07		47.2	47.2
47.2	16:20:08		47.2	47.2
46.9	16:20:09		46.9	46.9
46.8	16:20:10		46.8	46.8
46.6	16:20:11		46.6	46.6
46.9	16:20:12		46.9	46.9
47.0	16:20:13		47.0	47.0
47.0	16:20:14		47.0	47.0
47.8	16:20:15		47.8	47.8
48.1	16:20:16		48.1	48.1
48.9	16:20:17		48.9	48.9
48.9	16:20:18		48.9	48.9
50.4	16:20:19		50.4	50.4
54.2	16:20:20		54.2	54.2
53.8	16:20:21		53.8	53.8
51.8	16:20:22		51.8	51.8
50.3	16:20:23		50.3	50.3
49.4	16:20:24		49.4	49.4
48.9	16:20:25		48.9	48.9
49.5	16:20:26		49.5	49.5
49.6	16:20:27		49.6	49.6
49.4	16:20:28		49.4	49.4
49.2	16:20:29		49.2	49.2
48.7	16:20:30		48.7	48.7
48.6	16:20:31		48.6	48.6
48.5	16:20:32		48.5	48.5
47.6	16:20:33		47.6	47.6
46.8	16:20:34		46.8	46.8
46.1	16:20:35		46.1	46.1
45.8	16:20:36		45.8	45.8
45.5	16:20:37		45.5	45.5
45.2	16:20:38		45.2	45.2
44.9	16:20:39		44.9	44.9
45.3	16:20:40		45.3	45.3
45.3	16:20:41		45.3	45.3
45.4	16:20:42		45.4	45.4
46.2	16:20:43		46.2	46.2
47.0	16:20:44		47.0	47.0
48.1	16:20:45		48.1	48.1
48.4	16:20:46		48.4	48.4
48.3	16:20:47		48.3	48.3
48.7	16:20:48		48.7	48.7
48.7	16:20:49		48.7	48.7
48.7	16:20:50		48.7	48.7
48.4	16:20:51		48.4	48.4
47.7	16:20:52		47.7	47.7
48.0	16:20:53		48.0	48.0
47.8	16:20:54		47.8	47.8
47.4	16:20:55		47.4	47.4
47.4	16:20:56		47.4	47.4
47.6	16:20:57		47.6	47.6
48.1	16:20:58		48.1	48.1
48.3	16:20:59		48.3	48.3
48.1	16:21:00		48.1	48.1
48.5	16:21:01		48.5	48.5
48.7	16:21:02		48.7	48.7
48.2	16:21:03		48.2	48.2
47.4	16:21:04		47.4	47.4
47.1	16:21:05		47.1	47.1
47.3	16:21:06		47.3	47.3
47.3	16:21:07		47.3	47.3
47.5	16:21:08		47.5	47.5
47.3	16:21:09		47.3	47.3
46.9	16:21:10		46.9	46.9
46.6	16:21:11		46.6	46.6
46.7	16:21:12		46.7	46.7
47.3	16:21:13		47.3	47.3
47.7	16:21:14		47.7	47.7
47.3	16:21:15		47.3	47.3
47.1	16:21:16		47.1	47.1
47.1	16:21:17		47.1	47.1
47.1	16:21:18		47.1	47.1
47.4	16:21:19		47.4	47.4
47.8	16:21:20		47.8	47.8
47.9	16:21:21		47.9	47.9
48.2	16:21:22		48.2	48.2
47.1	16:21:23		47.1	47.1
47.0	16:21:24		47.0	47.0
47.6	16:21:25		47.6	47.6
48.2	16:21:26		48.2	48.2
48.0	16:21:27		48.0	48.0
48.2	16:21:28		48.2	48.2
48.7	16:21:29		48.7	48.7
48.8	16:21:30		48.8	48.8
48.7	16:21:31		48.7	48.7
48.5	16:21:32		48.5	48.5
48.4	16:21:33		48.4	48.4
47.8	16:21:34		47.8	47.8
47.8	16:21:35		47.8	47.8
48.3	16:21:36		48.3	48.3
48.9	16:21:37		48.9	48.9
49.0	16:21:38		49.0	49.0
48.6	16:21:39		48.6	48.6
48.8	16:21:40		48.8	48.8
49.2	16:21:41		49.2	49.2
49.4	16:21:42		49.4	49.4
50.2	16:21:43		50.2	50.2
48.9	16:21:44		48.9	48.9
48.8	16:21:45		48.8	48.8
48.6	16:21:46		48.6	48.6
48.1	16:21:47		48.1	48.1
48.2	16:21:48		48.2	48.2
48.3	16:21:49		48.3	48.3
47.6	16:21:50		47.6	47.6
47.0	16:21:51		47.0	47.0
46.3	16:21:52		46.3	46.3
45.8	16:21:53		45.8	45.8
45.4	16:21:54		45.4	45.4
45.4	16:21:55		45.4	45.4
46.0	16:21:56		46.0	46.0
46.4	16:21:57		46.4	46.4
46.5	16:21:58		46.5	46.5

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
52.4	16:24:43		52.4	52.4
53.5	16:24:44		53.5	53.5
55.6	16:24:45		55.6	55.6
59.8	16:24:46		59.8	59.8
63.4	16:24:47		63.4	63.4
63.8	16:24:48		63.8	63.8
62.8	16:24:49		62.8	62.8
61.1	16:24:50		61.1	61.1
59.0	16:24:51		59.0	59.0
57.2	16:24:52		57.2	57.2
55.7	16:24:53		55.7	55.7
53.8	16:24:54		53.8	53.8
51.8	16:24:55		51.8	51.8
49.6	16:24:56		49.6	49.6
47.7	16:24:57		47.7	47.7
46.7	16:24:58		46.7	46.7
46.2	16:24:59		46.2	46.2
46.3	16:25:00		46.3	46.3
47.2	16:25:01		47.2	47.2
48.8	16:25:02		48.8	48.8
49.6	16:25:03		49.6	49.6
49.3	16:25:04		49.3	49.3
50.0	16:25:05		50.0	50.0
51.6	16:25:06		51.6	51.6
53.9	16:25:07		53.9	53.9
56.1	16:25:08		56.1	56.1
60.1	16:25:09		60.1	60.1
64.3	16:25:10		64.3	64.3
69.5	16:25:11		69.5	69.5
68.0	16:25:12		68.0	68.0
64.8	16:25:13		64.8	64.8
61.8	16:25:14		61.8	61.8
58.9	16:25:15		58.9	58.9
56.7	16:25:16		56.7	56.7
54.2	16:25:17		54.2	54.2
51.9	16:25:18		51.9	51.9
50.7	16:25:19		50.7	50.7
50.3	16:25:20		50.3	50.3
49.9	16:25:21		49.9	49.9
49.2	16:25:22		49.2	49.2
48.5	16:25:23		48.5	48.5
48.2	16:25:24		48.2	48.2
49.1	16:25:25		49.1	49.1
48.5	16:25:26		48.5	48.5
48.3	16:25:27		48.3	48.3
47.4	16:25:28		47.4	47.4
45.9	16:25:29		45.9	45.9
45.3	16:25:30		45.3	45.3
45.3	16:25:31		45.3	45.3
46.0	16:25:32		46.0	46.0
47.2	16:25:33		47.2	47.2
47.5	16:25:34		47.5	47.5
47.4	16:25:35		47.4	47.4
48.3	16:25:36		48.3	48.3
49.7	16:25:37		49.7	49.7
51.1	16:25:38		51.1	51.1
52.9	16:25:39		52.9	52.9
57.3	16:25:40		57.3	57.3
61.7	16:25:41		61.7	61.7
66.6	16:25:42		66.6	66.6
70.7	16:25:43		70.7	70.7
71.6	16:25:44		71.6	71.6
69.1	16:25:45		69.1	69.1
65.8	16:25:46		65.8	65.8
62.2	16:25:47		62.2	62.2
58.9	16:25:48		58.9	58.9
56.3	16:25:49		56.3	56.3
54.9	16:25:50		54.9	54.9
54.9	16:25:51		54.9	54.9
56.5	16:25:52		56.5	56.5
59.9	16:25:53		59.9	59.9
62.4	16:25:54		62.4	62.4
65.5	16:25:55		65.5	65.5
68.6	16:25:56		68.6	68.6
66.9	16:25:57		66.9	66.9
64.1	16:25:58		64.1	64.1
61.7	16:25:59		61.7	61.7
60.8	16:26:00		60.8	60.8
61.6	16:26:01		61.6	61.6
65.0	16:26:02		65.0	65.0
64.5	16:26:03		64.5	64.5
62.4	16:26:04		62.4	62.4
59.7	16:26:05		59.7	59.7
56.8	16:26:06		56.8	56.8
54.3	16:26:07		54.3	54.3
53.2	16:26:08		53.2	53.2
52.1	16:26:09		52.1	52.1
51.1	16:26:10		51.1	51.1
50.2	16:26:11		50.2	50.2
48.9	16:26:12		48.9	48.9
48.3	16:26:13		48.3	48.3
48.3	16:26:14		48.3	48.3
47.1	16:26:15		47.1	47.1
47.4	16:26:16		47.4	47.4
47.4	16:26:17		47.4	47.4
47.2	16:26:18		47.2	47.2
47.3	16:26:19		47.3	47.3
48.3	16:26:20		48.3	48.3
49.4	16:26:21		49.4	49.4
48.7	16:26:22		48.7	48.7
48.3	16:26:23		48.3	48.3
48.7	16:26:24		48.7	48.7
48.3	16:26:25		48.3	48.3
48.1	16:26:26		48.1	48.1
49.0	16:26:27		49.0	49.0
52.0	16:26:28		52.0	52.0
55.3	16:26:29		55.3	55.3
58.4	16:26:30		58.4	58.4
60.7	16:26:31		60.7	60.7
64.3	16:26:32		64.3	64.3
64.9	16:26:33		64.9	64.9
63.0	16:26:34		63.0	63.0
60.5	16:26:35		60.5	60.5
58.3	16:26:36		58.3	58.3
55.6	16:26:37		55.6	55.6
53.2	16:26:38		53.2	53.2
51.0	16:26:39		51.0	51.0
49.1	16:26:40		49.1	49.1
47.5	16:26:41		47.5	47.5
47.2	16:26:42		47.2	47.2
47.7	16:26:43		47.7	47.7
48.2	16:26:44		48.2	48.2
49.5	16:26:45		49.5	49.5
51.4	16:26:46		51.4	51.4
55.4	16:26:47		55.4	55.4
59.9	16:26:48		59.9	59.9
65.5	16:26:49		65.5	65.5
69.6	16:26:50		69.6	69.6
69.4	16:26:51		69.4	69.4
66.4	16:26:52		66.4	66.4
62.9	16:26:53		62.9	62.9
59.2	16:26:54		59.2	59.2
55.9	16:26:55		55.9	55.9
53.2	16:26:56		53.2	53.2
51.4	16:26:57		51.4	51.4
50.2	16:26:58		50.2	50.2
48.9	16:26:59		48.9	48.9
48.1	16:27:00		48.1	48.1
47.5	16:27:01		47.5	47.5
46.2	16:27:02		46.2	46.2
45.4	16:27:03		45.4	45.4
44.7	16:27:04		44.7	44.7
44.2	16:27:05		44.2	44.2
44.2	16:27:06		44.2	44.2
44.1	16:27:07		44.1	44.1
44.6	16:27:08		44.6	44.6
45.0	16:27:09		45.0	45.0
46.8	16:27:10		46.8	46.8
47.3	16:27:11		47.3	47.3
47.6	16:27:12		47.6	47.6
47.6	16:27:13		47.6	47.6
47.8	16:27:14		47.8	47.8
48.6	16:27:15		48.6	48.6
49.2	16:27:16		49.2	49.2
50.4	16:27:17		50.4	50.4
52.3	16:27:18		52.3	52.3
55.9	16:27:19		55.9	55.9
59.2	16:27:20		59.2	59.2
61.4	16:27:21		61.4	61.4
64.6	16:27:22		64.6	64.6
67.0	16:27:23		67.0	67.0
67.0	16:27:24		67.0	67.0
66.6	16:27:25		66.6	66.6
67.1	16:27:26		67.1	67.1
65.9	16:27:27		65.9	65.9
63.2	16:27:28		63.2	63.2
60.2	16:27:29		60.2	60.2
57.3	16:27:30		57.3	57.3
55.1	16:27:31		55.1	55.1
53.5	16:27:32		53.5	53.5
52.0	16:27:33		52.0	52.0
50.1	16:27:34		50.1	50.1
48.7	16:27:35		48.7	48.7
48.4	16:27:36		48.4	48.4
48.0	16:27:37		48.0	48.0
47.3	16:27:38		47.3	47.3
47.0	16:27:39		47.0	47.0
47.6	16:27:40		47.6	47.6
49.7	16:27:41		49.7	49.7
53.9	16:27:42		53.9	53.9
58.6	16:27:43		58.6	58.6

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
58.9	16:15:47		58.9	58.9
57.7	16:15:48		57.7	57.7
57.2	16:15:49		57.2	57.2
56.7	16:15:50		56.7	56.7
57.0	16:15:51		57.0	57.0
57.7	16:15:52		57.7	57.7
58.1	16:15:53		58.1	58.1
57.0	16:15:54		57.0	57.0
55.6	16:15:55		55.6	55.6
54.4	16:15:56		54.4	54.4
54.5	16:15:57		54.5	54.5
53.9	16:15:58		53.9	53.9
54.2	16:15:59		54.2	54.2
54.6	16:16:00		54.6	54.6
54.0	16:16:01		54.0	54.0
54.0	16:16:02		54.0	54.0
54.7	16:16:03		54.7	54.7
55.4	16:16:04		55.4	55.4
55.7	16:16:05		55.7	55.7
56.8	16:16:06		56.8	56.8
58.3	16:16:07		58.3	58.3
59.0	16:16:08		59.0	59.0
59.3	16:16:09		59.3	59.3
58.1	16:16:10		58.1	58.1
56.4	16:16:11		56.4	56.4
54.9	16:16:12		54.9	54.9
54.2	16:16:13		54.2	54.2
54.0	16:16:14		54.0	54.0
53.6	16:16:15		53.6	53.6
53.8	16:16:16		53.8	53.8
55.1	16:16:17		55.1	55.1
57.0	16:16:18		57.0	57.0
59.6	16:16:19		59.6	59.6
62.6	16:16:20		62.6	62.6
62.0	16:16:21		62.0	62.0
59.6	16:16:22		59.6	59.6
57.2	16:16:23		57.2	57.2
55.4	16:16:24		55.4	55.4
54.8	16:16:25		54.8	54.8
53.9	16:16:26		53.9	53.9
53.6	16:16:27		53.6	53.6
53.3	16:16:28		53.3	53.3
52.8	16:16:29		52.8	52.8
52.3	16:16:30		52.3	52.3
51.7	16:16:31		51.7	51.7
51.9	16:16:32		51.9	51.9
51.4	16:16:33		51.4	51.4
51.1	16:16:34		51.1	51.1
51.3	16:16:35		51.3	51.3
51.2	16:16:36		51.2	51.2
52.2	16:16:37		52.2	52.2
52.8	16:16:38		52.8	52.8
52.8	16:16:39		52.8	52.8
53.1	16:16:40		53.1	53.1
54.4	16:16:41		54.4	54.4
55.9	16:16:42		55.9	55.9
56.3	16:16:43		56.3	56.3
55.8	16:16:44		55.8	55.8
55.0	16:16:45		55.0	55.0
53.7	16:16:46		53.7	53.7
52.3	16:16:47		52.3	52.3
51.0	16:16:48		51.0	51.0
50.1	16:16:49		50.1	50.1
49.6	16:16:50		49.6	49.6
49.0	16:16:51		49.0	49.0
48.4	16:16:52		48.4	48.4
48.3	16:16:53		48.3	48.3
48.5	16:16:54		48.5	48.5
49.1	16:16:55		49.1	49.1
49.2	16:16:56		49.2	49.2
49.1	16:16:57		49.1	49.1
48.8	16:16:58		48.8	48.8
48.2	16:16:59		48.2	48.2
48.6	16:17:00		48.6	48.6
48.7	16:17:01		48.7	48.7
48.8	16:17:02		48.8	48.8
49.5	16:17:03		49.5	49.5
51.2	16:17:04		51.2	51.2
52.4	16:17:05		52.4	52.4
52.6	16:17:06		52.6	52.6
52.3	16:17:07		52.3	52.3
51.1	16:17:08		51.1	51.1
50.7	16:17:09		50.7	50.7
52.3	16:17:10		52.3	52.3
52.5	16:17:11		52.5	52.5
54.6	16:17:12		54.6	54.6
55.1	16:17:13		55.1	55.1
54.8	16:17:14		54.8	54.8
55.9	16:17:15		55.9	55.9
58.4	16:17:16		58.4	58.4
61.7	16:17:17		61.7	61.7
63.3	16:17:18		63.3	63.3
63.2	16:17:19		63.2	63.2
63.0	16:17:20		63.0	63.0
63.8	16:17:21		63.8	63.8
64.7	16:17:22		64.7	64.7
64.4	16:17:23		64.4	64.4
64.0	16:17:24		64.0	64.0
63.9	16:17:25		63.9	63.9
63.9	16:17:26		63.9	63.9
63.9	16:17:27		63.9	63.9
63.8	16:17:28		63.8	63.8
63.5	16:17:29		63.5	63.5
63.3	16:17:30		63.3	63.3
63.1	16:17:31		63.1	63.1
62.8	16:17:32		62.8	62.8
62.2	16:17:33		62.2	62.2
62.0	16:17:34		62.0	62.0
62.3	16:17:35		62.3	62.3
63.2	16:17:36		63.2	63.2
64.7	16:17:37		64.7	64.7
66.1	16:17:38		66.1	66.1
66.4	16:17:39		66.4	66.4
66.2	16:17:40		66.2	66.2
65.3	16:17:41		65.3	65.3
63.5	16:17:42		63.5	63.5
62.0	16:17:43		62.0	62.0
60.9	16:17:44		60.9	60.9
60.1	16:17:45		60.1	60.1
59.1	16:17:46		59.1	59.1
59.3	16:17:47		59.3	59.3
59.2	16:17:48		59.2	59.2
58.5	16:17:49		58.5	58.5
58.1	16:17:50		58.1	58.1
58.3	16:17:51		58.3	58.3
59.2	16:17:52		59.2	59.2
60.5	16:17:53		60.5	60.5
60.6	16:17:54		60.6	60.6
60.2	16:17:55		60.2	60.2
59.8	16:17:56		59.8	59.8
59.7	16:17:57		59.7	59.7
59.9	16:17:58		59.9	59.9
58.5	16:17:59		58.5	58.5
56.4	16:18:00		56.4	56.4
53.4	16:18:01		53.4	53.4
53.2	16:18:02		53.2	53.2
51.9	16:18:03		51.9	51.9
51.2	16:18:04		51.2	51.2
50.5	16:18:05		50.5	50.5
50.0	16:18:06		50.0	50.0
50.2	16:18:07		50.2	50.2
50.9	16:18:08		50.9	50.9
51.4	16:18:09		51.4	51.4
51.7	16:18:10		51.7	51.7
51.9	16:18:11		51.9	51.9
52.8	16:18:12		52.8	52.8
54.3	16:18:13		54.3	54.3
55.7	16:18:14		55.7	55.7
56.7	16:18:15		56.7	56.7
57.8	16:18:16		57.8	57.8
58.7	16:18:17		58.7	58.7
59.6	16:18:18		59.6	59.6
59.7	16:18:19		59.7	59.7
59.6	16:18:20		59.6	59.6
58.5	16:18:21		58.5	58.5
56.9	16:18:22		56.9	56.9
56.1	16:18:23		56.1	56.1
57.1	16:18:24		57.1	57.1
59.0	16:18:25		59.0	59.0
60.1	16:18:26		60.1	60.1
61.0	16:18:27		61.0	61.0
60.8	16:18:28		60.8	60.8
59.3	16:18:29		59.3	59.3
57.8	16:18:30		57.8	57.8
56.5	16:18:31		56.5	56.5
55.5	16:18:32		55.5	55.5
55.6	16:18:33		55.6	55.6
55.5	16:18:34		55.5	55.5
55.6	16:18:35		55.6	55.6
56.8	16:18:36		56.8	56.8
57.9	16:18:37		57.9	57.9
59.3	16:18:38		59.3	59.3
59.4	16:18:39		59.4	59.4
59.0	16:18:40		59.0	59.0
57.9	16:18:41		57.9	57.9
56.2	16:18:42		56.2	56.2
54.5	16:18:43		54.5	54.5
53.5	16:18:44		53.5	53.5
52.8	16:18:45		52.8	52.8
52.4	16:18:46		52.4	52.4
52.2	16:18:47		52.2	52.2
51.8	16:18:48		51.8	51.8
50.9	16:18:49		50.9	50.9
50.5	16:18:50		50.5	50.5
50.1	16:18:51		50.1	50.1
49.8	16:18:52		49.8	49.8
49.4	16:18:53		49.4	49.4
49.6	16:18:54		49.6	49.6
50.7	16:18:55		50.7	50.7
51.1	16:18:56		51.1	51.1

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.9	16:21:59		46.9	46.9
46.6	16:22:00		46.6	46.6
46.3	16:22:01		46.3	46.3
46.4	16:22:02		46.4	46.4
46.3	16:22:03		46.3	46.3
45.9	16:22:04		45.9	45.9
45.8	16:22:05		45.8	45.8
45.9	16:22:06		45.9	45.9
47.2	16:22:07		47.2	47.2
48.8	16:22:08		48.8	48.8
48.5	16:22:09		48.5	48.5
47.8	16:22:10		47.8	47.8
49.9	16:22:11		49.9	49.9
50.6	16:22:12		50.6	50.6
50.2	16:22:13		50.2	50.2
51.1	16:22:14		51.1	51.1
51.6	16:22:15		51.6	51.6
52.7	16:22:16		52.7	52.7
53.0	16:22:17		53.0	53.0
53.0	16:22:18		53.0	53.0
53.0	16:22:19		53.0	53.0
57.1	16:22:20		57.1	57.1
57.7	16:22:21		57.7	57.7
55.3	16:22:22		55.3	55.3
54.3	16:22:23		54.3	54.3
53.8	16:22:24		53.8	53.8
53.2	16:22:25		53.2	53.2
53.7	16:22:26		53.7	53.7
56.6	16:22:27		56.6	56.6
55.9	16:22:28		55.9	55.9
54.1	16:22:29		54.1	54.1
52.8	16:22:30		52.8	52.8
51.8	16:22:31		51.8	51.8
51.3	16:22:32		51.3	51.3
50.9	16:22:33		50.9	50.9
50.7	16:22:34		50.7	50.7
50.7	16:22:35		50.7	50.7
51.4	16:22:36		51.4	51.4
52.7	16:22:37		52.7	52.7
52.2	16:22:38		52.2	52.2
50.6	16:22:39		50.6	50.6
49.1	16:22:40		49.1	49.1
48.0	16:22:41		48.0	48.0
47.0	16:22:42		47.0	47.0
46.4	16:22:43		46.4	46.4
46.5	16:22:44		46.5	46.5
46.7	16:22:45		46.7	46.7
46.4	16:22:46		46.4	46.4
46.0	16:22:47		46.0	46.0
46.2	16:22:48		46.2	46.2
46.3	16:22:49		46.3	46.3
46.3	16:22:50		46.3	46.3
46.8	16:22:51		46.8	46.8
46.8	16:22:52		46.8	46.8
46.4	16:22:53		46.4	46.4
46.1	16:22:54		46.1	46.1
46.1	16:22:55		46.1	46.1
46.3	16:22:56		46.3	46.3
46.6	16:22:57		46.6	46.6
47.0	16:22:58		47.0	47.0
47.7	16:22:59		47.7	47.7
47.6	16:23:00		47.6	47.6
47.1	16:23:01		47.1	47.1
46.9	16:23:02		46.9	46.9
46.8	16:23:03		46.8	46.8
47.0	16:23:04		47.0	47.0
47.2	16:23:05		47.2	47.2
47.9	16:23:06		47.9	47.9
47.6	16:23:07		47.6	47.6
47.7	16:23:08		47.7	47.7
47.7	16:23:09		47.7	47.7
47.6	16:23:10		47.6	47.6
48.0	16:23:11		48.0	48.0
47.9	16:23:12		47.9	47.9
48.0	16:23:13		48.0	48.0
48.4	16:23:14		48.4	48.4
49.0	16:23:15		49.0	49.0
49.8	16:23:16		49.8	49.8
50.1	16:23:17		50.1	50.1
50.2	16:23:18		50.2	50.2
49.8	16:23:19		49.8	49.8
50.1	16:23:20		50.1	50.1
50.6	16:23:21		50.6	50.6
51.2	16:23:22		51.2	51.2
50.6	16:23:23		50.6	50.6
50.0	16:23:24		50.0	50.0
50.2	16:23:25		50.2	50.2
49.8	16:23:26		49.8	49.8
49.4	16:23:27		49.4	49.4
49.7	16:23:28		49.7	49.7
49.9	16:23:29		49.9	49.9
50.2	16:23:30		50.2	50.2
52.3	16:23:31		52.3	52.3
53.9	16:23:32		53.9	53.9
53.2	16:23:33		53.2	53.2
54.4	16:23:34		54.4	54.4
55.0	16:23:35		55.0	55.0
54.6	16:23:36		54.6	54.6
54.6	16:23:37		54.6	54.6
54.3	16:23:38		54.3	54.3
53.9	16:23:39		53.9	53.9
53.9	16:23:40		53.9	53.9
54.5	16:23:41		54.5	54.5
55.8	16:23:42		55.8	55.8
55.3	16:23:43		55.3	55.3
54.8	16:23:44		54.8	54.8
54.4	16:23:45		54.4	54.4
53.6	16:23:46		53.6	53.6
52.6	16:23:47		52.6	52.6
51.9	16:23:48		51.9	51.9
53.3	16:23:49		53.3	53.3
53.7	16:23:50		53.7	53.7
52.8	16:23:51		52.8	52.8
52.1	16:23:52		52.1	52.1
51.1	16:23:53		51.1	51.1
50.1	16:23:54		50.1	50.1
51.1	16:23:55		51.1	51.1
52.7	16:23:56		52.7	52.7
50.7	16:23:57		50.7	50.7
49.1	16:23:58		49.1	49.1
49.1	16:23:59		49.1	49.1
48.8	16:24:00		48.8	48.8
48.4	16:24:01		48.4	48.4
49.7	16:24:02		49.7	49.7
51.1	16:24:03		51.1	51.1
50.4	16:24:04		50.4	50.4
49.7	16:24:05		49.7	49.7
49.2	16:24:06		49.2	49.2
49.7	16:24:07		49.7	49.7
49.8	16:24:08		49.8	49.8
50.0	16:24:09		50.0	50.0
50.4	16:24:10		50.4	50.4
50.6	16:24:11		50.6	50.6
49.8	16:24:12		49.8	49.8
49.4	16:24:13		49.4	49.4
50.3	16:24:14		50.3	50.3
52.6	16:24:15		52.6	52.6
52.9	16:24:16		52.9	52.9
51.5	16:24:17		51.5	51.5
50.0	16:24:18		50.0	50.0
49.8	16:24:19		49.8	49.8
49.7	16:24:20		49.7	49.7
49.5	16:24:21		49.5	49.5
51.9	16:24:22		51.9	51.9
56.5	16:24:23		56.5	56.5
56.2	16:24:24		56.2	56.2
56.3	16:24:25		56.3	56.3
54.2	16:24:26		54.2	54.2
51.7	16:24:27		51.7	51.7
49.7	16:24:28		49.7	49.7
47.9	16:24:29		47.9	47.9
47.0	16:24:30		47.0	47.0
46.5	16:24:31		46.5	46.5
46.7	16:24:32		46.7	46.7
47.2	16:24:33		47.2	47.2
48.7	16:24:34		48.7	48.7
49.3	16:24:35		49.3	49.3
49.2	16:24:36		49.2	49.2
48.9	16:24:37		48.9	48.9
46.5	16:24:38		46.5	46.5
48.9	16:24:39		48.9	48.9
49.2	16:24:40		49.2	49.2
48.7	16:24:41		48.7	48.7
48.8	16:24:42		48.8	48.8
48.5	16:24:43		48.5	48.5
48.2	16:24:44		48.2	48.2
47.9	16:24:45		47.9	47.9
48.1	16:24:46		48.1	48.1
48.2	16:24:47		48.2	48.2
49.1	16:24:48		49.1	49.1
51.0	16:24:49		51.0	51.0
51.9	16:24:50		51.9	51.9
52.9	16:24:51		52.9	52.9
53.3	16:24:52		53.3	53.3
52.3	16:24:53		52.3	52.3
51.3	16:24:54		51.3	51.3
50.6	16:24:55		50.6	50.6
50.6	16:24:56		50.6	50.6
50.9	16:24:57		50.9	50.9
51.3	16:24:58		51.3	51.3
54.1	16:24:59		54.1	54.1
55.4	16:25:00		55.4	55.4
54.0	16:25:01		54.0	54.0
51.8	16:25:02		51.8	51.8
50.1	16:25:03		50.1	50.1
49.3	16:25:04		49.3	49.3
51.2	16:25:05		51.2	51.2
50.1	16:25:06		50.1	50.1
51.3	16:25:07		51.3	51.3
50.7	16:25:08		50.7	50.7

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.8	16:27:44		60.8	60.8
58.9	16:27:45		58.9	58.9
57.7	16:27:46		57.7	57.7
56.9	16:27:47		56.9	56.9
57.2	16:27:48		57.2	57.2
58.4	16:27:49		58.4	58.4
60.3	16:27:50		60.3	60.3
64.1	16:27:51		64.1	64.1
65.2	16:27:52		65.2	65.2
64.1	16:27:53		64.1	64.1
62.0	16:27:54		62.0	62.0
59.8	16:27:55		59.8	59.8
58.7	16:27:56		58.7	58.7
60.2	16:27:57		60.2	60.2
65.5	16:27:58		65.5	65.5
70.3	16:27:59		70.3	70.3
70.8	16:28:00		70.8	70.8
67.9	16:28:01		67.9	67.9
65.3	16:28:02		65.3	65.3
66.1	16:28:03		66.1	66.1
69.4	16:28:04		69.4	69.4
69.0	16:28:05		69.0	69.0
69.4	16:28:06		69.4	69.4
69.6	16:28:07		69.6	69.6
68.0	16:28:08		68.0	68.0
65.6	16:28:09		65.6	65.6
63.0	16:28:10		63.0	63.0
60.7	16:28:11		60.7	60.7
58.7	16:28:12		58.7	58.7
57.7	16:28:13		57.7	57.7
58.1	16:28:14		58.1	58.1
59.0	16:28:15		59.0	59.0
59.6	16:28:16		59.6	59.6
60.5	16:28:17		60.5	60.5
62.3	16:28:18		62.3	62.3
63.9	16:28:19		63.9	63.9
65.2	16:28:20		65.2	65.2
64.3	16:28:21		64.3	64.3
62.4	16:28:22		62.4	62.4
60.1	16:28:23		60.1	60.1
58.0	16:28:24		58.0	58.0
56.1	16:28:25		56.1	56.1
54.0	16:28:26		54.0	54.0
52.5	16:28:27		52.5	52.5
51.4	16:28:28		51.4	51.4
51.3	16:28:29		51.3	51.3
50.3	16:28:30		50.3	50.3
49.2	16:28:31		49.2	49.2
48.5	16:28:32		48.5	48.5
48.2	16:28:33		48.2	48.2
47.5	16:28:34		47.5	47.5
47.0	16:28:35		47.0	47.0
47.3	16:28:36		47.3	47.3
47.4	16:28:37		47.4	47.4
46.9	16:28:38		46.9	46.9
46.7	16:28:39		46.7	46.7
46.3	16:28:40		46.3	46.3
47.0	16:28:41		47.0	47.0
49.0	16:28:42		49.0	49.0
49.6	16:28:43		49.6	49.6
49.5	16:28:44		49.5	49.5
48.4	16:28:45		48.4	48.4
48.9	16:28:46		48.9	48.9
48.1	16:28:47		48.1	48.1
46.9	16:28:48		46.9	46.9
47.0	16:28:49		47.0	47.0
47.8	16:28:50		47.8	47.8
47.3	16:28:51		47.3	47.3
45.7	16:28:52		45.7	45.7
44.6	16:28:53		44.6	44.6
45.0	16:28:54		45.0	45.0
44.8	16:28:55		44.8	44.8
44.1	16:28:56		44.1	44.1
42.6	16:28:57		42.6	42.6
41.5	16:28:58		41.5	41.5
41.0	16:28:59		41.0	41.0
40.8	16:29:00		40.8	40.8
40.1	16:29:01		40.1	40.1
39.8	16:29:02		39.8	39.8
40.0	16:29:03		40.0	40.0
40.8	16:29:04		40.8	40.8
42.1	16:29:05		42.1	42.1
43.5	16:29:06		43.5	43.5
43.5	16:29:07		43.5	43.5
42.8	16:29:08		42.8	42.8
42.4	16:29:09		42.4	42.4
42.4	16:29:10		42.4	42.4
42.3	16:29:11		42.3	42.3
42.5	16:29:12		42.5	42.5
42.7	16:29:13		42.7	42.7
42.5	16:29:14		42.5	42.5
42.0	16:29:15		42.0	42.0
42.1	16:29:16		42.1	42.1
41.7	16:29:17		41.7	41.7
41.3	16:29:18		41.3	41.3
41.2	16:29:19		41.2	41.2
41.4	16:29:20		41.4	41.4
41.9	16:29:21		41.9	41.9
41.7	16:29:22		41.7	41.7
42.1	16:29:23		42.1	42.1
42.2	16:29:24		42.2	42.2
42.9	16:29:25		42.9	42.9
43.1	16:29:26		43.1	43.1
42.6	16:29:27		42.6	42.6
42.3	16:29:28		42.3	42.3
42.1	16:29:29		42.1	42.1
41.6	16:29:30		41.6	41.6
41.7	16:29:31		41.7	41.7
42.1	16:29:32		42.1	42.1
41.8	16:29:33		41.8	41.8
41.7	16:29:34		41.7	41.7
42.3	16:29:35		42.3	42.3
43.8	16:29:36		43.8	43.8
46.8	16:29:37		46.8	46.8
49.4	16:29:38		49.4	49.4
50.2	16:29:39		50.2	50.2
51.7	16:29:40		51.7	51.7
54.2	16:29:41		54.2	54.2
58.5	16:29:42		58.5	58.5
63.3	16:29:43		63.3	63.3
68.1	16:29:44		68.1	68.1
69.3	16:29:45		69.3	69.3
67.5	16:29:46		67.5	67.5
64.2	16:29:47		64.2	64.2
60.7	16:29:48		60.7	60.7
57.7	16:29:49		57.7	57.7
55.1	16:29:50		55.1	55.1
53.0	16:29:51		53.0	53.0
51.4	16:29:52		51.4	51.4
49.6	16:29:53		49.6	49.6
47.8	16:29:54		47.8	47.8
46.6	16:29:55		46.6	46.6
46.1	16:29:56		46.1	46.1
45.4	16:29:57		45.4	45.4
45.3	16:29:58		45.3	45.3
44.3	16:29:59		44.3	44.3
44.0	16:30:00		44.0	44.0
45.6	16:30:01		45.6	45.6
45.0	16:30:02		45.0	45.0
44.9	16:30:03		44.9	44.9
45.8	16:30:04		45.8	45.8
47.3	16:30:05		47.3	47.3
49.0	16:30:06		49.0	49.0
51.2	16:30:07		51.2	51.2
53.7	16:30:08		53.7	53.7
58.0	16:30:09		58.0	58.0
64.2	16:30:10		64.2	64.2
68.9	16:30:11		68.9	68.9
69.8	16:30:12		69.8	69.8
67.3	16:30:13		67.3	67.3
64.2	16:30:14		64.2	64.2
61.5	16:30:15		61.5	61.5
59.0	16:30:16		59.0	59.0
57.1	16:30:17		57.1	57.1
55.1	16:30:18		55.1	55.1
53.9	16:30:19		53.9	53.9
52.8	16:30:20		52.8	52.8
51.5	16:30:21		51.5	51.5
50.2	16:30:22		50.2	50.2
49.3	16:30:23		49.3	49.3
48.6	16:30:24		48.6	48.6
47.9	16:30:25		47.9	47.9
46.4	16:30:26		46.4	46.4
45.8	16:30:27		45.8	45.8
45.6	16:30:28	

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
51.5	16:18:57		51.5	51.5
50.9	16:18:58		50.9	50.9
50.0	16:18:59		50.0	50.0
49.4	16:19:00		49.4	49.4
49.2	16:19:01		49.2	49.2
50.4	16:19:02		50.4	50.4
50.8	16:19:03		50.8	50.8
48.9	16:19:04		48.9	48.9
48.0	16:19:05		48.0	48.0
50.1	16:19:06		50.1	50.1
50.9	16:19:07		50.9	50.9
52.1	16:19:08		52.1	52.1
52.4	16:19:09		52.4	52.4
52.0	16:19:10		52.0	52.0
52.4	16:19:11		52.4	52.4
53.8	16:19:12		53.8	53.8
55.3	16:19:13		55.3	55.3
57.2	16:19:14		57.2	57.2
58.9	16:19:15		58.9	58.9
59.8	16:19:16		59.8	59.8
60.3	16:19:17		60.3	60.3
59.9	16:19:18		59.9	59.9
59.1	16:19:19		59.1	59.1
58.1	16:19:20		58.1	58.1
57.4	16:19:21		57.4	57.4
56.4	16:19:22		56.4	56.4
55.7	16:19:23		55.7	55.7
54.4	16:19:24		54.4	54.4
53.5	16:19:25		53.5	53.5
54.0	16:19:26		54.0	54.0
54.8	16:19:27		54.8	54.8
54.4	16:19:28		54.4	54.4
53.4	16:19:29		53.4	53.4
53.5	16:19:30		53.5	53.5
53.4	16:19:31		53.4	53.4
54.8	16:19:32		54.8	54.8
54.1	16:19:33		54.1	54.1
52.5	16:19:34		52.5	52.5
51.8	16:19:35		51.8	51.8
51.6	16:19:36		51.6	51.6
51.2	16:19:37		51.2	51.2
51.3	16:19:38		51.3	51.3
51.4	16:19:39		51.4	51.4
52.0	16:19:40		52.0	52.0
53.9	16:19:41		53.9	53.9
55.5	16:19:42		55.5	55.5
56.8	16:19:43		56.8	56.8
57.5	16:19:44		57.5	57.5
56.9	16:19:45		56.9	56.9
55.9	16:19:46		55.9	55.9
55.3	16:19:47		55.3	55.3
54.9	16:19:48		54.9	54.9
54.4	16:19:49		54.4	54.4
55.1	16:19:50		55.1	55.1
55.9	16:19:51		55.9	55.9
56.4	16:19:52		56.4	56.4
57.1	16:19:53		57.1	57.1
56.8	16:19:54		56.8	56.8
55.7	16:19:55		55.7	55.7
54.0	16:19:56		54.0	54.0
53.0	16:19:57		53.0	53.0
51.5	16:19:58		51.5	51.5
50.2	16:19:59		50.2	50.2
49.1	16:20:00		49.1	49.1
48.6	16:20:01		48.6	48.6
49.0	16:20:02		49.0	49.0
49.9	16:20:03		49.9	49.9
51.1	16:20:04		51.1	51.1
52.3	16:20:05		52.3	52.3
53.7	16:20:06		53.7	53.7
55.8	16:20:07		55.8	55.8
56.3	16:20:08		56.3	56.3
55.4	16:20:09		55.4	55.4
54.8	16:20:10		54.8	54.8
54.1	16:20:11		54.1	54.1
52.4	16:20:12		52.4	52.4
50.8	16:20:13		50.8	50.8
50.1	16:20:14		50.1	50.1
49.8	16:20:15		49.8	49.8
49.3	16:20:16		49.3	49.3
48.1	16:20:17		48.1	48.1
46.8	16:20:18		46.8	46.8
45.9	16:20:19		45.9	45.9
45.7	16:20:20		45.7	45.7
46.7	16:20:21		46.7	46.7
46.4	16:20:22		46.4	46.4
45.8	16:20:23		45.8	45.8
46.2	16:20:24		46.2	46.2
47.1	16:20:25		47.1	47.1
46.6	16:20:26		46.6	46.6
46.4	16:20:27		46.4	46.4
46.6	16:20:28		46.6	46.6
47.1	16:20:29		47.1	47.1
48.1	16:20:30		48.1	48.1
48.8	16:20:31		48.8	48.8
49.8	16:20:32		49.8	49.8
51.7	16:20:33		51.7	51.7
53.3	16:20:34		53.3	53.3
55.8	16:20:35		55.8	55.8
56.2	16:20:36		56.2	56.2
56.6	16:20:37		56.6	56.6
56.3	16:20:38		56.3	56.3
56.1	16:20:39		56.1	56.1
56.0	16:20:40		56.0	56.0
56.3	16:20:41		56.3	56.3
56.9	16:20:42		56.9	56.9
56.9	16:20:43		56.9	56.9
57.2	16:20:44		57.2	57.2
55.8	16:20:45		55.8	55.8
54.4	16:20:46		54.4	54.4
54.0	16:20:47		54.0	54.0
55.2	16:20:48		55.2	55.2
55.5	16:20:49		55.5	55.5
55.6	16:20:50		55.6	55.6
55.1	16:20:51		55.1	55.1
55.4	16:20:52		55.4	55.4
55.3	16:20:53		55.3	55.3
56.1	16:20:54		56.1	56.1
56.6	16:20:55		56.6	56.6
55.8	16:20:56		55.8	55.8
55.4	16:20:57		55.4	55.4
55.4	16:20:58		55.4	55.4
56.2	16:20:59		56.2	56.2
56.5	16:21:00		56.5	56.5
56.6	16:21:01		56.6	56.6
53.4	16:21:02		53.4	53.4
54.3	16:21:03		54.3	54.3
53.8	16:21:04		53.8	53.8
52.6	16:21:05		52.6	52.6
50.8	16:21:06		50.8	50.8
59.0	16:21:07		59.0	59.0
57.9	16:21:08		57.9	57.9
56.6	16:21:09		56.6	56.6
55.7	16:21:10		55.7	55.7
54.6	16:21:11		54.6	54.6
53.8	16:21:12		53.8	53.8
53.5	16:21:13		53.5	53.5
54.0	16:21:14		54.0	54.0
53.1	16:21:15		53.1	53.1
51.6	16:21:16		51.6	51.6
50.2	16:21:17		50.2	50.2
49.1	16:21:18		49.1	49.1
49.1	16:21:19		49.1	49.1
49.1	16:21:20		49.1	49.1
48.1	16:21:21		48.1	48.1
47.4	16:21:22		47.4	47.4
46.9	16:21:23		46.9	46.9
46.9	16:21:24		46.9	46.9
47.2	16:21:25		47.2	47.2
47.4	16:21:26		47.4	47.4
48.5	16:21:27		48.5	48.5
48.5	16:21:28		48.5	48.5
47.4	16:21:29		47.4	47.4
46.4	16:21:30		46.4	46.4
46.4	16:21:31		46.4	46.4
46.7	16:21:32		46.7	46.7
46.9	16:21:33		46.9	46.9
47.5	16:21:34		47.5	47.5
48.3	16:21:35		48.3	48.3
48.3	16:21:36		48.3	48.3
48.6	16:21:37		48.6	48.6
49.5	16:21:38		49.5	49.5
49.7	16:21:39		49.7	49.7
50.7	16:21:40		50.7	50.7
52.0	16:21:41		52.0	52.0
51.5	16:21:42		51.5	51.5
51.4	16:21:43		51.4	51.4
51.5	16:21:44		51.5	51.5
52.0	16:21:45		52.0	52.0
52.4	16:21:46		52.4	52.4
53.9	16:21:47		53.9	53.9
54.8	16:21:48		54.8	54.8
55.5	16:21:49		55.5	55.5
56.5	16:21:50		56.5	56.5
56.2	16:21:51		56.2	56.2
59.2	16:21:52		59.2	59.2
59.9	16:21:53		59.9	59.9
59.2	16:21:54		59.2	59.2
60.1	16:21:55		60.1	60.1
60.7	16:21:56		60.7	60.7
60.5	16:21:57		60.5	60.5
59.8	16:21:58		59.8	59.8
59.0	16:21:59		59.0	59.0
56.5	16:22:00		56.5	56.5
55.3	16:22:01		55.3	55.3
54.2	16:22:02		54.2	54.2
54.8	16:22:03		54.8	54.8
55.2	16:22:04		55.2	55.2
55.4	16:22:05		55.4	55.4
55.2	16:22:06		55.2	55.2
54.0	16:22:07		54.0	54.0
53.8	16:22:08		53.8	53.8
54.4	16:22:09		54.4	54.4
56.0	16:22:10		56.0	56.0
57.7	16:22:11		57.7	57.7
58.6	16:22:12		58.6	58.6
60.1	16:22:13		60.1	60.1
61.2	16:22:14		61.2	61.2
62.0	16:22:15		62.0	62.0
62.0	16:22:16		62.0	62.0
61.4	16:22:17		61.4	61.4
61.0	16:22:18		61.0	61.0
60.0	16:22:19		60.0	60.0
59.3	16:22:20		59.3	59.3
58.5	16:22:21		58.5	58.5
59.3	16:22:22		59.3	59.3
59.0	16:22:23		59.0	59.0
59.8	16:22:24		59.8	59.8
60.7	16:22:25		60.7	60.7
61.3	16:22:26		61.3	61.3
61.5	16:22:27		61.5	61.5
61.7	16:22:28		61.7	61.7
61.5	16:22:29		61.5	61.5

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
51.9	16:25:09		51.9	51.9
52.7	16:25:10		52.7	52.7
52.5	16:25:11		52.5	52.5
52.5	16:25:12		52.5	52.5
51.1	16:25:13		51.1	51.1
48.9	16:25:14		48.9	48.9
47.2	16:25:15		47.2	47.2
46.9	16:25:16		46.9	46.9
47.5	16:25:17		47.5	47.5
48.3	16:25:18		48.3	48.3
47.9	16:25:19		47.9	47.9
48.2	16:25:20		48.2	48.2
48.2	16:25:21		48.2	48.2
50.0	16:25:22		50.0	50.0
50.1	16:25:23		50.1	50.1
49.8	16:25:24		49.8	49.8
51.2	16:25:25		51.2	51.2
51.8	16:25:26		51.8	51.8
51.8	16:25:27		51.8	51.8
50.4	16:25:28		50.4	50.4
56.8	16:25:29		56.8	56.8
54.7	16:25:30		54.7	54.7
52.8	16:25:31		52.8	52.8
51.6	16:25:32		51.6	51.6
50.9	16:25:33		50.9	50.9
50.4	16:25:34		50.4	50.4
49.9	16:25:35		49.9	49.9
49.4	16:25:36		49.4	49.4
49.2	16:25:37		49.2	49.2
49.5	16:25:38		49.5	49.5
49.9	16:25:39		49.9	49.9
49.2	16:25:40		49.2	49.2
48.6	16:25:41		48.6	48.6
50.2	16:25:42		50.2	50.2
52.7	16:25:43		52.7	52.7
52.2	16:25:44		52.2	52.2
53.2	16:25:45		53.2	53.2
53.5	16:25:46		53.5	53.5
52.3	16:25:47		52.3	52.3
50.1	16:25:48		50.1	50.1
51.2	16:25:49		51.2	51.2
51.4	16:25:50		51.4	51.4
51.5	16:25:51		51.5	51.5
53.2	16:25:52		53.2	53.2
54.1	16:25:53		54.1	54.1
53.2	16:25:54		53.2	53.2
51.9	16:25:55		51.9	51.9
51.8	16:25:56		51.8	51.8
52.1	16:25:57		52.1	52.1
52.1	16:25:58		52.1	52.1
52.7	16:25:59		52.7	52.7
53.3	16:26:00		53.3	53.3
52.9	16:26:01		52.9	52.9
52.7	16:26:02		52.7	52.7
52.6	16:26:03		52.6	52.6
54.9	16:26:04		54.9	54.9
55.9	16:26:05		55.9	55.9
54.5	16:26:06		54.5	54.5
52.6	16:26:07		52.6	52.6
51.8	16:26:08		51.8	51.8
52.0	16:26:09		52.0	52.0
52.6	16:26:10		52.6	52.6
52.4	16:26:11		52.4	52.4
52.3	16:26:12		52.3	52.3
54.0	16:26:13		54.0	54.0
54.0	16:26:14		54.0	54.0
52.5	16:26:15		52.5	52.5
51.6	16:26:16		51.6	51.6
51.7	16:26:17		51.7	51.7
51.7	16:26:18		51.7	51.7
51.0	16:26:19		51.0	51.0
51.8	16:26:20		51.8	51.8
51.5	16:26:21		51.5	51.5
51.3	16:26:22		51.3	51.3
50.2	16:26:23		50.2	50.2
49.6	16:26:24		49.6	49.6
50.0	16:26:25		50.0	50.0
50.0	16:26:26		50.0	50.0
50.2	16:26:27		50.2	50.2
50.2	16:26:28		50.2	50.2
50.0	16:26:29		50.0	50.0
50.1	16:26:30		50.1	50.1
52.0	16:26:31		52.0	52.0
53.4	16:26:32		53.4	53.4
53.5	16:26:33		53.5	53.5
53.9	16:26:34		53.9	53.9
56.1	16:26:35		56.1	56.1
56.4	16:26:36		56.4	56.4
54.7	16:26:37		54.7	54.7
53.5	16:26:38		53.5	53.5
53.0	16:26:39		53.0	53.0
52.4	16:26:40		52.4	52.4
53.5	16:26:41		53.5	53.5
53.9	16:26:42		53.9	53.9
52.4	16:26:43		52.4	52.4
50.7	16:26:44		50.7	50.7
50.1	16:26:45		50.1	50.1
49.6	16:26:46		49.6	49.6
49.1	16:26:47		49.1	49.1
48.6	16:26:48		48.6	48.6
48.5	16:26:49		48.5	48.5
48.6	16:26:50		48.6	48.6
48.6	16:26:51		48.6	48.6
47.6	16:26:52		47.6	47.6
47.6	16:26:53		47.6	47.6
47.6	16:26:54		47.6	47.6
47.9	16:26:55		47.9	47.9
47.6	16:26:56		47.6	47.6
47.8	16:26:57		47.8	47.8
47.5	16:26:58		47.5	47.5
47.6	16:26:59		47.6	47.6
47.7	16:27:00		47.7	47.7
47.4	16:27:01		47.4	47.4
47.6	16:27:02		47.6	47.6
47.7	16:27:03		47.7	47.7
48.0	16:27:04		48.0	48.0
47.6	16:27:05		47.6	47.6
47.7	16:27:06		47.7	47.7
48.0	16:27:07		48.0	48.0
48.1	16:27:08		48.1	48.1
48.5	16:27:09		48.5	48.5
48.6	16:27:10		48.6	48.6
48.3	16:27:11		48.3	48.3
48.4	16:27:12		48.4	48.4
48.7	16:27:13		48.7	48.7
48.2	16:27:14		48.2	48.2
47.7	16:27:15		47.7	47.7
48.7	16:27:16		48.7	48.7
49.0	16:27:17		49.0	49.0
49.7	16:27:18		49.7	49.7
49.3	16:27:19		49.3	49.3
49.1	16:27:20		49.1	49.1
50.8	16:27:21		50.8	50.8
51.7	16:27:22		51.7	51.7
51.2	16:27:23		51.2	51.2
51.2	16:27:24		51.2	51.2
51.3	16:27:25		51.3	51.3
51.6	16:27:26		51.6	51.6
52.2	16:27:27		52.2	52.2
52.4	16:27:28		52.4	52.4
52.5	16:27:29		52.5	52.5
52.2	16:27:30		52.2	52.2
52.0	16:27:31		52.0	52.0
52.9	16:27:32		52.9	52.9
54.3	16:27:33		54.3	54.3
54.5	16:27:34		54.5	54.5
53.8	16:27:35		53.8	53.8
53.5	16:27:36		53.5	53.5
54.9	16:27:37		54.9	54.9
56.4	16:27:38		56.4	56.4
58.3	16:27:39		58.3	58.3
58.9	16:27:40		58.9	58.9
60.1	16:27:41		60.1	60.1
59.9	16:27:42		59.9	59.9
59.7	16:27:43		59.7	59.7
60.4	16:27:44		60.4	60.4
60.0	16:27:45		60.0	60.0
57.5	16:27:46		57.5	57.5
55.5	16:27:47		55.5	55.5
54.4	16:27:48		54.4	54.4
53.8	16:27:49		53.8	53.8
53.1	16:27:50		53.1	53.1
53.5	16:27:51		53.5	53.5
53.4	16:27:52		53.4	53.4
53.2	16:27:53		53.2	53.2
52.7	16:27:54		52.7	52.7
52.6	16:27:55		52.6	52.6
52.4	16:27:56		52.4	52.4
52.0	16:27:57		52.0	52.0
52.0	16:27:58		52.0	52.0
51.9	16:27:59		51.9	51.9
52.0	16:28:00		52.0	52.0
52.0	16:28:01		52.0	52.0
52.4	16:28:02		52.4	52.4
53.7	16:28:03		53.7	53.7
55.2	16:28:04		55.2	55.2
54.9	16:28:05		54.9	54.9
53.9	16:28:06		53.9	53.9
53.4	16:28:07		53.4	53.4
52.9	16:28:08		52.9	52.9
52.2	16:28:09		52.2	52.2
51.5	16:28:10		51.5	51.5
51.2	16:28:11		51.2	51.2
51.1	16:28:12		51.1	51.1
51.3	16:28:13		51.3	51.3
52.1	16:28:14		52.1	52.1
52.3	16:28:15		52.3	52.3
52.6	16:28:16		52.6	52.6
52.5	16:28:17		52.5	52.5
52.3	16:28:18		52.3	52.3
52.8	16:28:19		52.8	52.8
53.3	16:28:20		53.3	53.3
53.0	16:28:21		53.0	53.0
52.6	16:28:22		52.6	52.6
52.7	16:28:23		52.7	52.7
53.0	16:28:24		53.0	53.0
52.5	16:28:25		52.5	52.5
52.6	16:28:26		52.6	52.6
53.2	16:28:27		53.2	53.2
53.9	16:28:28		53.9	53.9
53.6	16:28:29		53.6	53.6
52.8	16:28:30		52.8	52.8
52.9	16:28:31		52.9	52.9
54.7	16:28:32		54.7	54.7
54.5	16:28:33		54.5	54.5
52.7	16:28:34		52.7	52.7
50.9	16:28:35		50.9	50.9
50.5	16:28:36		50.5	50.5
50.4	16:28:37		50.4	50.4
49.8	16:28:38		49.8	49.8
49.8	16:28:39		49.8	49.8
49.9	16:28:40		49.9	49.9
50.2	16:28:41		50.2	50.2

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
42.1	16:30:04		42.1	42.1
43.8	16:30:05		43.8	43.8
44.1	16:30:06		44.1	44.1
44.1	16:30:07		44.1	44.1
44.7	16:30:08		44.7	44.7
44.7	16:30:09		44.7	44.7
44.4	16:31:00		44.4	44.4
44.2	16:31:01		44.2	44.2
44.4	16:31:02		44.4	44.4
43.9	16:31:03		43.9	43.9
43.3	16:31:04		43.3	43.3
42.5	16:31:05		42.5	42.5
42.2	16:31:06		42.2	42.2
42.5	16:31:07		42.5	42.5
42.6	16:31:08		42.6	42.6
43.3	16:31:09		43.3	43.3
44.1	16:31:10		44.1	44.1
45.3	16:31:11		45.3	45.3
46.8	16:31:12		46.8	46.8
48.1	16:31:13		48.1	48.1
51.1	16:31:14		51.1	51.1
55.5	16:31:15		55.5	55.5
60.3	16:31:16		60.3	60.3
66.3	16:31:17		66.3	66.3
71.1	16:31:18		71.1	71.1
71.8	16:31:19		71.8	71.8
69.0	16:31:20		69.0	69.0
65.8	16:31:21		65.8	65.8
62.8	16:31:22		62.8	62.8
59.5	16:31:23		59.5	59.5
56.7	16:31:24		56.7	56.7
54.1	16:31:25		54.1	54.1
52.7	16:31:26		52.7	52.7
51.9	16:31:27		51.9	51.9
51.5	16:31:28		51.5	51.5
53.5	16:31:29		53.5	53.5
58.0	16:31:30		58.0	58.0
61.7	16:31:31		61.7	61.7
66.4	16:31:32		66.4	66.4
69.1	16:31:33		69.1	69.1
62.2	16:31:34		62.2	62.2
59.1	16:31:35		59.1	59.1
56.0	16:31:36		56.0	56.0
53.3	16:31:37		53.3	53.3
51.0	16:31:38		51.0	51.0
49.3	16:31:39		49.3	49.3
48.3	16:31:40		48.3	48.3
47.8	16:31:41		47.8	47.8
47.8	16:31:42		47.8	47.8
48.5	16:31:43		48.5	48.5
49.7	16:31:44		49.7	49.7
51.7	16:31:45		51.7	51.7
55.1	16:31:46		55.1	55.1
60.0	16:31:47		60.0	60.0
65.6	16:31:48		65.6	65.6
68.7	16:31:49		68.7	68.7
67.5	16:31:50		67.5	67.5
64.5	16:31:51		64.5	64.5
61.2	16:31:52		61.2	61.2
58.1	16:31:53		58.1	58.1
55.6	16:31:54		55.6	55.6
53.8	16:31:55		53.8	53.8
51.8	16:31:56		51.8	51.8
50.4	16:31:57		50.4	50.4
49.2	16:31:58		49.2	49.2
49.0	16:31:59		49.0	49.0
48.1	16:32:00		48.1	48.1
46.8	16:32:01		46.8	46.8
45.6	16:32:02		45.6	45.6
44.1	16:32:03		44.1	44.1
43.8	16:32:04		43.8	43.8
44.3	16:32:05		44.3	44.3
43.9	16:32:06		43.9	43.9
42.7	16:32:07		42.7	42.7
42.0	16:32:08		42.0	42.0
42.3	16:32:09		42.3	42.3
41.6	16:32:10		41.6	41.6
41.6	16:32:11		41.6	41.6
42.3	16:32:12		42.3	42.3
41.8	16:32:13		41.8	41.8
42.7	16:32:14		42.7	42.7
42.2	16:32:15		42.2	42.2
41.4	16:32:16		41.4	41.4
40.8	16:32:17		40.8	40.8
40.7	16:32:18		40.7	40.7
40.8	16:32:19		40.8	40.8
41.3	16:32:20		41.3	41.3
40.4	16:32:21		40.4	40.4
40.6	16:32:22		40.6	40.6
40.3	16:32:23		40.3	40.3
39.7	16:32:24		39.7	39.7
39.2	16:32:25		39.2	39.2
39.1	16:32:26		39.1	39.1
39.2	16:32:27		39.2	39.2
39.4	16:32:28		39.4	39.4
39.3	16:32:29		39.3	39.3
39.4	16:32:30		39.4	39.4
39.5	16:32:31		39.5	39.5
40.0	16:32:32		40.0	40.0
41.3	16:32:33		41.3	41.3
40.9	16:32:34		40.9	40.9
40.4	16:32:35		40.4	40.4
40.5	16:32:36		40.5	40.5
40.9	16:32:37		40.9	40.9
41.2	16:32:38		41.2	41.2
41.0	16:32:39		41.0	41.0
41.0	16:32:40		41.0	41.0
40.8	16:32:41		40.8	40.8
41.3	16:32:42		41.3	41.3
41.6	16:32:43		41.6	41.6
42.6	16:32:44		42.6	42.6
43.3	16:32:45		43.3	43.3
45.4	16:32:46		45.4	45.4
47.3	16:32:47		47.3	47.3
50.0	16:32:48		50.0	50.0
54.8	16:32:49		54.8	54.8
60.0	16:32:50		60.0	60.0
65.7	16:32:51		65.7	65.7
68.8	16:32:52	

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
60.8	16:22:30		60.8	60.8
59.8	16:22:31		59.8	59.8
58.2	16:22:32		58.2	58.2
56.7	16:22:33		56.7	56.7
54.9	16:22:34		54.9	54.9
53.8	16:22:35		53.8	53.8
53.3	16:22:36		53.3	53.3
53.1	16:22:37		53.1	53.1
52.9	16:22:38		52.9	52.9
53.2	16:22:39		53.2	53.2
53.8	16:22:40		53.8	53.8
54.0	16:22:41		54.0	54.0
53.8	16:22:42		53.8	53.8
52.9	16:22:43		52.9	52.9
51.9	16:22:44		51.9	51.9
51.4	16:22:45		51.4	51.4
50.6	16:22:46		50.6	50.6
50.0	16:22:47		50.0	50.0
49.3	16:22:48		49.3	49.3
48.8	16:22:49		48.8	48.8
48.7	16:22:50		48.7	48.7
48.6	16:22:51		48.6	48.6
48.4	16:22:52		48.4	48.4
48.7	16:22:53		48.7	48.7
48.8	16:22:54		48.8	48.8
48.3	16:22:55		48.3	48.3
47.8	16:22:56		47.8	47.8
47.8	16:22:57		47.8	47.8
48.8	16:22:58		48.8	48.8
49.1	16:22:59		49.1	49.1
48.5	16:23:00		48.5	48.5
48.0	16:23:01		48.0	48.0
47.7	16:23:02		47.7	47.7
47.7	16:23:03		47.7	47.7
47.6	16:23:04		47.6	47.6
48.2	16:23:05		48.2	48.2
48.1	16:23:06		48.1	48.1
47.8	16:23:07		47.8	47.8
47.2	16:23:08		47.2	47.2
46.3	16:23:09		46.3	46.3
45.8	16:23:10		45.8	45.8
44.9	16:23:11		44.9	44.9
44.9	16:23:12		44.9	44.9
45.2	16:23:13		45.2	45.2
45.4	16:23:14		45.4	45.4
45.9	16:23:15		45.9	45.9
46.3	16:23:16		46.3	46.3
46.7	16:23:17		46.7	46.7
46.9	16:23:18		46.9	46.9
47.2	16:23:19		47.2	47.2
46.9	16:23:20		46.9	46.9
46.7	16:23:21		46.7	46.7
46.6	16:23:22		46.6	46.6
46.3	16:23:23		46.3	46.3
46.3	16:23:24		46.3	46.3
46.5	16:23:25		46.5	46.5
47.5	16:23:26		47.5	47.5
48.7	16:23:27		48.7	48.7
50.2	16:23:28		50.2	50.2
50.7	16:23:29		50.7	50.7
50.8	16:23:30		50.8	50.8
49.8	16:23:31		49.8	49.8
49.3	16:23:32		49.3	49.3
49.4	16:23:33		49.4	49.4
49.9	16:23:34		49.9	49.9
51.2	16:23:35		51.2	51.2
51.6	16:23:36		51.6	51.6
52.1	16:23:37		52.1	52.1
52.9	16:23:38		52.9	52.9
54.6	16:23:39		54.6	54.6
54.5	16:23:40		54.5	54.5
54.8	16:23:41		54.8	54.8
57.0	16:23:42		57.0	57.0
59.0	16:23:43		59.0	59.0
59.7	16:23:44		59.7	59.7
59.4	16:23:45		59.4	59.4
58.2	16:23:46		58.2	58.2
57.2	16:23:47		57.2	57.2
56.8	16:23:48		56.8	56.8
57.0	16:23:49		57.0	57.0
58.2	16:23:50		58.2	58.2
60.0	16:23:51		60.0	60.0
61.7	16:23:52		61.7	61.7
63.1	16:23:53		63.1	63.1
64.0	16:23:54		64.0	64.0
63.5	16:23:55		63.5	63.5
62.7	16:23:56		62.7	62.7
62.2	16:23:57		62.2	62.2
62.3	16:23:58		62.3	62.3
62.2	16:23:59		62.2	62.2
62.0	16:24:00		62.0	62.0
62.3	16:24:01		62.3	62.3
62.4	16:24:02		62.4	62.4
62.0	16:24:03		62.0	62.0
60.8	16:24:04		60.8	60.8
59.2	16:24:05		59.2	59.2
58.5	16:24:06		58.5	58.5
58.2	16:24:07		58.2	58.2
57.9	16:24:08		57.9	57.9
58.2	16:24:09		58.2	58.2
58.0	16:24:10		58.0	58.0
58.1	16:24:11		58.1	58.1
58.7	16:24:12		58.7	58.7
58.6	16:24:13		58.6	58.6
58.0	16:24:14		58.0	58.0
57.3	16:24:15		57.3	57.3
57.3	16:24:16		57.3	57.3
56.4	16:24:17		56.4	56.4
55.0	16:24:18		55.0	55.0
53.6	16:24:19		53.6	53.6
53.2	16:24:20		53.2	53.2
53.7	16:24:21		53.7	53.7
58.0	16:24:22		58.0	58.0
57.9	16:24:23		57.9	57.9
55.7	16:24:24		55.7	55.7
53.0	16:24:25		53.0	53.0
51.0	16:24:26		51.0	51.0
50.1	16:24:27		50.1	50.1
49.6	16:24:28		49.6	49.6
49.5	16:24:29		49.5	49.5
49.0	16:24:30		49.0	49.0
48.7	16:24:31		48.7	48.7
48.9	16:24:32		48.9	48.9
49.8	16:24:33		49.8	49.8
50.8	16:24:34		50.8	50.8
52.0	16:24:35		52.0	52.0
53.4	16:24:36		53.4	53.4
54.4	16:24:37		54.4	54.4
54.7	16:24:38		54.7	54.7
54.3	16:24:39		54.3	54.3
53.2	16:24:40		53.2	53.2
51.9	16:24:41		51.9	51.9
50.7	16:24:42		50.7	50.7
49.9	16:24:43		49.9	49.9
49.3	16:24:44		49.3	49.3
48.7	16:24:45		48.7	48.7
47.9	16:24:46		47.9	47.9
48.0	16:24:47		48.0	48.0
48.0	16:24:48		48.0	48.0
47.7	16:24:49		47.7	47.7
47.1	16:24:50		47.1	47.1
47.1	16:24:51		47.1	47.1
46.8	16:24:52		46.8	46.8
46.4	16:24:53		46.4	46.4
46.4	16:24:54		46.4	46.4
46.6	16:24:55		46.6	46.6
46.2	16:24:56		46.2	46.2
46.0	16:24:57		46.0	46.0
46.5	16:24:58		46.5	46.5
46.7	16:24:59		46.7	46.7
46.5	16:25:00		46.5	46.5
45.9	16:25:01		45.9	45.9
45.1	16:25:02		45.1	45.1
44.9	16:25:03		44.9	44.9
44.4	16:25:04		44.4	44.4
43.8	16:25:05		43.8	43.8
43.8	16:25:06		43.8	43.8
45.1	16:25:07		45.1	45.1
45.5	16:25:08		45.5	45.5
45.1	16:25:09		45.1	45.1
44.8	16:25:10		44.8	44.8
44.7	16:25:11		44.7	44.7
45.1	16:25:12		45.1	45.1
45.8	16:25:13		45.8	45.8
47.3	16:25:14		47.3	47.3
48.2	16:25:15		48.2	48.2
52.3	16:25:16		52.3	52.3
53.4	16:25:17		53.4	53.4
55.7	16:25:18		55.7	55.7
55.0	16:25:19		55.0	55.0
55.7	16:25:20		55.7	55.7
56.3	16:25:21		56.3	56.3
55.9	16:25:22		55.9	55.9
59.3	16:25:23		59.3	59.3

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
49.5	16:28:42		49.5	49.5
49.1	16:28:43		49.1	49.1
49.5	16:28:44		49.5	49.5
49.0	16:28:45		49.0	49.0
49.9	16:28:46		49.9	49.9
51.9	16:28:47		51.9	51.9
52.4	16:28:48		52.4	52.4
50.9	16:28:49		50.9	50.9
49.5	16:28:50		49.5	49.5
48.5	16:28:51		48.5	48.5
47.9	16:28:52		47.9	47.9
48.4	16:28:53		48.4	48.4
47.6	16:28:54		47.6	47.6
46.6	16:28:55		46.6	46.6
45.6	16:28:56		45.6	45.6
45.1	16:28:57		45.1	45.1
44.6	16:28:58		44.6	44.6
44.2	16:28:59		44.2	44.2
45.0	16:29:00		45.0	45.0
47.3	16:29:01		47.3	47.3
47.2	16:29:02		47.2	47.2
46.2	16:29:03		46.2	46.2
46.3	16:29:04		46.3	46.3
45.9	16:29:05		45.9	45.9
45.7	16:29:06		45.7	45.7
46.1	16:29:07		46.1	46.1
46.0	16:29:08		46.0	46.0
46.2	16:29:09		46.2	46.2
46.0	16:29:10		46.0	46.0
45.2	16:29:11		45.2	45.2
45.5	16:29:12		45.5	45.5
45.8	16:29:13		45.8	45.8
46.3	16:29:14		46.3	46.3
46.8	16:29:15		46.8	46.8
46.2	16:29:16		46.2	46.2
45.7	16:29:17		45.7	45.7
46.1	16:29:18		46.1	46.1
46.7	16:29:19		46.7	46.7
45.9	16:29:20		45.9	45.9
45.7	16:29:21		45.7	45.7
46.2	16:29:22		46.2	46.2
47.2	16:29:23		47.2	47.2
46.9	16:29:24		46.9	46.9
47.1	16:29:25		47.1	47.1
48.1	16:29:26		48.1	48.1
48.2	16:29:27		48.2	48.2
49.3	16:29:28		49.3	49.3
53.4	16:29:29		53.4	53.4
53.6	16:29:30		53.6	53.6
51.2	16:29:31		51.2	51.2
49.7	16:29:32		49.7	49.7
50.6	16:29:33		50.6	50.6
55.3	16:29:34		55.3	55.3
57.3	16:29:35		57.3	57.3
55.5	16:29:36		55.5	55.5
53.3	16:29:37		53.3	53.3
52.7	16:29:38		52.7	52.7
52.3	16:29:39		52.3	52.3
51.7	16:29:40		51.7	51.7
51.7	16:29:41		51.7	51.7
51.4	16:29:42		51.4	51.4
50.0	16:29:43		50.0	50.0
49.3	16:29:44		49.3	49.3
49.6	16:29:45		49.6	49.6
49.6	16:29:46		49.6	49.6
49.3	16:29:47		49.3	49.3
48.6	16:29:48		48.6	48.6
48.3	16:29:49		48.3	48.3
48.7	16:29:50		48.7	48.7
48.7	16:29:51		48.7	48.7
48.9	16:29:52		48.9	48.9
50.5	16:29:53		50.5	50.5
54.1	16:29:54		54.1	54.1
54.3	16:29:55		54.3	54.3
52.2	16:29:56		52.2	52.2
50.5	16:29:57		50.5	50.5
50.1	16:29:58		50.1	50.1
49.7	16:29:59		49.7	49.7
49.2	16:30:00		49.2	49.2
48.9	16:30:01		48.9	48.9
50.1	16:30:02		50.1	50.1
50.7	16:30:03		50.7	50.7
50.5	16:30:04		50.5	50.5
50.6	16:30:05		50.6	50.6
50.7	16:30:06		50.7	50.7
50.7	16:30:07		50.7	50.7
50.4	16:30:08		50.4	50.4
50.6	16:30:09		50.6	50.6
50.4	16:30:10		50.4	50.4
49.9	16:30:11		49.9	49.9
49.5	16:30:12		49.5	49.5
49.5	16:30:13		49.5	49.5
49.3	16:30:14		49.3	49.3
49.5	16:30:15		49.5	49.5
49.9	16:30:16		49.9	49.9
50.0	16:30:17		50.0	50.0
49.8	16:30:18		49.8	49.8
49.7	16:30:19		49.7	49.7
50.3	16:30:20		50.3	50.3
50.1	16:30:21		50.1	50.1
50.1	16:30:22		50.1	50.1
50.2	16:30:23		50.2	50.2
50.1	16:30:24		50.1	50.1
50.3	16:30:25		50.3	50.3
50.2	16:30:26		50.2	50.2
51.3	16:30:27		51.3	51.3
50.7	16:30:28		50.7	50.7
50.7	16:30:29		50.7	50.7
54.8	16:30:30		54.8	54.8
53.2	16:30:31		53.2	53.2
51.9	16:30:32		51.9	51.9
52.6	16:30:33		52.6	52.6
50.0	16:30:34		50.0	50.0
47.4	16:30:35		47.4	47.4
46.2	16:30:36		46.2	46.2
45.8	16:30:37		45.8	45.8
44.9	16:30:38		44.9	44.9
44.6	16:30:39		44.6	44.6
44.4	16:30:40		44.4	44.4
44.5	16:30:41		44.5	44.5
44.7	16:30:42		44.7	44.7
47.0	16:30:43		47.0	47.0
46.3	16:30:44		46.3	46.3
45.5	16:30:45		45.5	45.5
44.9	16:30:46		44.9	44.9
44.9	16:30:47		44.9	44.9
44.9	16:30:48		44.9	44.9
44.8	16:30:49		44.8	44.8
45.2	16:30:50		45.2	45.2
46.4	16:30:51		46.4	46.4
47.3	16:30:52		47.3	47.3
46.9	16:30:53		46.9	46.9
46.7	16:30:54		46.7	46.7
47.8	16:30:55		47.8	47.8
49.5	16:30:56		49.5	49.5
51.1	16:30:57		51.1	51.1
51.9	16:30:58		51.9	51.9
51.8	16:30:59		51.8	51.8
52.5	16:31:00		52.5	52.5
52.7	16:31:01		52.7	52.7
54.9	16:31:02		54.9	54.9
57.3	16:31:03		57.3	57.3
56.2	16:31:04		56.2	56.2
54.7	16:31:05		54.7	54.7
53.5	16:31:06		53.5	53.5
52.2	16:31:07		52.2	52.2
51.6	16:31:08		51.6	51.6
50.6	16:31:09		50.6	50.6
50.5	16:31:10		50.5	50.5
50.8	16:31:11		50.8	50.8
50.3	16:31:12		50.3	50.3
49.1	16:31:13		49.1	49.1
48.6	16:31:14		48.6	48.6
48.4	16:31:15		48.4	48.4
49.4	16:31:16		49.4	49.4
49.6	16:31:17		49.6	49.6
49.2	16:31:18		49.2	49.2
49.1	16:31:19		49.1	49.1
48.5	16:31:20		48.5	48.5
48.1	16:31:21		48.1	48.1
48.9	16:31:22		48.9	48.9
49.0	16:31:23		49.0	49.0
47.8	16:31:24		47.8	47.8
46.9	16:31:25		46.9	46.9
46.5	16:31:26		46.5	46.5
46.8	16:31:27		46.8	46.8
46.8	16:31:28		46.8	46.8
47.5	16:31:29		47.5	47.5
48.4	16:31:30		48.4	48.4
48.4	16:31:31		48.4	48.4
49.4	16:31:32		49.4	49.4
53.8	16:31:33		53.8	53.8
53.8	16:31:34		53.8	53.8
51.6	16:31:35		51.6	51.6

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
41.7	16:34:27		41.7	41.7
41.7	16:34:28		41.7	41.7
41.6	16:34:29		41.6	41.6
41.1	16:34:30		41.1	41.1
40.7	16:34:31		40.7	40.7
40.6	16:34:32		40.6	40.6
40.6	16:34:33		40.6	40.6
40.7	16:34:34		40.7	40.7
40.6	16:34:35		40.6	40.6
40.8	16:34:36		40.8	40.8
40.6	16:34:37		40.6	40.6
40.6	16:34:38		40.6	40.6
41.2	16:34:39		41.2	41.2
41.7	16:34:40		41.7	41.7
41.5	16:34:41		41.5	41.5
41.6	16:34:42		41.6	41.6
41.7	16:34:43		41.7	41.7
41.9	16:34:44		41.9	41.9
41.9	16:34:45		41.9	41.9
42.1	16:34:46		42.1	42.1
43.1	16:34:47		43.1	43.1
43.4	16:34:48		43.4	43.4
43.8	16:34:49		43.8	43.8
45.1	16:34:50		45.1	45.1
46.2	16:34:51		46.2	46.2
47.1	16:34:52		47.1	47.1
48.1	16:34:53		48.1	48.1
49.7	16:34:54		49.7	49.7
52.1	16:34:55		52.1	52.1
55.9	16:34:56		55.9	55.9
59.8	16:34:57		59.8	59.8
64.0	16:34:58		64.0	64.0
66.6	16:34:59		66.6	66.6
66.4	16:35:00		66.4	66.4
64.1	16:35:01		64.1	64.1
62.7	16:35:02		62.7	62.7
65.2	16:35:03		65.2	65.2
67.1	16:35:04		67.1	67.1
66.7	16:35:05		66.7	66.7
64.7	16:35:06		64.7	64.7
62.2	16:35:07		62.2	62.2
59.6	16:35:08		59.6	59.6
57.0	16:35:09		57.0	57.0
54.7	16:35:10		54.7	54.7
52.9	16:35:11		52.9	52.9
51.5	16:35:12		51.5	51.5
51.0	16:35:13		51.0	51.0
50.9	16:35:14		50.9	50.9
51.8	16:35:15		51.8	51.8
52.9	16:35:16		52.9	52.9
54.9	16:35:17		54.9	54.9
56.8	16:35:18		56.8	56.8
58.6	16:35:19		58.6	58.6
62.9	16:35:20		62.9	62.9
66.0	16:35:21		66.0	66.0
66.4	16:35:22		66.4	66.4
65.5	16:35:23		65.5	65.5
66.6	16:35:24		66.6	66.6
70.4	16:35:25		70.4	70.4
71.2	16:35:26		71.2	71.2
69.1	16:35:27		69.1	69.1
66.0	16:35:28		66.0	66.0
62.8	16:35:29		62.8	62.8
59.7	16:35:30		59.7	59.7
57.1	16:35:31		57.1	57.1
54.7	16:35:32		54.7	54.7
52.5	16:35:33		52.5	52.5
50.4	16:35:34		50.4	50.4
48.7	16:35:35		48.7	48.7
47.9	16:35:36		47.9	47.9
47.5	16:35:37		47.5	47.5
48.0	16:35:38		48.0	48.0
47.8	16:35:39		47.8	47.8
47.9	16:35:40		47.9	47.9
47.8	16:35:41		47.8	47.8
48.2	16:35:42		48.2	48.2
49.6	16:35:43		49.6	49.6
51.5	16:35:44		51.5	51.5
55.4	16:35:45		55.4	55.4
61.3	16:35:46		61.3	61.3
67.9	16:35:47		67.9	67.9
71.5	16:35:48		71.5	71.5
70.8	16:35:49		70.8	70.8
67.6	16:35:50		67.6	67.6
64.1	16:35:51		64.1	64.1
60.9	16:35:52		60.9	60.9
58.0	16:35:53		58.0	58.0
55.6	16:35:54		55.6	55.6
53.8	16:35:55		53.8	53.8
52.3	16:35:56		52.3	52.3
51.0	16:35:57		51.0	51.0
49.9	16:35:58		49.9	49.9
49.3	16:35:59		49.3	49.3
48.0	16:36:00		48.0	48.0
46.9	16:36:01		46.9	46.9
46.5	16:36:02		46.5	46.5
46.1	16:36:03		46.1	46.1
45.9	16:36:04		45.9	45.9
45.3	16:36:05		45.3	45.3
44.6	16:36:06		44.6	44.6
44.1	16:36:07		44.1	44.1
44.3	16:36:08		44.3	44.3
44.1	16:36:09		44.1	44.1
44.0	16:36:10		44.0	44.0
43.8	16:36:11		43.8	43.8
43.4	16:36:12		43.4	43.4
43.4	16:36:13		43.4	43.4
43.5	16:36:14		43.5	43.5
43.6	16:36:15		43.6	43.6
44.2	16:36:16		44.2	44.2
45.9	16:36:17		45.9	45.9
48.5	16:36:18		48.5	48.5
51.5	16:36:19		51.5	51.5
54.4	16:36:20		54.4	54.4
58.5	16:36:21		58.5	58.5
65.7	16:36:22		65.7	65.7
71.3	16:36:23		71.3	71.3
70.3	16:36:24		70.3	70.3
67.4	16:36:25		67.4	67.4
64.0	16:36:26		64.0	64.0
60.6	16:36:27		60.6	60.6
58.4	16:36:28		58.4	58.4
58.4	16:36:29		58.4	58.4
60.6	16:36:30		60.6	60.6
63.9	16:36:31		63.9	63.9
66.2	16:36:32		66.2	66.2
65.9	16:36:33		65.9	65.9
63.9	16:36:34		63.9	63.9
61.3	16:36:35		61.3	61.3
58.7	16:36:36		58.7	58.7
56.3	16:36:37		56.3	56.3
53.8	16:36:38		53.8	53.8
52.0	16:36:39		52.0	52.0
50.3	16:36:40		50.3	50.3
48.6	16:36:41		48.6	48.6
47.0	16:36:42		47.0	47.0
45.9	16:36:43		45.9	45.9
45.2	16:36:44		45.2	45.2
45.0	16:36:45		45.0	45.0
47.7	16:36:46		47.7	47.7
47.9	16:36:47		47.9	47.9
46.8	16:36:48		46.8	46.8
46.2	16:36:49		46.2	46.2
46.5	16:36:50		46.5	46.5
46.2	16:36:51		46.2	46.2
45.5	16:36:52		45.5	45.5
45.4	16:36:53		45.4	45.4
45.2	16:36:54		45.2	45.2
45.2	16:36:55		45.2	45.2
45.3	16:36:56		45.3	45.3
45.4	16:36:57		45.4	45.4
45.9	16:36:58		45.9	45.9
46.4	16:36:59		46.4	46.4
47.2	16:37:00		47.2	47.2
48.3	16:37:01		48.3	48.3
49.7	16:37:02		49.7	49.7
51.4	16:37:03		51.4	51.4
55.0	16:37:04		55.0	55.0
59.3	16:37:05		59.3	59.3
65.3	16:37:06		65.3	65.3
69.3	16:37:07		69.3	69.3
69.5	16:37:08		69.5	69.5
68.0	16:37:09		68.0	68.0
69.1	16:37:10		69.1	69.1
70.3	16:37:11		70.3	70.3
69.8	16:37:12		69.8	69.8
71.0	16:37:13		71.0	71.0
71.2	16:37:14		71.2	71.2
69.4	16:37:15		69.4	69.4
66.7	16:37:16		66.7	66.7
64.0	16:37:17		64.0	64.0
61.5	16:37:18		61.5	61.5
59.2	16:37:19		59.2	59.2
57.3	16:37:20		57.3	57.3

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
64.5	16:25:24		64.5	64.5
65.9	16:25:25		65.9	65.9
66.4	16:25:26		66.4	66.4
66.1	16:25:27		66.1	66.1
64.2	16:25:28		64.2	64.2
64.0	16:25:29		64.0	64.0
63.5	16:25:30		63.5	63.5
62.3	16:25:31		62.3	62.3
60.8	16:25:32		60.8	60.8
59.3	16:25:33		59.3	59.3
57.9	16:25:34		57.9	57.9
57.0	16:25:35		57.0	57.0
57.2	16:25:36		57.2	57.2
57.0	16:25:37		57.0	57.0
56.2	16:25:38		56.2	56.2
55.7	16:25:39		55.7	55.7
55.4	16:25:40		55.4	55.4
54.1	16:25:41		54.1	54.1
53.5	16:25:42		53.5	53.5
52.7	16:25:43		52.7	52.7
51.8	16:25:44		51.8	51.8
51.3	16:25:45		51.3	51.3
53.1	16:25:46		53.1	53.1
54.4	16:25:47		54.4	54.4
55.7	16:25:48		55.7	55.7
57.3	16:25:49		57.3	57.3
57.5	16:25:50		57.5	57.5
56.6	16:25:51		56.6	56.6
55.2	16:25:52		55.2	55.2
53.9	16:25:53		53.9	53.9
52.6	16:25:54		52.6	52.6
51.9	16:25:55		51.9	51.9
51.4	16:25:56		51.4	51.4
50.9	16:25:57		50.9	50.9
50.4	16:25:58		50.4	50.4
49.5	16:25:59		49.5	49.5
49.2	16:26:00		49.2	49.2
49.3	16:26:01		49.3	49.3
48.9	16:26:02		48.9	48.9
48.6	16:26:03		48.6	48.6
48.3	16:26:04		48.3	48.3
47.7	16:26:05		47.7	47.7
47.7	16:26:06		47.7	47.7
49.0	16:26:07		49.0	49.0
49.9	16:26:08		49.9	49.9
49.3	16:26:09		49.3	49.3
49.1	16:26:10		49.1	49.1
49.5	16:26:11		49.5	49.5
50.4	16:26:12		50.4	50.4
51.6	16:26:13		51.6	51.6
53.4	16:26:14		53.4	53.4
55.3	16:26:15		55.3	55.3
57.5	16:26:16		57.5	57.5
59.5	16:26:17		59.5	59.5
60.5	16:26:18		60.5	60.5
60.8	16:26:19		60.8	60.8
61.2	16:26:20		61.2	61.2
61.3	16:26:21		61.3	61.3
61.4	16:26:22		61.4	61.4
61.0	16:26:23		61.0	61.0
60.3	16:26:24		60.3	60.3
59.6	16:26:25		59.6	59.6
58.9	16:26:26		58.9	58.9
58.6	16:26:27		58.6	58.6
59.1	16:26:28		59.1	59.1
60.4	16:26:29		60.4	60.4
61.5	16:26:30		61.5	61.5
62.4	16:26:31		62.4	62.4
62.5	16:26:32		62.5	62.5
62.4	16:26:33		62.4	62.4
61.9	16:26:34		61.9	61.9
61.0	16:26:35		61.0	61.0
59.5	16:26:36		59.5	59.5
58.0	16:26:37		58.0	58.0
57.0	16:26:38		57.0	57.0
56.6	16:26:39		56.6	56.6
56.9	16:26:40		56.9	56.9
57.4	16:26:41		57.4	57.4
57.8	16:26:42		57.8	57.8
57.3	16:26:43		57.3	57.3
56.1	16:26:44		56.1	56.1
54.9	16:26:45		54.9	54.9
53.8	16:26:46		53.8	53.8
52.5	16:26:47		52.5	52.5
51.9	16:26:48		51.9	51.9
51.5	16:26:49		51.5	51.5
50.4	16:26:50		50.4	50.4
49.9	16:26:51		49.9	49.9
49.7	16:26:52		49.7	49.7
48.6	16:26:53		48.6	48.6
47.4	16:26:54		47.4	47.4
46.7	16:26:55		46.7	46.7
46.7	16:26:56		46.7	46.7
46.6	16:26:57		46.6	46.6
47.0	16:26:58		47.0	47.0
48.3	16:26:59		48.3	48.3
49.8	16:27:00		49.8	49.8
50.5	16:27:01		50.5	50.5
51.4	16:27:02		51.4	51.4
52.6	16:27:03		52.6	52.6
53.3	16:27:04		53.3	53.3
52.9	16:27:05		52.9	52.9
52.6	16:27:06		52.6	52.6
54.3	16:27:07		54.3	54.3
56.1	16:27:08		56.1	56.1
57.8	16:27:09		57.8	57.8
59.8	16:27:10		59.8	59.8
60.9	16:27:11		60.9	60.9
61.7	16:27:12		61.7	61.7
61.6	16:27:13		61.6	61.6
61.1	16:27:14		61.1	61.1
60.6	16:27:15		60.6	60.6
59.9	16:27:16		59.9	59.9
58.6	16:27:17		58.6	58.6
57.3	16:27:18		57.3	57.3
56.5	16:27:19		56.5	56.5
56.1	16:27:20		56.1	56.1
56.0	16:27:21		56.0	56.0
55.7	16:27:22		55.7	55.7
55.4	16:27:23		55.4	55.4
54.9	16:27:24		54.9	54.9
54.8	16:27:25		54.8	54.8
54.5	16:27:26		54.5	54.5
53.9	16:27:27		53.9	53.9
52.7	16:27:28		52.7	52.7
52.2	16:27:29		52.2	52.2
51.8	16:27:30		51.8	51.8
51.5	16:27:31		51.5	51.5
50.9	16:27:32		50.9	50.9
50.4	16:27:33		50.4	50.4
49.8	16:27:34		49.8	49.8
49.8	16:27:35		49.8	49.8
49.5	16:27:36		49.5	49.5
48.4	16:27:37		48.4	48.4
47.7	16:27:38		47.7	47.7
47.9	16:27:39		47.9	47.9
48.3	16:27:40		48.3	48.3
48.5	16:27:41		48.5	48.5
49.0	16:27:42		49.0	49.0
50.2	16:27:43		50.2	50.2
50.2	16:27:44		50.2	50.2
51.2	16:27:45		51.2	51.2
53.0	16:27:46		53.0	53.0
54.7	16:27:47		54.7	54.7
54.8	16:27:48		54.8	54.8
54.6	16:27:49		54.6	54.6
55.2	16:27:50		55.2	55.2
55.8	16:27:51		55.8	55.8
57.6	16:27:52		57.6	57.6
60.0	16:27:53		60.0	60.0
61.1	16:27:54		61.1	61.1
62.4	16:27:55		62.4	62.4
64.3	16:27:56		64.3	64.3
66.8	16:27:57		66.8	66.8
70.2	16:27:58		70.2	70.2
71.2	16:27:59		71.2	71.2
69.2	16:28:00		69.2	69.2
66.0	16:28:01		66.0	66.0
63.0	16:28:02		63.0	63.0
60.2	16:28:03		60.2	60.2
57.8	16:28:04		57.8	57.8
56.3	16:28:05		56.3	56.3

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.5	16:31:36		50.5	50.5
49.9	16:31:37		49.9	49.9
49.5	16:31:38		49.5	49.5
49.6	16:31:39		49.6	49.6
49.9	16:31:40		49.9	49.9
49.8	16:31:41		49.8	49.8
49.8	16:31:42		49.8	49.8
49.1	16:31:43		49.1	49.1
48.0	16:31:44		48.0	48.0
47.2	16:31:45		47.2	47.2
46.7	16:31:46		46.7	46.7
46.3	16:31:47		46.3	46.3
46.7	16:31:48		46.7	46.7
47.9	16:31:49		47.9	47.9
47.5	16:31:50		47.5	47.5
47.9	16:31:51		47.9	47.9
48.2	16:31:52		48.2	48.2
47.0	16:31:53		47.0	47.0
46.3	16:31:54		46.3	46.3
46.7	16:31:55		46.7	46.7
47.0	16:31:56		47.0	47.0
46.7	16:31:57		46.7	46.7
46.4	16:31:58		46.4	46.4
46.2	16:31:59		46.2	46.2
46.7	16:32:00		46.7	46.7
46.5	16:32:01		46.5	46.5
46.5	16:32:02		46.5	46.5
47.1	16:32:03		47.1	47.1
46.3	16:32:04		46.3	46.3
45.6	16:32:05		45.6	45.6
46.4	16:32:06		46.4	46.4
46.8	16:32:07		46.8	46.8
46.8	16:32:08		46.8	46.8
47.0	16:32:09		47.0	47.0
46.1	16:32:10		46.1	46.1
45.9	16:32:11		45.9	45.9
46.1	16:32:12		46.1	46.1
45.7	16:32:13		45.7	45.7
45.0	16:32:14		45.0	45.0
45.0	16:32:15		45.0	45.0
46.2	16:32:16		46.2	46.2
47.1	16:32:17		47.1	47.1
45.9	16:32:18		45.9	45.9
45.7	16:32:19		45.7	45.7
46.2	16:32:20		46.2	46.2
45.3	16:32:21		45.3	45.3
44.4	16:32:22		44.4	44.4
44.1	16:32:23		44.1	44.1
43.6	16:32:24		43.6	43.6
44.6	16:32:25		44.6	44.6
44.6	16:32:26		44.6	44.6
43.8	16:32:27		43.8	43.8
43.5	16:32:28		43.5	43.5
43.6	16:32:29		43.6	43.6
44.8	16:32:30		44.8	44.8
45.8	16:32:31		45.8	45.8
46.7	16:32:32		46.7	46.7
47.6	16:32:33		47.6	47.6
47.4	16:32:34		47.4	47.4
48.7	16:32:35		48.7	48.7
50.8	16:32:36		50.8	50.8
50.8	16:32:37		50.8	50.8
49.5	16:32:38		49.5	49.5
48.9	16:32:39		48.9	48.9
48.6	16:32:40		48.6	48.6
47.9	16:32:41		47.9	47.9
47.8	16:32:42		47.8	47.8
48.3	16:32:43		48.3	48.3
49.0	16:32:44		49.0	49.0
49.2	16:32:45		49.2	49.2
49.6	16:32:46		49.6	49.6
49.2	16:32:47		49.2	49.2
48.6	16:32:48		48.6	48.6
48.5	16:32:49		48.5	48.5
48.1	16:32:50		48.1	48.1
48.3	16:32:51		48.3	48.3
47.9	16:32:52		47.9	47.9
47.5	16:32:53		47.5	47.5
47.8	16:32:54		47.8	47.8
47.6	16:32:55		47.6	47.6
47.7	16:32:56		47.7	47.7
48.3	16:32:57		48.3	48.3
48.9	16:32:58		48.9	48.9
49.3	16:32:59		49.3	49.3
49.3	16:33:00		49.3	49.3
48.6	16:33:01		48.6	48.6
49.0	16:33:02		49.0	49.0
50.1	16:33:03		50.1	50.1
51.0	16:33:04		51.0	51.0
50.0	16:33:05		50.0	50.0
49.5	16:33:06		49.5	49.5
50.5	16:33:07		50.5	50.5
50.6	16:33:08		50.6	50.6
50.5	16:33:09		50.5	50.5
50.8	16:33:10		50.8	50.8
51.3	16:33:11		51.3	51.3
51.1	16:33:12		51.1	51.1
51.5	16:33:13		51.5	51.5
53.2	16:33:14		53.2	53.2
54.5	16:33:15		54.5	54.5
54.0	16:33:16		54.0	54.0
53.3	16:33:17		53.3	53.3
51.9	16:33:18		51.9	51.9
49.8	16:33:19		49.8	49.8
48.5	16:33:20		48.5	48.5
47.8	16:33:21		47.8	47.8
47.0	16:33:22		47.0	47.0
46.6	16:33:23		46.6	46.6
46.0	16:33:24		46.0	46.0
46.8	16:33:25		46.8	46.8
46.7	16:33:26		46.7	46.7
46.9	16:33:27		46.9	46.9
46.9	16:33:28		46.9	46.9
48.8	16:33:29		48.8	48.8
48.4	16:33:30		48.4	48.4
48.3	16:33:31		48.3	48.3
48.4	16:33:32		48.4	48.4
47.4	16:33:33		47.4	47.4
47.3	16:33:34		47.3	47.3
48.3	16:33:35		48.3	48.3
48.3	16:33:36		48.3	48.3
48.0	16:33:37		48.0	48.0
47.9	16:33:38		47.9	47.9
48.2	16:33:39		48.2	48.2
47.9	16:33:40		47.9	47.9
47.3	16:33:41		47.3	47.3
46.9	16:33:42		46.9	46.9
47.0	16:33:43		47.0	47.0
46.4	16:33:44		46.4	46.4
46.0	16:33:45		46.0	46.0
45.1	16:33:46		45.1	45.1
45.0	16:33:47		45.0	45.0
45.5	16:33:48		45.5	45.5
44.9	16:33:49		44.9	44.9
44.8	16:33:50		44.8	44.8
45.8	16:33:51		45.8	45.8
48.3	16:33:52		48.3	48.3
48.3	16:33:53		48.3	48.3
47.5	16:33:54		47.5	47.5
46.5	16:33:55		46.5	46.5
47.1	16:33:56		47.1	47.1
46.9	16:33:57		46.9	46.9
46.2	16:33:58		46.2	46.2
47.5	16:33:59		47.5	47.5
48.1	16:34:00		48.1	48.1
48.9	16:34:01		48.9	48.9
47.8	16:34:02		47.8	47.8
48.7	16:34:03		48.7	48.7
49.5	16:34:04		49.5	49.5
48.2	16:34:05		48.2	48.2
46.9	16:34:06		46.9	46.9
47.2	16:34:07		47.2	47.2
47.4	16:34:08		47.4	47.4
46.8	16:34:09		46.8	46.8
46.9	16:34:10		46.9	46.9
46.9	16:34:11		46.9	46.9
46.7	16:34:12		46.7	46.7
47.2	16:34:13		47.2	47.2
47.0	16:34:14		47.0	47.0
47.3	16:34:15		47.3	47.3
47.1	16:34:16		47.1	47.1
46.4	16:34:17		46.4	46.4

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
55.4	16:37:21		55.4	55.4
53.7	16:37:22		53.7	53.7
53.4	16:37:23		53.4	53.4
53.4	16:37:24		53.4	53.4
56.5	16:37:25		56.5	56.5
59.4	16:37:26		59.4	59.4
64.6	16:37:27		64.6	64.6
69.7	16:37:28		69.7	69.7
70.0	16:37:29		70.0	70.0
67.1	16:37:30		67.1	67.1
63.6	16:37:31		63.6	63.6
60.1	16:37:32		60.1	60.1
57.0	16:37:33		57.0	57.0
54.3	16:37:34		54.3	54.3
51.9	16:37:35		51.9	51.9
49.8	16:37:36		49.8	49.8
47.8	16:37:37		47.8	47.8
46.3	16:37:38		46.3	46.3
45.2	16:37:39		45.2	45.2
44.1	16:37:40		44.1	44.1
42.9	16:37:41		42.9	42.9
42.1	16:37:42		42.1	42.1
42.0	16:37:43		42.0	42.0
41.5	16:37:44		41.5	41.5
40.7	16:37:45		40.7	40.7
40.3	16:37:46		40.3	40.3
40.0	16:37:47		40.0	40.0
40.0	16:37:48		40.0	40.0
40.3	16:37:49		40.3	40.3
40.3	16:37:50		40.3	40.3
40.3	16:37:51		40.3	40.3
40.6	16:37:52		40.6	40.6
41.0	16:37:53		41.0	41.0
41.0	16:37:54		41.0	41.0
41.0	16:37:55		41.0	41.0
40.9	16:37:56		40.9	40.9
41.0	16:37:57		41.0	41.0
41.7	16:37:58		41.7	41.7
42.8	16:37:59		42.8	42.8
42.6	16:38:00		42.6	42.6
42.2	16:38:01		42.2	42.2
41.8	16:38:02		41.8	41.8
41.5	16:38:03		41.5	41.5
41.8	16:38:04		41.8	41.8
41.4	16:38:05		41.4	41.4
41.4	16:38:06		41.4	41.4
43.0	16:38:07		43.0	43.0
43.1	16:38:08		43.1	43.1
42.8	16:38:09		42.8	42.8
41.7	16:38:10		41.7	41.7
41.0	16:38:11		41.0	41.0
40.7	16:38:12		40.7	40.7
40.3	16:38:13		40.3	40.3
40.2	16:38:14		40.2	40.2
41.6	16:38:15		41.6	41.6
41.9	16:38:16		41.9	41.9
42.5	16:38:17		42.5	42.5
43.8	16:38:18		43.8	43.8
45.3	16:38:19		45.3	45.3
47.5	16:38:20		47.5	47.5
49.7	16:38:21		49.7	49.7
53.8	16:38:22		53.8	53.8
58.7	16:38:23		58.7	58.7
65.0	16:38:24		65.0	65.0
69.5	16:38:25		69.5	69.5
67.4	16:38:26		67.4	67.4
64.0	16:38:27		64.0	64.0
60.3	16:38:28		60.3	60.3
57.0	16:38:29		57.0	57.0
54.2	16:38:30		54.2	54.2
51.9	16:38:31		51.9	51.9
50.8	16:38:32		50.8	50.8
50.2	16:38:33		50.2	50.2
50.3	16:38:34		50.3	50.3
51.5	16:38:35		51.5	51.5
54.4	16:38:36		54.4	54.4
57.4	16:38:37		57.4	57.4
61.1	16:38:38		61.1	61.1
66.1	16:38:39		66.1	66.1
67.7	16:38:40		67.7	67.7
67.1	16:38:41		67.1	67.1
66.1	16:38:42		66.1	66.1
69.0	16:38:43		69.0	69.0
72.3	16:38:44		72.3	72.3
72.3	16:38:45		72.3	72.3
70.4	16:38:46		70.4	70.4
69.8	16:38:47		69.8	69.8
69.8	16:38:48		69.8	69.8
70.3	16:38:49		70.3	70.3
71.3	16:38:50		71.3	71.3
70.5	16:38:51		70.5	70.5
68.5	16:38:52		68.5	68.5
66.0	16:38:53		66.0	66.0
63.1	16:38:54		63.1	63.1
60.2	16:38:55		60.2	60.2
57.5	16:38:56		57.5	57.5
55.0	16:38:57		55.0	55.0
53.0	16:38:58		53.0	53.0
51.4	16:38:59		51.4	51.4
50.7	16:39:00		50.7	50.7
50.2	16:39:01		50.2	50.2
49.5	16:39:02		49.5	49.5
50.2	16:39:03		50.2	50.2
51.8	16:39:04		51.8	51.8
52.2	16:39:05		52.2	52.2
53.1	16:39:06		53.1	53.1
55.7	16:39:07		55.7	55.7
58.9	16:39:08		58.9	58.9
62.9	16:39:09		62.9	62.9
67.0	16:39:10		67.0	67.0
67.2	16:39:11		67.2	67.2
65.6	16:39:12		65.6	65.6
63.2	16:39:13		63.2	63.2
61.2	16:39:14		61.2	61.2
61.3	16:39:15		61.3	61.3
64.2	16:39:16		64.2	64.2
65.7	16:39:17		65.7	65.7
64.9	16:39:18		64.9	64.9
62.9	16:39:19		62.9	62.9
60.3	16:39:20		60.3	60.3
57.6	16:39:21		57.6	57.6
55.5	16:39:22		55.5	55.5
54.3	16:39:23		54.3	54.3
55.5	16:39:24		55.5	55.5
58.2	16:39:25		58.2	58.2
61.9	16:39:26		61.9	61.9
67.4	16:39:27		67.4	67.4
72.8	16:39:28		72.8	72.8
73.8	16:39:29		73.8	73.8
71.4	16:39:30		71.4	71.4
68.0	16:39:31		68.0	68.0
64.3	16:39:32		64.3	64.3
60.9	16:39:33		60.9	60.9
57.6	16:39:34		57.6	57.6
54.9	16:39:35		54.9	54.9
53.3	16:39:36		53.3	53.3
52.6	16:39:37		52.6	52.6
52.7	16:39:38		52.7	52.7
53.5	16:39:39		53.5	53.5
56.9	16:39:40		56.9	56.9
58.9	16:39:41		58.9	58.9
62.7	16:39:42		62.7	62.7
66.9	16:39:43		66.9	66.9
68.0	16:39:44		68.0	68.0
67.2	16:39:45		67.2	67.2
66.4	16:39:46		66.4	66.4
67.1	16:39:47		67.1	67.1
67.3	16:39:48		67.3	67.3
66.1	16:39:49		66.1	66.1
63.8	16:39:50		63.8	63.8
61.5	16:39:51		61.5	61.5
59.6	16:39:52		59.6	59.6
58.1	16:39:53		58.1	58.1
56.9	16:39:54		56.9	56.9
56.6	16:39:55		56.6	56.6
59.3	16:39:56		59.3	59.3
64.5	16:39:57		64.5	64.5
67.9	16:39:58		67.9	67.9
70.8	16:39:59		70.8	70.8
70.8	16:40:00		70.8	70.8
68.5	16:40:01		68.5	68.5
67.0	16:40:02		67.0	67.0

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
55.4	16:28:06		55.4	55.4
54.9	16:28:07		54.9	54.9
54.7	16:28:08		54.7	54.7
54.9	16:28:09		54.9	54.9
56.0	16:28:10		56.0	56.0
56.5	16:28:11		56.5	56.5
57.2	16:28:12		57.2	57.2
58.1	16:28:13		58.1	58.1
59.1	16:28:14		59.1	59.1
60.0	16:28:15		60.0	60.0
60.2	16:28:16		60.2	60.2
60.1	16:28:17		60.1	60.1
59.1	16:28:18		59.1	59.1
58.4	16:28:19		58.4	58.4
58.6	16:28:20		58.6	58.6
58.9	16:28:21		58.9	58.9
59.6	16:28:22		59.6	59.6
60.1	16:28:23		60.1	60.1
62.2	16:28:24		62.2	62.2
63.6	16:28:25		63.6	63.6
63.8	16:28:26		63.8	63.8
63.0	16:28:27		63.0	63.0
63.7	16:28:28		63.7	63.7
64.9	16:28:29		64.9	64.9
65.0	16:28:30		65.0	65.0
65.9	16:28:31		65.9	65.9
66.6	16:28:32		66.6	66.6
67.0	16:28:33		67.0	67.0
67.1	16:28:34		67.1	67.1
66.2	16:28:35		66.2	66.2
64.7	16:28:36		64.7	64.7
63.3	16:28:37		63.3	63.3
62.3	16:28:38		62.3	62.3
61.1	16:28:39		61.1	61.1
60.4	16:28:40		60.4	60.4
60.0	16:28:41		60.0	60.0
59.9	16:28:42		59.9	59.9
59.7	16:28:43		59.7	59.7
59.2	16:28:44		59.2	59.2
58.4	16:28:45		58.4	58.4
57.9	16:28:46		57.9	57.9
56.9	16:28:47		56.9	56.9
56.2	16:28:48		56.2	56.2
55.6	16:28:49		55.6	55.6
55.5	16:28:50		55.5	55.5
54.8	16:28:51		54.8	54.8
54.3	16:28:52		54.3	54.3
54.9	16:28:53		54.9	54.9
56.3	16:28:54		56.3	56.3
61.1	16:28:55		61.1	61.1
61.1	16:28:56		61.1	61.1
59.7	16:28:57		59.7	59.7
59.5	16:28:58		59.5	59.5
59.2	16:28:59		59.2	59.2
58.2	16:29:00		58.2	58.2
58.0	16:29:01		58.0	58.0
58.6	16:29:02		58.6	58.6
58.6	16:29:03		58.6	58.6
57.7	16:29:04		57.7	57.7
57.1	16:29:05		57.1	57.1
56.9	16:29:06		56.9	56.9
57.2	16:29:07		57.2	57.2
57.8	16:29:08		57.8	57.8
57.8	16:29:09		57.8	57.8
57.6	16:29:10		57.6	57.6
57.4	16:29:11		57.4	57.4
57.1	16:29:12		57.1	57.1
56.5	16:29:13		56.5	56.5
56.5	16:29:14		56.5	56.5
57.7	16:29:15		57.7	57.7
58.1	16:29:16		58.1	58.1
57.3	16:29:17		57.3	57.3
56.3	16:29:18		56.3	56.3
54.9	16:29:19		54.9	54.9
53.6	16:29:20		53.6	53.6
52.6	16:29:21		52.6	52.6
52.3	16:29:22		52.3	52.3
53.6	16:29:23		53.6	53.6
55.8	16:29:24		55.8	55.8
56.3	16:29:25		56.3	56.3
56.3	16:29:26		56.3	56.3
56.7	16:29:27		56.7	56.7
55.8	16:29:28		55.8	55.8
53.7	16:29:29		53.7	53.7
51.8	16:29:30		51.8	51.8
50.7	16:29:31		50.7	50.7
50.7	16:29:32		50.7	50.7
50.1	16:29:33		50.1	50.1
49.8	16:29:34		49.8	49.8
50.3	16:29:35		50.3	50.3
50.4	16:29:36		50.4	50.4
49.3	16:29:37		49.3	49.3
47.7	16:29:38		47.7	47.7
46.3	16:29:39		46.3	46.3
45.4	16:29:40		45.4	45.4
44.7	16:29:41		44.7	44.7
44.9	16:29:42		44.9	44.9
44.9	16:29:43		44.9	44.9
44.7	16:29:44		44.7	44.7
44.5	16:29:45		44.5	44.5
43.9	16:29:46		43.9	43.9
43.9	16:29:47		43.9	43.9
44.1	16:29:48		44.1	44.1
44.4	16:29:49		44.4	44.4
44.8	16:29:50		44.8	44.8
45.0	16:29:51		45.0	45.0
45.0	16:29:52		45.0	45.0
45.3	16:29:53		45.3	45.3
45.3	16:29:54		45.3	45.3
44.9	16:29:55		44.9	44.9
45.6	16:29:56		45.6	45.6
45.8	16:29:57		45.8	45.8
45.9	16:29:58		45.9	45.9
46.0	16:29:59		46.0	46.0
47.1	16:30:00		47.1	47.1
47.0	16:30:01		47.0	47.0
46.7	16:30:02		46.7	46.7
47.8	16:30:03		47.8	47.8
48.9	16:30:04		48.9	48.9
50.0	16:30:05		50.0	50.0
51.8	16:30:06		51.8	51.8
54.3	16:30:07		54.3	54.3
56.7	16:30:08		56.7	56.7
58.6	16:30:09		58.6	58.6
59.7	16:30:10		59.7	59.7
59.6	16:30:11		59.6	59.6
59.2	16:30:12		59.2	59.2
59.2	16:30:13		59.2	59.2
60.0	16:30:14		60.0	60.0
61.6	16:30:15		61.6	61.6
63.4	16:30:16		63.4	63.4
65.1	16:30:17		65.1	65.1
67.3	16:30:18		67.3	67.3
69.1	16:30:19		69.1	69.1
69.2	16:30:20		69.2	69.2
68.6	16:30:21		68.6	68.6
67.3	16:30:22		67.3	67.3
65.9	16:30:23		65.9	65.9
64.5	16:30:24		64.5	64.5
63.6	16:30:25		63.6	63.6
63.3	16:30:26		63.3	63.3
63.0	16:30:27		63.0	63.0
61.9	16:30:28		61.9	61.9
61.3	16:30:29		61.3	61.3
60.9	16:30:30		60.9	60.9
61.0	16:30:31		61.0	61.0
60.8	16:30:32		60.8	60.8
59.7	16:30:33		59.7	59.7
59.1	16:30:34		59.1	59.1
58.8	16:30:35		58.8	58.8
58.8	16:30:36		58.8	58.8
59.7	16:30:37		59.7	59.7
60.8	16:30:38		60.8	60.8
61.4	16:30:39		61.4	61.4
61.0	16:30:40		61.0	61.0
59.9	16:30:41		59.9	59.9
58.7	16:30:42		58.7	58.7
57.3	16:30:43		57.3	57.3
58.3	16:30:44		58.3	58.3
57.3	16:30:45		57.3	57.3
55.4	16:30:46		55.4	55.4
54.9	16:30:47		54.9	54.9

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.2	16:34:18		46.2	46.2
46.3	16:34:19		46.3	46.3
45.7	16:34:20		45.7	45.7
45.4	16:34:21		45.4	45.4
45.5	16:34:22		45.5	45.5
45.9	16:34:23		45.9	45.9
45.5	16:34:24		45.5	45.5
45.6	16:34:25		45.6	45.6
46.5	16:34:26		46.5	46.5
46.3	16:34:27		46.3	46.3
46.2	16:34:28		46.2	46.2
46.3	16:34:29		46.3	46.3
46.7	16:34:30		46.7	46.7
46.9	16:34:31		46.9	46.9
47.2	16:34:32		47.2	47.2
47.5	16:34:33		47.5	47.5
47.9	16:34:34		47.9	47.9
48.1	16:34:35		48.1	48.1
47.5	16:34:36		47.5	47.5
47.4	16:34:37		47.4	47.4
48.4	16:34:38		48.4	48.4
51.3	16:34:39		51.3	51.3
52.2	16:34:40		52.2	52.2
51.5	16:34:41		51.5	51.5
49.9	16:34:42		49.9	49.9
48.6	16:34:43		48.6	48.6
48.0	16:34:44		48.0	48.0
47.6	16:34:45		47.6	47.6
47.1	16:34:46		47.1	47.1
46.9	16:34:47		46.9	46.9
46.9	16:34:48		46.9	46.9
47.4	16:34:49		47.4	47.4
47.6	16:34:50		47.6	47.6
47.2	16:34:51		47.2	47.2
46.9	16:34:52		46.9	46.9
46.6	16:34:53		46.6	46.6
46.4	16:34:54		46.4	46.4
46.5	16:34:55		46.5	46.5
47.3	16:34:56		47.3	47.3
48.5	16:34:57		48.5	48.5
49.9	16:34:58		49.9	49.9
50.1	16:34:59		50.1	50.1
50.0	16:35:00		50.0	50.0
49.6	16:35:01		49.6	49.6
49.7	16:35:02		49.7	49.7
50.6	16:35:03		50.6	50.6
52.7	16:35:04		52.7	52.7
55.1	16:35:05		55.1	55.1
53.7	16:35:06		53.7	53.7
54.4	16:35:07		54.4	54.4
53.2	16:35:08		53.2	53.2
52.9	16:35:09		52.9	52.9
52.1	16:35:10		52.1	52.1
51.8	16:35:11		51.8	51.8
50.7	16:35:12		50.7	50.7
49.8	16:35:13		49.8	49.8
50.0	16:35:14		50.0	50.0
49.7	16:35:15		49.7	49.7
49.8	16:35:16		49.8	49.8
49.0	16:35:17		49.0	49.0
48.6	16:35:18		48.6	48.6
48.6	16:35:19		48.6	48.6
48.9	16:35:20		48.9	48.9
49.4	16:35:21		49.4	49.4
50.0	16:35:22		50.0	50.0
50.2	16:35:23		50.2	50.2
50.8	16:35:24		50.8	50.8
51.1	16:35:25		51.1	51.1
51.6	16:35:26		51.6	51.6
52.3	16:35:27		52.3	52.3
53.4	16:35:28		53.4	53.4
53.8	16:35:29		53.8	53.8
53.6	16:35:30		53.6	53.6
54.0	16:35:31		54.0	54.0
55.3	16:35:32		55.3	55.3
56.7	16:35:33		56.7	56.7
57.2	16:35:34		57.2	57.2
58.2	16:35:35		58.2	58.2
56.8	16:35:36		56.8	56.8
54.6	16:35:37		54.6	54.6
52.8	16:35:38		52.8	52.8
51.5	16:35:39		51.5	51.5
51.1	16:35:40		51.1	51.1
50.4	16:35:41		50.4	50.4
49.7	16:35:42		49.7	49.7
49.3	16:35:43		49.3	49.3
48.9	16:35:44		48.9	48.9
49.8	16:35:45		49.8	49.8
50.7	16:35:46		50.7	50.7
50.3	16:35:47		50.3	50.3
49.3	16:35:48		49.3	49.3
47.8	16:35:49		47.8	47.8
47.9	16:35:50		47.9	47.9
47.5	16:35:51		47.5	47.5
46.9	16:35:52		46.9	46.9
47.1	16:35:53		47.1	47.1
47.0	16:35:54		47.0	47.0
47.3	16:35:55		47.3	47.3
47.4	16:35:56		47.4	47.4
47.4	16:35:57		47.4	47.4
47.5	16:35:58		47.5	47.5
47.8	16:35:59		47.8	47.8
47.9	16:36:00		47.9	47.9
48.0	16:36:01		48.0	48.0
47.9	16:36:02		47.9	47.9
48.6	16:36:03		48.6	48.6
48.9	16:36:04		48.9	48.9
48.8	16:36:05		48.8	48.8
51.1	16:36:06		51.1	51.1
55.0	16:36:07		55.0	55.0
54.6	16:36:08		54.6	54.6
52.6	16:36:09		52.6	52.6
51.2	16:36:10		51.2	51.2
50.5	16:36:11		50.5	50.5
49.7	16:36:12		49.7	49.7
48.9	16:36:13		48.9	48.9
49.1	16:36:14		49.1	49.1
49.3	16:36:15		49.3	49.3
49.2	16:36:16		49.2	49.2
49.8	16:36:17		49.8	49.8
49.5	16:36:18		49.5	49.5
48.5	16:36:19		48.5	48.5
47.9	16:36:20		47.9	47.9
47.4	16:36:21		47.4	47.4
47.5	16:36:22		47.5	47.5
47.2	16:36:23		47.2	47.2
47.1	16:36:24		47.1	47.1
47.3	16:36:25		47.3	47.3
47.7	16:36:26		47.7	47.7
47.8	16:36:27		47.8	47.8
48.6	16:36:28		48.6	48.6
49.1	16:36:29		49.1	49.1
49.6	16:36:30		49.6	49.6
51.0	16:36:31		51.0	51.0
51.4	16:36:32		51.4	51.4
52.1	16:36:33		52.1	52.1
51.9	16:36:34		51.9	51.9
51.7	16:36:35		51.7	51.7
51.0	16:36:36		51.0	51.0
50.2	16:36:37		50.2	50.2
49.9	16:36:38		49.9	49.9
50.2	16:36:39		50.2	50.2
50.0	16:36:40		50.0	50.0
49.6	16:36:41		49.6	49.6
50.4	16:36:42		50.4	50.4
52.5	16:36:43		52.5	52.5
52.3	16:36:44		52.3	52.3
51.0	16:36:45		51.0	51.0
50.2	16:36:46		50.2	50.2
50.9	16:36:47		50.9	50.9
50.7	16:36:48		50.7	50.7
49.8	16:36:49		49.8	49.8
49.2	16:36:50		49.2	49.2
50.2	16:36:51		50.2	50.2
49.8	16:36:52		49.8	49.8
49.5	16:36:53		49.5	49.5
49.4	16:36:54		49.4	49.4
49.3	16:36:55		49.3	49.3
50.6	16:36:56		50.6	50.6
50.1	16:36:57		50.1	50.1
49.0	16:36:58		49.0	49.0
48.5	16:36:59		48.5	48.5

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
65.8	16:40:03		65.8	65.8
64.4	16:40:04		64.4	64.4
62.5	16:40:05		62.5	62.5
60.3	16:40:06		60.3	60.3
58.3	16:40:07		58.3	58.3
56.8	16:40:08		56.8	56.8
55.9	16:40:09		55.9	55.9
55.8	16:40:10		55.8	55.8
56.3	16:40:11		56.3	56.3
57.9	16:40:12		57.9	57.9
61.0	16:40:13		61.0	61.0
64.6	16:40:14		64.6	64.6
65.8	16:40:15		65.8	65.8
64.9	16:40:16		64.9	64.9
62.6	16:40:17		62.6	62.6
60.1	16:40:18		60.1	60.1
57.4	16:40:19		57.4	57.4
54.9	16:40:20		54.9	54.9
52.9	16:40:21		52.9	52.9
50.8	16:40:22		50.8	50.8
49.3	16:40:23		49.3	49.3
48.4	16:40:24		48.4	48.4
48.3	16:40:25		48.3	48.3
48.0	16:40:26		48.0	48.0
48.1	16:40:27		48.1	48.1
49.0	16:40:28		49.0	49.0
49.8	16:40:29		49.8	49.8
51.9	16:40:30		51.9	51.9
56.1	16:40:31		56.1	56.1
60.5	16:40:32		60.5	60.5
66.1	16:40:33		66.1	66.1
69.7	16:40:34		69.7	69.7
69.8	16:40:35		69.8	69.8
66.9	16:40:36		66.9	66.9
63.7	16:40:37		63.7	63.7
60.6	16:40:38		60.6	60.6
57.9	16:40:39		57.9	57.9
56.0	16:40:40		56.0	56.0
54.4	16:40:41		54.4	54.4
53.7	16:40:42		53.7	53.7
52.4	16:40:43		52.4	52.4
50.6	16:40:44		50.6	50.6
49.8	16:40:45		49.8	49.8
49.0	16:40:46		49.0	49.0
48.6	16:40:47		48.6	48.6
48.1	16:40:48		48.1	48.1
47.2	16:40:49		47.2	47.2
46.1	16:40:50		46.1	46.1
45.2	16:40:51		45.2	45.2
45.0	16:40:52		45.0	45.0
44.5	16:40:53		44.5	44.5
43.8	16:40:54		43.8	43.8
43.4	16:40:55		43.4	43.4
43.2	16:40:56		43.2	43.2
44.9	16:40:57		44.9	44.9
45.1	16:40:58		45.1	45.1
45.6	16:40:59		45.6	45.6
47.0	16:41:00		47.0	47.0
48.6	16:41:01		48.6	48.6
50.6	16:41:02		50.6	50.6
53.9	16:41:03		53.9	53.9
57.5	16:41:04		57.5	57.5
61.5	16:41:05		61.5	61.5
69.5	16:41:06		69.5	69.5
71.9	16:41:07		71.9	71.9
70.1	16:41:08		70.1	70.1
67.0	16:41:09		67.0	67.0
63.5	16:41:10		63.5	63.5
60.4	16:41:11		60.4	60.4
57.9	16:41:12		57.9	57.9
56.2	16:41:13		56.2	56.2
54.9	16:41:14		54.9	54.9
54.9	16:41:15		54.9	54.9
55.5	16:41:16		55.5	55.5
56.6	16:41:17		56.6	56.6
57.5	16:41:18		57.5	57.5
60.9	16:41:19		60.9	60.9
64.8	16:41:20		64.8	64.8
67.0	16:41:21		67.0	67.0
65.8	16:41:22		65.8	65.8
63.6	16:41:23		63.6	63.6
60.7	16:41:24		60.7	60.7
58.0	16:41:25		58.0	58.0
55.4	16:41:26		55.4	55.4
52.4	16:41:27		52.4	52.4
49.9	16:41:28		49.9	49.9
47.6	16:41:29		47.6	47.6
46.2	16:41:30		46.2	46.2
45.1	16:41:31		45.1	45.1
44.1	16:41:32		44.1	44.1
43.3	16:41:33		43.3	43.3
42.9	16:41:34		42.9	42.9
42.5	16:41:35		42.5	42.5
42.7	16:41:36		42.7	42.7
42.4	16:41:37		42.4	42.4
42.5	16:41:38		42.5	42.5
42.5	16:41:39		42.5	42.5
42.6	16:41:40		42.6	42.6
44.7	16:41:41		44.7	44.7
44.3	16:41:42		44.3	44.3
43.3	16:41:43		43.3	43.3
42.5	16:41:44		42.5	42.5
42.1	16:41:45		42.1	42.1
42.0	16:41:46		42.0	42.0
42.1	16:41:47		42.1	42.1
42.2	16:41:48		42.2	42.2
42.7	16:41:49		42.7	42.7
42.7	16:41:50		42.7	42.7
43.1	16:41:51		43.1	43.1
43.2	16:41:52		43.2	43.2
42.6	16:41:53		42.6	42.6
42.4	16:41:54		42.4	42.4
42.0	16:41:55		42.0	42.0
42.1	16:41:56		42.1	42.1
43.3	16:41:57		43.3	43.3
42.7	16:41:58		42.7	42.7
42.4	16:41:59		42.4	42.4
42.5	16:42:00		42.5	42.5
43.1	16:42:01		43.1	43.1
43.2	16:42:02		43.2	43.2
43.5	16:42:03		43.5	43.5
44.5	16:42:04		44.5	44.5
45.0	16:42:05		45.0	45.0
45.0	16:42:06		45.0	45.0
45.2	16:42:07		45.2	45.2
44.5	16:42:08		44.5	44.5
44.0	16:42:09		44.0	44.0
45.4	16:42:10		45.4	45.4
46.0	16:42:11		46.0	46.0
45.6	16:42:12		45.6	45.6
45.1	16:42:13		45.1	45.1
46.3	16:42:14		46.3	46.3
46.7	16:42:15		46.7	46.7
46.8	16:42:16		46.8	46.8
47.1	16:42:17		47.1	47.1
48.7	16:42:18		48.7	48.7
49.5	16:42:19		49.5	49.5
48.5	16:42:20		48.5	48.5
47.7	16:42:21		47.7	47.7
49.4	16:42:22		49.4	49.4
49.5	16:42:23		49.5	49.5
49.1	16:42:24		49.1	49.1
47.5	16:42:25		47.5	47.5
47.6	16:42:26		47.6	47.6
47.7	16:42:27		47.7	47.7
47.0	16:42:28		47.0	47.0
47.0	16:42:29		47.0	47.0
47.9	16:42:30		47.9	47.9
48.8	16:42:31		48.8	48.8
49.8	16:42:32		49.8	49.8
51.1	16:42:33		51.1	51.1
53.5	16:42:34		53.5	53.5
56.6	16:42:35		56.6	56.6
60.4	16:42:36		60.4	60.4
65.6	16:42:37		65.6	65.6
68.2	16:42:38		68.2	68.2
67.5	16:42:39		67.5	67.5
65.2	16:42:40		65.2	65.2
62.2	16:42:41		62.2	62.2
59.3	16:42:42		59.3	59.3
56.8	16:42:43		56.8	56.8
54.8	16:42:44		54.8	54.8

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.9	16:30:48		53.9	53.9
52.7	16:30:49		52.7	52.7
53.3	16:30:50		53.3	53.3
53.4	16:30:51		53.4	53.4
52.9	16:30:52		52.9	52.9
53.4	16:30:53		53.4	53.4
54.8	16:30:54		54.8	54.8
56.3	16:30:55		56.3	56.3
58.0	16:30:56		58.0	58.0
59.3	16:30:57		59.3	59.3
59.2	16:30:58		59.2	59.2
57.6	16:30:59		57.6	57.6
56.2	16:31:00		56.2	56.2
55.0	16:31:01		55.0	55.0
53.3	16:31:02		53.3	53.3
52.1	16:31:03		52.1	52.1
51.4	16:31:04		51.4	51.4
53.0	16:31:05		53.0	53.0
53.0	16:31:06		53.0	53.0
52.9	16:31:07		52.9	52.9
53.6	16:31:08		53.6	53.6
54.8	16:31:09		54.8	54.8
55.7	16:31:10		55.7	55.7
56.0	16:31:11		56.0	56.0
56.1	16:31:12		56.1	56.1
55.8	16:31:13		55.8	55.8
54.6	16:31:14		54.6	54.6
54.1	16:31:15		54.1	54.1
54.0	16:31:16		54.0	54.0
53.3	16:31:17		53.3	53.3
52.4	16:31:18		52.4	52.4
51.0	16:31:19		51.0	51.0
50.3	16:31:20		50.3	50.3
49.2	16:31:21		49.2	49.2
48.3	16:31:22		48.3	48.3
47.9	16:31:23		47.9	47.9
48.1	16:31:24		48.1	48.1
48.4	16:31:25		48.4	48.4
48.8	16:31:26		48.8	48.8
50.0	16:31:27		50.0	50.0
50.8	16:31:28		50.8	50.8
51.0	16:31:29		51.0	51.0
51.1	16:31:30		51.1	51.1
51.7	16:31:31		51.7	51.7
53.1	16:31:32		53.1	53.1
55.1	16:31:33		55.1	55.1
57.3	16:31:34		57.3	57.3
60.0	16:31:35		60.0	60.0
61.5	16:31:36		61.5	61.5
62.5	16:31:37		62.5	62.5
63.3	16:31:38		63.3	63.3
62.7	16:31:39		62.7	62.7
62.1	16:31:40		62.1	62.1
61.0	16:31:41		61.0	61.0
59.4	16:31:42		59.4	59.4
57.9	16:31:43		57.9	57.9
56.1	16:31:44		56.1	56.1
54.8	16:31:45		54.8	54.8
54.8	16:31:46		54.8	54.8
54.8	16:31:47		54.8	54.8
54.7	16:31:48		54.7	54.7
54.2	16:31:49		54.2	54.2
53.8	16:31:50		53.8	53.8
53.7	16:31:51		53.7	53.7
54.3	16:31:52		54.3	54.3
54.3	16:31:53		54.3	54.3
54.4	16:31:54		54.4	54.4
55.1	16:31:55		55.1	55.1
56.6	16:31:56		56.6	56.6
57.7	16:31:57		57.7	57.7
57.1	16:31:58		57.1	57.1
56.4	16:31:59		56.4	56.4
55.4	16:32:00		55.4	55.4
54.3	16:32:01		54.3	54.3
53.9	16:32:02		53.9	53.9
53.0	16:32:03		53.0	53.0
52.6	16:32:04		52.6	52.6
52.9	16:32:05		52.9	52.9
52.5	16:32:06		52.5	52.5
51.9	16:32:07		51.9	51.9
51.1	16:32:08		51.1	51.1
51.4	16:32:09		51.4	51.4
51.5	16:32:10		51.5	51.5
50.7	16:32:11		50.7	50.7
50.3	16:32:12		50.3	50.3
49.5	16:32:13		49.5	49.5
50.2	16:32:14		50.2	50.2
49.5	16:32:15		49.5	49.5
48.3	16:32:16		48.3	48.3
48.9	16:32:17		48.9	48.9
48.7	16:32:18		48.7	48.7
48.1	16:32:19		48.1	48.1
48.1	16:32:20		48.1	48.1
48.7	16:32:21		48.7	48.7
49.6	16:32:22		49.6	49.6
50.0	16:32:23		50.0	50.0
49.1	16:32:24		49.1	49.1
47.8	16:32:25		47.8	47.8
48.0	16:32:26		48.0	48.0
47.9	16:32:27		47.9	47.9
47.0	16:32:28		47.0	47.0
46.2	16:32:29		46.2	46.2
45.5	16:32:30		45.5	45.5
45.5	16:32:31		45.5	45.5
45.8	16:32:32		45.8	45.8
46.7	16:32:33		46.7	46.7
48.8	16:32:34		48.8	48.8
49.2	16:32:35		49.2	49.2
49.7	16:32:36		49.7	49.7
50.0	16:32:37		50.0	50.0
50.7	16:32:38		50.7	50.7
52.1	16:32:39		52.1	52.1
53.4	16:32:40		53.4	53.4
54.3	16:32:41		54.3	54.3
55.6	16:32:42		55.6	55.6
57.6	16:32:43		57.6	57.6
57.8	16:32:44		57.8	57.8
57.6	16:32:45		57.6	57.6
57.3	16:32:46		57.3	57.3
56.8	16:32:47		56.8	56.8
57.7	16:32:48		57.7	57.7
57.3	16:32:49		57.3	57.3
56.6	16:32:50		56.6	56.6
55.6	16:32:51		55.6	55.6
54.2	16:32:52		54.2	54.2
53.3	16:32:53		53.3	53.3
52.9	16:32:54		52.9	52.9
52.8	16:32:55		52.8	52.8
53.4	16:32:56		53.4	53.4
54.4	16:32:57		54.4	54.4
54.5	16:32:58		54.5	54.5
54.9	16:32:59		54.9	54.9
56.2	16:33:00		56.2	56.2
58.0	16:33:01		58.0	58.0
60.6	16:33:02		60.6	60.6
62.2	16:33:03		62.2	62.2
61.4	16:33:04		61.4	61.4
60.1	16:33:05		60.1	60.1
59.1	16:33:06		59.1	59.1
58.6	16:33:07		58.6	58.6
58.8	16:33:08		58.8	58.8
58.8	16:33:09		58.8	58.8
58.9	16:33:10		58.9	58.9
59.1	16:33:11		59.1	59.1
59.7	16:33:12		59.7	59.7
59.7	16:33:13		59.7	59.7
59.6	16:33:14		59.6	59.6
59.4	16:33:15		59.4	59.4
59.1	16:33:16		59.1	59.1
59.2	16:33:17		59.2	59.2
59.2	16:33:18		59.2	59.2
59.3	16:33:19		59.3	59.3
59.1	16:33:20		59.1	59.1
59.4	16:33:21		59.4	59.4
59.3	16:33:22		59.3	59.3
59.3	16:33:23		59.3	59.3
59.7	16:33:24		59.7	59.7
60.5	16:33:25		60.5	60.5
60.7	16:33:26		60.7	60.7
59.9	16:33:27		59.9	59.9
59.6	16:33:28		59.6	59.6
59.2	16:33:29		59.2	59.2

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
48.6	16:37:00		48.6	48.6
49.0	16:37:01		49.0	49.0
49.5	16:37:02		49.5	49.5
50.4	16:37:03		50.4	50.4
51.3	16:37:04		51.3	51.3
51.8	16:37:05		51.8	51.8
52.7	16:37:06		52.7	52.7
53.5	16:37:07		53.5	53.5
54.5	16:37:08		54.5	54.5
55.7	16:37:09		55.7	55.7
55.9	16:37:10		55.9	55.9
56.5	16:37:11		56.5	56.5
56.7	16:37:12		56.7	56.7
57.8	16:37:13		57.8	57.8
58.7	16:37:14		58.7	58.7
59.2	16:37:15		59.2	59.2
58.1	16:37:16		58.1	58.1
56.5	16:37:17		56.5	56.5
57.0	16:37:18		57.0	57.0
56.9	16:37:19		56.9	56.9
55.9	16:37:20		55.9	55.9
56.3	16:37:21		56.3	56.3
57.7	16:37:22		57.7	57.7
56.5	16:37:23		56.5	56.5
54.1	16:37:24		54.1	54.1
52.7	16:37:25		52.7	52.7
51.6	16:37:26		51.6	51.6
50.2	16:37:27		50.2	50.2
48.7	16:37:28		48.7	48.7
47.7	16:37:29		47.7	47.7
46.8	16:37:30		46.8	46.8
46.2	16:37:31		46.2	46.2
46.0	16:37:32		46.0	46.0
45.8	16:37:33		45.8	45.8
45.6	16:37:34		45.6	45.6
45.9	16:37:35		45.9	45.9
46.0	16:37:36		46.0	46.0
46.3	16:37:37		46.3	46.3
46.5	16:37:38		46.5	46.5
46.7	16:37:39		46.7	46.7
45.9	16:37:40		45.9	45.9
45.2	16:37:41		45.2	45.2
45.6	16:37:42		45.6	45.6
45.4	16:37:43		45.4	45.4
45.4	16:37:44		45.4	45.4
45.0	16:37:45		45.0	45.0
45.2	16:37:46		45.2	45.2
45.5	16:37:47		45.5	45.5
45.6	16:37:48		45.6	45.6
45.4	16:37:49		45.4	45.4
45.4	16:37:50		45.4	45.4
45.9	16:37:51		45.9	45.9
46.4	16:37:52		46.4	46.4
45.8	16:37:53		45.8	45.8
46.1	16:37:54		46.1	46.1
46.0	16:37:55		46.0	46.0
46.0	16:37:56		46.0	46.0
46.2	16:37:57		46.2	46.2
46.5	16:37:58		46.5	46.5
47.0	16:37:59		47.0	47.0
47.5	16:38:00		47.5	47.5
46.8	16:38:01		46.8	46.8
47.2	16:38:02		47.2	47.2
47.0	16:38:03		47.0	47.0
47.6	16:38:04		47.6	47.6
48.4	16:38:05		48.4	48.4
48.9	16:38:06		48.9	48.9
48.8	16:38:07		48.8	48.8
51.0	16:38:08		51.0	51.0
54.2	16:38:09		54.2	54.2
53.4	16:38:10		53.4	53.4
51.8	16:38:11		51.8	51.8
51.2	16:38:12		51.2	51.2
50.2	16:38:13		50.2	50.2
49.0	16:38:14		49.0	49.0
47.9	16:38:15		47.9	47.9
49.1	16:38:16		49.1	49.1
49.8	16:38:17		49.8	49.8
49.9	16:38:18		49.9	49.9
49.5	16:38:19		49.5	49.5
49.7	16:38:20		49.7	49.7
49.0	16:38:21		49.0	49.0
48.5	16:38:22		48.5	48.5
47.9	16:38:23		47.9	47.9
48.0	16:38:24		48.0	48.0
49.2	16:38:25		49.2	49.2
50.4	16:38:26		50.4	50.4
51.0	16:38:27		51.0	51.0
51.7	16:38:28		51.7	51.7
53.7	16:38:29		53.7	53.7
55.5	16:38:30		55.5	55.5
53.9	16:38:31		53.9	53.9
52.9	16:38:32		52.9	52.9
53.9	16:38:33		53.9	53.9
55.0	16:38:34		55.0	55.0
54.0	16:38:35		54.0	54.0
53.7	16:38:36		53.7	53.7
53.6	16:38:37		53.6	53.6
53.8	16:38:38		53.8	53.8
53.8	16:38:39		53.8	53.8
54.5	16:38:40		54.5	54.5
55.2	16:38:41		55.2	55.2
55.3	16:38:42		55.3	55.3
55.3	16:38:43		55.3	55.3
54.6	16:38:44		54.6	54.6
54.8	16:38:45		54.8	54.8
54.9	16:38:46		54.9	54.9
55.2	16:38:47		55.2	55.2
56.6	16:38:48		56.6	56.6
57.3	16:38:49		57.3	57.3
56.7	16:38:50		56.7	56.7
56.1	16:38:51		56.1	56.1
55.6	16:38:52		55.6	55.6
55.0	16:38:53		55.0	55.0
54.5	16:38:54		54.5	54.5
55.3	16:38:55		55.3	55.3
55.1	16:38:56		55.1	55.1
54.3	16:38:57		54.3	54.3
53.8	16:38:58		53.8	53.8
54.7	16:38:59		54.7	54.7
55.8	16:39:00		55.8	55.8
56.4	16:39:01		56.4	56.4
55.6	16:39:02		55.6	55.6
54.6	16:39:03		54.6	54.6
53.8	16:39:04		53.8	53.8
53.0	16:39:05		53.0	53.0
52.5	16:39:06		52.5	52.5
51.7	16:39:07		51.7	51.7
51.3	16:39:08		51.3	51.3
50.8	16:39:09		50.8	50.8
51.5	16:39:10		51.5	51.5
51.9	16:39:11		51.9	51.9
51.4	16:39:12		51.4	51.4
52.6	16:39:13		52.6	52.6
52.4	16:39:14		52.4	52.4
51.6	16:39:15		51.6	51.6
51.9	16:39:16		51.9	51.9
52.3	16:39:17		52.3	52.3
52.4	16:39:18		52.4	52.4
54.6	16:39:19		54.6	54.6
56.7	16:39:20		56.7	56.7
55.8	16:39:21		55.8	55.8
54.2	16:39:22		54.2	54.2
53.1	16:39:23		53.1	53.1
52.9	16:39:24		52.9	52.9
53.7	16:39:25		53.7	53.7
54.3	16:39:26		54.3	54.3
54.4	16:39:27		54.4	54.4
54.9	16:39:28		54.9	54.9
55.7	16:39:29		55.7	55.7
55.3	16:39:30		55.3	55.3
54.5	16:39:31		54.5	54.5
53.9	16:39:32		53.9	53.9
53.9	16:39:33		53.9	53.9
54.0	16:39:34		54.0	54.0
53.9	16:39:35		53.9	53.9
57.2	16:39:36		57.2	57.2
59.3	16:39:37		59.3	59.3
57.8	16:39:38		57.8	57.8
55.6	16:39:39		55.6	55.6
54.8	16:39:40		54.8	54.8
54.3	16:39:41		54.3	54.3

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.0	16:42:45		53.0	53.0
51.1	16:42:46		51.1	51.1
49.4	16:42:47		49.4	49.4
48.6	16:42:48		48.6	48.6
48.4	16:42:49		48.4	48.4
48.5	16:42:50		48.5	48.5
48.6	16:42:51		48.6	48.6
48.3	16:42:52		48.3	48.3
47.6	16:42:53		47.6	47.6
46.5	16:42:54		46.5	46.5
45.8	16:42:55		45.8	45.8
44.9	16:42:56		44.9	44.9
43.8	16:42:57		43.8	43.8
42.5	16:42:58		42.5	42.5
41.5	16:42:59		41.5	41.5
41.3	16:43:00		41.3	41.3
41.3	16:43:01		41.3	41.3
41.3	16:43:02		41.3	41.3
41.0	16:43:03		41.0	41.0
40.9	16:43:04		40.9	40.9
41.0	16:43:05		41.0	41.0
41.1	16:43:06		41.1	41.1
41.4	16:43:07		41.4	41.4
41.5	16:43:08		41.5	41.5
41.8	16:43:09		41.8	41.8
41.6	16:43:10		41.6	41.6
41.7	16:43:11		41.7	41.7
42.0	16:43:12		42.0	42.0
42.4	16:43:13		42.4	42.4
43.4	16:43:14		43.4	43.4
43.7	16:43:15		43.7	43.7
43.2	16:43:16		43.2	43.2
43.9	16:43:17		43.9	43.9
44.2	16:43:18		44.2	44.2
43.8	16:43:19		43.8	43.8
44.0	16:43:20		44.0	44.0
44.3	16:43:21		44.3	44.3
43.7	16:43:22		43.7	43.7
43.2	16:43:23		43.2	43.2
43.2	16:43:24		43.2	43.2
43.3	16:43:25		43.3	43.3
43.5	16:43:26		43.5	43.5
43.7	16:43:27		43.7	43.7
43.9	16:43:28		43.9	43.9
44.4	16:43:29		44.4	44.4
45.2	16:43:30		45.2	45.2
47.1	16:43:31		47.1	47.1
50.5	16:43:32		50.5	50.5
51.5	16:43:33		51.5	51.5
52.8	16:43:34		52.8	52.8
56.6	16:43:35		56.6	56.6
60.9	16:43:36		60.9	60.9
66.6	16:43:37		66.6	66.6
70.3	16:43:38		70.3	70.3
69.5	16:43:39		69.5	69.5
67.0	16:43:40		67.0	67.0
64.0	16:43:41		64.0	64.0
61.0	16:43:42		61.0	61.0
58.2	16:43:43		58.2	58.2
55.4	16:43:44		55.4	55.4
54.1	16:43:45		54.1	54.1
56.7	16:43:46		56.7	56.7
62.7	16:43:47		62.7	62.7
69.0	16:43:48		69.0	69.0
70.8	16:43:49		70.8	70.8
67.9	16:43:50		67.9	67.9
64.5	16:43:51		64.5	64.5
63.2	16:43:52		63.2	63.2
66.6	16:43:53		66.6	66.6
69.5	16:43:54		69.5	69.5
69.1	16:43:55		69.1	69.1
66.3	16:43:56		66.3	66.3
63.1	16:43:57		63.1	63.1
60.1	16:43:58		60.1	60.1
57.3	16:43:59		57.3	57.3
55.0	16:44:00		55.0	55.0
53.5	16:44:01		53.5	53.5
52.2	16:44:02		52.2	52.2
50.5	16:44:03		50.5	50.5
48.5	16:44:04		48.5	48.5
47.1	16:44:05		47.1	47.1
45.9	16:44:06		45.9	45.9
45.1	16:44:07		45.1	45.1
44.7	16:44:08		44.7	44.7
43.8	16:44:09		43.8	43.8
43.1	16:44:10		43.1	43.1
42.9	16:44:11		42.9	42.9
43.3	16:44:12		43.3	43.3
44.2	16:44:13		44.2	44.2
44.8	16:44:14		44.8	44.8
45.3	16:44:15		45.3	45.3
45.9	16:44:16		45.9	45.9
46.5	16:44:17		46.5	46.5
46.9	16:44:18		46.9	46.9
48.2	16:44:19		48.2	48.2
50.4	16:44:20		50.4	50.4
53.1	16:44:21		53.1	53.1
55.9	16:44:22		55.9	55.9
59.8	16:44:23		59.8	59.8
62.3	16:44:24		62.3	62.3
62.4	16:44:25		62.4	62.4
61.3	16:44:26		61.3	61.3
60.0	16:44:27		60.0	60.0
60.6	16:44:28		60.6	60.6
65.7	16:44:29		65.7	65.7
69.6	16:44:30		69.6	69.6
69.9	16:44:31		69.9	69.9
68.2	16:44:32		68.2	68.2
65.5	16:44:33		65.5	65.5
62.3	16:44:34		62.3	62.3
59.1	16:44:35		59.1	59.1
56.6	16:44:36		56.6	56.6
54.6	16:44:37		54.6	54.6
53.1	16:44:38		53.1	53.1
52.1	16:44:39		52.1	52.1
51.4	16:44:40		51.4	51.4
50.8	16:44:41		50.8	50.8
50.4	16:44:42		50.4	50.4
49.8	16:44:43		49.8	49.8
48.9	16:44:44		48.9	48.9
49.2	16:44:45		49.2	49.2
48.9	16:44:46		48.9	48.9
48.6	16:44:47		48.6	48.6
48.0	16:44:48		48.0	48.0
47.7	16:44:49		47.7	47.7
47.0	16:44:50		47.0	47.0
46.5	16:44:51		46.5	46.5
46.3	16:44:52		46.3	46.3
46.8	16:44:53		46.8	46.8
47.8	16:44:54		47.8	47.8
48.7	16:44:55		48.7	48.7
50.5	16:44:56		50.5	50.5
52.3	16:44:57		52.3	52.3
54.2	16:44:58		54.2	54.2
56.5	16:44:59		56.5	56.5
60.9	16:45:00		60.9	60.9
62.9	16:45:01		62.9	62.9
62.9	16:45:02		62.9	62.9
61.6	16:45:03		61.6	61.6
59.3	16:45:04		59.3	59.3
56.6	16:45:05		56.6	56.6
54.0	16:45:06		54.0	54.0
51.6	16:45:07		51.6	51.6
49.4	16:45:08		49.4	49.4
48.1	16:45:09		48.1	48.1
47.7	16:45:10		47.7	47.7
47.0	16:45:11		47.0	47.0
46.4	16:45:12		46.4	46.4
46.0	16:45:13		46.0	46.0
46.2	16:45:14		46.2	46.2
46.5	16:45:15		46.5	46.5
46.2	16:45:16		46.2	46.2
45.6	16:45:17		45.6	45.6
45.9	16:45:18		45.9	45.9
45.9	16:45:19		45.9	45.9
45.4	16:45:20		45.4	45.4
45.7	16:45:21		45.7	45.7
45.7	16:45:22		45.7	45.7
45.8	16:45:23		45.8	45.8
45.8	16:45:24		45.8	45.8
45.9	16:45:25		45.9	45.9
46.3	16:45:26		46.3	46.3

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
58.9	16:33:30		58.9	58.9
58.0	16:33:31		58.0	58.0
57.6	16:33:32		57.6	57.6
57.5	16:33:33		57.5	57.5
57.7	16:33:34		57.7	57.7
57.8	16:33:35		57.8	57.8
57.5	16:33:36		57.5	57.5
57.2	16:33:37		57.2	57.2
56.5	16:33:38		56.5	56.5
54.7	16:33:39		54.7	54.7
53.6	16:33:40		53.6	53.6
52.4	16:33:41		52.4	52.4
50.9	16:33:42		50.9	50.9
50.2	16:33:43		50.2	50.2
50.4	16:33:44		50.4	50.4
50.6	16:33:45		50.6	50.6
51.4	16:33:46		51.4	51.4
52.5	16:33:47		52.5	52.5
52.6	16:33:48		52.6	52.6
53.1	16:33:49		53.1	53.1
54.5	16:33:50		54.5	54.5
55.7	16:33:51		55.7	55.7
56.4	16:33:52		56.4	56.4
56.5	16:33:53		56.5	56.5
55.2	16:33:54		55.2	55.2
53.6	16:33:55		53.6	53.6
52.2	16:33:56		52.2	52.2
50.5	16:33:57		50.5	50.5
48.9	16:33:58		48.9	48.9
48.0	16:33:59		48.0	48.0
47.7	16:34:00		47.7	47.7
48.3	16:34:01		48.3	48.3
49.1	16:34:02		49.1	49.1
49.0	16:34:03		49.0	49.0
48.5	16:34:04		48.5	48.5
48.9	16:34:05		48.9	48.9
49.6	16:34:06		49.6	49.6
50.2	16:34:07		50.2	50.2
50.8	16:34:08		50.8	50.8
52.0	16:34:09		52.0	52.0
52.4	16:34:10		52.4	52.4
52.9	16:34:11		52.9	52.9
54.0	16:34:12		54.0	54.0
55.5	16:34:13		55.5	55.5
57.4	16:34:14		57.4	57.4
58.1	16:34:15		58.1	58.1
58.3	16:34:16		58.3	58.3
58.5	16:34:17		58.5	58.5
58.3	16:34:18		58.3	58.3
57.6	16:34:19		57.6	57.6
57.8	16:34:20		57.8	57.8
58.5	16:34:21		58.5	58.5
59.3	16:34:22		59.3	59.3
59.8	16:34:23		59.8	59.8
60.7	16:34:24		60.7	60.7
61.5	16:34:25		61.5	61.5
61.7	16:34:26		61.7	61.7
61.8	16:34:27		61.8	61.8
61.6	16:34:28		61.6	61.6
61.0	16:34:29		61.0	61.0
60.2	16:34:30		60.2	60.2
59.7	16:34:31		59.7	59.7
59.3	16:34:32		59.3	59.3
58.6	16:34:33		58.6	58.6
57.6	16:34:34		57.6	57.6
56.5	16:34:35		56.5	56.5
55.4	16:34:36		55.4	55.4
54.4	16:34:37		54.4	54.4
53.4	16:34:38		53.4	53.4
52.9	16:34:39		52.9	52.9
52.8	16:34:40		52.8	52.8
52.6	16:34:41		52.6	52.6
52.2	16:34:42		52.2	52.2
52.0	16:34:43		52.0	52.0
51.9	16:34:44		51.9	51.9
52.1	16:34:45		52.1	52.1
51.6	16:34:46		51.6	51.6
51.4	16:34:47		51.4	51.4
51.5	16:34:48		51.5	51.5
51.4	16:34:49		51.4	51.4
51.5	16:34:50		51.5	51.5
52.2	16:34:51		52.2	52.2
52.4	16:34:52		52.4	52.4
53.3	16:34:53		53.3	53.3
53.8	16:34:54		53.8	53.8
54.6	16:34:55		54.6	54.6
55.5	16:34:56		55.5	55.5
56.6	16:34:57		56.6	56.6
57.9	16:34:58		57.9	57.9
58.4	16:34:59		58.4	58.4
58.5	16:35:00		58.5	58.5
58.4	16:35:01		58.4	58.4
57.0	16:35:02		57.0	57.0
55.6	16:35:03		55.6	55.6
55.2	16:35:04		55.2	55.2
55.3	16:35:05		55.3	55.3
57.1	16:35:06		57.1	57.1
59.5	16:35:07		59.5	59.5
61.8	16:35:08		61.8	61.8
63.3	16:35:09		63.3	63.3
64.0	16:35:10		64.0	64.0
63.6	16:35:11		63.6	63.6
62.8	16:35:12		62.8	62.8
61.7	16:35:13		61.7	61.7
61.6	16:35:14		61.6	61.6
61.8	16:35:15		61.8	61.8
62.0	16:35:16		62.0	62.0
61.9	16:35:17		61.9	61.9
61.6	16:35:18		61.6	61.6
61.3	16:35:19		61.3	61.3
60.6	16:35:20		60.6	60.6
59.8	16:35:21		59.8	59.8
59.8	16:35:22		59.8	59.8
59.2	16:35:23		59.2	59.2
58.2	16:35:24		58.2	58.2
57.0	16:35:25		57.0	57.0
56.2	16:35:26		56.2	56.2
55.4	16:35:27		55.4	55.4
54.9	16:35:28		54.9	54.9
55.2	16:35:29		55.2	55.2
56.6	16:35:30		56.6	56.6
57.9	16:35:31		57.9	57.9
59.3	16:35:32		59.3	59.3
59.1	16:35:33		59.1	59.1
57.9	16:35:34		57.9	57.9
56.6	16:35:35		56.6	56.6
55.5	16:35:36		55.5	55.5
55.2	16:35:37		55.2	55.2
55.8	16:35:38		55.8	55.8
56.8	16:35:39		56.8	56.8
57.3	16:35:40		57.3	57.3
57.0	16:35:41		57.0	57.0
56.2	16:35:42		56.2	56.2
55.4	16:35:43		55.4	55.4
55.6	16:35:44		55.6	55.6
55.9	16:35:45		55.9	55.9
57.8	16:35:46		57.8	57.8
58.8	16:35:47		58.8	58.8
58.2	16:35:48		58.2	58.2
57.0	16:35:49		57.0	57.0
55.0	16:35:50		55.0	55.0
53.3	16:35:51		53.3	53.3
52.0	16:35:52		52.0	52.0
51.1	16:35:53		51.1	51.1
50.6	16:35:54		50.6	50.6
49.5	16:35:55		49.5	49.5
48.3	16:35:56		48.3	48.3
48.2	16:35:57		48.2	48.2
48.4	16:35:58		48.4	48.4
49.1	16:35:59		49.1	49.1
49.6	16:36:00		49.6	49.6
50.2	16:36:01		50.2	50.2
51.5	16:36:02		51.5	51.5
52.0	16:36:03		52.0	52.0
52.2	16:36:04		52.2	52.2
52.6	16:36:05		52.6	52.6
54.9	16:36:06		54.9	54.9
57.4	16:36:07		57.4	57.4
60.0	16:36:08		60.0	60.0
61.8	16:36:09		61.8	61.8
62.1	16:36:10		62.1	62.1
61.5	16:36:11		61.5	61.5

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.9	16:39:42		53.9	53.9
56.2	16:39:43		56.2	56.2
58.7	16:39:44		58.7	58.7
57.4	16:39:45		57.4	57.4
55.4	16:39:46		55.4	55.4
54.0	16:39:47		54.0	54.0
53.5	16:39:48		53.5	53.5
53.7	16:39:49		53.7	53.7
53.2	16:39:50		53.2	53.2
53.0	16:39:51		53.0	53.0
53.2	16:39:52		53.2	53.2
54.0	16:39:53		54.0	54.0
55.4	16:39:54		55.4	55.4
55.3	16:39:55		55.3	55.3
53.8	16:39:56		53.8	53.8
53.0	16:39:57		53.0	53.0
54.4	16:39:58		54.4	54.4
54.3	16:39:59		54.3	54.3
52.6	16:40:00		52.6	52.6
51.4	16:40:01		51.4	51.4
51.4	16:40:02		51.4	51.4
50.5	16:40:03		50.5	50.5
49.3	16:40:04		49.3	49.3
48.8	16:40:05		48.8	48.8
48.2	16:40:06		48.2	48.2
47.8	16:40:07		47.8	47.8
48.6	16:40:08		48.6	48.6
49.3	16:40:09		49.3	49.3
49.5	16:40:10		49.5	49.5
50.5	16:40:11		50.5	50.5
49.8	16:40:12		49.8	49.8
49.6	16:40:13		49.6	49.6
50.0	16:40:14		50.0	50.0
51.0	16:40:15		51.0	51.0
51.4	16:40:16		51.4	51.4
51.7	16:40:17		51.7	51.7
52.3	16:40:18		52.3	52.3
52.2	16:40:19		52.2	52.2
51.2	16:40:20		51.2	51.2
50.9	16:40:21		50.9	50.9
50.9	16:40:22		50.9	50.9
51.4	16:40:23		51.4	51.4
51.4	16:40:24		51.4	51.4
51.3	16:40:25		51.3	51.3
51.9	16:40:26		51.9	51.9
52.9	16:40:27		52.9	52.9
52.9	16:40:28		52.9	52.9
51.9	16:40:29		51.9	51.9
50.6	16:40:30		50.6	50.6
50.3	16:40:31		50.3	50.3
50.1	16:40:32		50.1	50.1
49.4	16:40:33		49.4	49.4
48.7	16:40:34		48.7	48.7
47.5	16:40:35		47.5	47.5
46.8	16:40:36		46.8	46.8
47.3	16:40:37		47.3	47.3
46.3	16:40:38		46.3	46.3
45.8	16:40:39		45.8	45.8
47.3	16:40:40		47.3	47.3
49.7	16:40:41		49.7	49.7
48.5	16:40:42		48.5	48.5
47.8	16:40:43		47.8	47.8
46.2	16:40:44		46.2	46.2
46.0	16:40:45		46.0	46.0
46.7	16:40:46		46.7	46.7
48.0	16:40:47		48.0	48.0
49.6	16:40:48		49.6	49.6
49.6	16:40:49		49.6	49.6
51.8	16:40:50		51.8	51.8
55.9	16:40:51		55.9	55.9
54.8	16:40:52		54.8	54.8
52.3	16:40:53		52.3	52.3
50.7	16:40:54		50.7	50.7
49.8	16:40:55		49.8	49.8
49.1	16:40:56		49.1	49.1
48.3	16:40:57		48.3	48.3
47.7	16:40:58		47.7	47.7
47.3	16:40:59		47.3	47.3
47.3	16:41:00		47.3	47.3
47.2	16:41:01		47.2	47.2
47.6	16:41:02		47.6	47.6
47.5	16:41:03		47.5	47.5
47.6	16:41:04		47.6	47.6
47.0	16:41:05		47.0	47.0
47.1	16:41:06		47.1	47.1
47.1	16:41:07		47.1	47.1
46.7	16:41:08		46.7	46.7
46.4	16:41:09		46.4	46.4
46.4	16:41:10		46.4	46.4
46.2	16:41:11		46.2	46.2
46.2	16:41:12		46.2	46.2
46.5	16:41:13		46.5	46.5
47.0	16:41:14		47.0	47.0
47.1	16:41:15		47.1	47.1
47.2	16:41:16		47.2	47.2
47.3	16:41:17		47.3	47.3
47.6	16:41:18		47.6	47.6
47.7	16:41:19		47.7	47.7
48.0	16:41:20		48.0	48.0
48.7	16:41:21		48.7	48.7
48.9	16:41:22		48.9	48.9
49.0	16:41:23		49.0	49.0
49.1	16:41:24		49.1	49.1
49.5	16:41:25		49.5	49.5
49.5	16:41:26		49.5	49.5
50.1	16:41:27		50.1	50.1
50.6	16:41:28		50.6	50.6
51.0	16:41:29		51.0	51.0
51.0	16:41:30		51.0	51.0
50.9	16:41:31		50.9	50.9
52.7	16:41:32		52.7	52.7
55.1	16:41:33		55.1	55.1
54.1	16:41:34		54.1	54.1
51.6	16:41:35		51.6	51.6
49.7	16:41:36		49.7	49.7
49.0	16:41:37		49.0	49.0
48.5	16:41:38		48.5	48.5
48.6	16:41:39		48.6	48.6
48.4	16:41:40		48.4	48.4
47.9	16:41:41		47.9	47.9
47.7	16:41:42		47.7	47.7
47.1	16:41:43		47.1	47.1
46.5	16:41:44		46.5	46.5
46.3	16:41:45		46.3	46.3
45.9	16:41:46		45.9	45.9
45.8	16:41:47		45.8	45.8
45.6	16:41:48		45.6	45.6
45.8	16:41:49		45.8	45.8
46.1	16:41:50		46.1	46.1
46.0	16:41:51		46.0	46.0
46.0	16:41:52		46.0	46.0
46.2	16:41:53		46.2	46.2
45.9	16:41:54		45.9	45.9
45.5	16:41:55		45.5	45.5
45.4	16:41:56		45.4	45.4
45.5	16:41:57		45.5	45.5
45.5	16:41:58		45.5	45.5
46.3	16:41:59		46.3	46.3
46.7	16:42:00		46.7	46.7
46.8	16:42:01		46.8	46.8
47.2	16:42:02		47.2	47.2
47.6	16:42:03		47.6	47.6
47.5	16:42:04		47.5	47.5
47.4	16:42:05		47.4	47.4
46.8	16:42:06		46.8	46.8
47.0	16:42:07		47.0	47.0
46.8	16:42:08		46.8	46.8
47.8	16:42:09		47.8	47.8
48.3	16:42:10		48.3	48.3
48.5	16:42:11		48.5	48.5
48.9	16:42:12		48.9	48.9
49.4	16:42:13		49.4	49.4
49.6	16:42:14		49.6	49.6
50.2	16:42:15		50.2	50.2
51.1	16:42:16		51.1	51.1
50.7	16:42:17		50.7	50.7
50.4	16:42:18		50.4	50.4
51.1	16:42:19		51.1	51.1
51.6	16:42:20		51.6	51.6
50.7	16:42:21		50.7	50.7
51.2	16:42:22		51.2	51.2
51.0	16:42:23		51.0	51.0

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
46.3	16:45:27		46.3	46.3
46.6	16:45:28		46.6	46.6
47.3	16:45:29		47.3	47.3
49.2	16:45:30		49.2	49.2
50.9	16:45:31		50.9	50.9
52.1	16:45:32		52.1	52.1
53.5	16:45:33		53.5	53.5
56.2	16:45:34		56.2	56.2
59.1	16:45:35		59.1	59.1
60.6	16:45:36		60.6	60.6
60.8	16:45:37		60.8	60.8
59.7	16:45:38		59.7	59.7
57.5	16:45:39		57.5	57.5
54.8	16:45:40		54.8	54.8
52.0	16:45:41		52.0	52.0
49.8	16:45:42		49.8	49.8
48.5	16:45:43		48.5	48.5
47.5	16:45:44		47.5	47.5
46.8	16:45:45		46.8	46.8
46.5	16:45:46		46.5	46.5
45.9	16:45:47		45.9	45.9
44.9	16:45:48		44.9	44.9
44.2	16:45:49		44.2	44.2
43.9	16:45:50		43.9	43.9
43.9	16:45:51		43.9	43.9
43.4	16:45:52		43.4	43.4
42.7	16:45:53		42.7	42.7
44.4	16:45:54		44.4	44.4
44.5	16:45:55		44.5	44.5
43.4	16:45:56		43.4	43.4
42.5	16:45:57		42.5	42.5
42.1	16:45:58		42.1	42.1
42.1	16:45:59		42.1	42.1
41.8	16:46:00		41.8	41.8
41.8	16:46:01		41.8	41.8
41.9	16:46:02		41.9	41.9
41.8	16:46:03		41.8	41.8
43.5	16:46:04		43.5	43.5
44.0	16:46:05		44.0	44.0
45.6	16:46:06		45.6	45.6
47.5	16:46:07		47.5	47.5
48.3	16:46:08		48.3	48.3
48.7	16:46:09		48.7	48.7
49.0	16:46:10		49.0	49.0
48.1	16:46:11		48.1	48.1
46.4	16:46:12		46.4	46.4
44.7	16:46:13		44.7	44.7
43.4	16:46:14		43.4	43.4
43.0	16:46:15		43.0	43.0
42.5	16:46:16		42.5	42.5
42.6	16:46:17		42.6	42.6
42.5	16:46:18		42.5	42.5
42.1	16:46:19		42.1	42.1
42.0	16:46:20		42.0	42.0
41.5	16:46:21		41.5	41.5
41.9	16:46:22		41.9	41.9
41.8	16:46:23		41.8	41.8
41.6	16:46:24		41.6	41.6
43.1	16:46:25		43.1	43.1
43.3	16:46:26		43.3	43.3
43.0	16:46:27		43.0	43.0
42.4	16:46:28		42.4	42.4
42.6	16:46:29		42.6	42.6
42.7	16:46:30		42.7	42.7
42.9	16:46:31		42.9	42.9
43.0	16:46:32		43.0	43.0
43.0	16:46:33		43.0	43.0
42.8	16:46:34		42.8	42.8
42.5	16:46:35		42.5	42.5
42.1	16:46:36		42.1	42.1
42.2	16:46:37		42.2	42.2
43.2	16:46:38		43.2	43.2
43.2	16:46:39		43.2	43.2
42.8	16:46:40		42.8	42.8
42.5	16:46:41		42.5	42.5
43.0	16:46:42		43.0	43.0
43.1	16:46:43		43.1	43.1
42.6	16:46:44		42.6	42.6
42.0	16:46:45		42.0	42.0
42.2	16:46:46		42.2	42.2
42.8	16:46:47		42.8	42.8
43.2	16:46:48		43.2	43.2
43.5	16:46:49		43.5	43.5
43.9	16:46:50		43.9	43.9
44.4	16:46:51		44.4	44.4
44.5	16:46:52		44.5	44.5
44.8	16:46:53		44.8	44.8
45.7	16:46:54		45.7	45.7
46.2	16:46:55		46.2	46.2
47.3	16:46:56		47.3	47.3
49.2	16:46:57		49.2	49.2
52.5	16:46:58		52.5	52.5
55.2	16:46:59		55.2	55.2
57.9	16:47:00		57.9	57.9
62.5	16:47:01		62.5	62.5
65.4	16:47:02		65.4	65.4
66.2	16:47:03		66.2	66.2
64.6	16:47:04		64.6	64.6
62.3	16:47:05		62.3	62.3
59.8	16:47:06		59.8	59.8
57.4	16:47:07		57.4	57.4
54.7	16:47:08		54.7	54.7
52.5	16:47:09		52.5	52.5
50.0	16:47:10		50.0	50.0
48.3	16:47:11		48.3	48.3
46.9	16:47:12		46.9	46.9
45.7	16:47:13		45.7	45.7
44.6	16:47:14		44.6	44.6
44.1	16:47:15		44.1	44.1
44.9	16:47:16		44.9	44.9
45.7	16:47:17		45.7	45.7
45.0	16:47:18		45.0	45.0
44.2	16:47:19		44.2	44.2
43.0	16:47:20		43.0	43.0
42.0	16:47:21		42.0	42.0
41.3	16:47:22		41.3	41.3
40.7	16:47:23		40.7	40.7
40.4	16:47:24		40.4	40.4
39.9	16:47:25		39.9	39.9
40.3	16:47:26		40.3	40.3
41.0	16:47:27		41.0	41.0
40.4	16:47:28		40.4	40.4
40.0	16:47:29		40.0	40.0
39.5	16:47:30		39.5	39.5
39.4	16:47:31		39.4	39.4
39.3	16:47:32		39.3	39.3
39.3	16:47:33		39.3	39.3
41.9	16:47:34		41.9	41.9
42.8	16:47:35		42.8	42.8
41.7	16:47:36		41.7	41.7
40.8	16:47:37		40.8	40.8
40.1	16:47:38		40.1	40.1
40.1	16:47:39		40.1	40.1
40.2	16:47:40		40.2	40.2
40.4	16:47:41		40.4	40.4
40.5	16:47:42		40.5	40.5
40.4	16:47:43		40.4	40.4
40.5	16:47:44		40.5	40.5
41.1	16:47:45		41.1	41.1
41.3	16:47:46		41.3	41.3
41.5	16:47:47		41.5	41.5
42.1	16:47:48		42.1	42.1
42.8	16:47:49		42.8	42.8
43.4	16:47:50		43.4	43.4
44.0	16:47:51		44.0	44.0
44.6	16:47:52		44.6	44.6
45.7	16:47:53		45.7	45.7
46.6	16:47:54		46.6	46.6
47.2	16:47:55		47.2	47.2
48.3	16:47:56		48.3	48.3
49.5	16:47:57		49.5	49.5
51.5	16:47:58		51.5	51.5
53.5	16:47:59		53.5	53.5
55.9	16:48:00		55.9	55.9
60.3	16:48:01		60.3	60.3
63.6	16:48:02		63.6	63.6
64.7	16:48:03		64.7	64.7
63.7	16:48:04		63.7	63.7
61.6	16:48:05		61.6	61.6
58.8	16:48:06		58.8	58.8
56.0	16:48:07		56.0	56.0
53.2	16:48:08		53.2	53.2

Site 1 - Near Northeast Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
61.4	16:36:12		61.4	61.4
61.4	16:36:13		61.4	61.4
60.9	16:36:14		60.9	60.9
60.1	16:36:15		60.1	60.1
58.9	16:36:16		58.9	58.9
57.5	16:36:17		57.5	57.5
56.1	16:36:18		56.1	56.1
55.0	16:36:19		55.0	55.0
54.4	16:36:20		54.4	54.4
54.0	16:36:21		54.0	54.0
53.8	16:36:22		53.8	53.8
54.0	16:36:23		54.0	54.0
54.1	16:36:24		54.1	54.1
54.2	16:36:25		54.2	54.2
53.8	16:36:26		53.8	53.8
53.5	16:36:27		53.5	53.5
53.0	16:36:28		53.0	53.0
52.0	16:36:29		52.0	52.0
51.5	16:36:30		51.5	51.5
50.9	16:36:31		50.9	50.9
50.1	16:36:32		50.1	50.1
48.9	16:36:33		48.9	48.9
48.2	16:36:34		48.2	48.2
47.9	16:36:35		47.9	47.9
47.6	16:36:36		47.6	47.6
47.5	16:36:37		47.5	47.5
47.8	16:36:38		47.8	47.8
48.3	16:36:39		48.3	48.3
49.1	16:36:40		49.1	49.1
50.4	16:36:41		50.4	50.4
50.8	16:36:42		50.8	50.8
51.9	16:36:43		51.9	51.9
53.1	16:36:44		53.1	53.1
54.3	16:36:45		54.3	54.3
54.8	16:36:46		54.8	54.8
55.6	16:36:47		55.6	55.6
56.3	16:36:48		56.3	56.3
57.4	16:36:49		57.4	57.4
58.4	16:36:50		58.4	58.4
59.1	16:36:51		59.1	59.1
59.5	16:36:52		59.5	59.5
59.9	16:36:53		59.9	59.9
60.3	16:36:54		60.3	60.3
60.3	16:36:55		60.3	60.3
60.1	16:36:56		60.1	60.1
60.0	16:36:57		60.0	60.0
60.6	16:36:58		60.6	60.6
60.6	16:36:59		60.6	60.6
60.7	16:37:00		60.7	60.7
60.5	16:37:01		60.5	60.5
60.3	16:37:02		60.3	60.3
60.1	16:37:03		60.1	60.1
59.9	16:37:04		59.9	59.9
59.6	16:37:05		59.6	59.6
58.5	16:37:06		58.5	58.5
57.7	16:37:07		57.7	57.7
57.2	16:37:08		57.2	57.2
57.7	16:37:09		57.7	57.7
58.2	16:37:10		58.2	58.2
58.6	16:37:11		58.6	58.6
58.5	16:37:12		58.5	58.5
57.4	16:37:13		57.4	57.4
56.4	16:37:14		56.4	56.4
55.8	16:37:15		55.8	55.8
55.5	16:37:16		55.5	55.5
56.3	16:37:17		56.3	56.3
57.4	16:37:18		57.4	57.4
58.3	16:37:19		58.3	58.3
59.0	16:37:20		59.0	59.0
59.6	16:37:21		59.6	59.6
60.5	16:37:22		60.5	60.5
61.4	16:37:23		61.4	61.4
60.9	16:37:24		60.9	60.9
60.2	16:37:25		60.2	60.2
59.4	16:37:26		59.4	59.4
58.5	16:37:27		58.5	58.5
58.6	16:37:28		58.6	58.6
59.0	16:37:29		59.0	59.0
58.8	16:37:30		58.8	58.8
58.0	16:37:31		58.0	58.0
56.9	16:37:32		56.9	56.9
55.7	16:37:33		55.7	55.7
54.4	16:37:34		54.4	54.4
53.2	16:37:35		53.2	53.2
52.3	16:37:36		52.3	52.3
51.6	16:37:37		51.6	51.6
51.0	16:37:38		51.0	51.0
50.9	16:37:39		50.9	50.9
52.1	16:37:40		52.1	52.1
53.3	16:37:41		53.3	53.3
54.4	16:37:42		54.4	54.4
54.8	16:37:43		54.8	54.8
55.2	16:37:44		55.2	55.2
54.6	16:37:45		54.6	54.6
53.0	16:37:46		53.0	53.0
52.0	16:37:47		52.0	52.0
50.7	16:37:48		50.7	50.7
49.8	16:37:49		49.8	49.8
48.9	16:37:50		48.9	48.9
48.7	16:37:51		48.7	48.7
49.2	16:37:52		49.2	49.2
49.9	16:37:53		49.9	49.9
51.6	16:37:54		51.6	51.6
53.7	16:37:55		53.7	53.7
56.1	16:37:56		56.1	56.1
58.0	16:37:57		58.0	58.0
59.3	16:37:58		59.3	59.3
59.9	16:37:59		59.9	59.9
58.7	16:38:00		58.7	58.7
57.1	16:38:01		57.1	57.1
55.7	16:38:02		55.7	55.7
54.3	16:38:03		54.3	54.3
53.0	16:38:04		53.0	53.0
51.6	16:38:05		51.6	51.6
50.6	16:38:06		50.6	50.6
50.1	16:38:07		50.1	50.1
50.5	16:38:08		50.5	50.5
51.2	16:38:09		51.2	51.2
52.9	16:38:10		52.9	52.9
55.4	16:38:11		55.4	55.4
56.0	16:38:12		56.0	56.0
55.6	16:38:13		55.6	55.6
54.9	16:38:14		54.9	54.9
53.9	16:38:15		53.9	53.9
53.2	16:38:16		53.2	53.2
52.4	16:38:17		52.4	52.4
53.0	16:38:18		53.0	53.0
54.0	16:38:19		54.0	54.0
54.2	16:38:20		54.2	54.2
53.2	16:38:21		53.2	53.2
52.1	16:38:22		52.1	52.1
51.1	16:38:23		51.1	51.1
50.9	16:38:24		50.9	50.9
51.4	16:38:25		51.4	51.4
50.6	16:38:26		50.6	50.6
50.0	16:38:27		50.0	50.0
49.7	16:38:28		49.7	49.7
49.2	16:38:29		49.2	49.2
48.6	16:38:30		48.6	48.6
47.8	16:38:31		47.8	47.8
47.4	16:38:32		47.4	47.4
47.0	16:38:33		47.0	47.0
47.0	16:38:34		47.0	47.0
47.0	16:38:35		47.0	47.0
46.3	16:38:36		46.3	46.3
46.0	16:38:37		46.0	46.0
45.7	16:38:38		45.7	45.7
46.2	16:38:39		46.2	46.2
47.1	16:38:40		47.1	47.1
47.5	16:38:41		47.5	47.5
47.1	16:38:42		47.1	47.1
47.6	16:38:43		47.6	47.6
49.0	16:38:44		49.0	49.0
50.3	16:38:45		50.3	50.3
50.6	16:38:46		50.6	50.6
51.0	16:38:47		51.0	51.0
51.1	16:38:48		51.1	51.1
50.8	16:38:49		50.8	50.8
51.2	16:38:50		51.2	51.2
51.5	16:38:51		51.5	51.5
52.2	16:38:52		52.2	52.2
52.8	16:38:53		52.8	52.8

Site 2 - On East Side of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.4	16:42:24		50.4	50.4
50.2	16:42:25		50.2	50.2
50.0	16:42:26		50.0	50.0
50.0	16:42:27		50.0	50.0
50.0	16:42:28		50.0	50.0
49.8	16:42:29		49.8	49.8
49.9	16:42:30		49.9	49.9
49.9	16:42:31		49.9	49.9
50.3	16:42:32		50.3	50.3
50.6	16:42:33		50.6	50.6
51.3	16:42:34		51.3	51.3
52.5	16:42:35		52.5	52.5
53.0	16:42:36		53.0	53.0
52.8	16:42:37		52.8	52.8
52.7	16:42:38		52.7	52.7
54.0	16:42:39		54.0	54.0
55.0	16:42:40		55.0	55.0
54.2	16:42:41		54.2	54.2
53.4	16:42:42		53.4	53.4
52.7	16:42:43		52.7	52.7
53.4	16:42:44		53.4	53.4
52.9	16:42:45		52.9	52.9
51.7	16:42:46		51.7	51.7
52.2	16:42:47		52.2	52.2
53.7	16:42:48		53.7	53.7
52.7	16:42:49		52.7	52.7
50.8	16:42:50		50.8	50.8
50.2	16:42:51		50.2	50.2
50.5	16:42:52		50.5	50.5
49.3	16:42:53		49.3	49.3
47.7	16:42:54		47.7	47.7
46.4	16:42:55		46.4	46.4
46.0	16:42:56		46.0	46.0
46.7	16:42:57		46.7	46.7
46.5	16:42:58		46.5	46.5
46.3	16:42:59		46.3	46.3
46.4	16:43:00		46.4	46.4
46.8	16:43:01		46.8	46.8
47.4	16:43:02		47.4	47.4
48.0	16:43:03		48.0	48.0
47.7	16:43:04		47.7	47.7
47.6	16:43:05		47.6	47.6
47.7	16:43:06		47.7	47.7
48.5	16:43:07		48.5	48.5
50.1	16:43:08		50.1	50.1
50.7	16:43:09		50.7	50.7
51.0	16:43:10		51.0	51.0
51.4	16:43:11		51.4	51.4
50.4	16:43:12		50.4	50.4
50.8	16:43:13		50.8	50.8
50.7	16:43:14		50.7	50.7
50.7	16:43:15		50.7	50.7
50.5	16:43:16		50.5	50.5
50.9	16:43:17		50.9	50.9
50.7	16:43:18		50.7	50.7
50.1	16:43:19		50.1	50.1
49.4	16:43:20		49.4	49.4
49.1	16:43:21		49.1	49.1
49.4	16:43:22		49.4	49.4
48.8	16:43:23		48.8	48.8
48.9	16:43:24		48.9	48.9
49.8	16:43:25		49.8	49.8
50.1	16:43:26		50.1	50.1
49.7	16:43:27		49.7	49.7
49.8	16:43:28		49.8	49.8
50.2	16:43:29		50.2	50.2
50.3	16:43:30		50.3	50.3
49.9	16:43:31		49.9	49.9
51.9	16:43:32		51.9	51.9
55.6	16:43:33		55.6	55.6
55.8	16:43:34		55.8	55.8
54.4	16:43:35		54.4	54.4
54.3	16:43:36		54.3	54.3
55.2	16:43:37		55.2	55.2
56.0	16:43:38		56.0	56.0
55.0	16:43:39		55.0	55.0
54.7	16:43:40		54.7	54.7
54.6	16:43:41		54.6	54.6
53.5	16:43:42		53.5	53.5
53.0	16:43:43		53.0	53.0
52.6	16:43:44		52.6	52.6
53.2	16:43:45		53.2	53.2
55.4	16:43:46		55.4	55.4
55.6	16:43:47		55.6	55.6
53.3	16:43:48		53.3	53.3
51.5	16:43:49		51.5	51.5
50.5	16:43:50		50.5	50.5
49.9	16:43:51		49.9	49.9
49.6	16:43:52		49.6	49.6
48.6	16:43:53		48.6	48.6
47.8	16:43:54		47.8	47.8
47.5	16:43:55		47.5	47.5
47.3	16:43:56		47.3	47.3
47.1	16:43:57		47.1	47.1
47.0	16:43:58		47.0	47.0
47.5	16:43:59		47.5	47.5
47.1	16:44:00		47.1	47.1
46.8	16:44:01		46.8	46.8
47.9	16:44:02		47.9	47.9
50.0	16:44:03		50.0	50.0
50.3	16:44:04		50.3	50.3
50.3	16:44:05		50.3	50.3
52.5	16:44:06		52.5	52.5
53.5	16:44:07		53.5	53.5
51.8	16:44:08		51.8	51.8
50.9	16:44:09		50.9	50.9
50.1	16:44:10		50.1	50.1
49.5	16:44:11		49.5	49.5
49.3	16:44:12		49.3	49.3
48.7	16:44:13		48.7	48.7
48.3	16:44:14		48.3	48.3
47.8	16:44:15		47.8	47.8
48.0	16:44:16		48.0	48.0
48.2	16:44:17		48.2	48.2
47.6	16:44:18		47.6	47.6
46.7	16:44:19		46.7	46.7
46.3	16:44:20		46.3	46.3
46.5	16:44:21		46.5	46.5
46.7	16:44:22		46.7	46.7
46.7	16:44:23		46.7	46.7
46.4	16:44:24		46.4	46.4
46.6	16:44:25		46.6	46.6
47.4	16:44:26		47.4	47.4
49.6	16:44:27		49.6	49.6
50.1	16:44:28		50.1	50.1
50.1	16:44:29		50.1	50.1
50.2	16:44:30		50.2	50.2
50.5	16:44:31		50.5	50.5
51.2	16:44:32		51.2	51.2
52.8	16:44:33		52.8	52.8
52.7	16:44:34		52.7	52.7
52.2	16:44:35		52.2	52.2
51.4	16:44:36		51.4	51.4
51.5	16:44:37		51.5	51.5
51.7	16:44:38		51.7	51.7
53.4	16:44:39		53.4	53.4
55.8	16:44:40		55.8	55.8
55.3	16:44:41		55.3	55.3
53.0	16:44:42		53.0	53.0
50.9	16:44:43		50.9	50.9
49.4	16:44:44		49.4	49.4
48.1	16:44:45		48.1	48.1
47.7	16:44:46		47.7	47.7
46.6	16:44:47		46.6	46.6
45.6	16:44:48		45.6	45.6
45.7	16:44:49		45.7	45.7
45.9	16:44:50		45.9	45.9
46.2	16:44:51		46.2	46.2
47.5	16:44:52		47.5	47.5
48.3	16:44:53		48.3	48.3
47.3	16:44:54		47.3	47.3
46.8	16:44:55		46.8	46.8
46.8	16:44:56		46.8	46.8
48.5	16:44:57		48.5	48.5
48.1	16:44:58		48.1	48.1
48.0	16:44:59		48.0	48.0
48.9	16:45:00		48.9	48.9
48.8	16:45:01		48.8	48.8
48.2	16:45:02		48.2	48.2
48.0	16:45:03		48.0	48.0
47.9	16:45:04		47.9	47.9
47.7	16:45:05		47.7	47.7

Site 3 - Near Southwest Corner of Project Site

SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
50.8	16:48:09		50.8	50.8
48.8	16:48:10		48.8	48.8
47.1	16:48:11		47.1	47.1
46.1	16:48:12		46.1	46.1
45.9	16:48:13		45.9	45.9
45.6	16:48:14		45.6	45.6
45.7	16:48:15		45.7	45.7
46.0	16:48:16		46.0	46.0
46.4	16:48:17		46.4	46.4
48.0	16:48:18		48.0	48.0
50.7	16:48:19		50.7	50.7
54.3	16:48:20		54.3	54.3
58.4	16:48:21		58.4	58.4
63.8	16:48:22		63.8	63.8
67.3	16:48:23		67.3	67.3
67.4	16:48:24		67.4	67.4
65.3	16:48:25		65.3	65.3
65.4	16:48:26		65.4	65.4
67.2	16:48:27		67.2	67.2
67.2	16:48:28		67.2	67.2
65.5	16:48:29		65.5	65.5
63.3	16:48:30		63.3	63.3
60.9	16:48:31		60.9	60.9
58.7	16:48:32		58.7	58.7
56.5	16:48:33		56.5	56.5
54.9	16:48:34		54.9	54.9
53.6	16:48:35		53.6	53.6
52.9	16:48:36		52.9	52.9
51.9	16:48:37		51.9	51.9
50.7	16:48:38		50.7	50.7
49.5	16:48:39		49.5	49.5
48.4	16:48:40		48.4	48.4
47.7	16:48:41		47.7	47.7
47.7	16:48:42		47.7	47.7
48.3	16:48:43		48.3	48.3
49.1	16:48:44		49.1	49.1
49.3	16:48:45		49.3	49.3
49.4	16:48:46		49.4	49.4
49.9	16:48:47		49.9	49.9
50.5	16:48:48		50.5	50.5
50.4	16:48:49		50.4	50.4
50.5	16:48:50		50.5	50.5
51.1	16:48:51		51.1	51.1
51.6	16:48:52		51.6	51.6
52.5	16:48:53		52.5	52.5
53.1	16:48:54		53.1	53.1
54.5	16:48:55		54.5	54.5
56.4	16:48:56		56.4	56.4
58.0	16:48:57		58.0	58.0
60.5	16:48:58		60.5	60.5
62.2	16:48:59		62.2	62.2
65.0	16:49:00		65.0	65.0
69.7	16:49:01		69.7	69.7
74.4	16:49:02		74.4	74.4
76.1	16:49:03		76.1	76.1
74.6	16:49:04		74.6	74.6
71.7	16:49:05		71.7	71.7
68.6	16:49:06		68.6	68.6
65.4	16:49:07		65.4	65.4
62.6	16:49:08		62.6	62.6
60.2	16:49:09		60.2	60.2
58.1	16:49:10		58.1	58.1
56.3	16:49:11		56.3	56.3
55.0	16:49:12		55.0	55.0
55.1	16:49:13		55.1	55.1
54.8	16:49:14		54.8	54.8
54.0	16:49:15		54.0	54.0
53.1	16:49:16		53.1	53.1
52.9	16:49:17		52.9	52.9
52.8	16:49:18		52.8	52.8
52.1	16:49:19		52.1	52.1
52.4	16:49:20		52.4	52.4
53.3	16:49:21		53.3	53.3
54.5	16:49:22		54.5	54.5
56.9	16:49:23		56.9	56.9
60.2	16:49:24		60.2	60.2
64.3	16:49:25		64.3	64.3
69.7	16:49:26		69.7	69.7
72.6	16:49:27		72.6	72.6
72.6	16:49:28		72.6	72.6
72.8	16:49:29		72.8	72.8
71.5	16:49:30		71.5	71.5
69.1	16:49:31		69.1	69.1
66.3	16:49:32		66.3	66.3
63.5	16:49:33		63.5	63.5
60.7	16:49:34		60.7	60.7
57.9	16:49:35		57.9	57.9
55.5	16:49:36		55.5	55.5
55.0	16:49:37		55.0	55.0
57.2	16:49:38		57.2	57.2
61.9	16:49:39		61.9	61.9
66.6	16:49:40		66.6	66.6
68.0	16:49:41		68.0	68.0
66.0	16:49:42		66.0	66.0
62.9	16:49:43		62.9	62.9
60.0	16:49:44		60.0	60.0
57.1	16:49:45		57.1	57.1
54.7	16:49:46		54.7	54.7
52.8	16:49:47		52.8	52.8
51.7	16:49:48		51.7	51.7
52.1	16:49:49		52.1	52.1
54.2	16:49:50		54.2	54.2
57.3	16:49:51		57.3	57.3
63.3	16:49:52		63.3	63.3
68.1	16:49:53		68.1	68.1
70.1	16:49:54		70.1	70.1
67.8	16:49:55		67.8	67.8
64.6	16:49:56		64.6	64.6
61.3	16:49:57		61.3	61.3
58.3	16:49:58		58.3	58.3
56.1	16:49:59		56.1	56.1
54.4	16:50:00		54.4	54.4
53.3	16:50:01		53.3	53.3
52.0	16:50:02		52.0	52.0
50.2	16:50:03		50.2	50.2
48.4	16:50:04		48.4	48.4
47.3	16:50:05		47.3	47.3
46.8	16:50:06		46.8	46.8
46.6	16:50:07		46.6	46.6
46.1	16:50:08		46.1	46.1
46.0	16:50:09		46.0	46.0
46.1	16:50:10		46.1	46.1
46.0	16:50:11		46.0	46.0
45.3	16:50:12		45.3	45.3
44.4	16:50:13		44.4	44.4
43.9	16:50:14		43.9	43.9
44.0	16:50:15		44.0	44.0
43.3	16:50:16		43.3	43.3
42.3	16:50:17		42.3	42.3
42.2	16:50:18		42.2	42.2
42.3	16:50:19		42.3	42.3
41.8	16:50:20		41.8	41.8
41.3	16:50:21		41.3	41.3
41.5	16:50:22		41.5	41.5
41.1	16:50:23		41.1	41.1
40.7	16:50:24		40.7	40.7
40.3	16:50:25		40.3	40.3
41.1	16:50:26		41.1	41.1
42.2	16:50:27		42.2	42.2
41.3	16:50:28		41.3	41.3
41.6	16:50:29		41.6	41.6
42.2	16:50:30		42.2	42.2
42.9	16:50:31		42.9	42.9
43.5	16:50:32		43.5	43.5
43.7	16:50:33		43.7	43.7
43.6	16:50:34		43.6	43.6
43.7	16:50:35		43.7	43.7
43.6	16:50:36		43.6	43.6
43.9	16:50:37		43.9	43.9
44.2	16:50:38		44.2	44.2
44.6	16:50:39		44.6	44.6
44.8	16:50:40		44.8	44.8
45.5	16:50:41		45.5	45.5
46.1	16:50:42		46.1	46.1
46.6	16:50:43		46.6	46.6
47.5	16:50:44		47.5	47.5
48.5	16:50:45		48.5	48.5
49.9	16:50:46		49.9	49.9
51.7	16:50:47		51.7	51.7
54.8	16:50:48		54.8	54.8
57.0	16:50:49		57.0	57.0
59.8	16:50:50		59.8	59.8

Site 1 - Near Northeast Corner of Project Site					Site 2 - On East Side of Project Site					Site 3 - Near Southwest Corner of Project Site				
SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL	SPL	Time	Leq (1 hour Avg.)	Ldn	CNEL
53.7	16:38:54		53.7	53.7	48.1	16:45:06		48.1	48.1	63.8	16:50:51		63.8	63.8
54.7	16:38:55		54.7	54.7	48.2	16:45:07		48.2	48.2	66.7	16:50:52		66.7	66.7
55.5	16:38:56		55.5	55.5	48.4	16:45:08		48.4	48.4	67.7	16:50:53		67.7	67.7
56.5	16:38:57		56.5	56.5	49.3	16:45:09		49.3	49.3	68.5	16:50:54		68.5	68.5
56.7	16:38:58		56.7	56.7	49.7	16:45:10		49.7	49.7	70.2	16:50:55		70.2	70.2
57.3	16:38:59		57.3	57.3	50.0	16:45:11		50.0	50.0	70.0	16:50:56		70.0	70.0
58.1	16:39:00		58.1	58.1	50.3	16:45:12		50.3	50.3	67.8	16:50:57		67.8	67.8
59.5	16:39:01		59.5	59.5	50.3	16:45:13		50.3	50.3	65.1	16:50:58		65.1	65.1
60.9	16:39:02		60.9	60.9	50.6	16:45:14		50.6	50.6	62.5	16:50:59		62.5	62.5
62.4	16:39:03		62.4	62.4	52.4	16:45:15		52.4	52.4	59.8	16:51:00		59.8	59.8
63.4	16:39:04		63.4	63.4	52.5	16:45:16		52.5	52.5	57.2	16:51:01		57.2	57.2
63.1	16:39:05		63.1	63.1	51.3	16:45:17		51.3	51.3	55.0	16:51:02		55.0	55.0
61.5	16:39:06		61.5	61.5	50.3	16:45:18		50.3	50.3	53.2	16:51:03		53.2	53.2
60.8	16:39:07		60.8	60.8	49.7	16:45:19		49.7	49.7	51.6	16:51:04		51.6	51.6
60.0	16:39:08		60.0	60.0	49.5	16:45:20		49.5	49.5	50.5	16:51:05		50.5	50.5
58.8	16:39:09		58.8	58.8	48.8	16:45:21		48.8	48.8	49.7	16:51:06		49.7	49.7
59.2	16:39:10		59.2	59.2	48.4	16:45:22		48.4	48.4	48.6	16:51:07		48.6	48.6
60.9	16:39:11		60.9	60.9	48.6	16:45:23		48.6	48.6	50.4	16:51:08		50.4	50.4
62.3	16:39:12		62.3	62.3	48.0	16:45:24		48.0	48.0	51.2	16:51:09		51.2	51.2
64.2	16:39:13		64.2	64.2	47.5	16:45:25		47.5	47.5	50.3	16:51:10		50.3	50.3
65.5	16:39:14		65.5	65.5	46.7	16:45:26		46.7	46.7	50.2	16:51:11		50.2	50.2
66.3	16:39:15		66.3	66.3	46.4	16:45:27		46.4	46.4	50.5	16:51:12		50.5	50.5
66.3	16:39:16		66.3	66.3	48.2	16:45:28		48.2	48.2	52.7	16:51:13		52.7	52.7
65.9	16:39:17		65.9	65.9	47.3	16:45:29		47.3	47.3	54.7	16:51:14		54.7	54.7
65.7	16:39:18		65.7	65.7	46.7	16:45:30		46.7	46.7	56.2	16:51:15		56.2	56.2
66.1	16:39:19		66.1	66.1	46.6	16:45:31		46.6	46.6	58.4	16:51:16		58.4	58.4
65.5	16:39:20		65.5	65.5	46.2	16:45:32		46.2	46.2	62.2	16:51:17		62.2	62.2
64.7	16:39:21		64.7	64.7	48.5	16:45:33		48.5	48.5	64.2	16:51:18		64.2	64.2
64.1	16:39:22		64.1	64.1	47.5	16:45:34		47.5	47.5	63.9	16:51:19		63.9	63.9
62.9	16:39:23		62.9	62.9	46.5	16:45:35		46.5	46.5	61.7	16:51:20		61.7	61.7
61.9	16:39:24		61.9	61.9	46.0	16:45:36		46.0	46.0	59.0	16:51:21		59.0	59.0
61.1	16:39:25		61.1	61.1	47.0	16:45:37		47.0	47.0	56.2	16:51:22		56.2	56.2
59.9	16:39:26		59.9	59.9	46.6	16:45:38		46.6	46.6	53.7	16:51:23		53.7	53.7
58.5	16:39:27		58.5	58.5	46.2	16:45:39		46.2	46.2	51.2	16:51:24		51.2	51.2
58.0	16:39:28		58.0	58.0	48.1	16:45:40		48.1	48.1	49.5	16:51:25		49.5	49.5
57.4	16:39:29		57.4	57.4	47.6	16:45:41		47.6	47.6	48.1	16:51:26		48.1	48.1
56.5	16:39:30		56.5	56.5	47.6	16:45:42		47.6	47.6	47.4	16:51:27		47.4	47.4
56.3	16:39:31		56.3	56.3	48.2	16:45:43		48.2	48.2	46.6	16:51:28		46.6	46.6
56.4	16:39:32		56.4	56.4	48.6	16:45:44		48.6	48.6	45.7	16:51:29		45.7	45.7
57.3	16:39:33		57.3	57.3	48.3	16:45:45		48.3	48.3	45.3	16:51:30		45.3	45.3
57.7	16:39:34		57.7	57.7	48.3	16:45:46		48.3	48.3	45.7	16:51:31		45.7	45.7
56.5	16:39:35		56.5	56.5	47.7	16:45:47		47.7	47.7	45.3	16:51:32		45.3	45.3
55.1	16:39:36		55.1	55.1	49.4	16:45:48		49.4	49.4	45.7	16:51:33		45.7	45.7
54.4	16:39:37		54.4	54.4	48.6	16:45:49		48.6	48.6	46.0	16:51:34		46.0	46.0
53.2	16:39:38		53.2	53.2	47.4	16:45:50		47.4	47.4	46.0	16:51:35		46.0	46.0
52.1	16:39:39		52.1	52.1	47.9	16:45:51		47.9	47.9	45.6	16:51:36		45.6	45.6
51.8	16:39:40		51.8	51.8	48.0	16:45:52		48.0	48.0	45.7	16:51:37		45.7	45.7
51.8	16:39:41		51.8	51.8	47.3	16:45:53		47.3	47.3	46.3	16:51:38		46.3	46.3
53.3	16:39:42		53.3	53.3	47.1	16:45:54		47.1	47.1	47.5	16:51:39		47.5	47.5
54.6	16:39:43		54.6	54.6	46.9	16:45:55		46.9	46.9	48.7	16:51:40		48.7	48.7
56.1	16:39:44		56.1	56.1	47.4	16:45:56		47.4	47.4	50.0	16:51:41		50.0	50.0
57.0	16:39:45		57.0	57.0	47.9	16:45:57		47.9	47.9	51.4	16:51:42		51.4	51.4
56.4	16:39:46		56.4	56.4	47.9	16:45:58		47.9	47.9	53.5	16:51:43		53.5	53.5
55.0	16:39:47		55.0	55.0	48.0	16:45:59		48.0	48.0	56.7	16:51:44		56.7	56.7
53.6	16:39:48		53.6	53.6	47.8	16:46:00		47.8	47.8	59.6	16:51:45		59.6	59.6
51.9	16:39:49		51.9	51.9	48.4	16:46:01		48.4	48.4	63.1	16:51:46		63.1	63.1
51.4	16:39:50		51.4	51.4	51.6	16:46:02		51.6	51.6	67.4	16:51:47		67.4	67.4
51.8	16:39:51		51.8	51.8	53.8	16:46:03		53.8	53.8	68.9	16:51:48		68.9	68.9
52.4	16:39:52		52.4	52.4	53.2	16:46:04		53.2	53.2	67.7	16:51:49		67.7	67.7
52.5	16:39:53		52.5	52.5	51.7	16:46:05		51.7	51.7	65.6	16:51:50		65.6	65.6
52.7	16:39:54		52.7	52.7	49.8	16:46:06		49.8	49.8	62.8	16:51:51		62.8	62.8
53.6	16:39:55		53.6	53.6	48.3	16:46:07		48.3	48.3	59.7	16:51:52		59.7	59.7
54.6	16:39:56	58.1	54.6	54.6	47.4	16:46:08	53.4	47.4	47.4	56.8	16:51:53	61.0	56.8	56.8
55.7	16:39:57	58.1	55.7	55.7	46.4	16:46:09	53.4	46.4	46.4	54.3	16:51:54	61.0	54.3	54.3
56.5	16:39:58	58.1	56.5	56.5	46.3	16:46:10	53.4	46.3	46.3	52.0	16:51:55	61.1	52.0	52.0
57.3	16:39:59	58.1	57.3	57.3	45.8	16:46:11	53.4	45.8	45.8	50.1	16:51:56	61.1	50.1	50.1
58.4	16:40:00	58.1	58.4	58.4	45.8	16:46:12	53.4	45.8	45.8	48.5	16:51:57	61.1	48.5	48.5
58.3	16:40:01	58.1	58.3	58.3	45.3	16:46:13	53.4	45.3	45.3	47.5	16:51:58	61.1	47.5	47.5
57.2	16:40:02	58.1	57.2	57.2	45.3	16:46:14	53.4	45.3	45.3	48.5	16:51:59	61.1	48.5	48.5
56.6	16:40:03	58.1	56.6	56.6	45.5	16:46:15	53.4	45.5	45.5	48.6	16:52:00	61.1	48.6	48.6
56.0	16:40:04	58.1	56.0	56.0	45.0	16:46:16	53.4	45.0	45.0	47.4	16:52:01	61.1	47.4	47.4
55.6	16:40:05	58.1	55.6	55.6	44.7	16:46:17	53.4	44.7	44.7	46.8	16:52:02	61.0	46.8	46.8
55.7	16:40:06	58.1	55.7	55.7	44.7	16:46:18	53.4	44.7	44.7	46.5	16:52:03	61.0	46.5	46.5
56.5	16:40:07	58.1	56.5	56.5	44.8	16:46:19	53.3	44.8	44.8	46.5	16:52:04	61.0	46.5	46.5
56.0	16:40:08	58.1	56.0	56.0	44.8	16:46:20	53.3	44.8	44.8	46.5	16:52:05	61.0	46.5	46.5
54.4	16:40:09	58.1	54.4	54.4	44.6	16:46:21	53.3	44.6	44.6	47.2	16:52:06	61.0	47.2	47.2
53.0	16:40:10	58.1	53.0	53.0	44.7	16:46:22	53.3	44.7	44.7	46.1	16:52:07	61.0	46.1	46.1
51.5	16:40:11	58.1	51.5	51.5	45.2	16:46:23	53.2	45.2	45.2	45.2	16:52:08	61.0	45.2	45.2
50.5	16:40:12	58.1	50.5	50.5	45.1	16:46:24	53.2	45.1	45.1	44.3	16:52:09	61.0	44.3	44.3
49.8	16:40:13	58.1	49.8	49.8	44.8	16:46:25	53.2	44.8	44.8	44.3	16:52:10	61.0	44.3	44.3
48.9	16:40:14	58.1	48.9	48.9	44.8	16:46:26	53.2	44.8	44.8	44.1	16:52:11	61.0	44.1	44.1
49.4	16:40:15	58.1	49.4	49.4	45.0	16:46:27	53.2	45.0	45.0	43.6	16:52:12	61.0	43.6	43.6
50.3	16:40:16	58.1	50.3	50.3	45.2	16:46:28	53.2	45.2	45.2	42.5	16:52:13	61.0	42.5	42.5
51.9	16:40:17	58.1	51.9	51.9	46.0	16:46:29	53.2	46.0	46.0	41.8	16:52:14	61.0	41.8	41.8
54.2	16:40:18	58.1	54.2	54.2	46.0	16:46:30	53.2	46.0	46.0	41.5	16:52:15	61.0	41.5	41.5
57.2	16:40:19	58.1	57.2	57.2	45.5	16:46:31	53.2	45.5	45.5	41.7	16:52:16	61.0	41.7	41.7
57.9	16:40:20	58.1	57.9	57.9	45.5	16:46:32	53.1	45.5	45.5	41.6	16:52:17	61.0	41.6	41.6
57.4	16:40:21	58.1	57.4	57.4	45.7	16:46:33	53.1	45.7	45.7	41.2	16:52:18	61.0	41.2	41.2
55.5	16:40:22	58.1	55.5	55.5	45.6	16:46:34	53.1	45.6	45.6	41.5	16:52:19	61.0	41.5	41.5
53.2	16:40:23	58.1	53.2	53.2	46.6	16:46:35	53.1	46.6	46.6	41.8	16:52:20	61.0	41.8	41.8
51.4	16:40:24	58.0	51.4	51.4	46.6	16:46:36	53.0	46.6	46.6	41.5	16:52:21	61.0	41.5	41.5
49.7	16:40:25	58.0	49.7	49.7	46.1	16:46:37	53.0	46.1	46.1	41.2	16:52:22	61.0	41.2	41.2
49.1	16:40:26	58.0	49.1	49.1	45.9	16:46:38	53.0	45.9	45.9	41.4	16:52:23	61.0	41.4	41.4
47.6	16:40:27	58.0	47.6	47.6	46.8	16:46:39	53.0	46.8	46.8	41.3	16:52:24	61.0	41.3	41.3
46.9	16:40:28	58.0	46.9	46.9	47.4	16:46:40	53.0	47.4	47.4	41.0	16:52:25	61.0	41.0	41.0
46.8	16:40:29	58.0	46.8	46.8	47.0	16:46:41	53.0	47.0	47.0	41.2	16:52:26	61.0	41.2	41.2
46.8	16:40:30	58.0	46.8	46.8	46.9	16:46:42	53.0	46.9	46.9	41.4	16:52:27	61.0	41.4	41.4
47.5	16:40:31	58.0	47.5	47.5	46.9	16:46:43	52.9	46.9	46.9	41.5	16:52:28	61.0	41.5	41.5
47.9	16:40:32	58.0	47.9	47.9	47.0	16:46:44	52.9	47.0	47.0	41.5	16:52:29	61.0	41.5	41.5
49.3	16:40:33	58.0	49.3	49.3	47.2	16:46:45	52.9	47.2	47.2	41.8	16:52:30	61.0	41.8	41.8
49.9	16:40:34	57.9	49.9	49.9	47.4	16:46:46	52.9	47.4	47.4	42.2	16:52:31	61.0	42.2	42.2
50.4	16:40:35	57.9	50.4	50.4	47.5	16:46:47	52.9	47.5	47.5	43.9	16:52:32	61.0	43.9	43.9
49.9	16:40:36	57.9	49.9	49.9	47.9	16:46:48	52.9	47.9	47.9	45.1	16:52:33	61.0	45.1	45.1
49.4	16:40:37	57.9	49.4	49.4	48.3	16:46:49	52.8	48.3	48.3	44.9	16:52:34	61.0	44.9	44.9
49.3	16:40:38	57.9	49.3	49.3	47.8	16:46:50	52.8	47.8	47.8	45.0	16:52:35	61.0	45.0	45.0
49.0	16:40:39	57.9	49.0	49.0	47.6	16:46:51	52.8	47.6	47.6	45.6	16:52:36	60.9	45.6	45.6
48.9	16:40:40	57.9	48.9	48.9	47.3	16:46:52	52.8	47.3	47.3	47.3	16:52:37	60.9	47.3	47.3
49.3	16:40:41	57.9	49.3	49.3	47.0	16:46:53	52.7	47.0	47.0	49.9	16:52:38	60.9	49.9	49.9
49.5	16:40:42	57.9	49.5	49.5	46.9	16:46:54	52.7	46.9	46.9	53.2	16:52:39	60.9	53.2	53.2
50.4	16:40:43	57.9	50.4	50.4	46.7	16:46:55	52.7	46.7	46.7	56.7	16:52:40	60.9	56.7	56.7
49.7	16:40:44	57.9	49.7	49.7	46.3	16:46:56	52.7	46.3	46.3	60.9	16:52:41	60.9	60.9	60.9
49.6	16:40:45	57.9	49.6	49.6	46.7	16:46:57	52.7	46.7	46.7	63.9	16:52:42	60.9	63.9	63.9
49.5	16:40:46	57.9	49.5	49.5	46.8	16:46:58	52.7	46.8	46.8	65.3	16:52:43	60.9	65.3	65.3
50.5	16:40:47	57.9	50.5	50.5	46.6	16:46:59	52.7	46.6	46.6	64.3	16:52:44	60.9	64.3	64.3
50.1	16:40:48	57.9	50.1	50.1	46.6	16:47:00	52.7	46.6	46.6	62.1	16:52:45	60.9	62.1	62.1
49.7	16:40:49	57.9	49.7	49.7	47.1	16:47:01	52.7	47.1	47.1	59.6	16:52:46	60.9	59.6	59.6
50.4	16:40:50	57.9	50.4	50.4	49.1	16:47:02	52.7	49.1	49.1	56.5	16:52:47	60.9	56.5	56.5
50.4	16:40:51	57.9	50.4	50.4	49.2	16:47:03	52.7	49.2	49.2	54.2	16:52:48	60.9	54.2	54.2
49.7	16:40:52	57.9	49.7	49.7	48.3	16:47:04	52.7	48.3	48.3	52.8	16:52:49	60.9	52.8	52.8
49.1	16:40:53	57.9	49.1	49.1	48.1	16:47:05	52.7	48.1	48.1	51.4	16:52:50	60.9	51.4	51.4
48.7	16:40:54	57.9	48.7	48.7	48.9	16:47:06	52.6	48.9	48.9	50.1	16:52:51	60.9	50.1	50.1
48.4	16:40:55	57.8	48.4	48.4	48.4	16:47:07	52.6	48.4	48.4	48.9	16:52:52	60.9	48.9	48.9
47.5	16:40:56	57.8	47.5	47.5	48.4	16:47:08	52.5	48.4	48.4	47.7	16:52:53	60.9	47.7	47.7
47.4	16:40:57	57.8	47.4	47.4	48.3	16:47:09	52.5	48.3	48.3	46.7	16:52:54	60.9	46.7	46.7
48.3	16:40:58	57.8	48.3	48.3	48.6	16:47:10	52.5	48.6	48.6	45.7	16:52:55	60.9	45.7	45.7
47.5	16:40:59	57.8	47.5	47.5	48.7	16:47:11	52.4	48.7	48.7	44.6	16:52:56	60.9	44.6	44.6
47.2	16:41:00	57.8	47.2	47.2	48.9	16:47:12	52.4	48.9	48.9	43.3	16:52:57	60.9	43.3	43.3
47.7	16:41:01	57.8	47.7	47.7	52.4	16:47:13	52.4	52.4	52.4	42.4	16:52:58	60.9	42.4	42.4
47.1	16:41:02	57.8	47.1	47.1	53.6	16:47:14	52.4	53.6	53.6	41.9	16:52:59	60.9	41.9	41.9
46.4	16:41:03	57.8	46.4	46.4	52.2	16:47:15	52.4	52.2	52.2	41.5	16:53:00	60.9	41.5	41.5
46.6	16:41:04	57.8	46.6	46.6	49.8	16:47:16	52.3	49.8	49.8	41.3	16:53:01	60.9	41.3	41.3
47.0	16:41:05	57.7	47.0	47.0	48.4	16:47:17	52.3	48.4	48.4	41.3	16:53:02	60.9	41.3	41.3
47.2	16:41:06	57.7	47.2	47.2	47.8	16:47:18	52.3	47.8	47.8	41.5	16:53:03	60.8	41.5	41.5
47.5	16:41:07	57.7	47.5	47.5	47.2	16:47:19	52.3	47.2	47.2	41.8	16:53:04	60.8	41.8	41.8
48.7	16:41:08	57.7	48.7	48.7	46.6	16:47:20	52.3	46.6	46.6	42.9	16:53:05	60.8	42.9	42.9
50.6	16:41:09	57.7	50.6	50.6	45.6	16:47:21	52.3	45.6	45.6	43.8	16:53:06	60.8	43.8	43.8
52.8	16:41:10	57.7	52.8	52.8	45.0	16:47:22	52.3	45.0	45.0	44.6	16:53:07	60.8	44.6	44.6
55.0	16:41:11	57.7	55.0	55.0	44.8	16:47:23	52.2	44.8	44.8	46.0	16:53:08	60.8	46.0	46.0
57.4	16:41:12	57.7	57.4	57.4	44.5	16:47:24	52.2	44.5	44.5	48.2	16:53:09	60.8	48.2	48.2
59.2	16:41:13	57.7	59.2	59.2	44.5	16:47:25	52.2	44.5	44.5	50.2	16:53:10	60.8	50.2	50.2
61.9	16:41:14	57.7	61.9	61.9	44.3	16:47:26	52.0	44.3	44.3	52.6	16:53:11	60.8	52.6	52.6
63.5	16:41:15	57.7	63.5	63.5	43.9	16:47:27	52.0	43.9	43.9	56.3	16:53:12	60.8	56.3	56.3
65.9	16:41:16	57.7	65.9	65.9	43.9	16:47:28	51.9	43.9	43.9	60.0	16:53:13	60.8	60.0	60.0
66.6	16:41:17	57.7	66.6	66.6	43.5	16:47:29	51.9	43.5	43.5	62.8	16:53:14	60.8	62.8	62.8
65.2	16:41:18	57.7	65.2	65.2	43.2	16:47:30	51.9	43.2	43.2	64.6	16:53:15	60.8	64.6	64.6
64.1	16:41:19	57.7	64.1	64.1	43.3	16:47:31	51.9	43.3	43.3	64.3	16:53:16	60.8	64.3	64.3
62.9	16:41:20	57.7	62.9	62.9	43.8	16:47:32	51.9	43.8	43.8	61.8	16:53:17	60.8	61.8	61.8
61.9	16:41:21	57.7	61.9	61.9	43.8	16:47:33	51.9	43.8	43.8	58.4	16:53:18	60.8	58.4	58.4
61.5	16:41:22	57.7	61.5	61.5	43.8	16:47:34	51.9	43.8	43.8	55.0	16:53:19	60.8	55.0	55.0
61.4	16:41:23	57.7	61.4	61.4	43.8	16:47:35	51.9	43.8	43.8	51.7	16:53:20	60.8	51.7	51.7
61.8	16:41:24	57.7	61.8	61.8	44.2	16:47:36	51.9	44.2	44.2	48.7	16:53:21	60.8	48.7	48.7
61.4	16:41:25	57.7	61.4	61.4	44.4	16:47:37	51.9	44.4	44.4	46.8	16:53:22	60.8	46.8	46.8
61.1	16:41:26	57.7	61.1	61.1	45.1	16:47:38	51.9	45.1	45.1	45.8	16:53:23	60.8	45.8	45.8
61.2	16:41:27	57.7	61.2	61.2	45.6	16:47:39	51.9	45.6	45.6	45.1	16:53:24	60.8	45.1	45.1
61.7	16:41:28	57.7	61.7	61.7	46.0	16:47:40	51.9	46.0	46.0	44.6	16:53:25	60.7	44.6	44.6

APPENDIX C

RCNM Model Construction Noise Calculation Printouts

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Demolition

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	340	5
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Concrete Saw	67.9	60.9	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Total	**68**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Demolition

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	340	0
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0

		Calculated (dBA)		Results Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Concrete Saw		72.9	66	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
	Total	**73**	**70**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5
Dozer	No	40		81.7	340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Dozer		60.0	56.0	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
	Total	**62**	**66**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Site Preparation

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0
Dozer	No	40		81.7	340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
	Total	**67**	**71**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/22/2022
Case Description: Magnolia Ranch - Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	340	5
Excavator	No	40		80.7	340	5
Grader	No	40	85		340	5
Dozer	No	40		81.7	340	5
Scraper	No	40		83.6	340	5
Scraper	No	40		83.6	340	5
Tractor	No	40	84		340	5
Tractor	No	40	84		340	5

Results

	Calculated (dBA)		Day	Noise Limits (dBA)	Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Excavator	59.1	55.1	N/A	N/A	N/A	N/A
Grader	63.3	59.4	N/A	N/A	N/A	N/A
Dozer	60.0	56.0	N/A	N/A	N/A	N/A
Scraper	61.9	58.0	N/A	N/A	N/A	N/A
Scraper	61.9	58.0	N/A	N/A	N/A	N/A
Tractor	62.3	58.4	N/A	N/A	N/A	N/A
Tractor	62.3	58.4	N/A	N/A	N/A	N/A
Total	**63**	**67**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 7/22/2022
Case Description: Magnolia Ranch - Grading

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	340	0
Excavator	No	40		80.7	340	0
Grader	No	40	85		340	0
Dozer	No	40		81.7	340	0
Scraper	No	40		83.6	340	0
Scraper	No	40		83.6	340	0
Tractor	No	40	84		340	0
Tractor	No	40	84		340	0

		Results Calculated (dBA)		Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Excavator		64.1	60.1	N/A	N/A	N/A	N/A
Grader		68.3	64.4	N/A	N/A	N/A	N/A
Dozer		65.0	61.0	N/A	N/A	N/A	N/A
Scraper		66.9	63.0	N/A	N/A	N/A	N/A
Scraper		66.9	63.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
	Total	**68**	**72**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	340	5
Gradall	No	40		83.4	340	5
Gradall	No	40		83.4	340	5
Gradall	No	40		83.4	340	5
Generator	No	50		80.6	340	5
Tractor	No	40	84		340	5
Front End Loader	No	40		79.1	340	5
Backhoe	No	40		77.6	340	5
Welder / Torch	No	40		74	340	5

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Crane		58.9	50.9	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Gradall		61.7	57.8	N/A	N/A	N/A	N/A
Generator		59.0	56.0	N/A	N/A	N/A	N/A
Tractor		62.3	58.4	N/A	N/A	N/A	N/A
Front End Loader		57.5	53.5	N/A	N/A	N/A	N/A
Backhoe		55.9	51.9	N/A	N/A	N/A	N/A
Welder / Torch		52.3	48.4	N/A	N/A	N/A	N/A
	Total	**62**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Building Construction

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	340	0
Gradall	No	40		83.4	340	0
Gradall	No	40		83.4	340	0
Gradall	No	40		83.4	340	0
Generator	No	50		80.6	340	0
Tractor	No	40	84		340	0
Front End Loader	No	40		79.1	340	0
Backhoe	No	40		77.6	340	0
Welder / Torch	No	40		74	340	0

Equipment		Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Leq	Evening Lmax	Leq
Crane		63.9	55.9	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Gradall		66.7	62.8	N/A	N/A	N/A	N/A
Generator		64.0	61.0	N/A	N/A	N/A	N/A
Tractor		67.3	63.4	N/A	N/A	N/A	N/A
Front End Loader		62.5	58.5	N/A	N/A	N/A	N/A
Backhoe		60.9	56.9	N/A	N/A	N/A	N/A
Welder / Torch		57.3	53.4	N/A	N/A	N/A	N/A
	Total	**67**	**70**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Paver	No	50		77.2	340	5
Roller	No	20		80	340	5
Roller	No	20		80	340	5

Equipment	Calculated (dBA) *Lmax	Leq	Results Day Lmax	Noise Limits (dBA) Day Leq	Evening Lmax	Evening Leq
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Paver	55.6	52.6	N/A	N/A	N/A	N/A
Roller	58.3	51.4	N/A	N/A	N/A	N/A
Roller	58.3	51.4	N/A	N/A	N/A	N/A
Total	**58**	**60**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Paving

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Paver	No	50		77.2	340	0
Roller	No	20		80	340	0
Roller	No	20		80	340	0

	Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Paver	60.6	57.6	N/A	N/A	N/A	N/A
Roller	63.3	56.4	N/A	N/A	N/A	N/A
Roller	63.3	56.4	N/A	N/A	N/A	N/A
Total	**63**	**65**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 1/17/2022
Case Description: Magnolia Ranch - Painting

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Homes to West	Residential	59.5	59.5	51.7

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	340	5

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		56.0	52.0	N/A	N/A	N/A	N/A
	Total	**56**	**52**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest School to East	Commercial	56.2	56.2	49.1

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compressor (air)	No	40		77.7	340	0

		Calculated (dBA)		Results Noise Limits (dBA) Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Compressor (air)		61.0	57.0	N/A	N/A	N/A	N/A
	Total	**61**	**57**	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

APPENDIX D

FHWA Model Offsite Traffic Noise Calculation Printouts

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 10950 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.81	-3.29	-1.20	63.05	60.68	59.38	53.33	61.76	62.39	70 dBA:	**27**	**29**
Medium Trucks	77.62	-16.67	-3.29	-1.20	56.46	37.25	29.47	38.68	44.83	44.87	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-14.45	-3.29	-1.20	63.20	46.21	38.43	47.64	53.79	53.82	60 dBA:	**124**	**135**
				Total:	**66.58**	**60.85**	**59.42**	**54.48**	**62.48**	**63.02**	55 dBA:	**268**	**291**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	1.67	-1.20	67.44	65.07	63.78	57.72	66.15	66.78	70 dBA:	**28**	**30**
Medium Trucks	77.62	-17.24	1.67	-1.20	60.85	41.64	33.86	43.07	49.22	49.26	65 dBA:	**60**	**65**
Heavy Trucks	82.14	-15.03	1.67	-1.20	67.59	50.60	42.82	52.03	58.18	58.21	60 dBA:	**129**	**140**
				Total:	**70.97**	**65.24**	**63.81**	**58.87**	**66.87**	**67.42**	55 dBA:	**278**	**303**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.96	-0.72	-1.20	64.46	62.09	60.80	54.74	63.18	63.81	70 dBA:	**24**	**26**
Medium Trucks	77.62	-17.82	-0.72	-1.20	57.88	38.67	30.89	40.09	46.25	46.28	65 dBA:	**51**	**55**
Heavy Trucks	82.14	-15.61	-0.72	-1.20	64.61	47.62	39.84	49.05	55.20	55.24	60 dBA:	**109**	**119**
				Total:	**67.99**	**62.26**	**60.84**	**55.90**	**63.89**	**64.44**	55 dBA:	**235**	**256**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**
Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**
Average Daily Traffic: 7450 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.14	-2.07	-1.20	59.70	57.58	56.26	50.25	58.67	59.30	70 dBA:	**12**	**14**
Medium Trucks	74.83	-19.38	-2.07	-1.20	52.18	30.93	36.95	18.66	31.80	34.55	65 dBA:	**27**	**29**
Heavy Trucks	80.05	-23.33	-2.07	-1.20	53.44	28.09	24.69	29.34	35.54	35.63	60 dBA:	**57**	**63**
				Total:	**61.20**	**57.59**	**56.32**	**50.29**	**58.70**	**59.33**	55 dBA:	**124**	**136**

Road Name: Scholar Way **Segment: South of Schleisman Road**
Average Daily Traffic: 6950 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.44	-0.98	-1.20	60.49	58.36	57.05	51.04	59.46	60.08	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.68	-0.98	-1.20	52.97	31.72	37.74	19.44	32.59	35.34	65 dBA:	**26**	**28**
Heavy Trucks	80.05	-23.63	-0.98	-1.20	54.23	28.88	25.48	30.13	36.33	36.42	60 dBA:	**55**	**61**
				Total:	**61.99**	**58.38**	**57.10**	**51.08**	**59.49**	**60.12**	55 dBA:	**119**	**132**

Road Name: Scholar Way **Segment: South of Orange Street**
Average Daily Traffic: 7200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.29	-0.98	-1.20	60.64	58.52	57.20	51.19	59.61	60.24	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.52	-0.98	-1.20	53.12	31.87	37.89	19.60	32.74	35.49	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.48	-0.98	-1.20	54.38	29.03	25.63	30.28	36.48	36.57	60 dBA:	**57**	**63**
				Total:	**62.14**	**58.53**	**57.26**	**51.23**	**59.64**	**60.27**	55 dBA:	**122**	**135**

Road Name: Scholar Way **Segment: South of Baltimore Street**
Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-2.55	-1.20	59.45	57.32	56.01	50.00	58.42	59.05	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-2.55	-1.20	51.93	30.68	36.70	18.41	31.55	34.30	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.11	-2.55	-1.20	53.19	27.84	24.44	29.09	35.29	35.38	60 dBA:	**59**	**65**
				Total:	**60.95**	**57.34**	**56.07**	**50.04**	**58.45**	**59.08**	55 dBA:	**127**	**140**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 24600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.71	-3.26	-1.20	66.60	64.23	62.93	56.88	65.31	65.94	70 dBA:	**49**	**53**
Medium Trucks	77.62	-13.16	-3.26	-1.20	60.01	40.80	33.02	42.23	48.38	48.42	65 dBA:	**105**	**115**
Heavy Trucks	82.14	-10.94	-3.26	-1.20	66.75	49.76	41.98	51.19	57.34	57.37	60 dBA:	**227**	**247**
				Total:	**70.13**	**64.40**	**62.97**	**58.03**	**66.03**	**66.57**	55 dBA:	**489**	**532**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 24650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.72	-4.08	-1.20	65.78	63.41	62.12	56.06	64.49	65.12	70 dBA:	**48**	**52**
Medium Trucks	77.62	-13.15	-4.08	-1.20	59.19	39.98	32.20	41.41	47.57	47.60	65 dBA:	**103**	**112**
Heavy Trucks	82.14	-10.93	-4.08	-1.20	65.93	48.94	41.16	50.37	56.52	56.56	60 dBA:	**223**	**242**
				Total:	**69.31**	**63.58**	**62.16**	**57.21**	**65.21**	**65.76**	55 dBA:	**479**	**521**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 18400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.45	-1.89	-1.20	66.71	64.33	63.04	56.99	65.42	66.05	70 dBA:	**39**	**42**
Medium Trucks	77.62	-14.42	-1.89	-1.20	60.12	40.91	33.13	42.33	48.49	48.52	65 dBA:	**83**	**91**
Heavy Trucks	82.14	-12.20	-1.89	-1.20	66.85	49.86	42.08	51.29	57.45	57.48	60 dBA:	**180**	**195**
				Total:	**70.24**	**64.50**	**63.08**	**58.14**	**66.14**	**66.68**	55 dBA:	**387**	**421**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	-2.28	-1.20	63.49	61.11	59.82	53.77	62.20	62.83	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.24	-2.28	-1.20	56.90	37.69	29.91	39.12	45.27	45.30	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-15.03	-2.28	-1.20	63.64	46.65	38.86	48.07	54.23	54.26	60 dBA:	**125**	**136**
				Total:	**67.02**	**61.29**	**59.86**	**54.92**	**62.92**	**63.46**	55 dBA:	**270**	**293**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 9400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.47	-2.28	-1.20	63.39	61.02	59.73	53.68	62.11	62.74	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.34	-2.28	-1.20	56.81	37.60	29.82	39.02	45.18	45.21	65 dBA:	**57**	**62**
Heavy Trucks	82.14	-15.12	-2.28	-1.20	63.54	46.55	38.77	47.98	54.14	54.17	60 dBA:	**123**	**134**
				Total:	**66.92**	**61.19**	**59.77**	**54.83**	**62.82**	**63.37**	55 dBA:	**266**	**289**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 8550 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.88	-2.28	-1.20	62.98	60.61	59.32	53.26	61.70	62.33	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.75	-2.28	-1.20	56.39	37.19	29.40	38.61	44.77	44.80	65 dBA:	**54**	**58**
Heavy Trucks	82.14	-15.53	-2.28	-1.20	63.13	46.14	38.36	47.57	53.72	53.76	60 dBA:	**116**	**126**
				Total:	**66.51**	**60.78**	**59.36**	**54.42**	**62.41**	**62.96**	55 dBA:	**250**	**271**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1100 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-9.78	1.52	-1.20	53.06	50.93	49.62	43.61	52.03	52.65	70 dBA:	**3**	**3**
Medium Trucks	73.11	-27.01	1.52	-1.20	46.42	25.17	31.19	12.90	26.04	28.79	65 dBA:	**6**	**6**
Heavy Trucks	80.26	-30.97	1.52	-1.20	49.61	24.26	20.86	25.51	31.71	31.80	60 dBA:	**12**	**13**
				Total:	**55.28**	**50.95**	**49.69**	**43.68**	**52.08**	**52.71**	55 dBA:	**26**	**28**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2450 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-6.30	-4.59	-1.20	50.42	48.30	46.99	40.97	49.39	50.02	70 dBA:	**4**	**5**
Medium Trucks	73.11	-23.54	-4.59	-1.20	43.79	22.54	28.56	10.26	23.41	26.16	65 dBA:	**9**	**10**
Heavy Trucks	80.26	-27.49	-4.59	-1.20	46.98	21.62	18.23	22.87	29.07	29.17	60 dBA:	**20**	**22**
				Total:	**52.65**	**48.32**	**47.05**	**41.04**	**49.44**	**50.07**	55 dBA:	**43**	**47**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11050 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.77	-3.29	-1.20	63.09	60.72	59.42	53.37	61.80	62.43	70 dBA:	**27**	**29**
Medium Trucks	77.62	-16.63	-3.29	-1.20	56.50	37.29	29.51	38.72	44.87	44.91	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-14.41	-3.29	-1.20	63.24	46.25	38.47	47.67	53.83	53.86	60 dBA:	**125**	**136**
				Total:	**66.62**	**60.89**	**59.46**	**54.52**	**62.52**	**63.06**	55 dBA:	**270**	**293**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 9750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.31	1.67	-1.20	67.51	65.14	63.84	57.79	66.22	66.85	70 dBA:	**28**	**31**
Medium Trucks	77.62	-17.18	1.67	-1.20	60.92	41.71	33.93	43.14	49.29	49.33	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.96	1.67	-1.20	67.66	50.67	42.89	52.09	58.25	58.28	60 dBA:	**131**	**142**
				Total:	**71.04**	**65.31**	**63.88**	**58.94**	**66.94**	**67.48**	55 dBA:	**281**	**306**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 8400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.96	-0.72	-1.20	64.46	62.09	60.80	54.74	63.18	63.81	70 dBA:	**24**	**26**
Medium Trucks	77.62	-17.82	-0.72	-1.20	57.88	38.67	30.89	40.09	46.25	46.28	65 dBA:	**51**	**55**
Heavy Trucks	82.14	-15.61	-0.72	-1.20	64.61	47.62	39.84	49.05	55.20	55.24	60 dBA:	**109**	**119**
				Total:	**67.99**	**62.26**	**60.84**	**55.90**	**63.89**	**64.44**	55 dBA:	**235**	**256**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 7550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.08	-2.07	-1.20	59.76	57.63	56.32	50.31	58.73	59.36	70 dBA:	**12**	**14**
Medium Trucks	74.83	-19.32	-2.07	-1.20	52.24	30.99	37.01	18.72	31.86	34.61	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.27	-2.07	-1.20	53.50	28.15	24.75	29.40	35.60	35.69	60 dBA:	**58**	**64**
				Total:	**61.26**	**57.65**	**56.37**	**50.35**	**58.76**	**59.39**	55 dBA:	**125**	**137**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7100 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.35	-0.98	-1.20	60.58	58.46	57.14	51.13	59.55	60.18	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.59	-0.98	-1.20	53.06	31.81	37.83	19.54	32.68	35.43	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.54	-0.98	-1.20	54.32	28.97	25.57	30.22	36.42	36.51	60 dBA:	**56**	**62**
				Total:	**62.08**	**58.47**	**57.20**	**51.17**	**59.58**	**60.21**	55 dBA:	**121**	**134**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.29	-0.98	-1.20	60.64	58.52	57.20	51.19	59.61	60.24	70 dBA:	**12**	**13**
Medium Trucks	74.83	-19.52	-0.98	-1.20	53.12	31.87	37.89	19.60	32.74	35.49	65 dBA:	**26**	**29**
Heavy Trucks	80.05	-23.48	-0.98	-1.20	54.38	29.03	25.63	30.28	36.48	36.57	60 dBA:	**57**	**63**
				Total:	**62.14**	**58.53**	**57.26**	**51.23**	**59.64**	**60.27**	55 dBA:	**122**	**135**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-2.55	-1.20	59.45	57.32	56.01	50.00	58.42	59.05	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-2.55	-1.20	51.93	30.68	36.70	18.41	31.55	34.30	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.11	-2.55	-1.20	53.19	27.84	24.44	29.09	35.29	35.38	60 dBA:	**59**	**65**
				Total:	**60.95**	**57.34**	**56.07**	**50.04**	**58.45**	**59.08**	55 dBA:	**127**	**140**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**
Average Daily Traffic: 24650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.72	-3.26	-1.20	66.61	64.24	62.94	56.89	65.32	65.95	70 dBA:	**49**	**53**
Medium Trucks	77.62	-13.15	-3.26	-1.20	60.02	40.81	33.03	42.24	48.39	48.43	65 dBA:	**106**	**115**
Heavy Trucks	82.14	-10.93	-3.26	-1.20	66.76	49.77	41.99	51.19	57.35	57.38	60 dBA:	**227**	**247**
				Total:	**70.14**	**64.41**	**62.98**	**58.04**	**66.04**	**66.58**	55 dBA:	**490**	**533**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**
Average Daily Traffic: 24700 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	1.73	-4.08	-1.20	65.79	63.42	62.13	56.07	64.50	65.13	70 dBA:	**48**	**52**
Medium Trucks	77.62	-13.14	-4.08	-1.20	59.20	39.99	32.21	41.42	47.57	47.61	65 dBA:	**103**	**112**
Heavy Trucks	82.14	-10.92	-4.08	-1.20	65.94	48.95	41.17	50.38	56.53	56.56	60 dBA:	**223**	**242**
				Total:	**69.32**	**63.59**	**62.16**	**57.22**	**65.22**	**65.77**	55 dBA:	**480**	**522**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**
Average Daily Traffic: 18500 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.47	-1.89	-1.20	66.73	64.36	63.06	57.01	65.44	66.07	70 dBA:	**39**	**42**
Medium Trucks	77.62	-14.39	-1.89	-1.20	60.14	40.93	33.15	42.36	48.51	48.55	65 dBA:	**84**	**91**
Heavy Trucks	82.14	-12.18	-1.89	-1.20	66.88	49.89	42.11	51.31	57.47	57.50	60 dBA:	**180**	**196**
				Total:	**70.26**	**64.53**	**63.10**	**58.16**	**66.16**	**66.70**	55 dBA:	**388**	**422**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**
Average Daily Traffic: 9600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.38	-2.28	-1.20	63.49	61.11	59.82	53.77	62.20	62.83	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.24	-2.28	-1.20	56.90	37.69	29.91	39.12	45.27	45.30	65 dBA:	**58**	**63**
Heavy Trucks	82.14	-15.03	-2.28	-1.20	63.64	46.65	38.86	48.07	54.23	54.26	60 dBA:	**125**	**136**
				Total:	**67.02**	**61.29**	**59.86**	**54.92**	**62.92**	**63.46**	55 dBA:	**270**	**293**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: EXISTING WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 9400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.47	-2.28	-1.20	63.39	61.02	59.73	53.68	62.11	62.74	70 dBA:	**27**	**29**
Medium Trucks	77.62	-17.34	-2.28	-1.20	56.81	37.60	29.82	39.02	45.18	45.21	65 dBA:	**57**	**62**
Heavy Trucks	82.14	-15.12	-2.28	-1.20	63.54	46.55	38.77	47.98	54.14	54.17	60 dBA:	**123**	**134**
				Total:	**66.92**	**61.19**	**59.77**	**54.83**	**62.82**	**63.37**	55 dBA:	**266**	**289**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 8600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.85	-2.28	-1.20	63.01	60.64	59.34	53.29	61.72	62.35	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.72	-2.28	-1.20	56.42	37.21	29.43	38.64	44.79	44.83	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.50	-2.28	-1.20	63.16	46.17	38.39	47.59	53.75	53.78	60 dBA:	**116**	**126**
				Total:	**66.54**	**60.81**	**59.38**	**54.44**	**62.44**	**62.98**	55 dBA:	**251**	**272**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1250 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-9.22	1.52	-1.20	53.61	51.49	50.17	44.16	52.58	53.21	70 dBA:	**3**	**3**
Medium Trucks	73.11	-26.46	1.52	-1.20	46.97	25.73	31.75	13.45	26.60	29.35	65 dBA:	**6**	**7**
Heavy Trucks	80.26	-30.42	1.52	-1.20	50.17	24.81	21.41	26.06	32.26	32.36	60 dBA:	**13**	**14**
				Total:	**55.84**	**51.51**	**50.24**	**44.23**	**52.63**	**53.26**	55 dBA:	**28**	**31**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2650 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.96	-4.59	-1.20	50.76	48.64	47.33	41.31	49.73	50.36	70 dBA:	**4**	**5**
Medium Trucks	73.11	-23.20	-4.59	-1.20	44.13	22.88	28.90	10.60	23.75	26.50	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-27.15	-4.59	-1.20	47.32	21.97	18.57	23.21	29.41	29.51	60 dBA:	**21**	**23**
				Total:	**52.99**	**48.66**	**47.39**	**41.38**	**49.78**	**50.41**	55 dBA:	**45**	**49**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.48	-3.29	-1.20	63.37	61.00	59.71	53.65	62.09	62.72	70 dBA:	**28**	**31**
Medium Trucks	77.62	-16.35	-3.29	-1.20	56.79	37.58	29.80	39.00	45.16	45.19	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.13	-3.29	-1.20	63.52	46.53	38.75	47.96	54.11	54.15	60 dBA:	**131**	**142**
				Total:	**66.90**	**61.17**	**59.75**	**54.81**	**62.80**	**63.35**	55 dBA:	**282**	**306**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 10600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.95	1.67	-1.20	67.87	65.50	64.21	58.15	66.58	67.21	70 dBA:	**30**	**32**
Medium Trucks	77.62	-16.81	1.67	-1.20	61.28	42.07	34.29	43.50	49.65	49.69	65 dBA:	**64**	**70**
Heavy Trucks	82.14	-14.59	1.67	-1.20	68.02	51.03	43.25	52.46	58.61	58.65	60 dBA:	**138**	**150**
				Total:	**71.40**	**65.67**	**64.24**	**59.30**	**67.30**	**67.85**	55 dBA:	**297**	**323**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.66	-0.72	-1.20	64.76	62.39	61.10	55.04	63.48	64.11	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.52	-0.72	-1.20	58.18	38.97	31.19	40.39	46.55	46.58	65 dBA:	**53**	**58**
Heavy Trucks	82.14	-15.31	-0.72	-1.20	64.91	47.92	40.14	49.35	55.50	55.54	60 dBA:	**114**	**124**
				Total:	**68.29**	**62.56**	**61.14**	**56.20**	**64.19**	**64.74**	55 dBA:	**246**	**268**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8050 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.80	-2.07	-1.20	60.04	57.91	56.60	50.59	59.01	59.63	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.04	-2.07	-1.20	52.52	31.27	37.29	18.99	32.14	34.89	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.00	-2.07	-1.20	53.78	28.43	25.03	29.68	35.88	35.97	60 dBA:	**60**	**67**
				Total:	**61.54**	**57.93**	**56.65**	**50.63**	**59.04**	**59.67**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.08	-0.98	-1.20	60.85	58.72	57.41	51.40	59.82	60.44	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.32	-0.98	-1.20	53.33	32.08	38.10	19.80	32.95	35.70	65 dBA:	**27**	**30**
Heavy Trucks	80.05	-23.27	-0.98	-1.20	54.59	29.24	25.84	30.49	36.69	36.78	60 dBA:	**59**	**65**
				Total:	**62.35**	**58.74**	**57.46**	**51.44**	**59.85**	**60.48**	55 dBA:	**126**	**139**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.94	-0.98	-1.20	60.99	58.86	57.55	51.54	59.96	60.59	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.18	-0.98	-1.20	53.47	32.22	38.24	19.95	33.09	35.84	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.13	-0.98	-1.20	54.73	29.38	25.98	30.63	36.83	36.92	60 dBA:	**60**	**66**
				Total:	**62.49**	**58.88**	**57.61**	**51.58**	**59.99**	**60.62**	55 dBA:	**129**	**142**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8500 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.57	-2.55	-1.20	59.79	57.67	56.36	50.35	58.76	59.39	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.80	-2.55	-1.20	52.27	31.02	37.04	18.75	31.90	34.65	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.76	-2.55	-1.20	53.54	28.18	24.78	29.43	35.63	35.73	60 dBA:	**62**	**69**
				Total:	**61.30**	**57.68**	**56.41**	**50.38**	**58.79**	**59.42**	55 dBA:	**134**	**148**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 28800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.39	-3.26	-1.20	67.28	64.91	63.62	57.56	66.00	66.63	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.47	-3.26	-1.20	60.69	41.49	33.71	42.91	49.07	49.10	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.25	-3.26	-1.20	67.43	50.44	42.66	51.87	58.02	58.06	60 dBA:	**252**	**274**
				Total:	**70.81**	**65.08**	**63.66**	**58.72**	**66.71**	**67.26**	55 dBA:	**543**	**591**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 28600 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.36	-4.08	-1.20	66.43	64.06	62.76	56.71	65.14	65.77	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.50	-4.08	-1.20	59.84	40.63	32.85	42.06	48.21	48.24	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.28	-4.08	-1.20	66.58	49.59	41.80	51.01	57.17	57.20	60 dBA:	**246**	**267**
				Total:	**69.96**	**64.23**	**62.80**	**57.86**	**65.86**	**66.40**	55 dBA:	**529**	**576**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 20100 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.83	-1.89	-1.20	67.09	64.72	63.42	57.37	65.80	66.43	70 dBA:	**41**	**45**
Medium Trucks	77.62	-14.03	-1.89	-1.20	60.50	41.29	33.51	42.72	48.87	48.91	65 dBA:	**88**	**96**
Heavy Trucks	82.14	-11.82	-1.89	-1.20	67.24	50.25	42.47	51.67	57.83	57.86	60 dBA:	**190**	**207**
				Total:	**70.62**	**64.89**	**63.46**	**58.52**	**66.52**	**67.06**	55 dBA:	**410**	**446**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 10900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.83	-2.28	-1.20	64.04	61.67	60.37	54.32	62.75	63.38	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.69	-2.28	-1.20	57.45	38.24	30.46	39.67	45.82	45.86	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-14.47	-2.28	-1.20	64.19	47.20	39.42	48.62	54.78	54.81	60 dBA:	**136**	**148**
				Total:	**67.57**	**61.84**	**60.41**	**55.47**	**63.47**	**64.01**	55 dBA:	**294**	**319**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	-2.28	-1.20	63.98	61.61	60.31	54.26	62.69	63.32	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.75	-2.28	-1.20	57.39	38.18	30.40	39.61	45.76	45.80	65 dBA:	**63**	**68**
Heavy Trucks	82.14	-14.53	-2.28	-1.20	64.13	47.14	39.36	48.56	54.72	54.75	60 dBA:	**135**	**147**
				Total:	**67.51**	**61.78**	**60.35**	**55.41**	**63.41**	**63.95**	55 dBA:	**291**	**316**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 9850 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.27	-2.28	-1.20	63.60	61.23	59.93	53.88	62.31	62.94	70 dBA:	**27**	**30**
Medium Trucks	77.62	-17.13	-2.28	-1.20	57.01	37.80	30.02	39.23	45.38	45.42	65 dBA:	**59**	**64**
Heavy Trucks	82.14	-14.91	-2.28	-1.20	63.75	46.76	38.98	48.18	54.34	54.37	60 dBA:	**127**	**138**
				Total:	**67.13**	**61.40**	**59.97**	**55.03**	**63.03**	**63.57**	55 dBA:	**274**	**298**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1350 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.89	1.52	-1.20	53.94	51.82	50.51	44.50	52.92	53.54	70 dBA:	**3**	**3**
Medium Trucks	73.11	-26.13	1.52	-1.20	47.31	26.06	32.08	13.79	26.93	29.68	65 dBA:	**6**	**7**
Heavy Trucks	80.26	-30.08	1.52	-1.20	50.50	25.15	21.75	26.40	32.60	32.69	60 dBA:	**14**	**15**
				Total:	**56.17**	**51.84**	**50.58**	**44.57**	**52.97**	**53.60**	55 dBA:	**29**	**32**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2750 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.80	-4.59	-1.20	50.92	48.80	47.49	41.48	49.89	50.52	70 dBA:	**5**	**5**
Medium Trucks	73.11	-23.04	-4.59	-1.20	44.29	23.04	29.06	10.77	23.91	26.66	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-26.99	-4.59	-1.20	47.48	22.13	18.73	23.38	29.57	29.67	60 dBA:	**21**	**24**
				Total:	**53.15**	**48.82**	**47.55**	**41.55**	**49.95**	**50.57**	55 dBA:	**46**	**51**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	0.35%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 11900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.44	-3.29	-1.20	63.41	61.04	59.75	53.69	62.12	62.75	70 dBA:	**28**	**31**
Medium Trucks	77.62	-16.31	-3.29	-1.20	56.82	37.61	29.83	39.04	45.19	45.23	65 dBA:	**61**	**66**
Heavy Trucks	82.14	-14.09	-3.29	-1.20	63.56	46.57	38.79	48.00	54.15	54.19	60 dBA:	**131**	**143**
				Total:	**66.94**	**61.21**	**59.78**	**54.84**	**62.84**	**63.39**	55 dBA:	**283**	**308**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	1.67	-1.20	67.93	65.56	64.27	58.21	66.64	67.27	70 dBA:	**30**	**33**
Medium Trucks	77.62	-16.75	1.67	-1.20	61.34	42.13	34.35	43.56	49.72	49.75	65 dBA:	**65**	**70**
Heavy Trucks	82.14	-14.53	1.67	-1.20	68.08	51.09	43.31	52.52	58.67	58.71	60 dBA:	**139**	**151**
				Total:	**71.46**	**65.73**	**64.31**	**59.36**	**67.36**	**67.91**	55 dBA:	**300**	**326**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.66	-0.72	-1.20	64.76	62.39	61.10	55.04	63.48	64.11	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.52	-0.72	-1.20	58.18	38.97	31.19	40.39	46.55	46.58	65 dBA:	**53**	**58**
Heavy Trucks	82.14	-15.31	-0.72	-1.20	64.91	47.92	40.14	49.35	55.50	55.54	60 dBA:	**114**	**124**
				Total:	**68.29**	**62.56**	**61.14**	**56.20**	**64.19**	**64.74**	55 dBA:	**246**	**268**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8150 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.75	-2.07	-1.20	60.09	57.97	56.65	50.64	59.06	59.69	70 dBA:	**13**	**14**
Medium Trucks	74.83	-18.99	-2.07	-1.20	52.57	31.32	37.34	19.05	32.19	34.94	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-22.94	-2.07	-1.20	53.83	28.48	25.08	29.73	35.93	36.02	60 dBA:	**61**	**67**
				Total:	**61.59**	**57.98**	**56.71**	**50.68**	**59.09**	**59.72**	55 dBA:	**131**	**144**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7750 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.97	-0.98	-1.20	60.96	58.84	57.52	51.51	59.93	60.56	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.20	-0.98	-1.20	53.44	32.19	38.21	19.92	33.06	35.81	65 dBA:	**28**	**30**
Heavy Trucks	80.05	-23.16	-0.98	-1.20	54.70	29.35	25.95	30.60	36.80	36.89	60 dBA:	**60**	**66**
				Total:	**62.46**	**58.85**	**57.58**	**51.55**	**59.96**	**60.59**	55 dBA:	**128**	**142**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 7850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.91	-0.98	-1.20	61.02	58.89	57.58	51.57	59.99	60.61	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.15	-0.98	-1.20	53.50	32.25	38.27	19.97	33.12	35.87	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.11	-0.98	-1.20	54.76	29.41	26.01	30.66	36.85	36.95	60 dBA:	**60**	**66**
				Total:	**62.52**	**58.91**	**57.63**	**51.61**	**60.02**	**60.65**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8550 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.54	-2.55	-1.20	59.82	57.70	56.38	50.37	58.79	59.42	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.78	-2.55	-1.20	52.30	31.05	37.07	18.78	31.92	34.67	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.73	-2.55	-1.20	53.56	28.21	24.81	29.46	35.66	35.75	60 dBA:	**63**	**69**
				Total:	**61.32**	**57.71**	**56.44**	**50.41**	**58.82**	**59.45**	55 dBA:	**135**	**149**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 28800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.39	-3.26	-1.20	67.28	64.91	63.62	57.56	66.00	66.63	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.47	-3.26	-1.20	60.69	41.49	33.71	42.91	49.07	49.10	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.25	-3.26	-1.20	67.43	50.44	42.66	51.87	58.02	58.06	60 dBA:	**252**	**274**
				Total:	**70.81**	**65.08**	**63.66**	**58.72**	**66.71**	**67.26**	55 dBA:	**543**	**591**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 28650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.37	-4.08	-1.20	66.43	64.06	62.77	56.72	65.15	65.78	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.50	-4.08	-1.20	59.85	40.64	32.86	42.06	48.22	48.25	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.28	-4.08	-1.20	66.58	49.59	41.81	51.02	57.17	57.21	60 dBA:	**246**	**267**
				Total:	**69.96**	**64.23**	**62.81**	**57.87**	**65.86**	**66.41**	55 dBA:	**530**	**576**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 20150 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	0.84	-1.89	-1.20	67.10	64.73	63.43	57.38	65.81	66.44	70 dBA:	**41**	**45**
Medium Trucks	77.62	-14.02	-1.89	-1.20	60.51	41.30	33.52	42.73	48.88	48.92	65 dBA:	**89**	**96**
Heavy Trucks	82.14	-11.81	-1.89	-1.20	67.25	50.26	42.48	51.69	57.84	57.87	60 dBA:	**191**	**207**
				Total:	**70.63**	**64.90**	**63.47**	**58.53**	**66.53**	**67.07**	55 dBA:	**411**	**447**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 10900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.83	-2.28	-1.20	64.04	61.67	60.37	54.32	62.75	63.38	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.69	-2.28	-1.20	57.45	38.24	30.46	39.67	45.82	45.86	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-14.47	-2.28	-1.20	64.19	47.20	39.42	48.62	54.78	54.81	60 dBA:	**136**	**148**
				Total:	**67.57**	**61.84**	**60.41**	**55.47**	**63.47**	**64.01**	55 dBA:	**294**	**319**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: OPENING YEAR 2024 WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 10750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.89	-2.28	-1.20	63.98	61.61	60.31	54.26	62.69	63.32	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.75	-2.28	-1.20	57.39	38.18	30.40	39.61	45.76	45.80	65 dBA:	**63**	**68**
Heavy Trucks	82.14	-14.53	-2.28	-1.20	64.13	47.14	39.36	48.56	54.72	54.75	60 dBA:	**135**	**147**
				Total:	**67.51**	**61.78**	**60.35**	**55.41**	**63.41**	**63.95**	55 dBA:	**291**	**316**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 9900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.24	-2.28	-1.20	63.62	61.25	59.95	53.90	62.33	62.96	70 dBA:	**28**	**30**
Medium Trucks	77.62	-17.11	-2.28	-1.20	57.03	37.82	30.04	39.25	45.40	45.44	65 dBA:	**59**	**64**
Heavy Trucks	82.14	-14.89	-2.28	-1.20	63.77	46.78	39.00	48.21	54.36	54.39	60 dBA:	**128**	**139**
				Total:	**67.15**	**61.42**	**59.99**	**55.05**	**63.05**	**63.60**	55 dBA:	**275**	**299**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1500 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.43	1.52	-1.20	54.40	52.28	50.97	44.95	53.37	54.00	70 dBA:	**3**	**3**
Medium Trucks	73.11	-25.67	1.52	-1.20	47.77	26.52	32.54	14.24	27.39	30.14	65 dBA:	**7**	**7**
Heavy Trucks	80.26	-29.62	1.52	-1.20	50.96	25.61	22.21	26.86	33.05	33.15	60 dBA:	**15**	**16**
				Total:	**56.63**	**52.30**	**51.03**	**45.03**	**53.43**	**54.05**	55 dBA:	**31**	**35**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 3000 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.42	-4.59	-1.20	51.30	49.18	47.87	41.85	50.27	50.90	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.66	-4.59	-1.20	44.66	23.42	29.44	11.14	24.29	27.04	65 dBA:	**11**	**12**
Heavy Trucks	80.26	-26.61	-4.59	-1.20	47.86	22.50	19.10	23.75	29.95	30.05	60 dBA:	**23**	**25**
				Total:	**53.53**	**49.20**	**47.93**	**41.92**	**50.32**	**50.95**	55 dBA:	**49**	**54**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	9.00%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 12500 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.23	-3.29	-1.20	63.62	61.25	59.96	53.90	62.34	62.97	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.10	-3.29	-1.20	57.04	37.83	30.05	39.25	45.41	45.44	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-13.88	-3.29	-1.20	63.77	46.78	39.00	48.21	54.36	54.40	60 dBA:	**136**	**148**
				Total:	**67.15**	**61.42**	**60.00**	**55.06**	**63.05**	**63.60**	55 dBA:	**293**	**318**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 11750 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.50	1.67	-1.20	68.32	65.95	64.65	58.60	67.03	67.66	70 dBA:	**32**	**35**
Medium Trucks	77.62	-16.37	1.67	-1.20	61.73	42.52	34.74	43.95	50.10	50.14	65 dBA:	**69**	**75**
Heavy Trucks	82.14	-14.15	1.67	-1.20	68.47	51.48	43.70	52.90	59.06	59.09	60 dBA:	**148**	**161**
				Total:	**71.85**	**66.12**	**64.69**	**59.75**	**67.75**	**68.29**	55 dBA:	**319**	**346**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.51	-0.72	-1.20	64.91	62.53	61.24	55.19	63.62	64.25	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.38	-0.72	-1.20	58.32	39.11	31.33	40.54	46.69	46.72	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.16	-0.72	-1.20	65.06	48.07	40.28	49.49	55.65	55.68	60 dBA:	**117**	**127**
				Total:	**68.44**	**62.71**	**61.28**	**56.34**	**64.34**	**64.88**	55 dBA:	**252**	**273**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**
Average Daily Traffic: 8150 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.75	-2.07	-1.20	60.09	57.97	56.65	50.64	59.06	59.69	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.99	-2.07	-1.20	52.57	31.32	37.34	19.05	32.19	34.94	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-22.94	-2.07	-1.20	53.83	42.58	25.08	29.73	41.01	41.04	60 dBA:	**61**	**67**
				Total:	**61.59**	**58.10**	**56.71**	**50.68**	**59.14**	**59.76**	55 dBA:	**132**	**145**

Road Name: Scholar Way **Segment: South of Schleisman Road**
Average Daily Traffic: 7600 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-2.05	-0.98	-1.20	60.87	58.75	57.44	51.43	59.85	60.47	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.29	-0.98	-1.20	53.35	32.11	38.13	19.83	32.98	35.73	65 dBA:	**28**	**30**
Heavy Trucks	80.05	-23.25	-0.98	-1.20	54.62	43.37	25.87	30.51	41.80	41.83	60 dBA:	**59**	**65**
				Total:	**62.38**	**58.88**	**57.49**	**51.46**	**59.92**	**60.55**	55 dBA:	**128**	**141**

Road Name: Scholar Way **Segment: South of Orange Street**
Average Daily Traffic: 8200 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.72	-0.98	-1.20	61.20	59.08	57.77	51.76	60.18	60.80	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.96	-0.98	-1.20	53.68	32.44	38.46	20.16	33.31	36.06	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.92	-0.98	-1.20	54.95	43.70	26.20	30.84	42.13	42.16	60 dBA:	**62**	**69**
				Total:	**62.71**	**59.21**	**57.82**	**51.79**	**60.25**	**60.88**	55 dBA:	**134**	**148**

Road Name: Scholar Way **Segment: South of Baltimore Street**
Average Daily Traffic: 8850 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.39	-2.55	-1.20	59.97	57.85	56.53	50.52	58.94	59.57	70 dBA:	**14**	**15**
Medium Trucks	74.83	-18.63	-2.55	-1.20	52.45	31.20	37.22	18.93	32.07	34.82	65 dBA:	**30**	**33**
Heavy Trucks	80.05	-22.58	-2.55	-1.20	53.71	42.46	24.96	29.61	40.89	40.92	60 dBA:	**64**	**71**
				Total:	**61.47**	**57.98**	**56.59**	**50.56**	**59.02**	**59.64**	55 dBA:	**139**	**153**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**
Average Daily Traffic: 29800 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.54	-3.26	-1.20	67.43	65.06	63.77	57.71	66.14	66.77	70 dBA:	**56**	**60**
Medium Trucks	77.62	-12.32	-3.26	-1.20	60.84	41.63	33.85	43.06	49.22	49.25	65 dBA:	**120**	**130**
Heavy Trucks	82.14	-10.11	-3.26	-1.20	67.58	50.59	42.81	52.02	58.17	58.21	60 dBA:	**258**	**281**
				Total:	**70.96**	**65.23**	**63.81**	**58.86**	**66.86**	**67.41**	55 dBA:	**556**	**604**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**
Average Daily Traffic: 29650 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.52	-4.08	-1.20	66.58	64.21	62.92	56.86	65.30	65.93	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.35	-4.08	-1.20	59.99	40.79	33.01	42.21	48.37	48.40	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.13	-4.08	-1.20	66.73	49.74	41.96	51.17	57.32	57.36	60 dBA:	**252**	**274**
				Total:	**70.11**	**64.38**	**62.96**	**58.02**	**66.01**	**66.56**	55 dBA:	**542**	**590**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**
Average Daily Traffic: 30900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.70	-1.89	-1.20	68.96	66.58	65.29	59.24	67.67	68.30	70 dBA:	**55**	**59**
Medium Trucks	77.62	-12.17	-1.89	-1.20	62.37	43.16	35.38	44.59	50.74	50.77	65 dBA:	**118**	**128**
Heavy Trucks	82.14	-9.95	-1.89	-1.20	69.11	52.12	44.33	53.54	59.70	59.73	60 dBA:	**254**	**276**
				Total:	**72.49**	**66.76**	**65.33**	**60.39**	**68.39**	**68.93**	55 dBA:	**546**	**594**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**
Average Daily Traffic: 28300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.32	-2.28	-1.20	68.18	65.81	64.52	58.46	66.89	67.52	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.55	-2.28	-1.20	61.59	42.38	34.60	43.81	49.97	50.00	65 dBA:	**119**	**130**
Heavy Trucks	82.14	-10.33	-2.28	-1.20	68.33	51.34	43.56	52.77	58.92	58.96	60 dBA:	**257**	**280**
				Total:	**71.71**	**65.98**	**64.56**	**59.61**	**67.61**	**68.16**	55 dBA:	**554**	**603**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITHOUT PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 33000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.99	-2.28	-1.20	68.85	66.48	65.18	59.13	67.56	68.19	70 dBA:	**61**	**67**
Medium Trucks	77.62	-11.88	-2.28	-1.20	62.26	43.05	35.27	44.48	50.63	50.67	65 dBA:	**132**	**144**
Heavy Trucks	82.14	-9.66	-2.28	-1.20	69.00	52.01	44.23	53.43	59.59	59.62	60 dBA:	**285**	**310**
				Total:	**72.38**	**66.65**	**65.22**	**60.28**	**68.28**	**68.82**	55 dBA:	**614**	**668**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 26350 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.01	-2.28	-1.20	67.87	65.50	64.21	58.15	66.58	67.21	70 dBA:	**53**	**57**
Medium Trucks	77.62	-12.86	-2.28	-1.20	61.28	42.07	34.29	43.50	49.66	49.69	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.64	-2.28	-1.20	68.02	51.03	43.25	52.46	58.61	58.65	60 dBA:	**245**	**267**
				Total:	**71.40**	**65.67**	**64.25**	**59.30**	**67.30**	**67.85**	55 dBA:	**529**	**575**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1650 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-8.02	1.52	-1.20	54.82	52.69	51.38	45.37	53.79	54.41	70 dBA:	**3**	**4**
Medium Trucks	73.11	-25.25	1.52	-1.20	48.18	26.93	32.95	14.66	27.80	30.55	65 dBA:	**7**	**8**
Heavy Trucks	80.26	-29.21	1.52	-1.20	51.37	40.12	22.62	27.27	38.55	38.58	60 dBA:	**16**	**17**
				Total:	**57.04**	**52.94**	**51.45**	**45.44**	**53.93**	**54.54**	55 dBA:	**34**	**37**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 2900 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.57	-4.59	-1.20	51.15	49.03	47.72	41.71	50.13	50.75	70 dBA:	**5**	**5**
Medium Trucks	73.11	-22.80	-4.59	-1.20	44.52	23.27	29.29	11.00	24.14	26.89	65 dBA:	**10**	**11**
Heavy Trucks	80.26	-26.76	-4.59	-1.20	47.71	36.46	18.96	23.61	34.89	34.92	60 dBA:	**22**	**25**
				Total:	**53.38**	**49.28**	**47.79**	**41.78**	**50.26**	**50.88**	55 dBA:	**48**	**53**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

	Vehicle Mix 1 (Local)				Vehicle Mix 2 (Arterial)				Vehicle Mix 3 (Hwy 111)			
Vehicle Type	Day	Evening	Night	Daily	Day	Evening	Night	Daily	Day	Evenin	Night	Daily
Automobiles	73.60%	13.60%	10.22%	97.42%	69.50%	12.90%	9.60%	92.00%	73.40%	9.70%	16.90%	91.40%
Medium Trucks	0.90%	0.90%	0.04%	1.84%	1.44%	0.06%	1.50%	3.00%	80.30%	5.50%	14.20%	6.49%
Heavy Trucks	9.00%	0.04%	0.35%	0.74%	2.40%	0.10%	2.50%	5.00%	71.70%	6.50%	21.80%	2.11%

Road Name: Sumner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 12550 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 85 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.54 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.21	-3.29	-1.20	63.64	61.27	59.98	53.92	62.35	62.98	70 dBA:	**29**	**32**
Medium Trucks	77.62	-16.08	-3.29	-1.20	57.05	37.84	30.06	39.27	45.43	45.46	65 dBA:	**63**	**69**
Heavy Trucks	82.14	-13.86	-3.29	-1.20	63.79	46.80	39.02	48.23	54.38	54.42	60 dBA:	**136**	**148**
				Total:	**67.17**	**61.44**	**60.02**	**55.07**	**63.07**	**63.62**	55 dBA:	**293**	**319**

Road Name: Sumner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 11900 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 45 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.07 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-1.44	1.67	-1.20	68.37	66.00	64.71	58.65	67.09	67.72	70 dBA:	**32**	**35**
Medium Trucks	77.62	-16.31	1.67	-1.20	61.78	42.58	34.79	44.00	50.16	50.19	65 dBA:	**69**	**75**
Heavy Trucks	82.14	-14.09	1.67	-1.20	68.52	51.53	43.75	52.96	59.11	59.15	60 dBA:	**149**	**162**
				Total:	**71.90**	**66.17**	**64.75**	**59.81**	**67.80**	**68.35**	55 dBA:	**321**	**349**

Road Name: Sumner Avenue **Segment: South of Orange Street**

Average Daily Traffic: 9350 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 54.99 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	-2.49	-0.72	-1.20	64.93	62.56	61.26	55.21	63.64	64.27	70 dBA:	**25**	**27**
Medium Trucks	77.62	-17.36	-0.72	-1.20	58.34	39.13	31.35	40.56	46.71	46.75	65 dBA:	**54**	**59**
Heavy Trucks	82.14	-15.14	-0.72	-1.20	65.08	48.09	40.31	49.52	55.67	55.70	60 dBA:	**117**	**127**
				Total:	**68.46**	**62.73**	**61.30**	**56.36**	**64.36**	**64.90**	55 dBA:	**252**	**274**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Scholar Way **Segment: North of Schleisman Road**

Average Daily Traffic: 8300 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 67.65 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.67	-2.07	-1.20	60.17	58.05	56.73	50.72	59.14	59.77	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.91	-2.07	-1.20	52.65	31.40	37.42	19.13	32.27	35.02	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.86	-2.07	-1.20	53.91	42.66	25.16	29.81	41.09	41.12	60 dBA:	**62**	**68**
				Total:	**61.67**	**58.18**	**56.79**	**50.76**	**59.22**	**59.84**	55 dBA:	**134**	**147**

Road Name: Scholar Way **Segment: South of Schleisman Road**

Average Daily Traffic: 7800 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.94	-0.98	-1.20	60.99	58.86	57.55	51.54	59.96	60.59	70 dBA:	**13**	**14**
Medium Trucks	74.83	-19.18	-0.98	-1.20	53.47	32.22	38.24	19.95	33.09	35.84	65 dBA:	**28**	**31**
Heavy Trucks	80.05	-23.13	-0.98	-1.20	54.73	43.48	25.98	30.63	41.91	41.94	60 dBA:	**60**	**66**
				Total:	**62.49**	**59.00**	**57.61**	**51.58**	**60.04**	**60.66**	55 dBA:	**130**	**143**

Road Name: Scholar Way **Segment: South of Orange Street**

Average Daily Traffic: 8250 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 60 FEET FROM CENTERLINE (Equiv. Lane Dist: 57.24 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.70	-0.98	-1.20	61.23	59.11	57.80	51.78	60.20	60.83	70 dBA:	**13**	**15**
Medium Trucks	74.83	-18.93	-0.98	-1.20	53.71	32.46	38.48	20.19	33.33	36.09	65 dBA:	**29**	**32**
Heavy Trucks	80.05	-22.89	-0.98	-1.20	54.97	43.72	26.22	30.87	42.15	42.18	60 dBA:	**63**	**69**
				Total:	**62.73**	**59.24**	**57.85**	**51.82**	**60.28**	**60.90**	55 dBA:	**135**	**148**

Road Name: Scholar Way **Segment: South of Baltimore Street**

Average Daily Traffic: 8900 Vehicles Vehicle Speed: 35 MPH Vehicle Mix: 1 Roadway Classification: Secondary

	NOISE PARAMETERS AT 75 FEET FROM CENTERLINE (Equiv. Lane Dist: 72.81 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	65.11	-1.37	-2.55	-1.20	59.99	57.87	56.56	50.54	58.96	59.59	70 dBA:	**14**	**15**
Medium Trucks	74.83	-18.60	-2.55	-1.20	52.47	31.22	37.24	18.95	32.09	34.85	65 dBA:	**30**	**33**
Heavy Trucks	80.05	-22.56	-2.55	-1.20	53.73	42.49	24.98	29.63	40.92	40.95	60 dBA:	**65**	**71**
				Total:	**61.50**	**58.00**	**56.61**	**50.58**	**59.04**	**59.66**	55 dBA:	**139**	**153**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS **Project: Magnolia Ranch**

Site Conditions: Soft

Road Name: Hamner Avenue **Segment: North of Schleisman Road**

Average Daily Traffic: 29850 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 90 FEET FROM CENTERLINE (Equiv. Lane Dist: 81.11 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.55	-3.26	-1.20	67.44	65.07	63.77	57.72	66.15	66.78	70 dBA:	**56**	**61**
Medium Trucks	77.62	-12.32	-3.26	-1.20	60.85	41.64	33.86	43.07	49.22	49.26	65 dBA:	**120**	**130**
Heavy Trucks	82.14	-10.10	-3.26	-1.20	67.59	50.60	42.82	52.03	58.18	58.21	60 dBA:	**258**	**281**
				Total:	**70.97**	**65.24**	**63.81**	**58.87**	**66.87**	**67.41**	55 dBA:	**557**	**605**

Road Name: Hamner Avenue **Segment: South of Schleisman Road**

Average Daily Traffic: 29700 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 92.08 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.53	-4.08	-1.20	66.59	64.22	62.93	56.87	65.30	65.93	70 dBA:	**54**	**59**
Medium Trucks	77.62	-12.34	-4.08	-1.20	60.00	40.79	33.01	42.22	48.37	48.41	65 dBA:	**117**	**127**
Heavy Trucks	82.14	-10.12	-4.08	-1.20	66.74	49.75	41.97	51.18	57.33	57.37	60 dBA:	**252**	**274**
				Total:	**70.12**	**64.39**	**62.96**	**58.02**	**66.02**	**66.57**	55 dBA:	**543**	**590**

Road Name: Schleisman Road **Segment: West of Sumner Avenue**

Average Daily Traffic: 31000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Major

	NOISE PARAMETERS AT 70 FEET FROM CENTERLINE (Equiv. Lane Dist: 65.76 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.71	-1.89	-1.20	68.97	66.60	65.31	59.25	67.68	68.31	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.15	-1.89	-1.20	62.38	43.17	35.39	44.60	50.75	50.79	65 dBA:	**118**	**128**
Heavy Trucks	82.14	-9.93	-1.89	-1.20	69.12	52.13	44.35	53.56	59.71	59.74	60 dBA:	**254**	**276**
				Total:	**72.50**	**66.77**	**65.34**	**60.40**	**68.40**	**68.95**	55 dBA:	**548**	**595**

Road Name: Schleisman Road **Segment: East of Sumner Avenue**

Average Daily Traffic: 28300 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.32	-2.28	-1.20	68.18	65.81	64.52	58.46	66.89	67.52	70 dBA:	**55**	**60**
Medium Trucks	77.62	-12.55	-2.28	-1.20	61.59	42.38	34.60	43.81	49.97	50.00	65 dBA:	**119**	**130**
Heavy Trucks	82.14	-10.33	-2.28	-1.20	68.33	51.34	43.56	52.77	58.92	58.96	60 dBA:	**257**	**280**
				Total:	**71.71**	**65.98**	**64.56**	**59.61**	**67.61**	**68.16**	55 dBA:	**554**	**603**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Scenario: FUTURE YEAR 2040 WITH PROJECT CONDITIONS

Project: Magnolia Ranch
Site Conditions: Soft

Road Name: Schleisman Road **Segment: West of Scholar Way**
Average Daily Traffic: 33000 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.99	-2.28	-1.20	68.85	66.48	65.18	59.13	67.56	68.19	70 dBA:	**61**	**67**
Medium Trucks	77.62	-11.88	-2.28	-1.20	62.26	43.05	35.27	44.48	50.63	50.67	65 dBA:	**132**	**144**
Heavy Trucks	82.14	-9.66	-2.28	-1.20	69.00	52.01	44.23	53.43	59.59	59.62	60 dBA:	**285**	**310**
				Total:	**72.38**	**66.65**	**65.22**	**60.28**	**68.28**	**68.82**	55 dBA:	**614**	**668**

Road Name: Schleisman Road **Segment: East of Scholar Way**
Average Daily Traffic: 26400 Vehicles Vehicle Speed: 45 MPH Vehicle Mix: 2 Roadway Classification: Urban Arterial

	NOISE PARAMETERS AT 80 FEET FROM CENTERLINE (Equiv. Lane Dist: 69.85 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	69.34	2.02	-2.28	-1.20	67.88	65.51	64.21	58.16	66.59	67.22	70 dBA:	**53**	**58**
Medium Trucks	77.62	-12.85	-2.28	-1.20	61.29	42.08	34.30	43.51	49.66	49.70	65 dBA:	**114**	**124**
Heavy Trucks	82.14	-10.63	-2.28	-1.20	68.03	51.04	43.26	52.47	58.62	58.65	60 dBA:	**246**	**267**
				Total:	**71.41**	**65.68**	**64.25**	**59.31**	**67.31**	**67.85**	55 dBA:	**529**	**576**

Road Name: Orange Street **Segment: East of Sumner Avenue**
Average Daily Traffic: 1850 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 40 FEET FROM CENTERLINE (Equiv. Lane Dist: 38.97 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-7.52	1.52	-1.20	55.31	53.19	51.88	45.87	54.29	54.91	70 dBA:	**4**	**4**
Medium Trucks	73.11	-24.76	1.52	-1.20	48.68	27.43	33.45	15.16	28.30	31.05	65 dBA:	**8**	**9**
Heavy Trucks	80.26	-28.71	1.52	-1.20	51.87	40.62	23.12	27.77	39.05	39.08	60 dBA:	**17**	**19**
				Total:	**57.54**	**53.44**	**51.95**	**45.94**	**54.42**	**55.04**	55 dBA:	**37**	**40**

Road Name: Orange Street **Segment: West of Scholar Way**
Average Daily Traffic: 3150 Vehicles Vehicle Speed: 30 MPH Vehicle Mix: 1 Roadway Classification: Collector

	NOISE PARAMETERS AT 100 FEET FROM CENTERLINE (Equiv. Lane Dist: 99.59 ft)										**Centerline Distance to**		
	Noise Adjustments				**Unmitigated Noise Levels**						**Noise Contour (in feet)**		
Vehicle Type	REMEL	Traffic Adj.	Dist Adj.	Finite Adj	Leq Peak	Leq Day	Leq Eve.	Leq Night	Ldn	CNEL		Ldn	CNEL
Automobiles	62.51	-5.21	-4.59	-1.20	51.51	49.39	48.08	42.07	50.48	51.11	70 dBA:	**5**	**6**
Medium Trucks	73.11	-22.45	-4.59	-1.20	44.88	23.63	29.65	11.35	24.50	27.25	65 dBA:	**11**	**12**
Heavy Trucks	80.26	-26.40	-4.59	-1.20	48.07	36.82	19.32	23.97	35.25	35.28	60 dBA:	**24**	**26**
				Total:	**53.74**	**49.63**	**48.14**	**42.14**	**50.62**	**51.24**	55 dBA:	**51**	**56**

APPENDIX E

FHWA Model Onsite Traffic Noise Calculation Printouts

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 9
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	97 feet
Barrier Dist. To Observer (Structure):	21 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	615.4 feet
Road Elevation:	611.5 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	615.4 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.93	-1.20	0.00	-9.3	-8.7	-0.3
Med Trucks:	77.62	-11.88	-2.93	-1.20	0.00	-9.38	-8.4	-0.156
Hvy Trucks:	82.14	-9.66	-2.93	-1.20	0.00	-7.8	-6.16	0

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.3	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.3	51.4	43.6	52.8	58.9	59.0
Traffic Noise:	**71.7**	**65.9**	**64.4**	**59.5**	**67.5**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.9	56.5	55.2	49.2	57.6	58.2
Med Trucks:	52.2	33.0	25.2	34.4	40.6	40.6
Hvy Trucks:	60.5	43.6	35.8	45.0	51.1	51.2
Traffic Noise:	**63.2**	**56.8**	**55.3**	**50.7**	**58.6**	**59.1**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.5	56.2	54.9	48.8	57.3	57.9
Med Trucks:	52.3	33.1	25.3	34.5	40.6	40.7
Hvy Trucks:	61.2	44.2	36.5	45.7	51.8	51.9
Traffic Noise:	**63.5**	**56.5**	**54.9**	**50.6**	**58.4**	**58.9**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.5	63.2	57.1	65.6	66.2
Med Trucks:	60.4	41.2	33.4	42.6	48.8	48.8
Hvy Trucks:	67.3	50.3	42.5	51.7	57.9	57.9
Traffic Noise:	**70.5**	**64.7**	**63.2**	**58.3**	**66.3**	**66.9**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 11
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	109 feet
Barrier Dist. To Observer (Structure):	33 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	616.0 feet
Road Elevation:	613.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	616.0 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.92	-1.20	0.00	-9.12	-8.65	-0.95
Med Trucks:	77.62	-11.88	-2.92	-1.20	0.00	-9.15	-8.2	-0.4
Hvy Trucks:	82.14	-9.66	-2.92	-1.20	0.00	-7.55	-5.7	-0.161

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.4	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	58.9	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.5**	**67.5**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.1	56.7	55.4	49.4	57.8	58.4
Med Trucks:	52.5	33.3	25.5	34.7	40.8	40.9
Hvy Trucks:	60.8	43.8	36.0	45.2	51.4	51.4
Traffic Noise:	**63.4**	**57.0**	**55.5**	**50.9**	**58.8**	**59.3**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.7	55.4	54.1	48.0	56.4	57.1
Med Trucks:	51.6	32.4	24.6	33.8	40.0	40.0
Hvy Trucks:	60.8	43.8	36.1	45.3	51.4	51.4
Traffic Noise:	**62.9**	**55.7**	**54.1**	**50.0**	**57.7**	**58.2**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.4	63.0	61.7	55.6	64.1	64.7
Med Trucks:	59.3	40.1	32.3	41.5	47.7	47.7
Hvy Trucks:	66.3	49.3	41.5	50.7	56.9	56.9
Traffic Noise:	**69.3**	**63.2**	**61.7**	**57.0**	**64.9**	**65.4**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Building: Building 13
Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000	vehicles
Peak Hour Volume:	3,300	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	78	feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5**	**feet**
Barrier Type(Wall/Berm):	Wall	
Site Conditions(Hard/Soft):	Soft	
Centerline (C.L.) Dist. to Barrier:	76	feet
C.L. Dist. To Observer (Backyard):	86	feet
Barrier Dist. To Observer (Backyard):	10	feet
C.L. Dist. To Observer (Structure):	109	feet
Barrier Dist. To Observer (Structure):	33	feet
Road Grade:	0.00	%
Left View:	-90	degrees
Right View:	90	degrees

Elevations

Barrier Base Elevation:	615.6	feet
Road Elevation:	614.0	feet
Noise Source Elevation above Road		
Autos:	0	feet
Med Trucks:	2.3	feet
Hvy Trucks:	8	feet
Pad Elevation:	615.6	feet
Observer Heights Above Pad Elevation		
Exterior:	5	feet
First Floor:	5.5	feet
Second Floor:	14	feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.91	-1.20	0.00	-8.8	-8.05	-0.7
Med Trucks:	77.62	-11.88	-2.91	-1.20	0.00	-8.8	-7.6	-0.33
Hvy Trucks:	82.14	-9.66	-2.91	-1.20	0.00	-7.15	-5.2	-0.136

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.7	64.4	58.4	66.8	67.4
Med Trucks:	61.6	42.4	34.6	43.8	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.6**	**67.6**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.4	57.0	55.8	49.7	58.1	58.8
Med Trucks:	52.8	33.6	25.8	35.0	41.2	41.2
Hvy Trucks:	61.2	44.2	36.4	45.7	51.8	51.8
Traffic Noise:	**63.8**	**57.3**	**55.8**	**51.2**	**59.1**	**59.6**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.3	56.0	54.7	48.6	57.0	57.7
Med Trucks:	52.2	33.0	25.2	34.4	40.6	40.6
Hvy Trucks:	61.3	44.3	36.6	45.8	51.9	52.0
Traffic Noise:	**63.4**	**56.3**	**54.7**	**50.5**	**58.3**	**58.8**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.6	63.2	62.0	55.9	64.3	65.0
Med Trucks:	59.4	40.2	32.4	41.6	47.8	47.8
Hvy Trucks:	66.3	49.3	41.6	50.8	56.9	57.0
Traffic Noise:	**69.4**	**63.4**	**62.0**	**57.2**	**65.1**	**65.7**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road | Project Name: Magnolia Ranch
Lot Number: Building 15 | Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	99 feet
Barrier Dist. To Observer (Structure):	23 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	615.2 feet
Road Elevation:	615.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	615.2 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.90	-1.20	0.00	-8.4	-7.43	-0.19
Med Trucks:	77.62	-11.88	-2.90	-1.20	0.00	-8.35	-6.94	-0.124
Hvy Trucks:	82.14	-9.66	-2.90	-1.20	0.00	-6.72	-5.1	0

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.2	65.9	64.6	58.5	66.9	67.6
Med Trucks:	61.6	42.4	34.7	43.9	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.8**	**66.0**	**64.6**	**59.7**	**67.7**	**68.2**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.8	57.5	56.2	50.1	58.5	59.2
Med Trucks:	53.3	34.1	26.3	35.5	41.7	41.7
Hvy Trucks:	61.7	44.7	36.9	46.1	52.2	52.3
Traffic Noise:	**64.2**	**57.7**	**56.2**	**51.7**	**59.5**	**60.0**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	57.3	56.0	50.0	58.4	59.0
Med Trucks:	53.6	34.4	26.6	35.8	42.0	42.0
Hvy Trucks:	62.2	45.2	37.4	46.6	52.8	52.8
Traffic Noise:	**64.5**	**57.6**	**56.1**	**51.7**	**59.5**	**60.0**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.9	64.5	63.2	57.1	65.6	66.2
Med Trucks:	60.3	41.1	33.3	42.5	48.7	48.7
Hvy Trucks:	67.2	50.2	42.4	51.6	57.8	57.8
Traffic Noise:	**70.5**	**64.7**	**63.2**	**58.3**	**66.3**	**66.9**

FHWA-RD-77-108 HIGHWAY TRAFFIC NOISE PREDICTION MODEL

Road Name: Schleisman Road
Lot Number: Building 17

Project Name: Magnolia Ranch
Job Number: 21003

NOISE MODEL INPUTS

Highway Data

Average Daily Traffic:	33,000 vehicles
Peak Hour Volume:	3,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	78 feet

Vehicle Mix

	Day	Evening	Night	Daily
Autos:	69.5%	12.9%	9.6%	92.0%
Medium Trucks:	1.4%	0.1%	1.5%	3.0%
Heavy Trucks:	2.4%	0.1%	2.5%	5.0%

Site Data

Barrier Height:	**6.5 feet**
Barrier Type(Wall/Berm):	Wall
Site Conditions(Hard/Soft):	Soft
Centerline (C.L.) Dist. to Barrier:	76 feet
C.L. Dist. To Observer (Backyard):	86 feet
Barrier Dist. To Observer (Backyard):	10 feet
C.L. Dist. To Observer (Structure):	121 feet
Barrier Dist. To Observer (Structure):	45 feet
Road Grade:	0.00 %
Left View:	-90 degrees
Right View:	90 degrees

Elevations

Barrier Base Elevation:	617.5 feet
Road Elevation:	617.0 feet
Noise Source Elevation above Road	
Autos:	0 feet
Med Trucks:	2.3 feet
Hvy Trucks:	8 feet
Pad Elevation:	617.5 feet
Observer Heights Above Pad Elevation	
Exterior:	5 feet
First Floor:	5.5 feet
Second Floor:	14 feet

FHWA NOISE MODEL CALCULATIONS

	REMEL	Traffic Flow	Distance	Finite Road	Grade	Barrier Attenuation Exterior	1st Flr	2nd Flr
Autos:	69.34	2.99	-2.90	-1.20	0.00	-8.5	-7.8	-1.4
Med Trucks:	77.62	-11.88	-2.90	-1.20	0.00	-8.45	-7.08	-0.56
Hvy Trucks:	82.14	-9.66	-2.90	-1.20	0.00	-6.8	-4.9	-0.173

UNMITIGATED NOISE LEVELS (No sound walls)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.1	65.8	64.5	58.4	66.8	67.5
Med Trucks:	61.6	42.4	34.6	43.9	50.0	50.0
Hvy Trucks:	68.4	51.4	43.6	52.8	59.0	59.0
Traffic Noise:	**71.7**	**65.9**	**64.5**	**59.6**	**67.6**	**68.1**

MITIGATED NOISE LEVELS (Backyard)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	59.7	57.4	56.1	50.0	58.4	59.1
Med Trucks:	53.2	34.0	26.2	35.4	41.6	41.6
Hvy Trucks:	61.6	44.6	36.8	46.0	52.2	52.2
Traffic Noise:	**64.1**	**57.6**	**56.1**	**51.6**	**59.4**	**59.9**

MITIGATED NOISE LEVELS (First Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.8	55.4	54.2	48.1	56.5	57.2
Med Trucks:	51.9	32.7	25.0	34.2	40.3	40.4
Hvy Trucks:	60.9	43.9	36.1	45.3	51.5	51.5
Traffic Noise:	**63.0**	**55.8**	**54.2**	**50.0**	**57.8**	**58.3**

MITIGATED NOISE LEVELS (Second Floor)

	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.2	61.8	60.5	54.5	62.9	63.5
Med Trucks:	58.4	39.2	31.4	40.6	46.8	46.8
Hvy Trucks:	65.5	48.6	40.8	50.0	56.1	56.2
Traffic Noise:	**68.4**	**62.0**	**60.6**	**55.9**	**63.8**	**64.3**

URBAN | CROSSROADS

MAGNOLIA RANCH

TRAFFIC ANALYSIS

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Aric Evatt | aevatt@urbanxroads.com



Reference Number	Agency	Date
15629-01 TA Report	City of Eastvale	August 10, 2023

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Appendix 6.4: Opening Year Cumulative (2025) With Project Conditions Intersection Operations Analysis Worksheets With Improvements

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CAMUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	Congestion Management Program
DIF	Development Impact Fee
E+P	Existing plus Project
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
NCHRP	National Cooperative Highway Research Program
OPR	Office of Planning and Research
PHF	Peak Hour Factor
PMP	Parking Management Plan
Project	Magnolia Ranch
RBBD	Road and Bridge Benefit District
RCTC	Riverside County Transportation Commission
RivTAM	Riverside County Transportation Analysis Model
ROW	Right-of-Way
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
TA	Traffic Analysis
TUMF	Transportation Uniform Mitigation Fee
v/c	Volume to Capacity
VMT	Vehicle Miles Traveled
vphgpl	Vehicles per Hour Green per Lane
WRCOG	Western Riverside Council of Governments

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1 INTRODUCTION

This report presents the results of the traffic analysis (**TA**) for the proposed Magnolia Ranch development (**Project**), which is bounded by Schleisman Road to the north and Orange Street to the south in the City of Eastvale. The Project's location relative to the surrounding area is shown on Exhibit 1-1.

The purpose of this TA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and to recommend improvements to achieve acceptable circulation system operational conditions. As directed by City of Eastvale staff, this traffic study has been prepared in accordance with the County of Riverside Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled, and consultation with City staff during the scoping process. (1) The approved Project Traffic Study Scoping agreement is provided in Appendix 1.1 of this TA.

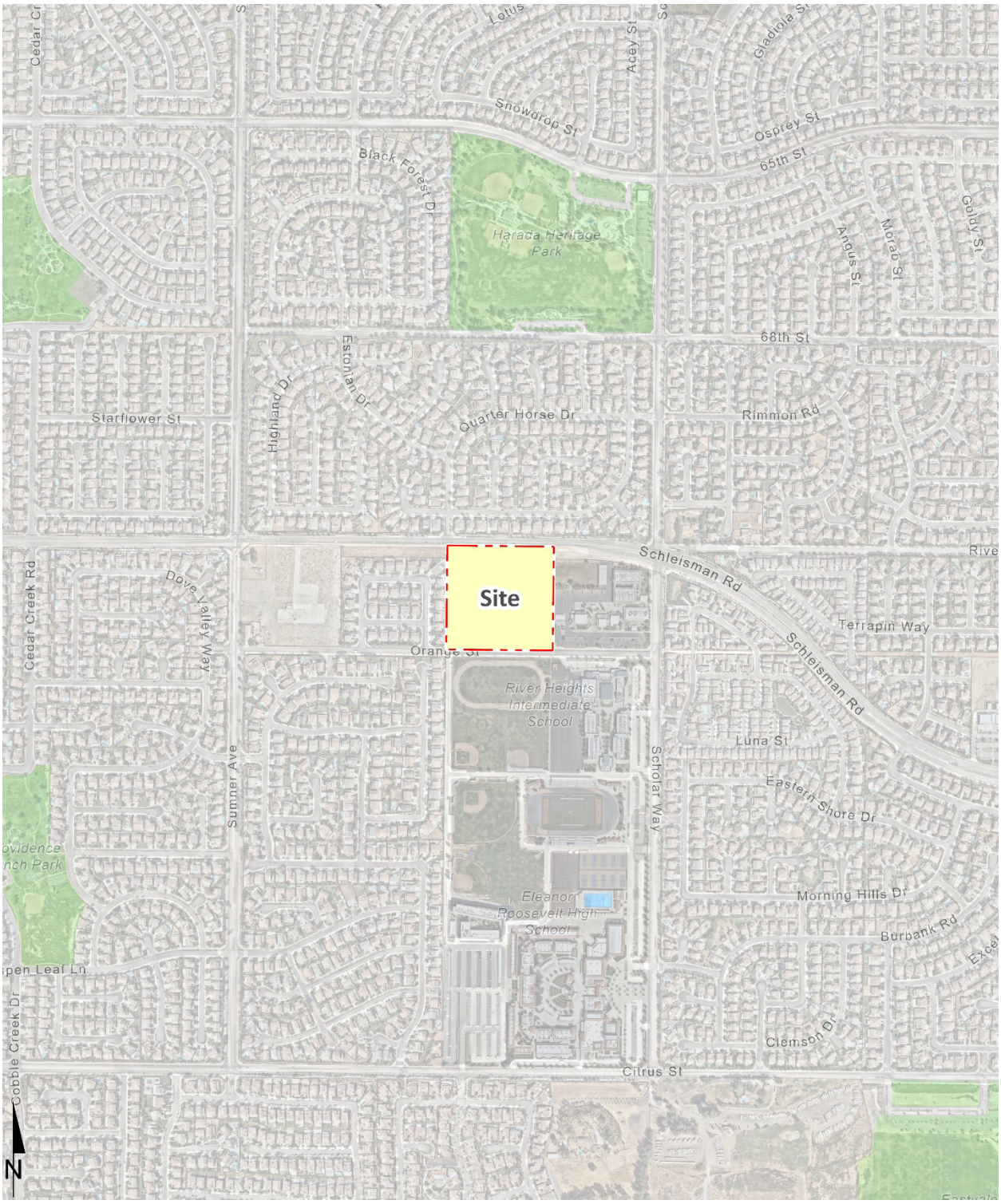
1.1 SUMMARY OF FINDINGS

The Project is to construct the following improvements as design features in conjunction with development of the site:

- Project to install stop sign for egress traffic from the proposed Project at Driveway 1 on Orange Street, which is proposed for full access.
- The Project will construct Orange Street from the western Project boundary to the eastern Project boundary at its ultimate half-section width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan.

Additional details and intersection lane geometrics are provided in Section 1.7 *Recommendations* of this report. The addition of Project traffic is not anticipated to result in any operational deficiencies at the study area intersections under any of the future traffic conditions.

EXHIBIT 1-1: LOCATION MAP



1.2 PROJECT OVERVIEW

Exhibit 1-2 illustrates the preliminary site plan. As indicated on Exhibit 1-2, the Project is proposed to consist of up to 41 single family detached residential units. Regional access to the Project site is available via the I-15 Freeway at Limonite Avenue interchange. Vehicular traffic access will be provided via the following driveway:

- Driveway 1 via Orange Street – Full access

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (**ITE**) Trip Generation Manual, 11th Edition, 2017. (2) The proposed Project is anticipated to generate a total of 388 vehicle trip-ends per day with 28 AM peak hour trips and 38 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.3 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential deficiencies to traffic and circulation have been assessed for each of the following conditions:

- Existing (2021) Conditions
- Existing plus Project (**E+P**) Conditions
- Opening Year Cumulative (2025) Without Project Conditions
- Opening Year Cumulative (2025) With Project Conditions
- Horizon Year (2040) Without Project Conditions
- Horizon Year (2040) With Project Conditions

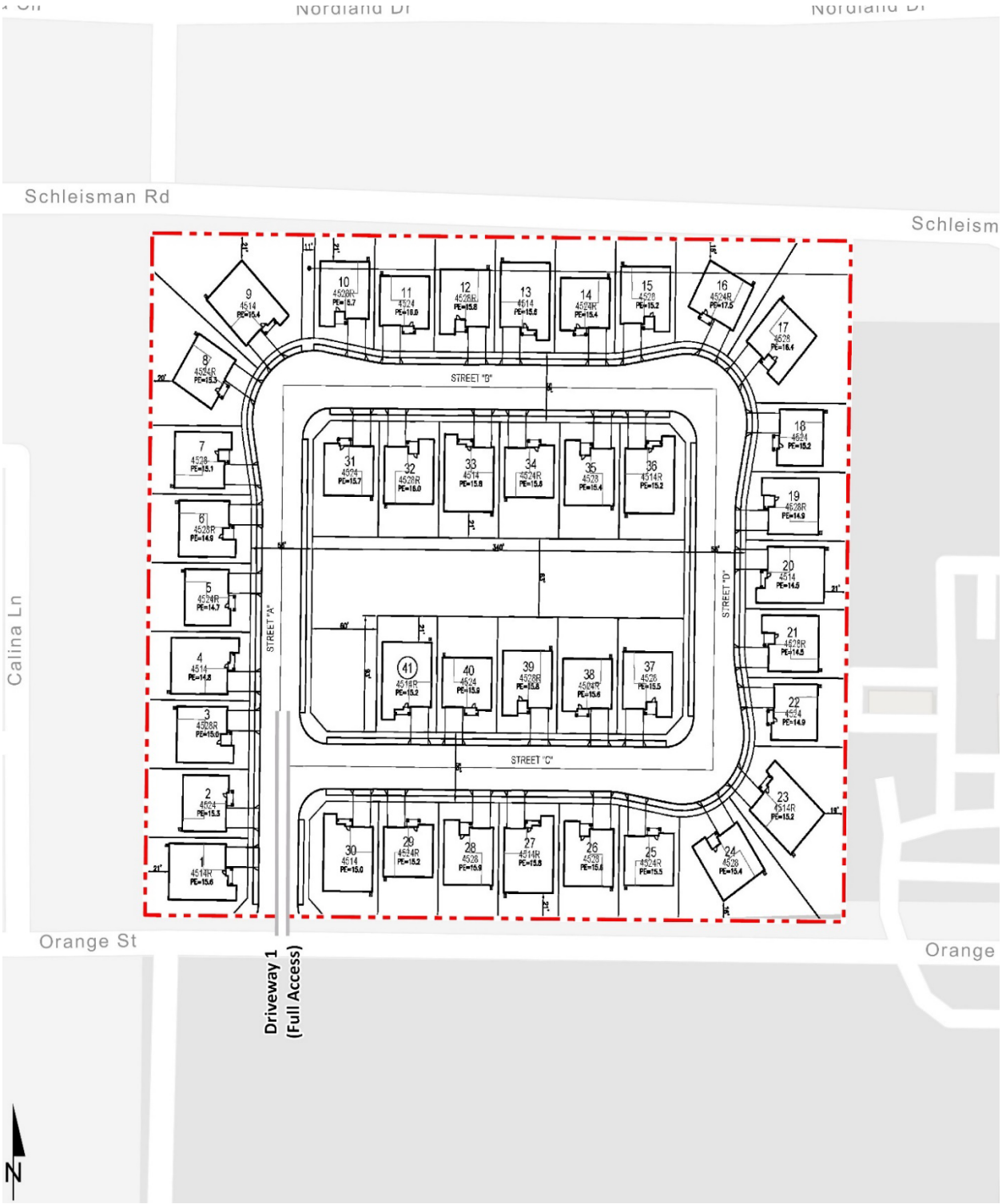
1.3.1 EXISTING (2021) CONDITIONS

Information for Existing (2021) conditions is disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared. Due to the currently ongoing COVID-19 pandemic, the traffic counts utilized for the purposes of this analysis relied on both historic data and adjusted 2021 count data. Details on adjustments to the existing traffic counts are discussed in Section 3.5 *Existing (2021) Traffic Counts* of this TA.

1.3.2 EXISTING PLUS PROJECT CONDITIONS

The E+P analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions. The E+P analysis is intended to identify the project-specific traffic deficiencies associated solely with the development of the proposed Project based on a comparison of the E+P traffic conditions to Existing (2021) conditions.

EXHIBIT 1-2: PRELIMINARY SITE PLAN



1.3.3 OPENING YEAR CUMULATIVE CONDITIONS

The Opening Year Cumulative traffic conditions analysis determines the potential near-term cumulative circulation system deficiencies. To account for background traffic growth, traffic associated with other known cumulative development projects in conjunction with an ambient growth factor from Existing conditions of 6.81 (for 2025 conditions – 1.6 percent per year compounded over 4 years) are included for Opening Year Cumulative traffic conditions. This list was compiled from information provided by the City of Eastvale.

1.3.4 HORIZON YEAR (2040) CONDITIONS

Traffic projections for Horizon Year Without Project conditions were derived from the Riverside Transportation Analysis Model (**RivTAM**) for study area intersections located in Riverside County. The Horizon Year conditions analysis will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as the Western Riverside Council of Governments Transportation Uniform Mitigation Fee (**TUMF**), City of Eastvale Development Impact Fee (**DIF**) programs, or other approved funding mechanism (e.g., Mira Loma Road and Bridge Benefit District (**RBBD**), etc.) can accommodate the long-range cumulative traffic at the target Level of Service (**LOS**) identified in the City of Eastvale (lead agency) General Plan. (3) Other improvements needed beyond the "funded" improvements (such as localized improvements to non-TUMF, non-DIF, or non-RBBD facilities) are identified as such.

1.4 STUDY AREA

To ensure that this TA satisfies the City of Eastvale's traffic study requirements, Urban Crossroads, Inc. prepared a project traffic study scoping package for review by City staff prior to the preparation of this report. The Agreement provides an outline of the Project study area, trip generation, trip distribution, and analysis methodology (see Appendix 1.1).

1.4.1 INTERSECTIONS

The following 8 study area intersections shown on Exhibit 1-3 and listed in Table 1-1 were selected for this TA based on consultation with City of Eastvale staff. The "50 peak hour trip" criterion utilized by the City of Eastvale is consistent with the methodology employed by the County of Riverside, and generally represents a minimum number of trips at which a typical intersection would have the potential to be substantively deficient by a given development proposal. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a widely utilized tool for estimating a potential area of analysis (i.e., study area).

EXHIBIT 1-3: STUDY AREA

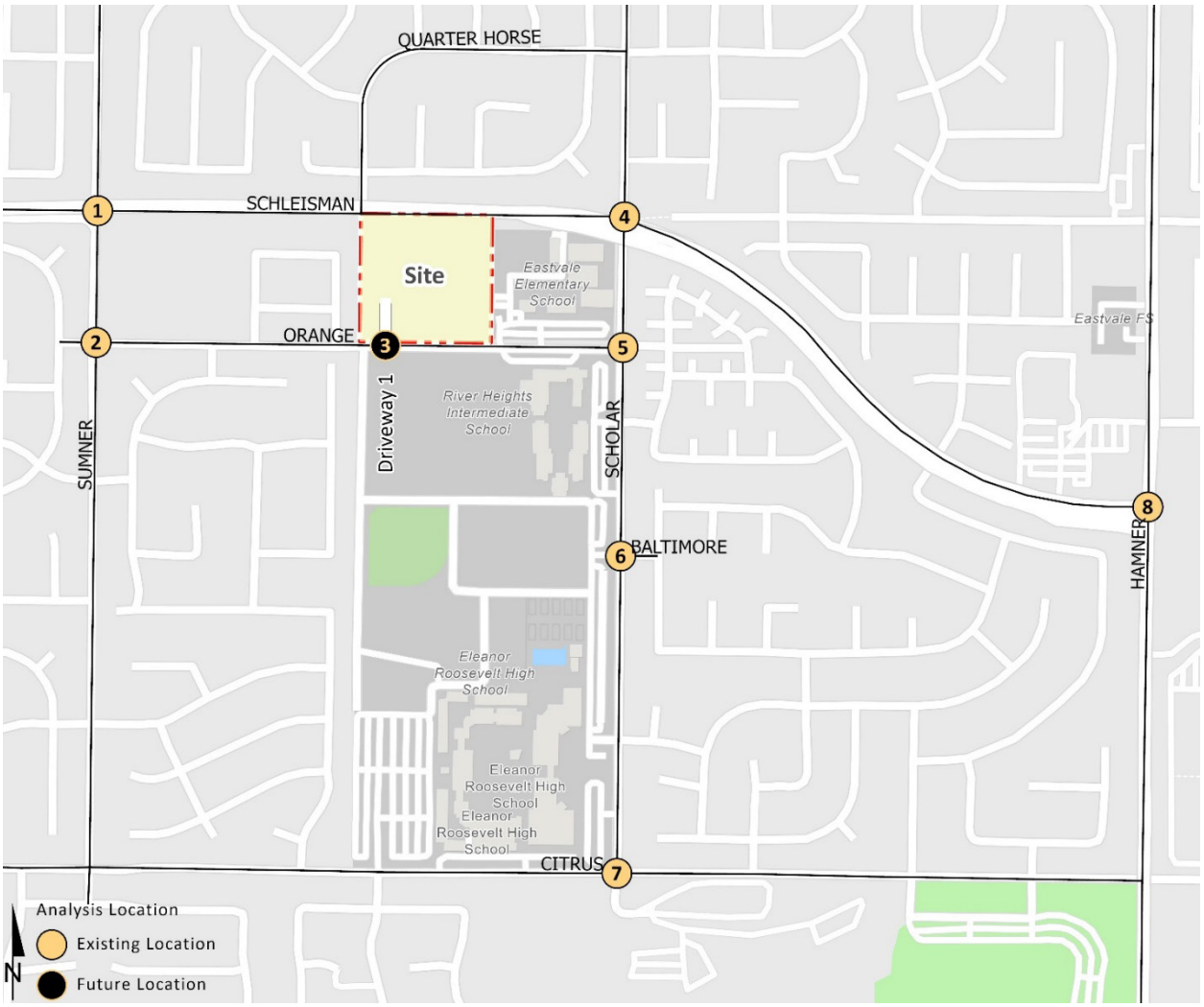


TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

#	Intersection	Jurisdiction	CMP?
1	Sumner Av. & Schleisman Rd.	Eastvale	No
2	Sumner Av. & Orange St.	Eastvale	No
3	Driveway 1 & Orange St.	Eastvale	No
4	Scholar Wy. & Schleisman Rd.	Eastvale	No
5	Scholar Wy. & Orange St.	Eastvale	No
6	Scholar Wy. & Baltimore St.	Eastvale	No
7	Scholar Wy. & Citrus St.	Eastvale	No
8	Hamner Av. & Schleisman Rd.	Eastvale	No

The intent of a Congestion Management Program (**CMP**) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The County of Riverside CMP became effective with the passage of Proposition 111 in 1990 and updated most recently updated in 2011. The Riverside County Transportation Commission (**RCTC**) adopted the 2011 CMP for the County of Riverside in December 2011. (4) No study area intersections are CMP intersections.

1.5 SENATE BILL 743 – VEHICLE MILES TRAVELED (VMT)

Senate Bill 743 (**SB 743**), approved in 2013, endeavors to change the way transportation impacts will be determined according to the California Environmental Quality Act (**CEQA**). The Office of Planning and Research (**OPR**) has recommended the use of vehicle miles traveled (**VMT**) as the replacement for automobile delay-based LOS. In December 2018, the Natural Resources Agency finalized updates to CEQA Guidelines to incorporate SB 743 (i.e., VMT). The VMT thresholds and methodology outlined in the City's TA guidelines will be utilized to conduct the VMT analysis for the Project. The City's TA Guidelines provides details on appropriate screening thresholds that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed project level analysis. Based on our review of applicable VMT screening thresholds, the proposed Project meets the screening thresholds and would therefore be assumed to result in a less than significant VMT impact; no additional VMT analysis is required. The VMT screening thresholds are provided in Appendix 1.1.

1.6 DEFICIENCIES

This section provides a summary of deficiencies by analysis scenario. Section 2 *Methodologies* provides information on the methodologies used in the analysis and Section 5 *E+P Traffic Conditions*, Section 6 *Opening Year Cumulative (2025) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions* includes the detailed analysis. A summary of LOS results for all analysis scenarios is presented on Table 1-2.

TABLE 1-2: SUMMARY OF DEFICIENT INTERSECTIONS BY ANALYSIS SCENARIO

#	Intersection	Existing AM	Existing PM	E+P AM	E+P PM	2025 Without Project AM	2025 Without Project PM	2025 With Project AM	2025 With Project PM	2040 Without Project AM	2040 Without Project PM	2040 With Project AM	2040 With Project PM
1	Sumner Av. & Schleisman Rd.	F	E	F	E	F	E	F	E	F	F	F	F
2	Sumner Av. & Orange St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
3	Driveway 1 & Orange St.	N/A	N/A	A-D	A-D	N/A	N/A	A-D	A-D	N/A	N/A	A-D	A-D
4	Scholar Wy. & Schleisman Rd.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
5	Scholar Wy. & Orange St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
6	Scholar Wy. & Baltimore St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
7	Scholar Wy. & Citrus St.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D
8	Hamner Av. & Schleisman Rd.	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D	A-D

= A - D = E = F

1.6.1 EXISTING (2021) CONDITIONS

The following study area intersection is anticipated to operate at a deficient LOS during one or both peak hours for Existing traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

1.6.2 E+P CONDITIONS

The following study area intersection is anticipated continue to operate at a deficient LOS during one or both peak hours for E+P traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

1.6.3 OPENING YEAR CUMULATIVE (2025) CONDITIONS

The following study area intersection is anticipated to operate at a deficient LOS during one or both peak hours for Opening Year Cumulative (2025) Without Project traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

There are no additional study area intersections anticipated to operate at an unacceptable LOS with the addition of Project traffic under Opening Year Cumulative (2025) With Project traffic conditions.

1.6.4 HORIZON YEAR (2040) CONDITIONS

The following study area intersection is anticipated to operate at a deficient LOS during one or both peak hours under Horizon Year (2040) Without Project traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM and PM peak hours

There are no additional study area intersections anticipated to operate at an unacceptable LOS with the addition of Project traffic under Horizon Year (2040) With Project traffic conditions.

1.7 RECOMMENDATIONS

1.7.1 SITE ADJACENT AND SITE ACCESS RECOMMENDATIONS

The following recommendations are based on the improvements needed to accommodate site access. The site adjacent recommendations are shown on Exhibit 1-4.

Recommendation 1 – Driveway 1 & Orange Street (#4) – The following improvements are necessary to accommodate site access:

- Project to install a stop control for the southbound exiting Project traffic with a shared left-right turn lane.
- Project to restripe the existing eastbound through lane to provide an eastbound shared left-through lane.

Recommendation 2 – **Orange Street** – Orange Street is an east-west oriented roadway located along the southern boundary of the Project. Project to construct Orange Street from the western Project boundary to the eastern Project boundary at its ultimate half-section width as a 2-lane Collector (ultimate 74-foot right-of-way) in compliance with the circulation recommendations found in the City of Eastvale's General Plan.

Wherever necessary, roadways adjacent to the Project, site access points and site-adjacent intersections will be constructed to be consistent with the identified roadway classifications and respective cross-sections in the City of Eastvale General Plan Circulation Element.

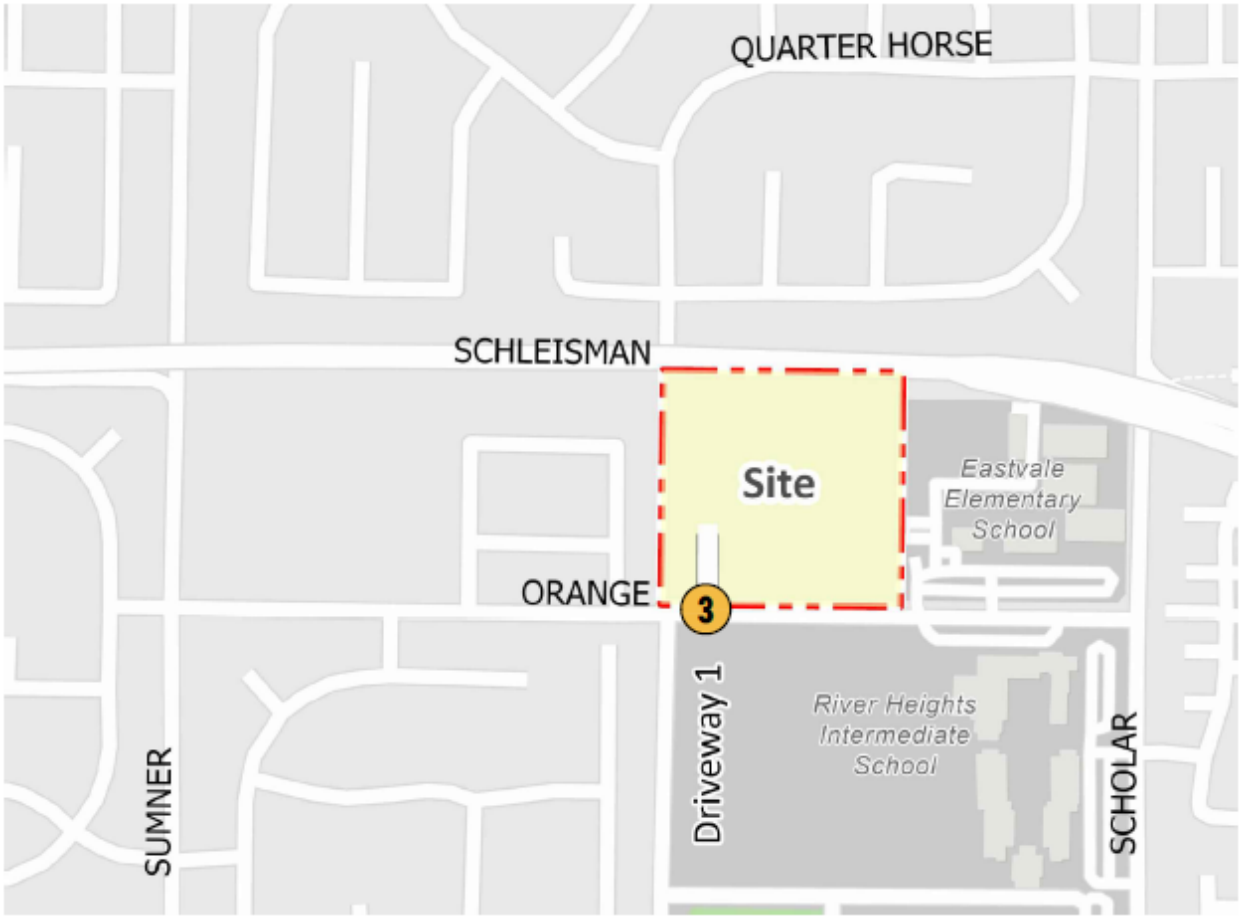
On-site traffic signing and striping should be implemented in compliance with the provisions of the California Department of Transportation (Caltrans) California Manual on Uniform Traffic Control Devices (CA MUTCD) and in conjunction with detailed construction plans for the Project site.

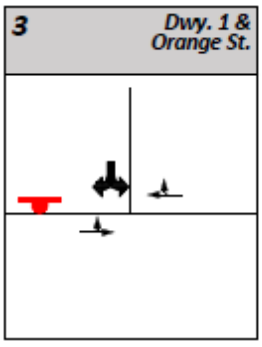
Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Eastvale sight distance standards at the time of preparation of final grading, landscape, and street improvement plans.

1.7.2 OFF-SITE RECOMMENDATIONS

The recommended improvements needed to address the cumulative deficiencies identified under Existing (2021), E+P, Opening Year Cumulative (2025), and Horizon Year (2040) traffic conditions are shown in Table 1-3. For those improvements listed in Table 1-3 and not constructed as part of the Project, the Project Applicant's responsibility for the Project's contributions towards deficient intersections is fulfilled through payment of fees or fair share that would be assigned to construction of the identified recommended improvements.

EXHIBIT 1-4: SITE ACCESS RECOMMENDATIONS





= Stop Sign Improvement
= Existing Lane
= Lane Improvement

TABLE 1-3: SUMMARY OF IMPROVEMENTS AND ROUGH ORDER OF MAGNITUDE COSTS

#	Intersection	Jurisdiction	E+P	2025 With Project	Horizon Year (2040) With Project	Improvements in County DIF?[1]	Project Responsibility[2]	Total Cost[3,4]	Fair Share %[5]	Fair Share Cost[6]
1	Sumner Av. & Schleisman Rd.	Eastvale	Restripe the EB and WB lanes to accommodate 1 left turn lane and 1 shared through-right lane	Same	Same	No	Fair Share	$40,300	0.63%	$255
					Add 2nd NB through lane	No	Fair Share	$290,160		$1,838
					Add 2nd EB through lane	No	Fair Share	$290,160		$1,838
					Add 2nd WB through lane	No	Fair Share	$290,160		$1,838
					Add a WB left turn lane	No	Fair Share	$80,600		$511
							Total	$991,380		$6,280
							Total Costs for Horizon Year Improvements	**$991,380**		**$6,280**
							Total Project Fair Share Contribution to the City of Eastvale[7]			**$6,280**

[1] Improvements included in City of Eastvale DIF program for local and regional components.

[2] Identifies the Project's responsibility to construct an improvement or contribute fair share or fee payment towards the implementation of the improvement shown.

[3] Costs have been estimated using the data provided in Appendix "G" of the CMP for preliminary construction costs.

[4] Appendix "G" costs escalated by a factor of 1.612 except Traffic Signals.

[5] Program improvements constructed by project may be eligible for fee credit, at discretion of City. See Table 8-1 for Fair Share Calculations.

[6] Rough order of magnitude cost estimate.

[7] Total project fair share contribution consists of the improvements which are not already included in a fee program for those intersections wholly or partially within the City of Eastvale.

1.8 QUEUING ANALYSIS

A queuing analysis was conducted along the site adjacent roadways of Orange Street, Schleisman Road, and at the Project driveways for Horizon Year (2040) traffic conditions to determine the turn pocket lengths and lane geometric necessary to accommodate long-term 95th percentile queues and recommend storage lengths for the turning movements shown on Exhibit 1-4. The analysis was conducted for the weekday AM and weekday PM peak hours using the SimTraffic modeling software. The Horizon Year (2040) queuing results are provided in Table 1-4 and Appendix 7.5 of this TA.

SimTraffic is designed to model networks of signalized and unsignalized intersections, with the primary purpose of checking and fine-tuning signal operations. SimTraffic uses the input parameters from Synchro (Version 11) to generate random simulations. The 95th percentile queue is not necessarily ever observed; it is simply based on statistical calculations (or Average Queue plus 1.65 standard deviations). The random simulations generated by SimTraffic have been utilized to determine the 95th percentile queue lengths observed for each turn lane. A SimTraffic simulation has been recorded 5 times, during the weekday AM and weekday PM peak hours, and has been seeded for 30-minute periods with 60-minute recording intervals.

As shown in Table 1-4, the available storage area would be able to accommodate Horizon Year (2040) With Project 95th percentile queues.

TABLE 1-4: QUEUING ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS

#	Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet) AM Peak Hour	95th Percentile Queue (Feet) PM Peak Hour	Acceptable? [1] AM	Acceptable? [1] PM
4	Driveway 1 & Orange St.	EBL/T	1,500	0	10	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown in this table, where applicable.

2 METHODOLOGIES

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are generally consistent with City of Eastvale traffic study guidelines.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (**LOS**). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The Highway Capacity Manual (**HCM**) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (5) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Eastvale requires signalized intersection operations analysis based on the methodology described in the HCM. (5) Intersection LOS operations are based on an intersection's average control delay. Control delays include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1. A saturation flow rate of 1900 has been utilized for all study area intersections located within the County of Riverside. The traffic modeling and signal timing optimization software package Synchro (Version 11) has been utilized to analyze signalized intersections within the City of Eastvale.

The peak hour traffic volumes have been adjusted using a peak hour factor (**PHF**) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g., PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. New intersections utilize a PHF of 0.92. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (5)

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Eastvale requires the operations of unsignalized intersections be evaluated using the methodology described in the HCM. (5) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2). At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. The worst delay and associated LOS for a controlled movement is utilized for the overall intersection delay and LOS for two-way stop-controlled intersections. For all-way stop controlled intersections, LOS is computed for the intersection as a whole (average delay).

TABLE 2-2: UNSIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0[1]
Little or no delays.	0 to 10.00	A
Short traffic delays.	10.01 to 15.00	B
Average traffic delays.	15.01 to 25.00	C
Long traffic delays.	25.01 to 35.00	D
Very long traffic delays.	35.01 to 50.00	E
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F

Source: HCM, 6th Edition

[1] If V/C is greater than 1.0 then LOS is F per HCM.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TA update uses the signal warrant criteria presented in the latest edition of the Caltrans' California Manual on Uniform Traffic Control Devices (**CA MUTCD**), for all applicable study area intersections. (6) As shown in Table 2-3, traffic signal warrant analyses were performed for the following unsignalized study area intersection based on the average daily traffic (Figure 4C-103 (CA) of the CA MUTCD): (6)

TABLE 2-3: TRAFFIC SIGNAL WARRANT ANALYSIS LOCATIONS

#	Intersection	Jurisdiction
3	Driveway 1 & Orange St.	Eastvale

The traffic signal warrant analyses are presented in Section 5 *E+P Traffic Conditions*, Section 6 *Opening Year Cumulative (2025) Traffic Conditions*, and Section 7 *Horizon Year (2040) Traffic Conditions* of this report. It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM ACCEPTABLE LEVELS OF SERVICE (LOS)

The City of Eastvale General Plan Policy C-10 sets a standard of LOS C with LOS D as acceptable in commercial and employment areas and at intersections of any combination of major highways, urban arterials, secondary highways, or freeway ramps. Based on this criterion, where feasible, LOS D is the minimum acceptable LOS at each of the study intersections within the City of Eastvale.

2.5 DEFICIENCY CRITERIA

This section outlines the methodology used in this analysis related to identifying circulation system deficiencies.

For the study area intersections that lie within the City of Eastvale, Project related deficiencies will be identified by comparing the "Without Project" condition to the "With Project" condition based on the following criteria:

- If the LOS deteriorates from acceptable LOS (LOS D or better) to unacceptable LOS (LOS E or F); or
- If the intersection is already operating at an unacceptable LOS (LOS E or F) in Without Project conditions and the addition of Project traffic increases the delay by more than 2.5 seconds.

Based on discussions with City staff, when the pre-Project condition is already below LOS D (i.e., unacceptable LOS), the Project will be responsible for improving its deficiencies to a level of service equal to or better than it was under pre-project traffic conditions for intersections that receive 50 or more project-related peak hour trips. This is a standard protocol in many urban jurisdictions to meet the circulation policies outlined in the respective General Plans. Thus, for intersections currently operating at unacceptable LOS during either the AM and/or PM peak hour under Without Project traffic conditions, improvements have been identified to bring the project's effect to a deficient intersection LOS that is equal to or better than pre-Project conditions.

Cumulative traffic deficiencies are created as a result of a combination of the proposed Project together with other future developments contributing to the overall traffic deficiencies requiring additional improvements to maintain acceptable level of service operations with or without the Project. A project's contribution to a cumulative deficiency can be improved if the project is required to implement or fund its fair share of improvements designed to alleviate its contribution to the deficiency. A deficiency has been deemed cumulatively considerable if the project contributes 50 or more peak hour trips.

2.6 PROJECT FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the TUMF and/or DIF will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share contribution based on the Project's proportional share may be imposed in order to address the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the City Traffic Engineer will determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval). The Project's fair share contribution is determined based on the following equation, which is the ratio of Project traffic to net new traffic (where net new traffic is the future traffic less existing traffic):

Project Fair Share % = Project Traffic / (2040 With Project Total Traffic – Existing Traffic)

3 AREA CONDITIONS

This section provides a summary of the existing circulation network, the City of Eastvale General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

Pursuant to the agreement with City of Eastvale staff (Appendix 1.1), the study area includes a total of 8 existing and future intersections as shown previously on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF EASTVALE GENERAL PLAN CIRCULATION ELEMENT

As noted previously, the Project site is located within the City of Eastvale. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified on the City of Eastvale General Plan Circulation Element, are described subsequently. Exhibit 3-2 shows the City of Eastvale General Plan Circulation Element, and Exhibit 3-3 illustrates the City of Eastvale General Plan roadway cross-sections.

The study area roadways that are classified as 6-lane Urban Arterials are identified as having three lanes of travel in each direction. The following study area roadways within the City of Eastvale are classified as 6-lane Urban Arterials:

- Schleisman Road
- Hamner Avenue

The study area roadway that is classified as a 2-lane Major Collector is identified as having one lane of travel in each direction. The following study area roadway is classified as a 2-lane Major Collector:

- Sumner Avenue

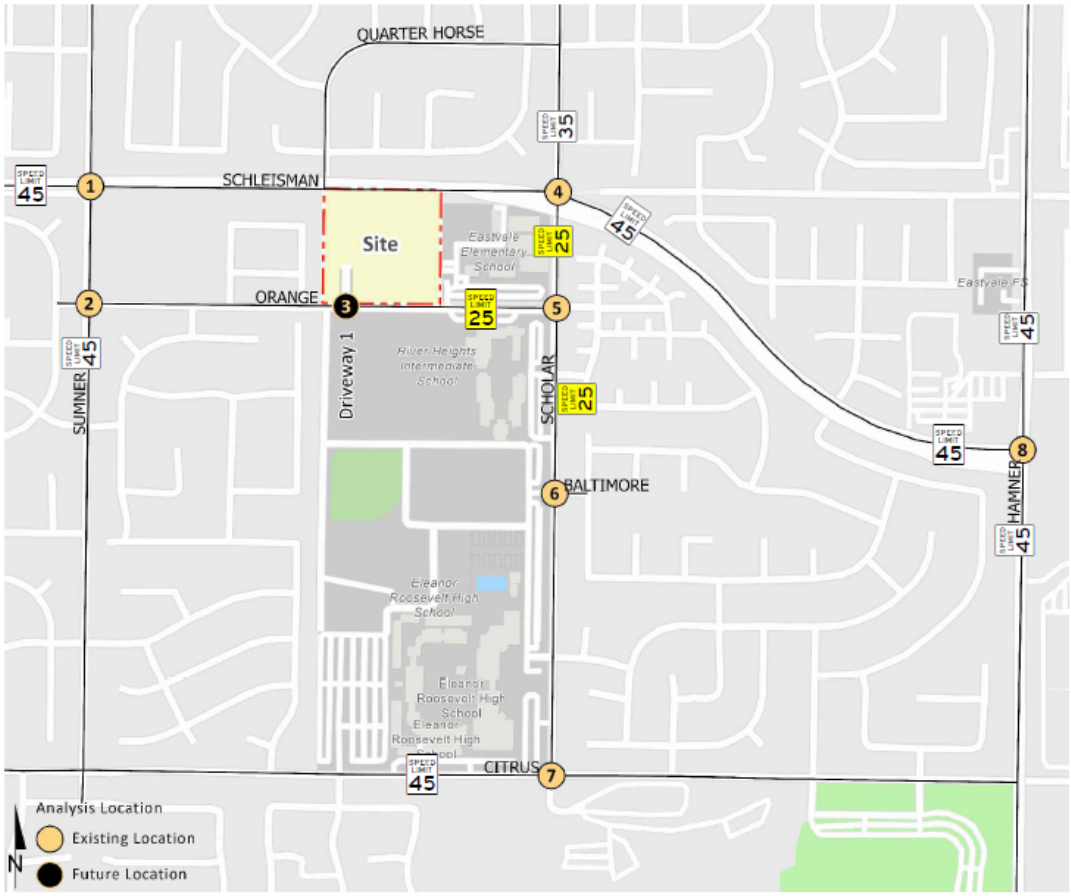
The study area roadways that are classified as 2-lane Secondary Collectors are identified as having one lane of travel in each direction. The following study area roadways are classified as Secondary Collectors:

- Scholar Way
- Citrus Street

The study area roadway that is classified as a 2-lane Local Road is identified as having one lane of travel in each direction. The following study area roadways are classified as Local Roads:

- Orange Street

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



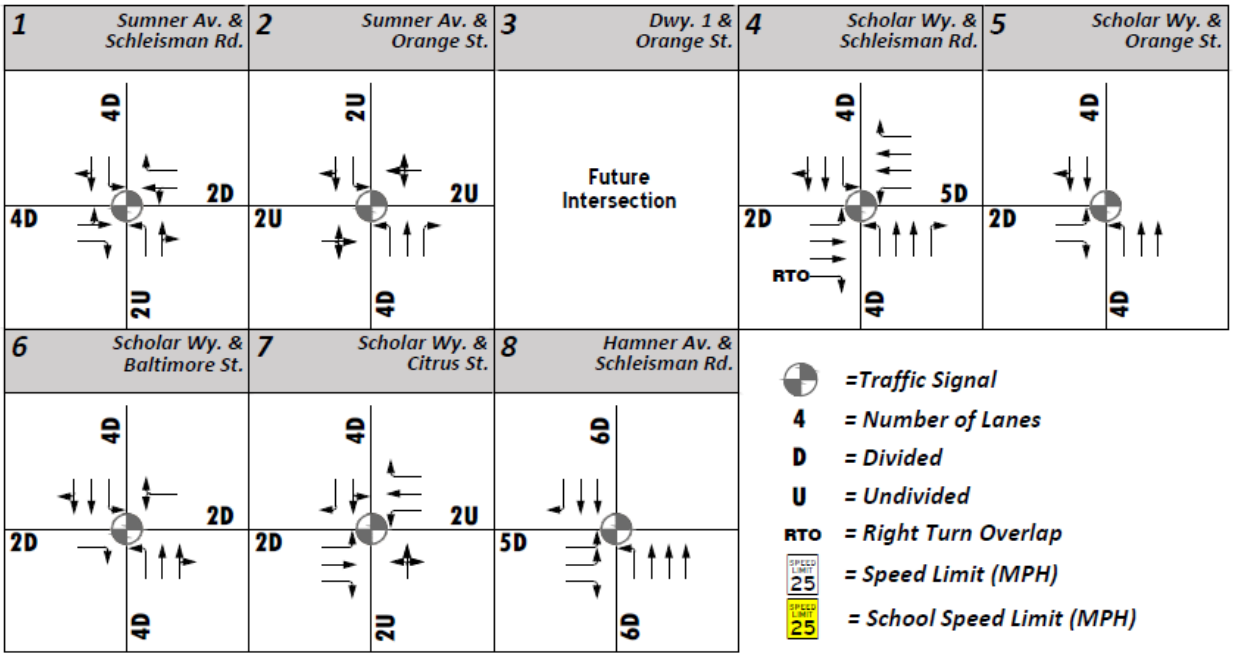


EXHIBIT 3-2: CITY OF EASTVALE GENERAL PLAN CIRCULATION ELEMENT

CHAPTER 4:
CIRCULATION AND INFRASTRUCTURE

CITY OF EASTVALE

FIGURE C-1: CIRCULATION PLAN

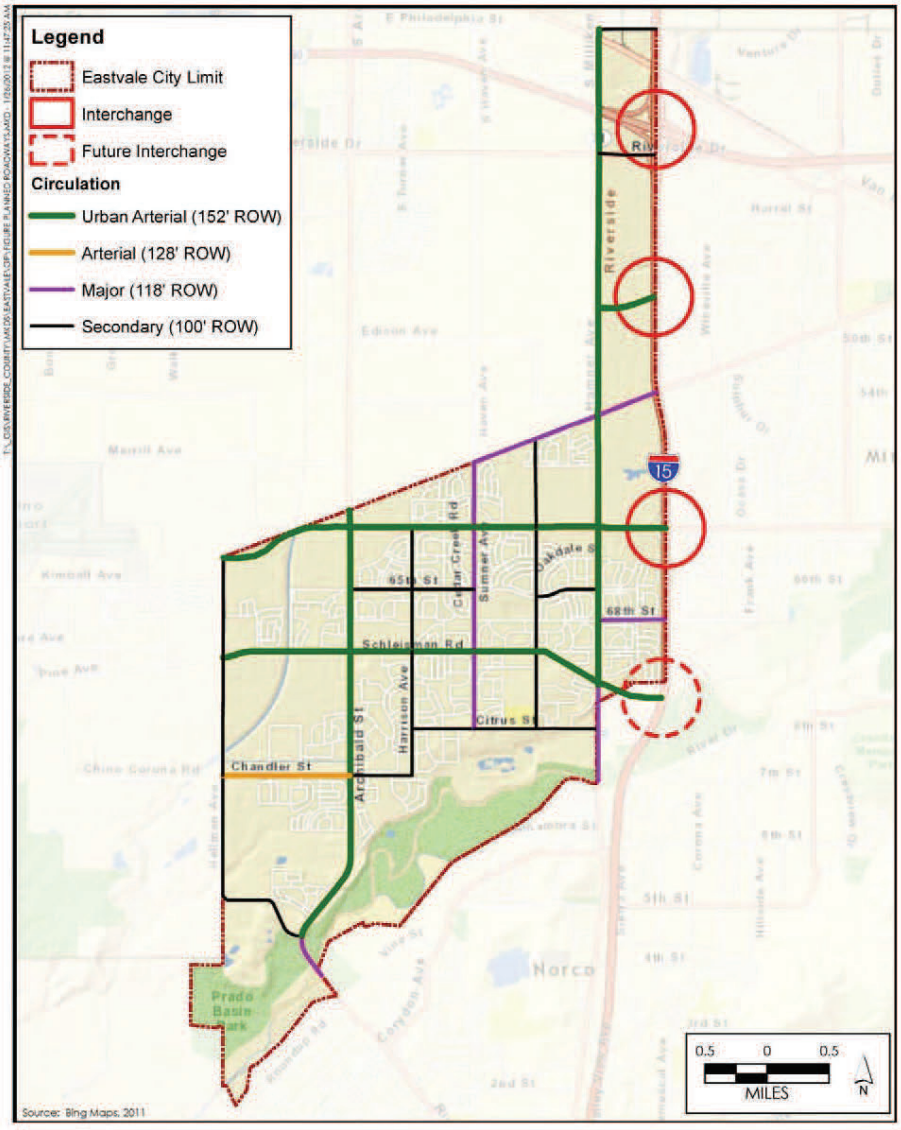
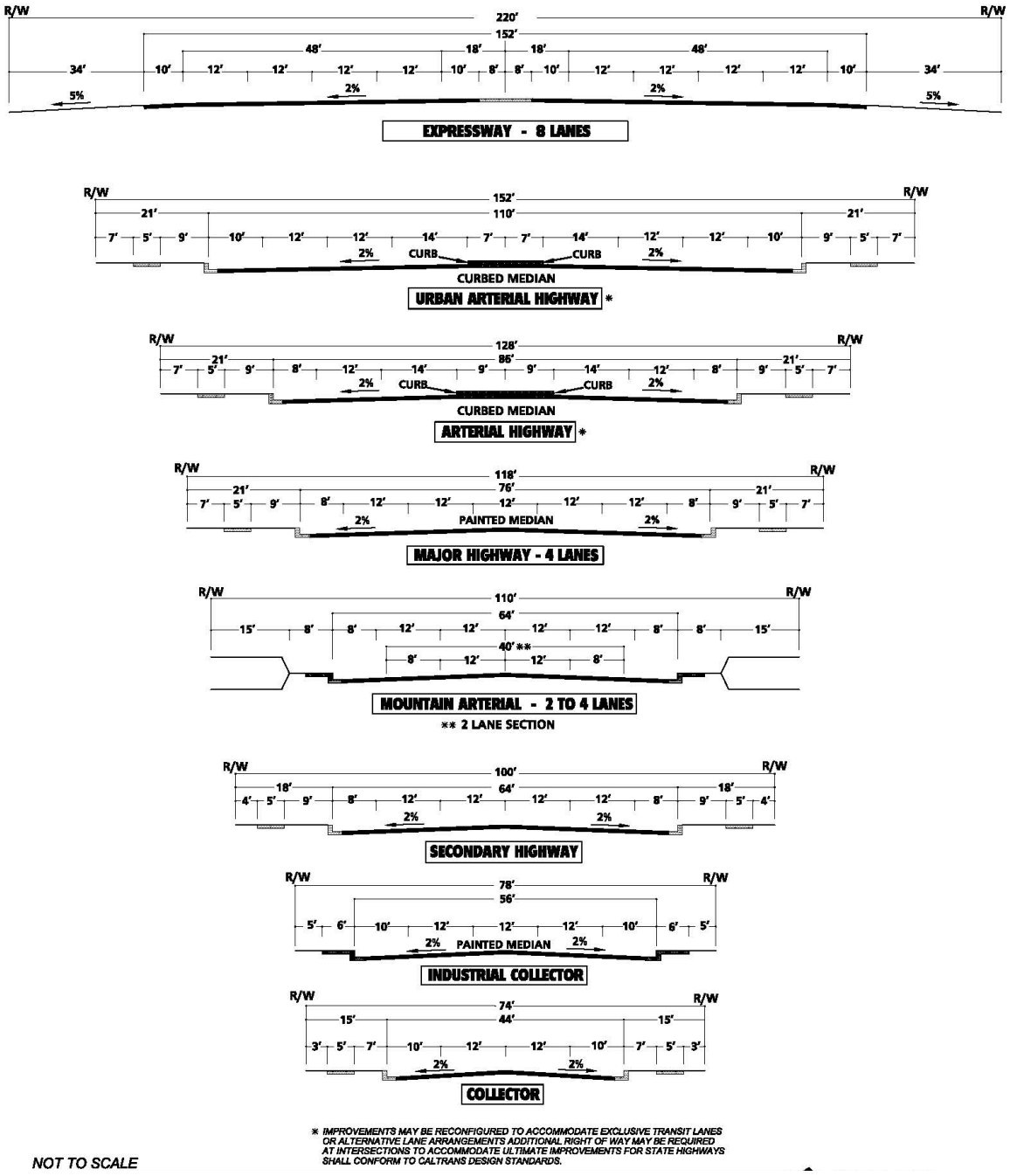


EXHIBIT 3-3: CITY OF EASTVALE GENERAL PLAN ROADWAY CROSS-SECTIONS



3.3 BICYCLE & PEDESTRIAN FACILITIES

Exhibit 3-4 illustrates the City of Eastvale current and future trails and bikeway systems which proposes off-street Class I multi-use trails along Schleisman Road. On-street Class II bike lanes are also proposed along Orange Street near the vicinity of the site. Existing pedestrian facilities within the study area are shown on Exhibit 3-5.

3.4 TRANSIT SERVICE

The Riverside Transit Authority (**RTA**) serves the City of Eastvale. Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Based on a review of the existing transit routes within the vicinity of the proposed Project, RTA Route 3 currently operates on 68th Street, Sumner Avenue, and Citrus Street. Existing transit routes in the vicinity of the study area are illustrated on Exhibit 3-6. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.5 EXISTING (2021) TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in October 2016, February 2018, January 2019, and January 2021. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

Due to the currently ongoing COVID-19 pandemic, schools and businesses within the study area were closed or operating at less than full capacity at the time this study was prepared. As such, historic traffic counts were utilized in conjunction with a 1.6% compounded growth rate per year (compounded annually) to reflect 2021 conditions. The comparison of historical counts and adjustment factor calculation are included in Appendix 3.1. The historical weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes.

Historic traffic counts were not available for the intersections of Scholar Way & Orange Street, Scholar Way & Baltimore Street, and Scholar Way & Citrus Street. As such, new traffic counts were conducted in August 2021. August 2021 traffic counts were also conducted at the intersection of Hamner Avenue & Schleisman Road in order to determine an adjustment factor between the adjusted historic count data (to 2021) and the August 2021 traffic count for this location. This adjustment factor was then applied to August 2021 counts to determine the adjusted 2021 baseline to be used for the operations analysis. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. Existing weekday ADT volumes are shown on Exhibit 3-7. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 14.88 = Leg Volume

EXHIBIT 3-4: EASTVALE AREA TRAILS AND BIKEWAY SYSTEM

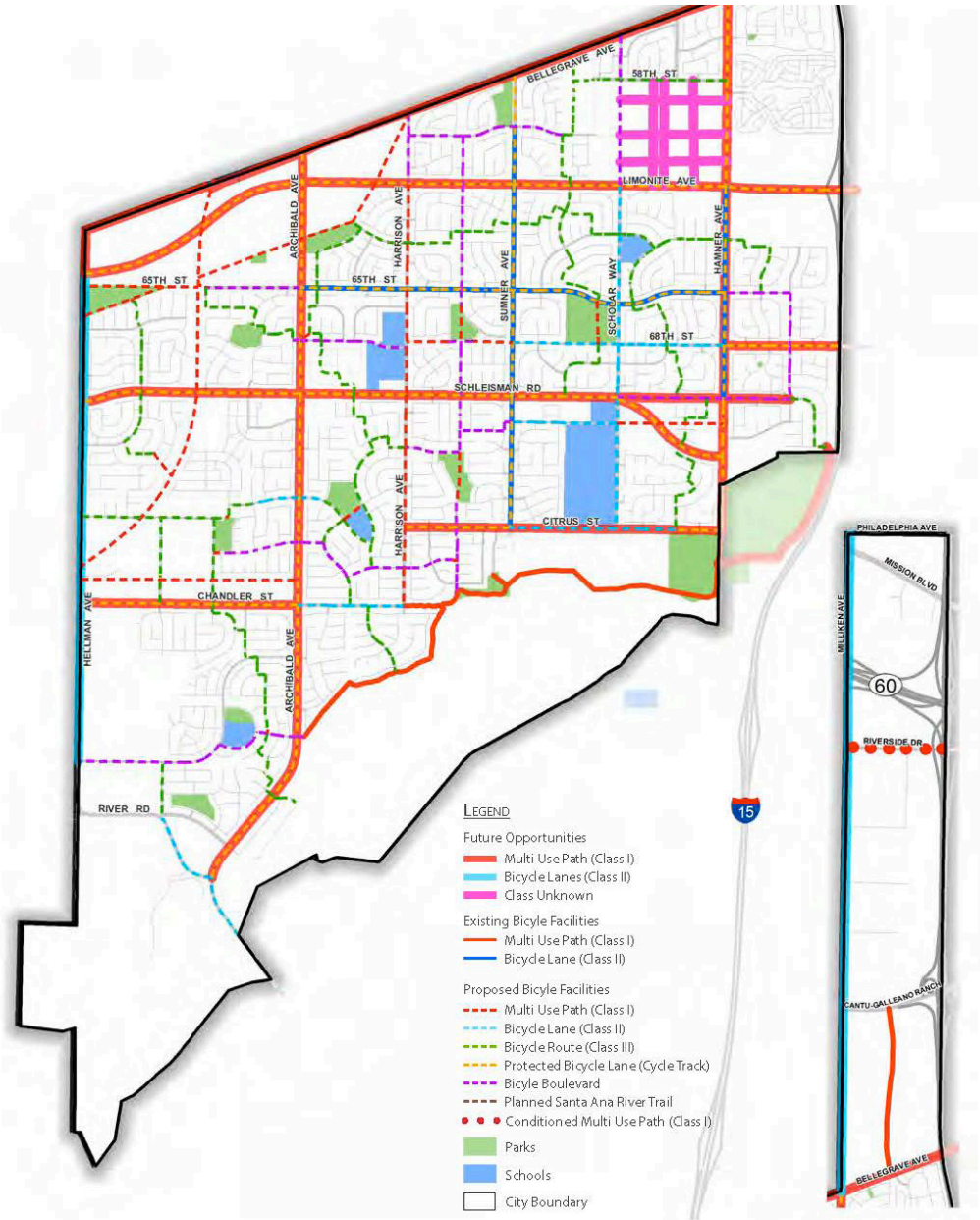


EXHIBIT 3-5: EXISTING PEDESTRIAN FACILITIES

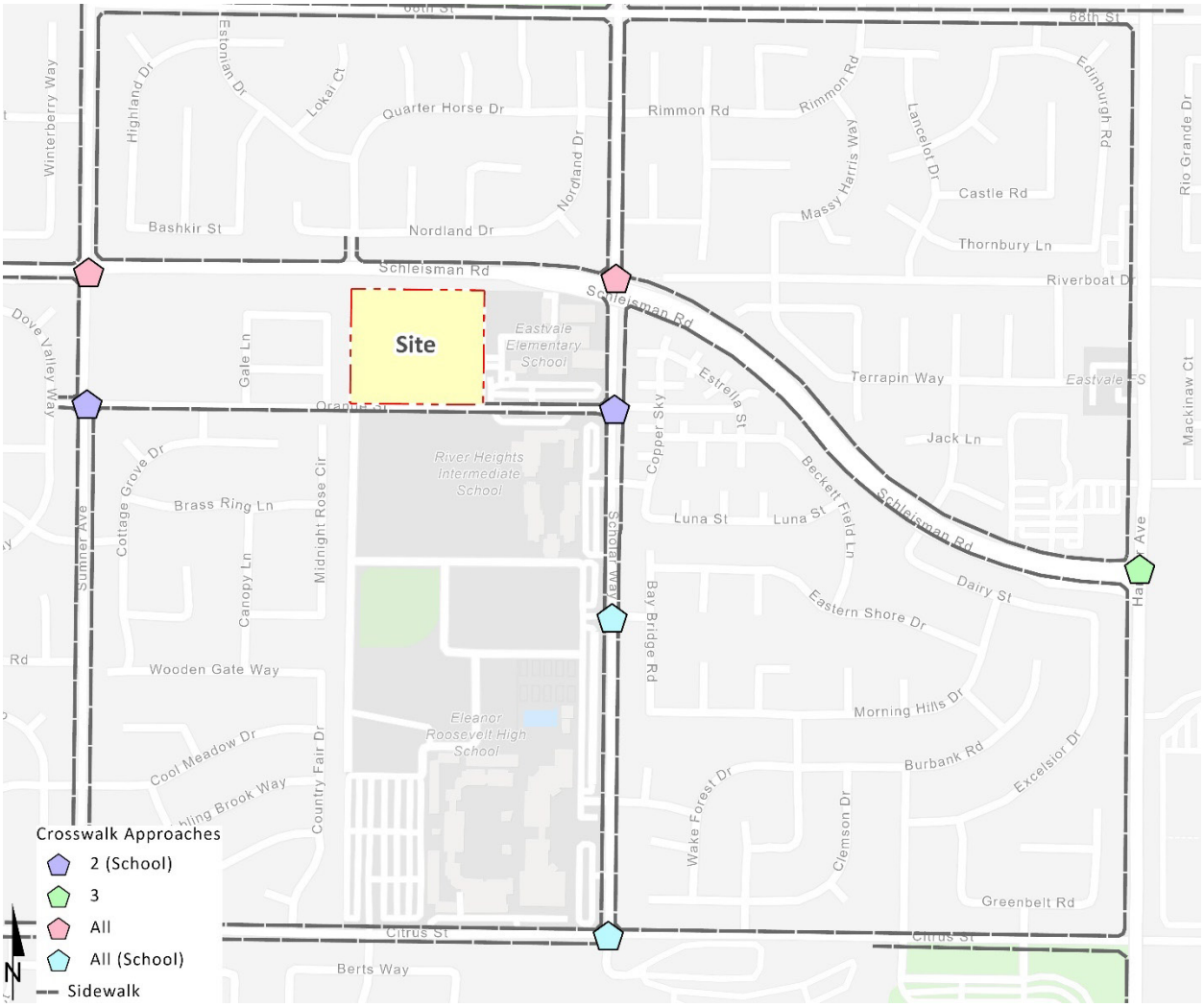


EXHIBIT 3-6: EXISTING TRANSIT ROUTES

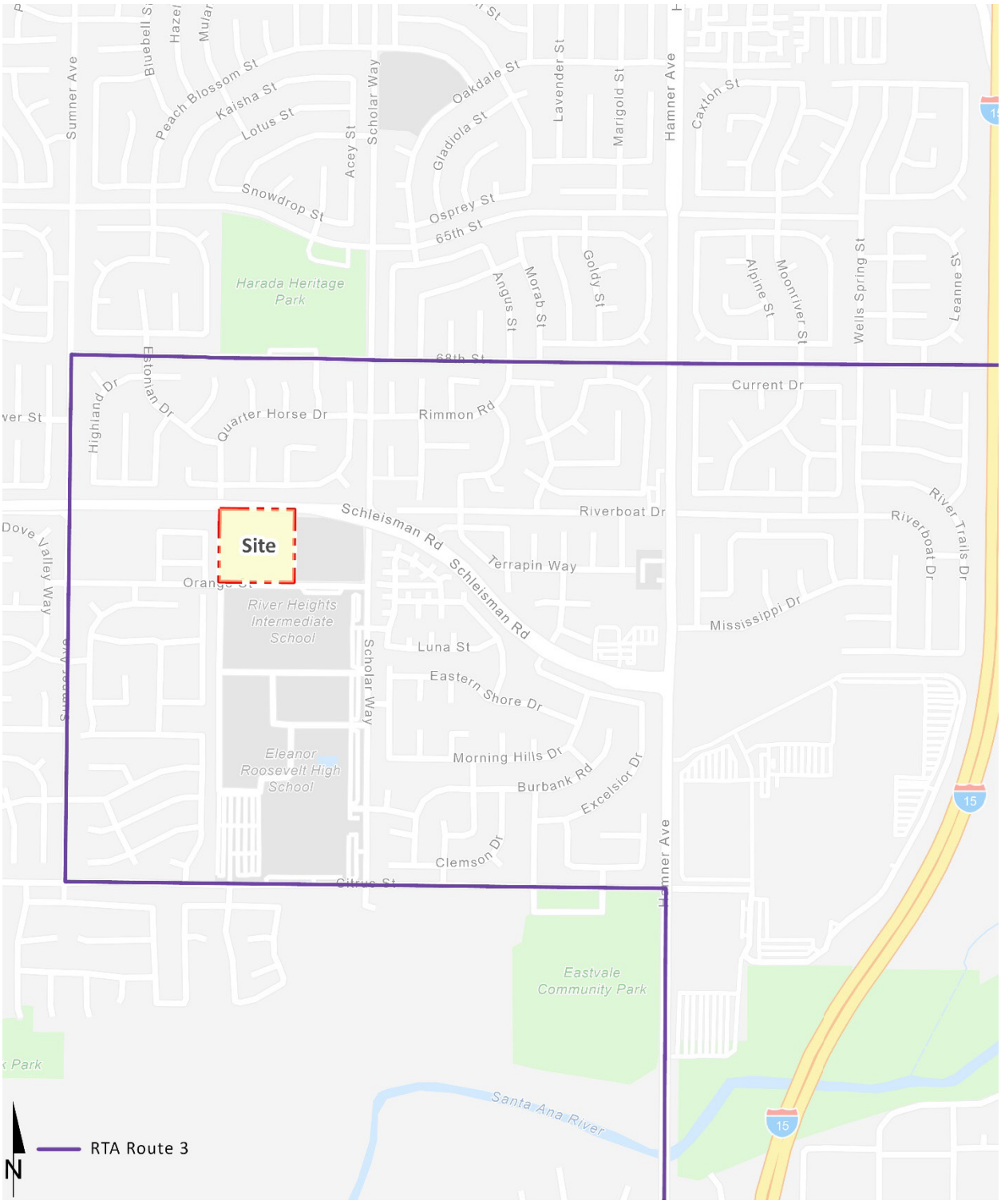


EXHIBIT 3-7: EXISTING (2021) TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

10,950 — 9,600

162(177) ↲	250(223) ←	104(31) ↳
181(229) ↳		↱ 66(39)
256(347) →		← 378(288)
302(291) ↲		↰ 13(13)
↰ 155(60)	↑ 349(129)	↱ 14(9)

18,400 — 9,600

2 Sumner Av. & Orange St.

9,600 — 1,100

15(24) ↲	519(451) ←	31(52) ↳
46(14) ↳		↱ 28(13)
6(3) →		← 0(4)
0(1) ↲		↰ 6(1)
↰ 0(1)	↑ 444(171)	↱ 6(9)

600 — 8,400

3 Orange St. & Driveway 1

Future Intersection

4 Scholar Wy. & Schleisman Rd.

7,450 — 8,550

23(34) ↲	605(221) ←	25(16) ↳
31(94) ↳		↱ 122(41)
334(296) →		← 300(217)
136(28) ↲		↰ 205(39)
↰ 133(42)	↑ 450(157)	↱ 147(38)

9,400 — 6,950

5 Scholar Wy. & Orange St.

6,950

267(30) ↲	679(258) ←	
126(54) ↳		
245(81) ↲		
↰ 153(21)	↑ 600(183)	

2,450 — 7,200

6 Scholar Wy. & Baltimore St.

8,400 — 1,200

344(240) ↲	501(156) ←	82(28) ↳
		↱ 154(30)
383(162) ↲		← 29(8)
		↰ 19(8)
↰ 132(68)	↑ 596(181)	↱ 21(17)

6,300 — 7,850

7 Scholar Wy. & Citrus St.

9,000 — 16,200

439(240) ↲	2(2) ←	339(162) ↳
303(169) ↳		↱ 277(106)
408(580) →		← 308(365)
29(7) ↲		↰ 10(6)
↰ 20(6)	↑ 4(1)	↱ 20(5)

18,100 — 350

8 Hamner Av. & Schleisman Rd.

24,600

491(180) ↲	593(687) ←	1(1) ↳
376(182) ↳		
199(111) ↲		
↰ 172(254)	↑ 603(811)	

9,600 — 24,650

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 7.56 percent. As such, the above equation utilizing a factor of 14.88 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 7.56 percent (i.e., 1/0.0756 = 14.88) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are also shown on Exhibit 3-7.

3.6 EXISTING (2021) TRAFFIC SPEED SURVEY

Count and speed data collection devices were placed along Orange Street, adjacent to the Project site. Existing traffic speed data by direction was collected, for 48 hours beginning on August 31, 2021, and ending on September 1, 2021.

The speed survey for Orange Street indicates that the vehicle pace speed is within the 31-40 MPH range with an 85th percentile speed of 39 MPH. The speed survey results on Orange Street indicate that vehicles are travelling above the 25 MPH speed limit. Approximately 60% of vehicles in the 48-hour survey exceeded the 25 MPH posted speed limit. The raw data is included in Appendix 3.2 of this TA.

3.7 EXISTING (2021) INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1, which indicates that the following study area intersection operating at an unacceptable LOS under Existing (2021) traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

The intersection operations analysis worksheets are included in Appendix 3.3 of this TA.

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2021) CONDITIONS

#	Intersection	Traffic Control[1]	Delay[2] (secs.) AM	Delay[2] (secs.) PM	Level of Service AM	Level of Service PM
1	Sumner Av. & Schleisman Rd.	TS	**111.2**	**58.6**	**F**	**E**
2	Sumner Av. & Orange St.	TS	8.6	8.5	A	A
3	Driveway 1 & Orange St.		Future Intersection			
4	Scholar Wy. & Schleisman Rd.	TS	23.1	17.6	C	B
5	Scholar Wy. & Orange St.	TS	3.6	6.4	A	A
6	Scholar Wy. & Baltimore St.	TS	21.0	10.8	C	B
7	Scholar Wy. & Citrus St.	TS	40.1	18.8	D	B
8	Hamner Av. & Schleisman Rd.	TS	14.6	11.9	B	B

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 CSS = Cross-street Stop; TS = Traffic Signal

2 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

3.8 TRAFFIC SIGNAL WARRANTS ANALYSIS

All of the study area intersections are currently signalized. As such, no traffic signal warrants have bene evaluated for Existing traffic conditions.

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of up to 41 single family detached residential units.

Regional access to the Project site is available from the I-15 Freeway at Limonite Avenue interchange. The Project is bounded by Schleisman Road to the north and Orange Street to the south in the City of Eastvale. Vehicular traffic access will be provided via the following driveway:

- Driveway 1 via Orange Street – Full access

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

Trip generation represents the amount of traffic that is attracted and produced by a development and is based upon the specific land uses planned for a given project. The Single Family Detached Residential (ITE Land Use Code 210) trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (**ITE**) as provided in their Trip Generation Manual (11th Edition, 2017). (2) Trip generation rates used to estimate Project traffic are shown in Table 4-1.

The resulting trip generation for the proposed Project is also shown in Table 4-1. As shown in Table 4-1, the proposed Project is anticipated to generate a total of 388 vehicle trip-ends per day with 28 AM peak hour trips and 38 PM peak hour trips.

TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

	ITE		AM Peak Hour			PM Peak Hour			
Land Use	Code	Units[2]	In	Out	Total	In	Out	Total	Daily
Trip Generation Rates[1]									
Single Family Detached Residential	210	DU	0.18	0.52	0.70	0.59	0.35	0.94	9.43

			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[2]	In	Out	Total	In	Out	Total	Daily
Trip Generation Summary									
Single Family Detached Residential	41	DU	7	21	28	24	14	38	388

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition (2021).

[2] DU = Dwelling Units

4.2 PROJECT TRIP DISTRIBUTION

The Project trip distribution and assignment process represents the directional orientation of traffic to and from the Project site. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Exhibit 4-1 illustrates the Project trip distribution patterns.

4.3 MODAL SPLIT

The potential for Project trips to be reduced by the use of public transit, walking or bicycling have not been included as part of the Project's estimated trip generation. Essentially, the Project's traffic projections are "conservative" in that these alternative travel modes would reduce the forecasted traffic volumes.

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project only ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-2.

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION

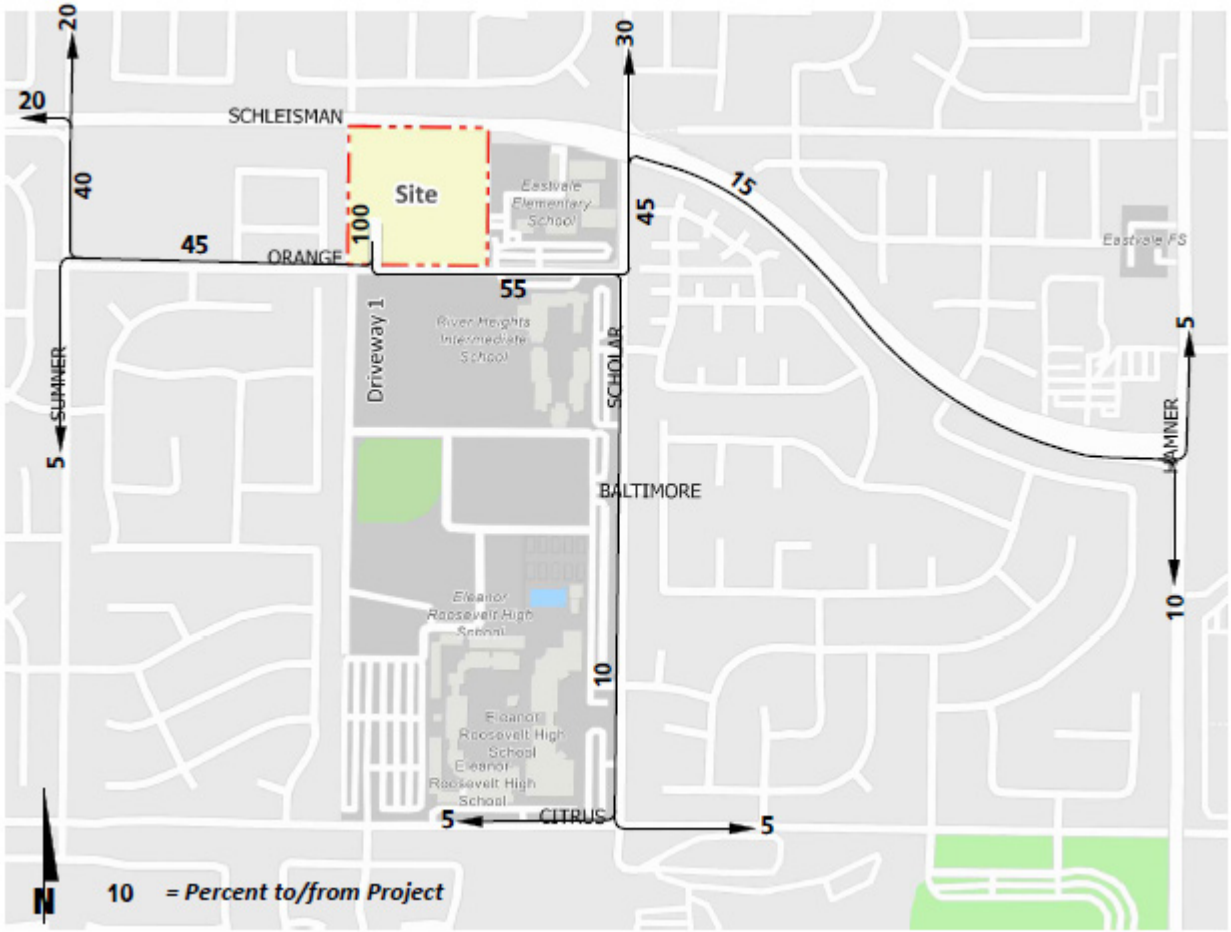


EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.	2 Sumner Av. & Orange St.	3 Orange St. & Driveway 1	4 Scholar Wy. & Schleisman Rd.
100 ← 1(5) 1(5) ↵ 4(3) ↰ 4(3) ↑ *100* *150*	*150* 3(10) ↳ ↱ 8(6) ↰ 1(1) 0(1) ↱ *200*	*400* 9(6) ↵ 12(8) ↳ 3(11) ↳ ↱ 4(13) *150* *200*	*100* ← 2(7) ↰ 1(4) 6(4) → 3(2) ↱ *150* *Nominal*

5 Scholar Wy. & Orange St.	6 Scholar Wy. & Baltimore St.	7 Scholar Wy. & Citrus St.	8 Hamner Av. & Schleisman Rd.
150 ↵ 3(11) 9(6) ↳ 2(1) ↵ ↰ 1(2) *200* *Nominal*	*Nominal* ← 2(1) 1(2) → ↱ *Nominal*	*Nominal* ↵ 1(1) ↳ 1(1) 0(1) ↳ ↱ 0(1)	↵ 0(1) 1(1) ↳ 2(1) ↵ ↰ 1(2) *Nominal* *Nominal*

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

4.5 BACKGROUND TRAFFIC

4.5.1 OPENING YEAR CUMULATIVE CONDITIONS

Future year traffic forecasts have been based upon background (ambient) growth at 1.6% per year for 2025 traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. The total ambient growth factor is 6.81 for 2025 traffic conditions (growth of 1.6 percent per year compounded over 4 years). This ambient growth rate is applied to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth traffic volumes have been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies.

Opening Year Cumulative (2025) traffic volumes are provided in Section 6 of this report. The traffic generated by the proposed Project was then manually added to the base volume to determine Opening Year Cumulative "With Project" forecasts for 2025.

4.5.2 HORIZON YEAR CONDITIONS

Horizon Year conditions represent the General Plan Buildout of the City of Eastvale and is based on the Riverside County Transportation Analysis Model (**RivTAM**) (see Section 4.7 *Horizon Year Volume Development* for additional discussion). The adopted Southern California Association of Governments (**SCAG**) 2020 Regional Transportation Plan/Sustainable Communities Strategy (**RTP/SCS**) (adopted September 2020) growth forecasts for the City of Eastvale identifies projected growth in population of 63,900 in 2016 to 72,700 in 2045, or a 13.77% increase over the 29-year period. (7) The change in population equates to roughly a 0.45% growth rate, compounded annually. Similarly, growth over the same 29-year period in households is projected to increase by 13.50%, or a 0.44% annual growth rate. Finally, growth in employment over the same 29-year period is projected to increase by 191.89%, or a 3.76% annual growth rate.

Based on a comparison of Existing (2021) traffic volumes to the Horizon Year forecasts, the average growth rate is estimated at approximately 2.46%, compounded annually between Existing (2021) and 2040 traffic conditions. The annual growth rate at each individual intersection is not lower than 0.62% compounded annually to as high as 6.55% compounded annually over the same time period.

Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Eastvale for Opening Year Cumulative and Horizon Year traffic conditions, especially when considered along with the addition of project-related traffic. As such, the growth in traffic volumes assumed in this traffic analysis would tend to overstate as opposed to understating the potential deficiencies to traffic and circulation.

EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP

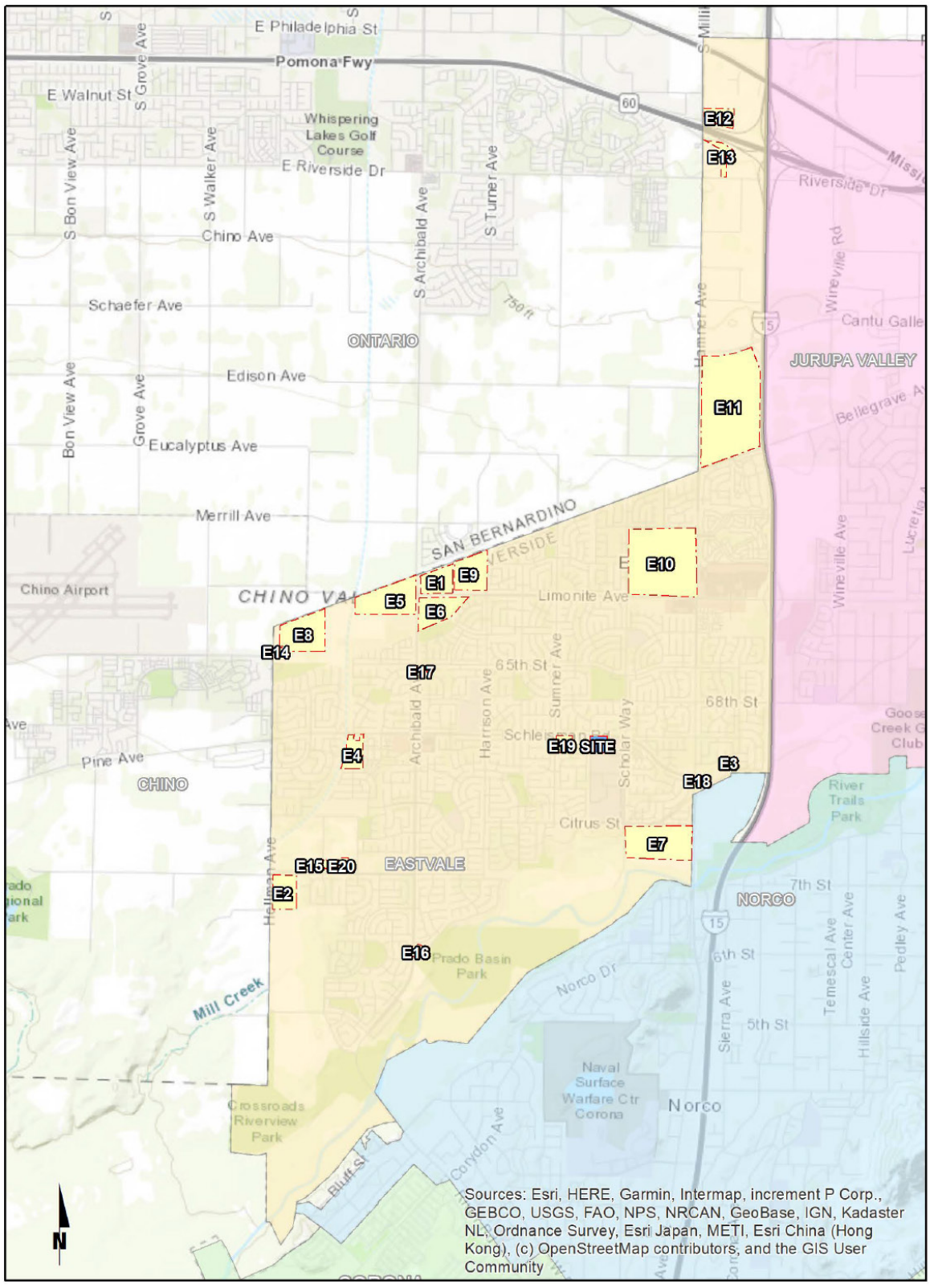


EXHIBIT 4-4: CUMULATIVE ONLY TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

1,100 | 2,650
- 1(1) ↲ 35(25) ← 8(12) ↳
- 7(12) ↰ 47(92) ← 16(12) ↑
- 1(1) ↳ 78(97) → 21(4) ↲
- 35(12) ↱ 37(19) → 21(14) ↱

2,550 | 1,850

2 Sumner Av. & Orange St.

1,250 | 650
- 20(19) ← 65(28) ↳
- 89(46) →

650 | 600

3 Orange St. & Driveway 1

650 | 650

650 | 650

4 Scholar Wy. & Schleisman Rd.

750 | 2,850
- 10(1) ↲ 7(23) ← 13(10) ↳
- 6(12) ↰ 68(112) ← 6(10) ↑
- 6(1) ↳ 100(95) → 11(18) ↲
- 16(15) ↱ 20(13) → 12(9) ↱

2,850 | 950

5 Scholar Wy. & Orange St.

950 | 950
- 24(51) ←
- 48(37) →

650 | 950

6 Scholar Wy. & Baltimore St.

950 | 950
- 24(51) ←
- 48(37) →

950 | 950

7 Scholar Wy. & Citrus St.

100 | 400
- 24(51) ↲
- 28(27) ↱
- 20(10) ↳

400 | 950

8 Hamner Av. & Schleisman Rd.

9,850 | 9,050
- 40(51) ↲ 26(145) ↳
- 117(160) ↰ 20(54) ← 169(171) ↑
- 26(8) ↳ 49(40) → 50(66) ↲
- 20(30) ↱ 208(133) ↱

2,850 | 9,150

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

#	Project/Location	Land Use[1]	Quantity	Units[2]
E1	The Merge	Warehousing	336.501	TSF
		Shopping Center	4.750	TSF
		Supermarket	30.000	TSF
		Gas Station w/ convenience store	16	VFP
		Pharmacy/Drugstore with Drive-Thru	14.600	TSF
		Fast-Food with Drive-Thru	6.000	TSF
		Automated Car Wash	4.000	TSF
		Fast-Food Without Drive-Thru	7.750	TSF
		Coffee/Donut Shop With Drive-Thru	2.500	TSF
E2	TR29997	SFDR	122	DU
E3	Hamner Place	Hotel	120	RM
		Civic Center	50.000	TSF
		Shopping Center	33	TSF
E4	TR35751	Condo/Townhouse	243	DU
E5	PP23219 (PM35865) (50% complete)	General Light Industrial	738.430	TSF
E6	Eastvale Shopping Center	Free-Standing Discount Superstore	192.000	TSF
		Specialty Retail	9.200	TSF
		Fast-Food Without Drive-Thru	7.200	TSF
		Coffee/Donut Shop w/ Drive Thru	2.000	TSF
		Fast-Food with Drive-Thru	3.500	TSF
		Gas Station w/ convenience store and car wash	16	VFP
E7	Van Leeuwen	Senior Housing	224	DU
E8	SP00358 - The Ranch at Eastvale	Shopping Center	267.200	TSF
		General Light Industrial	801.500	TSF
		Business Park	801.500	TSF
E9	SC Limonite, LLC	SFDR	330.000	TSF
E10	Leal Master Plan	Lifestyle Center (Commercial)	1,300.000	TSF
		General Commercial	225.000	TSF
		Office	920.000	TSF
		Hotel	450	RM
		High Density Residential	500-660	DU
E11	Eastvale Goodman Center	Shopping Center	677.000	TSF
		Supermarket	35.000	TSF
		Food Hall	16.500	TSF
E12	S. Milliken Warehouse	High-Cube Warehouse	280.000	TSF
E13	15-1508 - Industrial Warehouse	Warehousing	155.000	TSF
E14	Beyond Mart Development	Gas Station w/ convenience store and car wash	20.000	VFP
E15	PLN19-20047	Self-Storage	158.000	TSF
E16	Vantage Point Church	Church	10.000	AC
E17	Campus at Eastvale	Warehousing	733.688	TSF
		Gas Station w/ convenience stor and car wash	16	VFP
		Self-Storage	152.268	TSF
E18	PLN18-20037	Shopping Center	19.104	TSF
E-19	Sumner Place	Multifamily Housing (Low-Rise)	22	DU
		Multifamily Housing (Mid-Rise)	194	DU
		Retail	2.500	TSF
		Fast-Food without Drive-Thru	2.500	TSF
E 20	Gossett Self-Storage	Office	158.267	TSF
		Storage	950	Units

[1] SFDR = Single Family Detached Residential

[2] TSF = Thousand Square Feet; DU = Dwelling Unit; VFP = Vehicle Fueling Position ; AC = Acres; RM = Rooms

The model data from RivTAM represents peak hour data and therefore did not require adjustments. Typically, the model growth is prorated and is subsequently added to the existing (base validation) traffic volumes to represent Horizon Year traffic conditions. In an effort to conduct a conservative analysis, reductions to traffic forecasts from either Existing or Opening Year Cumulative traffic conditions were not assumed as part of this analysis. As such, in conjunction with the addition of cumulative projects that are not consistent with the General Plan, additional growth has also been applied on a movement-by-movement basis, where applicable, to estimate reasonable Horizon Year forecasts. Horizon Year turning volumes were compared to Opening Year Cumulative (2025) volumes in order to ensure a minimum growth as a part of the refinement process. The minimum growth includes any additional growth between Opening Year Cumulative (2025) and Horizon Year traffic conditions that is not accounted for by the traffic generated by cumulative development projects and ambient growth rates assumed between Existing (2021) and Opening Year Cumulative (2025) conditions. Future estimated peak hour traffic data was used for new intersections and intersections with an anticipated change in travel patterns to further refine the Horizon Year peak hour forecasts.

The future Horizon Year Without Project peak hour turning movements were then reviewed by Urban Crossroads, Inc. for reasonableness, and in some cases, were adjusted to achieve flow conservation, reasonable growth, and reasonable diversion between parallel routes. Flow conservation checks ensure that traffic flow between two closely spaced intersections, such as two adjacent driveway locations, is verified in order to make certain that vehicles leaving one intersection are entering the adjacent intersection and that there is no unexplained loss of vehicles. The result of this traffic forecasting procedure is a series of traffic volumes which are suitable for traffic operations analysis.

RivTAM does not include a truck component or has data that is unusually low. As such, in an effort to conduct a conservative analysis, the presence of trucks has been accounted for based on the manual volume adjustments made to demonstrate growth above Opening Year Cumulative (2025) traffic forecasts. Post-processing worksheets for Horizon Year Without Project traffic conditions are provided in Appendix 4.1.

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5 E+P TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (**E+P**) conditions and the resulting intersection operations and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

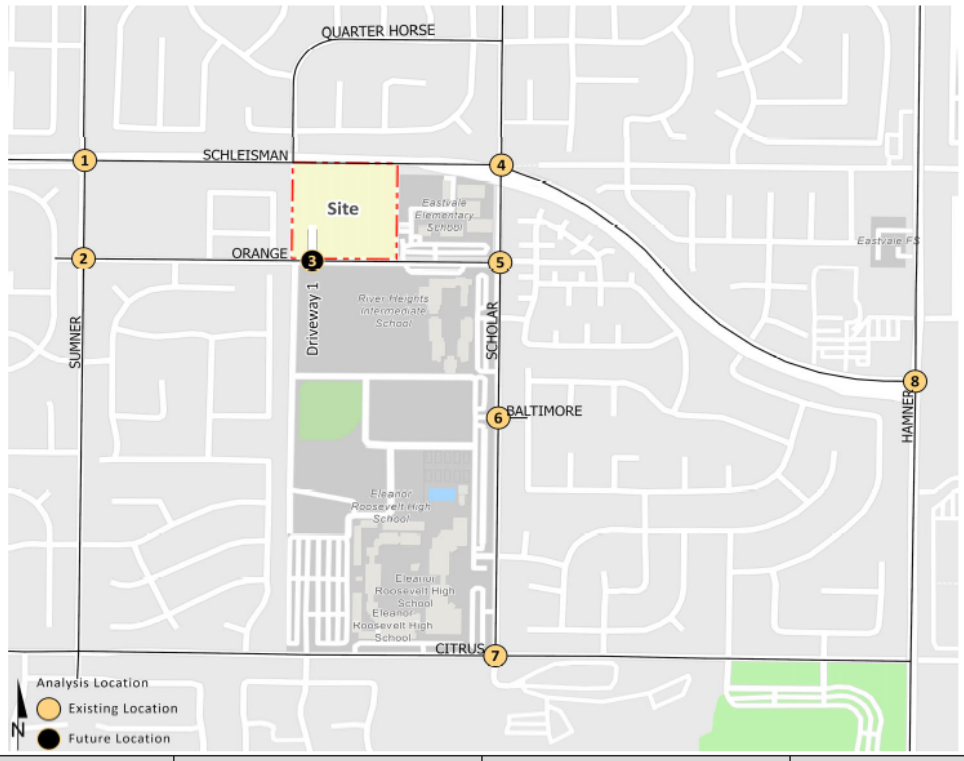
5.2 E+P TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. The ADT volumes and weekday AM and PM peak hour intersection turning movement volumes which can be expected for E+P traffic conditions are shown on Exhibit 5-1.

5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TA. The intersection analysis results are summarized in Table 5-1, which indicates no additional intersections are anticipated to operate at an unacceptable LOS with addition of Project traffic, consistent with Existing (2021) traffic conditions. The intersection operations analysis worksheets for E+P traffic conditions are included in Appendix 5.1 of this TA.

EXHIBIT 5-1: E+P TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

11,050 | 162(177) ↲ 251(228) ↓ 104(31) ↳ | *9,600* | 66(39) ↱ 378(288) ← 13(13) ↰
181(229) → | 159(63) ↰ 353(132) ↑ 14(9) ↱
256(347) → |
303(296) ↳ | *9,750*
18,500

2 Sumner Av. & Orange St.

9,750 | 15(24) ↲ 519(451) ↓ 34(62) ↳ | *1,250* | 36(19) ↱ 0(4) ← 7(2) ↰
46(14) → | 0(1) ↰ 444(171) ↑ 6(10) ↱
6(3) →
0(1) ↳ | *8,400*
600

3 Orange St. & Driveway 1

400 | 9(6) ↲ 12(8) ↳ | *1,300* | 4(13) ↱ 34(18) ←
3(11) → |
43(64) → |
1,250

4 Scholar Wy. & Schleisman Rd.

7,550 | 23(34) ↲ 607(228) ↓ 25(16) ↳ | *8,600* | 122(41) ↱ 300(217) ← 206(43) ↰
31(94) → | 133(42) ↰ 456(161) ↑ 150(40) ↱
334(296) →
136(28) ↳ | *7,100*
9,400

5 Scholar Wy. & Orange St.

7,100 | 270(41) ↲ 679(258) ↓ |
135(60) → | 154(23) ↰ 600(183) ↑
247(82) ↳ | *7,200*
2,650

6 Scholar Wy. & Baltimore St.

8,450 | 344(240) ↲ 503(157) ↓ 82(28) ↳ | *1,200* | 154(30) ↱ 29(8) ← 19(8) ↰
383(162) ↳ | 132(68) ↰ 597(183) ↑ 21(17) ↱ | *7,850*
6,300

7 Scholar Wy. & Citrus St.

9,050 | 440(241) ↲ 2(2) ↓ 340(163) ↳ | *16,200* | 277(107) ↱ 308(365) ← 10(6) ↰
303(170) → | 20(6) ↰ 4(1) ↑ 20(5) ↱
408(580) →
29(7) ↳ | *350*
18,100

8 Hamner Av. & Schleisman Rd.

24,650 | 491(181) ↲ 593(687) ↓ 1(1) ↳ |
377(183) → | 173(256) ↰ 603(811) ↑
201(112) ↳ | *24,700*
9,700

##(##) AM(PM) Peak Hour Intersection Volumes
*## **Average Daily Trips***

TABLE 5-1: INTERSECTION ANALYSIS FOR E+P CONDITIONS

#	Intersection	Traffic Control[2]	Existing (2021) Delay[1] (secs.) AM	Existing (2021) Delay[1] (secs.) PM	Existing (2021) Level of Service AM	Existing (2021) Level of Service PM	E+P Delay[1] (secs.) AM	E+P Delay[1] (secs.) PM	E+P Level of Service AM	E+P Level of Service PM
1	Sumner Av. & Schleisman Rd.	TS	**111.2**	**58.6**	**F**	**E**	**114.2**	**60.1**	**F**	**E**
2	Sumner Av. & Orange St.	TS	8.6	8.5	A	A	9.0	8.9	A	A
3	Driveway 1 & Orange St.	--/CSS	Future Intersection				9.0	9.0	A	A
4	Scholar Wy. & Schleisman Rd.	TS	23.1	17.6	C	B	24.9	17.6	C	B
5	Scholar Wy. & Orange St.	TS	3.6	6.4	A	A	3.6	6.6	A	A
6	Scholar Wy. & Baltimore St.	TS	21.0	10.8	C	B	21.0	10.8	C	B
7	Scholar Wy. & Citrus St.	TS	40.1	18.8	D	B	40.2	18.9	D	B
8	Hamner Av. & Schleisman Rd.	TS	14.6	11.9	B	B	14.7	12.0	B	B

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

2 CSS = Cross-street Stop; TS = Traffic Signal; CSS = Improvement

5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

No study area intersections are anticipated to meet average daily volume-based traffic signal warrants for E+P traffic conditions (see Appendix 5.2) of this report.

5.5 DEFICIENCIES AND IMPROVEMENTS

Improvements have been identified for each of the study area intersections that are operating at an unacceptable LOS during the peak hours. The effectiveness of the recommended improvement strategies to address E+P traffic deficiencies are presented on Table 5-2. Worksheets for E+P Conditions, with improvements, HCM calculation worksheets are provided in Appendix 5.3.

TABLE 5-2: SUMMARY OF INTERSECTION ANALYSIS FOR E+P CONDITIONS WITH IMPROVEMENTS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1] Northbound L	T	R	Southbound L	T	R	Eastbound L	T	R	Westbound L	T	R	Delay[2] (secs.) AM	PM	Level of Service AM	PM
1	Sumner Av. & Schleisman Rd.																	
	-Without Improvements	TS	1	1	0	1	1	0	0	1	1	0	1	1	**114.2**	**60.1**	**F**	**E**
	-With Improvements[4]	TS	1	1	0	1	1	0	**1**	1	**0**	**1**	1	**0**	38.8	27.0	D	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes: L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

[3] TS = Traffic Signal

[4] Improvements require additional right-of-way. The improvements are assumed to be constructed by a future project adjacent to the intersection.

6 OPENING YEAR CUMULATIVE (2025) TRAFFIC CONDITIONS

This section discusses the methods used to develop Opening Year Cumulative (2025) Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrant, analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Opening Year Cumulative (2025) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Opening Year Cumulative conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).

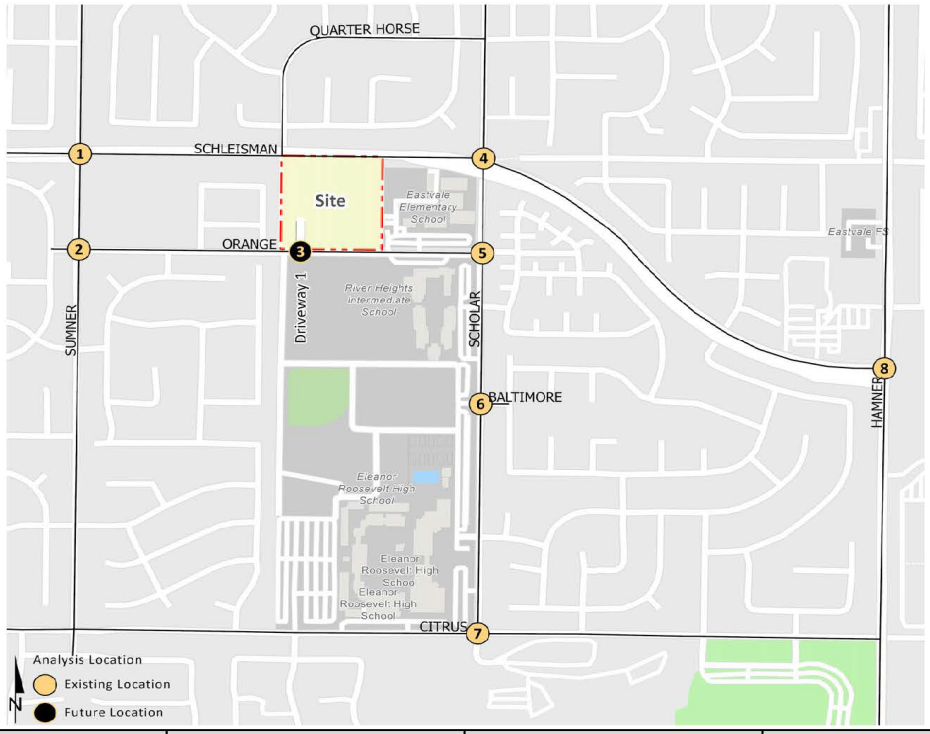
6.2 OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus an ambient growth of 6.8% plus traffic from pending and approved but not yet constructed known development projects in the area. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2025) Without Project traffic conditions are shown on Exhibit 6-1.

6.3 OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Opening Year Cumulative (2025) Without Project traffic in conjunction with the addition of Project traffic. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Opening Year Cumulative (2025) With Project traffic conditions are shown on Exhibit 6-2.

EXHIBIT 6-1: OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

12,000 | 11,050 | 10,800 | 20,400

193(244) →	176(68)	21(14)
296(399) →	383(143)	
328(311) ↲		
↲ 173(189)	↑ 72(45)	
↓ 277(245)	↑ 417(334)	
↳ 113(37)	↱ 19(17)	

2 Sumner Av. & Orange St.

10,600 | 1,350 | 9,100 | 650

49(15) →	0(1)	6(10)
6(3) →	500(196)	
0(1) ↲		
↲ 16(26)	↑ 30(14)	
↓ 559(486)	↑ 0(4)	
↳ 53(64)	↱ 6(1)	

3 Orange St. & Driveway 1

Future Intersection

4 Scholar Wy. & Schleisman Rd.

8,150 | 10,000 | 7,700 | 10,900

35(100) →	147(49)	160(43)
386(344) →	485(171)	
148(35) ↲		
↲ 28(37)	↑ 132(47)	
↓ 647(242)	↑ 347(295)	
↳ 31(20)	↱ 220(45)	

5 Scholar Wy. & Orange St.

7,700 | 7,950 | 2,800

134(58) →	163(22)	
261(86) ↲	658(206)	
↲ 285(32)		
↓ 731(290)		

6 Scholar Wy. & Baltimore St.

9,250 | 1,300 | 8,650 | 6,750

408(173) ↲	141(72)	22(18)
	649(204)	
	↰ 164(32)	
↓ 367(256)	↑ 31(9)	
↓ 541(182)	↰ 20(9)	
↳ 87(30)		

7 Scholar Wy. & Citrus St.

9,600 | 17,400 | 650 | 19,400

329(183) →	21(6)	21(5)
435(618) →	4(1)	
31(7) ↲		
↲ 475(271)	↑ 304(121)	
↓ 2(2)	↑ 328(389)	
↳ 361(173)	↰ 11(6)	

8 Hamner Av. & Schleisman Rd.

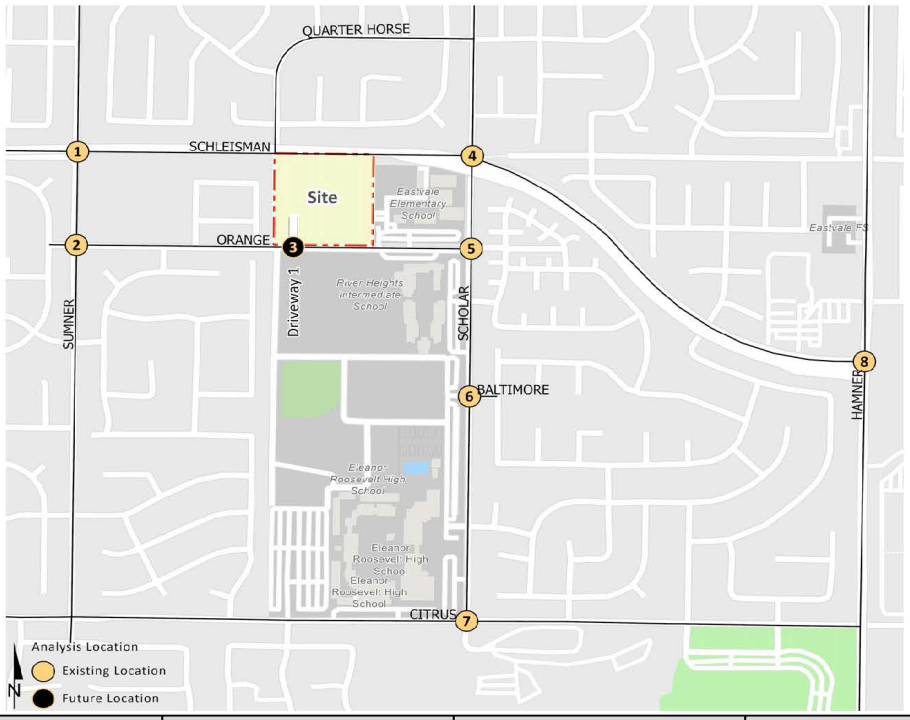
29,200 | 2,750 | 29,000 | 11,100

408(196) →	189(280)	62(40)
15(12) →	643(864)	
227(138) ↲		
↲ 535(207)	↑ 35(48)	
↓ 632(732)	↑ 6(16)	
↳ 9(45)	↱ 51(51)	

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

EXHIBIT 6-2: OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd. — 11,050

12,100	173(189) ↲	278(250) ↓	113(37) ↳
193(244) ↳	180(71) ↰	387(146) ↑	21(14) ↱
296(399) →			
329(316) ↲			10,950
20,450			

2 Sumner Av. & Orange St. — 1,500

10,750	16(26) ↲	559(486) ↓	56(74) ↳
49(15) ↳	0(1) ↰	500(196) ↑	6(11) ↱
6(3) →			
0(1) ↲			9,150
650			

3 Orange St. & Driveway 1 — 1,550

400	9(6) ↲	12(8) ↳
3(11) ↳		4(13) ↱
65(77) →		36(19) ←
1,500		

4 Scholar Wy. & Schleisman Rd. — 10,050

8,300	28(37) ↲	649(249) ↓	31(20) ↳
35(100) ↳	147(49) ↰	491(175) ↑	163(45) ↱
386(344) →			
148(35) ↲			7,850
10,900			

5 Scholar Wy. & Orange St.

7,850	288(43) ↲	731(290) ↓	
143(64) ↳	164(24) ↰	658(206) ↑	
263(87) ↲			7,950
3,050			

6 Scholar Wy. & Baltimore St. — 1,300

9,250	367(256) ↲	543(183) ↓	87(30) ↳
			164(32) ↱
			31(9) ←
408(173) ↲			20(9) ↰
	141(72) ↰	650(206) ↑	22(18) ↱
6,750			8,650

7 Scholar Wy. & Citrus St. — 17,400

9,650	476(272) ↲	2(2) ↓	362(174) ↳
			304(122) ↱
			328(389) ←
			11(6) ↰
329(184) ↳	21(6) ↰	4(1) ↑	21(5) ↱
435(618) →			
31(7) ↲			650
19,400			

8 Hamner Av. & Schleisman Rd. — 2,750

29,200	535(208) ↲	632(732) ↓	9(45) ↳
			35(48) ↱
			6(16) ←
			51(51) ↰
409(197) ↳	190(282) ↰	643(864) ↑	62(40) ↱
15(12) →			
229(139) ↲			29,050
11,150			

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

6.4 INTERSECTION OPERATIONS ANALYSIS

6.4.1 OPENING YEAR CUMULATIVE (2025) WITHOUT PROJECT TRAFFIC CONDITIONS

LOS calculations were conducted for the study intersections to evaluate their operations under Opening Year Cumulative (2025) Without Project conditions with roadway and intersection geometrics consistent with Section 6.1 *Roadway Improvements*. As shown on Table 6-1, the following study area intersection is anticipated to operate at an unacceptable LOS under Opening Year Cumulative (2025) Without Project traffic conditions, consistent with Existing (2021) traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM peak hour; LOS E PM peak hour

The intersection operations analysis worksheets for Opening Year Cumulative (2025) Without Project traffic conditions are included in Appendix 6.1 of this TA.

6.4.2 OPENING YEAR CUMULATIVE (2025) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 6-1, no additional study area intersections are anticipated to operate at a deficient LOS during the peak hours with the addition of Project traffic. The intersection operations analysis worksheets for Opening Year Cumulative (2025) With Project traffic conditions are included in Appendix 6.2 of this TA.

TABLE 6-1: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2025) CONDITIONS

			2025 Without Project				2025 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
#	Intersection	Traffic Control[2]	AM	PM	AM	PM	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.	TS	**157.8**	**76.8**	**F**	**E**	**161.5**	**78.3**	**F**	**E**
2	Sumner Av. & Orange St.	TS	9.3	8.7	A	A	9.6	9.1	A	A
3	Driveway 1 & Orange St.	--/**CSS**	Future Intersection				9.1	9.1	A	A
4	Scholar Wy. & Schleisman Rd.	TS	26.4	18.2	C	B	28.5	18.2	C	B
5	Scholar Wy. & Orange St.	TS	3.8	6.4	A	A	3.7	6.6	A	A
6	Scholar Wy. & Baltimore St.	TS	24.0	11.2	C	B	24.1	11.2	C	B
7	Scholar Wy. & Citrus St.	TS	50.6	19.6	D	B	50.8	19.6	D	B
8	Hamner Av. & Schleisman Rd.	TS	52.4	21.3	D	C	52.7	24.5	D	C

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

2 CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

6.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

The following study area intersection is not anticipated to meet average daily traffic volume-based traffic signal warrants for Opening Year Cumulative (2025) With Project traffic conditions (see Appendix 6.3).

6.6 DEFICIENCIES AND IMPROVEMENTS

Improvements have been identified for each of the study area intersections anticipated operating at an unacceptable LOS during the peak hours. The effectiveness of the recommended improvement strategies to address its traffic deficiencies are presented on Table 6-2. HCM calculation worksheets for Opening Year Cumulative (2025) With Project With Improvements are provided in Appendix 6.4 of this TA.

TABLE 6-2: INTERSECTION ANALYSIS FOR OPENING YEAR CUMULATIVE (2025) CONDITIONS WITH IMPROVEMENTS

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.																	
	-Without Improvements	TS	1	1	0	1	1	0	0	1	1	0	1	1	**161.5**	**78.3**	**F**	**E**
	-With Improvements[4]	TS	1	1	0	1	1	0	**1**	1	**0**	**1**	1	**0**	54.0	31.8	D	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes: L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

[3] TS = Traffic Signal; **TS** = Improvement

[4] Improvements require additional right-of-way. The improvements are assumed to be constructed by a future project adjacent to the intersection.

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7 HORIZON YEAR (2040) TRAFFIC CONDITIONS

This section discusses the methods used to develop Horizon Year (2040) Without and With Project traffic forecasts, and the resulting intersection operations and traffic signal warrant analyses.

7.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Horizon Year (2040) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of the following:

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for Horizon Year conditions only (e.g., intersection and roadway improvements along the Project's frontage and driveways).
- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for Horizon Year conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages).

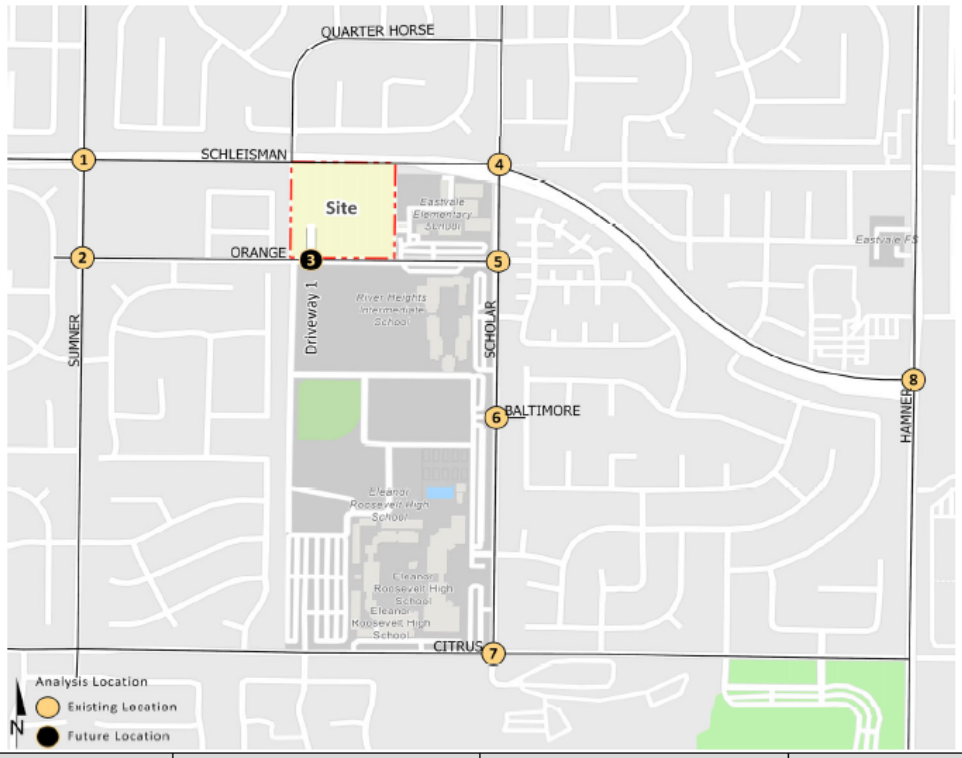
7.2 HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM (see Section 4.7 *Horizon Year Volume Development* of this TA for a detailed discussion on the post-processing methodology) and represents the General Plan buildout of the City of Eastvale. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year Without Project traffic conditions are shown on Exhibit 7-1.

7.3 HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes the refined post-processed volumes obtained from the RivTAM, plus the traffic generated by the proposed Project (see Section 4.7 *Horizon Year Volume Development* of this TA for a detailed discussion on the post-processing methodology). Horizon Year With Project traffic forecasts reflects buildout of the Project. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for Horizon Year With Project traffic conditions are shown on Exhibit 7-2.

EXHIBIT 7-1: HORIZON YEAR (2040) WITHOUT PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd.

12,500 | 181(198) ↲ 315(267) ← 119(39) ↳ | 28,300 | 76(48) ↱ 934(1495) ← 28(19) ↰
203(256) ↳ | 208(77) ↰ 423(156) ↑ 33(17) ↱
1046(1449) → |
360(325) ↲ |
30,900 | 11,750

2 Sumner Av. & Orange St.

11,150 | 17(27) ↲ 595(512) ← 103(79) ↳ | 1,650 | 23(9) ↱ 0(4) ← 6(0) ↰
51(16) ↳ | 0(1) ↰ 518(200) ↑ 7(9) ↱
7(3) → |
0(1) ↲ |
650 | 9,300

3 Orange St. & Driveway 1

Future Intersection

4 Scholar Wy. & Schleisman Rd.

8,150 | 37(39) ↲ 676(248) ← 32(21) ↳ | 26,350 | 27(50) ↱ 1026(1727) ← 230(43) ↰
41(106) ↳ | 155(56) ↰ 504(176) ↑ 165(43) ↱
1206(1517) → |
159(40) ↲ |
33,000 | 7,600

5 Scholar Wy. & Orange St.

7,950 | 306(40) ↲ 759(291) ← | |
149(65) ↳ | 174(25) ↰ 675(210) ↑
279(93) ↲ |
2,900 | 8,200

6 Scholar Wy. & Baltimore St.

9,450 | 391(273) ↲ 580(196) ← 93(32) ↳ | 1,300 | 175(34) ↱ 33(9) ← 22(9) ↰
435(184) ↲ | 150(77) ↰ 694(221) ↑ 24(19) ↱
6,850 | 8,850

7 Scholar Wy. & Citrus St.

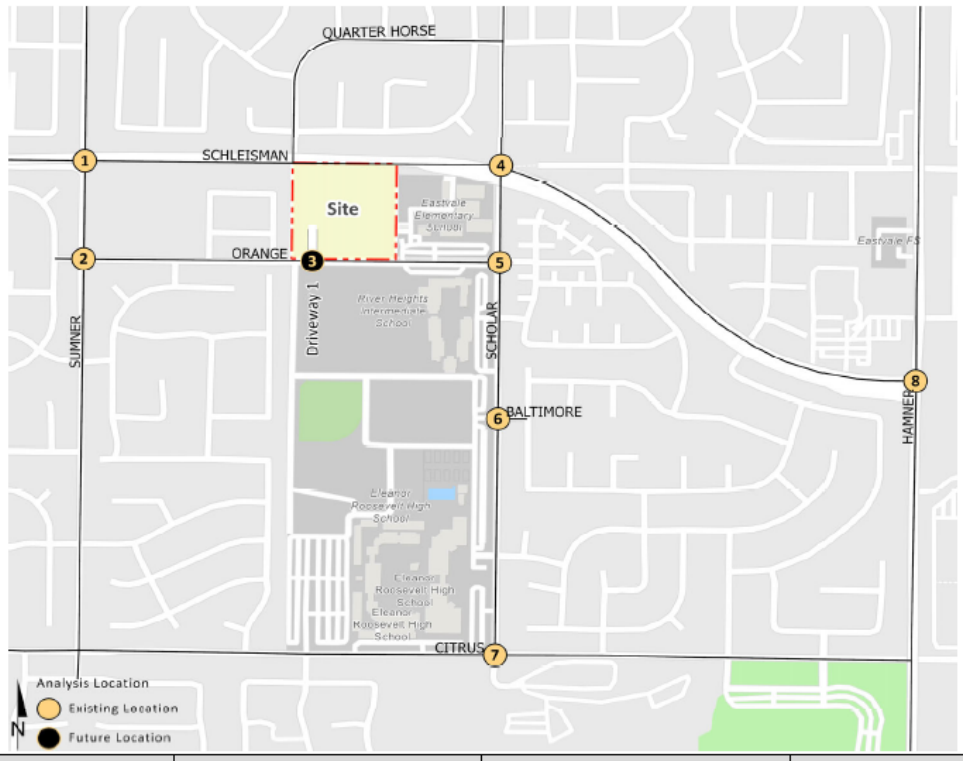
9,950 | 508(289) ↲ 2(2) ← 386(184) ↳ | 17,950 | 325(130) ↱ 350(414) ← 11(7) ↰
352(196) ↳ | 23(7) ↰ 5(1) ↑ 23(6) ↱
463(659) → |
33(8) ↲ |
20,050 | 700

8 Hamner Av. & Schleisman Rd.

29,800 | 572(222) ↲ 673(780) ← 26(145) ↳ | 9,050 | 117(160) ↱ 20(54) ← 169(171) ↰
437(209) ↳ | 203(302) ↰ 685(921) ↑ 208(133) ↱
49(40) → |
246(150) ↲ |
11,400 | 29,650

##(##) AM(PM) Peak Hour Intersection Volumes
Average Daily Trips

EXHIBIT 7-2: HORIZON YEAR (2040) WITH PROJECT TRAFFIC VOLUMES



1 Sumner Av. & Schleisman Rd. — 28,300 ADT

12,550	181(198) ↳ 316(272) ← 119(39) ↳	↰ 76(48) ← 934(1495) ↰ 28(19)
203(256) ↳	↱	↱
1046(1449) →	212(80) →	427(159) →
361(330) ↴	33(17) ↱	11,900
31,000		

2 Sumner Av. & Orange St. — 1,850 ADT

11,300	17(27) ↳ 595(512) ← 106(89) ↳	↰ 31(15) ← 0(4) ↰ 7(1)
51(16) ↳	↱	↱
7(3) →	0(1) →	518(200) →
0(1) ↴	7(10) ↱	9,350
650		

3 Orange St. & Driveway 1 — 1,600 ADT

400	9(6) ↳ 12(8) ↳	↱ 4(13) ← 39(21)
3(11) ↳		
71(83) →		
1,600		

4 Scholar Wy. & Schleisman Rd. — 26,400 ADT

8,300	37(39) ↳ 678(255) ← 32(21) ↳	↰ 27(50) ← 1026(1727) ↰ 231(47)
41(106) ↳	↱	↱
1206(1517) →	155(56) →	510(180) →
159(40) ↴	168(45) ↱	7,800
33,000		

5 Scholar Wy. & Orange St. — 8,250 ADT

8,150	309(51) ↳ 759(291) ←	
158(71) ↳	↰	↰
281(94) ↴	175(27) →	675(210) →
3,150		8,250

6 Scholar Wy. & Baltimore St. — 1,300 ADT

9,500	391(273) ↳ 582(197) ← 93(32) ↳	↰ 175(34) ← 33(9) ↰ 22(9)
435(184) ↴	↱	↱
6,850	150(77) →	695(223) →
	24(19) ↱	8,900

7 Scholar Wy. & Citrus St. — 18,000 ADT

10,000	509(290) ↳ 2(2) ← 387(185) ↳	↰ 325(131) ← 350(414) ↰ 11(7)
352(197) ↳	↰	↰
463(659) →	23(7) →	5(1) →
33(8) ↴	23(6) ↱	700
20,050		

8 Hamner Av. & Schleisman Rd. — 9,050 ADT

29,850	572(223) ↳ 673(780) ← 26(145) ↳	↰ 117(160) ← 20(54) ↰ 169(171)
438(210) ↳	↰	↰
49(40) →	204(304) →	685(921) →
248(151) ↴	208(133) ↱	29,700
11,450		

##(##) AM(PM) Peak Hour Intersection Volumes

Average Daily Trips

7.4 INTERSECTION OPERATIONS ANALYSIS

7.4.1 HORIZON YEAR (2040) WITHOUT PROJECT CONDITIONS

LOS calculations were conducted for the study area intersections to evaluate their operations under Horizon Year Without Project traffic conditions with roadway and intersection geometrics consistent with Section 7.1 *Roadway Improvements*. As shown in Table 7-1, the following study area intersection is anticipated to operate at an unacceptable LOS under Horizon Year Without Project traffic conditions:

- Sumner Av. & Schleisman Rd. (#1) – LOS F AM and PM peak hours

The intersection operations analysis worksheets for Horizon Year Without Project traffic conditions are included in Appendix 7.1 of this TA.

7.4.2 HORIZON YEAR (2040) WITH PROJECT TRAFFIC CONDITIONS

As shown in Table 7-1, no additional study area intersections are anticipated to operate at a deficient LOS during the peak hours with the addition of Project traffic, consistent with Horizon Year Without Project traffic conditions. The intersection operations analysis worksheets for Horizon Year With Project traffic conditions are included in Appendix 7.2 of this TA.

TABLE 7-1: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS

			2040 Without Project				2040 With Project			
			Delay[1] (secs.)		Level of Service		Delay[1] (secs.)		Level of Service	
#	Intersection	Traffic Control[2]	AM	PM	AM	PM	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.	TS	**>200.0**	**>200.0**	**F**	**F**	**>200.0**	**>200.0**	**F**	**F**
2	Sumner Av. & Orange St.	TS	10.1	8.6	B	A	10.4	9.1	B	A
3	Driveway 1 & Orange St.	--/**CSS**	Future Intersection				9.1	9.1	A	A
4	Scholar Wy. & Schleisman Rd.	TS	32.3	43.1	C	D	34.4	43.6	C	D
5	Scholar Wy. & Orange St.	TS	8.1	6.7	A	A	8.1	6.8	A	A
6	Scholar Wy. & Baltimore St.	TS	28.4	11.5	C	B	28.6	11.5	C	B
7	Scholar Wy. & Citrus St.	TS	53.8	21.5	D	C	53.9	21.6	D	C
8	Hamner Av. & Schleisman Rd.	TS	48.7	45.1	D	D	48.9	45.3	D	D

* **BOLD** = Level of Service (LOS) does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

2 CSS = Cross-street Stop; TS = Traffic Signal; **CSS** = Improvement

3 The change in delay is calculated between pre-project and With Project scenarios for City of Eastvale intersections already operating at an unacceptable LOS in the pre-project traffic condition.

7.5 TRAFFIC SIGNAL WARRANTS ANALYSIS

No study area intersections are anticipated to meet average daily traffic volume-based traffic signal warrants for Horizon Year (2040) With Project traffic conditions (see Appendix 7.3).

7.6 DEFICIENCIES AND IMPROVEMENTS

Improvements have been identified for each of the study area intersections that would be operating at an unacceptable LOS during the peak hours. The effectiveness of the recommended improvement strategies to address its traffic deficiencies are presented on Table 7-4. HCM calculation worksheets for Horizon Year With Project With Improvements are provided in Appendix 7.4 of this TA.

TABLE 7-3: INTERSECTION ANALYSIS FOR HORIZON YEAR (2040) CONDITIONS WITH IMPROVEMENTS

			Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
		Traffic	Northbound			Southbound			Eastbound			Westbound						
#	Intersection	Control[3]	L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Sumner Av. & Schleisman Rd.																	
	-Without Improvements	TS	1	1	0	1	1	0	0	1	1	0	1	1	**>200.0**	**>200.0**	**F**	**F**
	-With Improvements[4]	TS	1	**2**	0	1	1	0	**1**	**2**	**0**	**1**	**2**	**1**	51.9	51.2	D	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes: L = Left; T = Through; R = Right; **1** = Improvement

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) is considered the delay and LOS for the intersection.

[3] TS = Traffic Signal; **TS** = Improvement

[4] Improvements require additional right-of-way. The improvements are assumed to be constructed by a future project adjacent to the intersection.

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8 LOCAL AND REGIONAL FUNDING MECHANISMS

Transportation improvements within the City of Eastvale are funded through a combination of construction of improvements, development impact fee programs or fair share contributions, such as the City of Eastvale Development Impact Fee (**DIF**) program. Identification and timing of needed improvements is generally determined through local jurisdictions based upon a variety of factors.

8.1 RIVERSIDE COUNTY TRANSPORTATION UNIFORM MITIGATION FEE (TUMF)

The TUMF program is administered by the WRCOG based upon a regional Nexus Study most recently updated in 2016 to address major changes in right of way acquisition and improvement cost factors. (3) TUMF identifies a network of backbone and local roadways that are needed to accommodate growth through 2035. This regional program was put into place to ensure that development pays its fair share, and that funding is in place for construction of facilities needed to maintain the requisite level of service and critical to mobility in the region.

TUMF fees are imposed on new residential, industrial, and commercial development through application of the TUMF fee ordinance and fees are collected at the building or occupancy permit stage. The fee is $10,104 per dwelling unit for single family detached residential dwelling units (applicable to the proposed Project, effective January 1, 2022). In addition, an annual inflation adjustment is considered each year in January. In this way, TUMF fees are adjusted upwards on a regular basis to ensure that the development impact fees collected keep pace with construction and labor costs, etc.

The Project Applicant will be subject to the TUMF fee program and will pay the requisite TUMF fees at the rates then in effect pursuant to the TUMF Ordinance. WRCOG has a successful track record funding and overseeing the construction of improvements funded through the TUMF program. In total, the TUMF program is anticipated to generate nearly $5 billion in transportation projects for Western Riverside County.

8.2 CITY OF EASTVALE DEVELOPMENT IMPACT FEE (DIF) PROGRAM

The City of Eastvale has prepared a Nexus Study to establish fees which has been adopted by the City as of July 1, 2012. It is our understanding that the DIF program includes widening of the Hellman Avenue bridge over Cucamonga Creek and the signalization of up to twenty-three intersections. The fee for single family detached residential is $9,146 per dwelling unit as of December 2019. In addition, an annual inflation adjustment is considered each year. Fee credits and reimbursements will be available as part of the Fee Program and will only be given to projects that are identified as a Fee Program facility. The Project's Conditions of Approval will establish and clarify eligibility.

The timing to use the DIF fees is established through periodic capital improvement programs which are overseen by the City's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City are also periodically performed by City staff and consultants. The City uses this data to determine the timing of implementing the improvements listed in its facilities list. The City also uses this data to ensure that the improvements listed on the facilities list are constructed before the LOS falls below the LOS performance standards adopted by the City. In this way, the improvements are constructed before the LOS falls below the City's LOS performance

thresholds. The Project Applicant will be subject to the City's DIF fee program and will pay the requisite City DIF fees at the rates then in effect pursuant to the City's ordinance.

8.3 MIRA LOMA ROAD AND BRIDGE BENEFIT DISTRICT

Similar to other regions within Riverside County, the City of Eastvale is anticipated to experience substantial growth. Extensive improvements are necessitated by new development within the region. In particular, Riverside County recognized the impact of this growth on the vicinity of the study area when it formed the Mira Loma RBBD. The proposed Project lies within Zone D of the Mira Loma RBBD. Zone D is generally bounded by Bellegrave Avenue to the north, Hellman Avenue to the west, Hamner Avenue to the east, and the Eastvale city boundary to the south. As discussed above, the facilities improvements that will be ultimately constructed as a result of the collection of these fees and assessments are significant. The fee for residential use is $2,681 per single family residential dwelling unit within Zone D. They include:

Mira Loma Road and Bridge Benefits District (Zone D):

- Limonite Avenue interchange at the I-15 Freeway and between Hamner Avenue and Wineville Avenue
- Bellegrave Avenue overcrossing improvement at the I-15 Freeway
- Archibald Avenue roadway from River Road to the San Bernardino and Riverside County jurisdictional line
- Limonite Avenue roadway from Hamner Avenue to Archibald Avenue
- Schleisman Road roadway from Hamner Avenue to the San Bernardino and Riverside County jurisdictional line
- Archibald Avenue landscaped median from River Road to the San Bernardino and Riverside County jurisdictional line
- Hamner Avenue landscaped median between Bellegrave Avenue and the Santa Ana River
- Limonite Avenue landscaped median between Hamner Avenue and Archibald Avenue
- Schleisman Road landscaped median from Hamner Avenue to the San Bernardino and Riverside County jurisdictional line

8.4 FAIR SHARE CONTRIBUTION

Project improvement may include a combination of fee payments to established programs, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City's discretion).

When off-site improvements are identified with a minor share of responsibility assigned to proposed development, the approving jurisdiction may elect to collect a fair share contribution or require the development to construct improvements. Detailed fair share calculations, for each peak hour, has been provided on Table 8-1 for the applicable deficient study area intersections.

These fees are collected with the proceeds solely used as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected population increases.

TABLE 8-1: PROJECT FAIR SHARE CALCULATIONS

#	Intersection		Existing	Total Project	2040 With Project	Total New Traffic	Project % of New Traffic
1	Sumner Av. & Schleisman Rd.						
		AM:	2,230	10	3,936	1,706	0.59%
		PM:	1,836	16	4,362	2,526	**0.63%**

BOLD = Denotes highest fair share percentage.

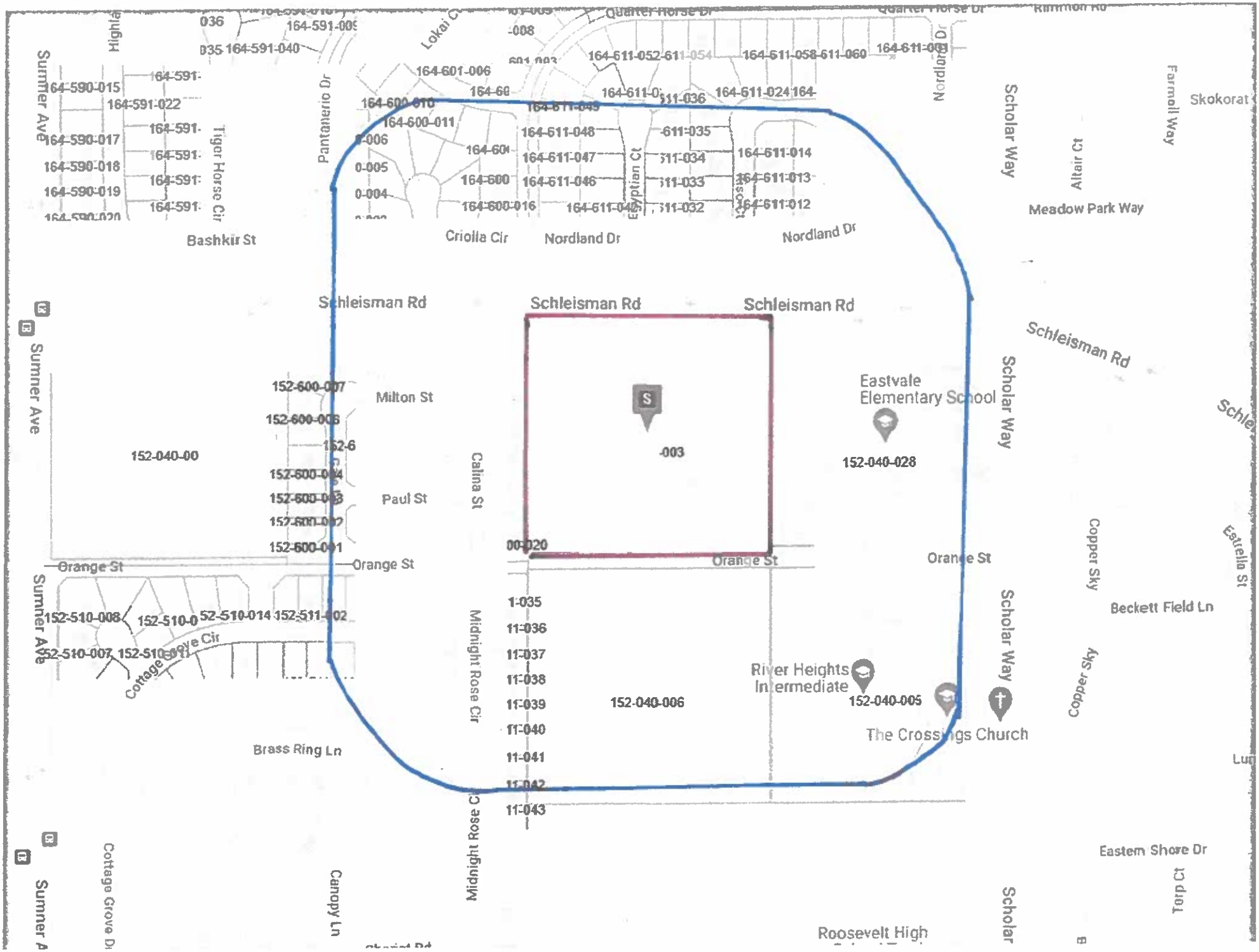
[1] Fair share based on total traffic only.

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9 REFERENCES

1. **Riverside County Transportation Department.** *Guidelines Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled.* County of Riverside : s.n., December 2020.
2. **Institute of Transportation Engineers.** *Trip Generation Manual.* 11th Edition. 2021.
3. **Western Riverside Council of Governments.** *TUMF Nexus Study, 2016 Program Update.* July 2017.
4. **Riverside County Transportation Commission.** *2011 Riverside County Congestion Management Program.* County of Riverside : RCTC, December 14, 2011.
5. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.
6. **Caltrans.** Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2014.
7. **Southern California Association of Governments.** *2020 Regional Transportation Plan/Sustainable Communities Strategy.* Adopted September 2020.

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Schleisman Rd
Schleisman Rd
Schleisman Rd
Schleisman Rd
Sumner Ave
Sumner Ave
Sumner Ave
Scholar Way
Scholar Way
Scholar Way
Milton St
Paul St
Orange St
Orange St
Orange St
Orange St
Callina St
Midnight Rose Cir
Midnight Rose Cir
Brass Ring Ln
Cottage Grove Cir
Canopy Ln
Bashkir St
Criolla Cir
Nordland Dr
Nordland Dr
Meadow Park Way
Beckett Field Ln
Copper Sky
Copper Sky
Eastern Shore Dr
Eastvale Elementary School
River Heights Intermediate
The Crossings Church
Roosevelt High
Pantaleno Dr
Tiger Horse Cir
Egyptian Ct
Altair Ct
Farmall Way
Skokorat
Estrella St
Toro Ct
152-040-00
152-040-028
152-040-006
152-040-005
-003
00-020
152-600-007
152-600-008
152-600-004
152-600-003
152-600-001
152-510-008
152-510-007
152-510-014
152-511-002
1-035
11-036
11-037
11-038
11-039
11-040
11-041
11-042
11-043

THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSES ONLY. NO LIABILITY IS ASSUMED FOR THE ACCURACY OF THE DATA SHOWN. ASSESSOR'S PARCEL MAY NOT COMPLY WITH LOCAL LOT-SPLIT OR BUILDING SITE ORDINANCES.

E 1/2 OF SEC. 36, T.2S., R.7W.

CITY OF EASTVALE

TRA 027-002

152-04

134-24



Old Number	New Number
24	PG 50
7,8	28
17-19	24
20	PG 50
21	PG 51
9	22,23
22,28&31	24
23	PG 29
4	25,57
13	26,57
25	27,57
7	PG 69
27	28,57
14	29,30
15	31,32
30,32	33
29,31	34
33	35,57
34	36,37
35	38,39
37,39	40
37,39	40
38	41-43
38	44,45
40	46,47
41,47	48
42,43,45,46	49
48,49,50,51	52
50	PG 68-69
48	51,52
51	53,55
53	56-57



Date
PM 105/28
MB 9/33 SB
RS 48/81

Map Reference
MB 12/6 SB KINGSTON TRACT

May 2021

ASSESSOR'S MAP BK152 PG.04
Riverside County, Calif.

AJohnson

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APR 18 2005

POR. SEC 36 T.2S.,R.7W

T.R.A. 059-005

152-51

152-04

1" = 100'
ANGLE = 0



ASSESSOR'S MAP BK152 PG.51
Riverside County, Calif.

MB 371/61-66 TRACT MAP NO. 30820

Apr 2005

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JAN 02 2007

POR. SEC 36 T.2S.,R.7W

IRA 059-005

152-60

152-04

1" = 100'
ANGLE = 0

164
05

04

04

51

SCHLEISMAN ROAD

LOT A

MILTON STREET

LOT E

PAUL STREET

LOT D

LOT B

CALE LANE

LOT F

CALINA LANE

LOT C

600

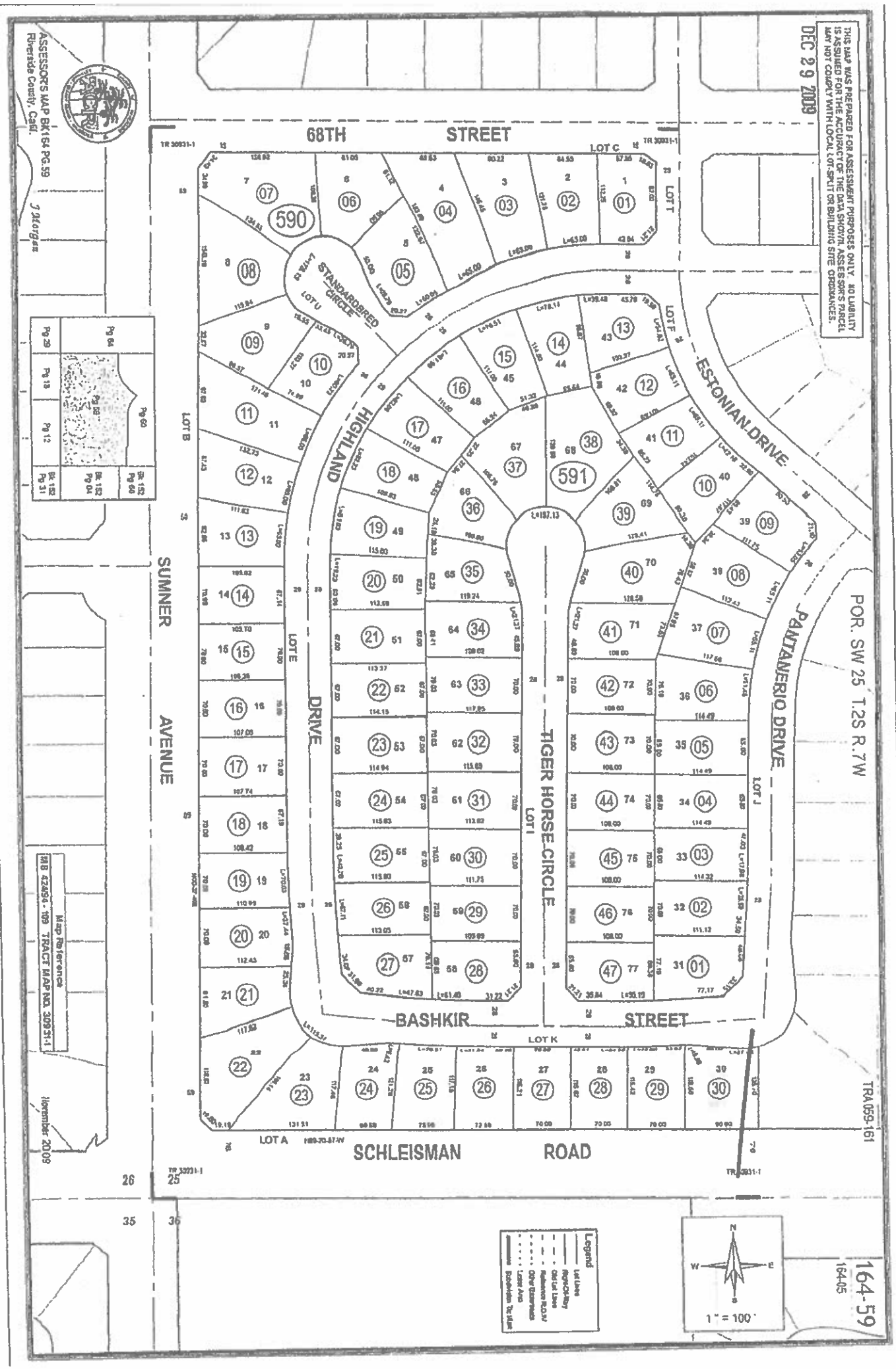
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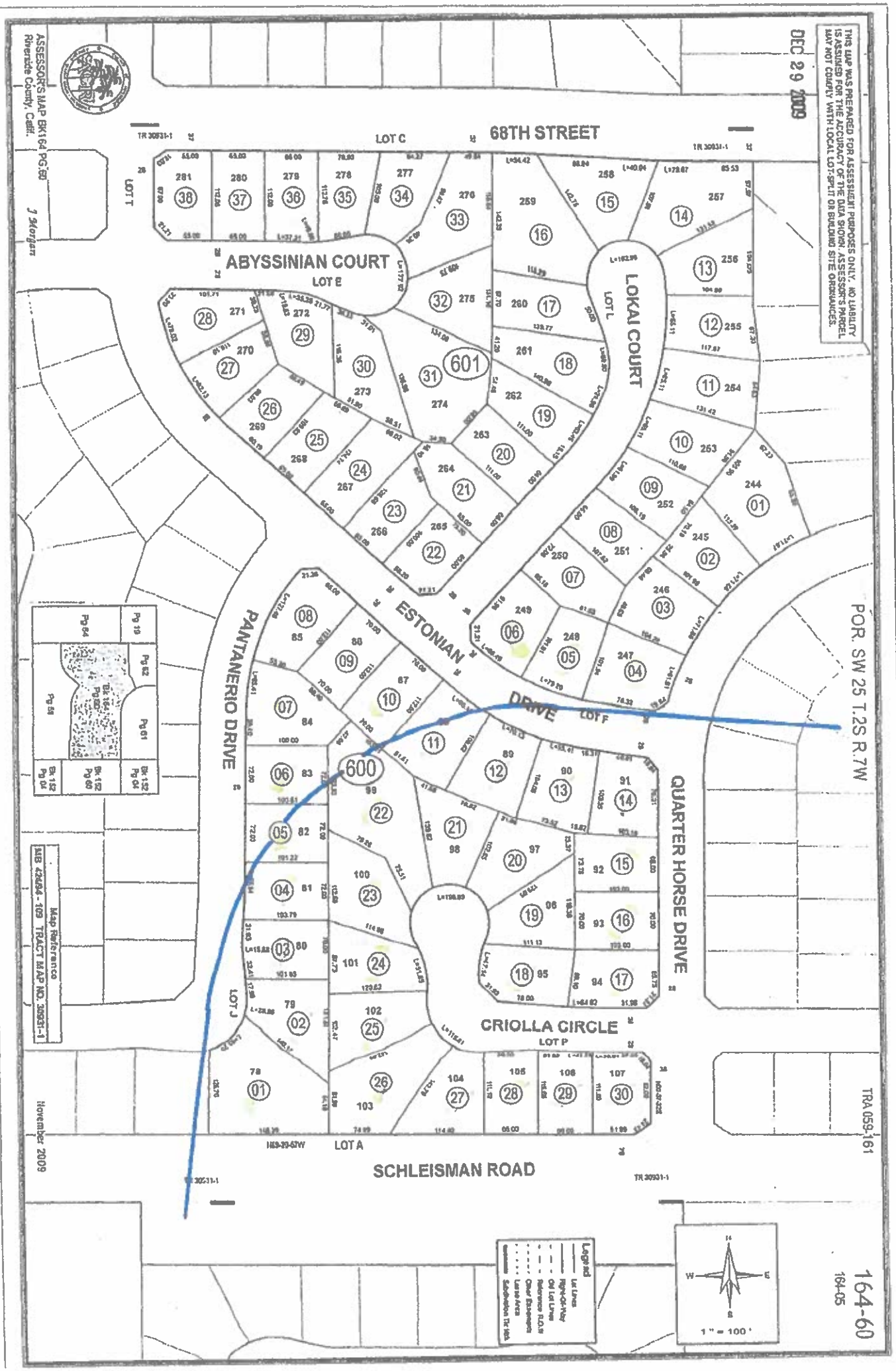
602

ASSESSOR'S MAP BK152 PG.60
Riverside County, Calif.

MB 412/12-15 TRACT MAP NO 31115

Dec 2006


DEC 29 2009
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ASSESSOR'S MAP BK 164 PG 59
Riverside County, Calif.
68TH STREET
LOT C
LOT T
LOT U
STANDARDBRED CIRCLE
HIGHLAND DRIVE
ESTONIAN DRIVE
PANTANERIO DRIVE
LOT F
LOT B
LOT E
LOT I
LOT J
LOT K
TIGER HORSE CIRCLE
SUMNER AVENUE
BASHKIR STREET
SCHLEISMAN ROAD
LOT A
590
591
Map Reference
MB 424/94 - 109 TRACT MAP NO. 30931-1
November 2009
POR. SW 25 T.2S R.7W
TRA 059-161
Legend
1" = 100'
164-59
164-05


ASSESSOR'S MAP BK 164 PG 60
Riverside County, Calif.
DEC 29 2009
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68TH STREET
LOT C
ABYSSINIAN COURT
LOT E
LOKAI COURT
LOT L
ESTONIAN DRIVE
LOT F
PANTANERIO DRIVE
LOT J
QUARTER HORSE DRIVE
CRIOLLA CIRCLE
LOT P
SCHLEISMAN ROAD
LOT A
LOT T
J Morgan
POR. SW 25 T.2S R.7W
TRA 059-161
November 2009
Map Reference
MB 424/64 - 109 TRACT MAP NO. 30931-1
Legend
1" = 100'
164-60
164-05

CITY OF EASTVALE NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION AND PLANNING COMMISSION NOTICE OF PUBLIC HEARING FOR PROJECT NO. PLN23-20043 – MAGNOLIA RANCH

NOTICE IS HEREBY GIVEN that the City of Eastvale Planning Commission will hold a public hearing on **Wednesday, October 18, 2023**, at 6:00 p.m. at Eastvale City Hall Council Chambers located at 12363 Limonite Avenue, Suite 900, Eastvale, CA 91752, to consider Project **No. PLN23-20043** for the subdivision, site planning, and master building architecture of forty-one (41) single-family residential lots and three (3) lettered lots.

PROJECT DESCRIPTION: The proposed project includes the following entitlements:

1. **Tentative Tract Map 38167** to subdivide a single 10-acre lot (8.28 net acres) into 41 single-family residential and three (3) lettered lots, and

2. **Major Development Review** for the master building architecture and site planning of 41 single-family residential lots and three lettered lots.

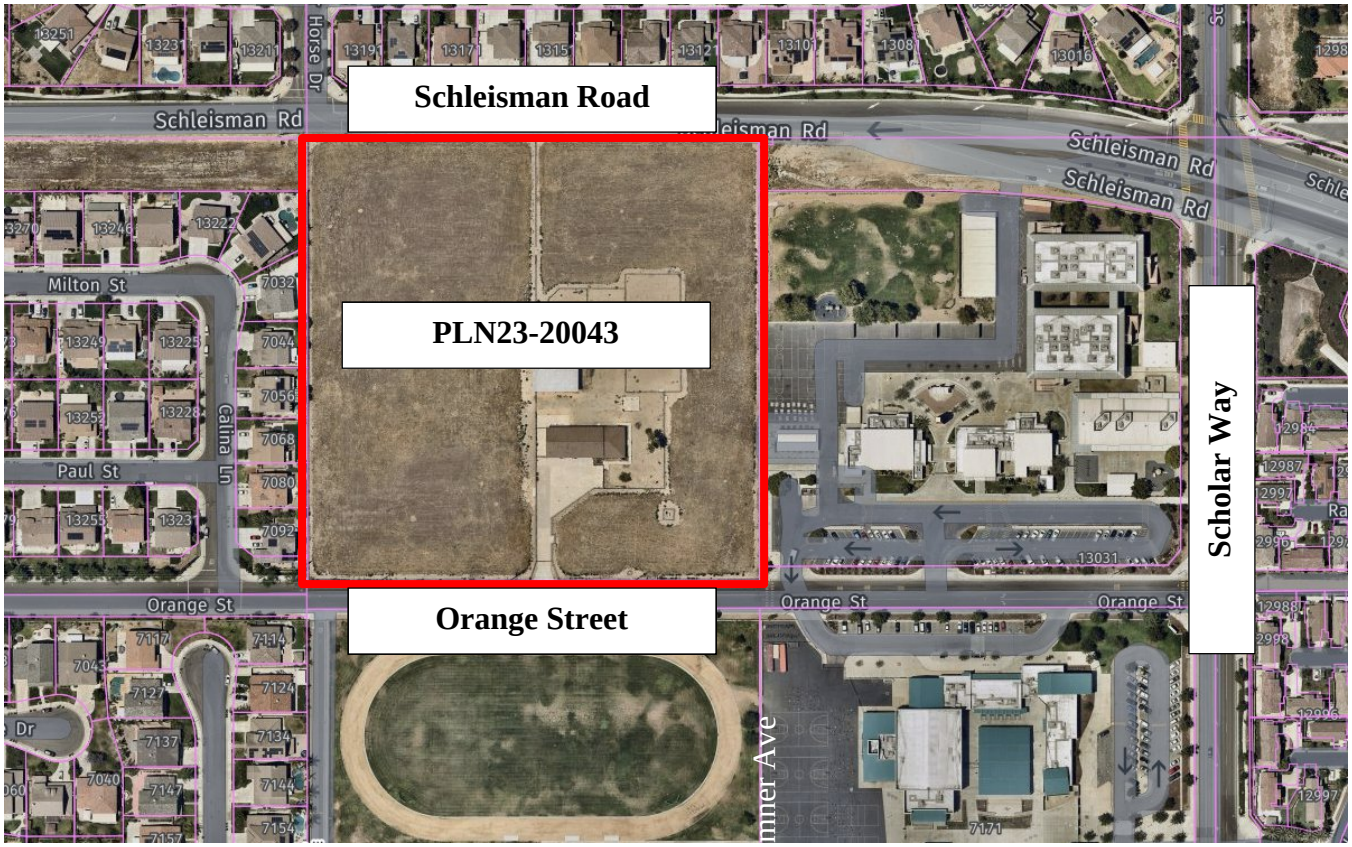
PROJECT LOCATION: The project site is located on 10 acres of partially developed land, north of Orange Street, south of Schleisman Road, east of Quarter Horse Drive and west of Scholar Way (Assessor's Parcel Number 152-040-003). The project site is not located on a hazardous materials site listed under Government Code Section 65962.5.

ENVIRONMENTAL: An Initial Study/Mitigated Negative Declaration (IS/MND) was prepared for the project. Based upon the information contained in the IS/MND and pursuant to the requirements of CEQA, it has been determined that this project as proposed, revised, or mitigated will not have a significant impact on the environment. In accordance with CEQA Guidelines Sections 15702 and 15073, the IS/MND is available for a 20-day public review period, beginning on **Thursday, September 28, 2023,** through **Tuesday, October 17, 2023.** The IS/MND is available at: https://www.eastvaleca.gov/government/community-development/planning/environmental-documents

Any person may submit written comments prior to the public hearing or may appear in person before the Planning Commission to be heard. Written comments may be mailed to the City of Eastvale Planning Division located at 12363 Limonite Avenue, Suite 910, Eastvale, CA 91752 or via email to Jamie K. Cerda, AICP at jcerda@eastvaleca.gov. **For the comments to be presented to the Planning Commission at the meeting, all comments made in writing or via e-mail prior to the public hearing must be received by the City of Eastvale Planning Department no later than Wednesday, October 18, 2023, at 5:00 p.m.** Oral and written comments may be submitted directly to the Planning Commission at the public hearing. If you challenge the project in court, you may be limited to raising only those issues you raised at the public hearing as described in this notice or in written correspondence delivered to the Eastvale Planning Commission prior to or at the public hearing.

If you have any questions on the project, contact Jamie K. Cerda, AICP at (951) 703-4432 or jcerda@eastvaleca.gov.

Project Vicinity Map



WOODSIDE HOMES IS PLANNING A NEW COMMUNITY IN YOUR NEIGHBORHOOD LOCATED AT 13175 ORANGE STREET

Hello Neighbor,

My name is Kory Liston and I am a project manager for Woodside Homes. We are excited to share with you details about a new residential community being proposed in your neighborhood. We realize that the recent pandemic has made many people reluctant to participate in a large meeting so we have set aside time for smaller meetings. We invite you to reserve a time so we can meet you, inform you about this existing proposed community, and answer any of your questions. Please do not hesitate to reach out to me at the number or email below to schedule an appointment. We look forward to speaking with you!

Sincerely,

Two ways to reach me:

1. Phone: (951) 710-1913
2. E-mail: kory.liston@woodsidehomes.com

Community Overview

- Consistent with the General Plan
- Reduced from 127 attached and detached single-family homes to 41 single-family homes
- Two story floor plans
- 2,833 to 3,153 square feet
- 4-5 bedrooms
- Attached 2-car garages with full driveway (4 parking spaces per home)
- On-street parking (58 additional spaces within the community)



Frequently Asked Questions

How many homes are proposed and will they be for-sale or for-rent?
There will be 41 single-family homes. All homes will be for-sale at market rate.

How much will these homes cost?
There is no way to known for certain what the housing market will look like by the time these are built and ready for sale; however, based on current conditions, we anticipate these homes to be prices in the $900,000s.

Will this community have a Home Owners Association (HOA)?
Yes, an HOA will be fully responsible for managing and maintaining the community, including landscaping, common area amenities and parking enforcement.

Will this community be gated?
No, this development will not be gated.


SCHLEISMAN ROAD
Limit of Work
Future Linear Park with School Drop-off Area (By City)
Public Trail Connection to Orange Street
Public Streets with Parking on Both Sides
Paseo & Trail
Lawn Games & Seating
Existing Single Family Homes
Limit of Work
Paseo & Trail
Eastvale Elementary School
Limit of Work
Limit of Work
ORANGE STREET
North
Not to Scale